

Data File : VL034030.D
Acq On : 11 Jul 2019 23:22
Operator : SY/AP
Sample : K3747-03DUP 10X
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDP

Quant Time: Jul 12 07:03:43 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL070219AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Jul 02 19:31:31 2019
QLast Update : Tue Jul 02 19:31:31 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.73	49	977871	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.25	114	2611662	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.19	117	2662553	10.00	ppbv	-0.02

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.53	95	2146065	9.45	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	94.50%

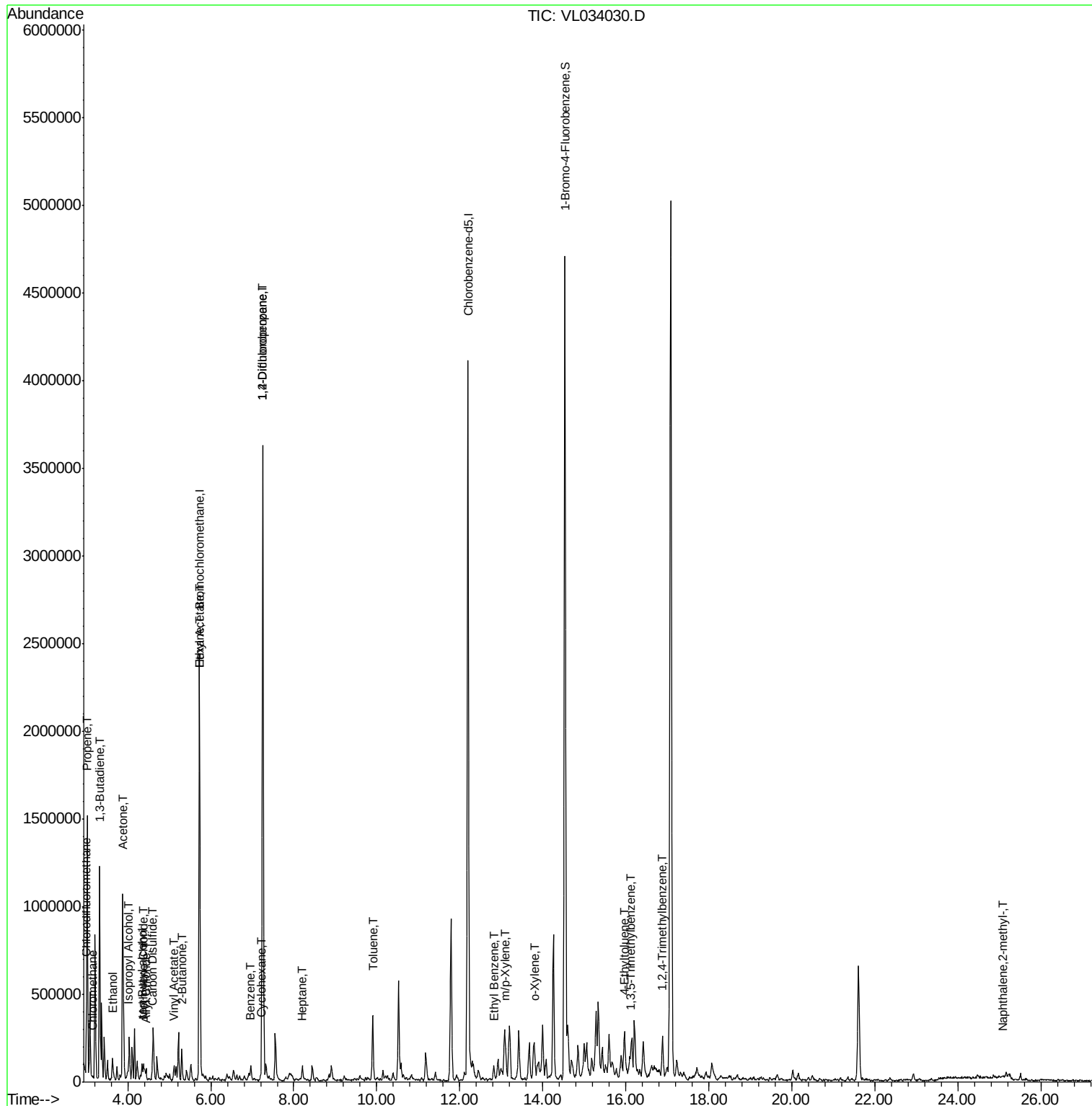
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Chlorodifluoromethane	2.99	51	6088	0.050	ppbv #	88
4) Chloromethane	3.15	50	3652	0.053	ppbv #	81
9) Propene	3.02	41	573763	12.916	ppbv	90
10) Heptane	8.20	43	14519	0.131	ppbv #	23
13) Ethanol	3.63	45	116996	8.478	ppbv	100
15) Acetone	3.88	43	1020186	6.205	ppbv #	73
16) 1,3-Butadiene	3.32	39	368809	6.353	ppbv #	25
17) tert-Butyl alcohol	4.35	59	17769	0.136	ppbv #	73
19) Isopropyl Alcohol	4.02	45	10515	0.095	ppbv #	94
20) Methylene Chloride	4.38	84	24608	0.343	ppbv #	87
21) Allyl Chloride	4.44	41	5892	0.057	ppbv #	1
23) Vinyl Acetate	5.12	43	60573	0.369	ppbv #	91
25) Ethyl Acetate	5.74	43	48107	0.214	ppbv #	84
26) Hexane	5.74	57	66009	0.641	ppbv #	39
27) Carbon Disulfide	4.59	76	84961	0.486	ppbv #	75
30) Cyclohexane	7.21	84	3673	0.046	ppbv #	1
34) 2-Butanone	5.30	43	189321	1.370	ppbv	96
36) Benzene	6.97	78	57502	0.281	ppbv #	89
39) 1,2-Dichloropropane	7.25	63	647739	8.524	ppbv #	24
53) Toluene	9.90	91	276103	1.180	ppbv	100
58) Ethyl Benzene	12.82	91	44091	0.138	ppbv	96
59) m/p-Xylene	13.11	91	51310	0.177	ppbv #	31
60) o-Xylene	13.80	91	95232	0.328	ppbv	98
72) 4-Ethyltoluene	15.95	105	15472	0.042	ppbv #	55
73) 1,3,5-Trimethylbenzene	16.10	105	15017	0.043	ppbv #	77
74) 1,2,4-Trimethylbenzene	16.88	105	111897	0.292	ppbv #	75
80) Naphthalene,2-methyl-	25.08	142	4072	0.035	ppbv	94

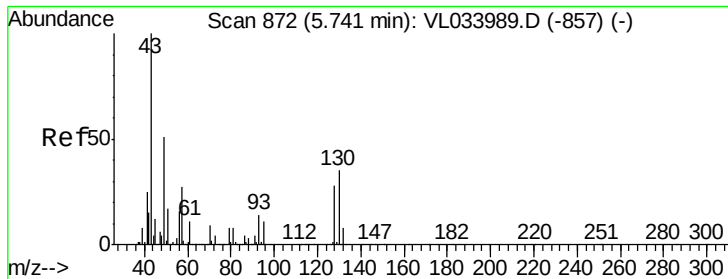
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.73 min Scan# 868

Delta R.T. -0.01 min

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ClientSampleId :

NVS-1DLDUP

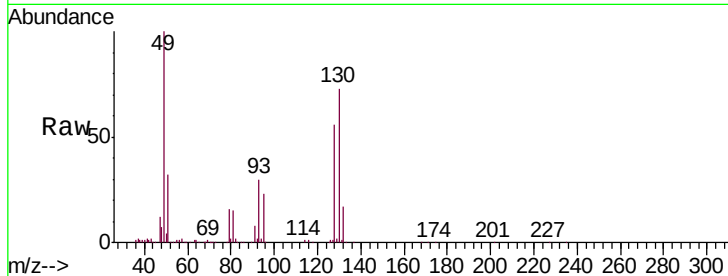
Tgt Ion: 49 Resp: 977871

Ion Ratio Lower Upper

49 100

128 55.2 27.9 83.6

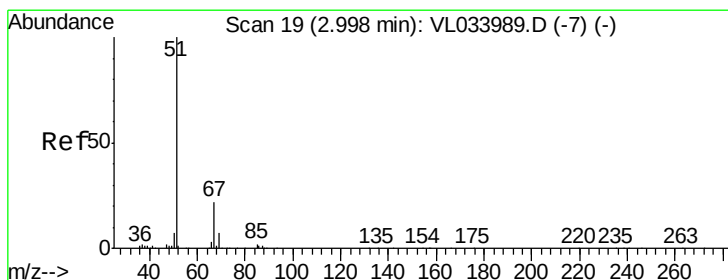
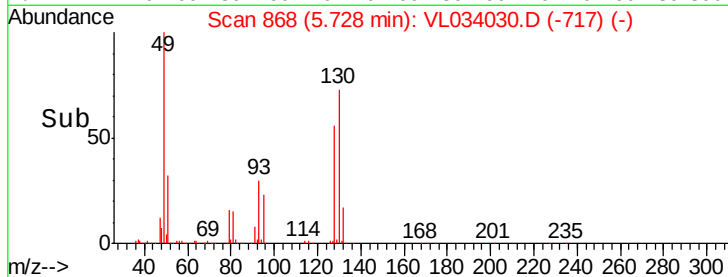
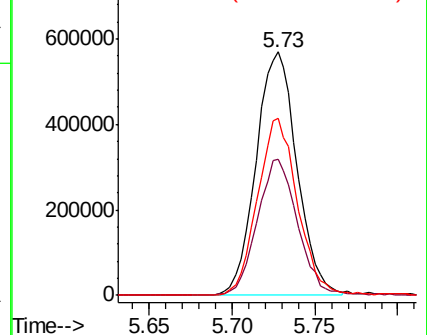
130 72.1 35.8 107.4



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#3

Chlorodifluoromethane

Concen: 0.050 ppbv

RT: 2.99 min Scan# 18

Delta R.T. -0.00 min

Lab File: VL034030.D

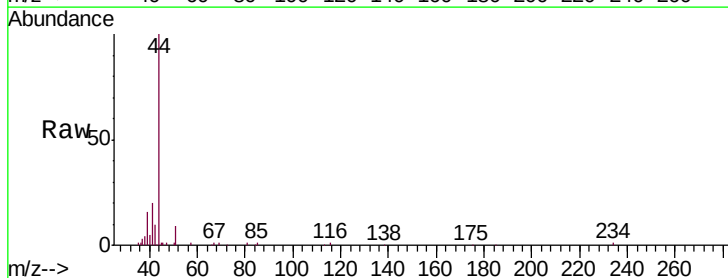
Acq: 11 Jul 2019 23:22

Tgt Ion: 51 Resp: 6088

Ion Ratio Lower Upper

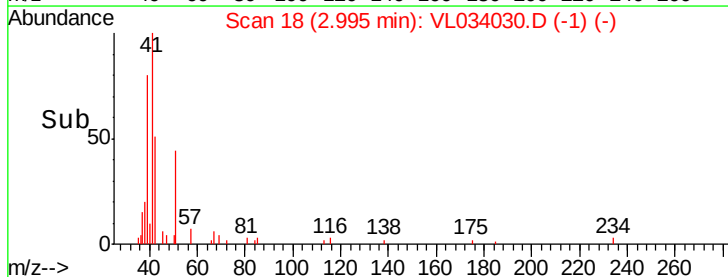
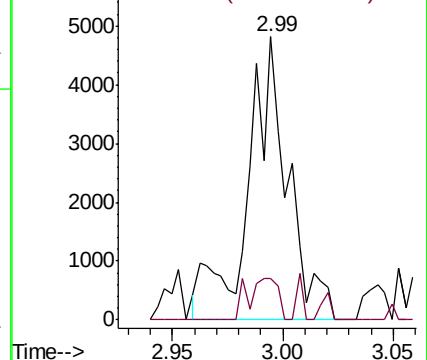
51 100

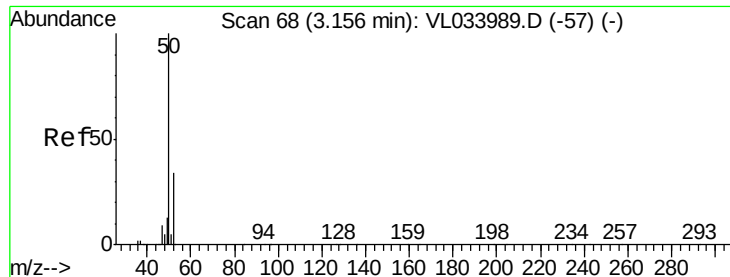
67 15.9 17.3 25.9#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





#4

Chloromethane

Concen: 0.053 ppbv

RT: 3.15 min Scan# 66

Delta R.T. -0.01 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

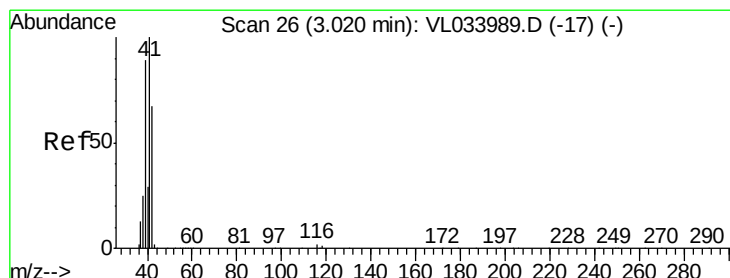
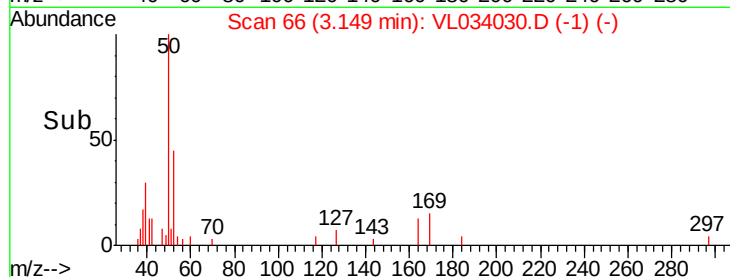
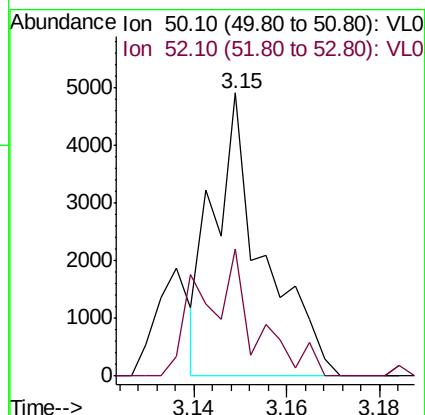
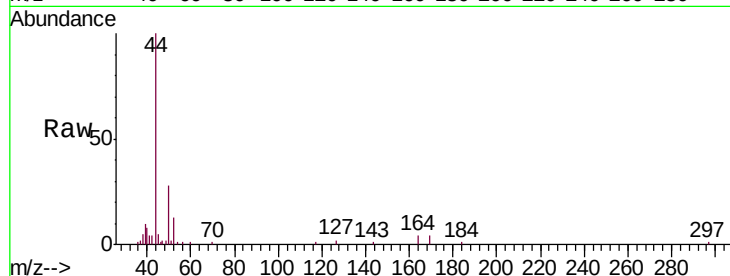
NVS-1DLDP

Tgt Ion: 50 Resp: 3652

Ion Ratio Lower Upper

50 100

52 45.1 27.4 41.0#



#9

Propene

Concen: 12.916 ppbv

RT: 3.02 min Scan# 25

Delta R.T. -0.00 min

Lab File: VL034030.D

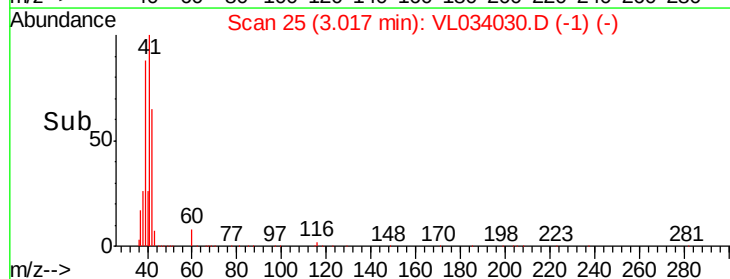
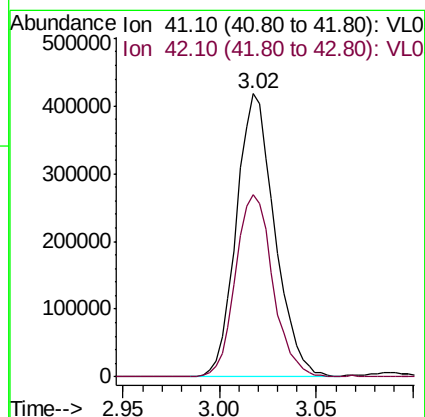
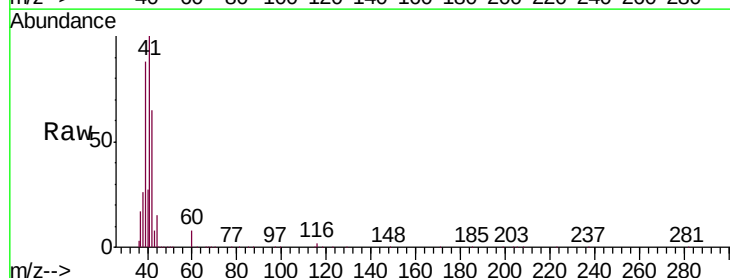
Acq: 11 Jul 2019 23:22

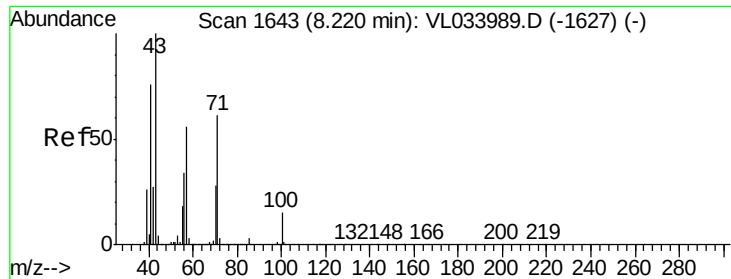
Tgt Ion: 41 Resp: 573763

Ion Ratio Lower Upper

41 100

42 63.0 57.1 85.7





#10

Heptane

Concen: 0.131 ppbv

RT: 8.20 min Scan# 1637

Delta R.T. -0.02 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

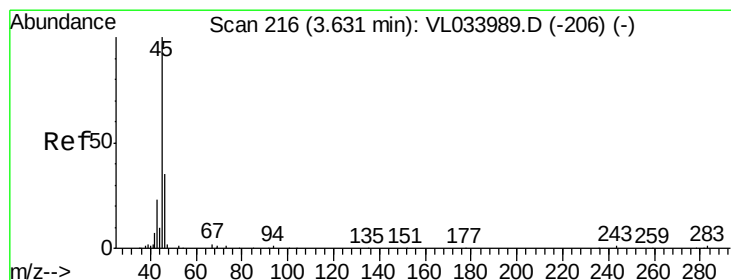
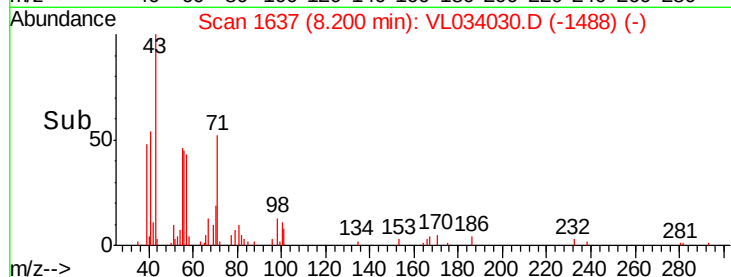
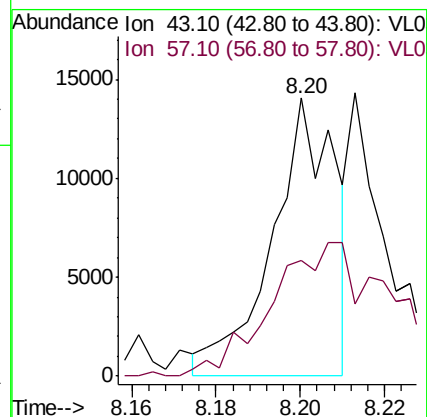
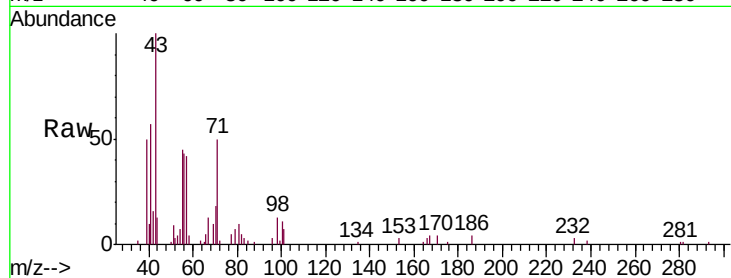
NVS-1DLDP

Tgt Ion: 43 Resp: 14519

Ion Ratio Lower Upper

43 100

57 0.0 44.6 66.8#



#13

Ethanol

Concen: 8.478 ppbv

RT: 3.63 min Scan# 216

Delta R.T. -0.00 min

Lab File: VL034030.D

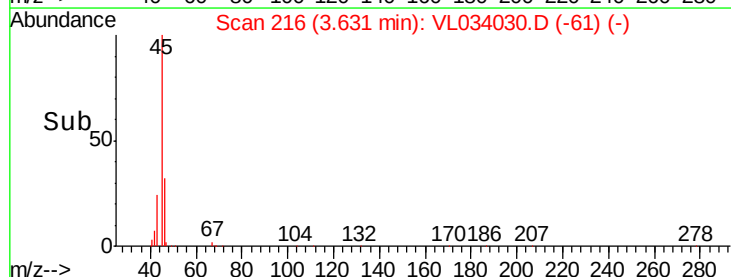
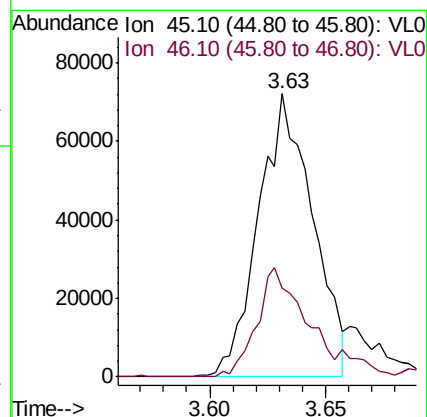
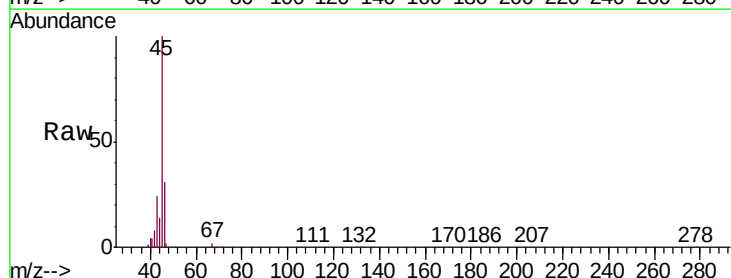
Acq: 11 Jul 2019 23:22

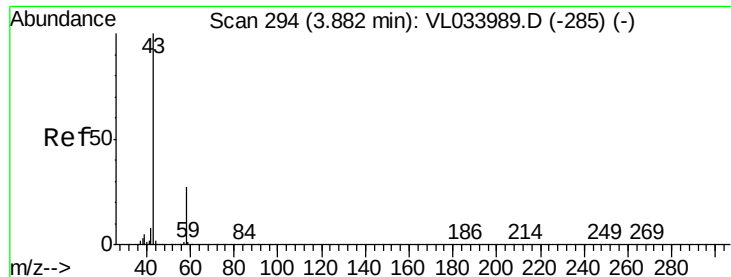
Tgt Ion: 45 Resp: 116996

Ion Ratio Lower Upper

45 100

46 40.5 16.2 64.6





#15

Acetone

Concen: 6.205 ppbv

RT: 3.88 min Scan# 292

Delta R.T. -0.01 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

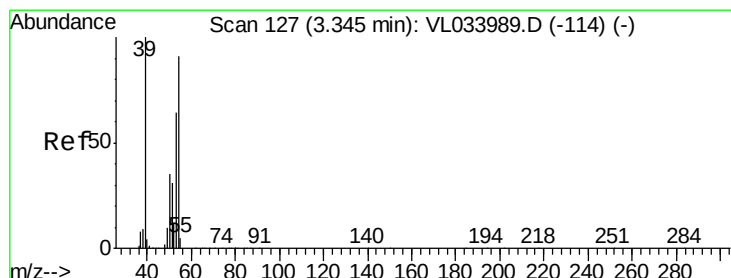
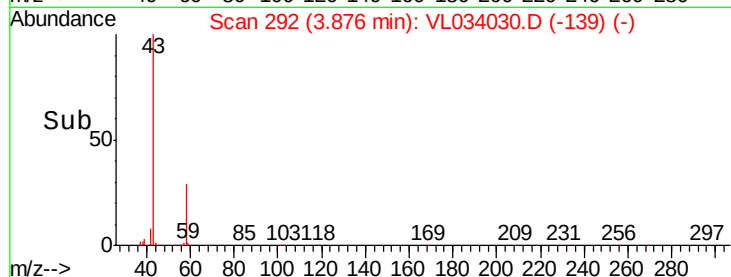
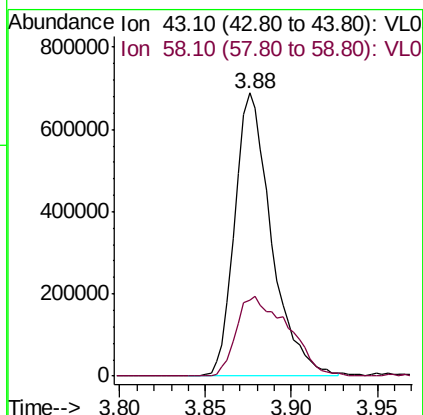
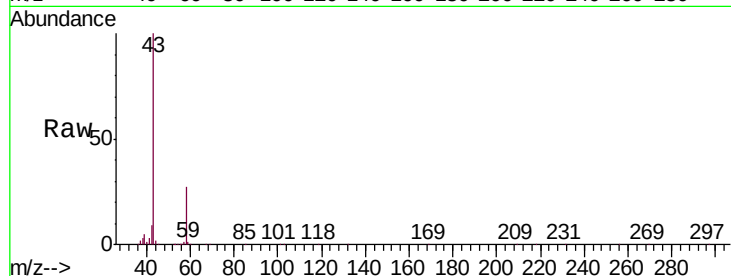
NVS-1DLDP

Tgt Ion: 43 Resp: 1020186

Ion Ratio Lower Upper

43 100

58 40.6 21.4 32.0#



#16

1,3-Butadiene

Concen: 6.353 ppbv

RT: 3.32 min Scan# 119

Delta R.T. -0.03 min

Lab File: VL034030.D

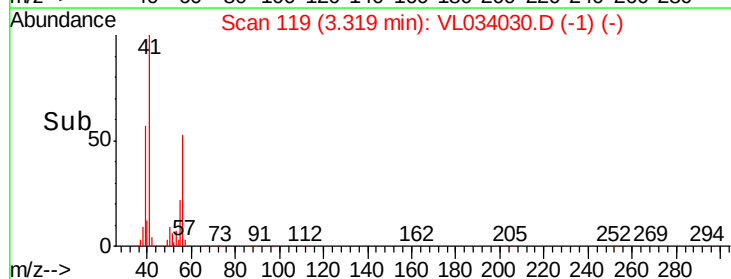
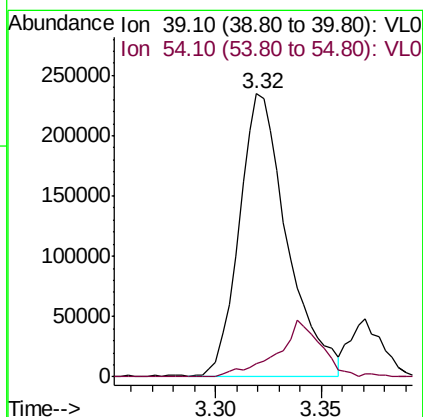
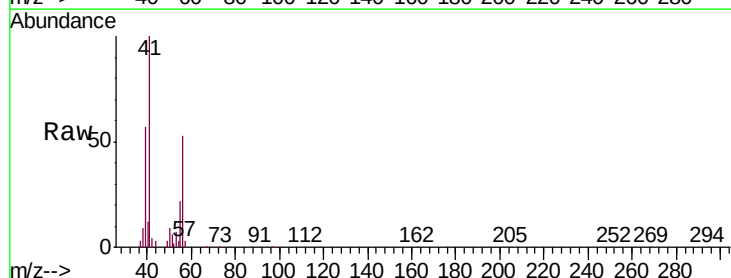
Acq: 11 Jul 2019 23:22

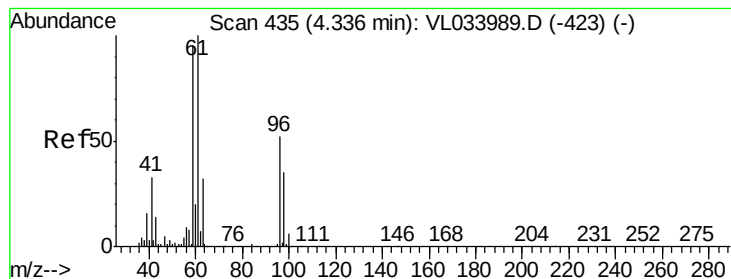
Tgt Ion: 39 Resp: 368809

Ion Ratio Lower Upper

39 100

54 18.7 71.4 107.2#





#17

tert-Butyl alcohol

Concen: 0.136 ppbv

RT: 4.35 min Scan# 440

Delta R.T. 0.02 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

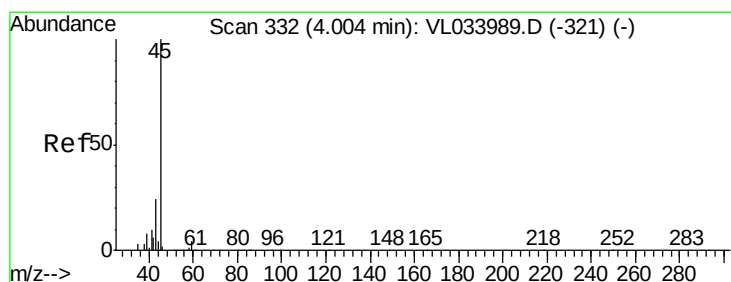
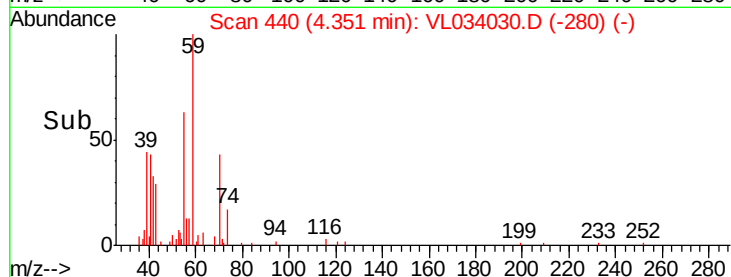
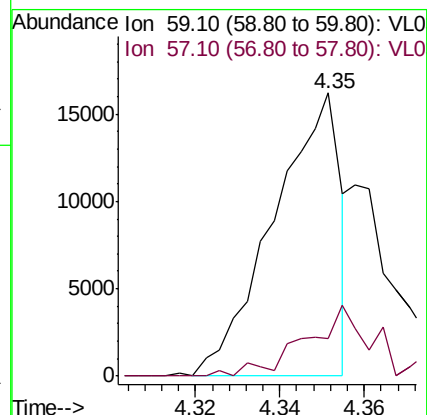
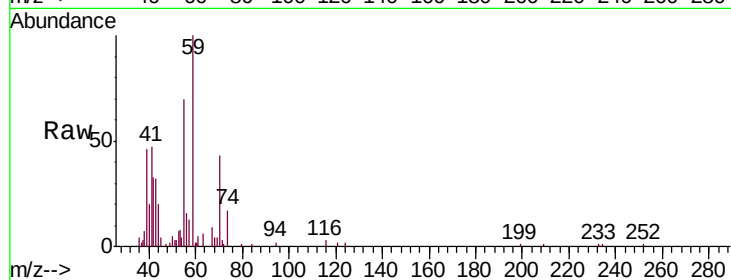
NVS-1DLDP

Tgt Ion: 59 Resp: 17769

Ion Ratio Lower Upper

59 100

57 0.0 8.2 12.2#



#19

Isopropyl Alcohol

Concen: 0.095 ppbv

RT: 4.02 min Scan# 337

Delta R.T. 0.02 min

Lab File: VL034030.D

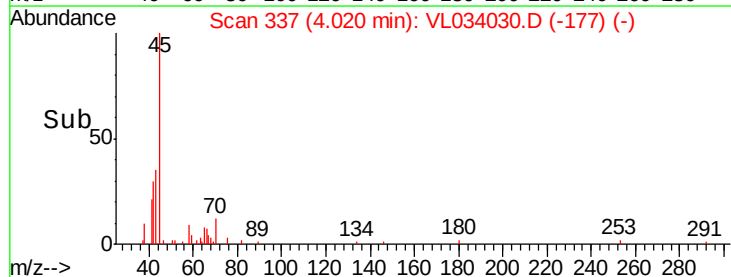
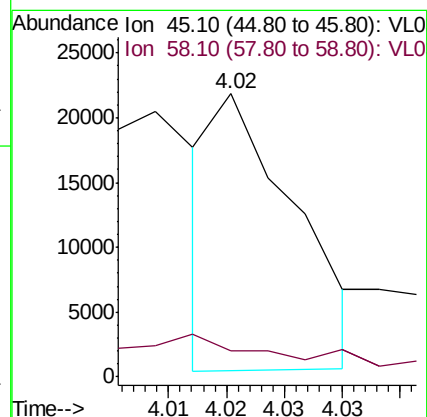
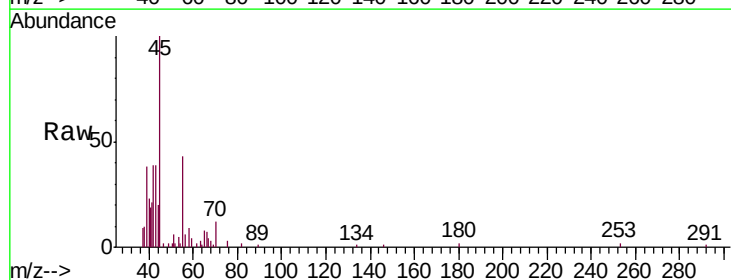
Acq: 11 Jul 2019 23:22

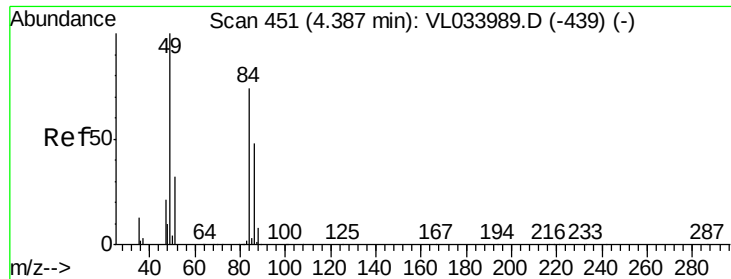
Tgt Ion: 45 Resp: 10515

Ion Ratio Lower Upper

45 100

58 0.0 1.7 2.5#

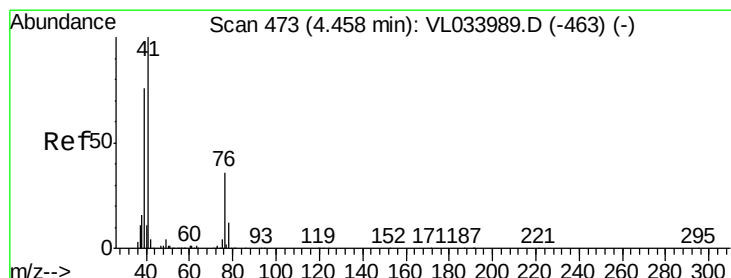
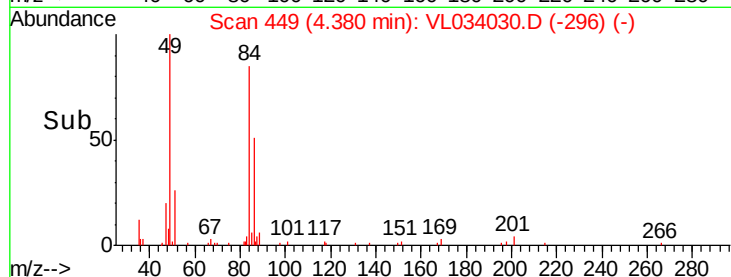
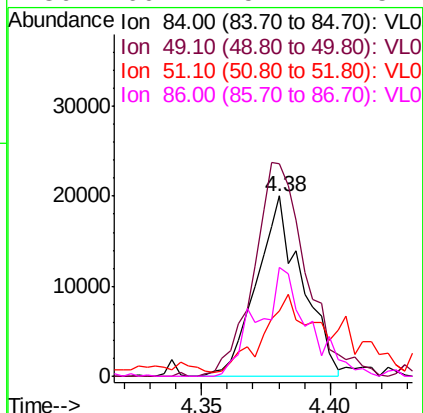
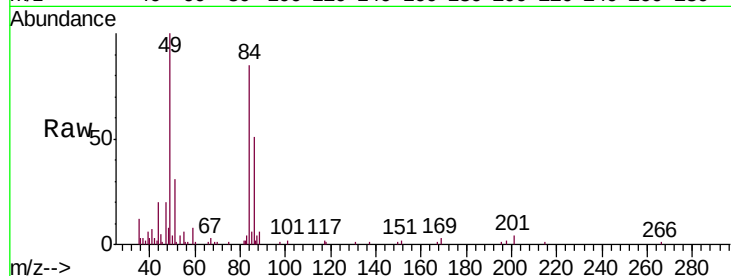




#20
Methylene Chloride
Concen: 0.343 ppbv
RT: 4.38 min Scan# 449
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

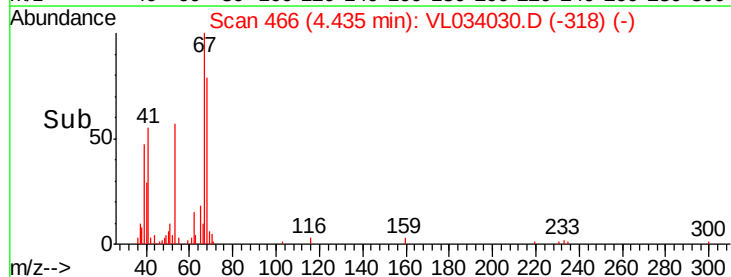
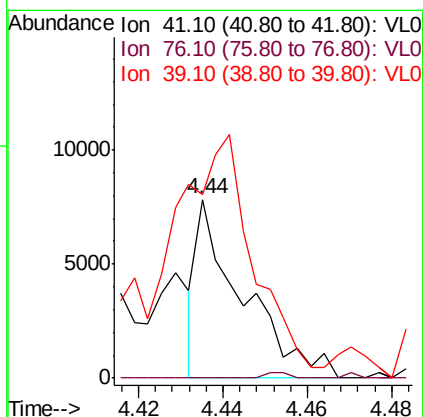
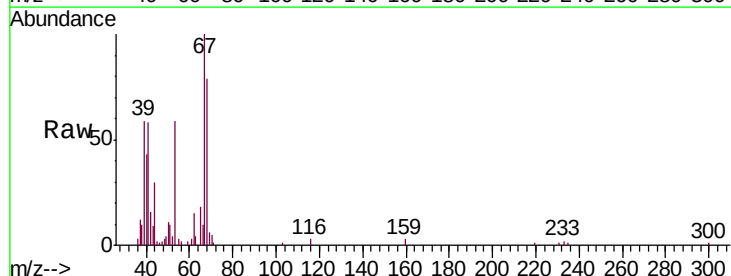
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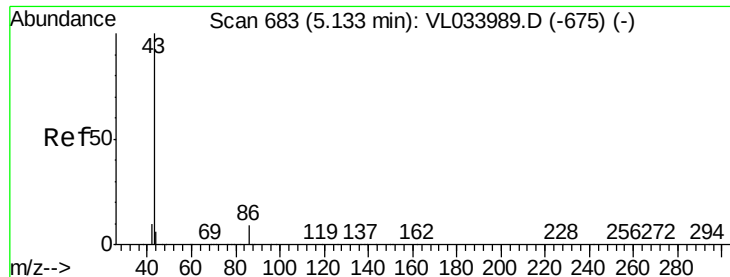
Tgt Ion:	84	Resp:	24608
Ion	Ratio	Lower	Upper
84	100		
49	118.2	107.6	161.4
51	30.2	35.0	52.6#
86	60.2	52.1	78.1



#21
Allyl Chloride
Concen: 0.057 ppbv
RT: 4.44 min Scan# 466
Delta R.T. -0.02 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion:	41	Resp:	5892
Ion	Ratio	Lower	Upper
41	100		
76	0.0	26.8	40.2#
39	270.4	63.1	94.7#

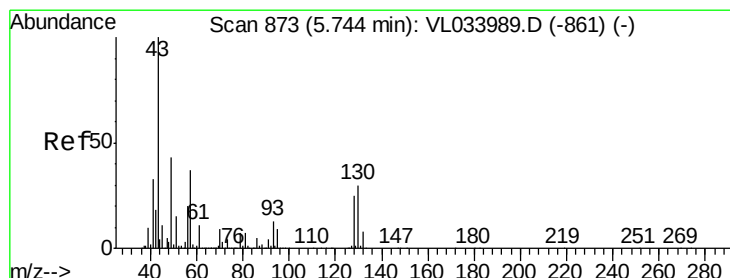
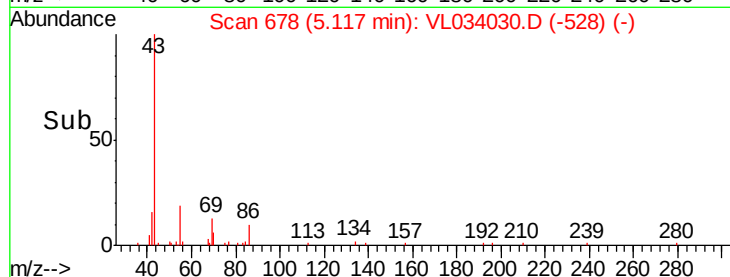
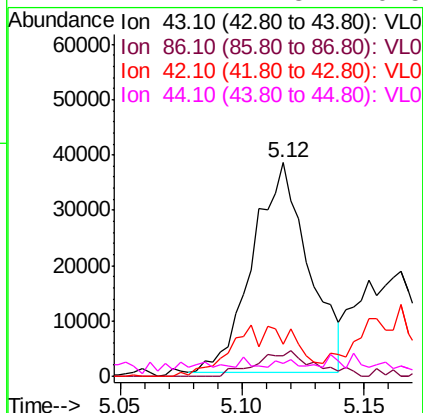
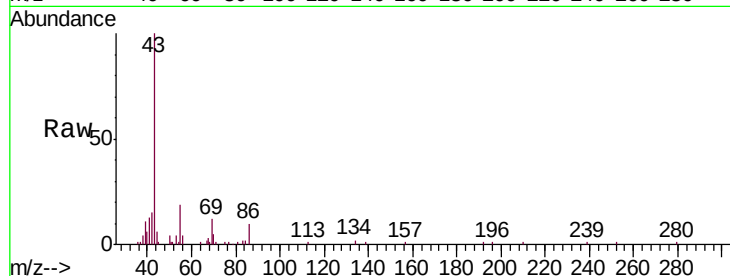




#23
 Vinyl Acetate
 Concen: 0.369 ppbv
 RT: 5.12 min Scan# 678
 Delta R.T. -0.02 min
 Lab File: VL034030.D
 Acq: 11 Jul 2019 23:22

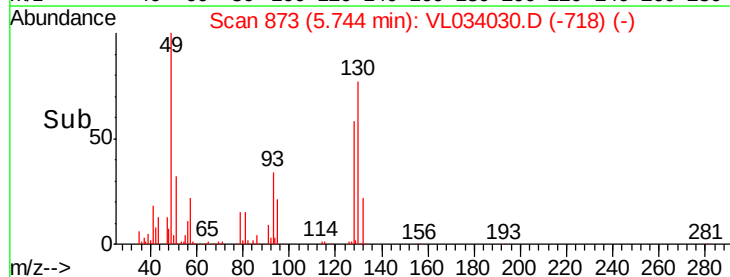
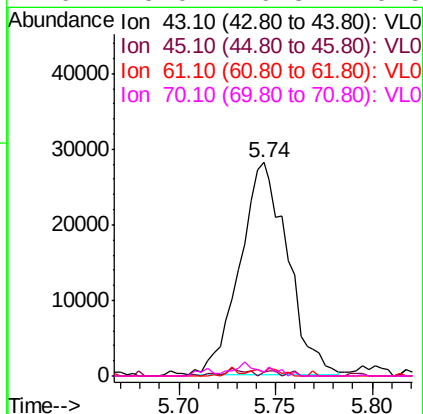
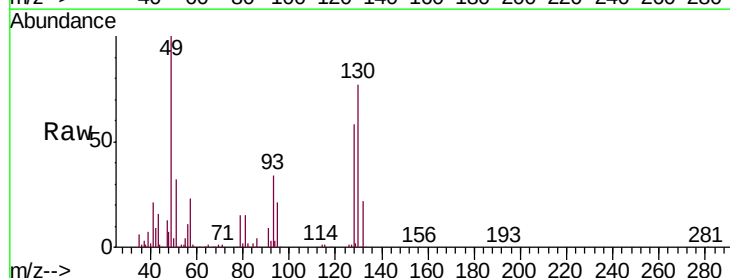
Instrument :
 MSVOA_L
 ClientSampleId :
 NVS-1DLDUP

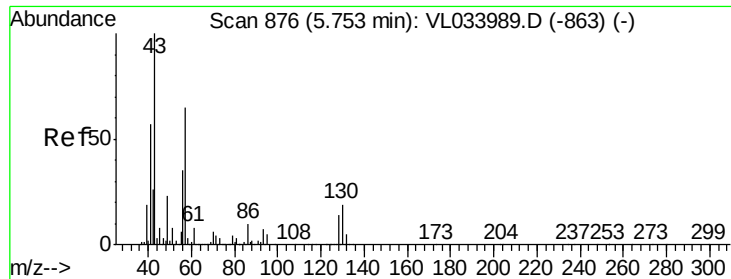
Tgt Ion:	43	Resp:	60573
Ion	Ratio	Lower	Upper
43	100		
86	9.8	6.6	9.8
42	14.7	8.3	12.5#
44	2.1	4.3	6.5#



#25
 Ethyl Acetate
 Concen: 0.214 ppbv
 RT: 5.74 min Scan# 873
 Delta R.T. -0.00 min
 Lab File: VL034030.D
 Acq: 11 Jul 2019 23:22

Tgt Ion:	43	Resp:	48107
Ion	Ratio	Lower	Upper
43	100		
45	2.9	8.1	12.1#
61	3.1	8.1	12.1#
70	5.0	6.3	9.5#

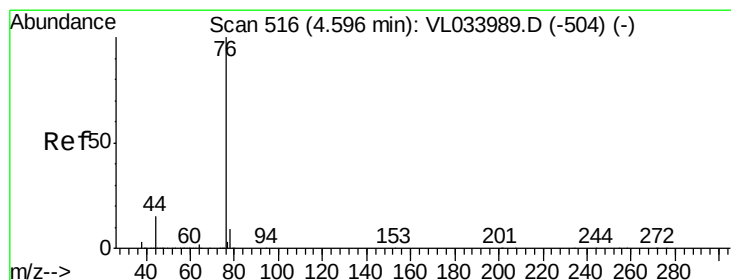
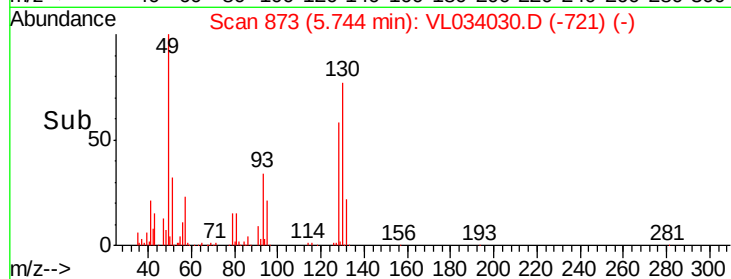
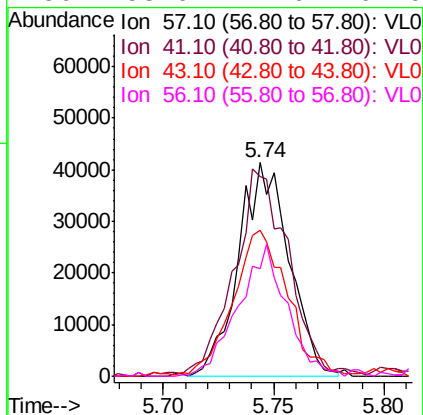
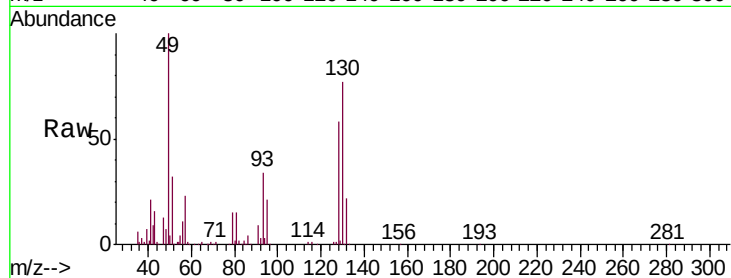




#26
Hexane
Concen: 0.641 ppbv
RT: 5.74 min Scan# 873
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

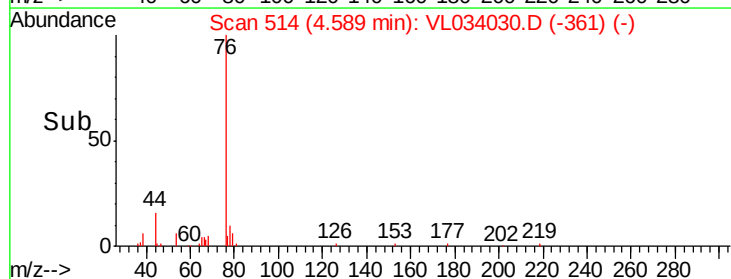
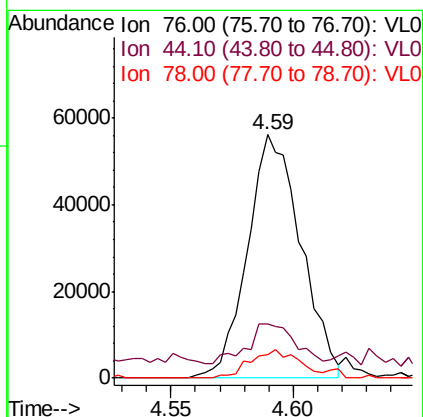
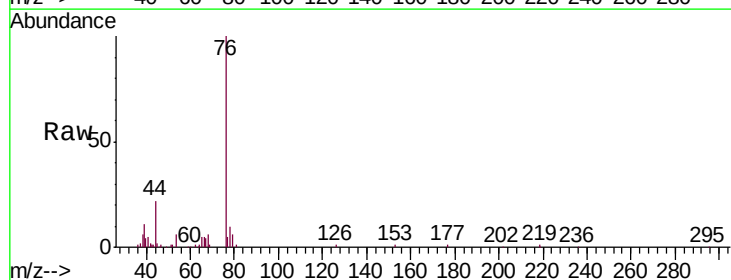
Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDUP

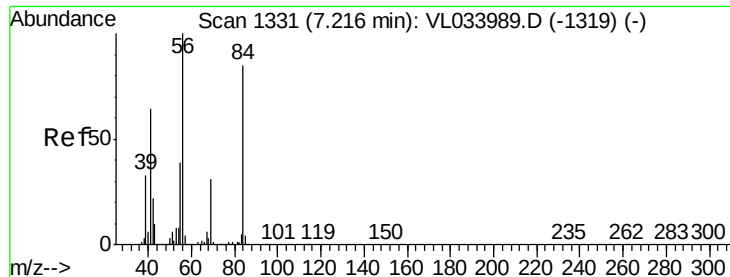
Tgt Ion:	57	Resp:	66009
Ion	Ratio	Lower	Upper
57	100		
41	104.9	70.6	105.8
43	75.0	177.6	266.4#
56	58.6	42.6	64.0



#27
Carbon Disulfide
Concen: 0.486 ppbv
RT: 4.59 min Scan# 514
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion:	76	Resp:	84961
Ion	Ratio	Lower	Upper
76	100		
44	30.7	12.6	18.8#
78	11.8	7.2	10.8#

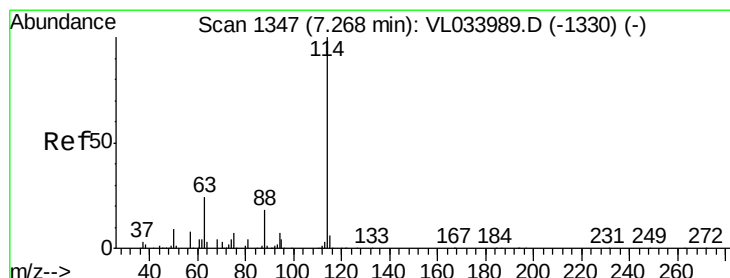
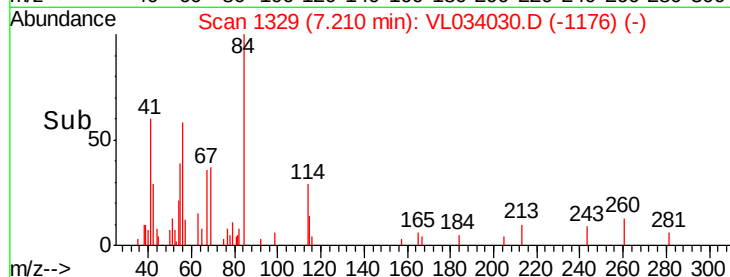
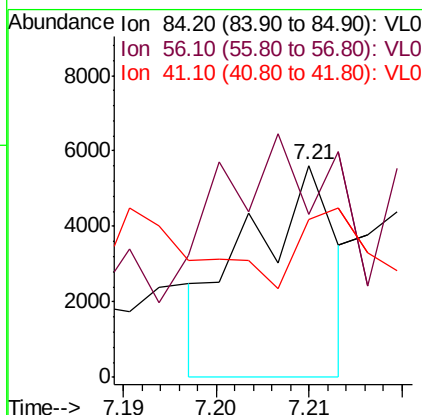
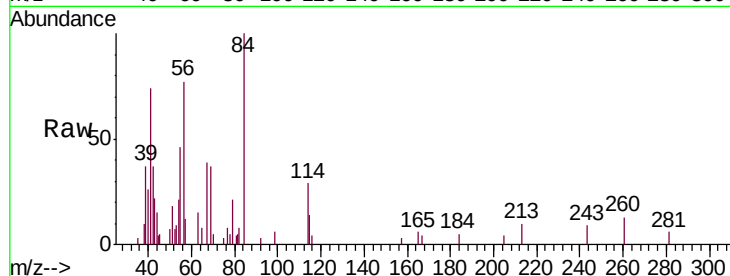




#30
Cyclohexane
Concen: 0.046 ppbv
RT: 7.21 min Scan# 1329
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

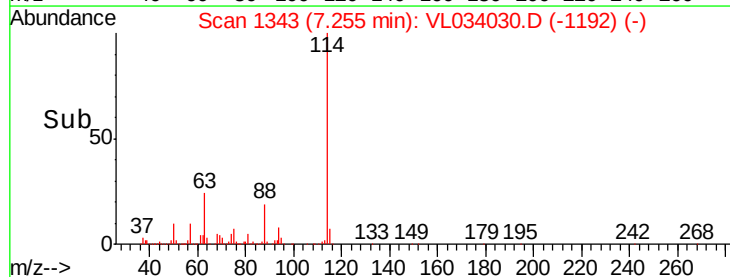
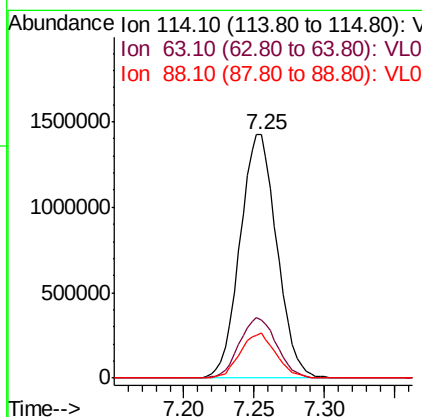
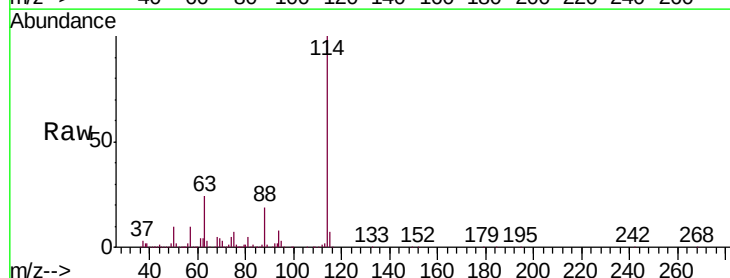
Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDUP

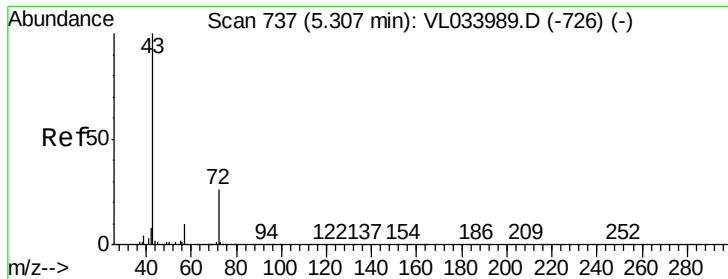
Tgt Ion: 84 Resp: 3673
Ion Ratio Lower Upper
84 100
56 0.0 103.7 155.5#
41 0.0 62.6 94.0#



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.25 min Scan# 1343
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion: 114 Resp: 2611662
Ion Ratio Lower Upper
114 100
63 25.0 20.2 30.2
88 18.1 14.1 21.1

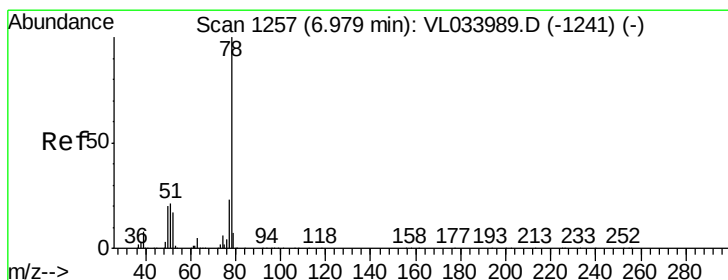
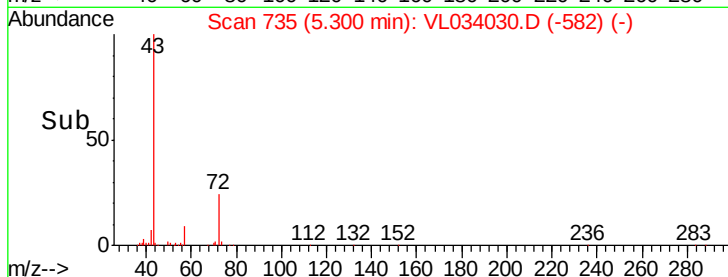
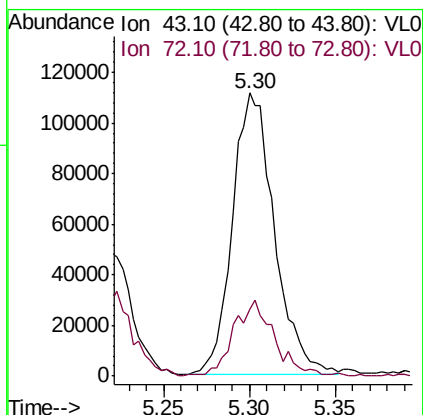
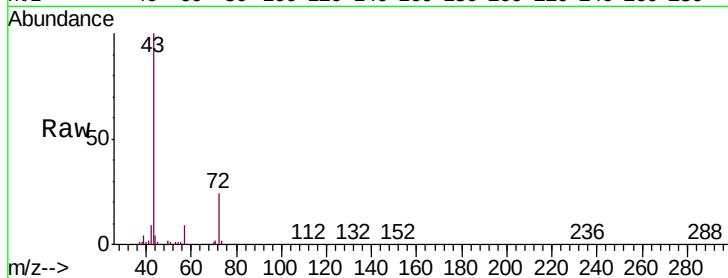




#34
2-Butanone
Concen: 1.370 ppbv
RT: 5.30 min Scan# 735
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

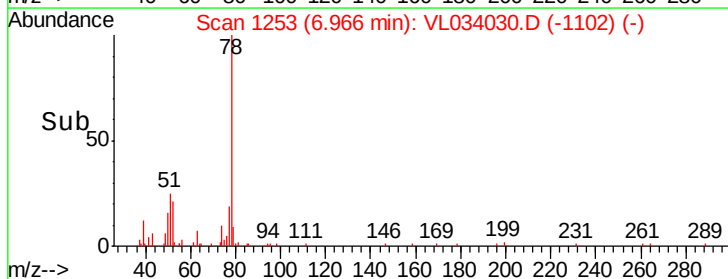
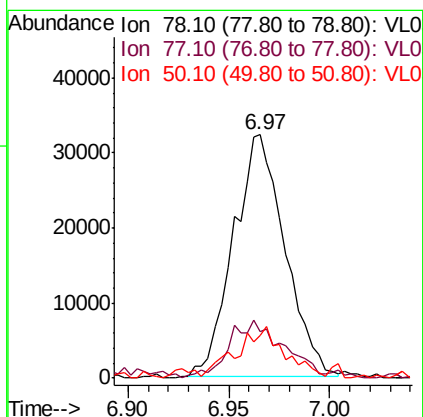
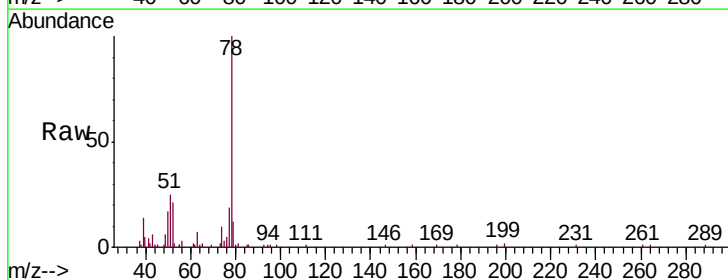
Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDP

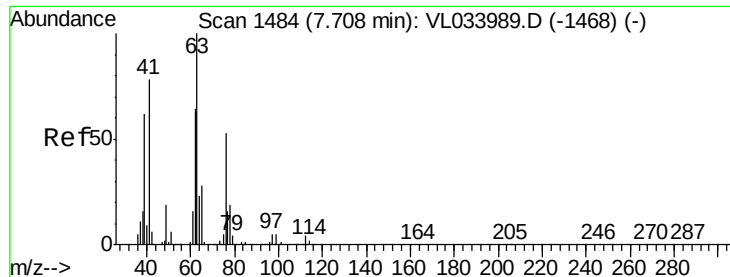
Tgt Ion: 43 Resp: 189321
Ion Ratio Lower Upper
43 100
72 26.7 19.9 29.9



#36
Benzene
Concen: 0.281 ppbv
RT: 6.97 min Scan# 1253
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion: 78 Resp: 57502
Ion Ratio Lower Upper
78 100
77 18.1 18.7 28.1#
50 15.1 16.2 24.2#





#39

1,2-Dichloropropane

Concen: 8.524 ppbv

RT: 7.25 min Scan# 1342

Delta R.T. -0.46 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

NVS-1DLDUP

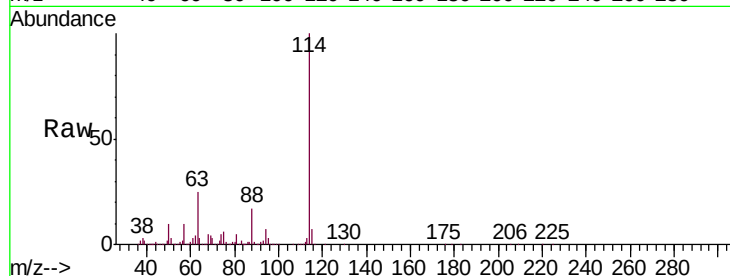
Tgt Ion: 63 Resp: 647739

Ion Ratio Lower Upper

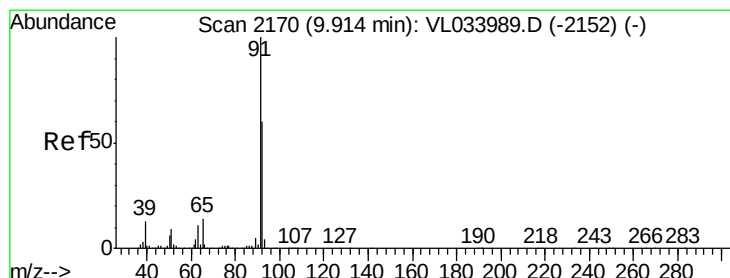
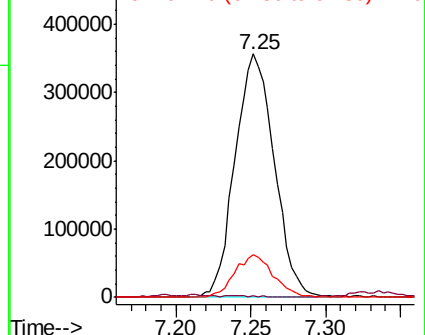
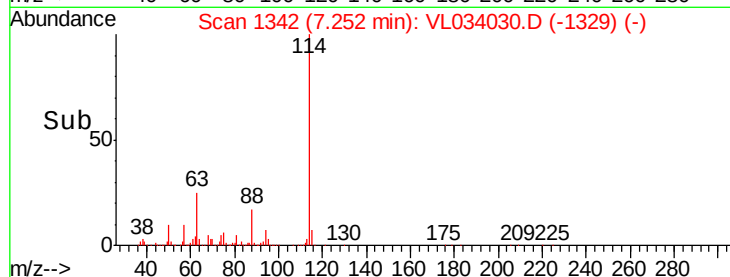
63 100

41 0.0 62.3 93.5#

62 17.8 51.4 77.2#



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



#53

Toluene

Concen: 1.180 ppbv

RT: 9.90 min Scan# 2167

Delta R.T. -0.01 min

Lab File: VL034030.D

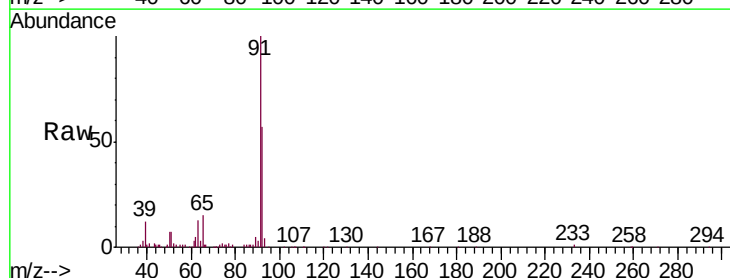
Acq: 11 Jul 2019 23:22

Tgt Ion: 91 Resp: 276103

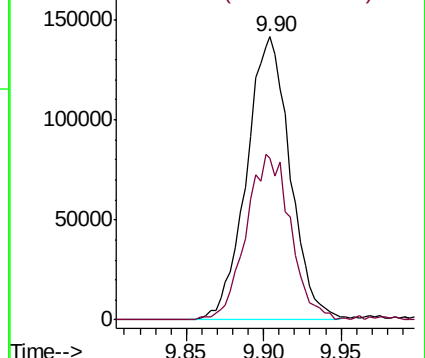
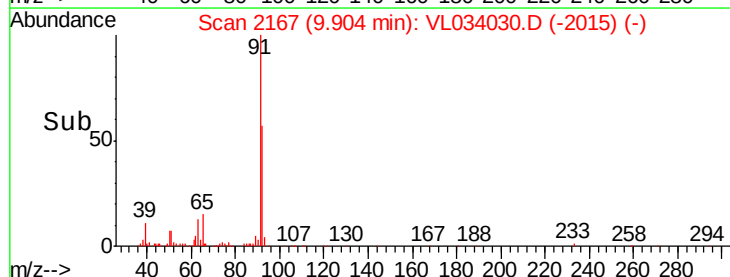
Ion Ratio Lower Upper

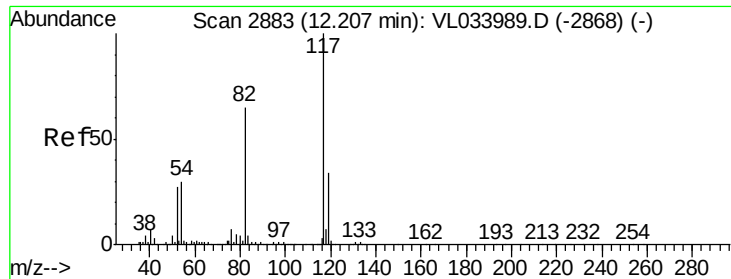
91 100

92 59.6 47.7 71.5



Abundance Ion 91.10 (90.80 to 91.80): VL0
Ion 92.10 (91.80 to 92.80): VL0

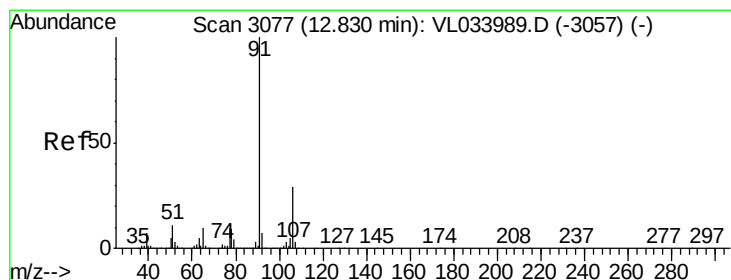
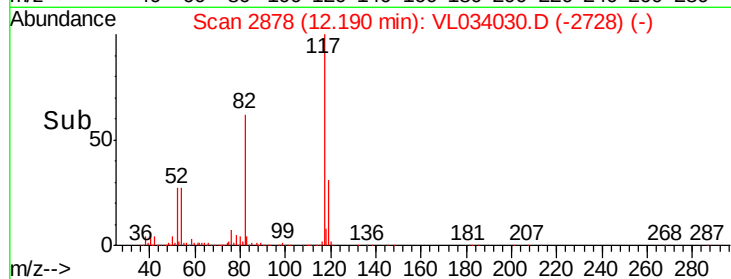
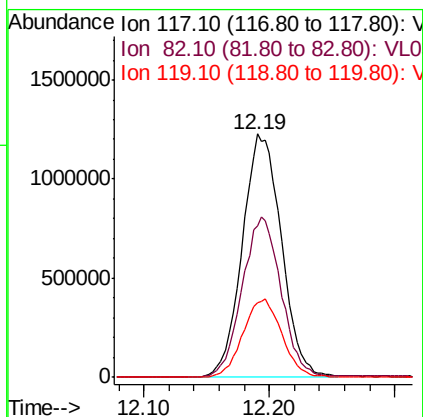
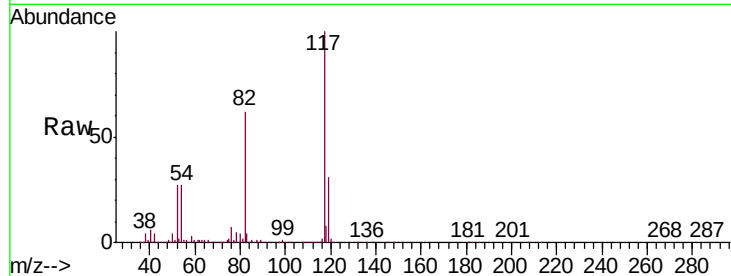




#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.19 min Scan# 2878
Delta R.T. -0.02 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

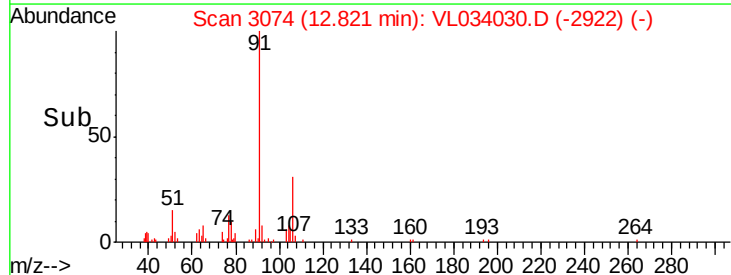
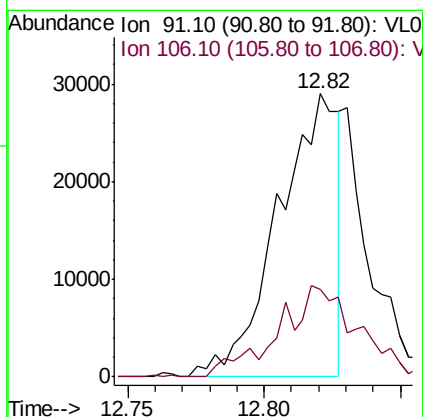
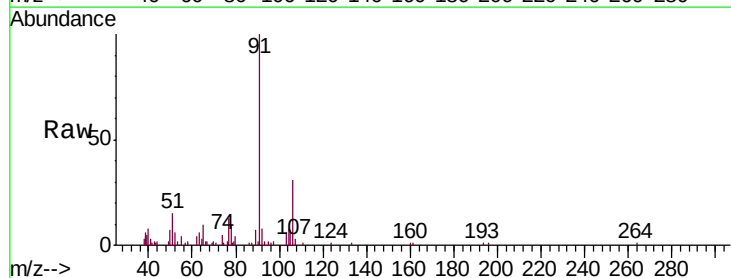
Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDUP

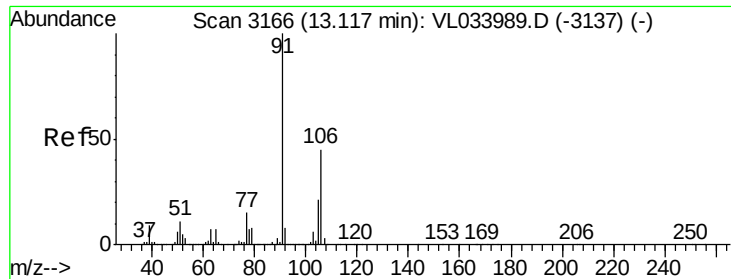
Tgt Ion: 117 Resp: 2662553
Ion Ratio Lower Upper
117 100
82 65.7 50.8 76.2
119 32.2 24.0 36.0



#58
Ethyl Benzene
Concen: 0.138 ppbv
RT: 12.82 min Scan# 3074
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion: 91 Resp: 44091
Ion Ratio Lower Upper
91 100
106 31.1 23.3 34.9

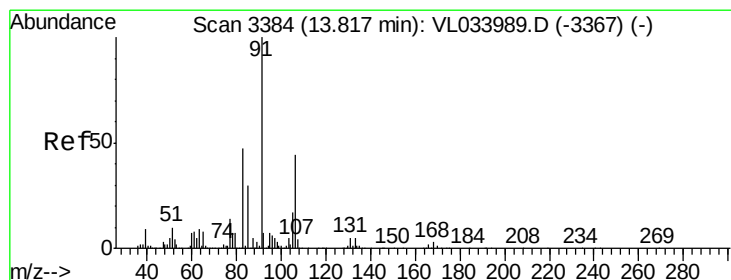
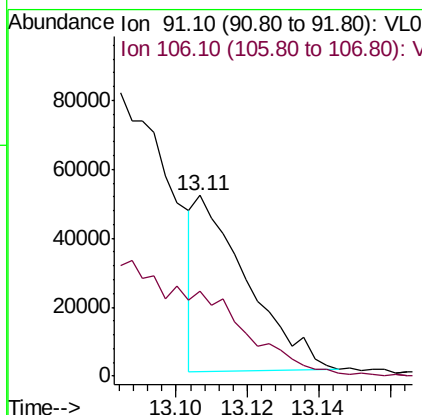
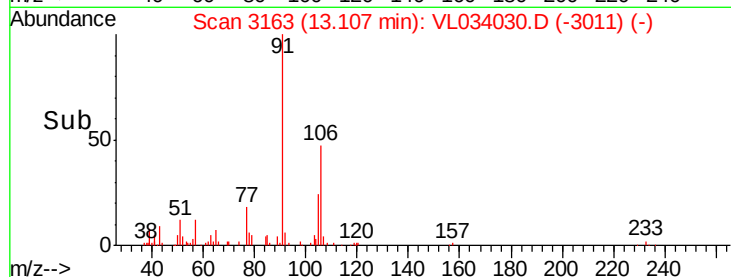
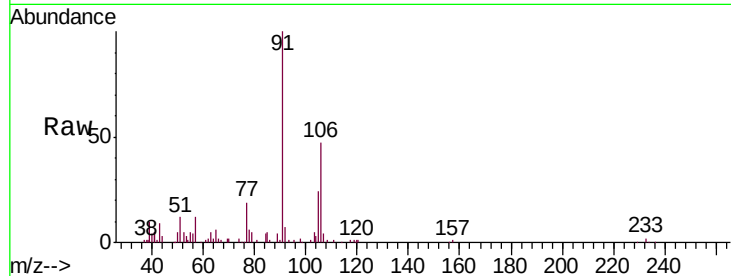




#59
m/p-Xylene
Concen: 0.177 ppbv
RT: 13.11 min Scan# 3163
Delta R.T. -0.01 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

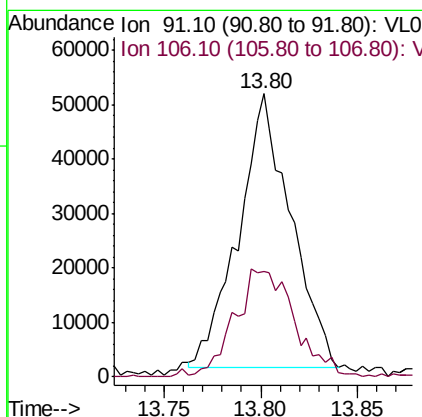
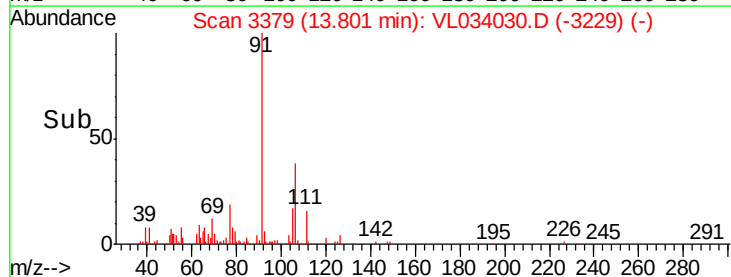
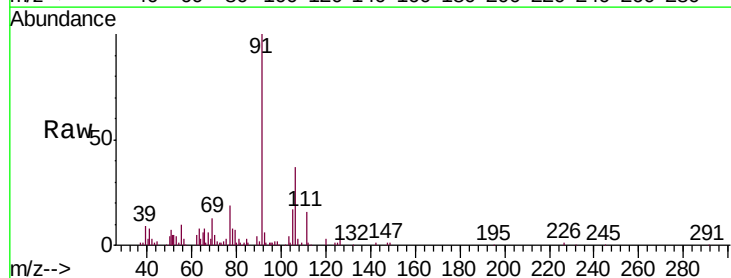
Instrument :
MSVOA_L
ClientSampleId :
NVS-1DLDP

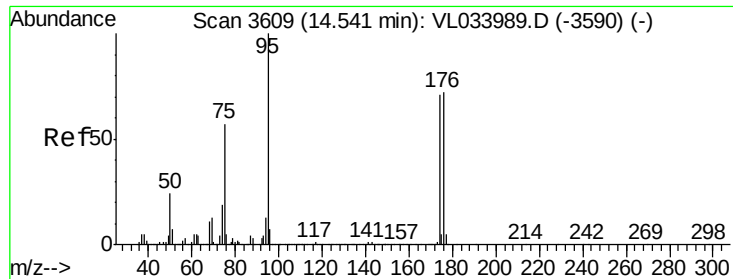
Tgt Ion: 91 Resp: 51310
Ion Ratio Lower Upper
91 100
106 0.0 35.7 53.5#



#60
o-Xylene
Concen: 0.328 ppbv
RT: 13.80 min Scan# 3379
Delta R.T. -0.02 min
Lab File: VL034030.D
Acq: 11 Jul 2019 23:22

Tgt Ion: 91 Resp: 95232
Ion Ratio Lower Upper
91 100
106 45.1 21.9 65.7

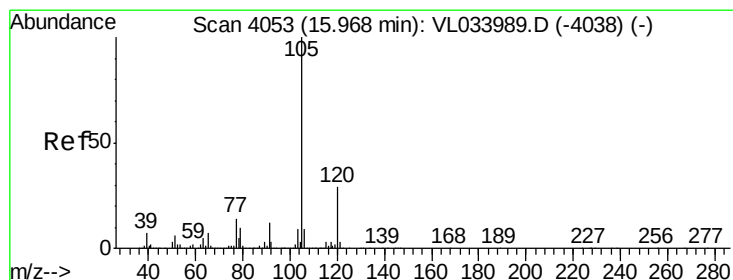
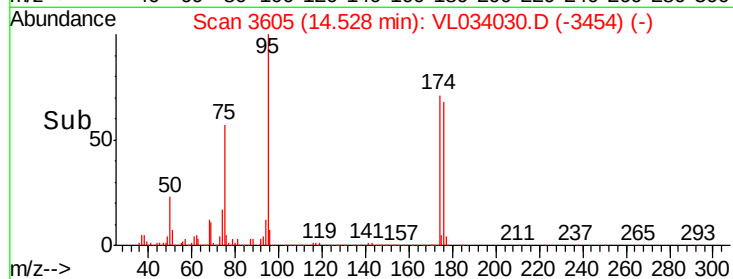
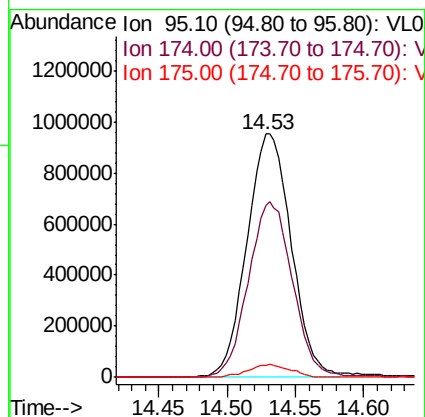
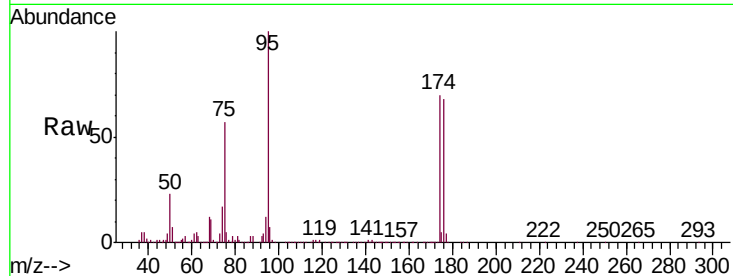




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.450 ppbv
 RT: 14.53 min Scan# 3605
 Delta R.T. -0.01 min
 Lab File: VL034030.D
 Acq: 11 Jul 2019 23:22

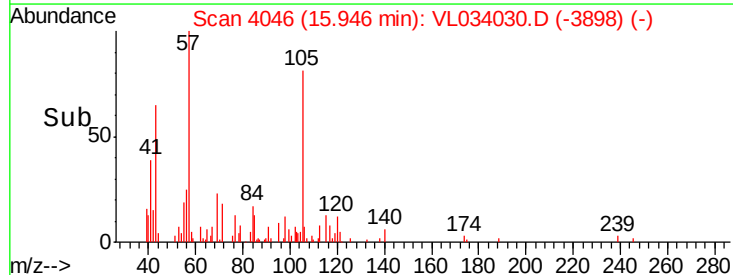
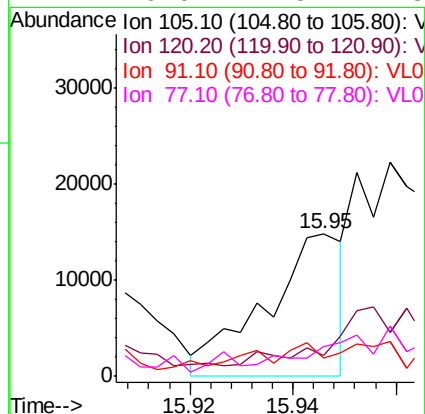
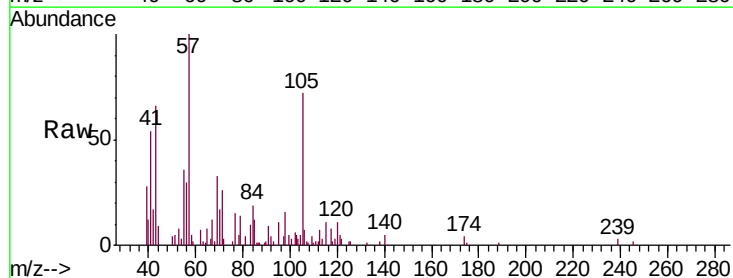
Instrument :
 MSVOA_L
 ClientSampleId :
 NVS-1DLDUP

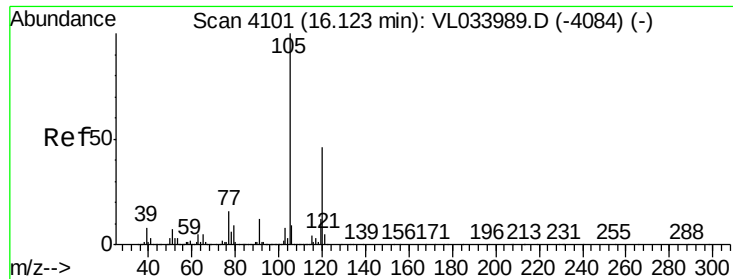
Tgt Ion: 95 Resp: 2146065
 Ion Ratio Lower Upper
 95 100
 174 72.6 60.5 90.7
 175 5.1 4.0 6.0



#72
 4-Ethyltoluene
 Concen: 0.042 ppbv
 RT: 15.95 min Scan# 4046
 Delta R.T. -0.02 min
 Lab File: VL034030.D
 Acq: 11 Jul 2019 23:22

Tgt Ion: 105 Resp: 15472
 Ion Ratio Lower Upper
 105 100
 120 0.0 24.1 36.1#
 91 0.0 10.6 16.0#
 77 0.0 11.5 17.3#





#73

1,3,5-Trimethylbenzene

Concen: 0.043 ppbv

RT: 16.10 min Scan# 4095

Delta R.T. -0.02 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Instrument :

MSVOA_L

ClientSampleId :

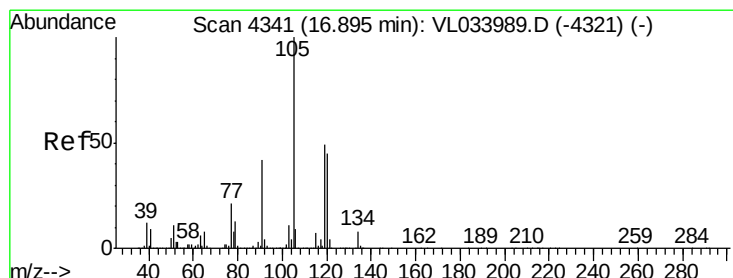
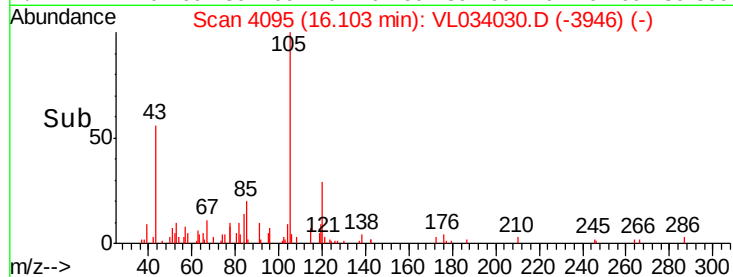
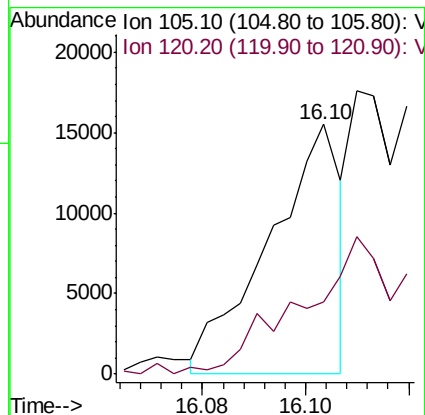
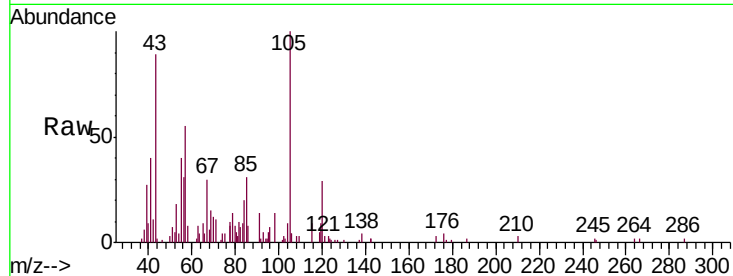
NVS-1DLDUP

Tgt Ion:105 Resp: 15017

Ion Ratio Lower Upper

105 100

120 30.5 36.4 54.6#



#74

1,2,4-Trimethylbenzene

Concen: 0.292 ppbv

RT: 16.88 min Scan# 4336

Delta R.T. -0.02 min

Lab File: VL034030.D

Acq: 11 Jul 2019 23:22

Tgt Ion:105 Resp: 111897

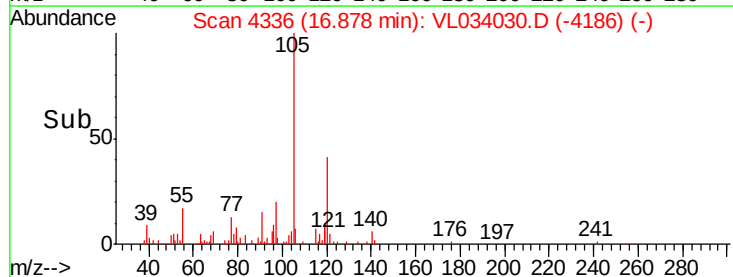
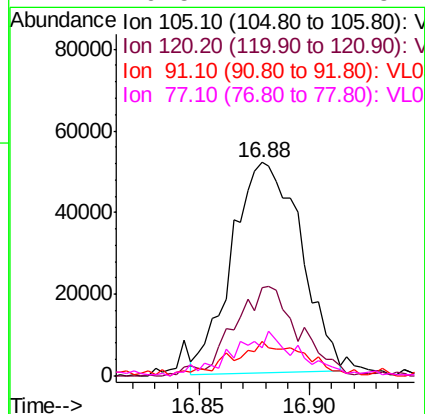
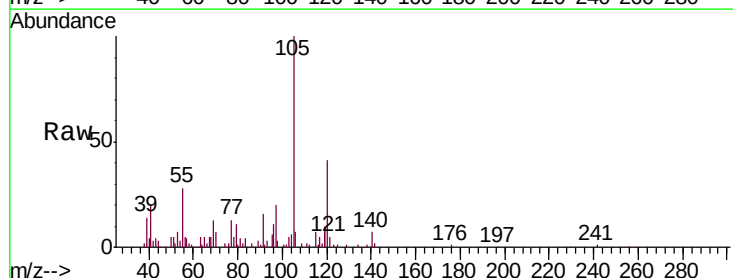
Ion Ratio Lower Upper

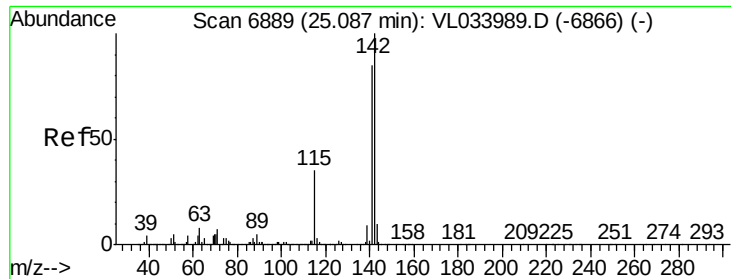
105 100

120 38.7 36.2 54.2

91 15.4 34.3 51.5#

77 10.5 17.1 25.7#





#80
 Naphthalene, 2-methyl-
 Concen: 0.035 ppbv
 RT: 25.08 min Scan# 6887
 Delta R.T. -0.01 min
 Lab File: VL034030.D
 Acq: 11 Jul 2019 23:22

Instrument :
 MSVOA_L
 ClientSampleId :
 NVS-1DLDP

Tgt Ion:	142	Resp:	4072
Ion	Ratio	Lower	Upper
142	100		
141	79.3	68.2	102.2
115	41.2	29.9	44.9

