

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL022421\
 Data File : VL036355.D
 Acq On : 24 Feb 2021 18:02
 Operator : SY/AP
 Sample : M1463-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-13

Manual Integrations
 APPROVED

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 2/26/2021 4:17:16 PM

Quant Time: Feb 26 14:01:11 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL021021AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Feb 10
 QLast Update : Wed Feb 10 16:04:02 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	1637777	10.00	ppbv	0.04
33) 1,4-Difluorobenzene	7.19	114	3644292	10.00	ppbv	0.04
55) Chlorobenzene-d5	12.10	117	3407733	10.00	ppbv	0.05
System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.43	95	2720821	9.70	ppbv	0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	97.00%
Target Compounds						
					Ovalue	
2) Dichlorodifluoromethane	3.05	85	44073	0.180	ppbv	95
3) Chlorodifluoromethane	2.99	51	86901	0.427	ppbv #	90
4) Chloromethane	3.14	50	64011m	0.651	ppbv	
9) Propene	3.02	41	315575	4.159	ppbv	84
10) Heptane	8.14	43	318149m	1.423	ppbv	
11) Trichlorofluoromethane	3.96	101	54497m	0.228	ppbv	
13) Ethanol	3.63	45	4806291	337.267	ppbv	90
15) Acetone	3.86	43	2506506	12.520	ppbv	97
19) Isopropyl Alcohol	3.99	45	5553596	50.071	ppbv #	98
20) Methylene Chloride	4.36	84	1383687	21.423	ppbv	93
26) Hexane	5.70	57	563840	3.551	ppbv #	45
27) Carbon Disulfide	4.56	76	73272m	0.502	ppbv	
30) Cyclohexane	7.14	84	59139m	0.448	ppbv	
34) 2-Butanone	5.26	43	126520	0.523	ppbv	93
35) Carbon Tetrachloride	7.03	117	15237m	0.062	ppbv	
36) Benzene	6.90	78	205821m	0.665	ppbv	
44) 2,2,4-Trimethylpentane	7.89	57	1673074	2.972	ppbv #	89
52) Tetrachloroethene	11.24	164	9162m	0.081	ppbv	
53) Toluene	9.82	91	2693864	8.034	ppbv	99
58) Ethyl Benzene	12.73	91	757734	1.624	ppbv	96
59) m/p-Xylene	12.99	91	1906898m	4.652	ppbv	
60) o-Xylene	13.71	91	689453	1.759	ppbv	100
62) Isopropylbenzene	14.69	105	95113m	0.162	ppbv	
64) n-propylbenzene	15.58	120	66476	0.460	ppbv	64
65) tert-Butylbenzene	16.78	119	71897	0.143	ppbv #	55
70) n-Butylbenzene	18.58	91	62857m	0.105	ppbv	
72) 4-Ethyltoluene	15.86	105	237943m	0.546	ppbv	
73) 1,3,5-Trimethylbenzene	16.02	105	137534	0.325	ppbv	98
74) 1,2,4-Trimethylbenzene	16.78	105	728594	1.688	ppbv #	71

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

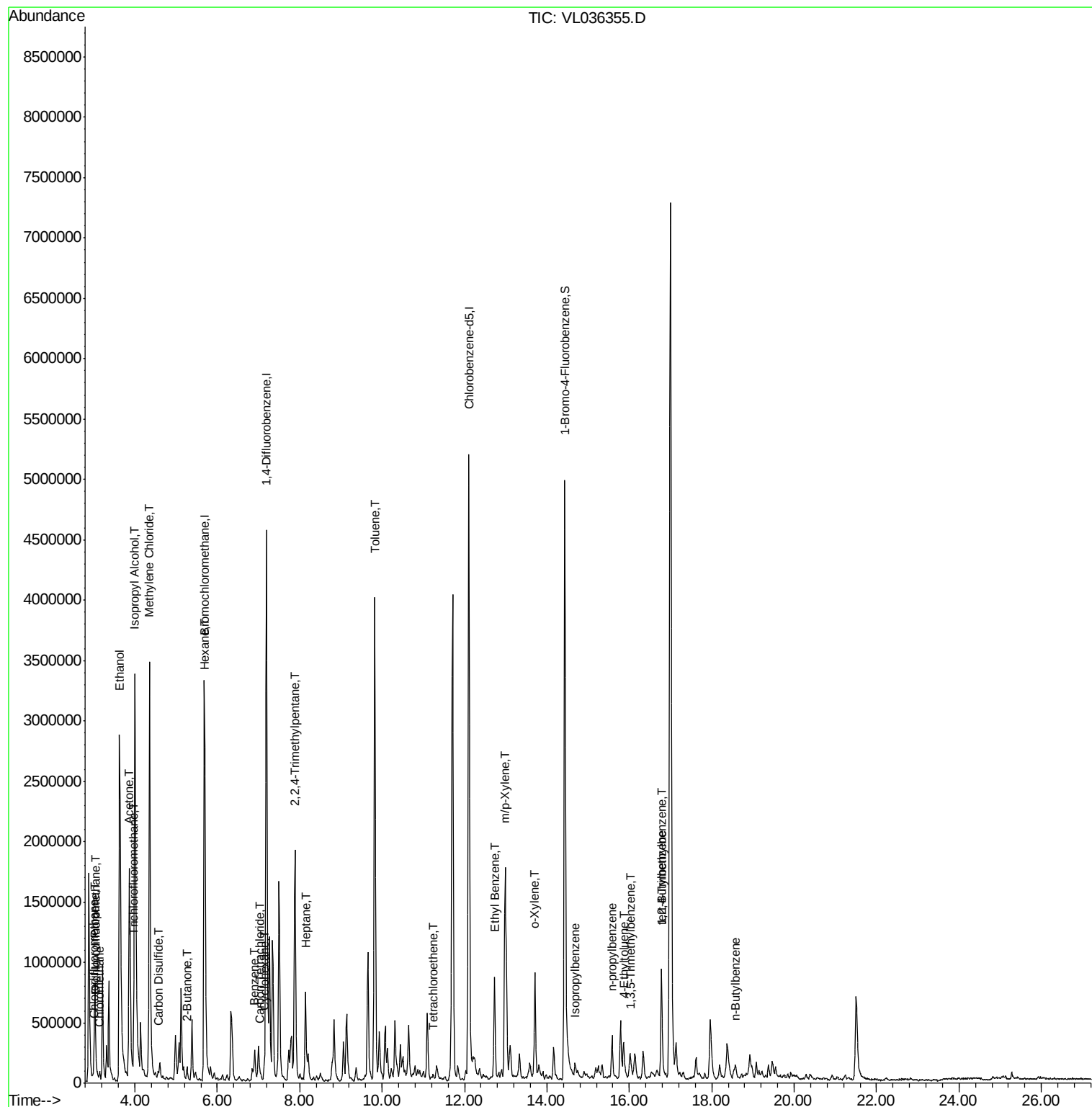
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL022421\
Data File : VL036355.D
Acq On : 24 Feb 2021 18:02
Operator : SY/AP
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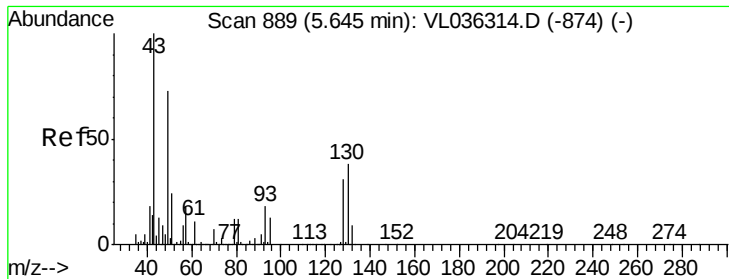
Instrument :
MSVOA_L
ClientSampleId :
NS-13

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Quant Time: Feb 26 14:01:11 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL021021AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Feb
QLast Update : Wed Feb 10 16:04:02 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 900

Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

ClientSampled :

NS-13

Tot Ion: 49 Resp: 1637777

Ion Ratio Lower Upper

49 100

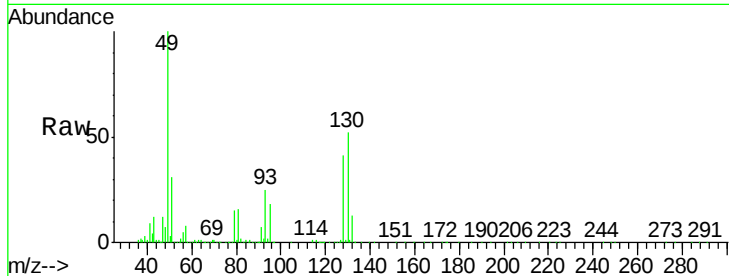
128 42.6 20.8 62.5

130 53.5 26.7 80.1

Manual Integrations
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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

5.68

800000

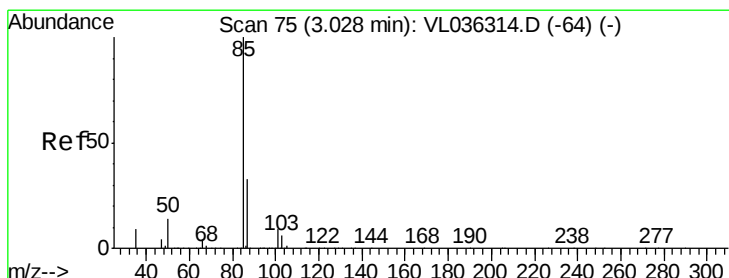
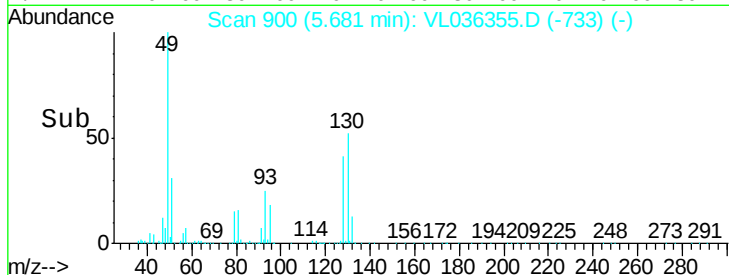
600000

400000

200000

0

Time-->



#2

Dichlorodifluoromethane

Concen: 0.180 ppbv

RT: 3.05 min Scan# 83

Delta R.T. 0.03 min

Lab File: VL036355.D

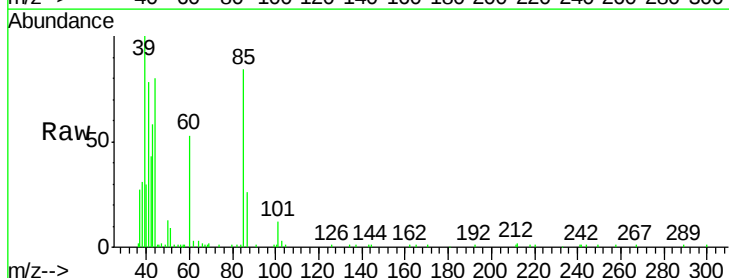
Acq: 24 Feb 2021 18:02

Tgt Ion: 85 Resp: 44073

Ion Ratio Lower Upper

85 100

87 30.5 26.5 39.7



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

3.05

30000

25000

20000

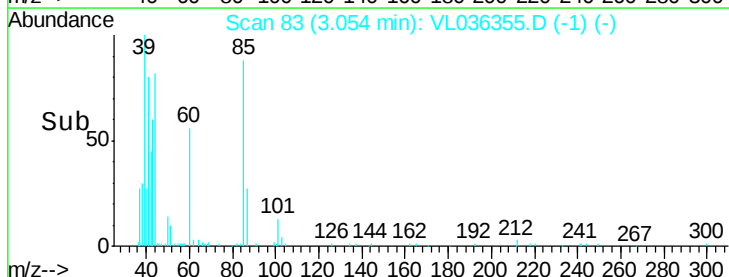
15000

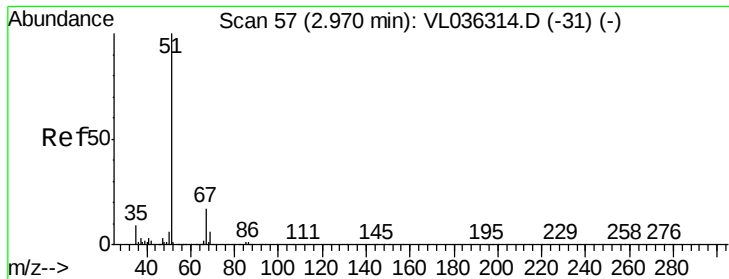
10000

5000

0

Time-->





#3

Chlorodifluoromethane

Concen: 0.427 ppbv

RT: 2.99 min Scan# 64

Delta R.T. 0.02 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

ClientSampleId :

NS-13

Tot Ion: 51 Resp: 86901

Ion Ratio Lower Upper

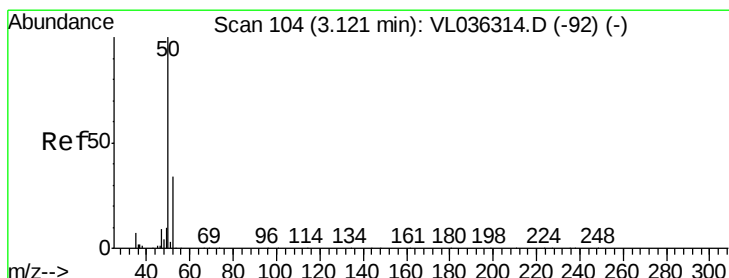
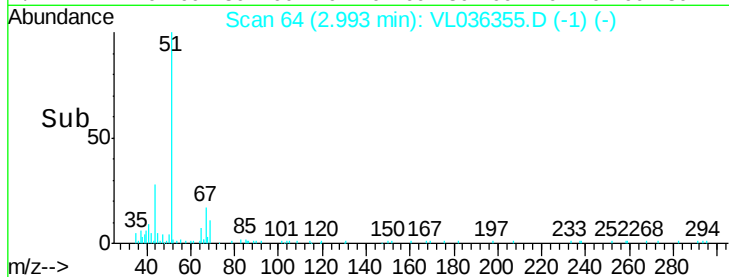
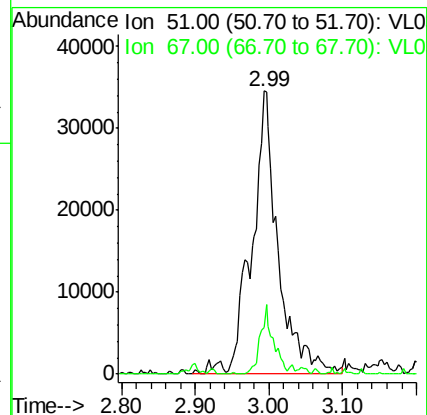
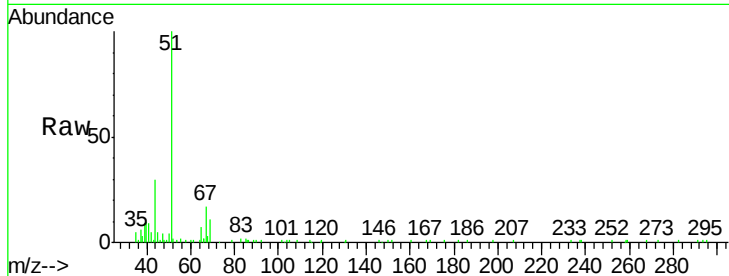
51 100

67 13.8 14.7 22.1#

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#4

Chloromethane

Concen: 0.651 ppbv m

RT: 3.14 min Scan# 111

Delta R.T. 0.02 min

Lab File: VL036355.D

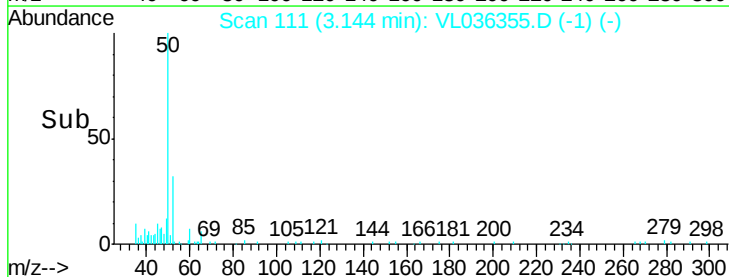
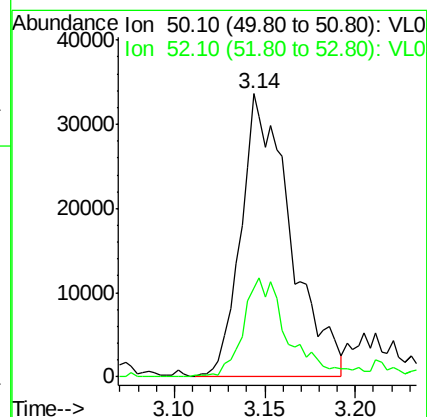
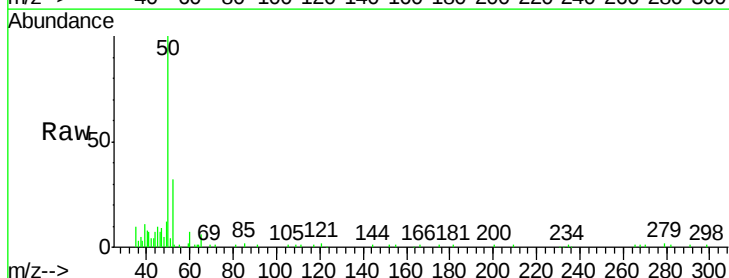
Acq: 24 Feb 2021 18:02

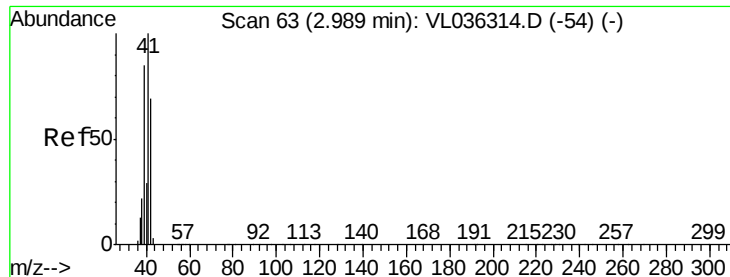
Tgt Ion: 50 Resp: 64011

Ion Ratio Lower Upper

50 100

52 31.5 27.0 40.4





#9

Propene

Concen: 4.159 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

ClientSampleId :

NS-13

Tot Ion: 41 Resp: 315575

Ion Ratio Lower Upper

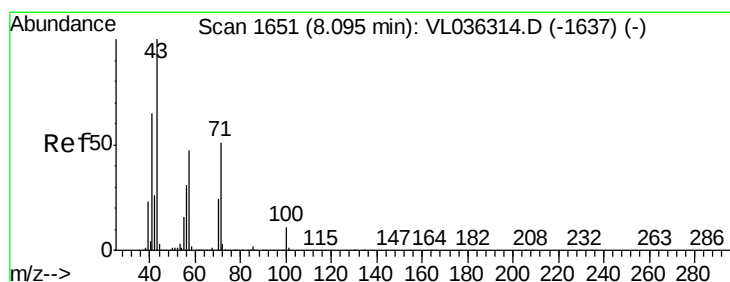
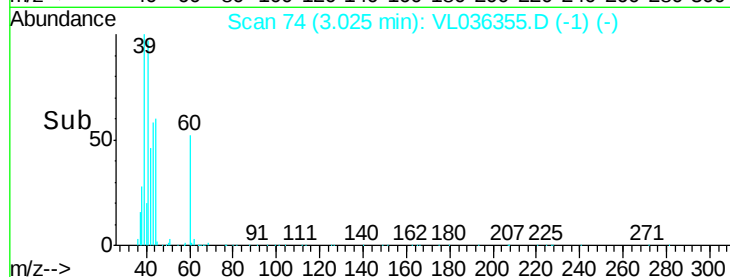
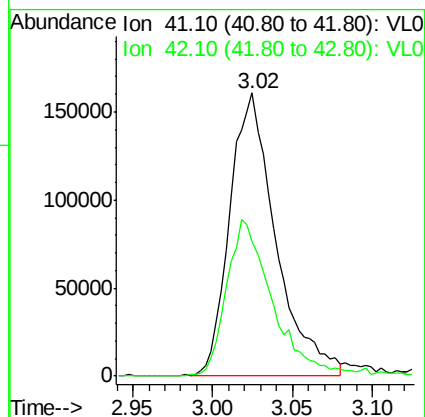
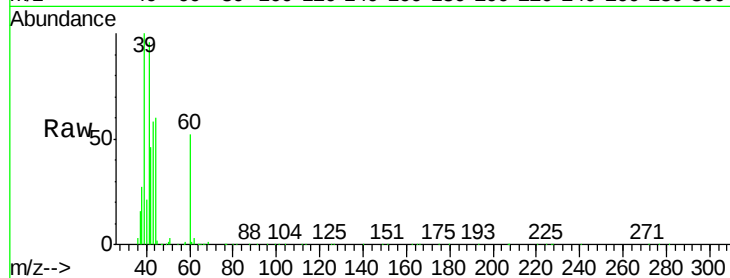
41 100

42 56.7 56.2 84.2

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#10

Heptane

Concen: 1.423 ppbv m

RT: 8.14 min Scan# 1665

Delta R.T. 0.05 min

Lab File: VL036355.D

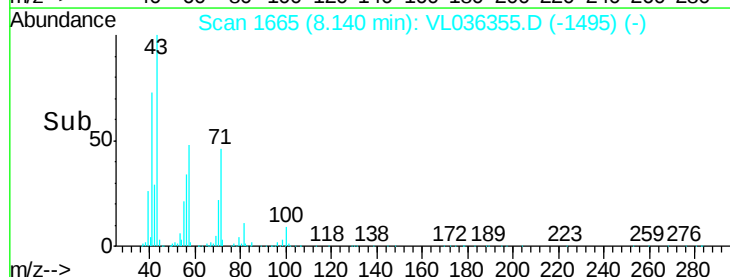
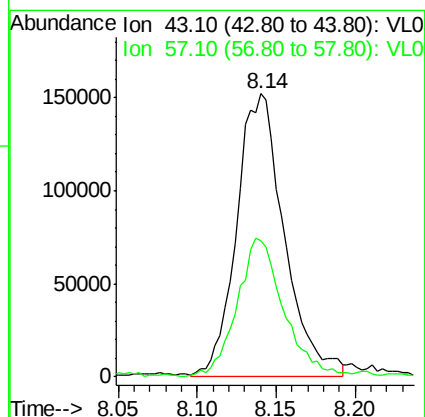
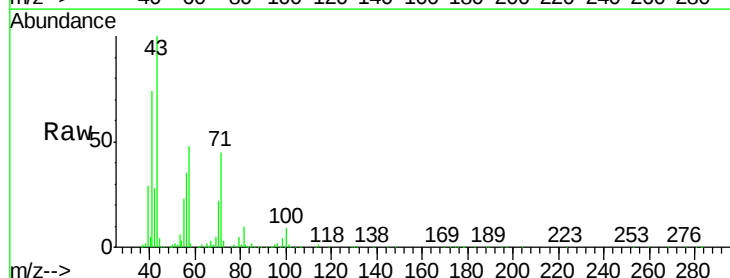
Acq: 24 Feb 2021 18:02

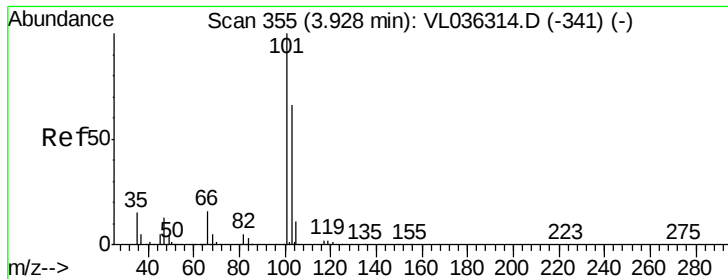
Tgt Ion: 43 Resp: 318149

Ion Ratio Lower Upper

43 100

57 48.6 39.4 59.2





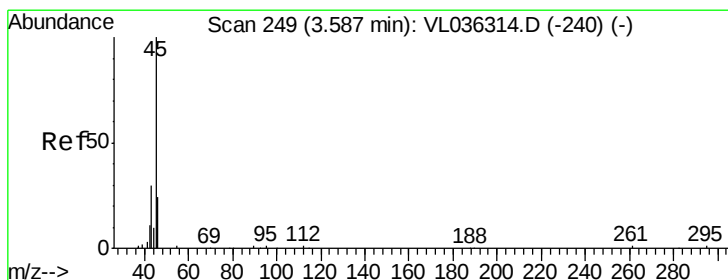
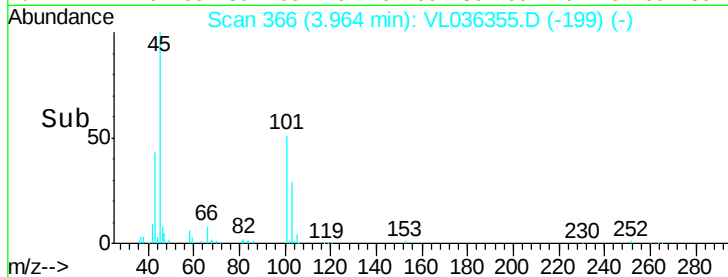
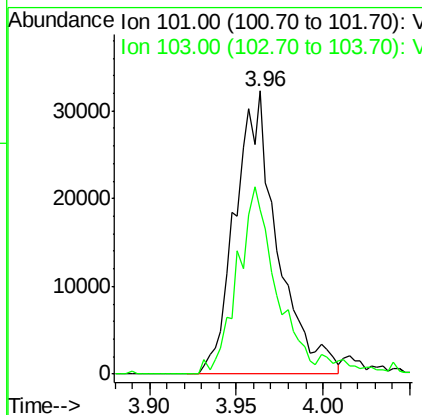
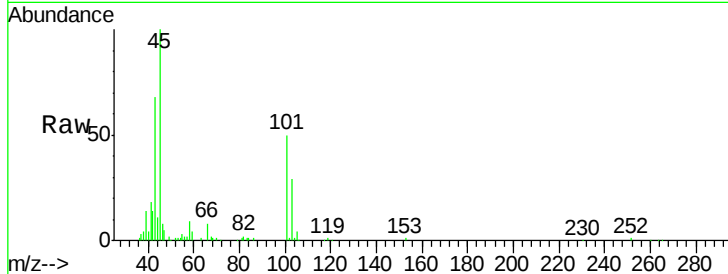
#11
 Trichlorofluoromethane
 Concen: 0.228 ppbv m
 RT: 3.96 min Scan# 366
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Instrument :
 MSVOA_L
 ClientSampled :
 NS-13

Tot Ion:101 Resp: 54497
 Ion Ratio Lower Upper
 101 100
 103 58.1 52.9 79.3

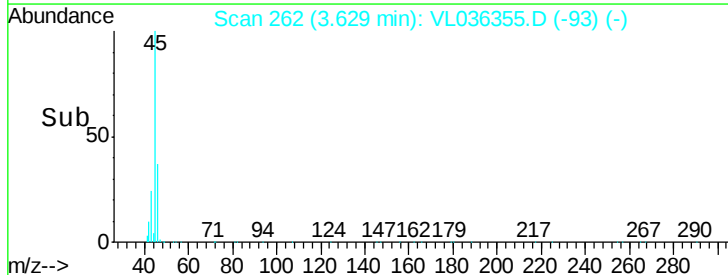
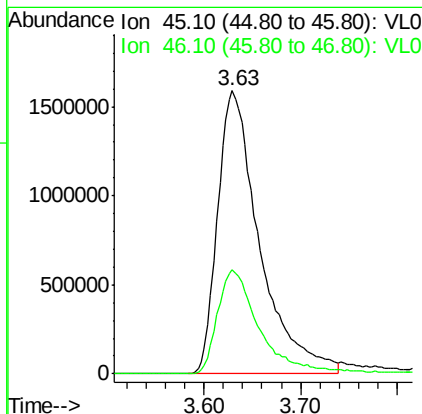
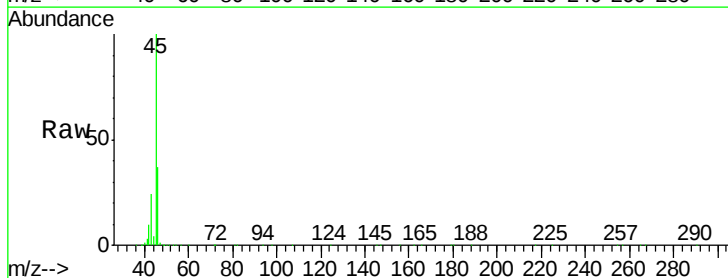
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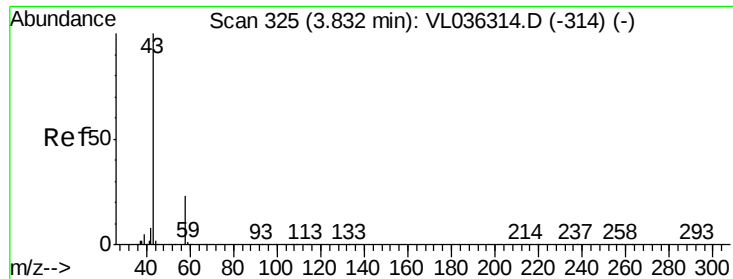
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#13
 Ethanol
 Concen: 337.267 ppbv
 RT: 3.63 min Scan# 262
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Tgt Ion: 45 Resp: 4806291
 Ion Ratio Lower Upper
 45 100
 46 37.5 17.7 70.7





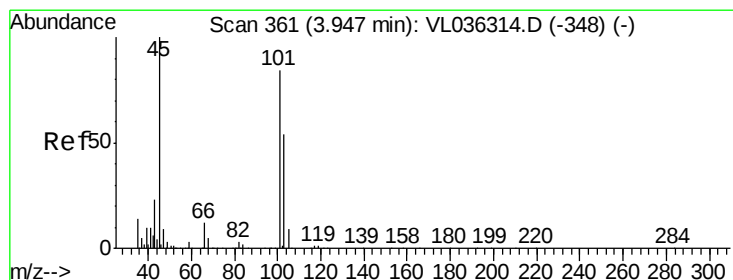
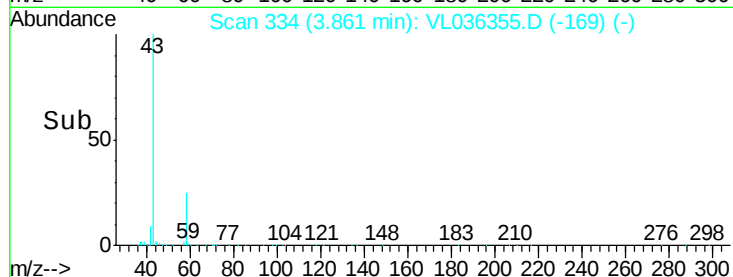
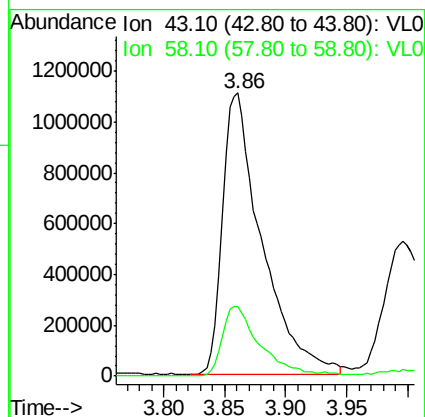
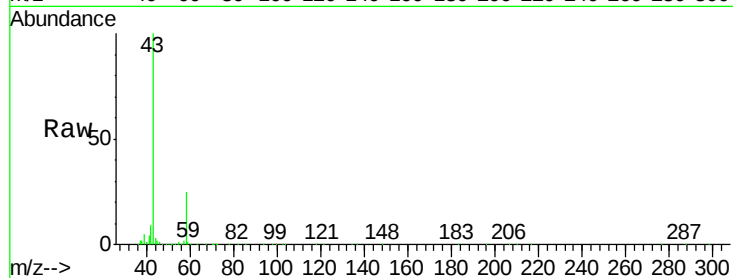
#15
Acetone
Concen: 12.520 ppbv
RT: 3.86 min Scan# 334
Delta R.T. 0.03 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampleId :
NS-13

Tot Ion: 43 Resp: 2506506
Ion Ratio Lower Upper
43 100
58 24.1 20.3 30.5

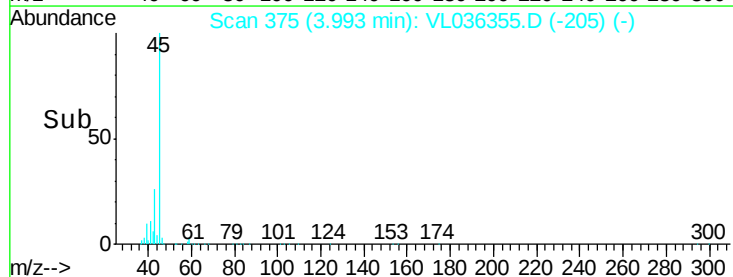
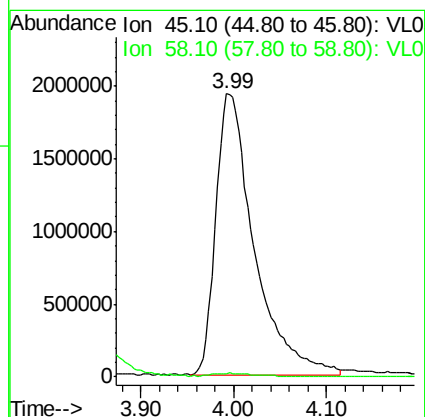
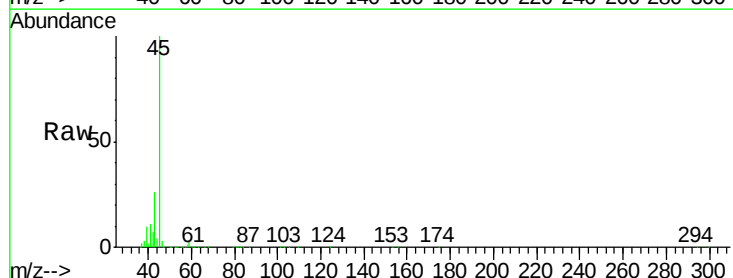
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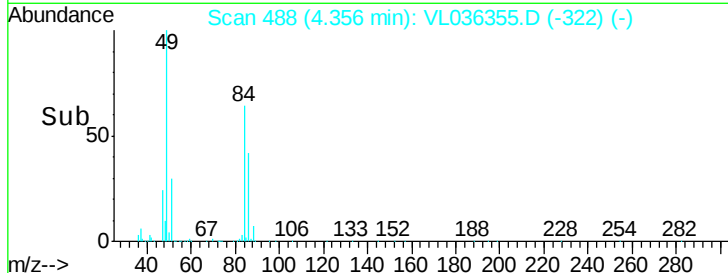
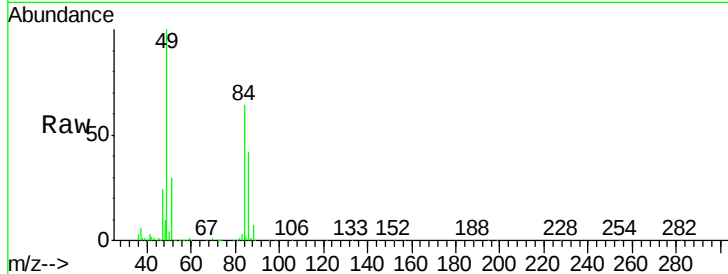
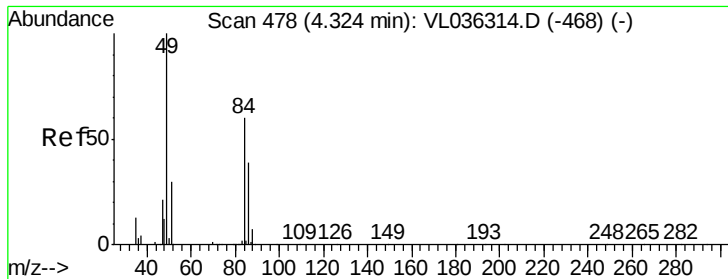
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#19
Isopropyl Alcohol
Concen: 50.071 ppbv
RT: 3.99 min Scan# 375
Delta R.T. 0.05 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

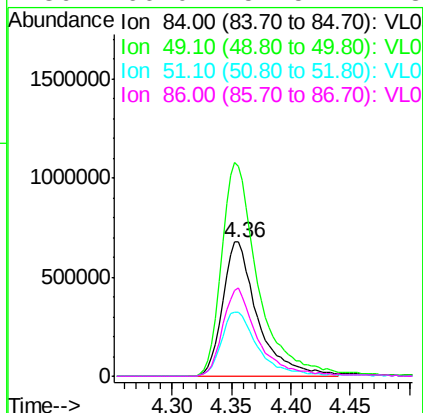
Tgt Ion: 45 Resp: 5553596
Ion Ratio Lower Upper
45 100
58 1.6 1.9 2.9#





#20
Methvlene Chloride
Concen: 21.423 ppbv
RT: 4.36 min Scan# 488
Delta R.T. 0.03 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

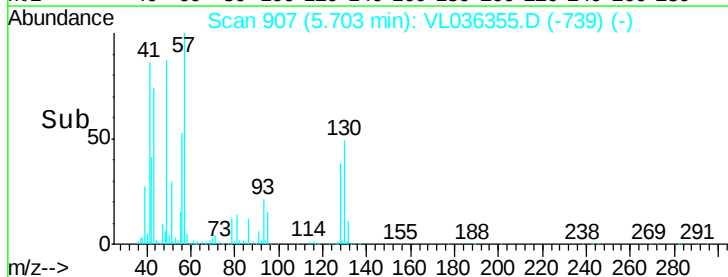
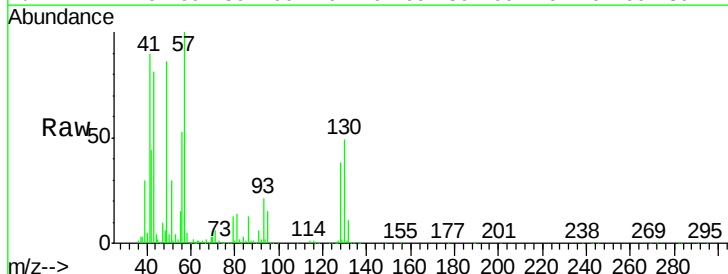
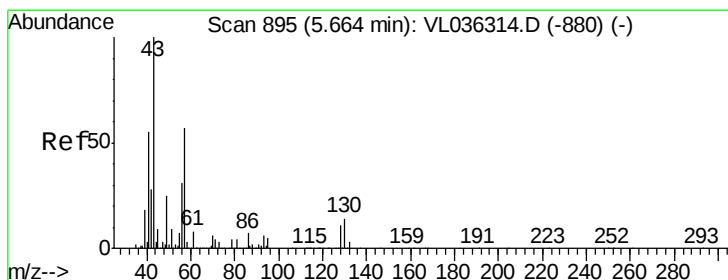
Tot Ion:	84	Resp:	1383687
Ion	Ratio	Lower	Upper
84	100		
49	156.0	133.8	200.8
51	47.1	41.4	62.0
86	66.0	51.5	77.3



Instrument :
MSVOA_L
ClientSampleId :
NS-13

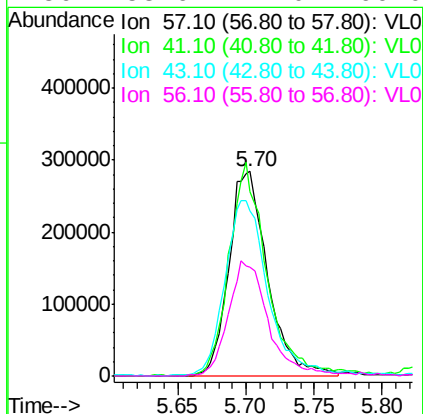
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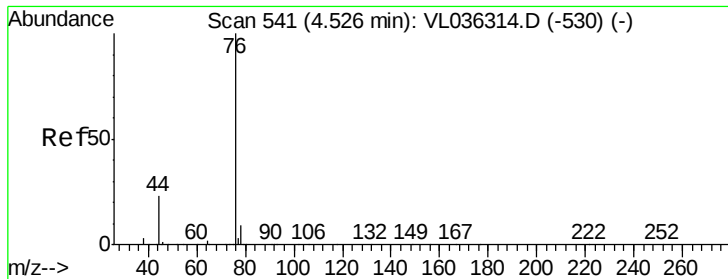
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#26
Hexane
Concen: 3.551 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion:	57	Resp:	563840
Ion	Ratio	Lower	Upper
57	100		
41	103.0	81.7	122.5
43	96.0	199.1	298.7#
56	58.6	44.0	66.0





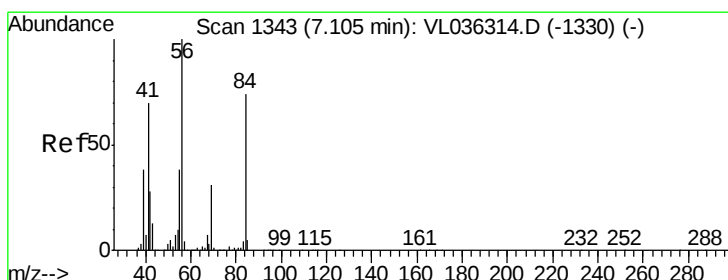
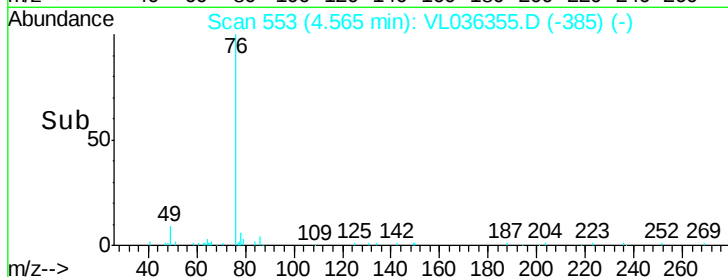
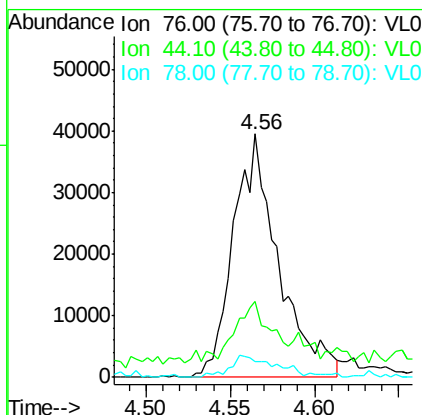
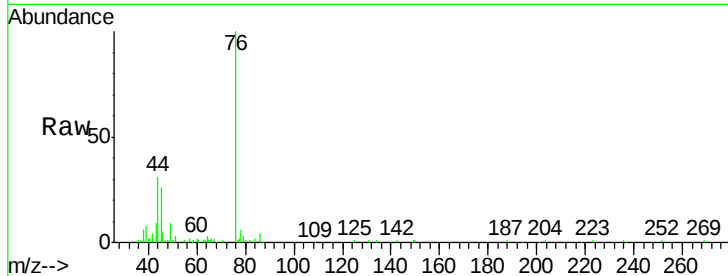
#27
Carbon Disulfide
Concen: 0.502 ppbv m
RT: 4.56 min Scan# 553
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampled :
NS-13

Tot Ion	Ratio	Lower	Upper
76	100		
44	0.0	18.4	27.6#
78	9.8	8.0	12.0

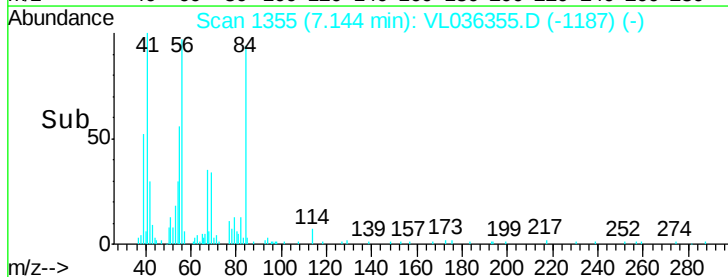
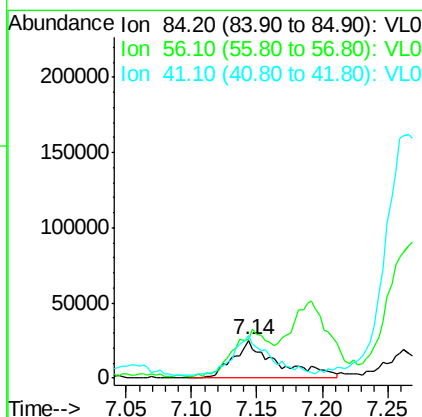
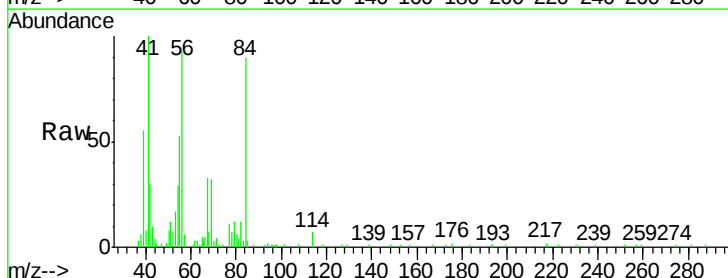
Manual Integrations
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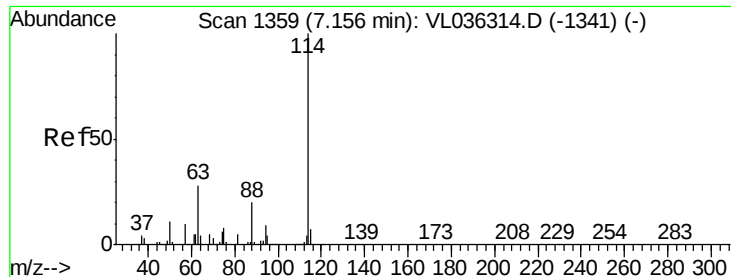
MMDadoda
2/26/2021 4:17:16 PM



#30
Cyclohexane
Concen: 0.448 ppbv m
RT: 7.14 min Scan# 1355
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion	Ratio	Lower	Upper
84	100		
56	0.0	120.2	180.4#
41	0.0	79.7	119.5#





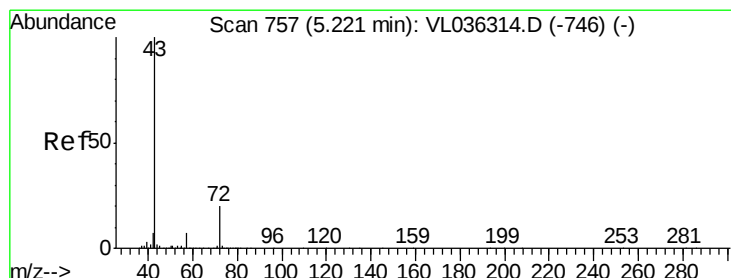
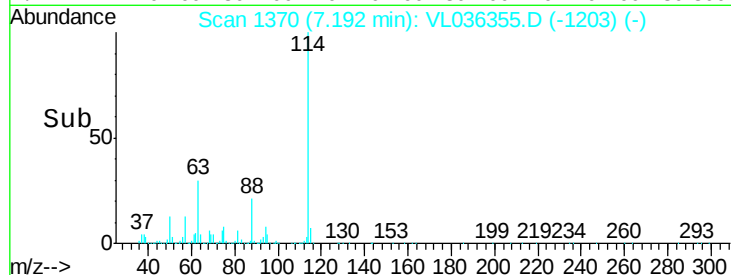
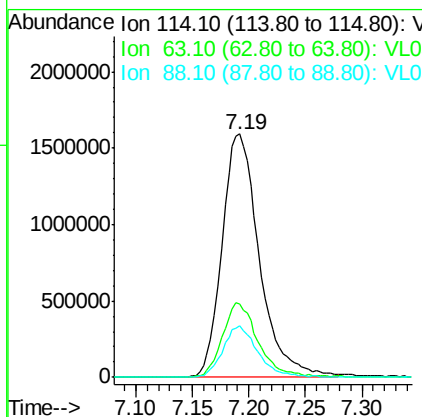
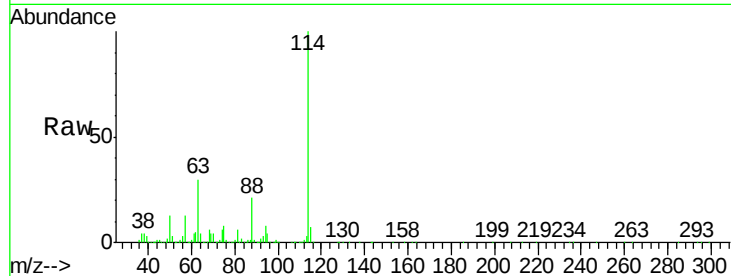
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1370
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-13

Tot Ion:114 Resp: 3644292
 Ion Ratio Lower Upper
 114 100
 63 29.7 24.1 36.1
 88 20.0 16.0 24.0

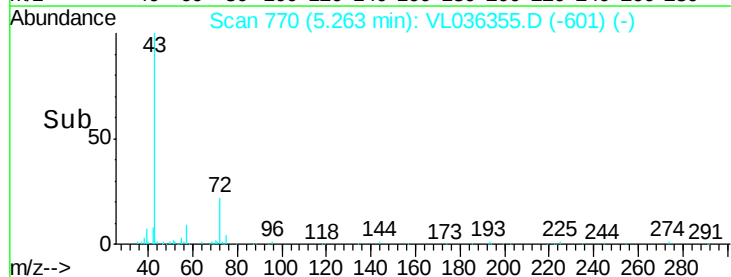
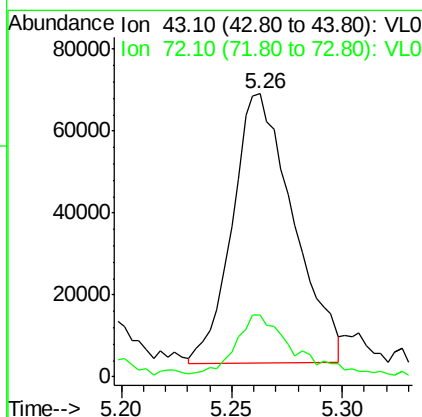
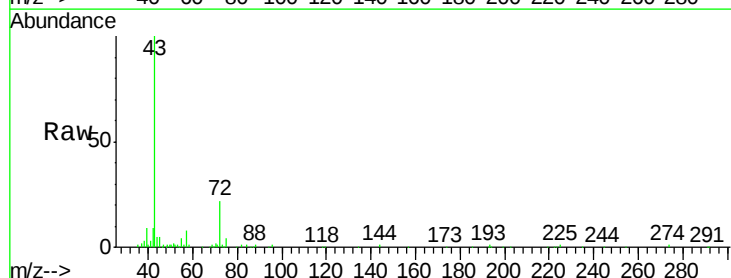
Manual Integrations
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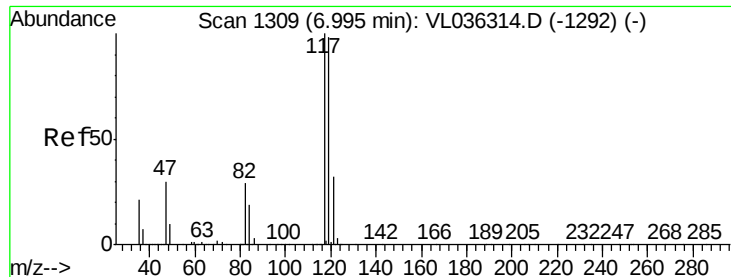
MMDadoda
 2/26/2021 4:17:16 PM



#34
 2-Butanone
 Concen: 0.523 ppbv
 RT: 5.26 min Scan# 770
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Tgt Ion: 43 Resp: 126520
 Ion Ratio Lower Upper
 43 100
 72 24.4 16.7 25.1





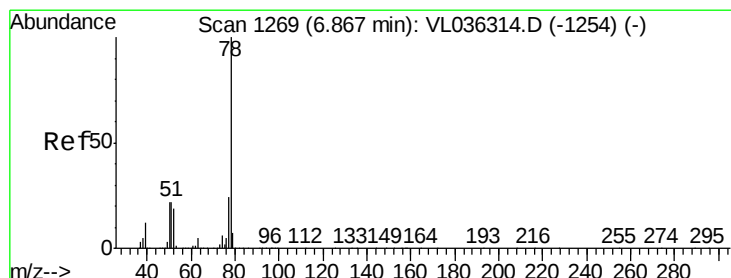
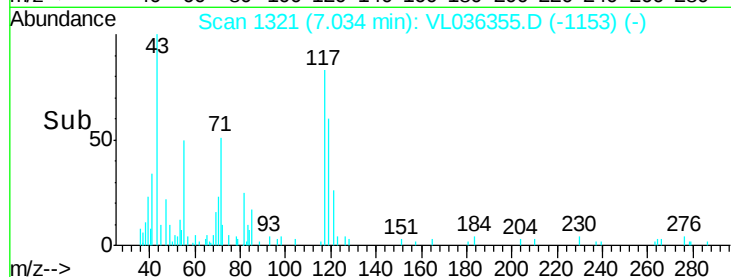
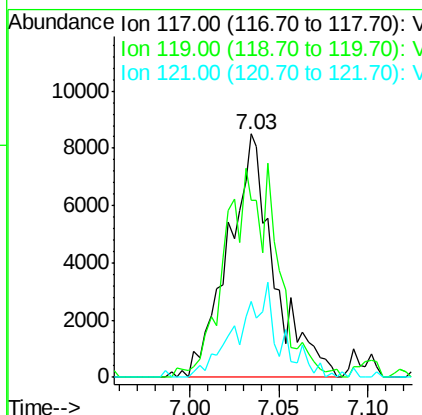
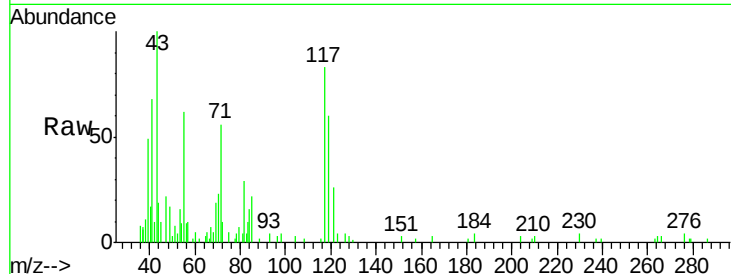
#35
Carbon Tetrachloride
Concen: 0.062 ppbv m
RT: 7.03 min Scan# 1321
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampled :
NS-13

Tot Ion	Ratio	Lower	Upper
117	100		
119	72.5	78.1	117.1#
121	31.0	25.8	38.8

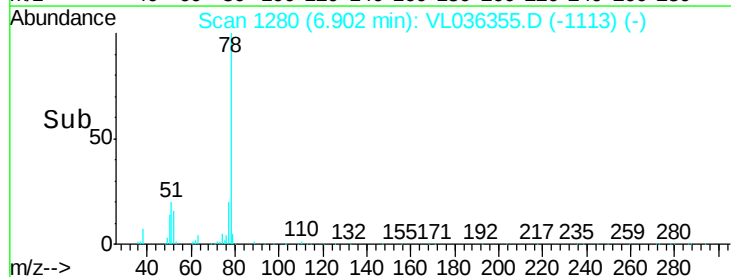
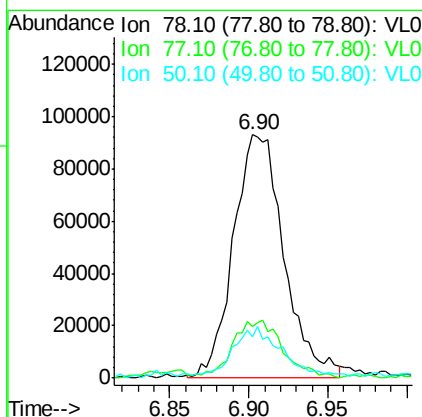
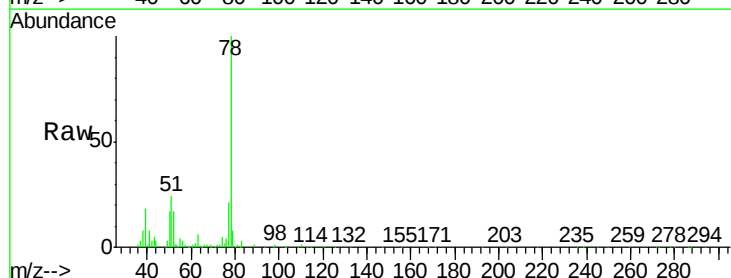
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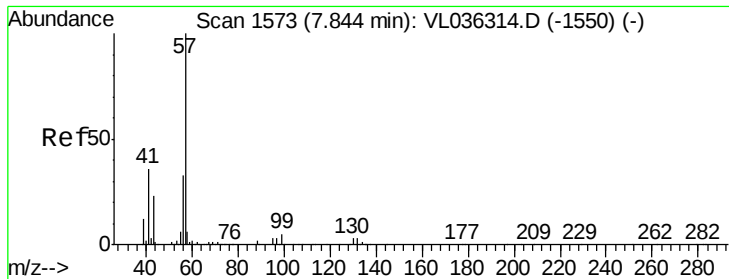
MMDadoda
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#36
Benzene
Concen: 0.665 ppbv m
RT: 6.90 min Scan# 1280
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion	Ratio	Lower	Upper
78	100		
77	21.0	18.9	28.3
50	16.8	17.3	25.9#





#44

2,2,4-Trimethylpentane

Concen: 2.972 ppbv

RT: 7.89 min Scan# 1586

Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

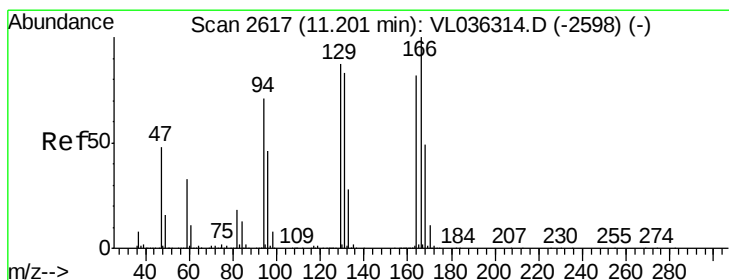
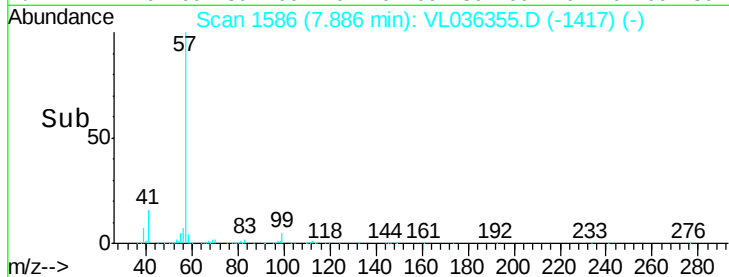
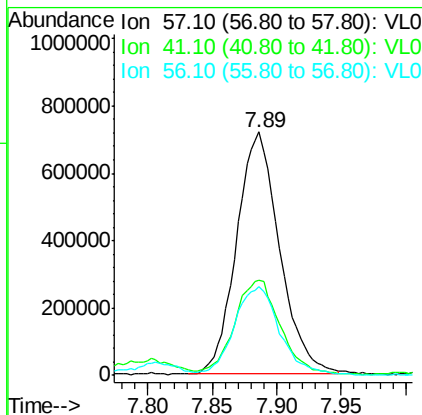
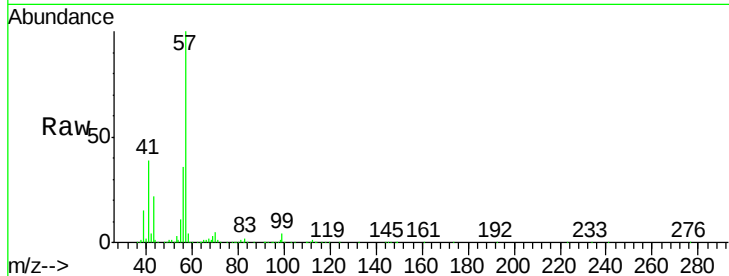
ClientSampleId :

NS-13

Tot Ion	57	Resp	1673074
Ion	Ratio	Lower	Upper
57	100		
41	42.0	28.8	43.2
56	39.1	25.8	38.6#

Manual Integrations
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#52

Tetrachloroethene

Concen: 0.081 ppbv m

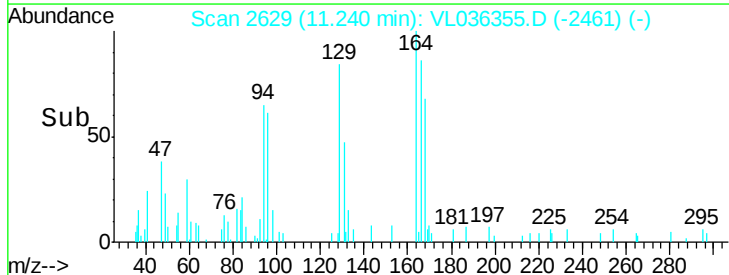
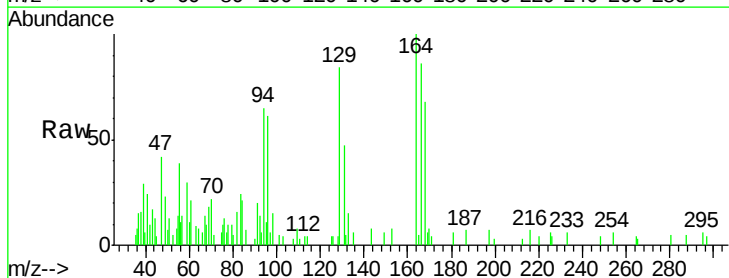
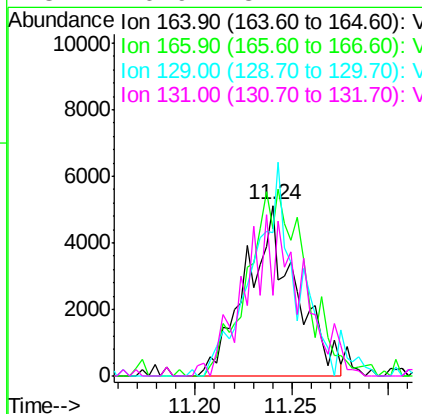
RT: 11.24 min Scan# 2629

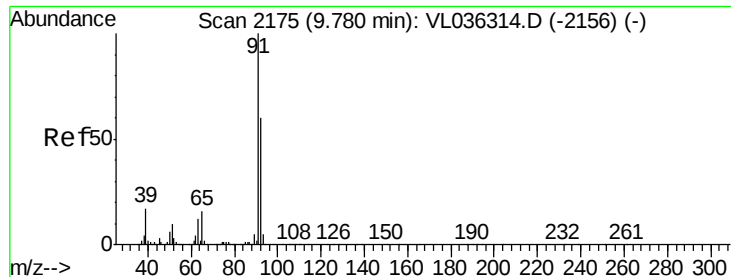
Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Tgt Ion	164	Resp	9162
Ion	Ratio	Lower	Upper
164	100		
166	86.5	97.8	146.8#
129	84.3	84.9	127.3#
131	46.9	81.4	122.2#





#53

Toluene

Concen: 8.034 ppbv

RT: 9.82 min Scan# 2188

Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

ClientSampled :

NS-13

Tot Ion: 91 Resp: 2693864

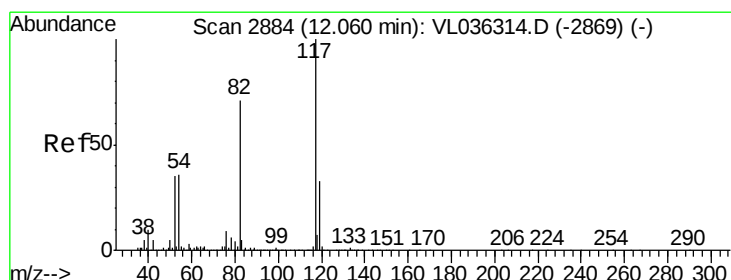
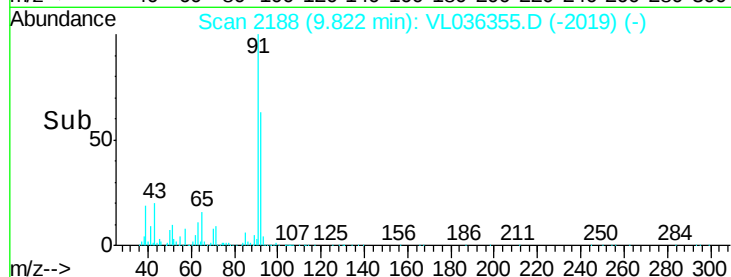
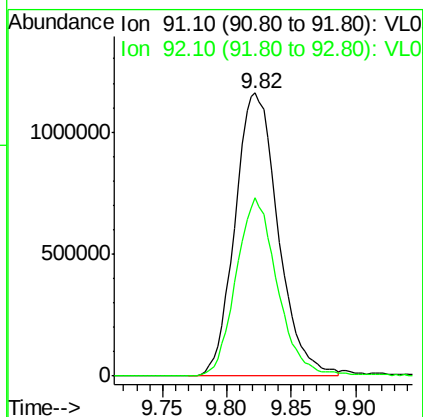
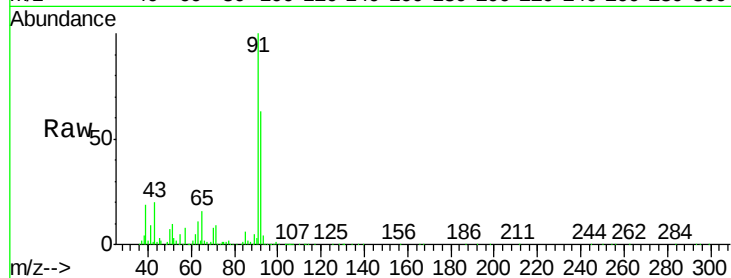
Ion Ratio Lower Upper

91 100

92 61.1 48.6 72.8

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2898

Delta R.T. 0.05 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

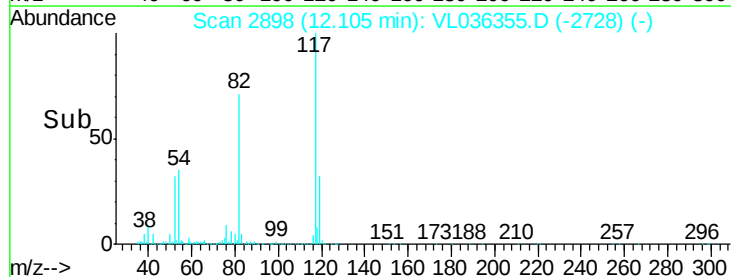
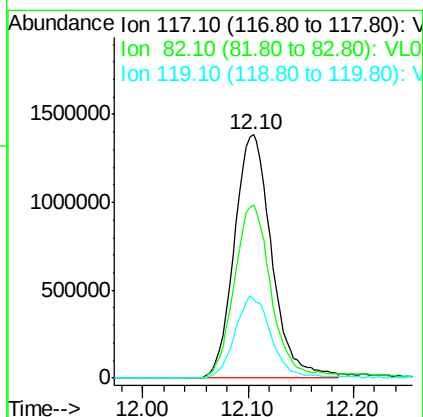
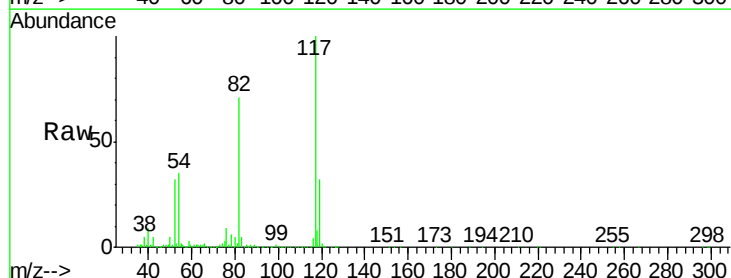
Tgt Ion: 117 Resp: 3407733

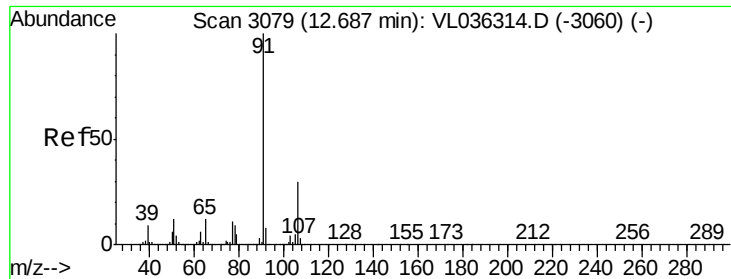
Ion Ratio Lower Upper

117 100

82 70.5 59.1 88.7

119 32.8 46.3 69.5#





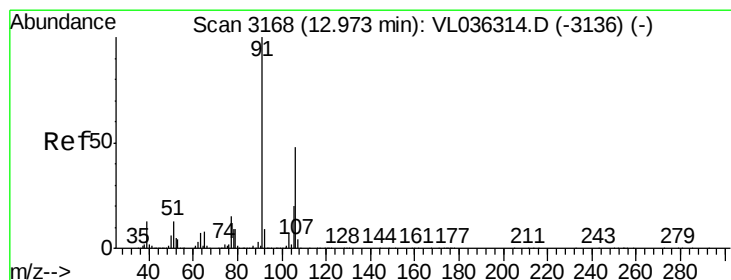
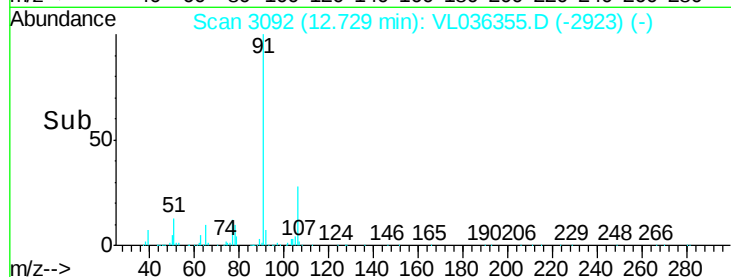
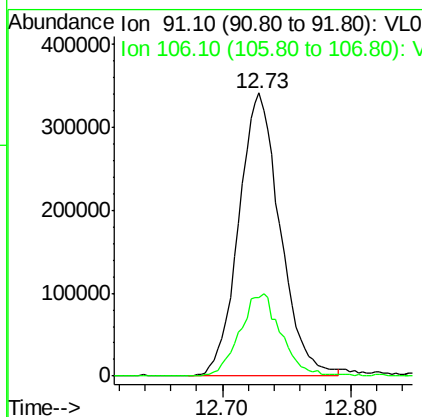
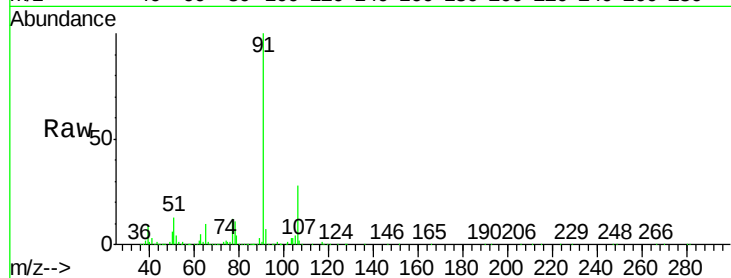
#58
Ethyl Benzene
Concen: 1.624 ppbv
RT: 12.73 min Scan# 3092
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampled :
NS-13

Tot Ion: 91 Resp: 757734
Ion Ratio Lower Upper
91 100
106 27.8 23.8 35.6

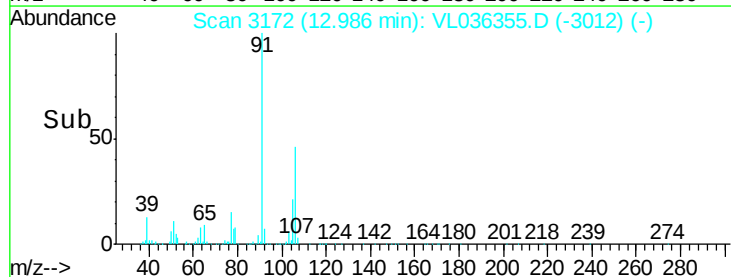
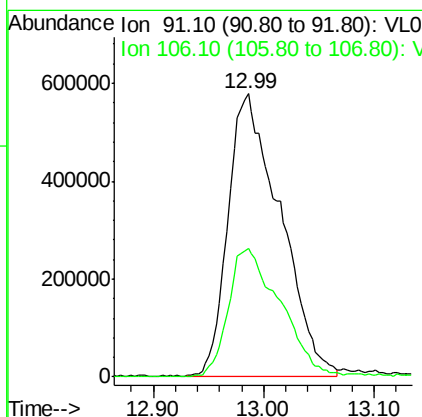
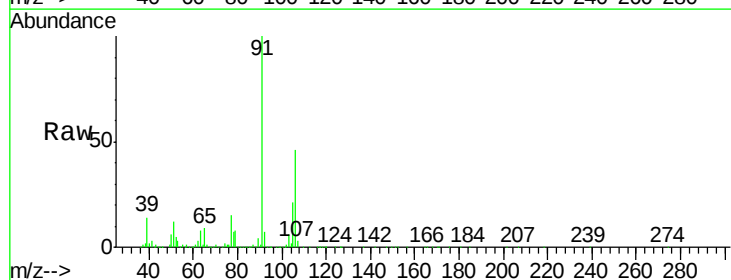
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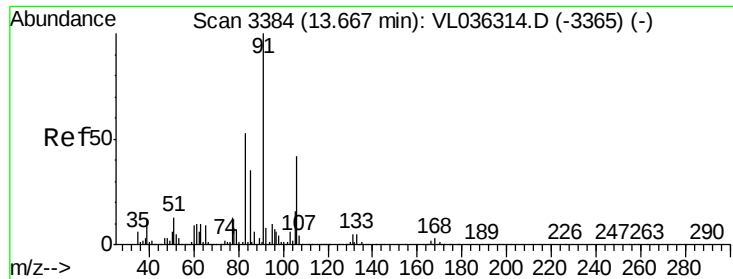
MMDadoda
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#59
m/p-Xylene
Concen: 4.652 ppbv m
RT: 12.99 min Scan# 3172
Delta R.T. 0.01 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion: 91 Resp: 1906898
Ion Ratio Lower Upper
91 100
106 45.7 34.2 51.2





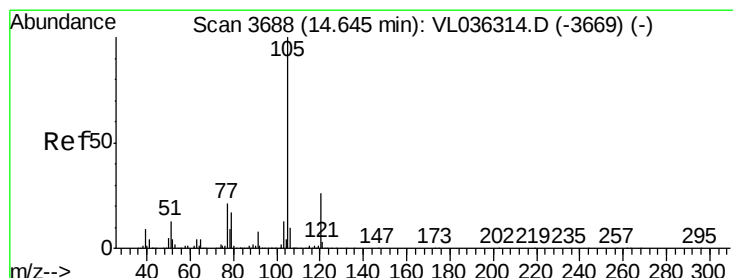
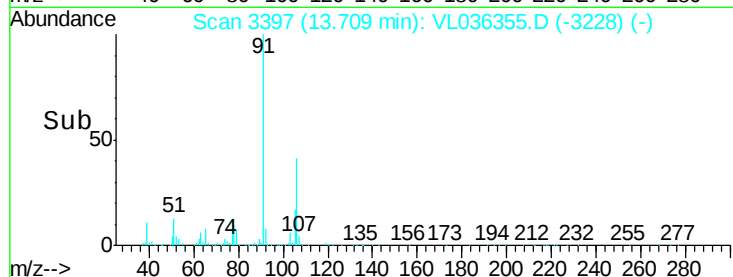
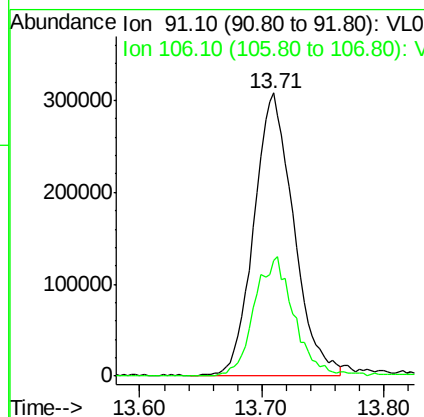
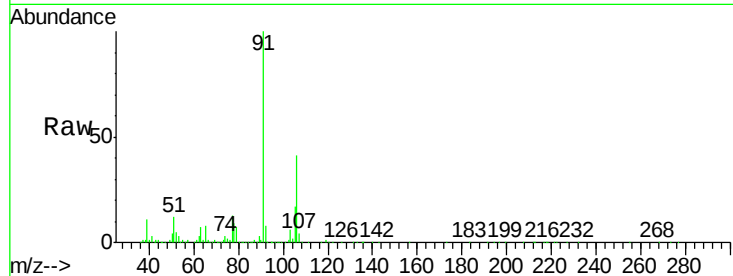
#60
o-Xylene
Concen: 1.759 ppbv
RT: 13.71 min Scan# 3397
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampled :
NS-13

Tot Ion: 91 Resp: 689453
Ion Ratio Lower Upper
91 100
106 43.9 22.0 66.0

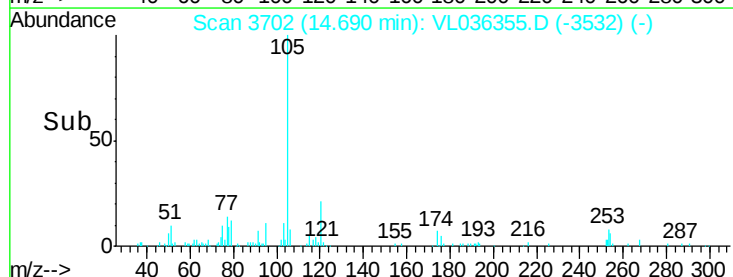
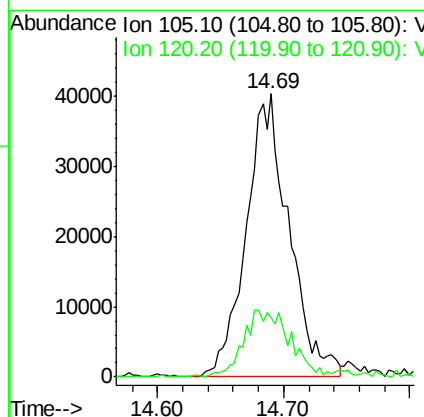
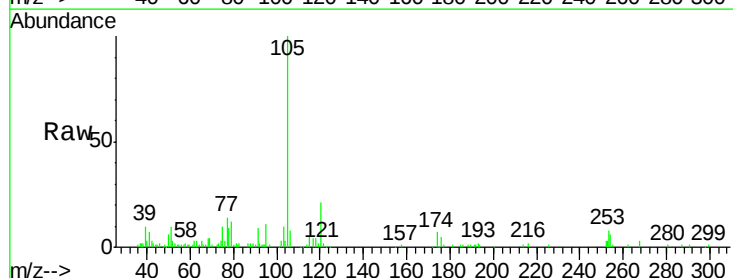
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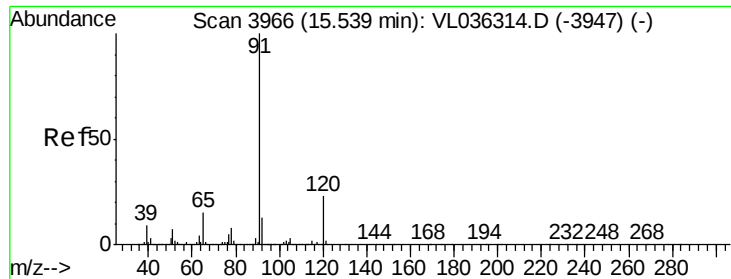
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#62
Isopropylbenzene
Concen: 0.162 ppbv m
RT: 14.69 min Scan# 3702
Delta R.T. 0.05 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion: 105 Resp: 95113
Ion Ratio Lower Upper
105 100
120 0.0 20.6 30.8#





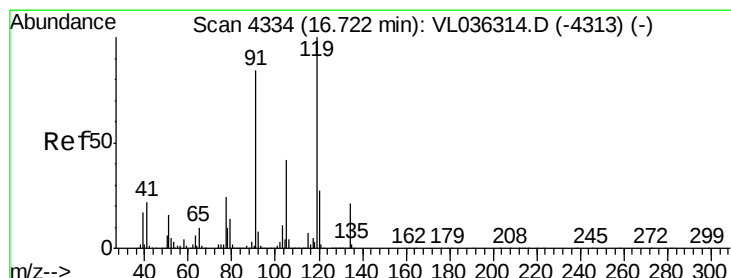
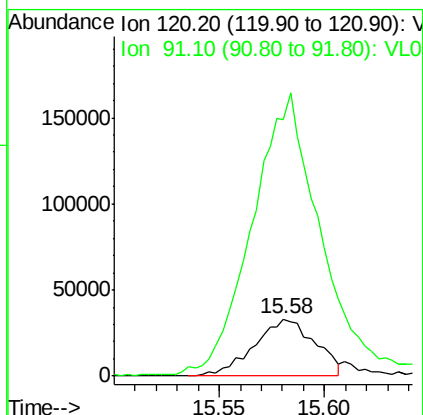
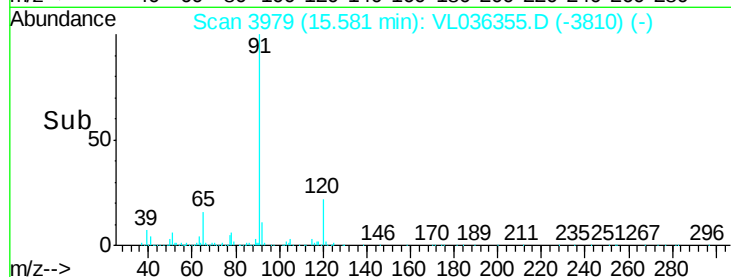
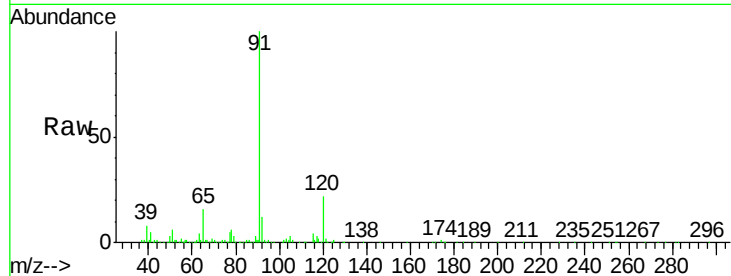
#64
n-propylbenzene
Concen: 0.460 ppbv
RT: 15.58 min Scan# 3979
Delta R.T. 0.04 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Instrument :
MSVOA_L
ClientSampleId :
NS-13

Tot Ion:120 Resp: 66476
Ion Ratio Lower Upper
120 100
91 580.2 387.2 580.8

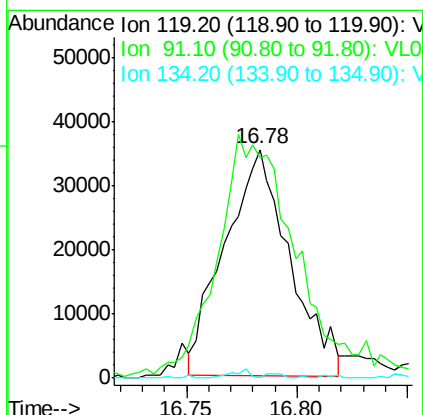
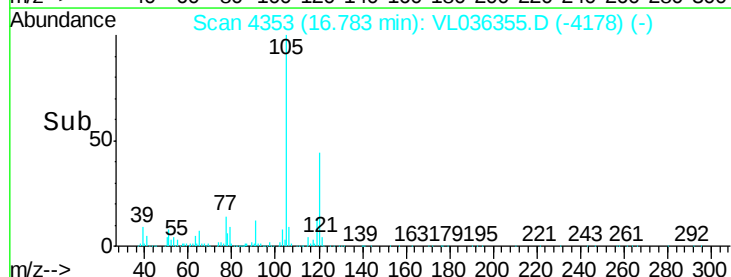
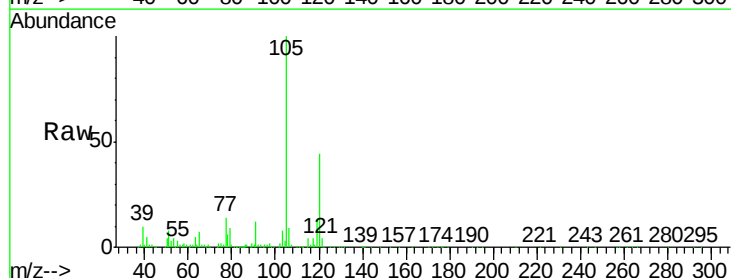
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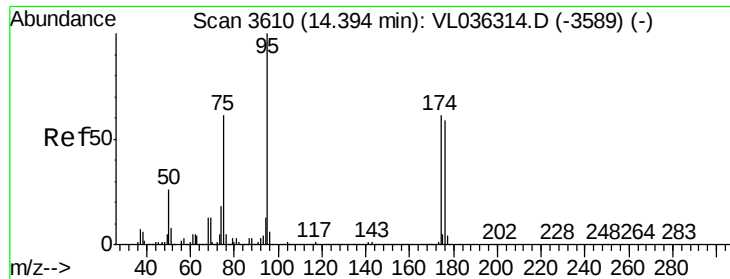
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#65
tert-Butylbenzene
Concen: 0.143 ppbv
RT: 16.78 min Scan# 4353
Delta R.T. 0.06 min
Lab File: VL036355.D
Acq: 24 Feb 2021 18:02

Tgt Ion:119 Resp: 71897
Ion Ratio Lower Upper
119 100
91 130.1 70.5 105.7#
134 0.0 15.8 23.8#





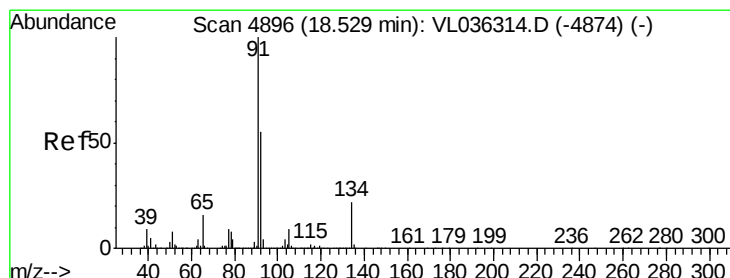
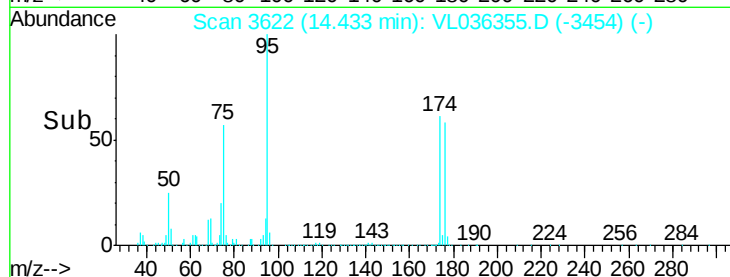
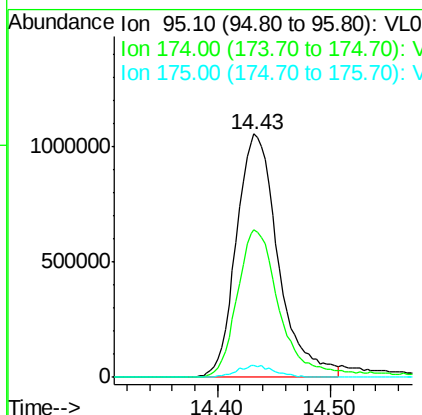
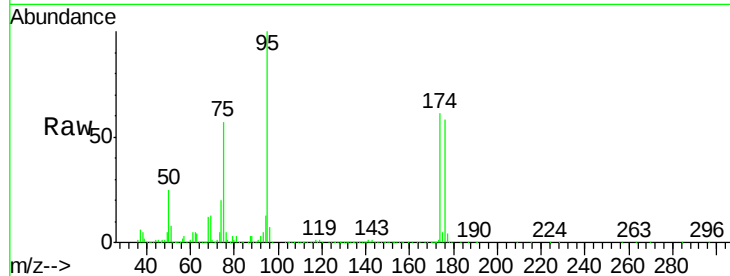
#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.704 ppbv
 RT: 14.43 min Scan# 3622
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Instrument :
 MSVOA_L
 ClientSampled :
 NS-13

Tot Ion: 95 Resp: 2720821
 Ion Ratio Lower Upper
 95 100
 174 64.3 49.8 74.6
 175 4.6 3.7 5.5

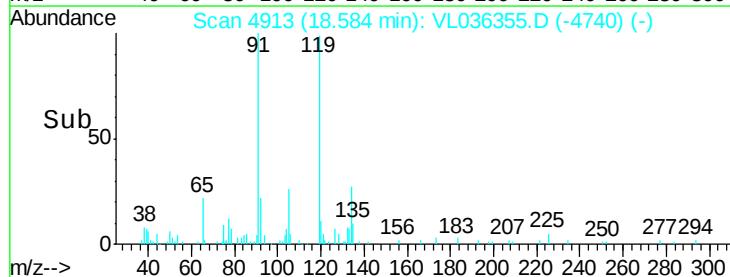
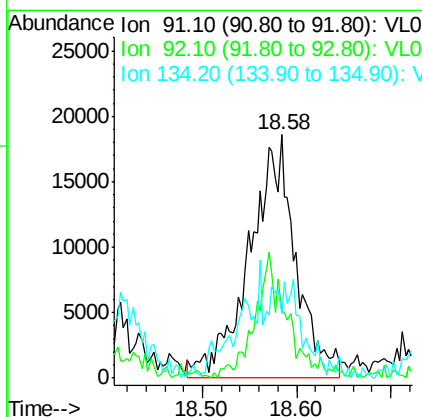
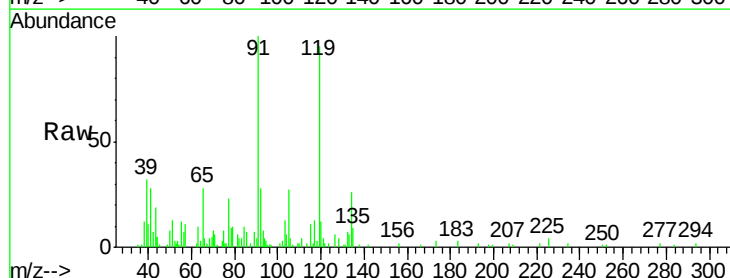
Manual Integrations
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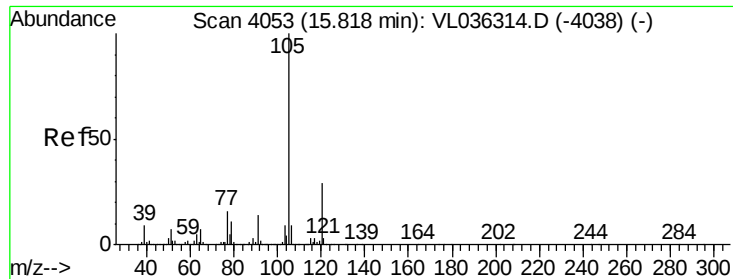
MMDadoda
 2/26/2021 4:17:16 PM



#70
 n-Butylbenzene
 Concen: 0.105 ppbv m
 RT: 18.58 min Scan# 4913
 Delta R.T. 0.05 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Tgt Ion: 91 Resp: 62857
 Ion Ratio Lower Upper
 91 100
 92 0.0 43.7 65.5#
 134 0.0 17.4 26.0#





#72

4-Ethyltoluene

Concen: 0.546 ppbv m

RT: 15.86 min Scan# 4067

Delta R.T. 0.05 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Instrument :

MSVOA_L

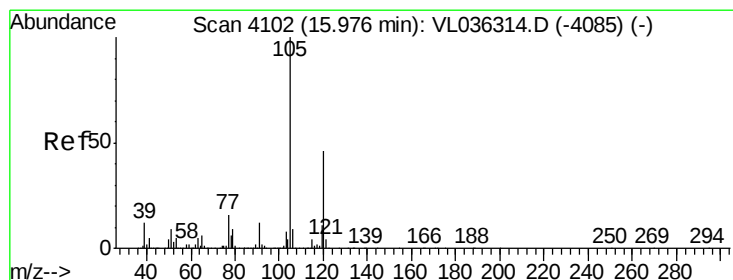
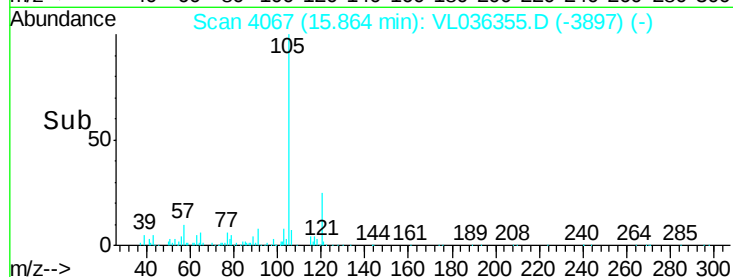
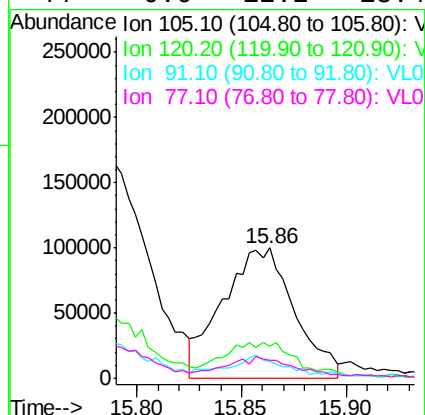
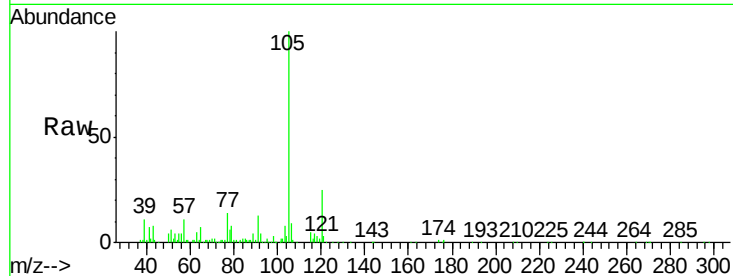
ClientSampled :

NS-13

Tot Ion:	105	Resp:	237943
Ion Ratio	Lower	Upper	
105	100		
120	30.8	23.2	34.8
91	0.0	11.0	16.4#
77	0.0	12.2	18.4#

Manual Integrations
APPROVED

MMDadoda
2/26/2021 4:17:16 PM



#73

1,3,5-Trimethylbenzene

Concen: 0.325 ppbv

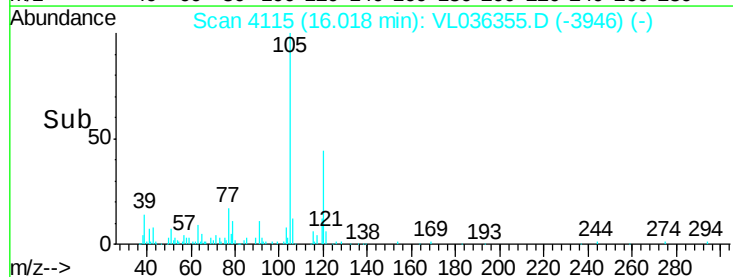
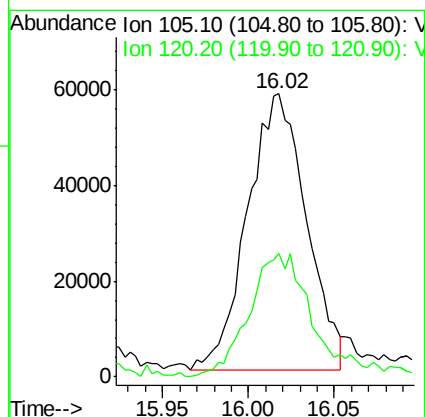
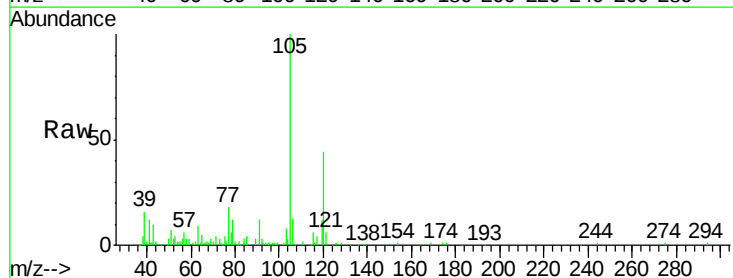
RT: 16.02 min Scan# 4115

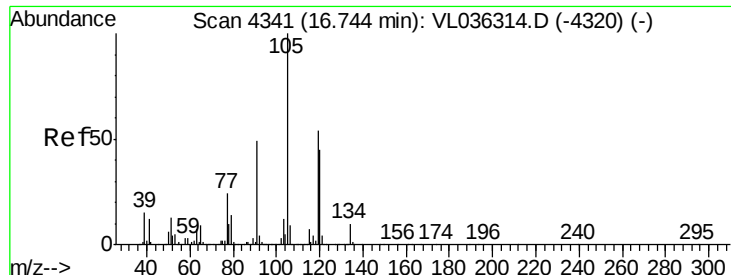
Delta R.T. 0.04 min

Lab File: VL036355.D

Acq: 24 Feb 2021 18:02

Tgt Ion:	105	Resp:	137534
Ion Ratio	Lower	Upper	
105	100		
120	44.7	36.9	55.3





#74
 1,2,4-Trimethylbenzene
 Concen: 1.688 ppbv
 RT: 16.78 min Scan# 4352
 Delta R.T. 0.04 min
 Lab File: VL036355.D
 Acq: 24 Feb 2021 18:02

Instrument :
 MSVOA_L
 ClientSampleId :
 NS-13

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	39.6	35.8	53.6
91	12.3	39.8	59.6#
77	15.1	19.1	28.7#

Manual Integrations
 APPROVED

MMDadoda
 2/26/2021 4:17:16 PM

