

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL090519\
 Data File : VL034135.D
 Acq On : 5 Sep 2019 14:11
 Operator : SY/AP
 Sample : K4612-02DL 10X
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SOILDL

Manual Integrations
 APPROVED

MMDadoda
 9/12/2019 5:15:16 AM

Quant Time: Sep 06 04:58:17 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep 06 04:58:17 2019
 QLast Update : Thu Sep 05 10:21:45 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.71	49	1013868	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.23	114	1883703	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.17	117	1860065	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.51	95	1596859	10.50	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	105.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	2.98	51	15451m	0.137	ppbv	
9) Propene	3.01	41	67527	1.068	ppbv #	77
10) Heptane	8.18	43	20153	0.123	ppbv	99
13) Ethanol	3.61	45	158684	12.810	ppbv	99
15) Acetone	3.86	43	893803m	7.315	ppbv	
17) tert-Butyl alcohol	4.32	59	34066m	0.384	ppbv	
20) Methylene Chloride	4.36	84	43686	1.081	ppbv	94
25) Ethyl Acetate	5.71	43	251983	0.939	ppbv #	95
29) Chloroform	5.79	83	45527	0.283	ppbv	85
34) 2-Butanone	5.28	43	188159	1.039	ppbv	97
50) 4-Methyl-2-Pentanone	8.82	43	168647m	0.610	ppbv	
53) Toluene	9.88	91	351867	1.478	ppbv	96
58) Ethyl Benzene	12.79	91	40287m	0.132	ppbv	
59) m/p-Xylene	13.05	91	86150m	0.346	ppbv	
60) o-Xylene	13.78	91	42978m	0.173	ppbv	
69) p-Isopropyltoluene	17.75	119	34334m	0.107	ppbv	
74) 1,2,4-Trimethylbenzene	16.85	105	93235m	0.333	ppbv	

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

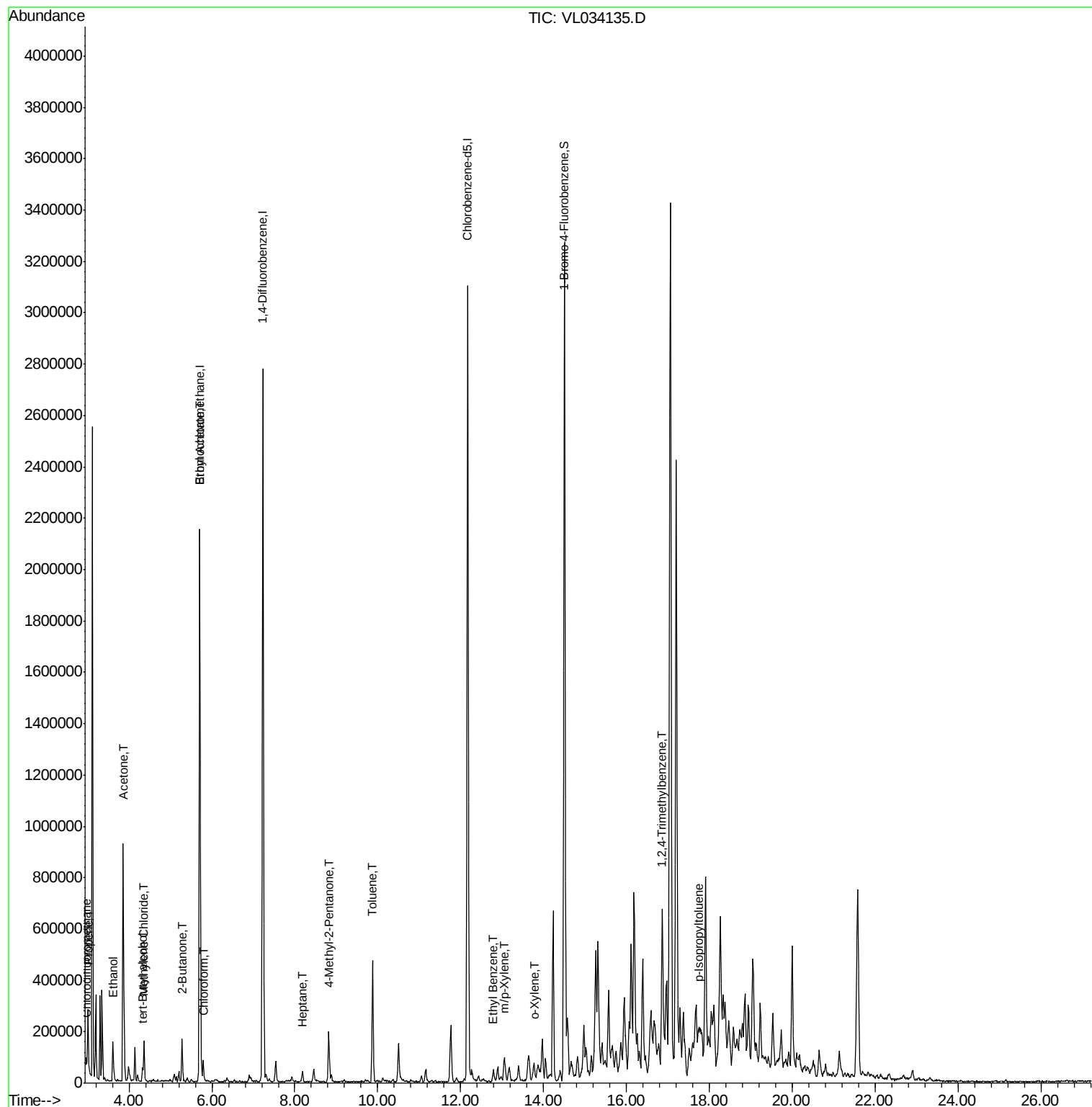
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL090519\
Data File : VL034135.D
Acq On : 5 Sep 2019 14:11
Operator : SY/AP
Sample : K4612-02DL 10X
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

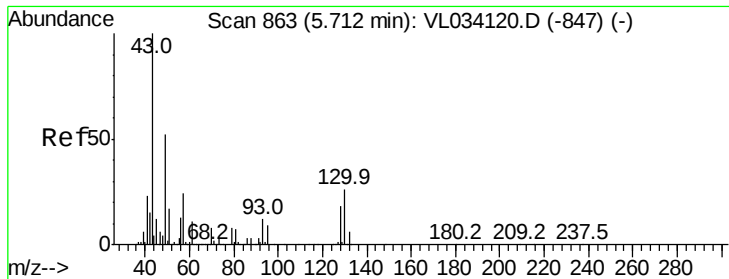
Instrument :
MSVOA_L
ClientSampleId :
SOILD

Manual Integrations
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9/12/2019 5:15:16 AM

Quant Time: Sep 06 04:58:17 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL090519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Sep
QLast Update : Thu Sep 05 10:21:45 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.71 min Scan# 861

Delta R.T. -0.01 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampled :

SOILD

Tot Ion: 49 Resp: 1013868

Ion Ratio Lower Upper

49 100

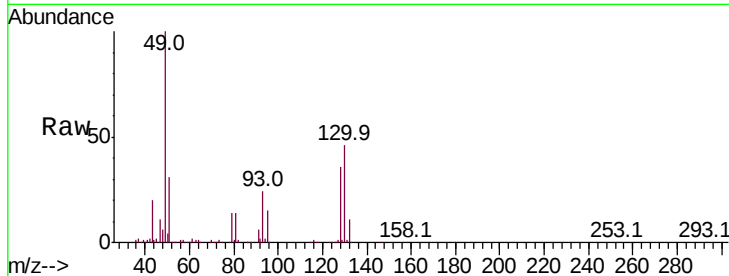
128 37.2 18.4 55.0

130 48.3 23.5 70.6

Manual Integrations
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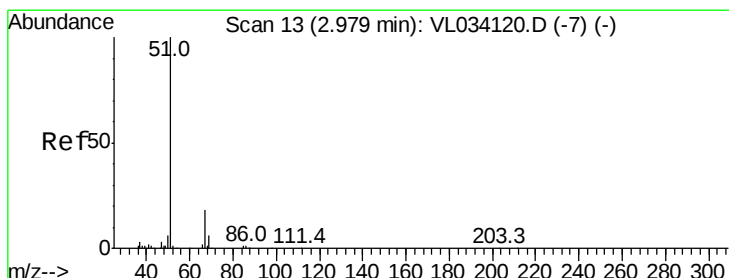
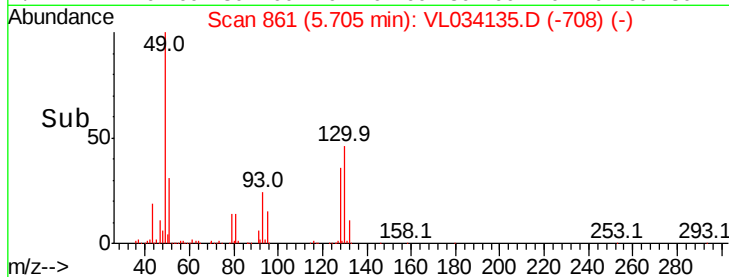
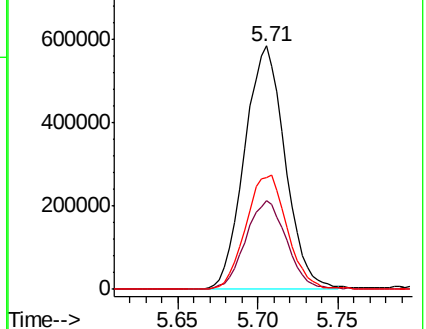
9/12/2019 5:15:16 AM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#3

Chlorodifluoromethane

Concen: 0.137 ppbv m

RT: 2.98 min Scan# 12

Delta R.T. -0.00 min

Lab File: VL034135.D

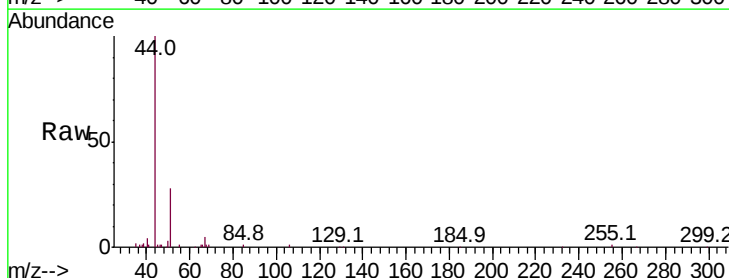
Acq: 5 Sep 2019 14:11

Tgt Ion: 51 Resp: 15451

Ion Ratio Lower Upper

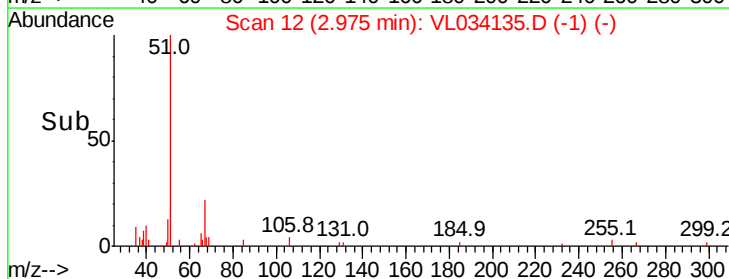
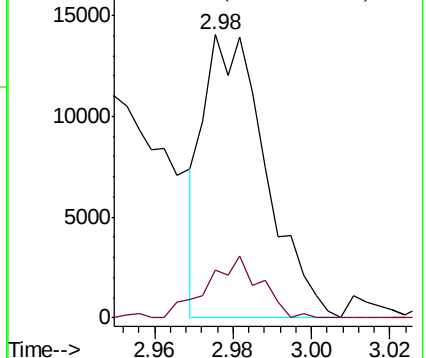
51 100

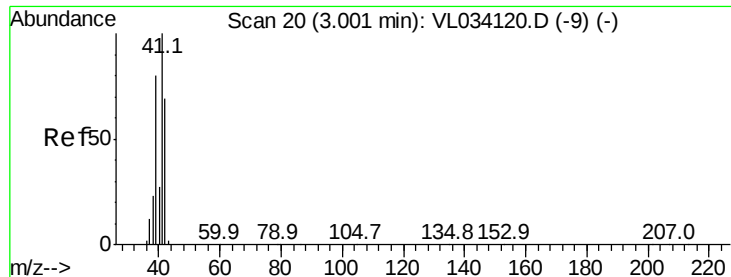
67 0.0 14.2 21.4#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0





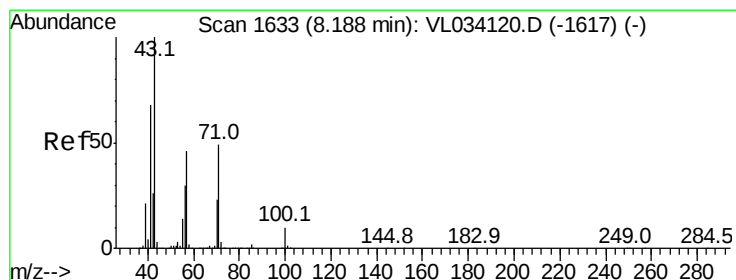
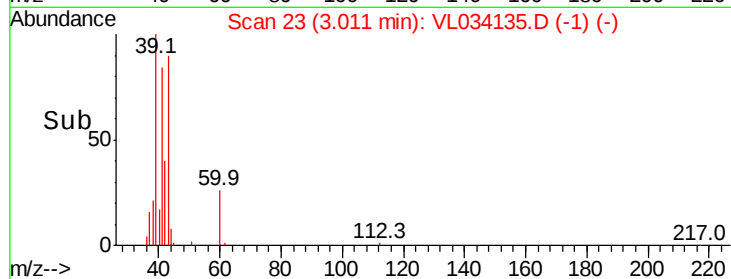
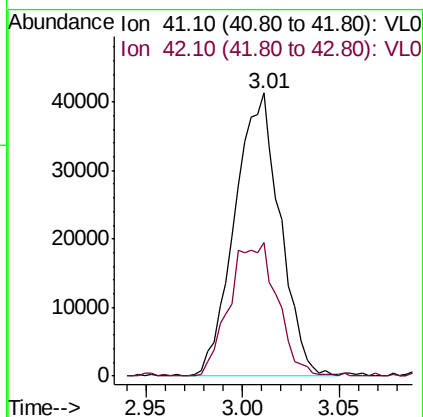
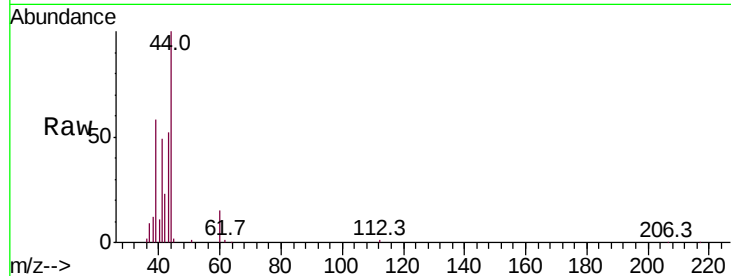
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 Propene
 Concen: 1.068 ppbv
 RT: 3.01 min Scan# 23
 Delta R.T. 0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD_L

Tot Ion: 41 Resp: 67527
 Ion Ratio Lower Upper
 41 100
 42 49.5 54.6 81.8#

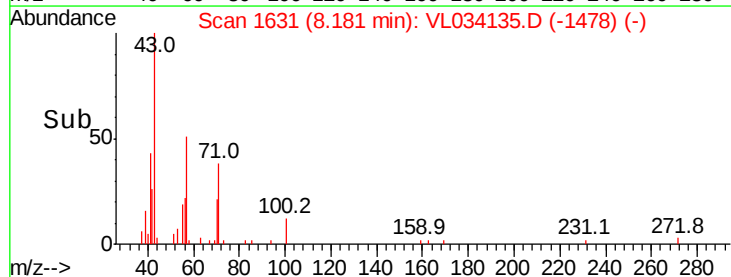
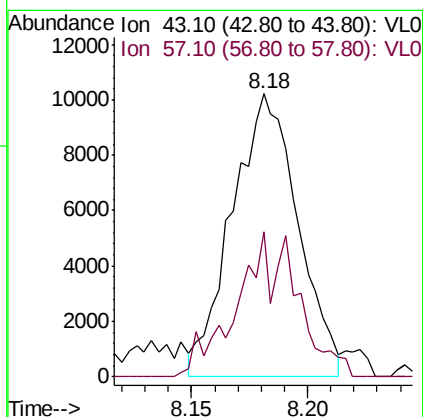
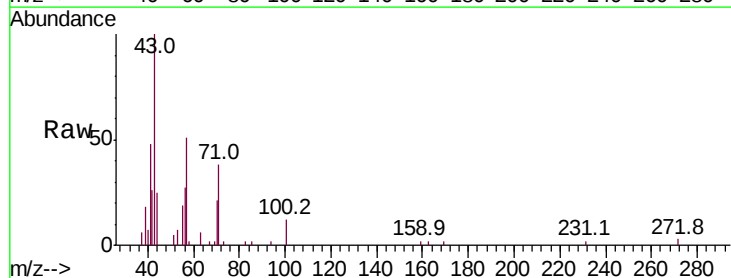
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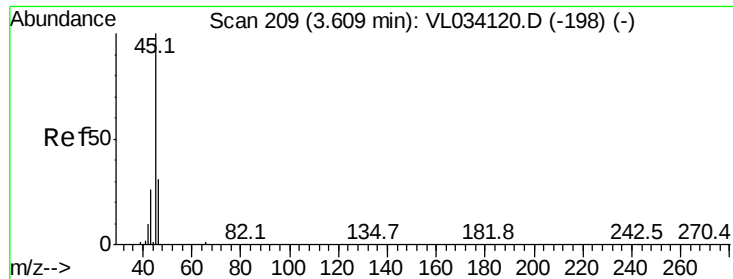
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#10
 Heptane
 Concen: 0.123 ppbv
 RT: 8.18 min Scan# 1631
 Delta R.T. -0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion: 43 Resp: 20153
 Ion Ratio Lower Upper
 43 100
 57 46.9 38.1 57.1





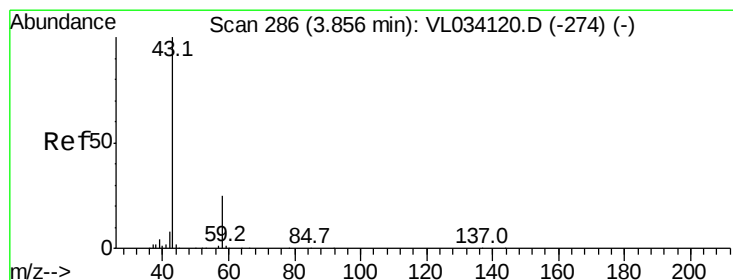
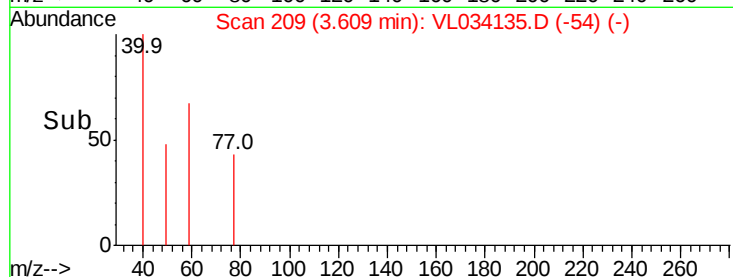
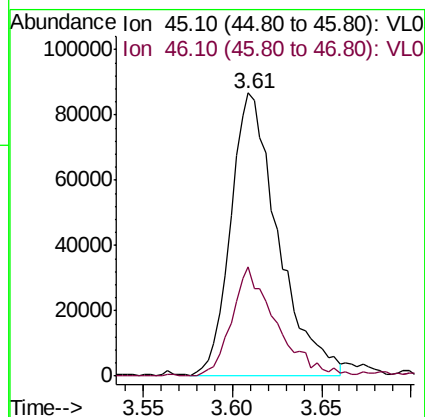
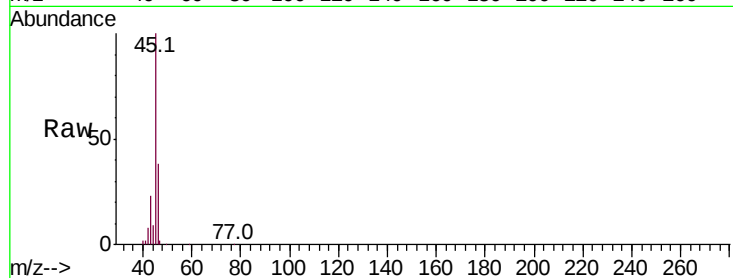
#13
Ethanol
Concen: 12.810 ppbv
RT: 3.61 min Scan# 209
Delta R.T. -0.00 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Instrument :
MSVOA_L
ClientSampled :
SOILD

Tot Ion: 45 Resp: 158684
Ion Ratio Lower Upper
45 100
46 38.2 15.0 60.0

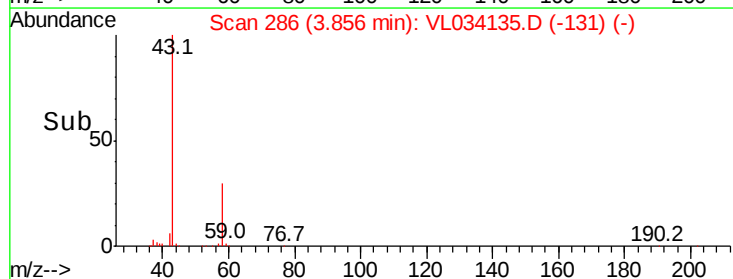
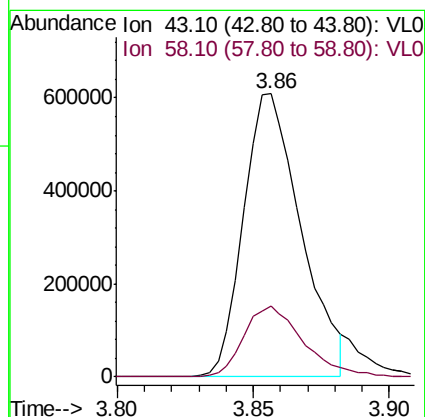
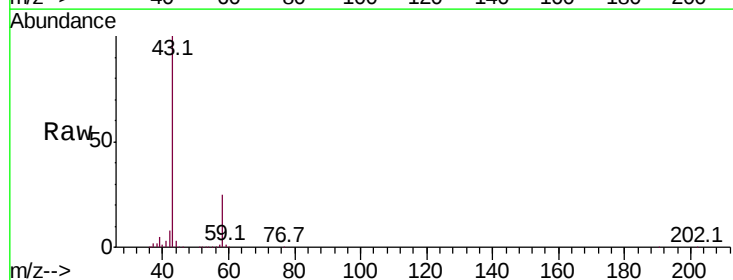
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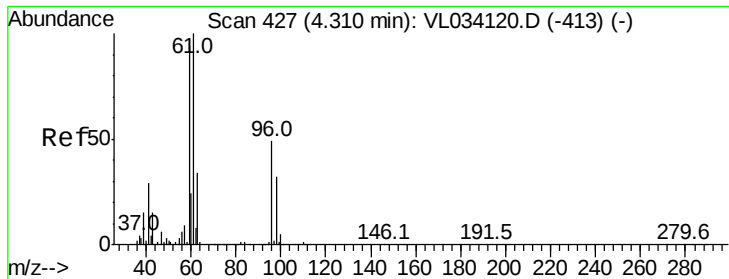
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#15
Acetone
Concen: 7.315 ppbv m
RT: 3.86 min Scan# 286
Delta R.T. -0.00 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 43 Resp: 893803
Ion Ratio Lower Upper
43 100
58 26.0 20.6 30.8





#17

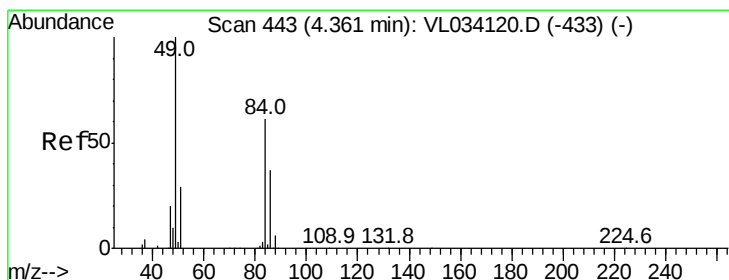
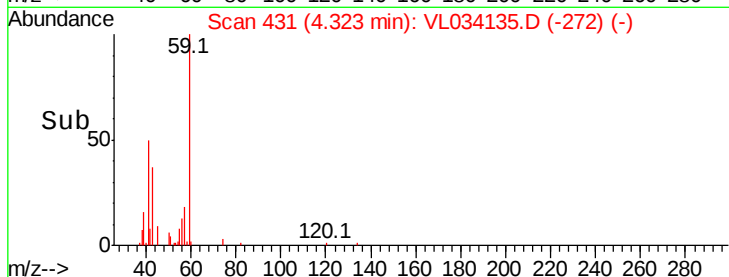
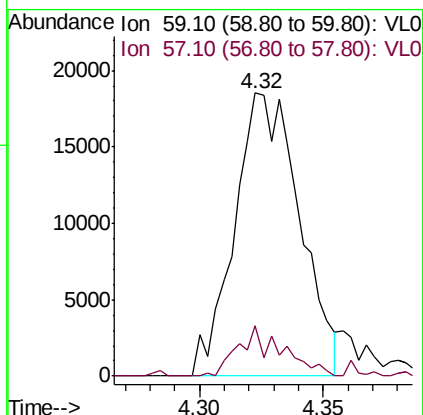
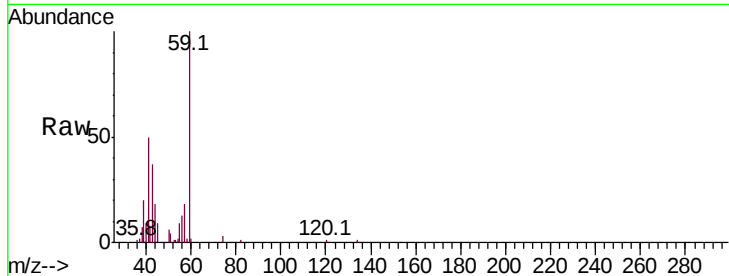
tert-Butyl alcohol
Concen: 0.384 ppbv
RT: 4.32 min Scan# 431
Delta R.T. 0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Instrument :
MSVOA_L
ClientSampleId :
SOILD_L

Tot Ion: 59 Resp: 34066
Ion Ratio Lower Upper
59 100
57 12.8 8.6 12.8

Manual Integrations
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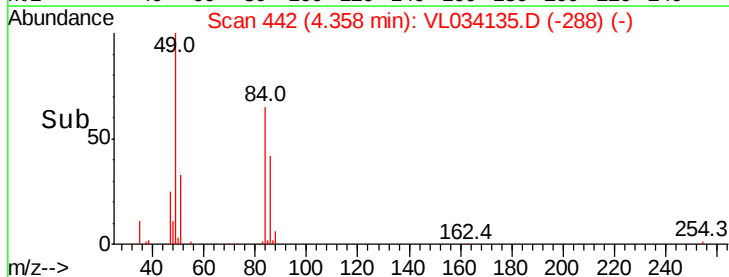
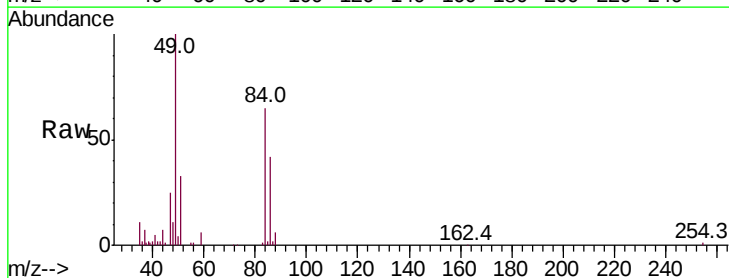
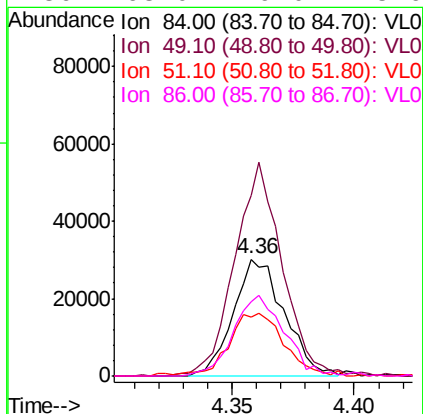
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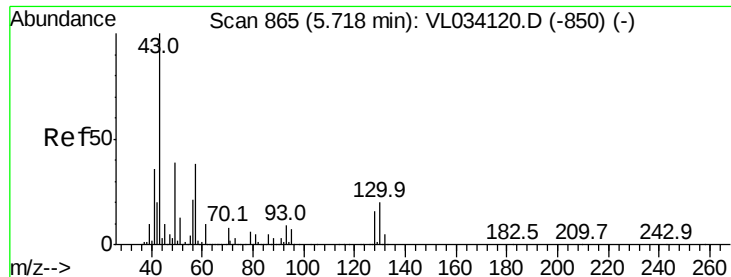


#20

Methylene Chloride
Concen: 1.081 ppbv
RT: 4.36 min Scan# 442
Delta R.T. -0.00 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 84 Resp: 43686
Ion Ratio Lower Upper
84 100
49 151.2 131.0 196.6
51 46.4 38.1 57.1
86 63.0 49.0 73.6





#25

Ethyl Acetate

Concen: 0.939 ppbv

RT: 5.71 min Scan# 864

Delta R.T. -0.00 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampled :

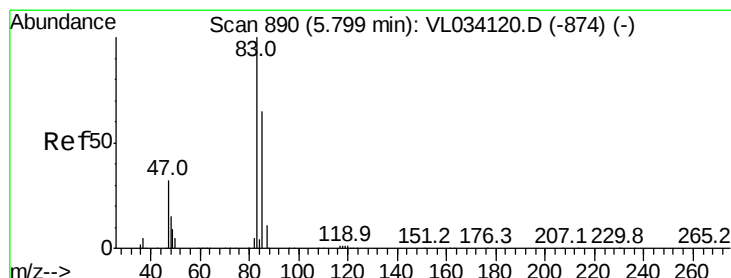
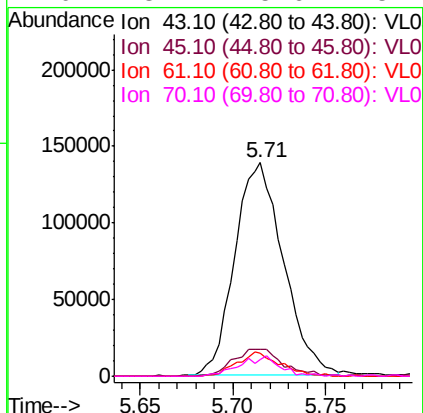
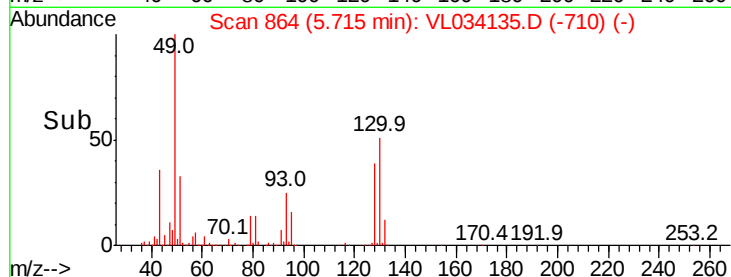
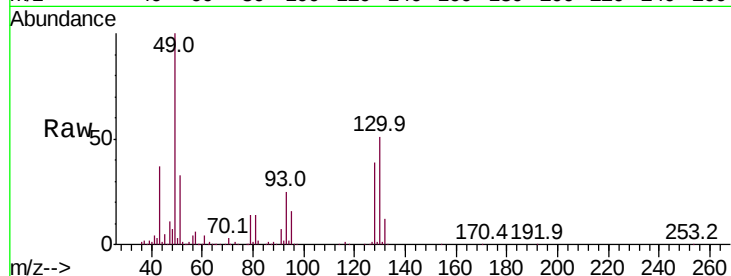
SOILDL

Tot Ion: 43 Resp: 251983

Ion	Ratio	Lower	Upper
43	100		
45	13.4	8.2	12.4#
61	10.3	7.4	11.2
70	8.2	5.6	8.4

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#29

Chloroform

Concen: 0.283 ppbv

RT: 5.79 min Scan# 888

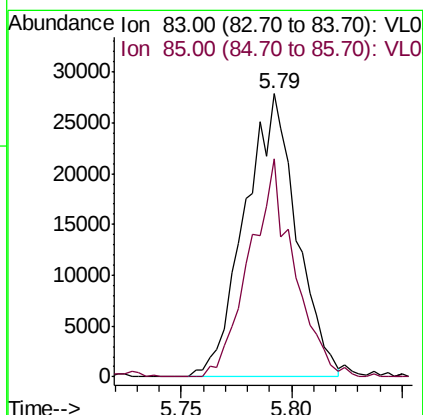
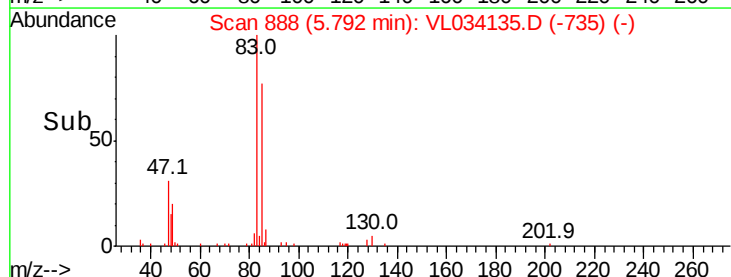
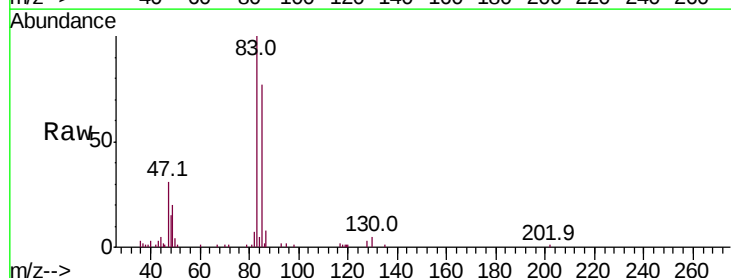
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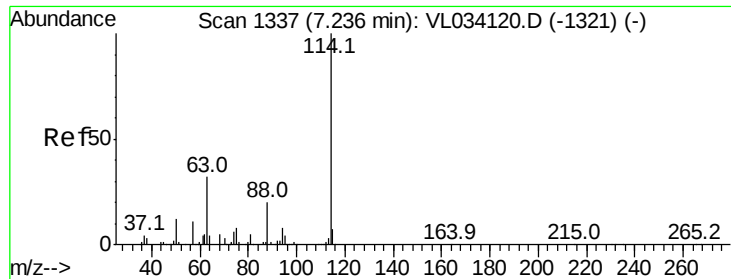
Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Tgt Ion: 83 Resp: 45527

Ion	Ratio	Lower	Upper
83	100		
85	76.9	51.8	77.6





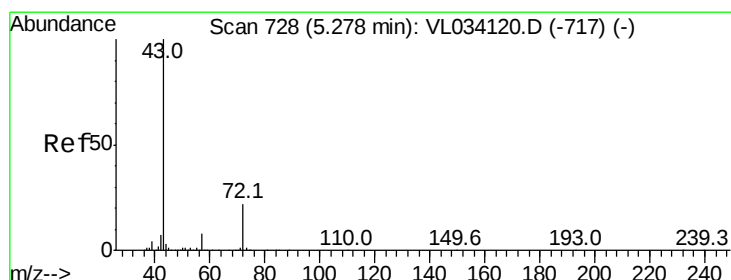
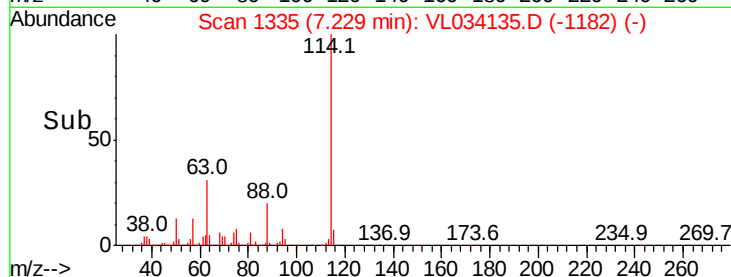
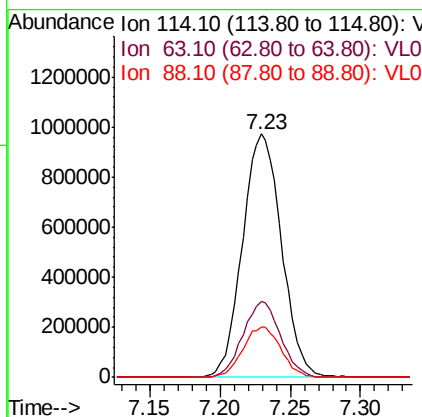
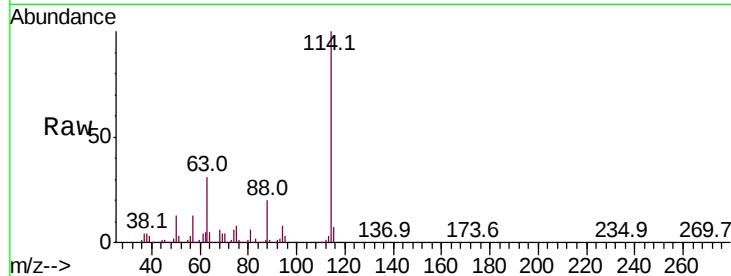
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.23 min Scan# 1335
 Delta R.T. -0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD_L

Tot Ion:114 Resp: 1883703
 Ion Ratio Lower Upper
 114 100
 63 30.3 25.5 38.3
 88 20.3 16.8 25.2

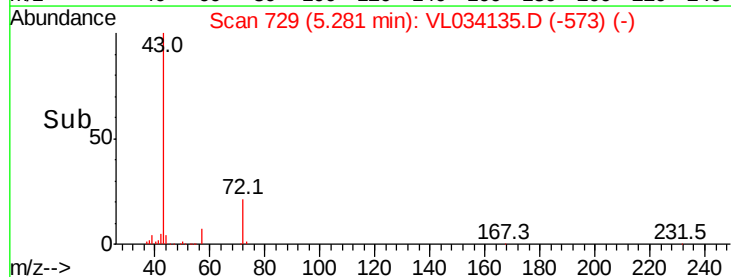
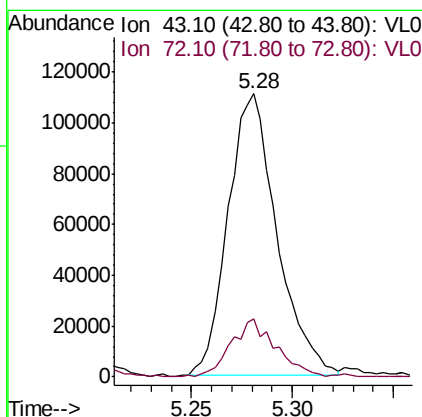
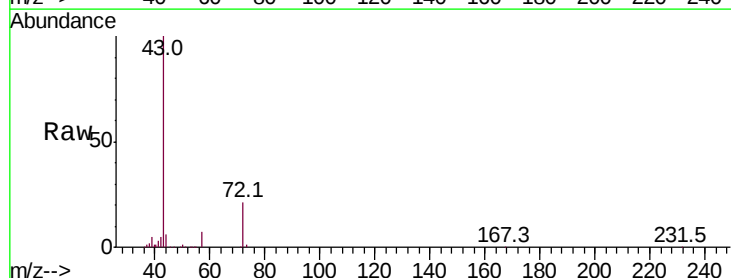
Manual Integrations
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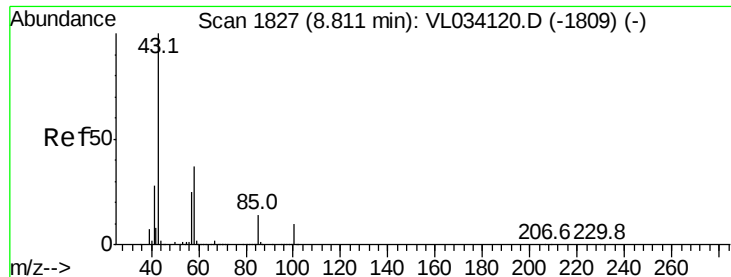
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 9/12/2019 5:15:16 AM



#34
 2-Butanone
 Concen: 1.039 ppbv
 RT: 5.28 min Scan# 729
 Delta R.T. 0.00 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion: 43 Resp: 188159
 Ion Ratio Lower Upper
 43 100
 72 19.4 16.5 24.7





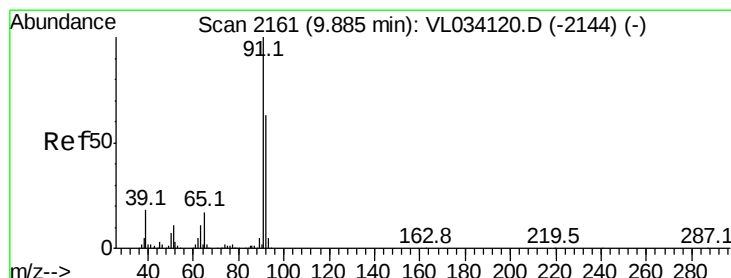
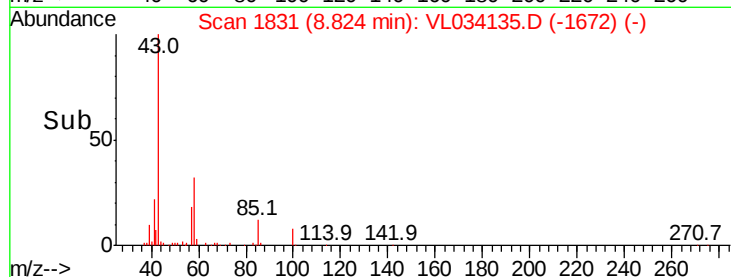
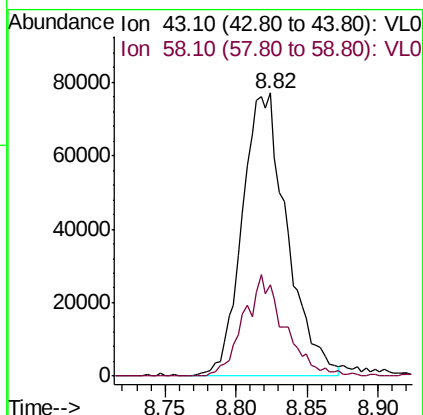
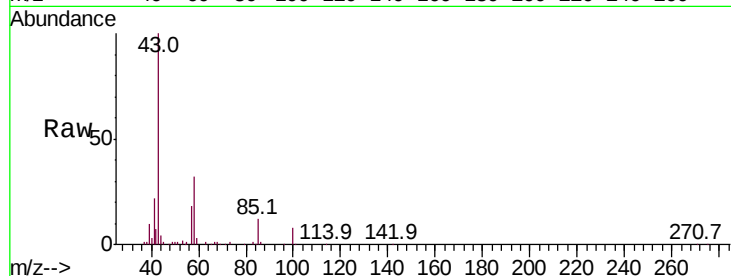
#50
4-Methyl-2-Pentanone
Concen: 0.610 ppbv m
RT: 8.82 min Scan# 1831
Delta R.T. 0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Instrument :
MSVOA_L
ClientSampleId :
SOILD

Tot Ion: 43 Resp: 168647
Ion Ratio Lower Upper
43 100
58 32.9 28.5 42.7

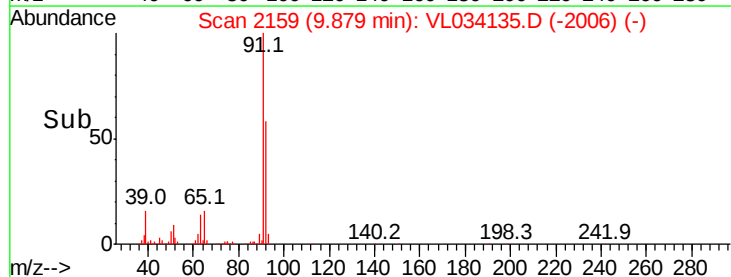
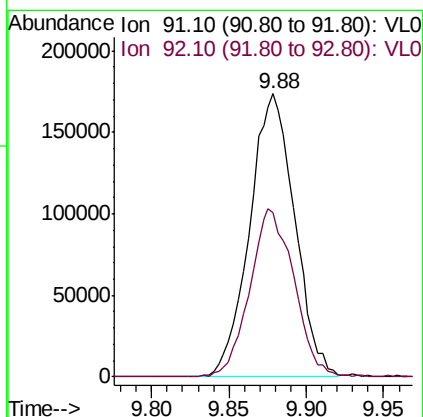
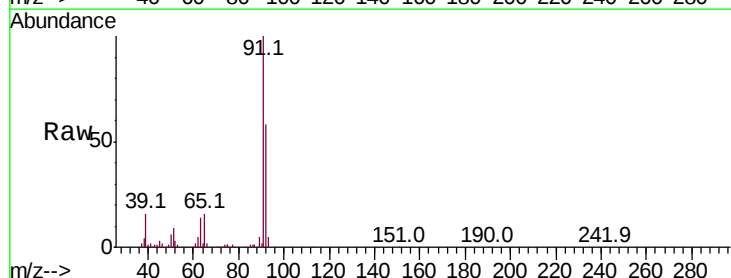
Manual Integrations
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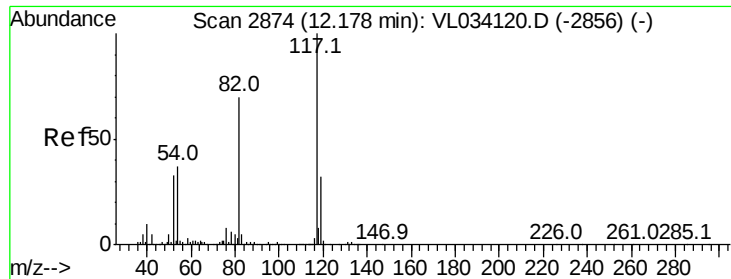
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#53
Toluene
Concen: 1.478 ppbv
RT: 9.88 min Scan# 2159
Delta R.T. -0.01 min
Lab File: VL034135.D
Acq: 5 Sep 2019 14:11

Tgt Ion: 91 Resp: 351867
Ion Ratio Lower Upper
91 100
92 58.3 49.3 73.9





#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.17 min Scan# 2871

Delta R.T. -0.01 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

SOILD

Tot Ion:117 Resp: 1860065

Ion Ratio Lower Upper

117 100

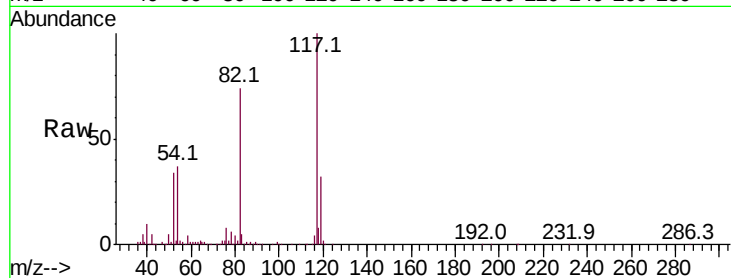
82 73.3 55.8 83.6

119 33.3 43.1 64.7#

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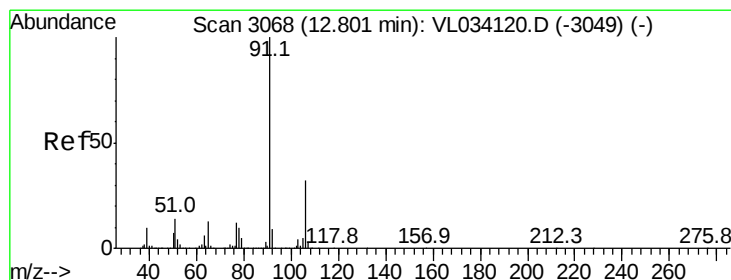
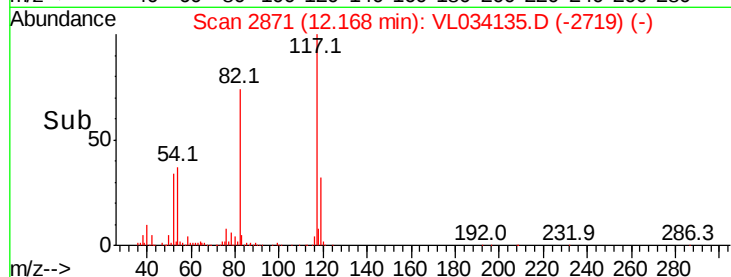
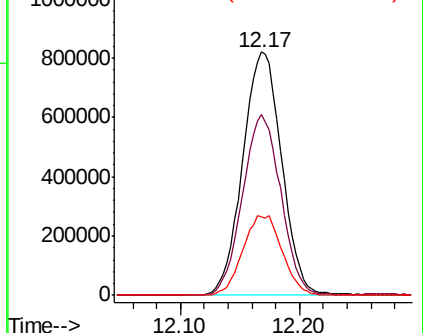
9/12/2019 5:15:16 AM



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V



#58

Ethyl Benzene

Concen: 0.132 ppbv m

RT: 12.79 min Scan# 3066

Delta R.T. -0.01 min

Lab File: VL034135.D

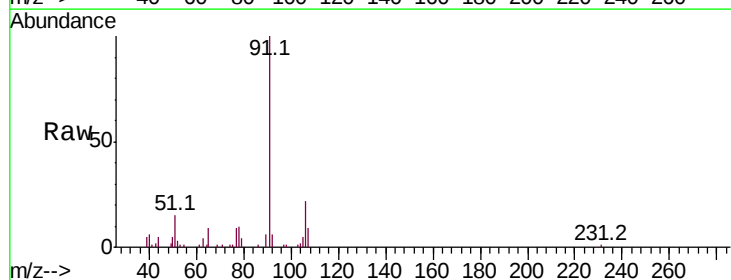
Acq: 5 Sep 2019 14:11

Tgt Ion: 91 Resp: 40287

Ion Ratio Lower Upper

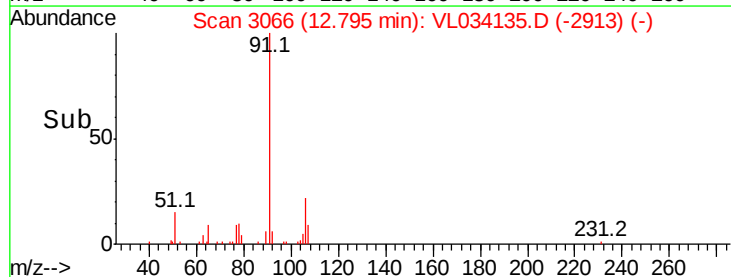
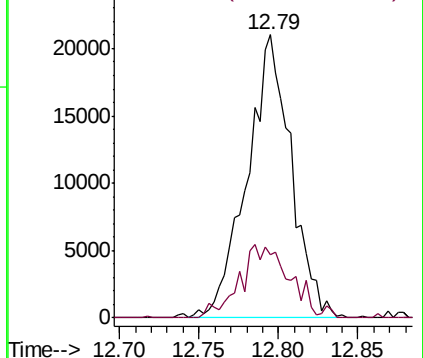
91 100

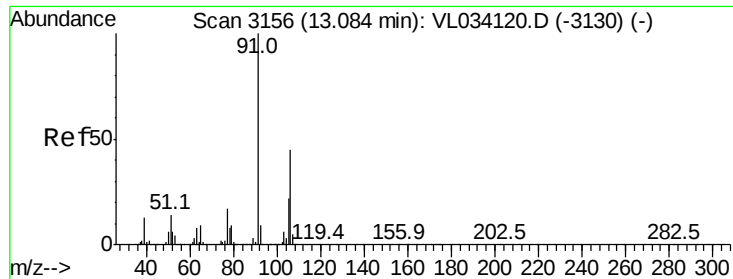
106 22.4 25.3 37.9#



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#59

m/p-Xylene

Concen: 0.346 ppbv m

RT: 13.05 min Scan# 3145

Delta R.T. -0.04 min

Lab File: VL034135.D

Acq: 5 Sep 2019 14:11

Instrument :

MSVOA_L

ClientSampleId :

SOILD

Tot Ion: 91 Resp: 86150

Ion Ratio Lower Upper

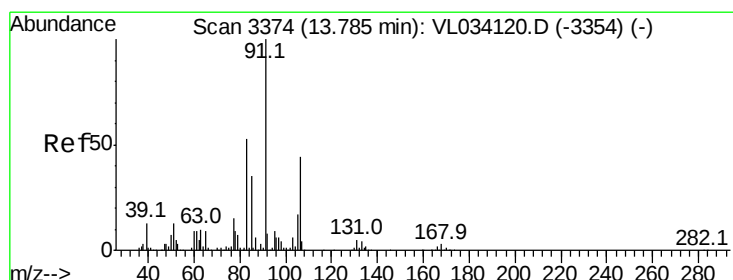
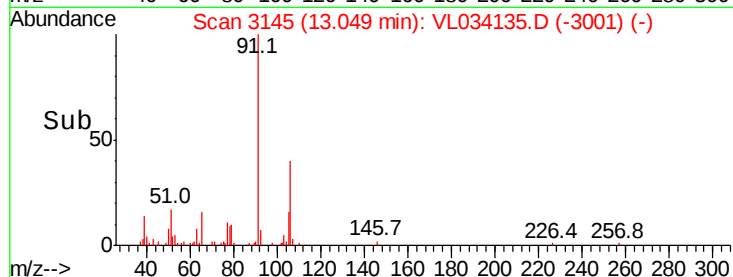
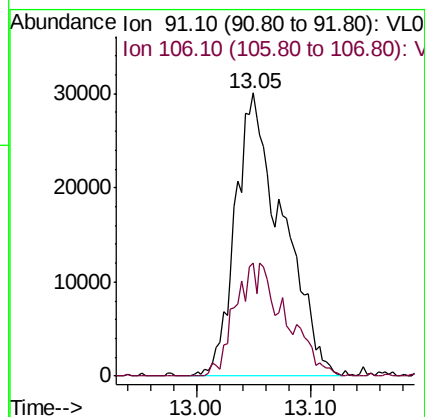
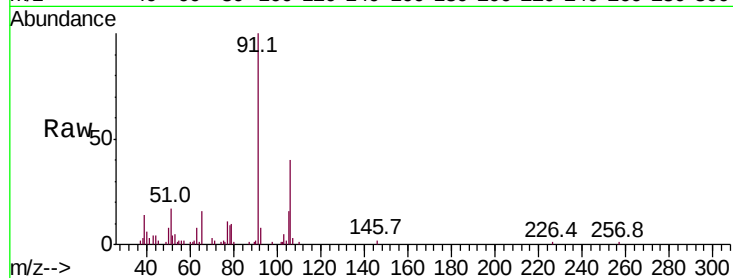
91 100

106 0.0 35.4 53.2#

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9/12/2019 5:15:16 AM



#60

o-Xylene

Concen: 0.173 ppbv m

RT: 13.78 min Scan# 3373

Delta R.T. -0.00 min

Lab File: VL034135.D

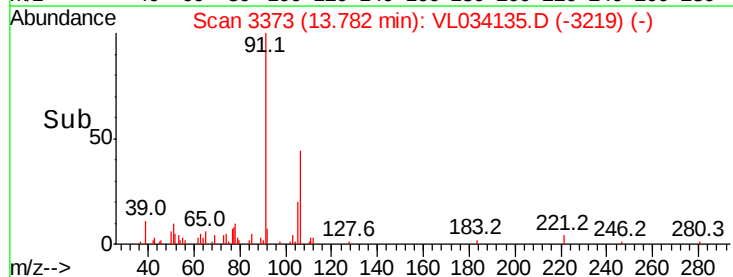
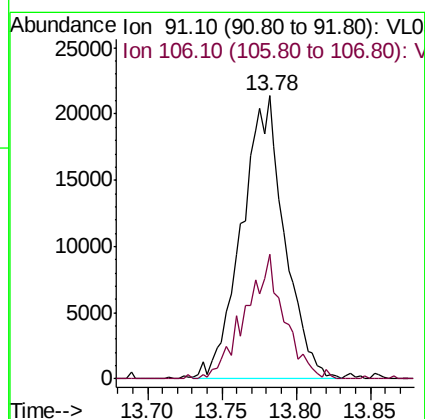
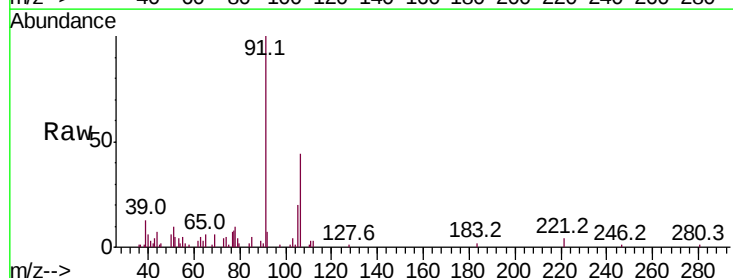
Acq: 5 Sep 2019 14:11

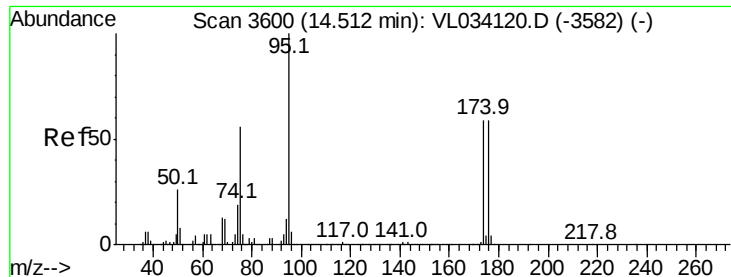
Tgt Ion: 91 Resp: 42978

Ion Ratio Lower Upper

91 100

106 0.0 21.4 64.3#





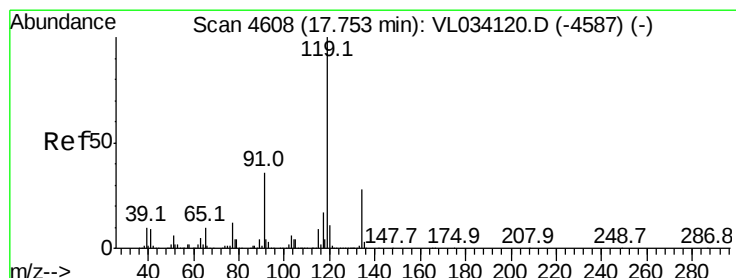
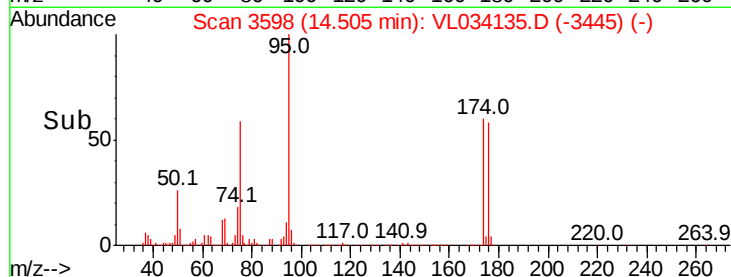
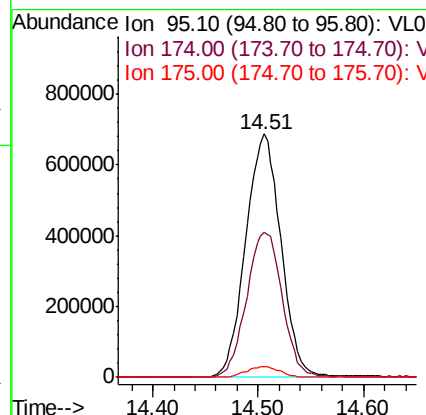
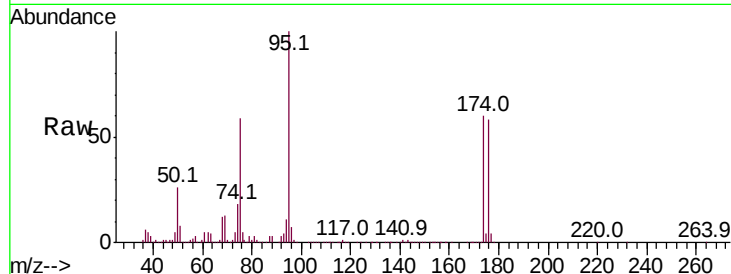
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.501 ppbv
 RT: 14.51 min Scan# 3598
 Delta R.T. -0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Instrument :
 MSVOA_L
 ClientSampled :
 SOILD

Tot Ion: 95 Resp: 1596859
 Ion Ratio Lower Upper
 95 100
 174 60.8 48.1 72.1
 175 4.4 3.5 5.3

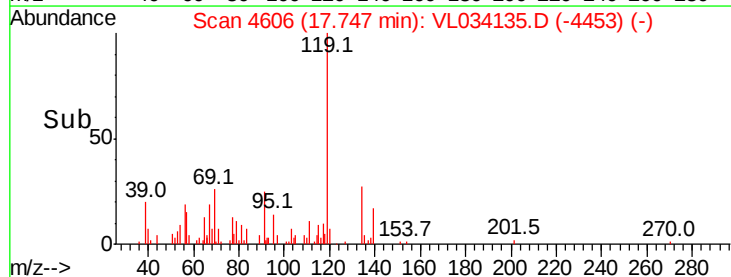
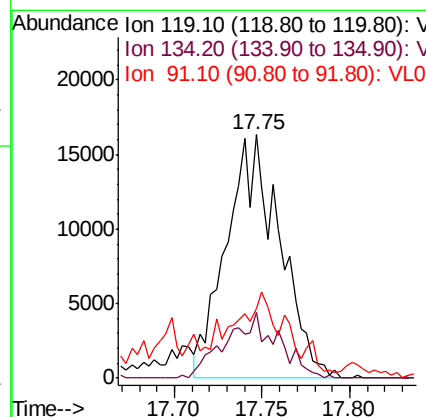
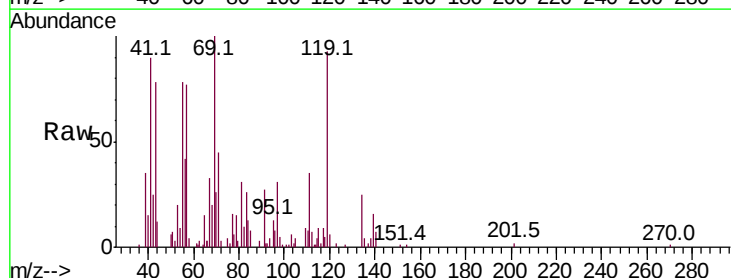
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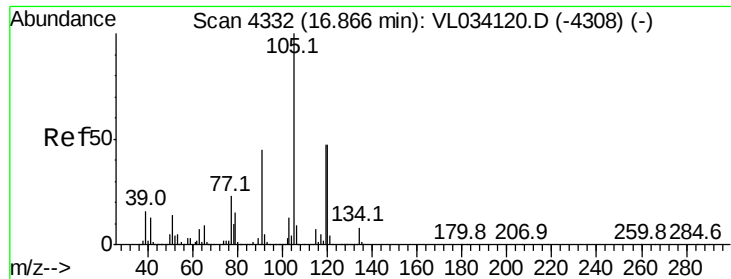
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#69
 p-Isopropyltoluene
 Concen: 0.107 ppbv m
 RT: 17.75 min Scan# 4606
 Delta R.T. -0.01 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Tgt Ion: 119 Resp: 34334
 Ion Ratio Lower Upper
 119 100
 134 0.0 20.8 31.2#
 91 0.0 27.2 40.8#





#74
 1,2,4-Trimethylbenzene
 Concen: 0.333 ppbv m
 RT: 16.85 min Scan# 4327
 Delta R.T. -0.02 min
 Lab File: VL034135.D
 Acq: 5 Sep 2019 14:11

Instrument :
 MSVOA_L
 ClientSampleId :
 SOILD_L

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	33.2	37.7	56.5#
91	7.1	36.2	54.2#
77	19.8	18.5	27.7

Manual Integrations
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