

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_L\DATA\VL123019\
 Data File : VL034519.D
 Acq On : 30 Dec 2019 19:49
 Operator : SY/AP
 Sample : K6388-03
 Misc : 400ml/MSVOA_L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 EFFLUENT

Quant Time: Dec 31 05:01:08 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL123019AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 30 14:58:50 2019
 QLast Update : Mon Dec 30 14:58:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	885210	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	1777550	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1728002	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	1472250	10.21	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.10%

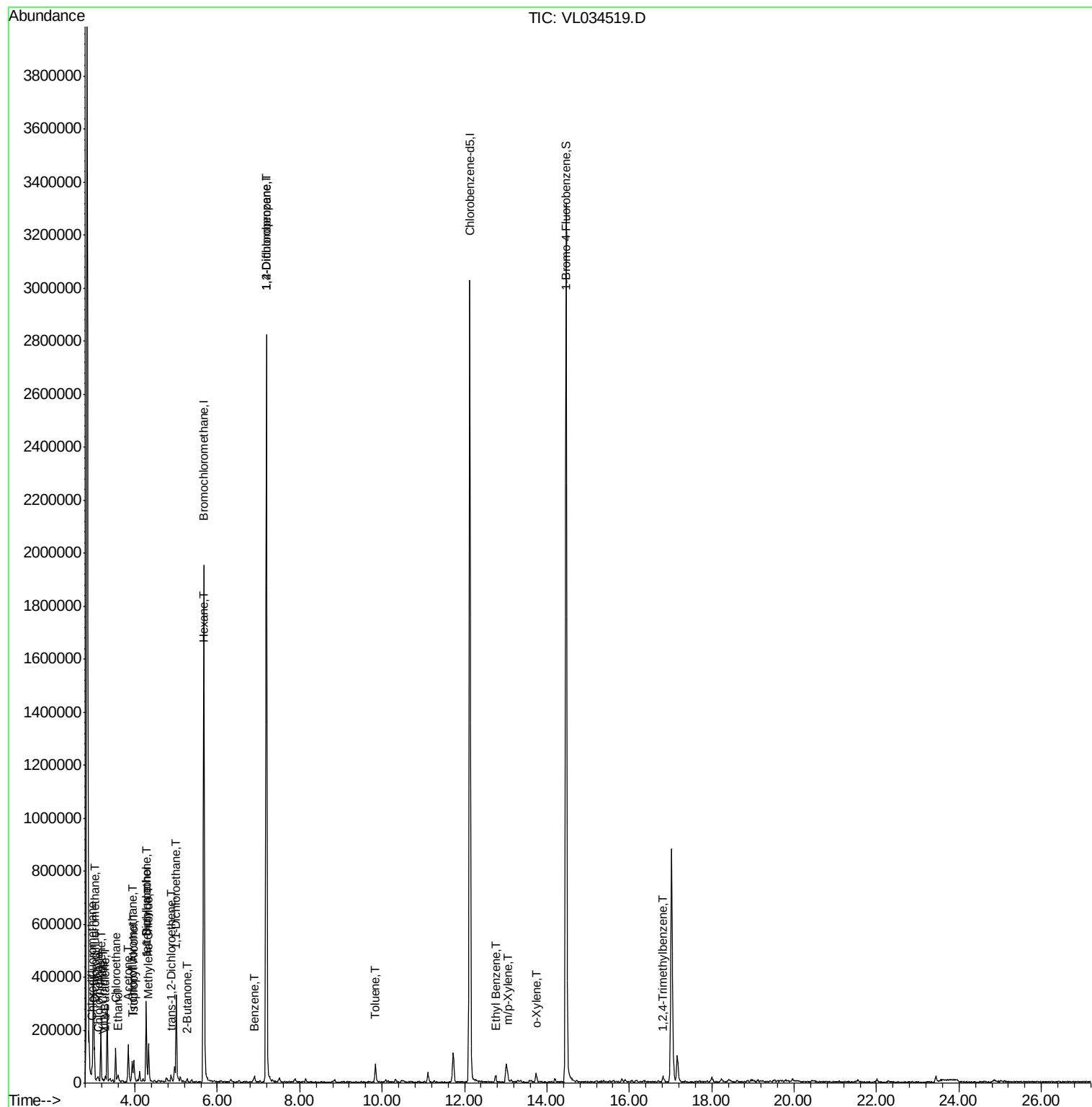
Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.02	85	72012	0.516	ppbv	97
3) Chlorodifluoromethane	2.96	51	37931	0.360	ppbv	98
4) Chloromethane	3.11	50	7701	0.123	ppbv #	76
5) Vinyl Chloride	3.23	62	1994	0.033	ppbv	100
7) Chloroethane	3.53	64	75829	3.547	ppbv	100
9) Propene	3.17	41	45400	1.116	ppbv	95
11) Trichlorofluoromethane	3.93	101	45202	0.280	ppbv #	76
13) Ethanol	3.58	45	7580	0.672	ppbv #	38
15) Acetone	3.83	43	135184	1.046	ppbv	96
16) 1,3-Butadiene	3.28	39	2021	0.041	ppbv #	8
17) tert-Butyl alcohol	4.27	59	5260	0.051	ppbv #	72
18) 1,1-Dichloroethene	4.28	96	73582	1.644	ppbv	83
19) Isopropyl Alcohol	3.97	45	75221	0.899	ppbv #	95
20) Methylene Chloride	4.33	84	43612	0.858	ppbv	96
22) trans-1,2-Dichloroethene	4.88	96	4225	0.093	ppbv #	74
24) 1,1-Dichloroethane	5.00	63	258011	2.153	ppbv #	98
26) Hexane	5.69	57	21179	0.249	ppbv #	42
34) 2-Butanone	5.26	43	12902	0.102	ppbv	96
36) Benzene	6.90	78	7275	0.047	ppbv #	85
39) 1,2-Dichloropropane	7.19	63	532801	8.362	ppbv #	22
53) Toluene	9.83	91	45014	0.264	ppbv	99
58) Ethyl Benzene	12.75	91	18458	0.079	ppbv	91
59) m/p-Xylene	13.04	91	8711	0.043	ppbv #	32
60) o-Xylene	13.73	91	8968	0.044	ppbv #	10
74) 1,2,4-Trimethylbenzene	16.82	105	8208	0.034	ppbv #	71

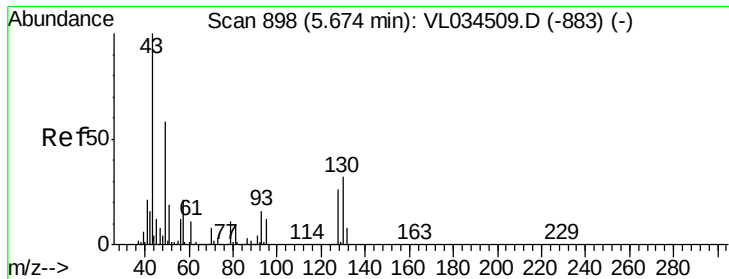
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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QLast Update : Mon Dec 30 14:58:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

EFFLUENT

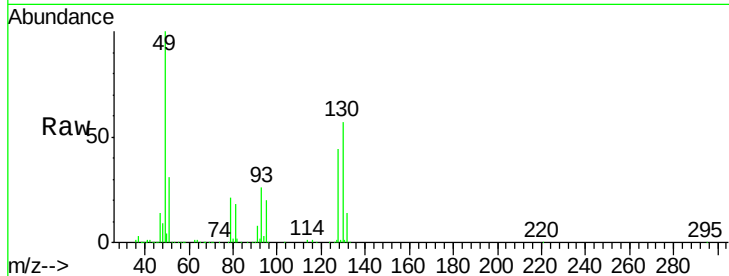
Tgt Ion: 49 Resp: 885210

Ion Ratio Lower Upper

49 100

128 44.6 22.4 67.2

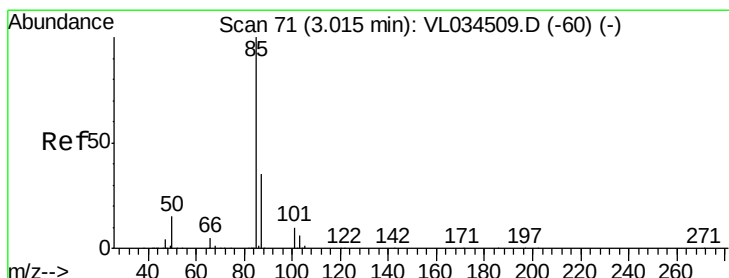
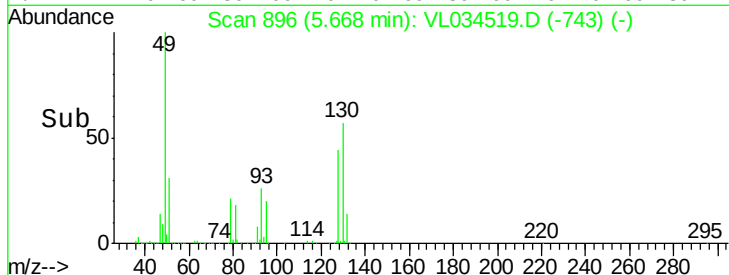
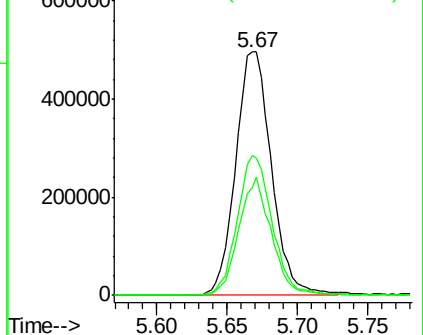
130 56.4 28.3 85.0



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



#2

Dichlorodifluoromethane

Concen: 0.516 ppbv

RT: 3.02 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL034519.D

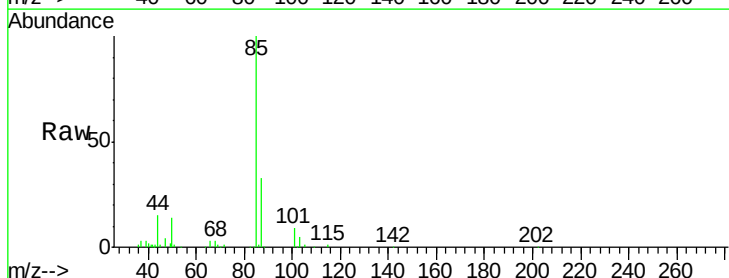
Acq: 30 Dec 2019 19:49

Tgt Ion: 85 Resp: 72012

Ion Ratio Lower Upper

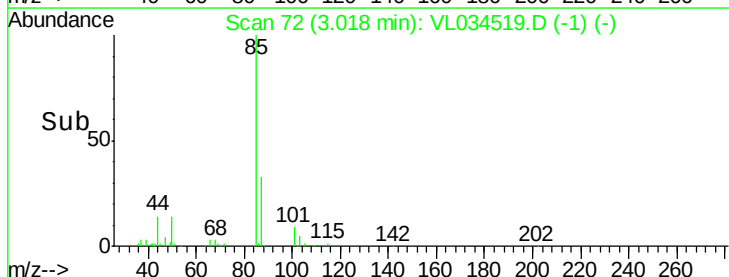
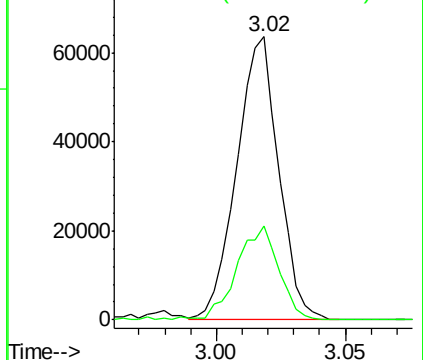
85 100

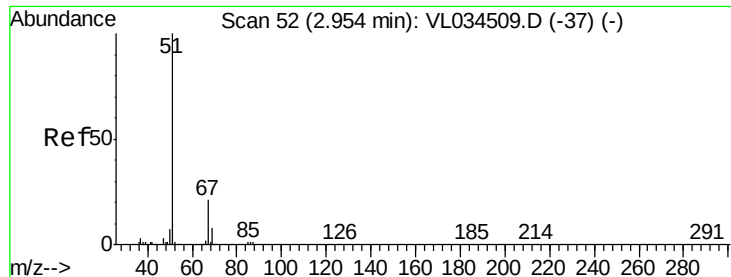
87 33.0 27.9 41.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.360 ppbv

RT: 2.96 min Scan# 53

Delta R.T. 0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

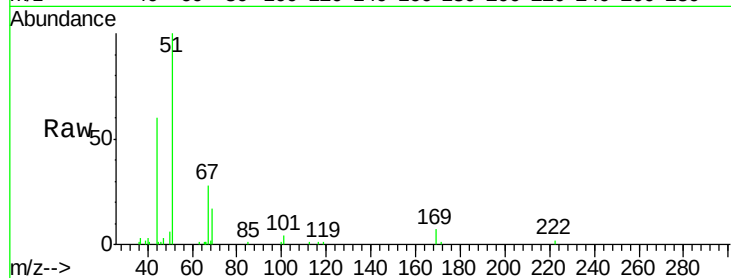
EFFLUENT

Tgt Ion: 51 Resp: 37931

Ion Ratio Lower Upper

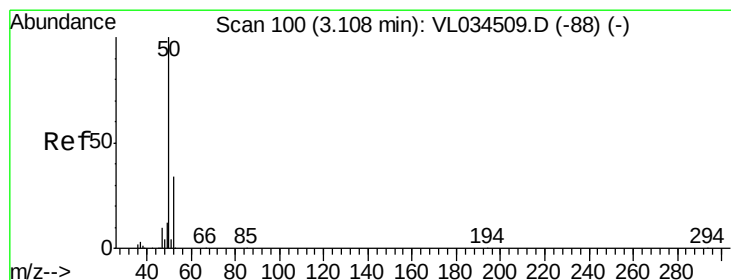
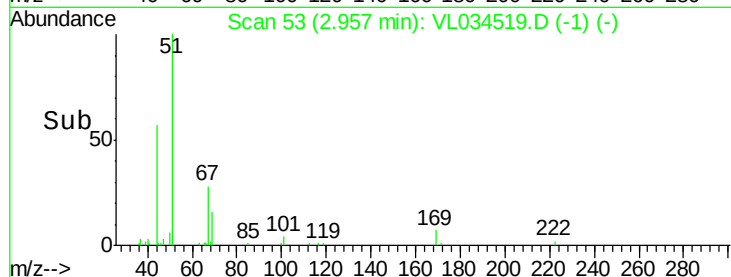
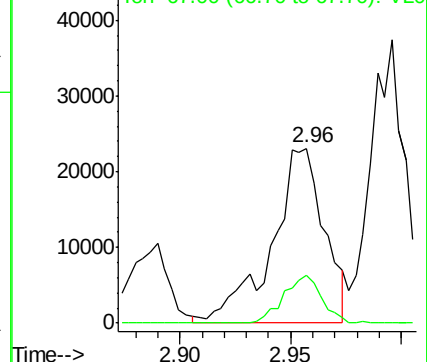
51 100

67 19.9 16.8 25.2



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.123 ppbv

RT: 3.11 min Scan# 101

Delta R.T. 0.00 min

Lab File: VL034519.D

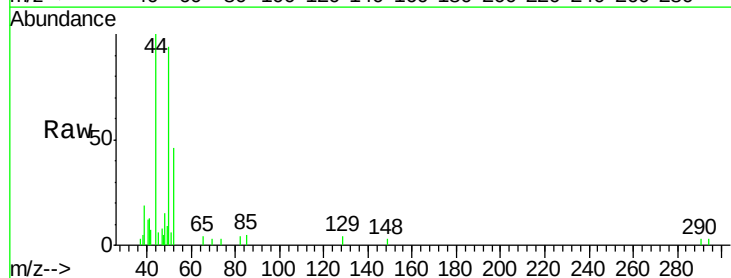
Acq: 30 Dec 2019 19:49

Tgt Ion: 50 Resp: 7701

Ion Ratio Lower Upper

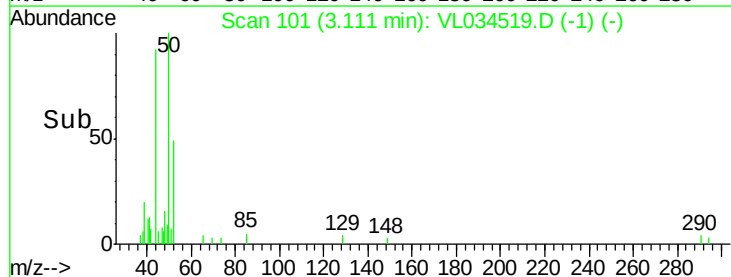
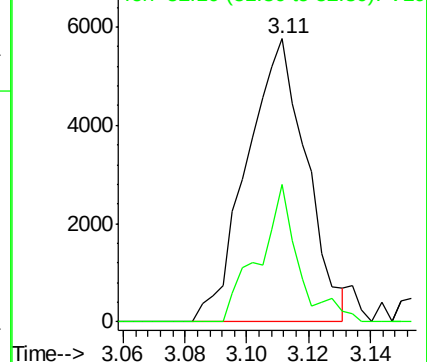
50 100

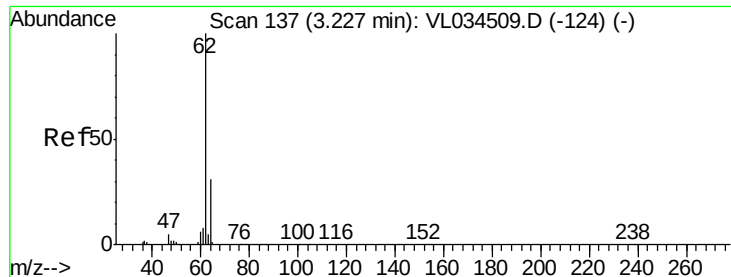
52 48.6 27.6 41.4#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 0.033 ppbv

RT: 3.23 min Scan# 138

Delta R.T. 0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

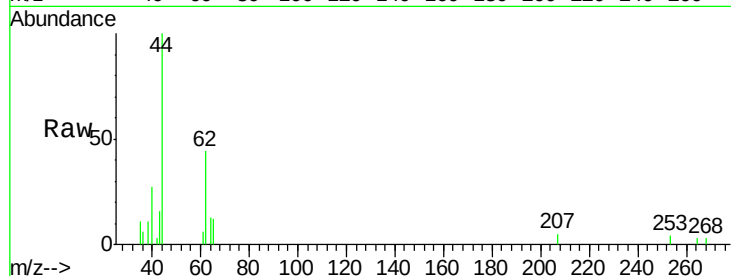
EFFLUENT

Tgt Ion: 62 Resp: 1994

Ion Ratio Lower Upper

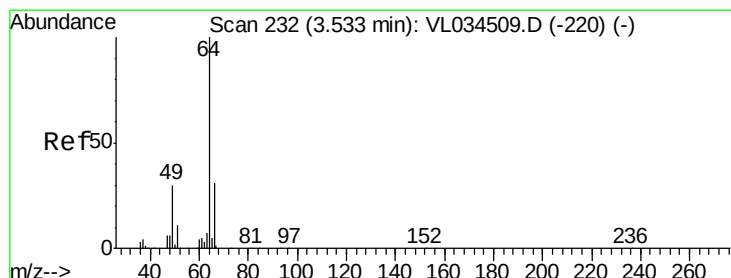
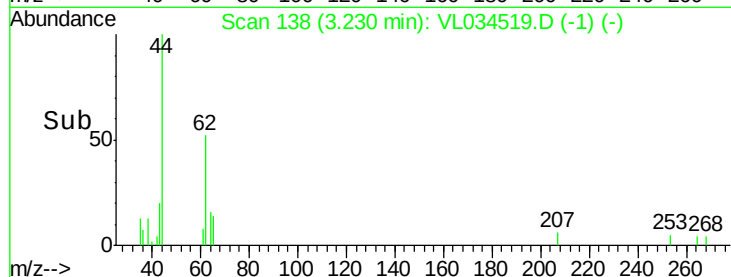
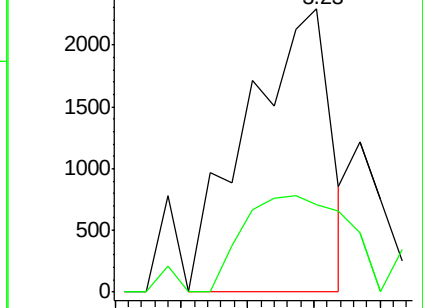
62 100

64 30.8 24.9 37.3



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#7

Chloroethane

Concen: 3.547 ppbv

RT: 3.53 min Scan# 232

Delta R.T. -0.00 min

Lab File: VL034519.D

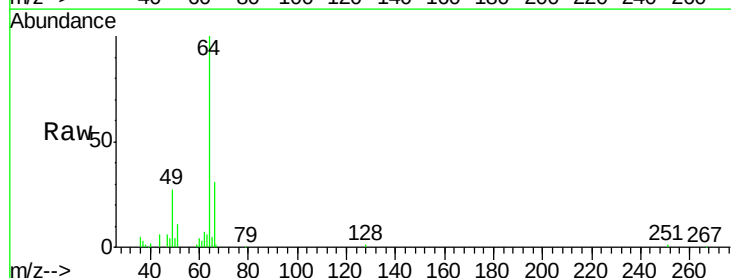
Acq: 30 Dec 2019 19:49

Tgt Ion: 64 Resp: 75829

Ion Ratio Lower Upper

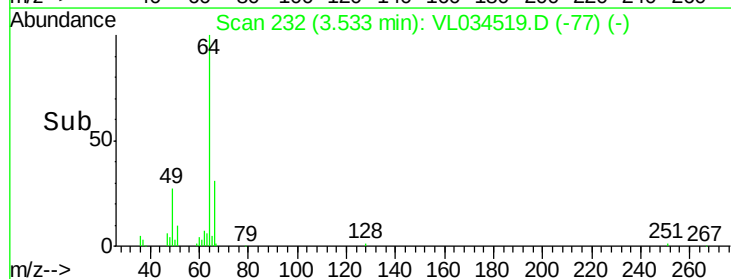
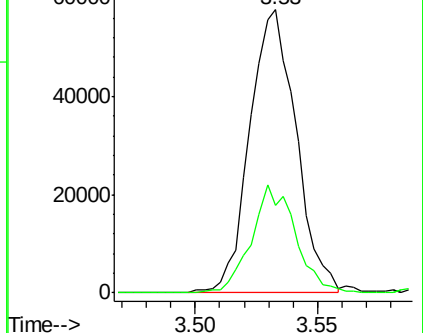
64 100

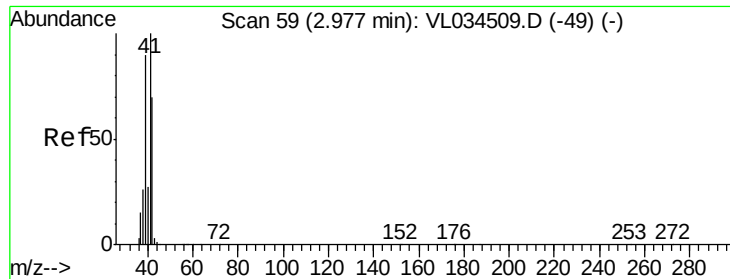
66 31.1 25.0 37.4



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 1.116 ppbv

RT: 3.17 min Scan# 120

Delta R.T. 0.20 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

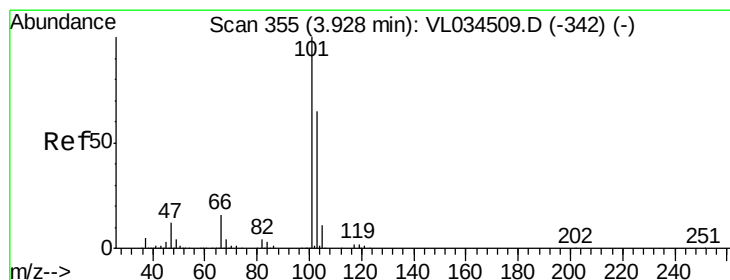
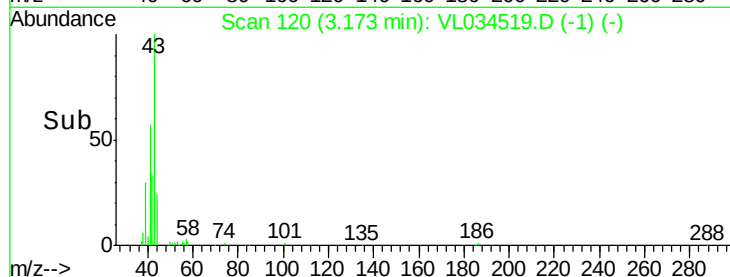
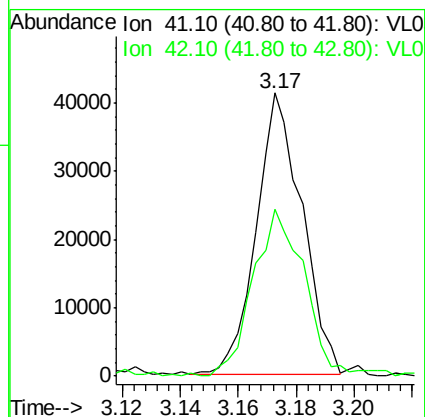
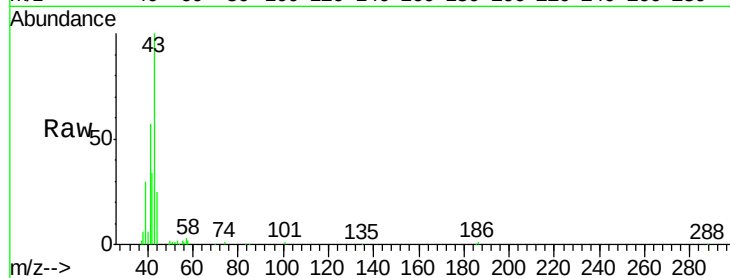
EFFLUENT

Tgt Ion: 41 Resp: 45400

Ion Ratio Lower Upper

41 100

42 65.6 55.8 83.6



#11

Trichlorofluoromethane

Concen: 0.280 ppbv

RT: 3.93 min Scan# 355

Delta R.T. -0.00 min

Lab File: VL034519.D

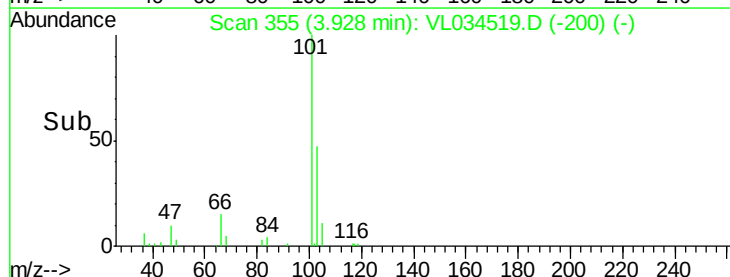
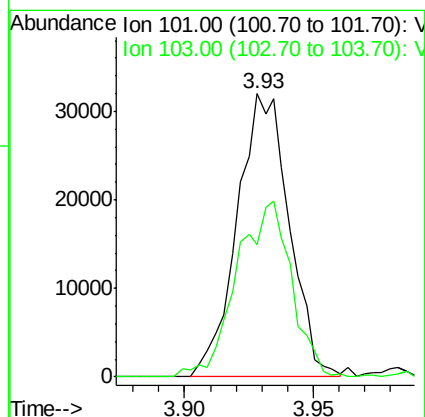
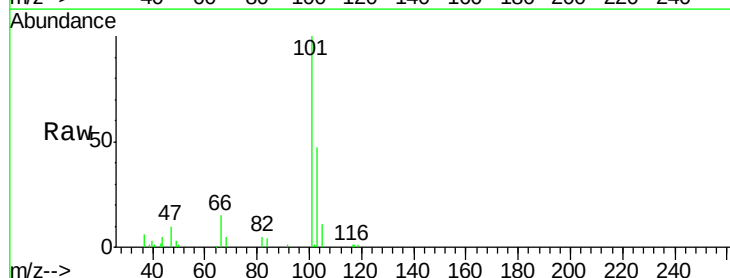
Acq: 30 Dec 2019 19:49

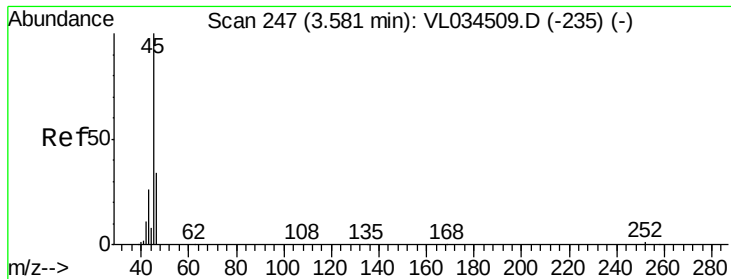
Tgt Ion: 101 Resp: 45202

Ion Ratio Lower Upper

101 100

103 45.9 52.1 78.1#

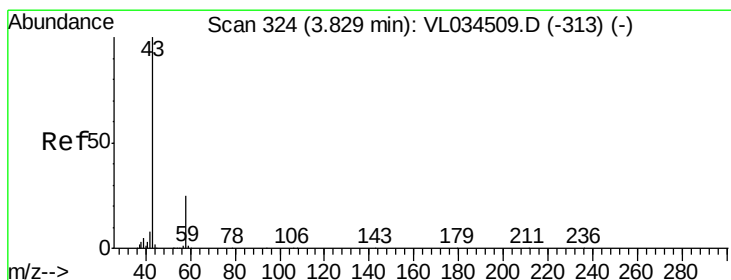
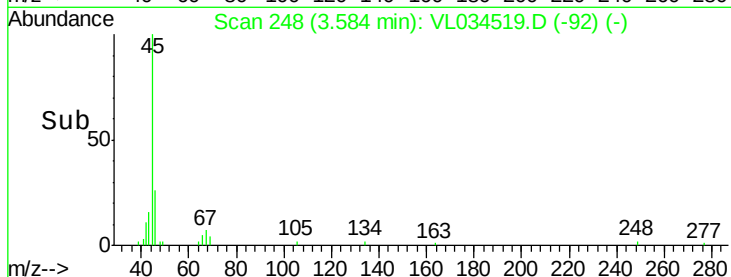
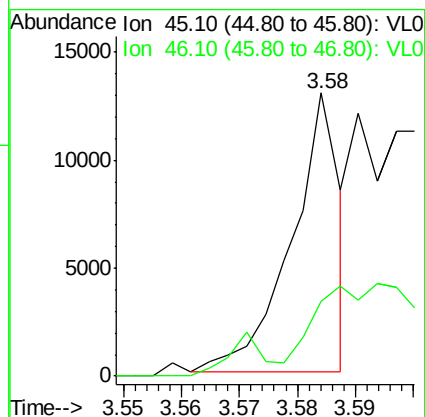
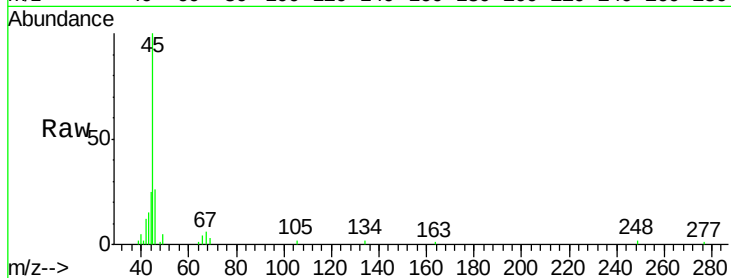




#13
Ethanol
Concen: 0.672 ppbv
RT: 3.58 min Scan# 248
Delta R.T. 0.00 min
Lab File: VL034519.D
Acq: 30 Dec 2019 19:49

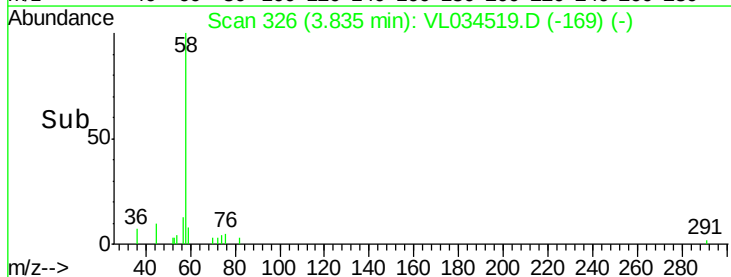
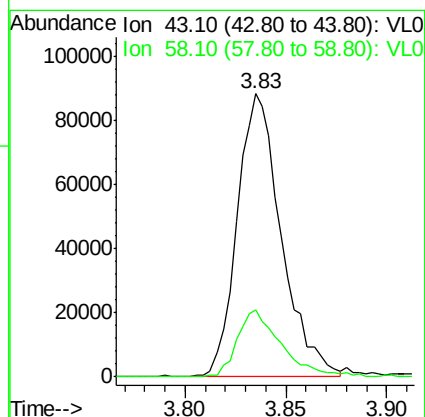
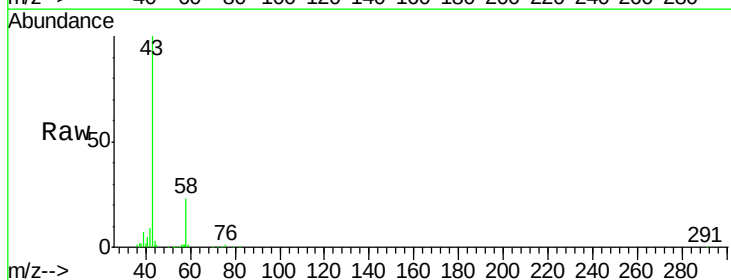
Instrument :
MSVOA_L
ClientSampleId :
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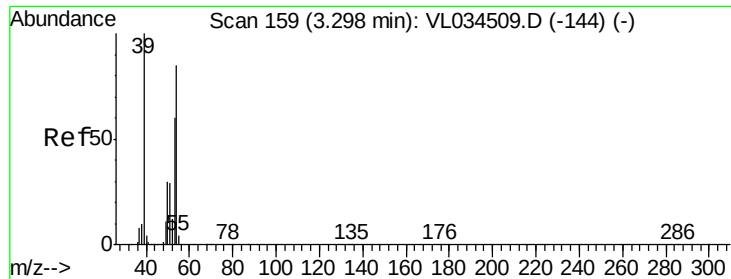
Tgt Ion: 45 Resp: 7580
Ion Ratio Lower Upper
45 100
46 0.0 14.9 59.7#



#15
Acetone
Concen: 1.046 ppbv
RT: 3.83 min Scan# 326
Delta R.T. 0.01 min
Lab File: VL034519.D
Acq: 30 Dec 2019 19:49

Tgt Ion: 43 Resp: 135184
Ion Ratio Lower Upper
43 100
58 23.7 20.4 30.6

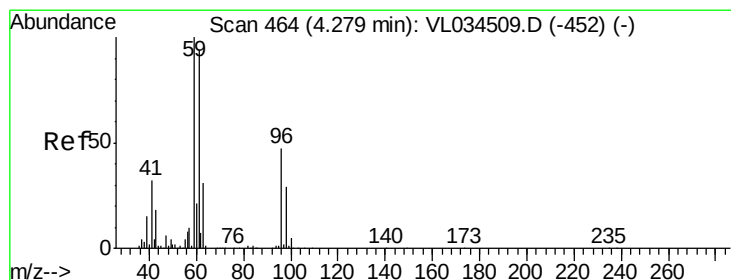
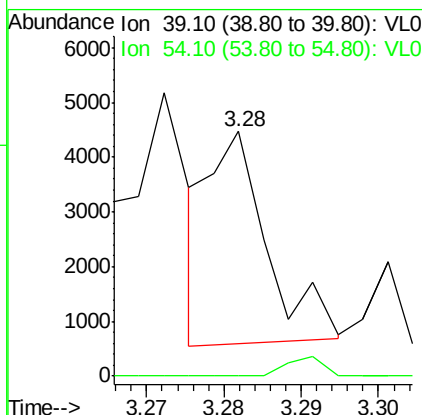
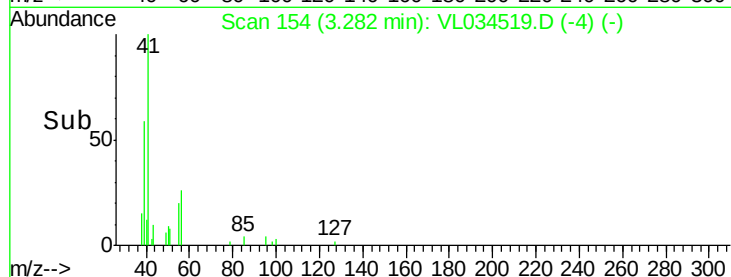
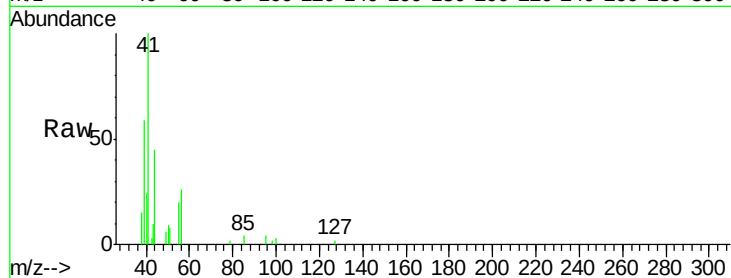




#16
 1,3-Butadiene
 Concen: 0.041 ppbv
 RT: 3.28 min Scan# 154
 Delta R.T. -0.02 min
 Lab File: VL034519.D
 Acq: 30 Dec 2019 19:49

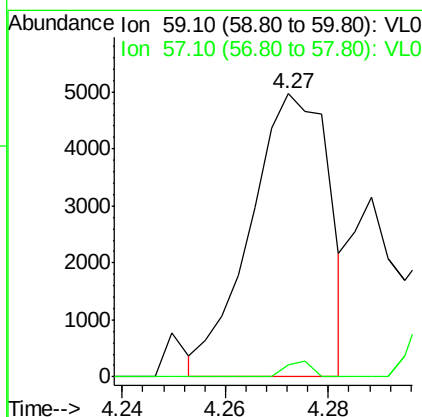
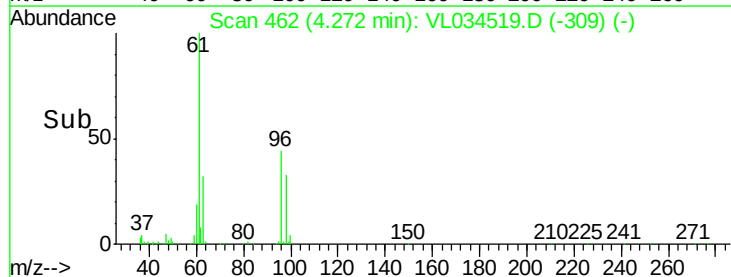
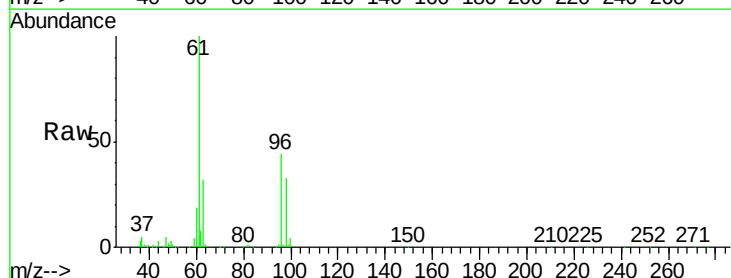
Instrument :
 MSVOA_L
 ClientSampleId :
 EFFLUENT

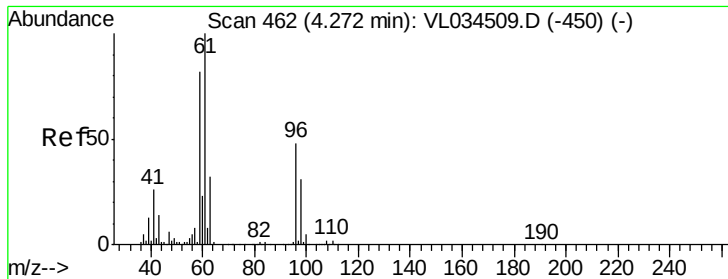
Tgt Ion: 39 Resp: 2021
 Ion Ratio Lower Upper
 39 100
 54 0.0 66.2 99.2#



#17
 tert-Butyl alcohol
 Concen: 0.051 ppbv
 RT: 4.27 min Scan# 462
 Delta R.T. -0.01 min
 Lab File: VL034519.D
 Acq: 30 Dec 2019 19:49

Tgt Ion: 59 Resp: 5260
 Ion Ratio Lower Upper
 59 100
 57 0.0 8.6 12.8#





#18

1,1-Dichloroethene

Concen: 1.644 ppbv

RT: 4.28 min Scan# 463

Delta R.T. 0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

EFFLUENT

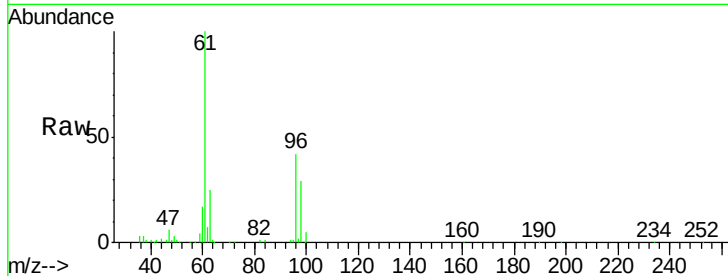
Tgt Ion: 96 Resp: 73582

Ion Ratio Lower Upper

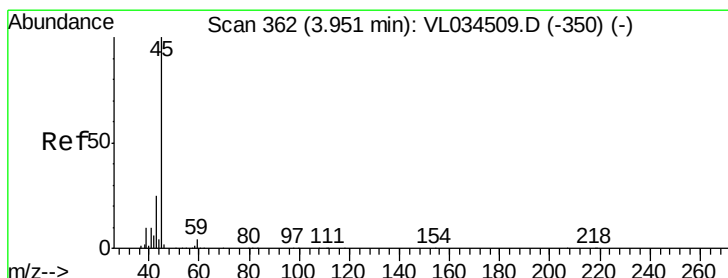
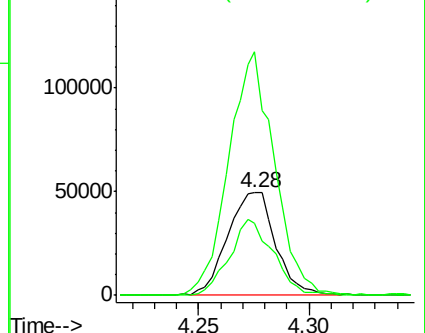
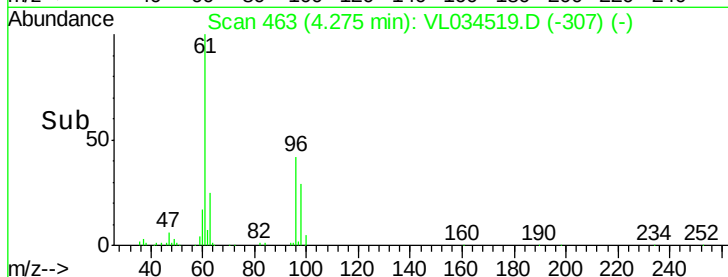
96 100

61 238.3 165.9 248.9

98 70.5 51.9 77.9



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: 0.899 ppbv

RT: 3.97 min Scan# 367

Delta R.T. 0.02 min

Lab File: VL034519.D

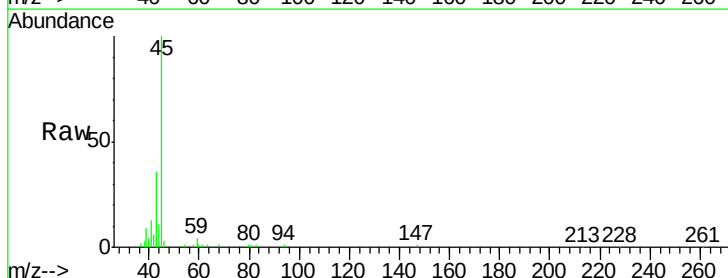
Acq: 30 Dec 2019 19:49

Tgt Ion: 45 Resp: 75221

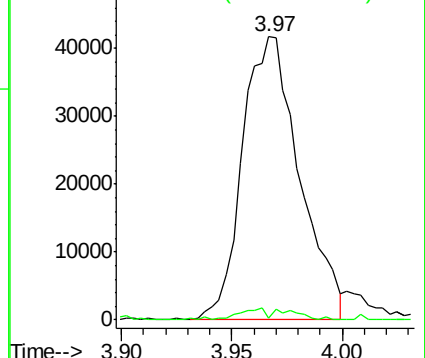
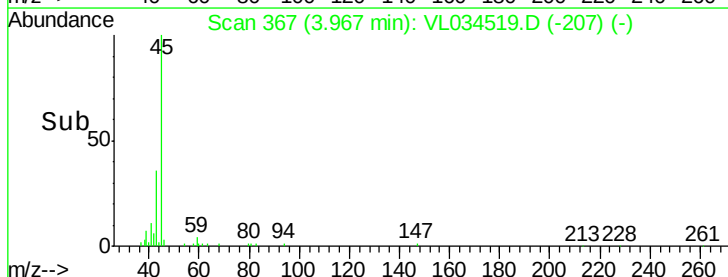
Ion Ratio Lower Upper

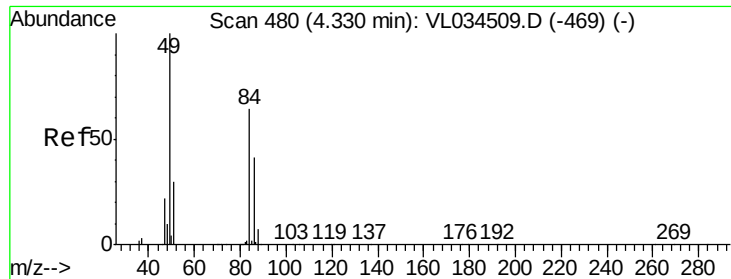
45 100

58 3.7 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0
Ion 58.10 (57.80 to 58.80): VL0

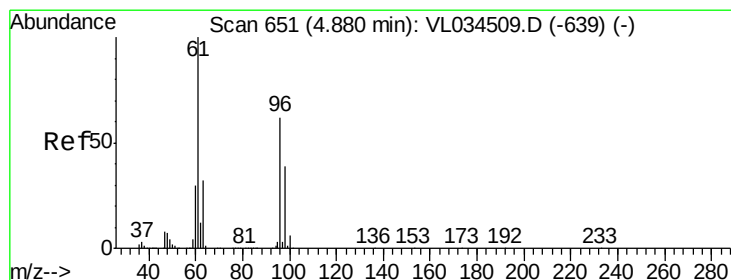
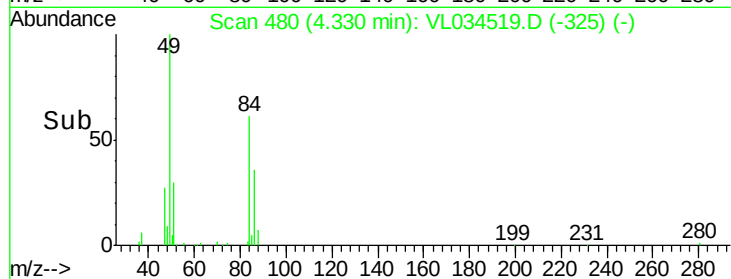
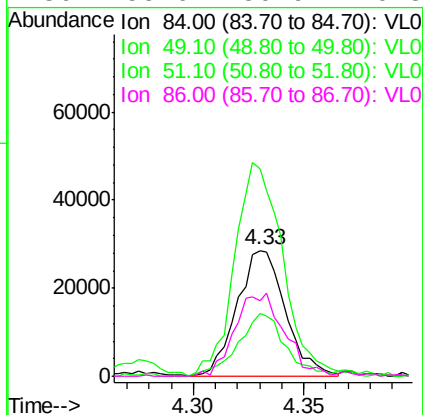
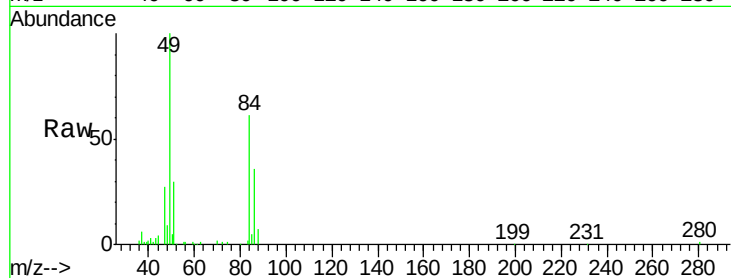




#20
Methylene Chloride
Concen: 0.858 ppbv
RT: 4.33 min Scan# 480
Delta R.T. -0.00 min
Lab File: VL034519.D
Acq: 30 Dec 2019 19:49

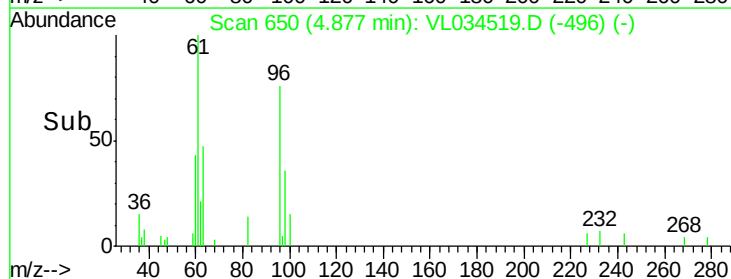
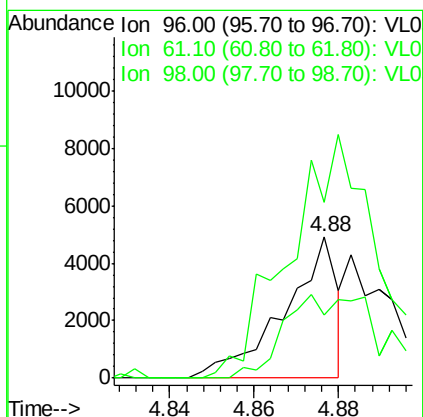
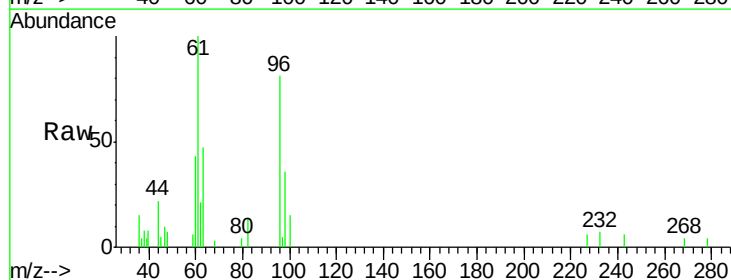
Instrument :
MSVOA_L
ClientSampleId :
EFFLUENT

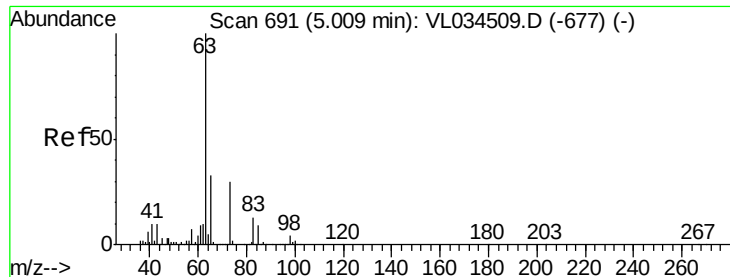
Tgt Ion:	84	Resp:	43612
Ion	Ratio	Lower	Upper
84	100		
49	153.2	124.4	186.6
51	46.6	37.0	55.6
86	55.6	50.9	76.3



#22
trans-1,2-Dichloroethene
Concen: 0.093 ppbv
RT: 4.88 min Scan# 650
Delta R.T. -0.00 min
Lab File: VL034519.D
Acq: 30 Dec 2019 19:49

Tgt Ion:	96	Resp:	4225
Ion	Ratio	Lower	Upper
96	100		
61	124.0	128.4	192.6#
98	45.0	50.6	75.8#





#24

1,1-Dichloroethane

Concen: 2.153 ppbv

RT: 5.00 min Scan# 689

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

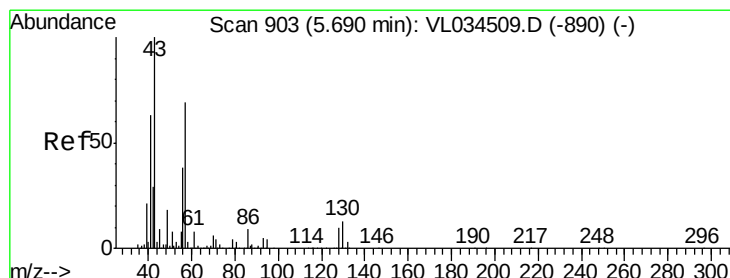
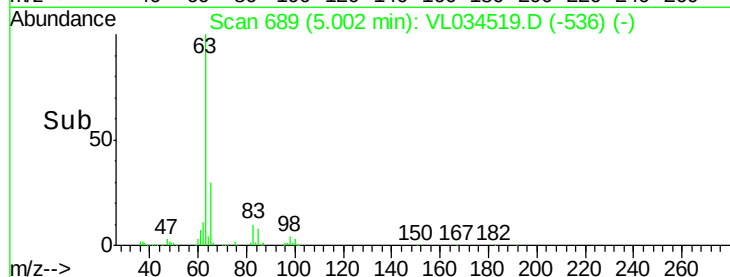
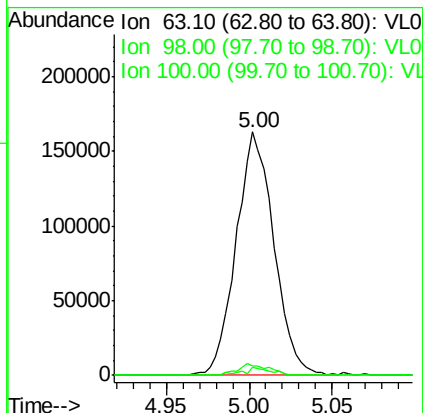
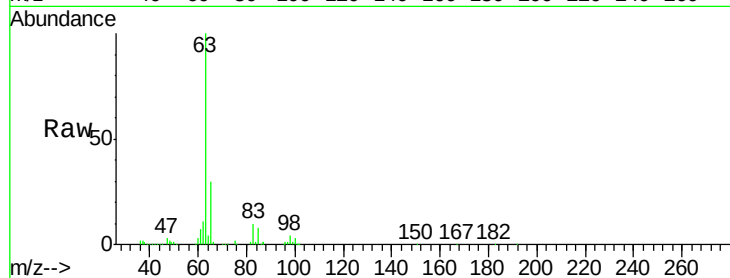
Instrument :

MSVOA_L

ClientSampleId :

EFFLUENT

Tgt Ion:	63	Resp:	258011
Ion	Ratio	Lower	Upper
63	100		
98	3.7	2.1	6.3
100	3.4	1.1	3.3#



#26

Hexane

Concen: 0.249 ppbv

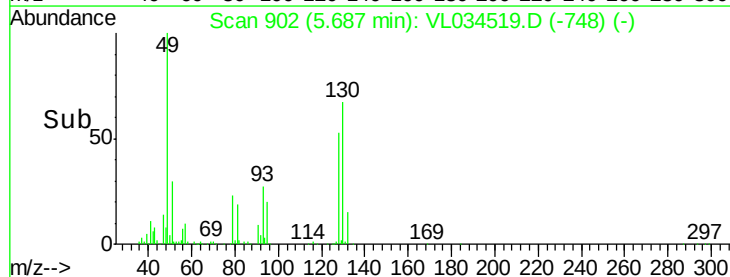
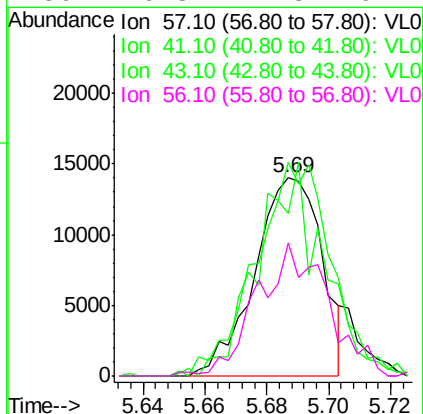
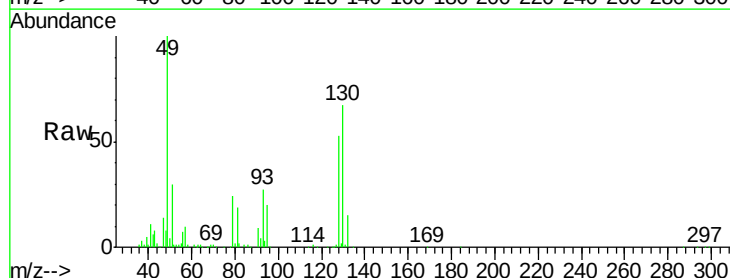
RT: 5.69 min Scan# 902

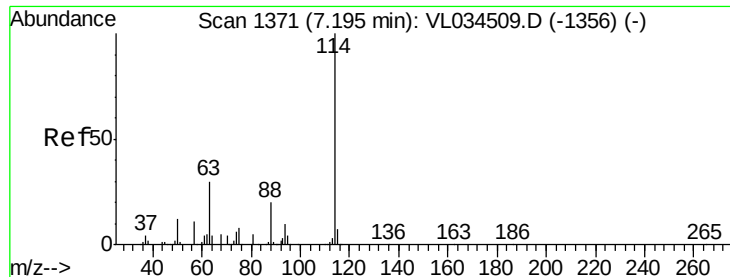
Delta R.T. -0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Tgt Ion:	57	Resp:	21179
Ion	Ratio	Lower	Upper
57	100		
41	122.2	75.3	112.9#
43	105.8	189.4	284.2#
56	70.8	42.8	64.2#

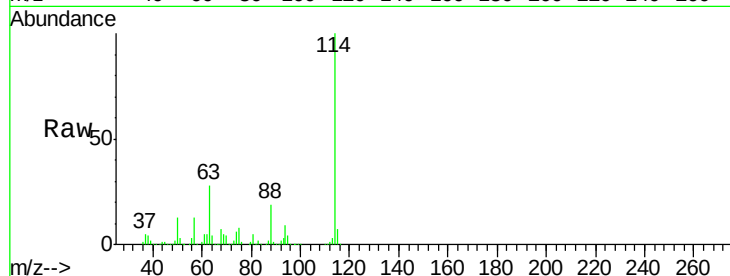




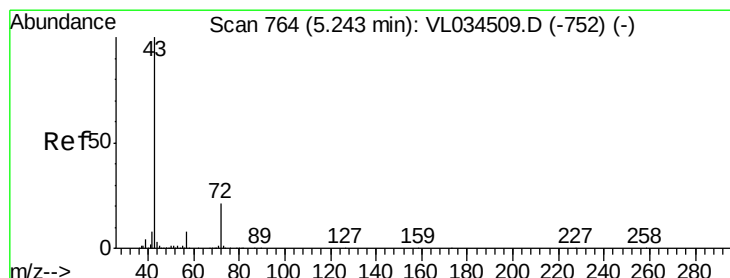
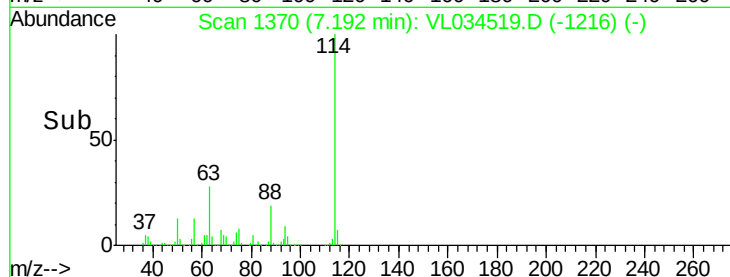
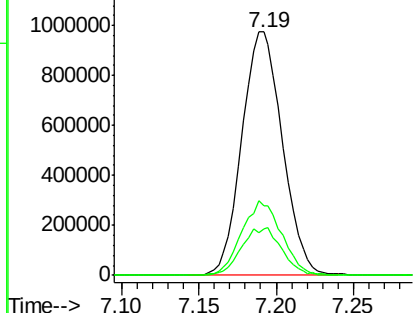
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. -0.00 min
 Lab File: VL034519.D
 Acq: 30 Dec 2019 19:49

Instrument :
 MSVOA_L
 ClientSampleId :
 EFFLUENT

Tgt Ion:114 Resp: 1777550
 Ion Ratio Lower Upper
 114 100
 63 30.1 24.1 36.1
 88 19.5 15.7 23.5

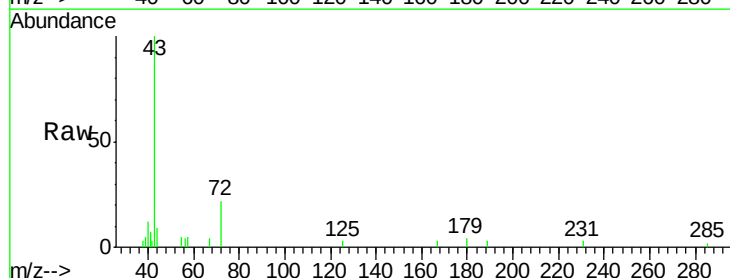


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

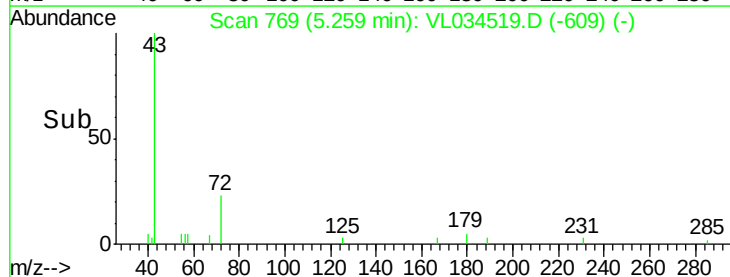
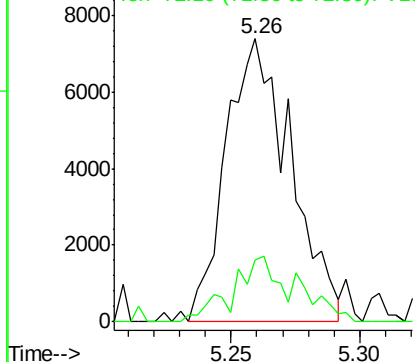


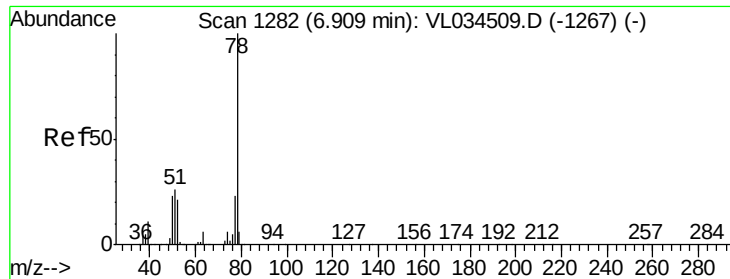
#34
 2-Butanone
 Concen: 0.102 ppbv
 RT: 5.26 min Scan# 769
 Delta R.T. 0.02 min
 Lab File: VL034519.D
 Acq: 30 Dec 2019 19:49

Tgt Ion: 43 Resp: 12902
 Ion Ratio Lower Upper
 43 100
 72 22.9 17.0 25.4



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





#36

Benzene

Concen: 0.047 ppbv

RT: 6.90 min Scan# 1280

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

EFFLUENT

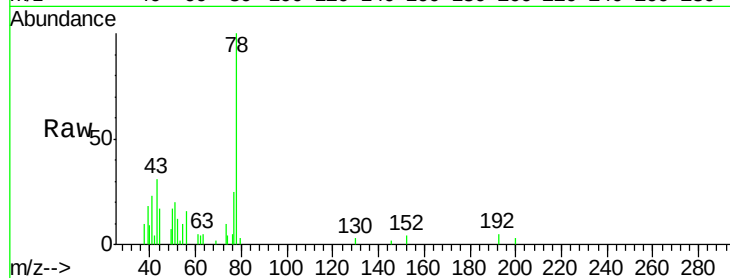
Tgt Ion: 78 Resp: 7275

Ion Ratio Lower Upper

78 100

77 24.9 18.6 28.0

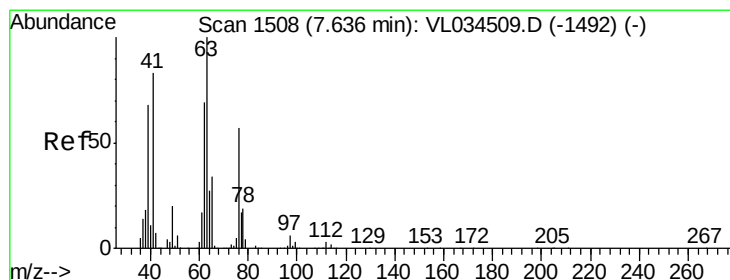
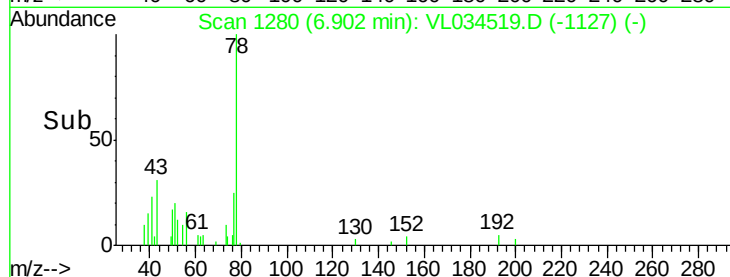
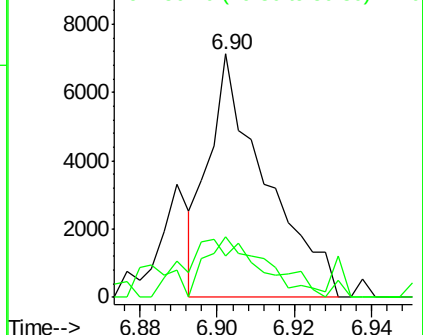
50 10.2 18.8 28.2#



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: 8.362 ppbv

RT: 7.19 min Scan# 1369

Delta R.T. -0.45 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

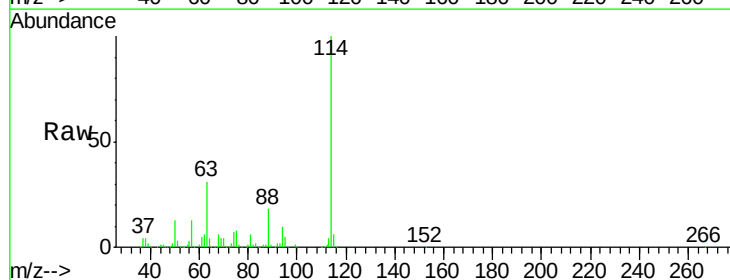
Tgt Ion: 63 Resp: 532801

Ion Ratio Lower Upper

63 100

41 0.0 66.1 99.1#

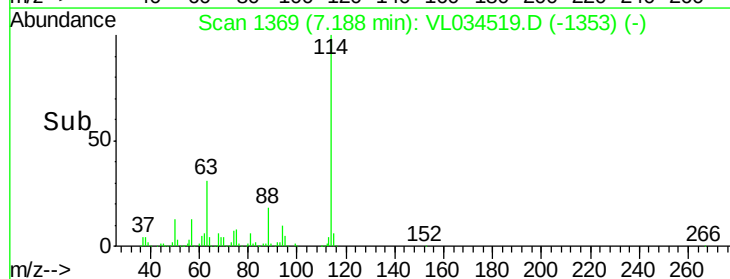
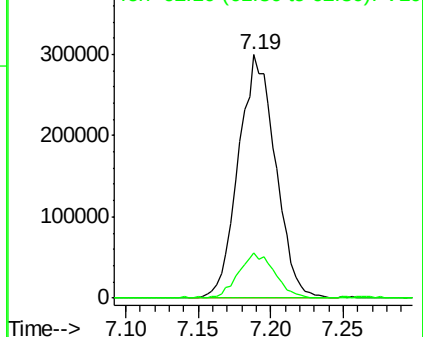
62 18.3 54.9 82.3#

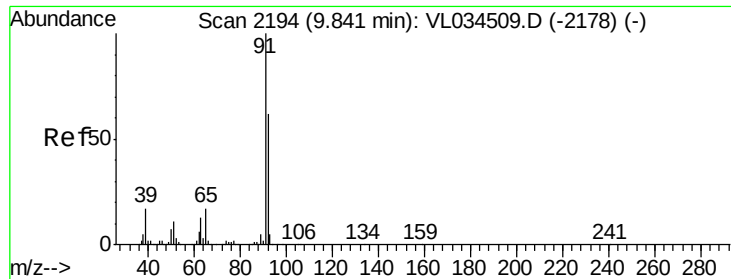


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#53

Toluene

Concen: 0.264 ppbv

RT: 9.83 min Scan# 2192

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

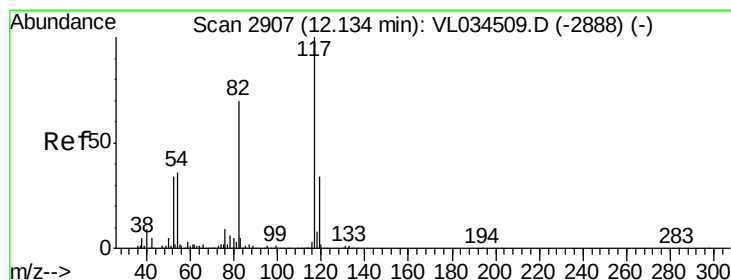
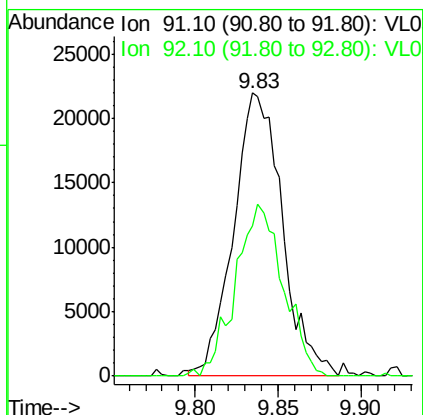
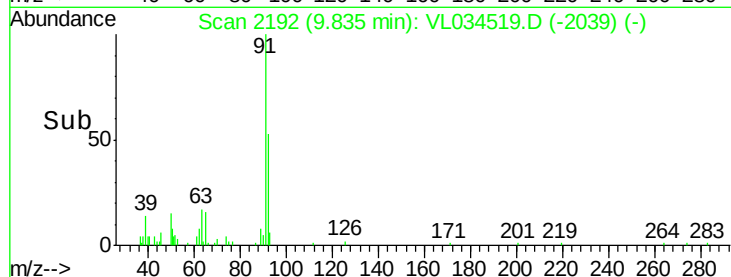
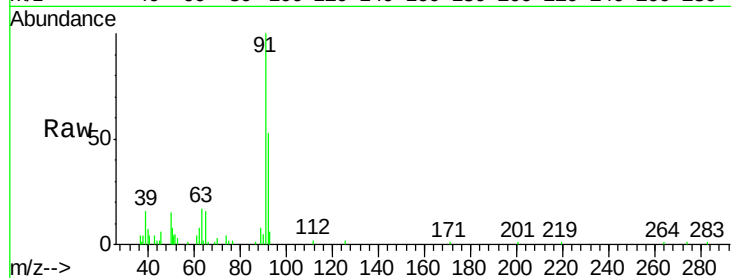
EFFLUENT

Tgt Ion: 91 Resp: 45014

Ion Ratio Lower Upper

91 100

92 59.5 48.4 72.6



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.13 min Scan# 2905

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

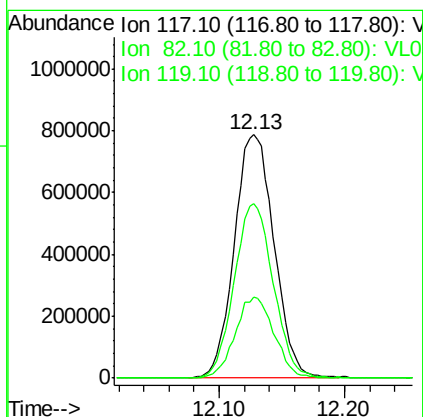
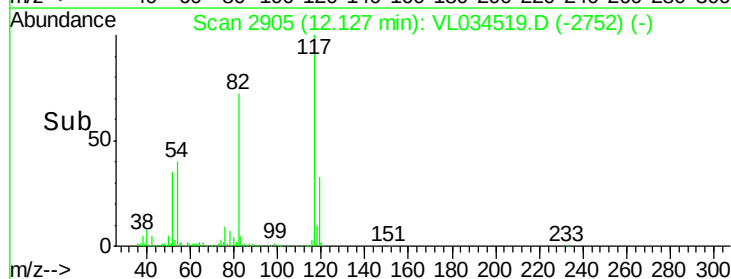
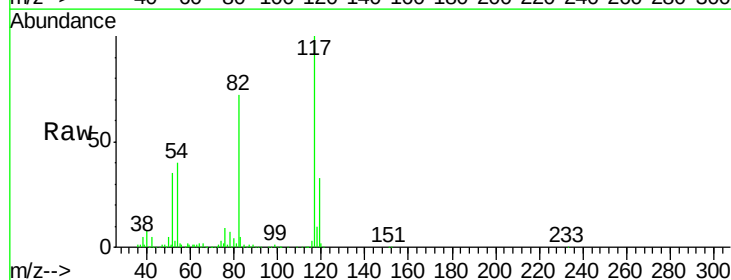
Tgt Ion: 117 Resp: 1728002

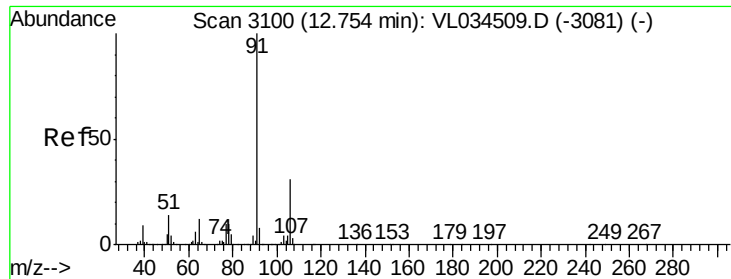
Ion Ratio Lower Upper

117 100

82 71.1 56.2 84.4

119 32.8 27.1 40.7





#58

Ethyl Benzene

Concen: 0.079 ppbv

RT: 12.75 min Scan# 3100

Delta R.T. -0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

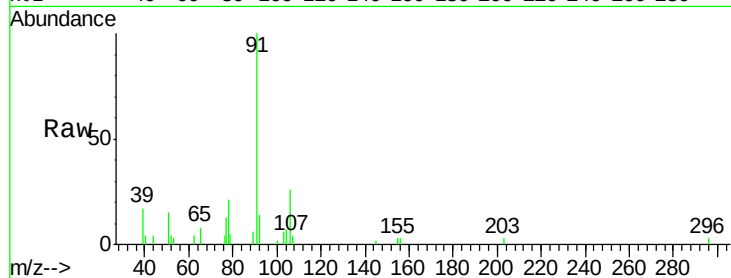
EFFLUENT

Tgt Ion: 91 Resp: 18458

Ion Ratio Lower Upper

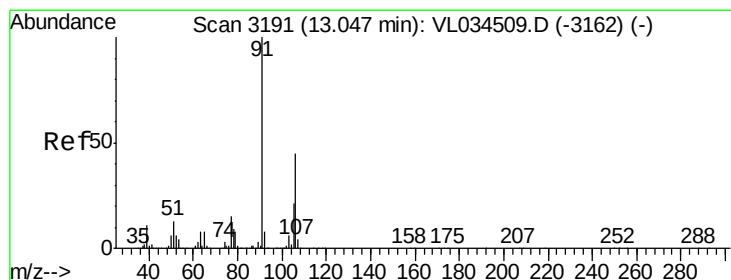
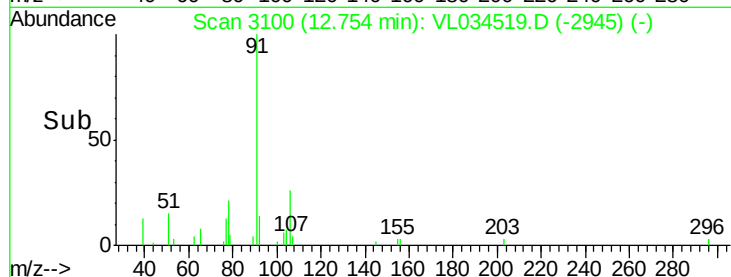
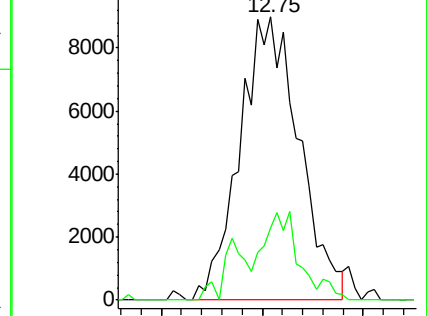
91 100

106 25.7 24.6 36.8



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#59

m/p-Xylene

Concen: 0.043 ppbv

RT: 13.04 min Scan# 3190

Delta R.T. -0.00 min

Lab File: VL034519.D

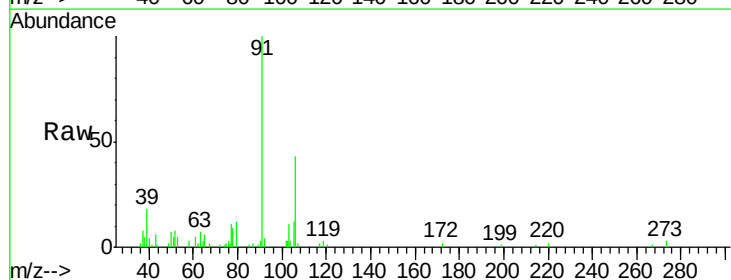
Acq: 30 Dec 2019 19:49

Tgt Ion: 91 Resp: 8711

Ion Ratio Lower Upper

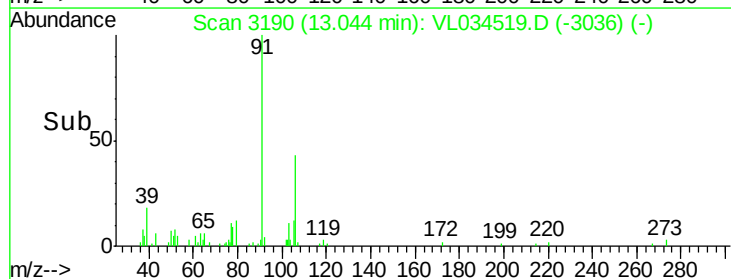
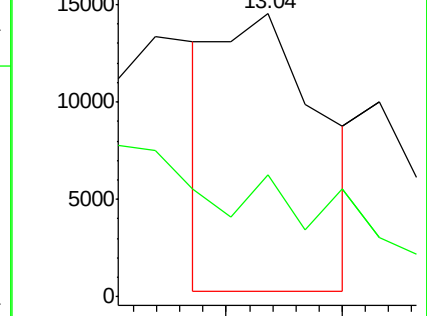
91 100

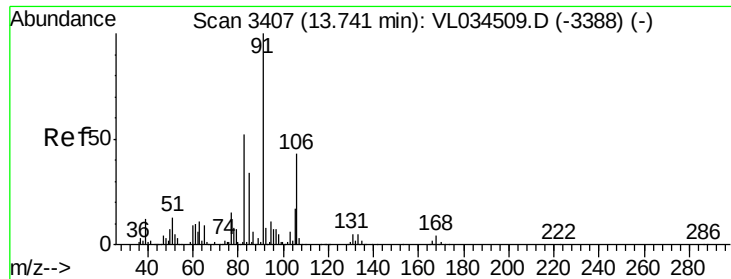
106 0.0 35.6 53.4#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#60

o-Xylene

Concen: 0.044 ppbv

RT: 13.73 min Scan# 3404

Delta R.T. -0.01 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

Instrument :

MSVOA_L

ClientSampleId :

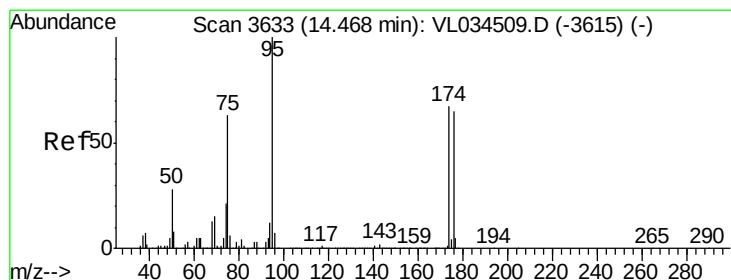
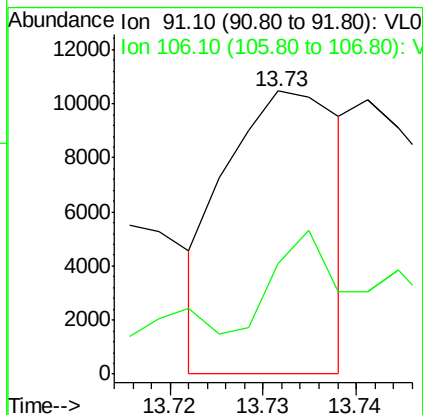
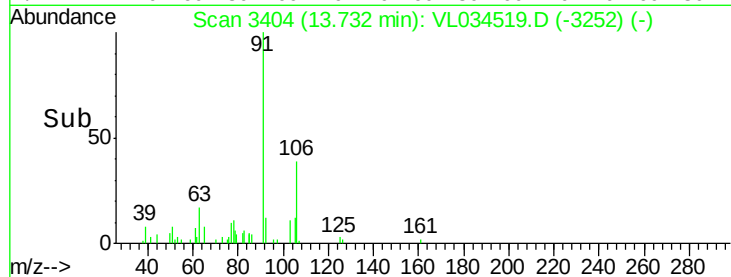
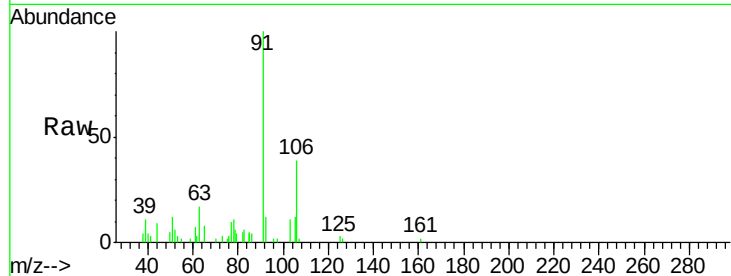
EFFLUENT

Tgt Ion: 91 Resp: 8968

Ion Ratio Lower Upper

91 100

106 100.7 21.4 64.3#



#68

1-Bromo-4-Fluorobenzene

Concen: 10.210 ppbv

RT: 14.46 min Scan# 3632

Delta R.T. -0.00 min

Lab File: VL034519.D

Acq: 30 Dec 2019 19:49

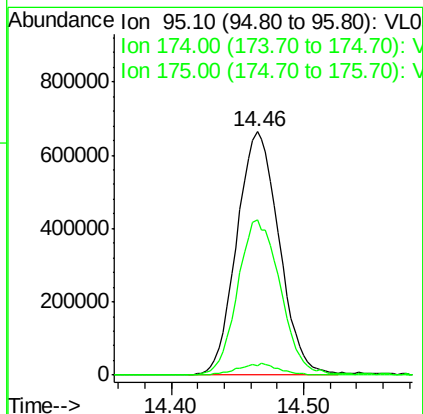
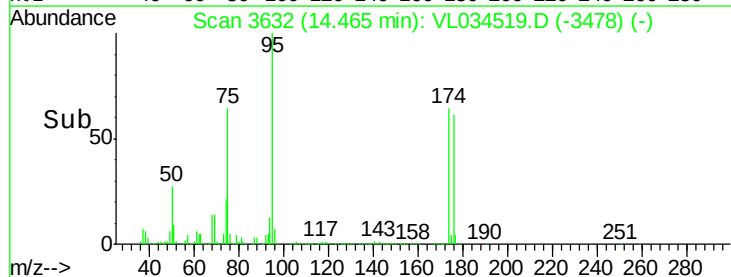
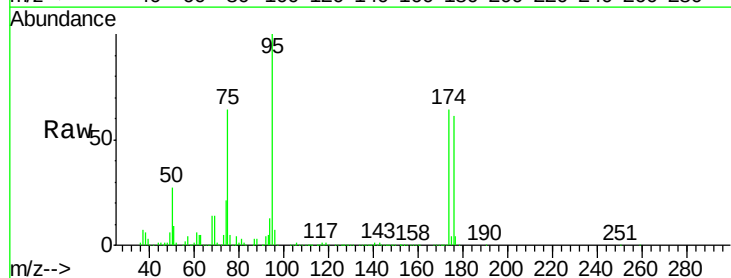
Tgt Ion: 95 Resp: 1472250

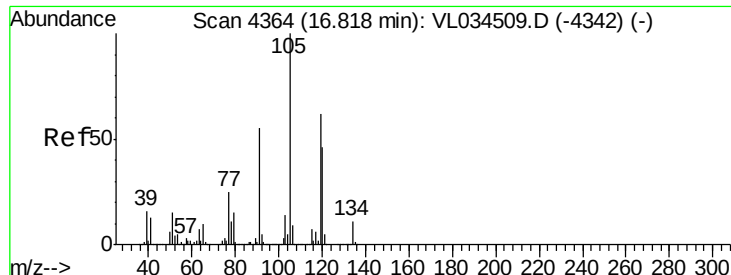
Ion Ratio Lower Upper

95 100

174 65.3 52.4 78.6

175 4.6 3.9 5.9





#74
 1,2,4-Trimethylbenzene
 Concen: 0.034 ppbv
 RT: 16.82 min Scan# 4364
 Delta R.T. -0.00 min
 Lab File: VL034519.D
 Acq: 30 Dec 2019 19:49

Instrument :
 MSVOA_L
 ClientSampleId :
 EFFLUENT

Tgt Ion:	105	Resp:	8208
Ion	Ratio	Lower	Upper
105	100		
120	62.0	36.7	55.1#
91	28.2	44.0	66.0#
77	15.2	19.9	29.9#

