April 22, 2016

Mr. John Sheehan
New York State Department of Environmental Conservation
50 Circle Road, Stony Brook, NY 11790-3409

Subject: **Vapor Intrusion Technical Memorandum**
Nu-Clear Dry Cleaners
180 East Park Avenue
Long Beach, New York 11561
NYSDEC Site No. 130221; AEI Project No. 341998

Dear Mr. Sheehan:

AEI Consultants (AEI) is pleased to provide you with this technical memorandum, which describes the analytical results from the sampling activities outlined in the approved Vapor Intrusion (VI) Investigation Work Plan (WP) (dated March 17, 2016) for the above referenced site. A detailed description of the methods, results and recommendations will be included in the Remedial Investigation Report (RIR), following the completion of the activities outlined in the Remedial Investigation Work Plan (RIWP) submitted to the New York Department of Environmental Conservation (NYSDEC) on March 28, 2016. The RI activities will be conducted following receipt of the NYSDEC's approval of the RIWP.

The objective of the VIWP was to identify and evaluate potential off-Site vapor intrusion pathways and receptors as a result of previously identified environmental impacts at the Nu-Clear Dry Cleaners (Site). The sampling was conducted at the commercial properties within the building complex to the west of the Site which provided access to AEI. Despite repeated attempts, the owners of the residential properties to the west of the municipal parking lot located south of the Site (165 and 159 East Walnut Street) did not provide access to AEI; therefore, sampling could not be conducted at these locations.

The following is a summary of the VI investigation for the Nu-Clear Cleaners Site.

SUB-SLAB INVESTIGATION

On March 30, 2016, a building survey was completed to record information about the individual tenants' spaces within the building complex regarding the building construction, the occupants, current operations and potential sources of indoor air contamination. The detailed surveys will be included in the RIR.

In accordance with the VIWP, two (2) sub-slab (SS) samples were collected from beneath the Nu-Clear Cleaners building, and three (3) sub-slab samples were collected from beneath the commercial building complex to the west. The soil gas samples were collected over a 24-hour period. The proposed sub-slab soil gas locations (SS-02 within Unit 168 and SS-06 within the Nu-Clear Dry Cleaner facility) were moved to the north end of the buildings due to equipment and/or limited space. The remainder of the sub-slab soil gas locations (SS-01, SS-03, SS-07) were advanced in the locations originally proposed in the VIWP. The approximate, final locations where samples were collected are illustrated on Figure 1.

The following information is a summary of the soil gas sample analytical test results (Attachment A). For the purpose of providing context to the data obtained during this investigation, analytical results were compared to applicable regulatory screening levels. The New York Department of Health (NYSDOH) Vapor Intrusion Guidance Levels and Environmental Protection Agency (EPA) Vapor Intrusion Screening Levels (VISLs) offer primary regulatory levels for the purpose of this investigation. These screening levels are presented along with the analytical results on Table 1. A brief summary of the sub-slab results are as follows:

- Chloroform was detected in SS-03 and SS-06 at 51.3 and 213 µg/m^3 which exceeds the EPA VISL standard of 18 µg/m^3.
- Tetrachloroethylene (PCE) was detected in SS-07 and SS-06 at 10,400 and 1,990 µg/m^3 which exceeds the EPA VISL of 1,600 µg/m^3.
- Trichloroethylene (TCE) was detected in SS-02 at 2,970 µg/m3, SS-03 at 650 µg/m^3, SS-06 at 1,090 µg/m^3 and SS-07 at 3,960 µg/m^3 which exceeds the EPA VISL standard of 100 µg/m^3.

INDOOR AIR INVESTIGATION

The IA samples were collected from within the breathing zone, approximately three (3) to five (5) feet above the ground surface over a 24-hour period. Six (6) indoor air (IA) samples were collected from within the adjacent commercial building (162-172 East Park Avenue). One background/outdoor air sample (BG-01) was collected from outside the commercial building. The sample locations are illustrated on Figure 1. The full indoor air sample analytical test results are included in Attachment A, and summarized in Table 2.

The analytical results for indoor air samples collected within the commercial building complex to the west of the Site did not indicate any constituent concentrations exceeded their applicable EPA VISLs. Additionally, the concentrations of TCE, PCE and other VOCs detected in the background (outdoor) air sample were similar to, or higher than, comparable constituent concentrations in samples collected from within the commercial tenant spaces. Therefore, detection of these compounds in indoor air is likely attributable to background/outdoor sources. The concentrations of PCE and TCE detected in the background (outdoor) air samples were 3.1 ug/m^3 and 0.75 ug/m^3, respectively. These concentrations exceed the corresponding minimum levels of 3 ug/m^3 for PCE and 0.25 ug/m^3 for TCE specified in the NYSDOH Vapor Intrusion Guidance Document Matrix 1 and Matrix 2. Therefore, comparison of the indoor air concentrations to the Matrix 1 and Matrix 2 values for the purpose of recommending monitoring or mitigation is not applicable.

CONCLUSIONS

Site-related chlorinated VOCs TCE and PCE were detected in sub-slab soil gas beneath the Nu-Clear Cleaners building as well as the adjacent commercial building complex. Although sub-slab soil gas concentrations of chloroform, PCE and TCE exceed EPA VISL standards, the indoor air concentrations do not exceed the NYSDOH indoor air values or other generally recognized standards. These data suggest that the existing slab is serving as an effective engineering control to mitigate VI from the subsurface.

There is also evidence that background or indoor air sources are contributing factors to the compounds that were detected in the indoor air samples.

RECOMMENDATIONS

At this time, the data do not indicate that any VI mitigation is required based on the absence of impacts to indoor air above applicable standards, and the presence of ambient/background contamination. AEI does recommend an investigation of the slab conditions at the commercial building complex and Nu-Clear Dry Cleaners to determine if the condition of the existing VI engineering control (i.e., slab) can be improved (i.e., sealing cracks, filling voids, etc.) to further minimize potential VI concerns. An assessment of the slab conditions will be conducted during future RI activities, pending NYSDEC approval of the RIWP.

If there are any questions regarding our investigation, please do not hesitate to contact AEI at 732-414-2720.

Sincerely,
AEI Consultants

Dyna Krumich-Ogonowski
Senior Project Manager

David Bausmith, P.E.
Senior Author

Figures

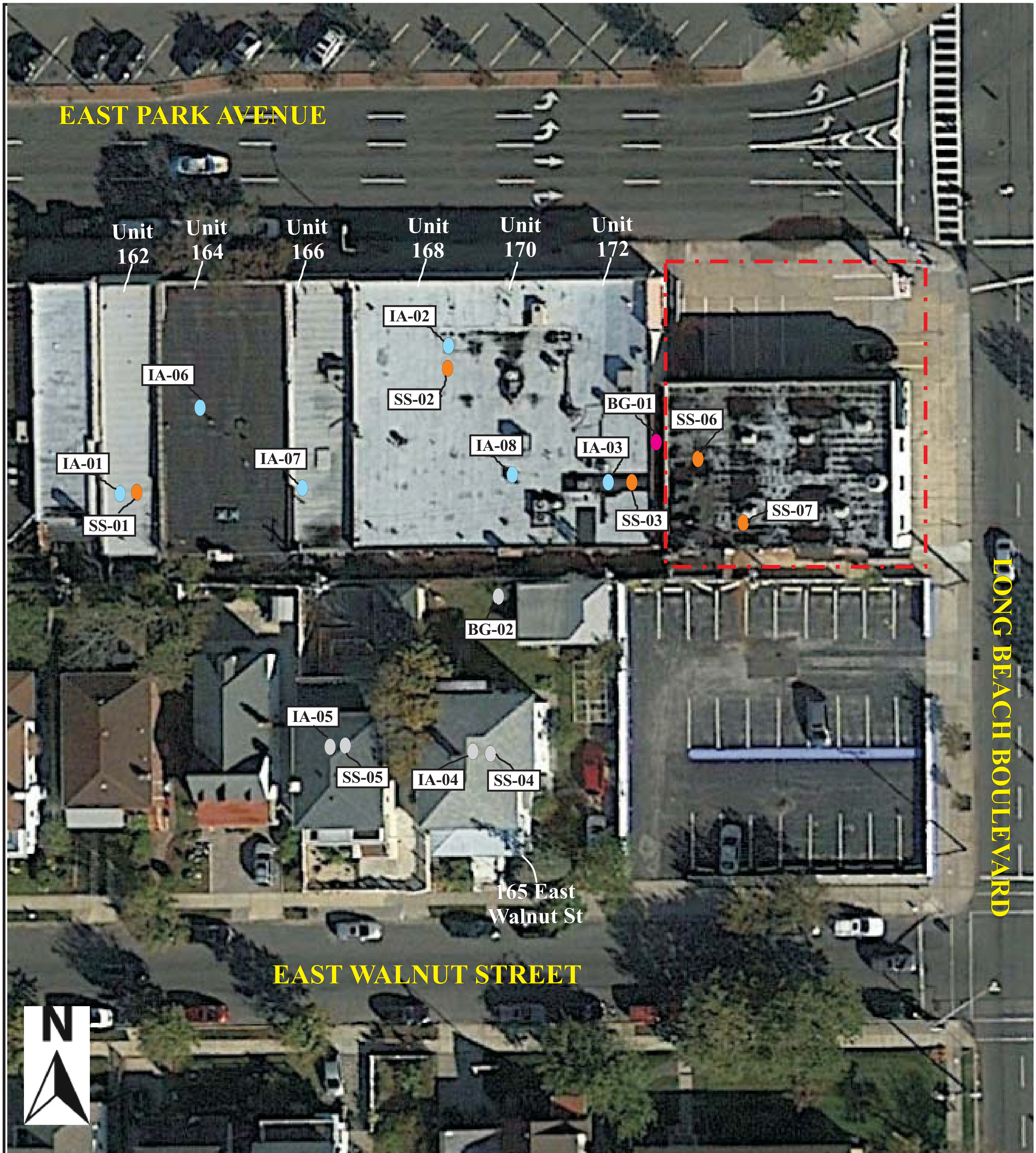
Figure 1: Vapor Intrusion Sample Location Map

Tables

Table 1: Sub-slab Soil Gas Data Summary
Table 2: Indoor Air Data Summary

Attachments

Attachment A: Laboratory Report



LEGEND

- Approximate Property Boundary
- Sub-Slab Sample Location
- Indoor Air Sample Location
- Outdoor/Background Sample Location
- Not Sampled; Access Not Granted

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20 GIBSON PLACE, SUITE 310, FREEHOLD, NEW JERSEY

VAPOR INTRUSION SAMPLE LOCATION MAP

180 EAST PARK AVENUE
LONG BEACH, NEW YORK

FIGURE 1
Project No. 341998

TABLE 1
SUB-SLAB SOIL GAS DATA SUMMARY
AEI PROJECT No. 341998
NU-CLEAR DRY CLEANERS, LONG BEACH, NEW YORK

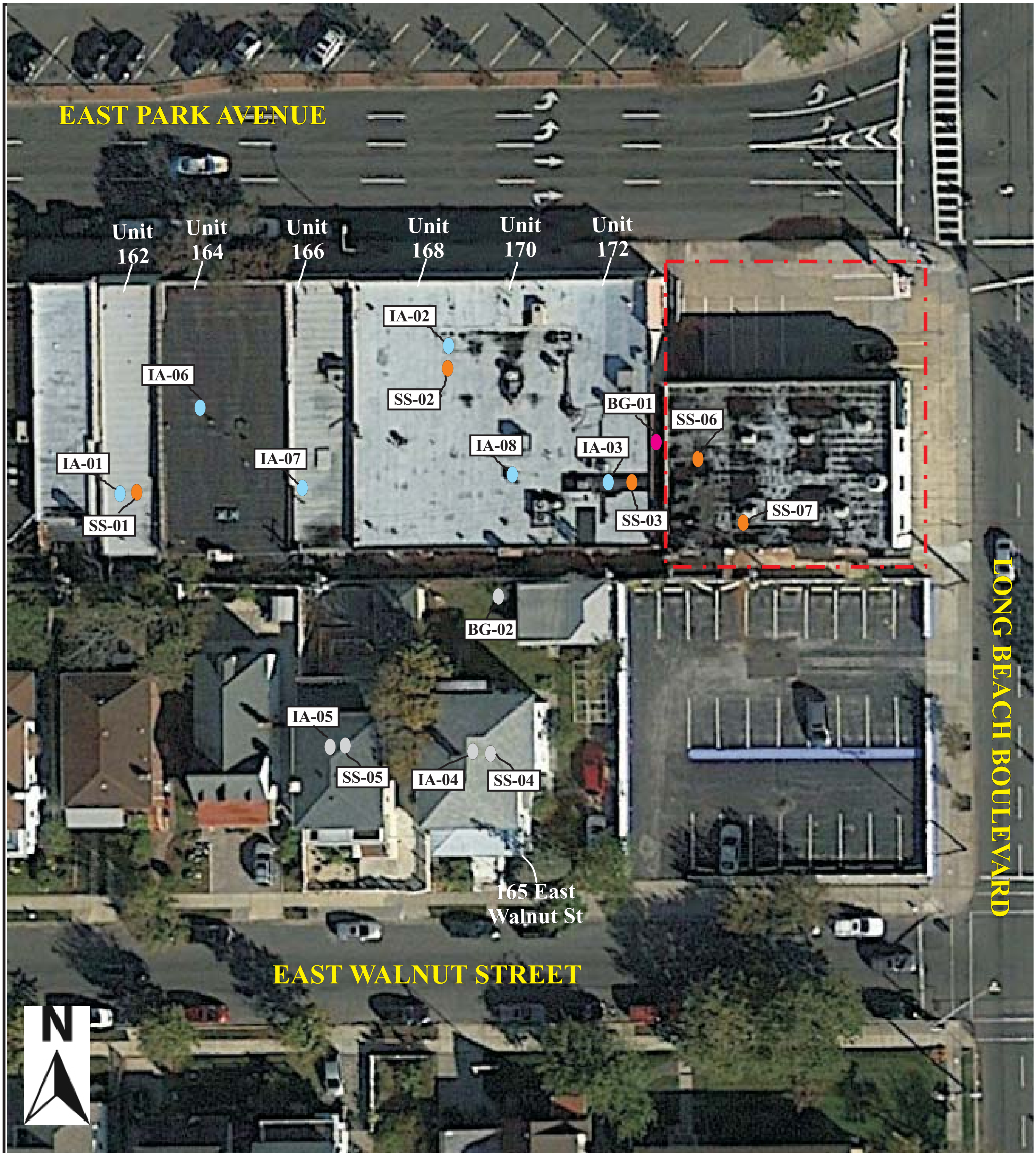
Client Sample ID:		US EPA Vapor Intrusion Screening Levels	SS-01	SS-02	SS-03	SS-07	SS-06
Location:			162 East Park Ave	168 East Park Ave	172 East Park Ave	180 East Park Ave	180 East Park Ave
Lab Sample ID:		Version 3.4 06/2015	JC17438-2	JC17438-6	JC17438-8	JC17438-10	JC17438-11
Date Sampled:			3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016
GC/MS Volatiles (TO-15) - ug/m^3							
Acetone	µg/m³	4500000	26.6	24.7	44.7	13	21
Benzene	µg/m³	52	0.86	1.1	1.6	4.8	1.4
Carbon disulfide	µg/m³	100000	ND (0.097)	ND (0.097)	1.6	ND (0.40)	ND (0.097)
Chloroform	µg/m³	18	ND (0.083)	7.3	51.3	3.8 J	213
Chloromethane	µg/m³	13000	1.4	1.4	1.9	1.7	0.97
Carbon tetrachloride	µg/m³	68	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.75)	0.6
Cyclohexane	µg/m³	880000	ND (0.055)	2.7	19	20	18
1,1-Dichloroethylene	µg/m³	29000	ND (0.083)	2.9	0.71 J	2.3 J	1.5
1,2-Dichloroethane	µg/m³	16	1.3	ND (0.073)	ND (0.073)	ND (0.28)	ND (0.073)
Dichlorodifluoromethane	µg/m³	15000	2.7	ND (0.094)	ND (0.094)	2.7 J	3.3
trans-1,2-Dichloroethylene	µg/m³	-	ND (0.11)	0.38 J	ND (0.11)	15	0.87
cis-1,2-Dichloroethylene	µg/m³	-	1.9	63.4	15	2780	44
m-Dichlorobenzene	µg/m³	-	ND (0.12)	0.96	ND (0.12)	ND (0.47)	0.96
Ethanol	µg/m³	-	194 E	292	454	273	531
Ethylbenzene	µg/m³	160	0.65 J	1.4	5.6	5.6	6.1
Ethyl Acetate	µg/m³	10000	7.6	6.5	43.9	ND (1.1)	9.4
4-Ethyltoluene	µg/m³	-	ND (0.084)	2	0.54 J	ND (0.33)	0.59 J
Freon 113	µg/m³	-	ND (0.16)	1.2	ND (0.16)	ND (0.66)	0.77
Heptane	µg/m³	-	1.2	5.7	34	35	40
Hexane	µg/m³	100000	0.7	4.6	26	27	27
Isopropyl Alcohol	µg/m³	-	43.5	79.2	49.7	51.4	199
Methylene chloride	µg/m³	41000	ND (0.087)	ND (0.087)	0.9	ND (0.35)	0.66 J
Methyl ethyl ketone	µg/m³	730000	1.9	3.8	2.8	2.5	5.3
Methyl Isobutyl Ketone	µg/m³	-	ND (0.23)	ND (0.23)	ND (0.23)	5.7	1.9
Methylmethacrylate	µg/m³	100000	ND (0.16)	1.7	ND (0.16)	ND (0.66)	3.3
Styrene	µg/m³	150000	ND (0.064)	ND (0.064)	1.1	ND (0.26)	ND (0.064)
1,1,1-Trichloroethane	µg/m³	730000	ND (0.13)	9.3	1.6	6	2.7
1,1,2-Trichloroethane	µg/m³	26	ND (0.21)	1.8	ND (0.21)	ND (0.87)	ND (0.21)
1,2,4-Trimethylbenzene	µg/m³	1000	0.69 J	9.3	0.88 J	ND (0.30)	1.3
1,3,5-Trimethylbenzene	µg/m³	-	ND (0.22)	4.2	ND (0.22)	ND (0.88)	ND (0.22)
2,2,4-Trimethylpentane	µg/m³	-	ND (0.11)	ND (0.11)	50.9	56.5	92.5
Tetrachloroethylene	µg/m³	1600	4.7	124	37	10400	1990
Tetrahydrofuran	µg/m³	290000	ND (0.13)	ND (0.13)	0.56 J	ND (0.53)	0.50 J
Toluene	µg/m³	730000	2.1	2.4	1.7	1.5 J	2.4
Trichloroethylene	µg/m³	100	102	2970	650	3960	1090
Trichlorofluoromethane	µg/m³	100000	1.7	2.5	8.4	ND (0.49)	2.5
Vinyl chloride	µg/m³	93	ND (0.054)	ND (0.054)	ND (0.054)	25	ND (0.054)
m,p-Xylene	µg/m³	15000	1.1	4	2.1	1.7 J	2.6
o-Xylene	µg/m³	15000	0.43 J	2.6	0.61 J	ND (0.87)	0.87
Xylenes (total)	µg/m³	15000	1.5	6.6	2.7	1.7 J	3.5

NOTES:
µg/m³ - microgram per cubic meter
ND - not detected above laboratory detection limits
J - estimated value

TABLE 2
INDOOR AIR DATA SUMMARY
AEI PROJECT No. 341998
NU-CLEAR DRY CLEANERS, LONG BEACH, NEW YORK

Client Sample ID:		US EPA VISL INDOOR AIR VALUES	IA-01	IA-07	IA-06	IA-02	IA-08	IA-03	BG-01
Location:			162 East Park Ave	166 East Park Ave	164 East Park Ave	168 East Park Ave	170 East Park Ave	172 East Park Ave	Background
Lab Sample ID:		(Version 3.4	JC17438-1	JC17438-3	JC17438-4	JC17438-5	JC17438-7	JC17438-9	JC17438-12
Date Sampled:		06/2015)	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016
GC/MS Volatiles (TO-15) - ug/m^3									
Acetone	ug/m^3	140000	21	17	14	20	21	62.9	4.8
Benzene	ug/m^3	1.6	0.8	0.67	0.54 J	1.1	0.89	1.2	0.45 J
Carbon disulfide	ug/m^3	3100	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097)	1.1	ND (0.097)
Chloroform	ug/m^3	53	ND (0.083)	1	0.73 J	0.73 J	1.7	10	1.2
Chloromethane	ug/m^3	390	1.4	1.5	1.4	1.5	1.6	1.8	1.4
Carbon tetrachloride	ug/m^3	2	ND (0.20)	ND (0.20)	0.48	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Cyclohexane	ug/m^3	26000	ND (0.055)	ND (0.055)	ND (0.055)	ND (0.055)	0.89	ND (0.055)	ND (0.055)
1,2-Dichloroethane	ug/m^3	47	1.4	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)
Dichlorodifluoromethane	ug/m^3	440	2.8	3	2.8	2.9	5.4	3.9	2.7
cis-1,2-Dichloroethylene	ug/m^3	-	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	3.1
p-Dichlorobenzene	ug/m^3	-	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	3.8	ND (0.16)	ND (0.16)
Ethanol	ug/m^3	-	31.1	133 E	98.0 E	105 E	343 E	239 E	8.7
Ethyl Acetate	ug/m^3	310	4.7	5.8	13	6.5	9.7	33	8.3
Heptane	ug/m^3	-	1.1	0.45 J	ND (0.082)	0.57 J	ND (0.082)	1.2	ND (0.082)
Hexane	ug/m^3	3100	ND (0.081)	0.53 J	1.3	0.92	0.88	1.1	ND (0.081)
2-Hexanone	ug/m^3	-	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.49 J	ND (0.18)
Isopropyl Alcohol	ug/m^3	-	4.2	2.7	2.4	2.7	6.1	6.1	0.64
Methylene chloride	ug/m^3	1200	ND (0.087)	ND (0.087)	1.5	0.59 J	0.9	0.66 J	ND (0.087)
Methyl ethyl ketone	ug/m^3	22000	0.8	0.71	0.8	2.2	2.7	3.2	0.83
Styrene	ug/m^3	4400	ND (0.064)	ND (0.064)	ND (0.064)	ND (0.064)	0.72 J	1.2	ND (0.064)
1,2,4-Trimethylbenzene	ug/m^3	31	ND (0.074)	0.69 J	ND (0.074)	0.93 J	ND (0.074)	0.54 J	1.1
Tertiary Butyl Alcohol	ug/m^3	-	ND (0.16)	0.7	ND (0.16)	0.39 J	0.61	ND (0.16)	ND (0.16)
Tetrachloroethylene	ug/m^3	47	2.1	2.6	1.7	8.8	13	13	3.1
Tetrahydrofuran	ug/m^3	8800	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	1.8	0.8	1.7
Toluene	ug/m^3	22000	2.1	1	0.94	1.6	1.5	1.3	4.9
Trichloroethylene	ug/m^3	3	0.54	ND (0.10)	ND (0.10)	ND (0.10)	0.97	0.26	0.75
Trichlorofluoromethane	ug/m^3	3100	1.7	2	2	2.1	7.9	6.2	1.3
m,p-Xylene	ug/m^3	440	0.69 J	0.56 J	ND (0.30)	1.1	1.2	0.74 J	2.7
o-Xylene	ug/m^3	440	ND (0.22)	ND (0.22)	ND (0.22)	0.43 J	0.43 J	ND (0.22)	0.96
Xylenes (total)	ug/m^3	440	0.69 J	0.56 J	ND (0.22)	1.5	1.6	0.74 J	3.7

NOTES:
µg/m³ - micrograms per cubic meter
ND - not detected above laboratory detection limits
J - estimated value
VISL = Vapor Intrusion Screening Levels



LEGEND

- Approximate Property Boundary
- Sub-Slab Sample Location
- Indoor Air Sample Location
- Outdoor/Background Sample Location
- Not Sampled; Access Not Granted

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20 GIBSON PLACE, SUITE 310, FREEHOLD, NEW JERSEY

VAPOR INTRUSION
SAMPLE LOCATION MAP

180 EAST PARK AVENUE
LONG BEACH, NEW YORK

FIGURE 1
Project No. 341998

TABLE 1
SUB-SLAB SOIL GAS DATA SUMMARY
AEI PROJECT No. 341998
NU-CLEAR DRY CLEANERS, LONG BEACH, NEW YORK

Client Sample ID:		**US EPA Vapor Intrusion Screening Levels**	**SS-01**	**SS-02**	**SS-03**	**SS-07**	**SS-06**
Location:			**162 East Park Ave**	**168 East Park Ave**	**172 East Park Ave**	**180 East Park Ave**	**180 East Park Ave**
Lab Sample ID:		**Version 3.4 06/2015**	**JC17438-2**	**JC17438-6**	**JC17438-8**	**JC17438-10**	**JC17438-11**
Date Sampled:			**3/31/2016**	**3/31/2016**	**3/31/2016**	**3/31/2016**	**3/31/2016**
GC/MS Volatiles (TO-15) - ug/m^3							
Acetone	μg/m³	4500000	26.6	24.7	44.7	13	21
Benzene	μg/m³	52	0.86	1.1	1.6	4.8	1.4
Carbon disulfide	μg/m³	100000	ND (0.097)	ND (0.097)	1.6	ND (0.40)	ND (0.097)
Chloroform	μg/m³	18	ND (0.083)	7.3	51.3	3.8 J	213
Chloromethane	μg/m³	13000	1.4	1.4	1.9	1.7	0.97
Carbon tetrachloride	μg/m³	68	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.75)	0.6
Cyclohexane	μg/m³	880000	ND (0.055)	2.7	19	20	18
1,1-Dichloroethylene	μg/m³	29000	ND (0.083)	2.9	0.71 J	2.3 J	1.5
1,2-Dichloroethane	μg/m³	16	1.3	ND (0.073)	ND (0.073)	ND (0.28)	ND (0.073)
Dichlorodifluoromethane	μg/m³	15000	2.7	ND (0.094)	ND (0.094)	2.7 J	3.3
trans-1,2-Dichloroethylene	μg/m³	-	ND (0.11)	0.38 J	ND (0.11)	15	0.87
cis-1,2-Dichloroethylene	μg/m³	-	1.9	63.4	15	2780	44
m-Dichlorobenzene	μg/m³	-	ND (0.12)	0.96	ND (0.12)	ND (0.47)	0.96
Ethanol	μg/m³	-	194 E	292	454	273	531
Ethylbenzene	μg/m³	160	0.65 J	1.4	5.6	5.6	6.1
Ethyl Acetate	μg/m³	10000	7.6	6.5	43.9	ND (1.1)	9.4
4-Ethyltoluene	μg/m³	-	ND (0.084)	2	0.54 J	ND (0.33)	0.59 J
Freon 113	μg/m³	-	ND (0.16)	1.2	ND (0.16)	ND (0.66)	0.77
Heptane	μg/m³	-	1.2	5.7	34	35	40
Hexane	μg/m³	100000	0.7	4.6	26	27	27
Isopropyl Alcohol	μg/m³	-	43.5	79.2	49.7	51.4	199
Methylene chloride	μg/m³	41000	ND (0.087)	ND (0.087)	0.9	ND (0.35)	0.66 J
Methyl ethyl ketone	μg/m³	730000	1.9	3.8	2.8	2.5	5.3
Methyl Isobutyl Ketone	μg/m³	-	ND (0.23)	ND (0.23)	ND (0.23)	5.7	1.9
Methylmethacrylate	μg/m³	100000	ND (0.16)	1.7	ND (0.16)	ND (0.66)	3.3
Styrene	μg/m³	150000	ND (0.064)	ND (0.064)	1.1	ND (0.26)	ND (0.064)
1,1,1-Trichloroethane	μg/m³	730000	ND (0.13)	9.3	1.6	6	2.7
1,1,2-Trichloroethane	μg/m³	26	ND (0.21)	1.8	ND (0.21)	ND (0.87)	ND (0.21)
1,2,4-Trimethylbenzene	μg/m³	1000	0.69 J	9.3	0.88 J	ND (0.30)	1.3
1,3,5-Trimethylbenzene	μg/m³	-	ND (0.22)	4.2	ND (0.22)	ND (0.88)	ND (0.22)
2,2,4-Trimethylpentane	μg/m³	-	ND (0.11)	ND (0.11)	50.9	56.5	92.5
Tetrachloroethylene	μg/m³	1600	4.7	124	37	10400	1990
Tetrahydrofuran	μg/m³	290000	ND (0.13)	ND (0.13)	0.56 J	ND (0.53)	0.50 J
Toluene	μg/m³	730000	2.1	2.4	1.7	1.5 J	2.4
Trichloroethylene	μg/m³	100	102	2970	650	3960	1090
Trichlorofluoromethane	μg/m³	100000	1.7	2.5	8.4	ND (0.49)	2.5
Vinyl chloride	μg/m³	93	ND (0.054)	ND (0.054)	ND (0.054)	25	ND (0.054)
m,p-Xylene	μg/m³	15000	1.1	4	2.1	1.7 J	2.6
o-Xylene	μg/m³	15000	0.43 J	2.6	0.61 J	ND (0.87)	0.87
Xylenes (total)	μg/m³	15000	1.5	6.6	2.7	1.7 J	3.5

NOTES:
μg/m³ - microgram per cubic meter
ND - not detected above laboratory detection limits
J - estimated value

TABLE 2
INDOOR AIR DATA SUMMARY
AEI PROJECT No. 341998
NU-CLEAR DRY CLEANERS, LONG BEACH, NEW YORK

Client Sample ID:		US EPA VISL INDOOR AIR VALUES	IA-01	IA-07	IA-06	IA-02	IA-08	IA-03	BG-01
Location:			162 East Park Ave	166 East Park Ave	164 East Park Ave	168 East Park Ave	170 East Park Ave	172 East Park Ave	Background
Lab Sample ID:		(Version 3.4	JC17438-1	JC17438-3	JC17438-4	JC17438-5	JC17438-7	JC17438-9	JC17438-12
Date Sampled:		06/2015)	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016	3/31/2016
GC/MS Volatiles (TO-15) - ug/m^3									
Acetone	ug/m^3	140000	21	17	14	20	21	62.9	4.8
Benzene	ug/m^3	1.6	0.8	0.67	0.54 J	1.1	0.89	1.2	0.45 J
Carbon disulfide	ug/m^3	3100	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097)	ND (0.097)	1.1	ND (0.097)
Chloroform	ug/m^3	53	ND (0.083)	1	0.73 J	0.73 J	1.7	10	1.2
Chloromethane	ug/m^3	390	1.4	1.5	1.4	1.5	1.6	1.8	1.4
Carbon tetrachloride	ug/m^3	2	ND (0.20)	ND (0.20)	0.48	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
Cyclohexane	ug/m^3	26000	ND (0.055)	ND (0.055)	ND (0.055)	ND (0.055)	0.89	ND (0.055)	ND (0.055)
1,2-Dichloroethane	ug/m^3	47	1.4	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)	ND (0.073)
Dichlorodifluoromethane	ug/m^3	440	2.8	3	2.8	2.9	5.4	3.9	2.7
cis-1,2-Dichloroethylene	ug/m^3	-	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	ND (0.083)	3.1
p-Dichlorobenzene	ug/m^3	-	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	3.8	ND (0.16)	ND (0.16)
Ethanol	ug/m^3	-	31.1	133 E	98.0 E	105 E	343 E	239 E	8.7
Ethyl Acetate	ug/m^3	310	4.7	5.8	13	6.5	9.7	33	8.3
Heptane	ug/m^3	-	1.1	0.45 J	ND (0.082)	0.57 J	ND (0.082)	1.2	ND (0.082)
Hexane	ug/m^3	3100	ND (0.081)	0.53 J	1.3	0.92	0.88	1.1	ND (0.081)
2-Hexanone	ug/m^3	-	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)	0.49 J	ND (0.18)
Isopropyl Alcohol	ug/m^3	-	4.2	2.7	2.4	2.7	6.1	6.1	0.64
Methylene chloride	ug/m^3	1200	ND (0.087)	ND (0.087)	1.5	0.59 J	0.9	0.66 J	ND (0.087)
Methyl ethyl ketone	ug/m^3	22000	0.8	0.71	0.8	2.2	2.7	3.2	0.83
Styrene	ug/m^3	4400	ND (0.064)	ND (0.064)	ND (0.064)	ND (0.064)	0.72 J	1.2	ND (0.064)
1,2,4-Trimethylbenzene	ug/m^3	31	ND (0.074)	0.69 J	ND (0.074)	0.93 J	ND (0.074)	0.54 J	1.1
Tertiary Butyl Alcohol	ug/m^3	-	ND (0.16)	0.7	ND (0.16)	0.39 J	0.61	ND (0.16)	ND (0.16)
Tetrachloroethylene	ug/m^3	47	2.1	2.6	1.7	8.8	13	13	3.1
Tetrahydrofuran	ug/m^3	8800	ND (0.13)	ND (0.13)	ND (0.13)	ND (0.13)	1.8	0.8	1.7
Toluene	ug/m^3	22000	2.1	1	0.94	1.6	1.5	1.3	4.9
Trichloroethylene	ug/m^3	3	0.54	ND (0.10)	ND (0.10)	ND (0.10)	0.97	0.26	0.75
Trichlorofluoromethane	ug/m^3	3100	1.7	2	2	2.1	7.9	6.2	1.3
m,p-Xylene	ug/m^3	440	0.69 J	0.56 J	ND (0.30)	1.1	1.2	0.74 J	2.7
o-Xylene	ug/m^3	440	ND (0.22)	ND (0.22)	ND (0.22)	0.43 J	0.43 J	ND (0.22)	0.96
Xylenes (total)	ug/m^3	440	0.69 J	0.56 J	ND (0.22)	1.5	1.6	0.74 J	3.7

NOTES:
µg/m³ - micrograms per cubic meter
ND - not detected above laboratory detection limits
J - estimated value
VISL = Vapor Intrusion Screening Levels

ATTACHMENT A

LABORATORY REPORT (SGS ACCUTEST)

SGS
ACCUTEST
New Jersey
04/11/16

SGS ACCUTEST IS PART OF SGS, THE WORLD'S LEADING INSPECTION, VERIFICATION, TESTING AND CERTIFICATION COMPANY.

e-Hardcopy 2.0
Automated Report

Technical Report for

AEI Consultants

NU-Clear, 180 East Park Avenue, Long Beach, NY

341998/105430

SGS Accutest Job Number: JC17438

Sampling Date: 03/31/16

Report to:

AEI Consultants
20 Gibson Place Suite 310
Freehold, NJ 07728
dkrumich-ogonowski@aeiconsultants.com; rkowalski@aeiconsultants.com

ATTN: Dyna Krumich-Ogonowski

Total number of pages in report: **1497**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy F. Cole

Nancy Cole
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TN, TX, VA, WV, DoD ELAP (L-A-B L2248)

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Sample Summary

AEI Consultants

Job No: JC17438

NU-Clear, 180 East Park Avenue, Long Beach, NY
Project No: 341998/105430

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC17438-1	03/31/16	11:44	DKO	04/01/16	AIR	Indoor Air Comp.	IA-01
JC17438-2	03/31/16	11:46	DKO	04/01/16	AIR	Soil Vapor Comp.	SS-01
JC17438-3	03/31/16	12:01	DKO	04/01/16	AIR	Indoor Air Comp.	IA-07
JC17438-4	03/31/16	12:03	DKO	04/01/16	AIR	Indoor Air Comp.	IA-06
JC17438-5	03/31/16	12:05	DKO	04/01/16	AIR	Indoor Air Comp.	IA-02
JC17438-6	03/31/16	12:06	DKO	04/01/16	AIR	Soil Vapor Comp.	SS-02
JC17438-7	03/31/16	12:12	DKO	04/01/16	AIR	Indoor Air Comp.	IA-08
JC17438-8	03/31/16	12:17	DKO	04/01/16	AIR	Soil Vapor Comp.	SS-03
JC17438-9	03/31/16	12:20	DKO	04/01/16	AIR	Indoor Air Comp.	IA-03
JC17438-10	03/31/16	12:56	DKO	04/01/16	AIR	Soil Vapor Comp.	SS-07
JC17438-11	03/31/16	13:00	DKO	04/01/16	AIR	Soil Vapor Comp.	SS-06
JC17438-12	03/31/16	13:15	DKO	04/01/16	AIR	Indoor Air Comp.	BG-01

CASE NARRATIVE / CONFORMANCE SUMMARY

2

Client: AEI Consultants **Job No** JC17438

Site: NU-Clear, 180 East Park Avenue, Long Beach, NY **Report Date** 4/11/2016 4:07:08 PM

On 04/01/2016, 12 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories . An Accutest Job Number of JC17438 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method TO-15

Matrix: AIR **Batch ID:** V5W698

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC17015-3DUP were used as the QC samples indicated.
- Sample(s) JC17438-2, JC17438-3, JC17438-4 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Matrix: AIR **Batch ID:** V5W699

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC17438-8DUP were used as the QC samples indicated.
- Sample(s) JC17438-5, JC17438-9 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Matrix: AIR **Batch ID:** V5W700

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC17438-12DUP were used as the QC samples indicated.
- Sample(s) JC17438-7 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.
- RPD(s) for Duplicate for Trichloroethylene are outside control limits for sample JC17438-12DUP.

Matrix: AIR **Batch ID:** V5W701

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC17199-5DUP were used as the QC samples indicated.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC17438-1	**IA-01**					
Acetone		8.7	0.20	0.036	ppbv	TO-15
Benzene		0.25	0.20	0.031	ppbv	TO-15
Chloromethane		0.70	0.20	0.052	ppbv	TO-15
1,2-Dichloroethane		0.34	0.20	0.018	ppbv	TO-15
Dichlorodifluoromethane		0.56	0.20	0.019	ppbv	TO-15
Ethanol		16.5	0.50	0.075	ppbv	TO-15
Ethylbenzene		0.058 J	0.20	0.042	ppbv	TO-15
Ethyl Acetate		1.3	0.20	0.075	ppbv	TO-15
Heptane		0.26	0.20	0.020	ppbv	TO-15
Isopropyl Alcohol		1.7	0.20	0.16	ppbv	TO-15
Methyl ethyl ketone		0.27	0.20	0.048	ppbv	TO-15
Tetrachloroethylene		0.31	0.040	0.023	ppbv	TO-15
Toluene		0.57	0.20	0.012	ppbv	TO-15
Trichloroethylene		0.10	0.040	0.019	ppbv	TO-15
Trichlorofluoromethane		0.30	0.10	0.022	ppbv	TO-15
m,p-Xylene		0.16 J	0.20	0.068	ppbv	TO-15
Xylenes (total)		0.16 J	0.20	0.051	ppbv	TO-15
Acetone		21	0.48	0.086	ug/m3	TO-15
Benzene		0.80	0.64	0.099	ug/m3	TO-15
Chloromethane		1.4	0.41	0.11	ug/m3	TO-15
1,2-Dichloroethane		1.4	0.81	0.073	ug/m3	TO-15
Dichlorodifluoromethane		2.8	0.99	0.094	ug/m3	TO-15
Ethanol		31.1	0.94	0.14	ug/m3	TO-15
Ethylbenzene		0.25 J	0.87	0.18	ug/m3	TO-15
Ethyl Acetate		4.7	0.72	0.27	ug/m3	TO-15
Heptane		1.1	0.82	0.082	ug/m3	TO-15
Isopropyl Alcohol		4.2	0.49	0.39	ug/m3	TO-15
Methyl ethyl ketone		0.80	0.59	0.14	ug/m3	TO-15
Tetrachloroethylene		2.1	0.27	0.16	ug/m3	TO-15
Toluene		2.1	0.75	0.045	ug/m3	TO-15
Trichloroethylene		0.54	0.21	0.10	ug/m3	TO-15
Trichlorofluoromethane		1.7	0.56	0.12	ug/m3	TO-15
m,p-Xylene		0.69 J	0.87	0.30	ug/m3	TO-15
Xylenes (total)		0.69 J	0.87	0.22	ug/m3	TO-15
JC17438-2	**SS-01**					
Acetone		11.2	0.20	0.036	ppbv	TO-15
Benzene		0.27	0.20	0.031	ppbv	TO-15
Chloromethane		0.68	0.20	0.052	ppbv	TO-15
1,2-Dichloroethane		0.33	0.20	0.018	ppbv	TO-15
Dichlorodifluoromethane		0.54	0.20	0.019	ppbv	TO-15
cis-1,2-Dichloroethylene		0.48	0.20	0.021	ppbv	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Ethanol	103 E	0.50	0.075	ppbv	TO-15
Ethylbenzene	0.15 J	0.20	0.042	ppbv	TO-15
Ethyl Acetate	2.1	0.20	0.075	ppbv	TO-15
Heptane	0.30	0.20	0.020	ppbv	TO-15
Hexane	0.20	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	17.7	0.20	0.16	ppbv	TO-15
Methyl ethyl ketone	0.64	0.20	0.048	ppbv	TO-15
1,2,4-Trimethylbenzene	0.14 J	0.20	0.015	ppbv	TO-15
Tetrachloroethylene	0.69	0.040	0.023	ppbv	TO-15
Toluene	0.57	0.20	0.012	ppbv	TO-15
Trichloroethylene	19.0	0.040	0.019	ppbv	TO-15
Trichlorofluoromethane	0.30	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.25	0.20	0.068	ppbv	TO-15
o-Xylene	0.10 J	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.35	0.20	0.051	ppbv	TO-15
Acetone	26.6	0.48	0.086	ug/m3	TO-15
Benzene	0.86	0.64	0.099	ug/m3	TO-15
Chloromethane	1.4	0.41	0.11	ug/m3	TO-15
1,2-Dichloroethane	1.3	0.81	0.073	ug/m3	TO-15
Dichlorodifluoromethane	2.7	0.99	0.094	ug/m3	TO-15
cis-1,2-Dichloroethylene	1.9	0.79	0.083	ug/m3	TO-15
Ethanol	194 E	0.94	0.14	ug/m3	TO-15
Ethylbenzene	0.65 J	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	7.6	0.72	0.27	ug/m3	TO-15
Heptane	1.2	0.82	0.082	ug/m3	TO-15
Hexane	0.70	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	43.5	0.49	0.39	ug/m3	TO-15
Methyl ethyl ketone	1.9	0.59	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.69 J	0.98	0.074	ug/m3	TO-15
Tetrachloroethylene	4.7	0.27	0.16	ug/m3	TO-15
Toluene	2.1	0.75	0.045	ug/m3	TO-15
Trichloroethylene	102	0.21	0.10	ug/m3	TO-15
Trichlorofluoromethane	1.7	0.56	0.12	ug/m3	TO-15
m,p-Xylene	1.1	0.87	0.30	ug/m3	TO-15
o-Xylene	0.43 J	0.87	0.22	ug/m3	TO-15
Xylenes (total)	1.5	0.87	0.22	ug/m3	TO-15
JC17438-3 IA-07					
Acetone	7.3	0.20	0.036	ppbv	TO-15
Benzene	0.21	0.20	0.031	ppbv	TO-15
Chloroform	0.21	0.20	0.017	ppbv	TO-15
Chloromethane	0.73	0.20	0.052	ppbv	TO-15
Dichlorodifluoromethane	0.60	0.20	0.019	ppbv	TO-15
Ethanol	70.6 E	0.50	0.075	ppbv	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Ethyl Acetate	1.6	0.20	0.075	ppbv	TO-15
Heptane	0.11 J	0.20	0.020	ppbv	TO-15
Hexane	0.15 J	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	1.1	0.20	0.16	ppbv	TO-15
Methyl ethyl ketone	0.24	0.20	0.048	ppbv	TO-15
1,2,4-Trimethylbenzene	0.14 J	0.20	0.015	ppbv	TO-15
Tertiary Butyl Alcohol	0.23	0.20	0.053	ppbv	TO-15
Tetrachloroethylene	0.38	0.040	0.023	ppbv	TO-15
Toluene	0.27	0.20	0.012	ppbv	TO-15
Trichlorofluoromethane	0.35	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.13 J	0.20	0.068	ppbv	TO-15
Xylenes (total)	0.13 J	0.20	0.051	ppbv	TO-15
Acetone	17	0.48	0.086	ug/m3	TO-15
Benzene	0.67	0.64	0.099	ug/m3	TO-15
Chloroform	1.0	0.98	0.083	ug/m3	TO-15
Chloromethane	1.5	0.41	0.11	ug/m3	TO-15
Dichlorodifluoromethane	3.0	0.99	0.094	ug/m3	TO-15
Ethanol	133 E	0.94	0.14	ug/m3	TO-15
Ethyl Acetate	5.8	0.72	0.27	ug/m3	TO-15
Heptane	0.45 J	0.82	0.082	ug/m3	TO-15
Hexane	0.53 J	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	2.7	0.49	0.39	ug/m3	TO-15
Methyl ethyl ketone	0.71	0.59	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.69 J	0.98	0.074	ug/m3	TO-15
Tertiary Butyl Alcohol	0.70	0.61	0.16	ug/m3	TO-15
Tetrachloroethylene	2.6	0.27	0.16	ug/m3	TO-15
Toluene	1.0	0.75	0.045	ug/m3	TO-15
Trichlorofluoromethane	2.0	0.56	0.12	ug/m3	TO-15
m,p-Xylene	0.56 J	0.87	0.30	ug/m3	TO-15
Xylenes (total)	0.56 J	0.87	0.22	ug/m3	TO-15
JC17438-4 IA-06					
Acetone	6.1	0.20	0.036	ppbv	TO-15
Benzene	0.17 J	0.20	0.031	ppbv	TO-15
Chloroform	0.15 J	0.20	0.017	ppbv	TO-15
Chloromethane	0.70	0.20	0.052	ppbv	TO-15
Carbon tetrachloride	0.076	0.040	0.031	ppbv	TO-15
Dichlorodifluoromethane	0.57	0.20	0.019	ppbv	TO-15
Ethanol	52.0 E	0.50	0.075	ppbv	TO-15
Ethyl Acetate	3.6	0.20	0.075	ppbv	TO-15
Hexane	0.37	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	0.96	0.20	0.16	ppbv	TO-15
Methylene chloride	0.44	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	0.27	0.20	0.048	ppbv	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Tetrachloroethylene	0.25	0.040	0.023	ppbv	TO-15
Toluene	0.25	0.20	0.012	ppbv	TO-15
Trichlorofluoromethane	0.35	0.10	0.022	ppbv	TO-15
Acetone	14	0.48	0.086	ug/m3	TO-15
Benzene	0.54 J	0.64	0.099	ug/m3	TO-15
Chloroform	0.73 J	0.98	0.083	ug/m3	TO-15
Chloromethane	1.4	0.41	0.11	ug/m3	TO-15
Carbon tetrachloride	0.48	0.25	0.20	ug/m3	TO-15
Dichlorodifluoromethane	2.8	0.99	0.094	ug/m3	TO-15
Ethanol	98.0 E	0.94	0.14	ug/m3	TO-15
Ethyl Acetate	13	0.72	0.27	ug/m3	TO-15
Hexane	1.3	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	2.4	0.49	0.39	ug/m3	TO-15
Methylene chloride	1.5	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	0.80	0.59	0.14	ug/m3	TO-15
Tetrachloroethylene	1.7	0.27	0.16	ug/m3	TO-15
Toluene	0.94	0.75	0.045	ug/m3	TO-15
Trichlorofluoromethane	2.0	0.56	0.12	ug/m3	TO-15
JC17438-5 IA-02					
Acetone	8.5	0.20	0.036	ppbv	TO-15
Benzene	0.33	0.20	0.031	ppbv	TO-15
Chloroform	0.15 J	0.20	0.017	ppbv	TO-15
Chloromethane	0.72	0.20	0.052	ppbv	TO-15
Dichlorodifluoromethane	0.58	0.20	0.019	ppbv	TO-15
Ethanol	55.8 E	0.50	0.075	ppbv	TO-15
Ethyl Acetate	1.8	0.20	0.075	ppbv	TO-15
Heptane	0.14 J	0.20	0.020	ppbv	TO-15
Hexane	0.26	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	1.1	0.20	0.16	ppbv	TO-15
Methylene chloride	0.17 J	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	0.74	0.20	0.048	ppbv	TO-15
1,2,4-Trimethylbenzene	0.19 J	0.20	0.015	ppbv	TO-15
2,2,4-Trimethylpentane	0.13 J	0.20	0.023	ppbv	TO-15
Tertiary Butyl Alcohol	0.13 J	0.20	0.053	ppbv	TO-15
Tetrachloroethylene	1.3	0.040	0.023	ppbv	TO-15
Toluene	0.42	0.20	0.012	ppbv	TO-15
Trichlorofluoromethane	0.38	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.25	0.20	0.068	ppbv	TO-15
o-Xylene	0.098 J	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.35	0.20	0.051	ppbv	TO-15
Acetone	20	0.48	0.086	ug/m3	TO-15
Benzene	1.1	0.64	0.099	ug/m3	TO-15
Chloroform	0.73 J	0.98	0.083	ug/m3	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Chloromethane	1.5	0.41	0.11	ug/m3	TO-15
Dichlorodifluoromethane	2.9	0.99	0.094	ug/m3	TO-15
Ethanol	105 E	0.94	0.14	ug/m3	TO-15
Ethyl Acetate	6.5	0.72	0.27	ug/m3	TO-15
Heptane	0.57 J	0.82	0.082	ug/m3	TO-15
Hexane	0.92	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	2.7	0.49	0.39	ug/m3	TO-15
Methylene chloride	0.59 J	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	2.2	0.59	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.93 J	0.98	0.074	ug/m3	TO-15
2,2,4-Trimethylpentane	0.61 J	0.93	0.11	ug/m3	TO-15
Tertiary Butyl Alcohol	0.39 J	0.61	0.16	ug/m3	TO-15
Tetrachloroethylene	8.8	0.27	0.16	ug/m3	TO-15
Toluene	1.6	0.75	0.045	ug/m3	TO-15
Trichlorofluoromethane	2.1	0.56	0.12	ug/m3	TO-15
m,p-Xylene	1.1	0.87	0.30	ug/m3	TO-15
o-Xylene	0.43 J	0.87	0.22	ug/m3	TO-15
Xylenes (total)	1.5	0.87	0.22	ug/m3	TO-15
JC17438-6 SS-02					
Acetone	10.4	0.20	0.036	ppbv	TO-15
Benzene	0.35	0.20	0.031	ppbv	TO-15
Chloroform	1.5	0.20	0.017	ppbv	TO-15
Chloromethane	0.66	0.20	0.052	ppbv	TO-15
Cyclohexane	0.77	0.20	0.016	ppbv	TO-15
1,1-Dichloroethylene	0.74	0.20	0.021	ppbv	TO-15
trans-1,2-Dichloroethylene	0.097 J	0.20	0.028	ppbv	TO-15
cis-1,2-Dichloroethylene	16.0	0.20	0.021	ppbv	TO-15
m-Dichlorobenzene	0.16	0.10	0.020	ppbv	TO-15
Ethanol	155	10	1.5	ppbv	TO-15
Ethylbenzene	0.33	0.20	0.042	ppbv	TO-15
Ethyl Acetate	1.8	0.20	0.075	ppbv	TO-15
4-Ethyltoluene	0.40	0.20	0.017	ppbv	TO-15
Freon 113	0.16	0.10	0.021	ppbv	TO-15
Heptane	1.4	0.20	0.020	ppbv	TO-15
Hexane	1.3	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	32.2	0.20	0.16	ppbv	TO-15
Methyl ethyl ketone	1.3	0.20	0.048	ppbv	TO-15
Methylmethacrylate	0.41	0.20	0.040	ppbv	TO-15
1,1,1-Trichloroethane	1.7	0.10	0.024	ppbv	TO-15
1,1,2-Trichloroethane	0.33	0.10	0.039	ppbv	TO-15
1,2,4-Trimethylbenzene	1.9	0.20	0.015	ppbv	TO-15
1,3,5-Trimethylbenzene	0.86	0.20	0.045	ppbv	TO-15
Tetrachloroethylene	18.3	0.040	0.023	ppbv	TO-15

Summary of Hits

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Toluene	0.65	0.20	0.012	ppbv	TO-15
Trichloroethylene	552	0.80	0.37	ppbv	TO-15
Trichlorofluoromethane	0.44	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.92	0.20	0.068	ppbv	TO-15
o-Xylene	0.60	0.20	0.051	ppbv	TO-15
Xylenes (total)	1.5	0.20	0.051	ppbv	TO-15
Acetone	24.7	0.48	0.086	ug/m3	TO-15
Benzene	1.1	0.64	0.099	ug/m3	TO-15
Chloroform	7.3	0.98	0.083	ug/m3	TO-15
Chloromethane	1.4	0.41	0.11	ug/m3	TO-15
Cyclohexane	2.7	0.69	0.055	ug/m3	TO-15
1,1-Dichloroethylene	2.9	0.79	0.083	ug/m3	TO-15
trans-1,2-Dichloroethylene	0.38 J	0.79	0.11	ug/m3	TO-15
cis-1,2-Dichloroethylene	63.4	0.79	0.083	ug/m3	TO-15
m-Dichlorobenzene	0.96	0.60	0.12	ug/m3	TO-15
Ethanol	292	19	2.8	ug/m3	TO-15
Ethylbenzene	1.4	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	6.5	0.72	0.27	ug/m3	TO-15
4-Ethyltoluene	2.0	0.98	0.084	ug/m3	TO-15
Freon 113	1.2	0.77	0.16	ug/m3	TO-15
Heptane	5.7	0.82	0.082	ug/m3	TO-15
Hexane	4.6	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	79.2	0.49	0.39	ug/m3	TO-15
Methyl ethyl ketone	3.8	0.59	0.14	ug/m3	TO-15
Methylmethacrylate	1.7	0.82	0.16	ug/m3	TO-15
1,1,1-Trichloroethane	9.3	0.55	0.13	ug/m3	TO-15
1,1,2-Trichloroethane	1.8	0.55	0.21	ug/m3	TO-15
1,2,4-Trimethylbenzene	9.3	0.98	0.074	ug/m3	TO-15
1,3,5-Trimethylbenzene	4.2	0.98	0.22	ug/m3	TO-15
Tetrachloroethylene	124	0.27	0.16	ug/m3	TO-15
Toluene	2.4	0.75	0.045	ug/m3	TO-15
Trichloroethylene	2970	4.3	2.0	ug/m3	TO-15
Trichlorofluoromethane	2.5	0.56	0.12	ug/m3	TO-15
m,p-Xylene	4.0	0.87	0.30	ug/m3	TO-15
o-Xylene	2.6	0.87	0.22	ug/m3	TO-15
Xylenes (total)	6.6	0.87	0.22	ug/m3	TO-15
JC17438-7 IA-08					
Acetone	9.0	0.20	0.036	ppbv	TO-15
Benzene	0.28	0.20	0.031	ppbv	TO-15
Chloroform	0.35	0.20	0.017	ppbv	TO-15
Chloromethane	0.76	0.20	0.052	ppbv	TO-15
Cyclohexane	0.26	0.20	0.016	ppbv	TO-15
Dichlorodifluoromethane	1.1	0.20	0.019	ppbv	TO-15

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p-Dichlorobenzene	0.63	0.10	0.027	ppbv	TO-15
Ethanol	182 E	0.50	0.075	ppbv	TO-15
Ethyl Acetate	2.7	0.20	0.075	ppbv	TO-15
Hexane	0.25	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	2.5	0.20	0.16	ppbv	TO-15
Methylene chloride	0.26	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	0.91	0.20	0.048	ppbv	TO-15
Styrene	0.17 J	0.20	0.015	ppbv	TO-15
Tertiary Butyl Alcohol	0.20	0.20	0.053	ppbv	TO-15
Tetrachloroethylene	1.9	0.040	0.023	ppbv	TO-15
Tetrahydrofuran	0.61	0.20	0.045	ppbv	TO-15
Toluene	0.39	0.20	0.012	ppbv	TO-15
Trichloroethylene	0.18	0.040	0.019	ppbv	TO-15
Trichlorofluoromethane	1.4	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.28	0.20	0.068	ppbv	TO-15
o-Xylene	0.10 J	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.38	0.20	0.051	ppbv	TO-15
Acetone	21	0.48	0.086	ug/m3	TO-15
Benzene	0.89	0.64	0.099	ug/m3	TO-15
Chloroform	1.7	0.98	0.083	ug/m3	TO-15
Chloromethane	1.6	0.41	0.11	ug/m3	TO-15
Cyclohexane	0.89	0.69	0.055	ug/m3	TO-15
Dichlorodifluoromethane	5.4	0.99	0.094	ug/m3	TO-15
p-Dichlorobenzene	3.8	0.60	0.16	ug/m3	TO-15
Ethanol	343 E	0.94	0.14	ug/m3	TO-15
Ethyl Acetate	9.7	0.72	0.27	ug/m3	TO-15
Hexane	0.88	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	6.1	0.49	0.39	ug/m3	TO-15
Methylene chloride	0.90	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	2.7	0.59	0.14	ug/m3	TO-15
Styrene	0.72 J	0.85	0.064	ug/m3	TO-15
Tertiary Butyl Alcohol	0.61	0.61	0.16	ug/m3	TO-15
Tetrachloroethylene	13	0.27	0.16	ug/m3	TO-15
Tetrahydrofuran	1.8	0.59	0.13	ug/m3	TO-15
Toluene	1.5	0.75	0.045	ug/m3	TO-15
Trichloroethylene	0.97	0.21	0.10	ug/m3	TO-15
Trichlorofluoromethane	7.9	0.56	0.12	ug/m3	TO-15
m,p-Xylene	1.2	0.87	0.30	ug/m3	TO-15
o-Xylene	0.43 J	0.87	0.22	ug/m3	TO-15
Xylenes (total)	1.6	0.87	0.22	ug/m3	TO-15
JC17438-8 SS-03					
Acetone	18.8	0.20	0.036	ppbv	TO-15
Benzene	0.49	0.20	0.031	ppbv	TO-15

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Carbon disulfide	0.52	0.20	0.031	ppbv	TO-15
Chloroform	10.5	0.20	0.017	ppbv	TO-15
Chloromethane	0.90	0.20	0.052	ppbv	TO-15
Cyclohexane	5.4	0.20	0.016	ppbv	TO-15
1,1-Dichloroethylene	0.18 J	0.20	0.021	ppbv	TO-15
cis-1,2-Dichloroethylene	3.9	0.20	0.021	ppbv	TO-15
Ethanol	241	5.0	0.75	ppbv	TO-15
Ethylbenzene	1.3	0.20	0.042	ppbv	TO-15
Ethyl Acetate	12.2	0.20	0.075	ppbv	TO-15
4-Ethyltoluene	0.11 J	0.20	0.017	ppbv	TO-15
Heptane	8.3	0.20	0.020	ppbv	TO-15
Hexane	7.4	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	20.2	0.20	0.16	ppbv	TO-15
Methylene chloride	0.26	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	0.94	0.20	0.048	ppbv	TO-15
Styrene	0.27	0.20	0.015	ppbv	TO-15
1,1,1-Trichloroethane	0.30	0.10	0.024	ppbv	TO-15
1,2,4-Trimethylbenzene	0.18 J	0.20	0.015	ppbv	TO-15
2,2,4-Trimethylpentane	10.9	0.20	0.023	ppbv	TO-15
Tetrachloroethylene	5.4	0.040	0.023	ppbv	TO-15
Tetrahydrofuran	0.19 J	0.20	0.045	ppbv	TO-15
Toluene	0.46	0.20	0.012	ppbv	TO-15
Trichloroethylene	121	0.40	0.19	ppbv	TO-15
Trichlorofluoromethane	1.5	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.48	0.20	0.068	ppbv	TO-15
o-Xylene	0.14 J	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.62	0.20	0.051	ppbv	TO-15
Acetone	44.7	0.48	0.086	ug/m3	TO-15
Benzene	1.6	0.64	0.099	ug/m3	TO-15
Carbon disulfide	1.6	0.62	0.097	ug/m3	TO-15
Chloroform	51.3	0.98	0.083	ug/m3	TO-15
Chloromethane	1.9	0.41	0.11	ug/m3	TO-15
Cyclohexane	19	0.69	0.055	ug/m3	TO-15
1,1-Dichloroethylene	0.71 J	0.79	0.083	ug/m3	TO-15
cis-1,2-Dichloroethylene	15	0.79	0.083	ug/m3	TO-15
Ethanol	454	9.4	1.4	ug/m3	TO-15
Ethylbenzene	5.6	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	43.9	0.72	0.27	ug/m3	TO-15
4-Ethyltoluene	0.54 J	0.98	0.084	ug/m3	TO-15
Heptane	34	0.82	0.082	ug/m3	TO-15
Hexane	26	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	49.7	0.49	0.39	ug/m3	TO-15
Methylene chloride	0.90	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	2.8	0.59	0.14	ug/m3	TO-15
Styrene	1.1	0.85	0.064	ug/m3	TO-15

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1,1,1-Trichloroethane	1.6	0.55	0.13	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.88 J	0.98	0.074	ug/m3	TO-15
2,2,4-Trimethylpentane	50.9	0.93	0.11	ug/m3	TO-15
Tetrachloroethylene	37	0.27	0.16	ug/m3	TO-15
Tetrahydrofuran	0.56 J	0.59	0.13	ug/m3	TO-15
Toluene	1.7	0.75	0.045	ug/m3	TO-15
Trichloroethylene	650	2.1	1.0	ug/m3	TO-15
Trichlorofluoromethane	8.4	0.56	0.12	ug/m3	TO-15
m,p-Xylene	2.1	0.87	0.30	ug/m3	TO-15
o-Xylene	0.61 J	0.87	0.22	ug/m3	TO-15
Xylenes (total)	2.7	0.87	0.22	ug/m3	TO-15
JC17438-9 IA-03					
Acetone	26.5	0.20	0.036	ppbv	TO-15
Benzene	0.38	0.20	0.031	ppbv	TO-15
Carbon disulfide	0.34	0.20	0.031	ppbv	TO-15
Chloroform	2.1	0.20	0.017	ppbv	TO-15
Chloromethane	0.87	0.20	0.052	ppbv	TO-15
Dichlorodifluoromethane	0.79	0.20	0.019	ppbv	TO-15
Ethanol	127 E	0.50	0.075	ppbv	TO-15
Ethylbenzene	0.069 J	0.20	0.042	ppbv	TO-15
Ethyl Acetate	9.1	0.20	0.075	ppbv	TO-15
Heptane	0.29	0.20	0.020	ppbv	TO-15
Hexane	0.32	0.20	0.023	ppbv	TO-15
2-Hexanone	0.12 J	0.20	0.045	ppbv	TO-15
Isopropyl Alcohol	2.5	0.20	0.16	ppbv	TO-15
Methylene chloride	0.19 J	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	1.1	0.20	0.048	ppbv	TO-15
Styrene	0.29	0.20	0.015	ppbv	TO-15
1,2,4-Trimethylbenzene	0.11 J	0.20	0.015	ppbv	TO-15
2,2,4-Trimethylpentane	0.072 J	0.20	0.023	ppbv	TO-15
Tetrachloroethylene	1.9	0.040	0.023	ppbv	TO-15
Tetrahydrofuran	0.27	0.20	0.045	ppbv	TO-15
Toluene	0.35	0.20	0.012	ppbv	TO-15
Trichloroethylene	0.048	0.040	0.019	ppbv	TO-15
Trichlorofluoromethane	1.1	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.17 J	0.20	0.068	ppbv	TO-15
Xylenes (total)	0.17 J	0.20	0.051	ppbv	TO-15
Acetone	62.9	0.48	0.086	ug/m3	TO-15
Benzene	1.2	0.64	0.099	ug/m3	TO-15
Carbon disulfide	1.1	0.62	0.097	ug/m3	TO-15
Chloroform	10	0.98	0.083	ug/m3	TO-15
Chloromethane	1.8	0.41	0.11	ug/m3	TO-15
Dichlorodifluoromethane	3.9	0.99	0.094	ug/m3	TO-15

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Ethanol	239 E	0.94	0.14	ug/m3	TO-15
Ethylbenzene	0.30 J	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	33	0.72	0.27	ug/m3	TO-15
Heptane	1.2	0.82	0.082	ug/m3	TO-15
Hexane	1.1	0.70	0.081	ug/m3	TO-15
2-Hexanone	0.49 J	0.82	0.18	ug/m3	TO-15
Isopropyl Alcohol	6.1	0.49	0.39	ug/m3	TO-15
Methylene chloride	0.66 J	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	3.2	0.59	0.14	ug/m3	TO-15
Styrene	1.2	0.85	0.064	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.54 J	0.98	0.074	ug/m3	TO-15
2,2,4-Trimethylpentane	0.34 J	0.93	0.11	ug/m3	TO-15
Tetrachloroethylene	13	0.27	0.16	ug/m3	TO-15
Tetrahydrofuran	0.80	0.59	0.13	ug/m3	TO-15
Toluene	1.3	0.75	0.045	ug/m3	TO-15
Trichloroethylene	0.26	0.21	0.10	ug/m3	TO-15
Trichlorofluoromethane	6.2	0.56	0.12	ug/m3	TO-15
m,p-Xylene	0.74 J	0.87	0.30	ug/m3	TO-15
Xylenes (total)	0.74 J	0.87	0.22	ug/m3	TO-15
JC17438-10 SS-07					
Acetone	5.6	0.80	0.14	ppbv	TO-15
Benzene	1.5	0.80	0.13	ppbv	TO-15
Chloroform	0.77 J	0.80	0.066	ppbv	TO-15
Chloromethane	0.81	0.80	0.21	ppbv	TO-15
Cyclohexane	5.7	0.80	0.065	ppbv	TO-15
1,1-Dichloroethylene	0.57 J	0.80	0.084	ppbv	TO-15
Dichlorodifluoromethane	0.55 J	0.80	0.076	ppbv	TO-15
trans-1,2-Dichloroethylene	3.9	0.80	0.11	ppbv	TO-15
cis-1,2-Dichloroethylene	702	11	1.2	ppbv	TO-15
Ethanol	145	2.0	0.30	ppbv	TO-15
Ethylbenzene	1.3	0.80	0.17	ppbv	TO-15
Heptane	8.5	0.80	0.081	ppbv	TO-15
Hexane	7.6	0.80	0.090	ppbv	TO-15
Isopropyl Alcohol	20.9	0.80	0.62	ppbv	TO-15
Methyl ethyl ketone	0.85	0.80	0.19	ppbv	TO-15
Methyl Isobutyl Ketone	1.4	0.80	0.22	ppbv	TO-15
1,1,1-Trichloroethane	1.1	0.40	0.094	ppbv	TO-15
2,2,4-Trimethylpentane	12.1	0.80	0.091	ppbv	TO-15
Tetrachloroethylene	1530	2.2	1.3	ppbv	TO-15
Toluene	0.41 J	0.80	0.050	ppbv	TO-15
Trichloroethylene	736	2.2	1.0	ppbv	TO-15
Vinyl chloride	9.8	0.16	0.082	ppbv	TO-15
m,p-Xylene	0.39 J	0.80	0.27	ppbv	TO-15

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Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Xylenes (total)	0.39 J	0.80	0.20	ppbv	TO-15
Acetone	13	1.9	0.33	ug/m3	TO-15
Benzene	4.8	2.6	0.42	ug/m3	TO-15
Chloroform	3.8 J	3.9	0.32	ug/m3	TO-15
Chloromethane	1.7	1.7	0.43	ug/m3	TO-15
Cyclohexane	20	2.8	0.22	ug/m3	TO-15
1,1-Dichloroethylene	2.3 J	3.2	0.33	ug/m3	TO-15
Dichlorodifluoromethane	2.7 J	4.0	0.38	ug/m3	TO-15
trans-1,2-Dichloroethylene	15	3.2	0.44	ug/m3	TO-15
cis-1,2-Dichloroethylene	2780	44	4.8	ug/m3	TO-15
Ethanol	273	3.8	0.57	ug/m3	TO-15
Ethylbenzene	5.6	3.5	0.74	ug/m3	TO-15
Heptane	35	3.3	0.33	ug/m3	TO-15
Hexane	27	2.8	0.32	ug/m3	TO-15
Isopropyl Alcohol	51.4	2.0	1.5	ug/m3	TO-15
Methyl ethyl ketone	2.5	2.4	0.56	ug/m3	TO-15
Methyl Isobutyl Ketone	5.7	3.3	0.90	ug/m3	TO-15
1,1,1-Trichloroethane	6.0	2.2	0.51	ug/m3	TO-15
2,2,4-Trimethylpentane	56.5	3.7	0.43	ug/m3	TO-15
Tetrachloroethylene	10400	15	8.8	ug/m3	TO-15
Toluene	1.5 J	3.0	0.19	ug/m3	TO-15
Trichloroethylene	3960	12	5.4	ug/m3	TO-15
Vinyl chloride	25	0.41	0.21	ug/m3	TO-15
m,p-Xylene	1.7 J	3.5	1.2	ug/m3	TO-15
Xylenes (total)	1.7 J	3.5	0.87	ug/m3	TO-15
JC17438-11 SS-06					
Acetone	8.9	0.20	0.036	ppbv	TO-15
Benzene	0.44	0.20	0.031	ppbv	TO-15
Chloroform	43.6	2.0	0.17	ppbv	TO-15
Chloromethane	0.47	0.20	0.052	ppbv	TO-15
Carbon tetrachloride	0.096	0.040	0.031	ppbv	TO-15
Cyclohexane	5.2	0.20	0.016	ppbv	TO-15
1,1-Dichloroethylene	0.39	0.20	0.021	ppbv	TO-15
Dichlorodifluoromethane	0.67	0.20	0.019	ppbv	TO-15
trans-1,2-Dichloroethylene	0.22	0.20	0.028	ppbv	TO-15
cis-1,2-Dichloroethylene	11.1	0.20	0.021	ppbv	TO-15
m-Dichlorobenzene	0.16	0.10	0.020	ppbv	TO-15
Ethanol	282	5.0	0.75	ppbv	TO-15
Ethylbenzene	1.4	0.20	0.042	ppbv	TO-15
Ethyl Acetate	2.6	0.20	0.075	ppbv	TO-15
4-Ethyltoluene	0.12 J	0.20	0.017	ppbv	TO-15
Freon 113	0.10	0.10	0.021	ppbv	TO-15
Heptane	9.7	0.20	0.020	ppbv	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Hexane	7.6	0.20	0.023	ppbv	TO-15
Isopropyl Alcohol	80.8	2.0	1.6	ppbv	TO-15
Methylene chloride	0.19 J	0.20	0.025	ppbv	TO-15
Methyl ethyl ketone	1.8	0.20	0.048	ppbv	TO-15
Methyl Isobutyl Ketone	0.47	0.20	0.055	ppbv	TO-15
Methylmethacrylate	0.81	0.20	0.040	ppbv	TO-15
1,1,1-Trichloroethane	0.49	0.10	0.024	ppbv	TO-15
1,2,4-Trimethylbenzene	0.27	0.20	0.015	ppbv	TO-15
2,2,4-Trimethylpentane	19.8	0.20	0.023	ppbv	TO-15
Tetrachloroethylene	294	0.40	0.23	ppbv	TO-15
Tetrahydrofuran	0.17 J	0.20	0.045	ppbv	TO-15
Toluene	0.64	0.20	0.012	ppbv	TO-15
Trichloroethylene	202	0.40	0.19	ppbv	TO-15
Trichlorofluoromethane	0.44	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.59	0.20	0.068	ppbv	TO-15
o-Xylene	0.20	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.79	0.20	0.051	ppbv	TO-15
Acetone	21	0.48	0.086	ug/m3	TO-15
Benzene	1.4	0.64	0.099	ug/m3	TO-15
Chloroform	213	9.8	0.83	ug/m3	TO-15
Chloromethane	0.97	0.41	0.11	ug/m3	TO-15
Carbon tetrachloride	0.60	0.25	0.20	ug/m3	TO-15
Cyclohexane	18	0.69	0.055	ug/m3	TO-15
1,1-Dichloroethylene	1.5	0.79	0.083	ug/m3	TO-15
Dichlorodifluoromethane	3.3	0.99	0.094	ug/m3	TO-15
trans-1,2-Dichloroethylene	0.87	0.79	0.11	ug/m3	TO-15
cis-1,2-Dichloroethylene	44.0	0.79	0.083	ug/m3	TO-15
m-Dichlorobenzene	0.96	0.60	0.12	ug/m3	TO-15
Ethanol	531	9.4	1.4	ug/m3	TO-15
Ethylbenzene	6.1	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	9.4	0.72	0.27	ug/m3	TO-15
4-Ethyltoluene	0.59 J	0.98	0.084	ug/m3	TO-15
Freon 113	0.77	0.77	0.16	ug/m3	TO-15
Heptane	40	0.82	0.082	ug/m3	TO-15
Hexane	27	0.70	0.081	ug/m3	TO-15
Isopropyl Alcohol	199	4.9	3.9	ug/m3	TO-15
Methylene chloride	0.66 J	0.69	0.087	ug/m3	TO-15
Methyl ethyl ketone	5.3	0.59	0.14	ug/m3	TO-15
Methyl Isobutyl Ketone	1.9	0.82	0.23	ug/m3	TO-15
Methylmethacrylate	3.3	0.82	0.16	ug/m3	TO-15
1,1,1-Trichloroethane	2.7	0.55	0.13	ug/m3	TO-15
1,2,4-Trimethylbenzene	1.3	0.98	0.074	ug/m3	TO-15
2,2,4-Trimethylpentane	92.5	0.93	0.11	ug/m3	TO-15
Tetrachloroethylene	1990	2.7	1.6	ug/m3	TO-15
Tetrahydrofuran	0.50 J	0.59	0.13	ug/m3	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Toluene	2.4	0.75	0.045	ug/m3	TO-15
Trichloroethylene	1090	2.1	1.0	ug/m3	TO-15
Trichlorofluoromethane	2.5	0.56	0.12	ug/m3	TO-15
m,p-Xylene	2.6	0.87	0.30	ug/m3	TO-15
o-Xylene	0.87	0.87	0.22	ug/m3	TO-15
Xylenes (total)	3.5	0.87	0.22	ug/m3	TO-15
JC17438-12 BG-01					
Acetone	2.0	0.20	0.036	ppbv	TO-15
Benzene	0.14 J	0.20	0.031	ppbv	TO-15
Chloroform	0.25	0.20	0.017	ppbv	TO-15
Chloromethane	0.67	0.20	0.052	ppbv	TO-15
Dichlorodifluoromethane	0.55	0.20	0.019	ppbv	TO-15
cis-1,2-Dichloroethylene	0.77	0.20	0.021	ppbv	TO-15
Ethanol	4.6	0.50	0.075	ppbv	TO-15
Ethylbenzene	0.14 J	0.20	0.042	ppbv	TO-15
Ethyl Acetate	2.3	0.20	0.075	ppbv	TO-15
Isopropyl Alcohol	0.26	0.20	0.16	ppbv	TO-15
Methyl ethyl ketone	0.28	0.20	0.048	ppbv	TO-15
1,2,4-Trimethylbenzene	0.23	0.20	0.015	ppbv	TO-15
Tetrachloroethylene	0.46	0.040	0.023	ppbv	TO-15
Tetrahydrofuran	0.56	0.20	0.045	ppbv	TO-15
Toluene	1.3	0.20	0.012	ppbv	TO-15
Trichloroethylene	0.14	0.040	0.019	ppbv	TO-15
Trichlorofluoromethane	0.24	0.10	0.022	ppbv	TO-15
m,p-Xylene	0.62	0.20	0.068	ppbv	TO-15
o-Xylene	0.22	0.20	0.051	ppbv	TO-15
Xylenes (total)	0.85	0.20	0.051	ppbv	TO-15
Acetone	4.8	0.48	0.086	ug/m3	TO-15
Benzene	0.45 J	0.64	0.099	ug/m3	TO-15
Chloroform	1.2	0.98	0.083	ug/m3	TO-15
Chloromethane	1.4	0.41	0.11	ug/m3	TO-15
Dichlorodifluoromethane	2.7	0.99	0.094	ug/m3	TO-15
cis-1,2-Dichloroethylene	3.1	0.79	0.083	ug/m3	TO-15
Ethanol	8.7	0.94	0.14	ug/m3	TO-15
Ethylbenzene	0.61 J	0.87	0.18	ug/m3	TO-15
Ethyl Acetate	8.3	0.72	0.27	ug/m3	TO-15
Isopropyl Alcohol	0.64	0.49	0.39	ug/m3	TO-15
Methyl ethyl ketone	0.83	0.59	0.14	ug/m3	TO-15
1,2,4-Trimethylbenzene	1.1	0.98	0.074	ug/m3	TO-15
Tetrachloroethylene	3.1	0.27	0.16	ug/m3	TO-15
Tetrahydrofuran	1.7	0.59	0.13	ug/m3	TO-15
Toluene	4.9	0.75	0.045	ug/m3	TO-15
Trichloroethylene	0.75	0.21	0.10	ug/m3	TO-15

Summary of Hits

Job Number: JC17438
Account: AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Collected: 03/31/16

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Trichlorofluoromethane	1.3	0.56	0.12	ug/m3	TO-15
m,p-Xylene	2.7	0.87	0.30	ug/m3	TO-15
o-Xylene	0.96	0.87	0.22	ug/m3	TO-15
Xylenes (total)	3.7	0.87	0.22	ug/m3	TO-15

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Sample Results

Report of Analysis

SGS Accutest

Report of Analysis

Client Sample ID:	IA-01		
Lab Sample ID:	JC17438-1	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A300	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17520.D	1	04/06/16	TCH	n/a	n/a	V5W698
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	8.7	0.20	0.036	ppbv		21	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.25	0.20	0.031	ppbv		0.80	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.70	0.20	0.052	ppbv		1.4	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.34	0.20	0.018	ppbv		1.4	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.56	0.20	0.019	ppbv		2.8	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-01		
Lab Sample ID:	JC17438-1	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A300	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	16.5	0.50	0.075	ppbv		31.1	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.058	0.20	0.042	ppbv	J	0.25	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.3	0.20	0.075	ppbv		4.7	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	0.26	0.20	0.020	ppbv		1.1	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	ND	0.20	0.023	ppbv		ND	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.7	0.20	0.16	ppbv		4.2	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.27	0.20	0.048	ppbv		0.80	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.31	0.040	0.023	ppbv		2.1	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.57	0.20	0.012	ppbv		2.1	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.10	0.040	0.019	ppbv		0.54	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.30	0.10	0.022	ppbv		1.7	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.16	0.20	0.068	ppbv	J	0.69	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.16	0.20	0.051	ppbv	J	0.69	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	SS-01		
Lab Sample ID:	JC17438-2	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A987	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17521.D	1	04/06/16	TCH	n/a	n/a	V5W698
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	11.2	0.20	0.036	ppbv		26.6	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.27	0.20	0.031	ppbv		0.86	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.68	0.20	0.052	ppbv		1.4	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	0.33	0.20	0.018	ppbv		1.3	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.20	0.019	ppbv		2.7	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.48	0.20	0.021	ppbv		1.9	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-01		
Lab Sample ID:	JC17438-2	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A987	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	103	0.50	0.075	ppbv	E	194	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.15	0.20	0.042	ppbv	J	0.65	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.1	0.20	0.075	ppbv		7.6	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	0.30	0.20	0.020	ppbv		1.2	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.20	0.20	0.023	ppbv		0.70	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	17.7	0.20	0.16	ppbv		43.5	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.64	0.20	0.048	ppbv		1.9	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.14	0.20	0.015	ppbv	J	0.69	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.69	0.040	0.023	ppbv		4.7	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.57	0.20	0.012	ppbv		2.1	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	19.0	0.040	0.019	ppbv		102	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.30	0.10	0.022	ppbv		1.7	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.25	0.20	0.068	ppbv		1.1	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.10	0.20	0.051	ppbv	J	0.43	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.35	0.20	0.051	ppbv		1.5	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	IA-07		
Lab Sample ID:	JC17438-3	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: LA 2135	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17522.D	1	04/06/16	TCH	n/a	n/a	V5W698
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	7.3	0.20	0.036	ppbv		17	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.21	0.20	0.031	ppbv		0.67	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.21	0.20	0.017	ppbv		1.0	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.73	0.20	0.052	ppbv		1.5	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.60	0.20	0.019	ppbv		3.0	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-07			
Lab Sample ID:	JC17438-3		**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: LA 2135		**Date Received:**	04/01/16
Method:	TO-15		**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY			

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	70.6	0.50	0.075	ppbv	E	133	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.6	0.20	0.075	ppbv		5.8	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	0.11	0.20	0.020	ppbv	J	0.45	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.15	0.20	0.023	ppbv	J	0.53	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.1	0.20	0.16	ppbv		2.7	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.24	0.20	0.048	ppbv		0.71	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.14	0.20	0.015	ppbv	J	0.69	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.23	0.20	0.053	ppbv		0.70	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.38	0.040	0.023	ppbv		2.6	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.27	0.20	0.012	ppbv		1.0	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.35	0.10	0.022	ppbv		2.0	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.13	0.20	0.068	ppbv	J	0.56	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.13	0.20	0.051	ppbv	J	0.56	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	IA-06		
Lab Sample ID:	JC17438-4	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: M122	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17523.D	1	04/06/16	TCH	n/a	n/a	V5W698
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	6.1	0.20	0.036	ppbv		14	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.17	0.20	0.031	ppbv	J	0.54	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.15	0.20	0.017	ppbv	J	0.73	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.70	0.20	0.052	ppbv		1.4	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.076	0.040	0.031	ppbv		0.48	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.57	0.20	0.019	ppbv		2.8	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected   MDL = Method Detection Limit   J = Indicates an estimated value
RL = Reporting Limit   B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range   N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-06		
Lab Sample ID:	JC17438-4	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: M122	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	52.0	0.50	0.075	ppbv	E	98.0	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	3.6	0.20	0.075	ppbv		13	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.020	ppbv		ND	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.37	0.20	0.023	ppbv		1.3	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.96	0.20	0.16	ppbv		2.4	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.44	0.20	0.025	ppbv		1.5	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.27	0.20	0.048	ppbv		0.80	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.25	0.040	0.023	ppbv		1.7	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.25	0.20	0.012	ppbv		0.94	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.35	0.10	0.022	ppbv		2.0	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected   MDL = Method Detection Limit   J = Indicates an estimated value
RL = Reporting Limit   B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range   N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	IA-02		
Lab Sample ID:	JC17438-5	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A373	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17536.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	8.5	0.20	0.036	ppbv		20	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.33	0.20	0.031	ppbv		1.1	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.15	0.20	0.017	ppbv	J	0.73	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.72	0.20	0.052	ppbv		1.5	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.58	0.20	0.019	ppbv		2.9	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-02		
Lab Sample ID:	JC17438-5	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A373	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	55.8	0.50	0.075	ppbv	E	105	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.8	0.20	0.075	ppbv		6.5	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	0.14	0.20	0.020	ppbv	J	0.57	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.26	0.20	0.023	ppbv		0.92	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.1	0.20	0.16	ppbv		2.7	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.17	0.20	0.025	ppbv	J	0.59	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.74	0.20	0.048	ppbv		2.2	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.19	0.20	0.015	ppbv	J	0.93	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.13	0.20	0.023	ppbv	J	0.61	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.13	0.20	0.053	ppbv	J	0.39	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.3	0.040	0.023	ppbv		8.8	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.42	0.20	0.012	ppbv		1.6	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.38	0.10	0.022	ppbv		2.1	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.25	0.20	0.068	ppbv		1.1	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.098	0.20	0.051	ppbv	J	0.43	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.35	0.20	0.051	ppbv		1.5	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	101%		65-128%

ND = Not detected   MDL = Method Detection Limit   J = Indicates an estimated value
RL = Reporting Limit   B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range   N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	SS-02		
Lab Sample ID:	JC17438-6	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A463	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17537.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2	5W17557.D	1	04/07/16	TCH	n/a	n/a	V5W700

	Initial Volume
Run #1	400 ml
Run #2	20.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	10.4	0.20	0.036	ppbv		24.7	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.35	0.20	0.031	ppbv		1.1	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	1.5	0.20	0.017	ppbv		7.3	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.66	0.20	0.052	ppbv		1.4	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.77	0.20	0.016	ppbv		2.7	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	0.74	0.20	0.021	ppbv		2.9	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	0.097	0.20	0.028	ppbv	J	0.38	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	16.0	0.20	0.021	ppbv		63.4	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	0.16	0.10	0.020	ppbv		0.96	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-02		
Lab Sample ID:	JC17438-6	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A463	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	155 [a]	10	1.5	ppbv		292 [a]	19	2.8	ug/m3
100-41-4	106.2	Ethylbenzene	0.33	0.20	0.042	ppbv		1.4	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.8	0.20	0.075	ppbv		6.5	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.40	0.20	0.017	ppbv		2.0	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	0.16	0.10	0.021	ppbv		1.2	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	1.4	0.20	0.020	ppbv		5.7	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	1.3	0.20	0.023	ppbv		4.6	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	32.2	0.20	0.16	ppbv		79.2	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.3	0.20	0.048	ppbv		3.8	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	0.41	0.20	0.040	ppbv		1.7	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	1.7	0.10	0.024	ppbv		9.3	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	0.33	0.10	0.039	ppbv		1.8	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	1.9	0.20	0.015	ppbv		9.3	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.86	0.20	0.045	ppbv		4.2	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	18.3	0.040	0.023	ppbv		124	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.65	0.20	0.012	ppbv		2.4	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	552 [a]	0.80	0.37	ppbv		2970 [a]	4.3	2.0	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.44	0.10	0.022	ppbv		2.5	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.92	0.20	0.068	ppbv		4.0	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.60	0.20	0.051	ppbv		2.6	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	1.5	0.20	0.051	ppbv		6.6	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	101%	97%	65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-02		
Lab Sample ID:	JC17438-6	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A463	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	IA-08		
Lab Sample ID:	JC17438-7	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: LA 2962	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17558.D	1	04/07/16	TCH	n/a	n/a	V5W700
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	9.0	0.20	0.036	ppbv		21	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.28	0.20	0.031	ppbv		0.89	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.35	0.20	0.017	ppbv		1.7	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.76	0.20	0.052	ppbv		1.6	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.26	0.20	0.016	ppbv		0.89	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	1.1	0.20	0.019	ppbv		5.4	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	0.63	0.10	0.027	ppbv		3.8	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
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E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-08		
Lab Sample ID:	JC17438-7	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: LA 2962	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	182	0.50	0.075	ppbv	E	343	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.7	0.20	0.075	ppbv		9.7	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.020	ppbv		ND	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.25	0.20	0.023	ppbv		0.88	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	2.5	0.20	0.16	ppbv		6.1	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.26	0.20	0.025	ppbv		0.90	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.91	0.20	0.048	ppbv		2.7	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	0.17	0.20	0.015	ppbv	J	0.72	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.20	0.20	0.053	ppbv		0.61	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.9	0.040	0.023	ppbv		13	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.61	0.20	0.045	ppbv		1.8	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.39	0.20	0.012	ppbv		1.5	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.18	0.040	0.019	ppbv		0.97	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.4	0.10	0.022	ppbv		7.9	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.28	0.20	0.068	ppbv		1.2	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.10	0.20	0.051	ppbv	J	0.43	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.38	0.20	0.051	ppbv		1.6	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	SS-03		
Lab Sample ID:	JC17438-8	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A478	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17539.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2	5W17559.D	1	04/07/16	TCH	n/a	n/a	V5W700

	Initial Volume
Run #1	400 ml
Run #2	40.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	18.8	0.20	0.036	ppbv		44.7	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.49	0.20	0.031	ppbv		1.6	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	0.52	0.20	0.031	ppbv		1.6	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	10.5	0.20	0.017	ppbv		51.3	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.90	0.20	0.052	ppbv		1.9	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	5.4	0.20	0.016	ppbv		19	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	0.18	0.20	0.021	ppbv	J	0.71	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	3.9	0.20	0.021	ppbv		15	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-03		
Lab Sample ID:	JC17438-8	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A478	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	241 [a]	5.0	0.75	ppbv		454 [a]	9.4	1.4	ug/m3
100-41-4	106.2	Ethylbenzene	1.3	0.20	0.042	ppbv		5.6	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	12.2	0.20	0.075	ppbv		43.9	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.11	0.20	0.017	ppbv	J	0.54	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	8.3	0.20	0.020	ppbv		34	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	7.4	0.20	0.023	ppbv		26	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	20.2	0.20	0.16	ppbv		49.7	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.26	0.20	0.025	ppbv		0.90	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.94	0.20	0.048	ppbv		2.8	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	0.27	0.20	0.015	ppbv		1.1	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	0.30	0.10	0.024	ppbv		1.6	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.18	0.20	0.015	ppbv	J	0.88	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	10.9	0.20	0.023	ppbv		50.9	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	5.4	0.040	0.023	ppbv		37	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.19	0.20	0.045	ppbv	J	0.56	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.46	0.20	0.012	ppbv		1.7	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	121 [a]	0.40	0.19	ppbv		650 [a]	2.1	1.0	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.5	0.10	0.022	ppbv		8.4	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.48	0.20	0.068	ppbv		2.1	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.14	0.20	0.051	ppbv	J	0.61	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.62	0.20	0.051	ppbv		2.7	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%	98%	65-128%

ND = Not detected   MDL = Method Detection Limit   J = Indicates an estimated value
RL = Reporting Limit   B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range   N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-03			
Lab Sample ID:	JC17438-8		**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A478		**Date Received:**	04/01/16
Method:	TO-15		**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY			

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	IA-03		
Lab Sample ID:	JC17438-9	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A016	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17542.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	26.5	0.20	0.036	ppbv		62.9	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.38	0.20	0.031	ppbv		1.2	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	0.34	0.20	0.031	ppbv		1.1	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	2.1	0.20	0.017	ppbv		10	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.87	0.20	0.052	ppbv		1.8	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.79	0.20	0.019	ppbv		3.9	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	IA-03		
Lab Sample ID:	JC17438-9	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: A016	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	127	0.50	0.075	ppbv	E	239	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.069	0.20	0.042	ppbv	J	0.30	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	9.1	0.20	0.075	ppbv		33	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	0.29	0.20	0.020	ppbv		1.2	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	0.32	0.20	0.023	ppbv		1.1	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	0.12	0.20	0.045	ppbv	J	0.49	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	2.5	0.20	0.16	ppbv		6.1	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.19	0.20	0.025	ppbv	J	0.66	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.1	0.20	0.048	ppbv		3.2	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	0.29	0.20	0.015	ppbv		1.2	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.11	0.20	0.015	ppbv	J	0.54	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.072	0.20	0.023	ppbv	J	0.34	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.9	0.040	0.023	ppbv		13	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.27	0.20	0.045	ppbv		0.80	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.35	0.20	0.012	ppbv		1.3	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.048	0.040	0.019	ppbv		0.26	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	1.1	0.10	0.022	ppbv		6.2	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.17	0.20	0.068	ppbv	J	0.74	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.17	0.20	0.051	ppbv	J	0.74	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID: SS-07
Lab Sample ID: JC17438-10 **Date Sampled:** 03/31/16
Matrix: AIR - Soil Vapor Comp. Summa ID: A1177 **Date Received:** 04/01/16
Method: TO-15 **Percent Solids:** n/a
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17543.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2	5W17560.D	1	04/07/16	TCH	n/a	n/a	V5W700
Run #3	5W17589.D	2.07	04/08/16	TCH	n/a	n/a	V5W701

	Initial Volume
Run #1	100 ml
Run #2	40.0 ml
Run #3	15.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	5.6	0.80	0.14	ppbv		13	1.9	0.33	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	0.24	ug/m3
71-43-2	78.11	Benzene	1.5	0.80	0.13	ppbv		4.8	2.6	0.42	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.40	0.15	ppbv		ND	2.7	1.0	ug/m3
75-25-2	252.8	Bromoform	ND	0.16	0.063	ppbv		ND	1.7	0.65	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.074	ppbv		ND	3.1	0.29	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.074	ppbv		ND	3.5	0.32	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.11	ppbv		ND	4.1	0.57	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.13	ppbv		ND	2.5	0.40	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.22	ppbv		ND	3.7	1.0	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.14	ppbv		ND	2.1	0.37	ug/m3
67-66-3	119.4	Chloroform	0.77	0.80	0.066	ppbv	J	3.8	3.9	0.32	ug/m3
74-87-3	50.49	Chloromethane	0.81	0.80	0.21	ppbv		1.7	1.7	0.43	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.068	ppbv		ND	4.1	0.35	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.16	0.12	ppbv		ND	1.0	0.75	ug/m3
110-82-7	84.16	Cyclohexane	5.7	0.80	0.065	ppbv		20	2.8	0.22	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.061	ppbv		ND	3.2	0.25	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	0.57	0.80	0.084	ppbv	J	2.3	3.2	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.40	0.17	ppbv		ND	3.1	1.3	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.070	ppbv		ND	3.2	0.28	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.088	ppbv		ND	3.7	0.41	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.18	ppbv		ND	2.9	0.65	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.55	0.80	0.076	ppbv	J	2.7	4.0	0.38	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.40	0.21	ppbv		ND	3.4	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	3.9	0.80	0.11	ppbv		15	3.2	0.44	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	702 [a]	11	1.2	ppbv		2780 [a]	44	4.8	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.061	ppbv		ND	3.6	0.28	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.40	0.078	ppbv		ND	2.4	0.47	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.16	0.064	ppbv		ND	0.96	0.38	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-07		
Lab Sample ID:	JC17438-10	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1177	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
106-46-7	147	p-Dichlorobenzene	ND	0.40	0.11	ppbv		ND	2.4	0.66	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.073	ppbv		ND	3.6	0.33	ug/m3
64-17-5	46.07	Ethanol	145	2.0	0.30	ppbv		273	3.8	0.57	ug/m3
100-41-4	106.2	Ethylbenzene	1.3	0.80	0.17	ppbv		5.6	3.5	0.74	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.30	ppbv		ND	2.9	1.1	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.067	ppbv		ND	3.9	0.33	ug/m3
76-13-1	187.4	Freon 113	ND	0.40	0.086	ppbv		ND	3.1	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.40	0.13	ppbv		ND	2.8	0.91	ug/m3
142-82-5	100.2	Heptane	8.5	0.80	0.081	ppbv		35	3.3	0.33	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.36	0.081	ppbv		ND	3.8	0.86	ug/m3
110-54-3	86.17	Hexane	7.6	0.80	0.090	ppbv		27	2.8	0.32	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	20.9	0.80	0.62	ppbv		51.4	2.0	1.5	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.10	ppbv		ND	2.8	0.35	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.85	0.80	0.19	ppbv		2.5	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.4	0.80	0.22	ppbv		5.7	3.3	0.90	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.079	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.16	ppbv		ND	3.3	0.66	ug/m3
115-07-1	42	Propylene	ND	2.0	0.13	ppbv		ND	3.4	0.22	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.062	ppbv		ND	3.4	0.26	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	1.1	0.40	0.094	ppbv		6.0	2.2	0.51	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.40	0.064	ppbv		ND	2.7	0.44	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.40	0.16	ppbv		ND	2.2	0.87	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.40	0.22	ppbv		ND	3.0	1.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.061	ppbv		ND	3.9	0.30	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.18	ppbv		ND	3.9	0.88	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	12.1	0.80	0.091	ppbv		56.5	3.7	0.43	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.21	ppbv		ND	2.4	0.64	ug/m3
127-18-4	165.8	Tetrachloroethylene	1530 [a]	2.2	1.3	ppbv		10400 [a]	15	8.8	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.18	ppbv		ND	2.4	0.53	ug/m3
108-88-3	92.14	Toluene	0.41	0.80	0.050	ppbv	J	1.5	3.0	0.19	ug/m3
79-01-6	131.4	Trichloroethylene	736 [a]	2.2	1.0	ppbv		3960 [a]	12	5.4	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.40	0.088	ppbv		ND	2.2	0.49	ug/m3
75-01-4	62.5	Vinyl chloride	9.8	0.16	0.082	ppbv		25	0.41	0.21	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	0.39	0.80	0.27	ppbv	J	1.7	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.20	ppbv		ND	3.5	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	0.39	0.80	0.20	ppbv	J	1.7	3.5	0.87	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-07		
Lab Sample ID:	JC17438-10	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1177	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
460-00-4	4-Bromofluorobenzene	99%	100%	96%	65-128%

(a) Result is from Run# 3

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	SS-06		
Lab Sample ID:	JC17438-11	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: M037	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17544.D	1	04/06/16	TCH	n/a	n/a	V5W699
Run #2	5W17561.D	1	04/07/16	TCH	n/a	n/a	V5W700

	Initial Volume
Run #1	400 ml
Run #2	40.0 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	8.9	0.20	0.036	ppbv		21	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.44	0.20	0.031	ppbv		1.4	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	43.6 [a]	2.0	0.17	ppbv		213 [a]	9.8	0.83	ug/m3
74-87-3	50.49	Chloromethane	0.47	0.20	0.052	ppbv		0.97	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.096	0.040	0.031	ppbv		0.60	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	5.2	0.20	0.016	ppbv		18	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	0.39	0.20	0.021	ppbv		1.5	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.67	0.20	0.019	ppbv		3.3	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	0.22	0.20	0.028	ppbv		0.87	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	11.1	0.20	0.021	ppbv		44.0	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	0.16	0.10	0.020	ppbv		0.96	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-06		
Lab Sample ID:	JC17438-11	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: M037	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	282 [a]	5.0	0.75	ppbv		531 [a]	9.4	1.4	ug/m3
100-41-4	106.2	Ethylbenzene	1.4	0.20	0.042	ppbv		6.1	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.6	0.20	0.075	ppbv		9.4	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	0.12	0.20	0.017	ppbv	J	0.59	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	0.10	0.10	0.021	ppbv		0.77	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	9.7	0.20	0.020	ppbv		40	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	7.6	0.20	0.023	ppbv		27	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	80.8 [a]	2.0	1.6	ppbv		199 [a]	4.9	3.9	ug/m3
75-09-2	84.94	Methylene chloride	0.19	0.20	0.025	ppbv	J	0.66	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	1.8	0.20	0.048	ppbv		5.3	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.47	0.20	0.055	ppbv		1.9	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	0.81	0.20	0.040	ppbv		3.3	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	0.49	0.10	0.024	ppbv		2.7	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.27	0.20	0.015	ppbv		1.3	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	19.8	0.20	0.023	ppbv		92.5	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	294 [a]	0.40	0.23	ppbv		1990 [a]	2.7	1.6	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.17	0.20	0.045	ppbv	J	0.50	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.64	0.20	0.012	ppbv		2.4	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	202 [a]	0.40	0.19	ppbv		1090 [a]	2.1	1.0	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.44	0.10	0.022	ppbv		2.5	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.59	0.20	0.068	ppbv		2.6	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.20	0.20	0.051	ppbv		0.87	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.79	0.20	0.051	ppbv		3.5	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%	96%	65-128%

ND = Not detected
MDL = Method Detection Limit
J = Indicates an estimated value
RL = Reporting Limit
B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SS-06		
Lab Sample ID:	JC17438-11	**Date Sampled:**	03/31/16
Matrix:	AIR - Soil Vapor Comp. Summa ID: M037	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS Accutest

Report of Analysis

Client Sample ID:	BG-01		
Lab Sample ID:	JC17438-12	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: M076	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17562.D	1	04/07/16	TCH	n/a	n/a	V5W700
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	2.0	0.20	0.036	ppbv		4.8	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.14	0.20	0.031	ppbv	J	0.45	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	0.039	ppbv		ND	0.67	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	0.016	ppbv		ND	0.41	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.25	0.20	0.017	ppbv		1.2	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.67	0.20	0.052	ppbv		1.4	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	0.031	ppbv		ND	0.25	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.10	0.042	ppbv		ND	0.77	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.55	0.20	0.019	ppbv		2.7	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	0.053	ppbv		ND	0.85	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.77	0.20	0.021	ppbv		3.1	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	0.020	ppbv		ND	0.60	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	0.016	ppbv		ND	0.24	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	0.027	ppbv		ND	0.60	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BG-01		
Lab Sample ID:	JC17438-12	**Date Sampled:**	03/31/16
Matrix:	AIR - Indoor Air Comp. Summa ID: M076	**Date Received:**	04/01/16
Method:	TO-15	**Percent Solids:**	n/a
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	4.6	0.50	0.075	ppbv		8.7	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.14	0.20	0.042	ppbv	J	0.61	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.3	0.20	0.075	ppbv		8.3	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	0.021	ppbv		ND	0.77	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	0.031	ppbv		ND	0.70	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.020	ppbv		ND	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	0.020	ppbv		ND	0.96	0.21	ug/m3
110-54-3	86.17	Hexane	ND	0.20	0.023	ppbv		ND	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.26	0.20	0.16	ppbv		0.64	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.28	0.20	0.048	ppbv		0.83	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	0.024	ppbv		ND	0.55	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.10	0.016	ppbv		ND	0.69	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	0.039	ppbv		ND	0.55	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	0.056	ppbv		ND	0.74	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.23	0.20	0.015	ppbv		1.1	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.46	0.040	0.023	ppbv		3.1	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.56	0.20	0.045	ppbv		1.7	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	1.3	0.20	0.012	ppbv		4.9	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.14	0.040	0.019	ppbv		0.75	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.24	0.10	0.022	ppbv		1.3	0.56	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	0.021	ppbv		ND	0.10	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.62	0.20	0.068	ppbv		2.7	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.22	0.20	0.051	ppbv		0.96	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.85	0.20	0.051	ppbv		3.7	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		65-128%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log
- Sample Tracking Chronicle
- Internal Chain of Custody
- 2016 MDL Study - Method: TO-15

AIR

SGS ACCUTEST

AIR CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # | Bottle Order Control # MS-3/21/2016-2674 | PAGE 1 OF 2
Lab Quote # | Lab Job # JC17438

Client / Reporting Information

Company Name: AEI Consultants
Address: 20 Gibson Place Suite 310
City: Freehold State: NJ Zip: 07728
Project Contact: Dyna K-Ogonowski E-mail: DOgonowski@aeiconsultants.com
Phone #: 732-414-2720 Fax #: —
Sampler(s) Name(s): Dyna K-Ogonowski

Project Information

Project Name: Nu-Clear
Street: 180 E Park Ave
City: Long Beach State: NY
Project #: 341998
Client Purchase Order #: 105430

Weather Parameters

Temperature (Fahrenheit)
Start: 44 Maximum: 64
Stop: 64 Minimum: 39

Atmoshpheric Pressure (inches of Hg)
Start: Maximum:
Stop: Minimum:

Other weather comment:

Requested Analysis: TO-15

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor(I) Soil Vap(SV) Ambient(A)	Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Date	Start Time (24hr clock)	Start Canister Pressure ("Hg)	Start Interior Temp (F)	Start Sampler Init.	Stop Date	Stop Time (24hr clock)	Stop Canister Pressure ("Hg)	Stop Interior Temp (F)	Stop Sampler Init.	TO-15
1	IA-01	I	A300	6L	FC726	3/30/16	1210	-29	78	DKO	3/31/16	1144	-1	78	DKO	X
2	SS-01	SV	A987		FC523	3/30/16	1209	-30	78	DKO	3/31/16	1146	-1	78	DKO	X
3	IA-07	I	9614		FC638	3/30/16	1216	-30	78	DKO	3/31/16	1201	-1	78	DKO	X
4	IA-06	I	M122		FC349	3/30/16	1220	-30	78	DKO	3/31/16	1203	-7	78	DKO	X
5	IA-02	I	A373		FC249	3/30/16	1241	-30	78	DKO	3/31/16	1205	-1	78	DKO	X
6	SS-02	SV	A463		FC543	3/30/16	1239	-29	78	DKO	3/31/16	1206	-1	78	DKO	X
7	IA-08	I	LA2962		FC243	3/30/16	1247	-29	78	DKO	3/31/16	1212	-6	78	DKO	X
8	SS-03	SV	A478		FC685	3/30/16	1303	-30	78	DKO	3/31/16	1217	-1	78	DKO	X
9	IA-03	I	A016		FC718	3/30/16	1308	-28	78	DKO	3/31/16	1220	-1	78	DKO	X
10	SS-07	SV	A177		FC707	3/30/16	1340	-28	80	DKO	3/31/16	1256	-1	80	DKO	X

Turnaround Time (Business days)

Standard - 15 Days
10 Day
5 Day X
3 Day
2 Day
1 Day
Other

Approved By: ______
Date: ______

Data Deliverable Information

All NJDEP TO-15 is mandatory Full T1
Comm A
Comm B
Reduced T2
Full T1
Other:
DKQP reporting

Comments / Remarks

NYSDEC / DOH
SUMMA
INITIAL ASESSMENT 2/43
LABEL VERIFICATION AM
Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 Gary Marciano	3/28/16 1520	1 [signature]	2 [signature]	4/1/16 0850	2 [signature]
Relinquished by: 3 [signature]	4-1-16 10:30	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # 942, 944 948, 950 946 intact		

5.1
5

JC17438: Chain of Custody
Page 1 of 4

SGS ACCUTEST

AIR CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #
Lab Quote #
Bottle Order Control # MS-3/28/2016-2674
Lab Job # JC17438
PAGE 2 OF 2

Client / Reporting Information

Company Name: AEI Consultants
Address: 20 Gibson Place Suite 310
City: Freehold State: NJ Zip: 07728
Project Contact: Dyna K-Ogonowski E-mail: DOgonowski@aeiconsultants.com
Phone #: 732-414-2720 Fax #
Sampler(s) Name(s): Dyna K-Ogonowski

Project Information

Project Name: Nu-Clear
Street: 180 E Park Ave
City: Long Beach State: NY
Project #: 341998
Client Purchase Order #: 105430

Weather Parameters

Temperature (Fahrenheit) Start: 44 Maximum: 64 Stop: 64 Minimum: 39
Atmoshpheric Pressure (inches of Hg) Start: 30.40 Maximum: 30.40 Stop: 29.96 Minimum: 29.96
Other weather comment:

Requested Analysis: TO-15

Lab Sample #	Field ID / Point of Collection	Air Type: Indoor(I) Soil Vap(SV) Ambient(A)	Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Start Date	Start Time (24hr clock)	Start Canister Pressure ("Hg)	Start Interior Temp (F)	Start Sampler Init.	Stop Date	Stop Time (24hr clock)	Stop Canister Pressure ("Hg)	Stop Interior Temp (F)	Stop Sampler Init.	TO-15
11	SS-06	SV	M037	6L	FC113	3/30/16	1358	-30	80	DKO	3/31/16	1300	-1	80	DKO	X
12	BG-01	A	M076	6L	FC496	3/30/16	1410	-30	—	DKO	3/31/16	1315	-1	—	DKO	X

Turnaround Time (Business days)

Standard - 15 Days	
10 Day	
5 Day	X
3 Day	
2 Day	
1 Day	
Other	

Approved By:
Date:

Data Deliverable Information

All NJDEP TO-15 is mandatory Full T1
Comm A
Comm B
Reduced T2
Full T1
Other:
DKQP reporting

Comments / Remarks

NYSDEC/DOH

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Laboratory: 1 Ray Mariano	Date Time: 3/28/16 1530	Received By: 1 DKO	Relinquished By: 2 DKO	Date Time: 4/1/16 0850	Received By: 2 [signature]	
Relinquished by: 3 [signature]	Date Time: 4-1-16 10:30	Received By: 3 [signature]	Relinquished By: 4	Date Time:	Received By: 4	
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #			

JC17438: Chain of Custody
Page 2 of 4

SGS ACCUTEST

Air Sampling Equipment Return Form

CLIENT: AEI Consultants PROJECT: NU-Clean

CONTROL# MS-3/25/2016-2674 JOB# JC17438

Unused Summa Cans	Unused Controllers
13 A1196	FC 187
	-14 FC 029

Relinquished By:	Date & Time:	Received By:	Date & Time:
1 Ace Driver	4-1-16 1030	2 [signature]	4-1-16 1030
3		4	

Custody Seal #'s:	# of boxes or pieces in delivery
942, 944 946 948, 950	5

NOTES:

SM086-01
Pub date: 3/18/16

SGS Accutest Sample Receipt Summary

Job Number: JC17438 **Client:** **Project:**

Date / Time Received: 4/1/2016 10:30:00 AM **Delivery Method:** **Airbill #'s:**

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

Cooler Security

	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature

	Y	N
1. Temp criteria achieved:	☐	☐
2. Cooler temp verification:	N/A	
3. Cooler media:	N/A	
4. No. Coolers:	N/A	

Quality Control Preservation

	Y	N	N/A
1. Trip Blank present / cooler:	☐	☑	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☐	☐	☑

Sample Integrity - Documentation

	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition

	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions

	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

JC17438: Chain of Custody
Page 4 of 4

Summa Canister and Flow Controller Log

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Received: 04/01/16

SUMMA CANISTERS

Shipping							Receiving						
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A300	6	29.4	03/28/16	LM	CP8336	5W17096.D	JC17438-1	04/01/16	RD		.5		1
A987	6	29.4	03/28/16	LM	CP8339	5W17111.D	JC17438-2	04/01/16	RD		.5		1
LA 2135	6	29.4	03/28/16	LM	CP8346	W54354.D	JC17438-3	04/01/16	RD	0			1
M122	6	29.4	03/28/16	LM	CP8347	W54380.D	JC17438-4	04/01/16	RD	5.5			1
A373	6	29.4	03/28/16	LM	CP8342	5W17145.D	JC17438-5	04/01/16	RD	0			1
A463	6	29.4	03/28/16	LM	CP8340	3W52863.D	JC17438-6	04/01/16	RD	0			1
LA 2962	6	29.4	03/28/16	LM	CP8345	5W17179.D	JC17438-7	04/01/16	RD	5.5			1
A478	6	29.4	03/28/16	LM	CP8344	5W17170.D	JC17438-8	04/01/16	RD		.5		1
A016	6	29.4	03/28/16	LM	CP8355	3W52963.D	JC17438-9	04/01/16	RD		.5		1
A1177	6	29.4	03/28/16	LM	CP8351	3W52954.D	JC17438-10	04/01/16	RD	0			1
M037	6	29.4	03/28/16	LM	CP8330	W54291.D	JC17438-11	04/01/16	RD	1.5			1
M076	6	29.4	03/28/16	LM	CP8350	5W17214.D	JC17438-12	04/01/16	RD		.5		1

FLOW CONTROLLERS / OTHER

Shipping					Receiving			
Flow Crtl ID	Date Out	By	cc/ min	Time hrs.	Date In	By	cc/ min	Equipment Type
FC113	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC187	03/28/16	LM	3.1	24	04/06/16	LM	3.1	Flow Controller
FC243	03/28/16	LM	3.1	24	04/06/16	LM	3.1	Flow Controller
FC249	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC349	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC496	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC523	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC543	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC638	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC685	03/28/16	LM	3.1	24	04/06/16	LM	3.3	Flow Controller
FC707	03/28/16	LM	3.1	24	04/06/16	LM	3.2	Flow Controller
FC718	03/28/16	LM	3.1	24	04/06/16	LM	3.1	Flow Controller
FC726	03/28/16	LM	3.1	24	04/06/16	LM	3.1	Flow Controller

SGS Accutest Bottle Order(s):
MS-3/25/2016-2674

Prep Date	Room Temp(F)	Bar Pres "Hg
03/28/16	70	29.92

Internal Sample Tracking Chronicle

AEI Consultants

Job No: JC17438

NU-Clear, 180 East Park Avenue, Long Beach, NY
Project No: 341998/105430

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC17438-1 IA-01	Collected: 31-MAR-16 11:44 By: DKO		Received: 01-APR-16 By: AS			
JC17438-1	TO-15	06-APR-16 02:38	TCH			VTO15NYLL
JC17438-2 SS-01	Collected: 31-MAR-16 11:46 By: DKO		Received: 01-APR-16 By: AS			
JC17438-2	TO-15	06-APR-16 03:24	TCH			VTO15NYSVLL
JC17438-3 IA-07	Collected: 31-MAR-16 12:01 By: DKO		Received: 01-APR-16 By: AS			
JC17438-3	TO-15	06-APR-16 04:10	TCH			VTO15NYLL
JC17438-4 IA-06	Collected: 31-MAR-16 12:03 By: DKO		Received: 01-APR-16 By: AS			
JC17438-4	TO-15	06-APR-16 04:58	TCH			VTO15NYLL
JC17438-5 IA-02	Collected: 31-MAR-16 12:05 By: DKO		Received: 01-APR-16 By: AS			
JC17438-5	TO-15	06-APR-16 17:44	TCH			VTO15NYLL
JC17438-6 SS-02	Collected: 31-MAR-16 12:06 By: DKO		Received: 01-APR-16 By: AS			
JC17438-6	TO-15	06-APR-16 18:30	TCH			VTO15NYSVLL
JC17438-6	TO-15	07-APR-16 13:02	TCH			VTO15NYSVLL
JC17438-7 IA-08	Collected: 31-MAR-16 12:12 By: DKO		Received: 01-APR-16 By: AS			
JC17438-7	TO-15	07-APR-16 13:50	TCH			VTO15NYLL
JC17438-8 SS-03	Collected: 31-MAR-16 12:17 By: DKO		Received: 01-APR-16 By: AS			
JC17438-8	TO-15	06-APR-16 20:04	TCH			VTO15NYSVLL

Internal Sample Tracking Chronicle

AEI Consultants

Job No: JC17438

NU-Clear, 180 East Park Avenue, Long Beach, NY
Project No: 341998/105430

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC17438-8	TO-15	07-APR-16 14:30	TCH			VTO15NYSVLL
JC17438-9 IA-03	Collected: 31-MAR-16 12:20 By: DKO		Received: 01-APR-16 By: AS			
JC17438-9	TO-15	06-APR-16 22:22	TCH			VTO15NYLL
JC17438-10 SS-07	Collected: 31-MAR-16 12:56 By: DKO		Received: 01-APR-16 By: AS			
JC17438-10	TO-15	06-APR-16 23:04	TCH			VTO15NYSVLL
JC17438-10	TO-15	07-APR-16 15:12	TCH			VTO15NYSVLL
JC17438-10	TO-15	08-APR-16 13:54	TCH			VTO15NYSVLL
JC17438-11 SS-06	Collected: 31-MAR-16 13:00 By: DKO		Received: 01-APR-16 By: AS			
JC17438-11	TO-15	06-APR-16 23:52	TCH			VTO15NYSVLL
JC17438-11	TO-15	07-APR-16 15:55	TCH			VTO15NYSVLL
JC17438-12 BG-01	Collected: 31-MAR-16 13:15 By: DKO		Received: 01-APR-16 By: AS			
JC17438-12	TO-15	07-APR-16 16:41	TCH			VTO15NYLL

SGS Accutest Internal Chain of Custody

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Received: 04/01/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC17438-1.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-1.1	Air Storage	Thomas Hilbig	04/05/16 16:50	Retrieve from Storage
JC17438-1.1	Thomas Hilbig	GCMS5W	04/05/16 16:50	Load on Instrument
JC17438-2.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-2.1	Air Storage	Thomas Hilbig	04/05/16 16:50	Retrieve from Storage
JC17438-2.1	Thomas Hilbig	GCMS5W	04/05/16 16:50	Load on Instrument
JC17438-3.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-3.1	Air Storage	Thomas Hilbig	04/05/16 16:50	Retrieve from Storage
JC17438-3.1	Thomas Hilbig	GCMS5W	04/05/16 16:50	Load on Instrument
JC17438-4.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-4.1	Air Storage	Thomas Hilbig	04/05/16 16:50	Retrieve from Storage
JC17438-4.1	Thomas Hilbig	GCMS5W	04/05/16 16:50	Load on Instrument
JC17438-5.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-5.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-5.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-6.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-6.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-6.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-7.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-7.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-7.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-8.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-8.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-8.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-9.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-9.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-9.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-10.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-10.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-10.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument
JC17438-11.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-11.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-11.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument

SGS Accutest Internal Chain of Custody

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Received: 04/01/16

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC17438-12.1	Andrew Marcelino	Air Storage	04/01/16 15:00	Return to Storage
JC17438-12.1	Air Storage	Thomas Hilbig	04/06/16 17:03	Retrieve from Storage
JC17438-12.1	Thomas Hilbig	GCMS5W	04/06/16 17:03	Load on Instrument

Accutest Laboratories Annual Method Detection Limit Determination
Dayton, NJ Facility

Method: TO-15 (VTO14/15)
Instrument(s): GCMSW, GCMS3W, GCMS5W
Analyst: Pooled

Matrix: AIR
Quant Factor: 1.00
Study Period: January,2016

Cmpd./Element/Parm. Name	Analysis Date	Spike ppbv	Replicate Spikes R1 ppbv	R2 ppbv	R3 ppbv	R4 ppbv	R5 ppbv	R6 ppbv	R7 ppbv	X-Bar ppbv	X-Bar %Recov.	STD.Dev. ppbv	MDL	Spike/MDL Ratio
Acetone	8-Jan-16	0.1	0.159	0.136	0.161	0.150	0.137	0.147	0.133	0.146	146.04	0.012	0.036	2.76
Acrolein	7-Jan-16	0.1	0.056	0.062	0.053	0.044	0.054	0.045	0.062	0.054	53.45	0.007	0.023	4.38
Acrylonitrile	7-Jan-16	0.1	0.051	0.063	0.064	0.045	0.067	0.062	0.058	0.059	58.54	0.008	0.025	4.00
Acetonitrile	4-Jan-16	0.2	0.249	0.155	0.211	0.182	0.200	0.233	0.259	0.213	106.29	0.037	0.117	1.71
1,3-Butadiene	8-Jan-16	0.1	0.110	0.116	0.105	0.113	0.094	0.121	0.104	0.109	109.08	0.009	0.028	3.62
Benzene	4-Jan-16	0.2	0.204	0.189	0.184	0.208	0.209	0.193	0.204	0.199	99.36	0.010	0.031	6.38
Bromobenzene	8-Jan-16	0.1	0.091	0.089	0.086	0.089	0.074	0.091	0.078	0.085	85.29	0.007	0.021	4.75
Bromodichloromethane	4-Jan-16	0.2	0.208	0.190	0.189	0.215	0.215	0.209	0.220	0.207	103.27	0.012	0.039	5.19
Bromoform	8-Jan-16	0.1	0.092	0.088	0.086	0.087	0.076	0.083	0.082	0.085	84.96	0.005	0.016	6.35
Bromomethane	5-Jan-16	0.1	0.097	0.101	0.100	0.094	0.094	0.110	0.094	0.099	98.57	0.006	0.018	5.42
Bromoethene	8-Jan-16	0.1	0.102	0.106	0.108	0.100	0.095	0.113	0.102	0.103	103.44	0.006	0.018	5.45
n-Butane	8-Jan-16	0.2	0.181	0.224	0.212	0.191	0.237	0.178	0.165	0.198	99.11	0.026	0.083	2.42
Benzyl Chloride	6-Jan-16	0.2	0.108	0.108	0.098	0.104	0.116	0.118	0.096	0.107	53.39	0.009	0.027	7.47
n-Butylbenzene	4-Jan-16	0.2	0.101	0.091	0.085	0.101	0.100	0.088	0.103	0.096	47.80	0.007	0.023	8.72
sec-Butylbenzene	8-Jan-16	0.1	0.082	0.070	0.076	0.070	0.063	0.078	0.074	0.073	73.29	0.006	0.019	5.21
tert-Butylbenzene	5-Jan-16	0.1	0.063	0.060	0.048	0.063	0.066	0.069	0.065	0.062	61.95	0.007	0.021	4.87
Carbon disulfide	7-Jan-16	0.1	0.096	0.108	0.096	0.096	0.083	0.083	0.080	0.092	91.79	0.010	0.031	3.19
Chlorobenzene	4-Jan-16	0.2	0.190	0.169	0.166	0.198	0.211	0.190	0.209	0.191	95.26	0.018	0.056	3.60
Chlorodifluoromethane	6-Jan-16	0.2	0.145	0.159	0.170	0.130	0.177	0.184	0.157	0.160	80.12	0.019	0.059	3.40
Chloroethane	8-Jan-16	0.1	0.131	0.108	0.113	0.104	0.100	0.125	0.110	0.113	112.89	0.011	0.036	2.81
Chloroform	5-Jan-16	0.1	0.110	0.097	0.098	0.105	0.099	0.106	0.108	0.103	103.33	0.005	0.017	6.06
Chloromethane	6-Jan-16	0.2	0.126	0.156	0.156	0.170	0.160	0.179	0.152	0.157	78.42	0.017	0.052	3.83
3-Chloropropene	7-Jan-16	0.1	0.051	0.068	0.057	0.046	0.043	0.054	0.046	0.052	52.15	0.009	0.027	3.76
2-Chlorotoluene	7-Jan-16	0.1	0.052	0.063	0.055	0.051	0.050	0.047	0.048	0.052	52.31	0.005	0.017	5.93
Carbon tetrachloride	4-Jan-16	0.2	0.203	0.191	0.189	0.204	0.219	0.204	0.204	0.202	101.05	0.010	0.031	6.42
Cyclohexane	7-Jan-16	0.1	0.101	0.112	0.104	0.105	0.100	0.101	0.096	0.103	102.71	0.005	0.016	6.19
1,1-Dichloroethane	8-Jan-16	0.1	0.111	0.108	0.102	0.109	0.098	0.111	0.106	0.106	106.24	0.005	0.015	6.59
1,1-Dichloroethylene	6-Jan-16	0.2	0.188	0.177	0.180	0.184	0.189	0.194	0.176	0.184	92.03	0.007	0.021	9.56
1,2-Dibromoethane	4-Jan-16	0.2	0.181	0.161	0.153	0.177	0.188	0.188	0.179	0.176	87.73	0.013	0.042	4.77
1,2-Dichloroethane	8-Jan-16	0.1	0.099	0.094	0.099	0.099	0.084	0.097	0.091	0.095	94.66	0.006	0.018	5.70
1,2-Dichloropropane	7-Jan-16	0.1	0.069	0.082	0.071	0.085	0.070	0.071	0.068	0.074	73.88	0.007	0.022	4.57

Detection limits derived using the method described in 40 CFR Part 136, Appendix B

Method: TO-15 (VTO14/15)
Instrument(s): GCMSW, GCMS3W, GCMS5W
Analyst: Pooled

Matrix: AIR
Quant Factor: 1.00
Study Period: January,2016

Cmpd./Element/Parm. Name	Analysis Date	Spike ppbv	Replicate Spikes R1 ppbv	R2 ppbv	R3 ppbv	R4 ppbv	R5 ppbv	R6 ppbv	R7 ppbv	X-Bar ppbv	X-Bar %Recov.	STD.Dev. ppbv	MDL	Spike/MDL Ratio
1,3-Dichloropropane	4-Jan-16	0.2	0.196	0.174	0.169	0.196	0.208	0.192	0.204	0.191	95.65	0.015	0.046	4.39
1,4-Dioxane	6-Jan-16	0.2	0.103	0.095	0.091	0.100	0.116	0.132	0.102	0.106	52.76	0.014	0.045	4.45
Dichlorodifluoromethane	7-Jan-16	0.1	0.086	0.093	0.083	0.087	0.079	0.076	0.076	0.083	82.77	0.006	0.019	5.25
Dichlorofluoromethane	4-Jan-16	0.2	0.216	0.205	0.197	0.215	0.222	0.215	0.219	0.213	106.41	0.009	0.027	7.31
Dibromochloromethane	4-Jan-16	0.2	0.196	0.173	0.170	0.204	0.216	0.200	0.198	0.194	97.06	0.017	0.053	3.81
Dibromomethane	7-Jan-16	0.1	0.066	0.076	0.065	0.067	0.062	0.061	0.059	0.065	65.02	0.006	0.018	5.51
trans-1,2-Dichloroethylene	7-Jan-16	0.1	0.082	0.098	0.085	0.090	0.074	0.082	0.072	0.083	83.23	0.009	0.028	3.57
cis-1,2-Dichloroethylene	5-Jan-16	0.1	0.088	0.078	0.079	0.078	0.094	0.078	0.076	0.081	81.42	0.007	0.021	4.75
cis-1,3-Dichloropropene	5-Jan-16	0.1	0.078	0.076	0.081	0.080	0.076	0.090	0.083	0.081	80.60	0.005	0.015	6.60
m-Dichlorobenzene	8-Jan-16	0.1	0.088	0.078	0.079	0.085	0.069	0.077	0.077	0.079	79.01	0.006	0.020	5.14
o-Dichlorobenzene	8-Jan-16	0.1	0.088	0.084	0.081	0.081	0.072	0.082	0.076	0.081	80.53	0.005	0.016	6.25
p-Dichlorobenzene	6-Jan-16	0.2	0.125	0.126	0.112	0.117	0.127	0.136	0.113	0.122	61.09	0.009	0.027	7.43
trans-1,3-Dichloropropene	8-Jan-16	0.1	0.080	0.072	0.067	0.071	0.062	0.073	0.066	0.070	70.08	0.006	0.018	5.50
Di-Isopropyl ether	5-Jan-16	0.1	0.066	0.073	0.076	0.048	0.073	0.077	0.066	0.068	68.33	0.010	0.031	3.19
2,3-Dimethylpentane	4-Jan-16	0.2	0.245	0.252	0.248	0.240	0.268	0.248	0.251	0.250	125.13	0.009	0.027	7.35
2,4-Dimethylpentane	7-Jan-16	0.1	0.066	0.072	0.064	0.066	0.057	0.060	0.055	0.063	62.83	0.006	0.019	5.34
Ethanol	6-Jan-16	0.2	0.282	0.279	0.309	0.282	0.341	0.307	0.277	0.297	148.31	0.024	0.075	2.67
Ethylbenzene	4-Jan-16	0.2	0.194	0.174	0.169	0.196	0.206	0.195	0.194	0.190	94.84	0.013	0.042	4.74
Ethyl Acetate	8-Jan-16	0.2	0.166	0.130	0.196	0.147	0.129	0.159	0.168	0.156	78.22	0.024	0.075	2.68
4-Ethyltoluene	8-Jan-16	0.1	0.087	0.082	0.082	0.083	0.072	0.088	0.078	0.082	81.67	0.005	0.017	5.99
Freon 113	7-Jan-16	0.1	0.074	0.084	0.078	0.081	0.070	0.067	0.067	0.074	74.39	0.007	0.021	4.67
Freon 114	4-Jan-16	0.2	0.205	0.205	0.195	0.218	0.225	0.208	0.217	0.211	105.24	0.010	0.031	6.37
Freon 115	5-Jan-16	0.1	0.096	0.084	0.084	0.087	0.088	0.078	0.077	0.085	84.74	0.006	0.020	4.98
Freon 123	4-Jan-16	0.2	0.204	0.196	0.186	0.204	0.218	0.204	0.205	0.202	101.20	0.010	0.031	6.52
Freon 123A	5-Jan-16	0.1	0.091	0.091	0.106	0.096	0.098	0.103	0.098	0.098	97.65	0.006	0.018	5.65
Freon 141B	8-Jan-16	0.1	0.111	0.105	0.104	0.112	0.101	0.116	0.120	0.110	109.86	0.007	0.022	4.63
Freon 142B	7-Jan-16	0.1	0.082	0.091	0.086	0.085	0.075	0.076	0.074	0.081	81.35	0.006	0.020	4.94
Freon 143a	8-Jan-16	0.1	0.125	0.143	0.137	0.120	0.129	0.123	0.124	0.129	128.70	0.008	0.027	3.78
Freon 152A	8-Jan-16	0.2	0.240	0.273	0.269	0.252	0.252	0.242	0.260	0.255	127.66	0.013	0.040	5.07
Heptane	8-Jan-16	0.1	0.079	0.087	0.080	0.096	0.077	0.087	0.081	0.084	83.87	0.006	0.020	4.96
Hexachlorobutadiene	8-Jan-16	0.1	0.085	0.085	0.079	0.083	0.068	0.073	0.079	0.079	78.76	0.007	0.020	4.93
Hexachloroethane	8-Jan-16	0.1	0.079	0.077	0.074	0.074	0.061	0.075	0.071	0.073	73.25	0.006	0.019	5.34
Hexane	4-Jan-16	0.2	0.178	0.177	0.179	0.195	0.183	0.171	0.182	0.181	90.43	0.007	0.023	8.85
2-Hexanone	6-Jan-16	0.2	0.087	0.098	0.094	0.102	0.111	0.121	0.079	0.099	49.46	0.014	0.045	4.46

Detection limits derived using the method described in 40 CFR Part 136, Appendix B

Method: TO-15 (VTO14/15)
Instrument(s): GCMSW, GCMS3W, GCMS5W
Analyst: Pooled

Matrix: AIR
Quant Factor: 1.00
Study Period: January,2016

Cmpd./Element/Parm. Name	Analysis Date	Spike ppbv	Replicate Spikes R1 ppbv	R2 ppbv	R3 ppbv	R4 ppbv	R5 ppbv	R6 ppbv	R7 ppbv	X-Bar ppbv	X-Bar %Recov.	STD.Dev. ppbv	MDL	Spike/MDL Ratio
Iodomethane	7-Jan-16	0.1	0.073	0.083	0.074	0.074	0.065	0.067	0.064	0.071	71.37	0.007	0.021	4.74
Isopropylbenzene	4-Jan-16	0.2	0.194	0.173	0.165	0.197	0.205	0.199	0.198	0.190	95.03	0.015	0.047	4.26
Isopropyl Alcohol	8-Jan-16	0.2	0.345	0.388	0.410	0.398	0.309	0.414	0.462	0.390	194.78	0.050	0.156	1.28
p-Isopropyltoluene	4-Jan-16	0.2	0.131	0.116	0.114	0.133	0.138	0.124	0.137	0.128	63.81	0.010	0.031	6.47
Methylene chloride	7-Jan-16	0.1	0.074	0.084	0.079	0.075	0.063	0.071	0.063	0.073	72.69	0.008	0.025	4.02
Methyl ethyl ketone	6-Jan-16	0.2	0.119	0.114	0.106	0.116	0.133	0.153	0.118	0.123	61.36	0.015	0.048	4.14
Methyl Isobutyl Ketone	4-Jan-16	0.2	0.145	0.110	0.140	0.160	0.149	0.163	0.136	0.143	71.60	0.018	0.055	3.64
Methyl Tert Butyl Ether	4-Jan-16	0.2	0.183	0.173	0.177	0.187	0.189	0.180	0.188	0.183	91.25	0.006	0.020	10.16
Methylmethacrylate	4-Jan-16	0.2	0.142	0.115	0.136	0.151	0.150	0.148	0.146	0.141	70.56	0.013	0.040	5.00
Naphthalene	4-Jan-16	0.2	0.106	0.090	0.067	0.108	0.124	0.097	0.103	0.100	49.74	0.018	0.056	3.55
Nonane	4-Jan-16	0.2	0.166	0.145	0.142	0.166	0.170	0.174	0.166	0.161	80.63	0.013	0.039	5.09
Octane	4-Jan-16	0.2	0.188	0.169	0.160	0.197	0.203	0.195	0.191	0.186	92.94	0.016	0.049	4.08
Pentane	8-Jan-16	0.2	0.184	0.183	0.195	0.173	0.155	0.161	0.179	0.176	87.75	0.014	0.044	4.54
n-Propylbenzene	8-Jan-16	0.1	0.081	0.078	0.079	0.072	0.062	0.077	0.070	0.074	74.31	0.007	0.021	4.75
Propylene	5-Jan-16	0.1	0.174	0.185	0.160	0.172	0.158	0.159	0.161	0.167	166.86	0.010	0.032	3.09
Styrene	8-Jan-16	0.1	0.081	0.078	0.079	0.081	0.067	0.076	0.077	0.077	76.91	0.005	0.015	6.50
1,1,1-Trichloroethane	4-Jan-16	0.2	0.196	0.186	0.194	0.201	0.208	0.200	0.207	0.199	99.46	0.008	0.024	8.50
1,1,1,2-Tetrachloroethane	7-Jan-16	0.1	0.061	0.071	0.067	0.063	0.062	0.061	0.058	0.063	63.22	0.004	0.014	7.23
1,1,2,2-Tetrachloroethane	7-Jan-16	0.1	0.063	0.074	0.061	0.067	0.059	0.063	0.061	0.064	64.00	0.005	0.016	6.21
1,1,2-Trichloroethane	4-Jan-16	0.2	0.201	0.174	0.176	0.205	0.202	0.195	0.193	0.192	96.16	0.012	0.039	5.16
1,2,4-Trichlorobenzene	4-Jan-16	0.2	0.140	0.105	0.083	0.119	0.125	0.119	0.120	0.116	57.86	0.018	0.056	3.58
1,2,3-Trichloropropane	5-Jan-16	0.1	0.079	0.082	0.092	0.078	0.088	0.079	0.090	0.084	84.06	0.006	0.018	5.50
1,2,4-Trimethylbenzene	8-Jan-16	0.1	0.079	0.076	0.076	0.080	0.067	0.082	0.074	0.076	76.27	0.005	0.015	6.59
1,3,5-Trimethylbenzene	4-Jan-16	0.2	0.169	0.154	0.150	0.186	0.187	0.171	0.168	0.169	84.52	0.014	0.045	4.46
2,2,4-Trimethylpentane	4-Jan-16	0.2	0.207	0.199	0.192	0.211	0.213	0.210	0.207	0.205	102.70	0.007	0.023	8.79
Tertiary Butyl Alcohol	4-Jan-16	0.2	0.194	0.177	0.162	0.203	0.208	0.199	0.206	0.193	96.34	0.017	0.053	3.77
Tetrachloroethylene	7-Jan-16	0.1	0.061	0.074	0.063	0.066	0.059	0.057	0.052	0.062	61.60	0.007	0.023	4.36
Tetrahydrofuran	6-Jan-16	0.2	0.100	0.103	0.094	0.102	0.117	0.137	0.104	0.108	54.15	0.014	0.045	4.41
Toluene	8-Jan-16	0.1	0.092	0.088	0.090	0.093	0.081	0.091	0.089	0.089	89.24	0.004	0.012	8.08
Trichloroethylene	7-Jan-16	0.1	0.064	0.070	0.061	0.071	0.056	0.060	0.057	0.063	62.73	0.006	0.019	5.38
Trichlorofluoromethane	7-Jan-16	0.1	0.080	0.092	0.081	0.082	0.072	0.076	0.071	0.079	79.13	0.007	0.022	4.56
Vinyl chloride	5-Jan-16	0.1	0.098	0.106	0.111	0.096	0.102	0.096	0.110	0.103	102.76	0.007	0.021	4.85
Vinyl Acetate	4-Jan-16	0.2	0.096	0.110	0.102	0.091	0.067	0.090	0.122	0.097	48.42	0.017	0.054	3.72
m,p-Xylene	4-Jan-16	0.4	0.370	0.333	0.323	0.371	0.376	0.369	0.374	0.360	89.89	0.022	0.068	5.85

Detection limits derived using the method described in 40 CFR Part 136, Appendix B

Method: TO-15 (VTO14/15)
Instrument(s): GCMSW, GCMS3W, GCMS5W
Analyst: Pooled

Matrix: AIR
Quant Factor: 1.00
Study Period: January,2016

Cmpd./Element/Parm. Name	Analysis Date	Spike ppbv	Replicate Spikes R1 ppbv	R2 ppbv	R3 ppbv	R4 ppbv	R5 ppbv	R6 ppbv	R7 ppbv	X-Bar ppbv	X-Bar %Recov.	STD.Dev. ppbv	MDL	Spike/MDL Ratio
o-Xylene	4-Jan-16	0.2	0.180	0.159	0.159	0.198	0.197	0.184	0.186	0.181	90.23	0.016	0.051	3.93
TVHC As Equiv Pentane	8-Jan-16	0.1	0.112	0.108	0.109	0.130	0.112	0.113	0.104	0.113	112.51	0.008	0.026	3.90
4-Bromofluorobenzene	6-Jan-16	0.2	10.03	10.12	10.18	10.19	10.10	10.07	9.96	10.09	5045.72	0.081	0.255	0.79

Detection limits derived using the method described in 40 CFR Part 136, Appendix B

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Initial Calibration RT/ISTD Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-MB	5W17502.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-MB	5W17502.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-MB	5W17502.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	97%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-MB	5W17532.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-MB	5W17532.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-MB	5W17532.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-MB	5W17556.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-MB	5W17556.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-MB	5W17556.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W701-MB	5W17588.D	1	04/08/16	TCH	n/a	n/a	V5W701

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-10

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	95%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-MB	5W17079.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-MB	5W17079.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-MB	5W17079.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-MB	5W17110.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-MB	5W17110.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-MB	5W17110.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	100%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.69	40	ppbv	JN
	Total TIC, Volatile		0	ppbv	

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-MB	3W52857.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-MB	3W52857.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-MB	3W52857.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	108%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-MB	W54289.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-MB	W54289.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-MB	W54289.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	85%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ppbv	

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-MB	5W17140.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-MB	5W17140.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-MB	5W17140.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	3.69	39	ppbv	JN
	Total TIC, Volatile		0	ppbv	

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-MB	5W17168.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-MB	5W17168.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-MB	5W17168.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-MB	W54349.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-MB	W54349.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-MB	W54349.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	80%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-MB	5W17194.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-MB	5W17194.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-MB	5W17194.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	98%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-MB	W54374.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-MB	W54374.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-MB	W54374.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	80%	65-128%

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-MB	3W52948.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-MB	3W52948.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-MB	3W52948.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	65-128%

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-BS	5W17498.D	1	04/05/16	TCH	n/a	n/a	V5W698
V5W698-BSD	5W17499.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.4	104	10.0	100	4	70-130/30
106-99-0	1,3-Butadiene	10	10	100	9.4	94	6	70-130/30
71-43-2	Benzene	10	9.9	99	9.6	96	3	70-130/30
75-27-4	Bromodichloromethane	10	10.5	105	10.1	101	4	70-130/30
75-25-2	Bromoform	10	9.7	97	9.4	94	3	70-130/30
74-83-9	Bromomethane	10	9.9	99	9.5	95	4	70-130/30
593-60-2	Bromoethene	10	10.6	106	10.2	102	4	70-130/30
100-44-7	Benzyl Chloride	10	9.6	96	9.1	91	5	70-130/30
75-15-0	Carbon disulfide	10	10	100	9.6	96	4	70-130/30
108-90-7	Chlorobenzene	10	9.4	94	9.0	90	4	70-130/30
75-00-3	Chloroethane	10	10.7	107	10.3	103	4	70-130/30
67-66-3	Chloroform	10	10.4	104	10.1	101	3	70-130/30
74-87-3	Chloromethane	10	10.4	104	9.9	99	5	70-130/30
107-05-1	3-Chloropropene	10	9.8	98	9.5	95	3	70-130/30
95-49-8	2-Chlorotoluene	10	9.6	96	9.3	93	3	70-130/30
56-23-5	Carbon tetrachloride	10	10.2	102	9.9	99	3	70-130/30
110-82-7	Cyclohexane	10	9.5	95	9.2	92	3	70-130/30
75-34-3	1,1-Dichloroethane	10	10.3	103	9.9	99	4	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.5	105	10.2	102	3	70-130/30
106-93-4	1,2-Dibromoethane	10	10.6	106	10.5	105	1	70-130/30
107-06-2	1,2-Dichloroethane	10	10.9	109	10.5	105	4	70-130/30
78-87-5	1,2-Dichloropropane	10	11.4	114	11.0	110	4	70-130/30
123-91-1	1,4-Dioxane	10	11.2	112	10.8	108	4	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.6	106	10.1	101	5	70-130/30
124-48-1	Dibromochloromethane	10	11.2	112	10.7	107	5	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.4	104	10.0	100	4	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.2	102	9.9	99	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.1	101	9.8	98	3	70-130/30
541-73-1	m-Dichlorobenzene	10	9.7	97	9.2	92	5	70-130/30
95-50-1	o-Dichlorobenzene	10	9.4	94	9.1	91	3	70-130/30
106-46-7	p-Dichlorobenzene	10	8.8	88	8.5	85	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	11.2	112	10.8	108	4	70-130/30
64-17-5	Ethanol	10	9.3	93	8.8	88	6	70-130/30
100-41-4	Ethylbenzene	10	9.3	93	9.1	91	2	70-130/30
141-78-6	Ethyl Acetate	10	11.4	114	11.0	110	4	70-130/30
622-96-8	4-Ethyltoluene	10	10	100	9.6	96	4	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-BS	5W17498.D	1	04/05/16	TCH	n/a	n/a	V5W698
V5W698-BSD	5W17499.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.5	105	10.1	101	4	70-130/30
76-14-2	Freon 114	10	11.1	111	10.6	106	5	70-130/30
142-82-5	Heptane	10	10.6	106	10.2	102	4	70-130/30
87-68-3	Hexachlorobutadiene	10	9.0	90	8.5	85	6	70-130/30
110-54-3	Hexane	10	9.7	97	9.3	93	4	70-130/30
591-78-6	2-Hexanone	10	11.6	116	11.1	111	4	70-130/30
67-63-0	Isopropyl Alcohol	10	9.8	98	9.1	91	7	70-130/30
75-09-2	Methylene chloride	10	9.2	92	8.9	89	3	70-130/30
78-93-3	Methyl ethyl ketone	10	10.2	102	9.9	99	3	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	12.0	120	11.5	115	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.6	96	9.4	94	2	70-130/30
80-62-6	Methylmethacrylate	10	10.1	101	9.8	98	3	70-130/30
115-07-1	Propylene	10	10.5	105	9.8	98	7	70-130/30
100-42-5	Styrene	10	9.7	97	9.3	93	4	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.9	99	9.7	97	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.4	104	9.9	99	5	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.3	103	10.1	101	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.6	76	7.3	73	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.2	102	9.7	97	5	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.7	97	9.3	93	4	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.2	112	10.7	107	5	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.6	106	10.2	102	4	70-130/30
127-18-4	Tetrachloroethylene	10	10.6	106	10.2	102	4	70-130/30
109-99-9	Tetrahydrofuran	10	10.7	107	10.4	104	3	70-130/30
108-88-3	Toluene	10	10.5	105	10.1	101	4	70-130/30
79-01-6	Trichloroethylene	10	10.8	108	10.3	103	5	70-130/30
75-69-4	Trichlorofluoromethane	10	11.0	110	10.6	106	4	70-130/30
75-01-4	Vinyl chloride	10	11.4	114	10.7	107	6	70-130/30
108-05-4	Vinyl Acetate	10	11.3	113	10.9	109	4	70-130/30
	m,p-Xylene	20	19.7	99	19.1	96	3	70-130/30
95-47-6	o-Xylene	10	9.9	99	9.5	95	4	70-130/30
1330-20-7	Xylenes (total)	30	29.6	99	28.6	95	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W698-BS	5W17498.D	1	04/05/16	TCH	n/a	n/a	V5W698
V5W698-BSD	5W17499.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	98%	96%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-BS	5W17529.D	1	04/06/16	TCH	n/a	n/a	V5W699
V5W699-BSD	5W17530.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.1	101	9.9	99	2	70-130/30
106-99-0	1,3-Butadiene	10	9.9	99	9.6	96	3	70-130/30
71-43-2	Benzene	10	10.4	104	10.1	101	3	70-130/30
75-27-4	Bromodichloromethane	10	9.5	95	9.2	92	3	70-130/30
75-25-2	Bromoform	10	9.3	93	9.0	90	3	70-130/30
74-83-9	Bromomethane	10	9.3	93	9.0	90	3	70-130/30
593-60-2	Bromoethene	10	9.7	97	9.5	95	2	70-130/30
100-44-7	Benzyl Chloride	10	8.8	88	8.4	84	5	70-130/30
75-15-0	Carbon disulfide	10	10.7	107	10.5	105	2	70-130/30
108-90-7	Chlorobenzene	10	9.3	93	9.0	90	3	70-130/30
75-00-3	Chloroethane	10	10.5	105	10.2	102	3	70-130/30
67-66-3	Chloroform	10	10.0	100	9.8	98	2	70-130/30
74-87-3	Chloromethane	10	10.4	104	10.2	102	2	70-130/30
107-05-1	3-Chloropropene	10	10.7	107	10.4	104	3	70-130/30
95-49-8	2-Chlorotoluene	10	9.4	94	9.1	91	3	70-130/30
56-23-5	Carbon tetrachloride	10	9.7	97	9.5	95	2	70-130/30
110-82-7	Cyclohexane	10	10.1	101	9.8	98	3	70-130/30
75-34-3	1,1-Dichloroethane	10	10.7	107	10.4	104	3	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.6	106	10.3	103	3	70-130/30
106-93-4	1,2-Dibromoethane	10	9.9	99	9.5	95	4	70-130/30
107-06-2	1,2-Dichloroethane	10	10.1	101	9.8	98	3	70-130/30
78-87-5	1,2-Dichloropropane	10	10.9	109	10.5	105	4	70-130/30
123-91-1	1,4-Dioxane	10	10.4	104	10.1	101	3	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.8	98	9.7	97	1	70-130/30
124-48-1	Dibromochloromethane	10	9.6	96	9.3	93	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.6	106	10.4	104	2	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.4	104	10.2	102	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.8	98	9.4	94	4	70-130/30
541-73-1	m-Dichlorobenzene	10	8.9	89	8.6	86	3	70-130/30
95-50-1	o-Dichlorobenzene	10	8.9	89	8.6	86	3	70-130/30
106-46-7	p-Dichlorobenzene	10	8.3	83	8.0	80	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.5	105	10.1	101	4	70-130/30
64-17-5	Ethanol	10	9.0	90	9.0	90	0	70-130/30
100-41-4	Ethylbenzene	10	9.4	94	9.1	91	3	70-130/30
141-78-6	Ethyl Acetate	10	11.5	115	11.2	112	3	70-130/30
622-96-8	4-Ethyltoluene	10	9.5	95	9.2	92	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-BS	5W17529.D	1	04/06/16	TCH	n/a	n/a	V5W699
V5W699-BSD	5W17530.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.7	107	10.5	105	2	70-130/30
76-14-2	Freon 114	10	10.3	103	10.1	101	2	70-130/30
142-82-5	Heptane	10	9.9	99	9.6	96	3	70-130/30
87-68-3	Hexachlorobutadiene	10	8.6	86	8.2	82	5	70-130/30
110-54-3	Hexane	10	9.5	95	9.2	92	3	70-130/30
591-78-6	2-Hexanone	10	10.6	106	10.3	103	3	70-130/30
67-63-0	Isopropyl Alcohol	10	8.6	86	8.4	84	2	70-130/30
75-09-2	Methylene chloride	10	9.8	98	9.6	96	2	70-130/30
78-93-3	Methyl ethyl ketone	10	10.9	109	10.7	107	2	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.3	113	10.9	109	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.7	97	9.6	96	1	70-130/30
80-62-6	Methylmethacrylate	10	9.6	96	9.3	93	3	70-130/30
115-07-1	Propylene	10	10.7	107	10.5	105	2	70-130/30
100-42-5	Styrene	10	9.6	96	9.3	93	3	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.5	95	9.3	93	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.9	99	9.6	96	3	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.9	99	9.6	96	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.4	74	7.2	72	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.2	92	8.9	89	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.1	91	8.9	89	2	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.4	104	10.0	100	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.6	106	10.4	104	2	70-130/30
127-18-4	Tetrachloroethylene	10	9.1	91	9.2	92	1	70-130/30
109-99-9	Tetrahydrofuran	10	11.4	114	11.3	113	1	70-130/30
108-88-3	Toluene	10	9.8	98	9.5	95	3	70-130/30
79-01-6	Trichloroethylene	10	9.7	97	9.3	93	4	70-130/30
75-69-4	Trichlorofluoromethane	10	9.7	97	9.4	94	3	70-130/30
75-01-4	Vinyl chloride	10	11.3	113	11.0	110	3	70-130/30
108-05-4	Vinyl Acetate	10	11.1	111	11.0	110	1	70-130/30
	m,p-Xylene	20	19.1	96	18.5	93	3	70-130/30
95-47-6	o-Xylene	10	9.4	94	9.1	91	3	70-130/30
1330-20-7	Xylenes (total)	30	28.5	95	27.6	92	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W699-BS	5W17529.D	1	04/06/16	TCH	n/a	n/a	V5W699
V5W699-BSD	5W17530.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	95%	97%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-BS	5W17553.D	1	04/07/16	TCH	n/a	n/a	V5W700
V5W700-BSD	5W17554.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.3	103	10.0	100	3	70-130/30
106-99-0	1,3-Butadiene	10	10.0	100	9.8	98	2	70-130/30
71-43-2	Benzene	10	10.6	106	10.4	104	2	70-130/30
75-27-4	Bromodichloromethane	10	9.6	96	9.5	95	1	70-130/30
75-25-2	Bromoform	10	9.2	92	9.1	91	1	70-130/30
74-83-9	Bromomethane	10	9.4	94	9.2	92	2	70-130/30
593-60-2	Bromoethene	10	9.8	98	9.6	96	2	70-130/30
100-44-7	Benzyl Chloride	10	8.8	88	8.7	87	1	70-130/30
75-15-0	Carbon disulfide	10	11.0	110	10.7	107	3	70-130/30
108-90-7	Chlorobenzene	10	9.3	93	9.2	92	1	70-130/30
75-00-3	Chloroethane	10	10.7	107	10.5	105	2	70-130/30
67-66-3	Chloroform	10	10.3	103	10.1	101	2	70-130/30
74-87-3	Chloromethane	10	10.6	106	10.3	103	3	70-130/30
107-05-1	3-Chloropropene	10	10.9	109	10.6	106	3	70-130/30
95-49-8	2-Chlorotoluene	10	9.4	94	9.2	92	2	70-130/30
56-23-5	Carbon tetrachloride	10	9.9	99	9.7	97	2	70-130/30
110-82-7	Cyclohexane	10	10.3	103	10.0	100	3	70-130/30
75-34-3	1,1-Dichloroethane	10	10.9	109	10.7	107	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.8	108	10.6	106	2	70-130/30
106-93-4	1,2-Dibromoethane	10	10.0	100	9.9	99	1	70-130/30
107-06-2	1,2-Dichloroethane	10	10.3	103	10.1	101	2	70-130/30
78-87-5	1,2-Dichloropropane	10	11.0	110	10.9	109	1	70-130/30
123-91-1	1,4-Dioxane	10	10.5	105	10.4	104	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.1	101	9.8	98	3	70-130/30
124-48-1	Dibromochloromethane	10	9.7	97	9.7	97	0	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.9	109	10.7	107	2	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.7	107	10.5	105	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.8	98	9.7	97	1	70-130/30
541-73-1	m-Dichlorobenzene	10	8.9	89	8.8	88	1	70-130/30
95-50-1	o-Dichlorobenzene	10	8.9	89	8.7	87	2	70-130/30
106-46-7	p-Dichlorobenzene	10	8.3	83	8.2	82	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.5	105	10.4	104	1	70-130/30
64-17-5	Ethanol	10	10.1	101	9.6	96	5	70-130/30
100-41-4	Ethylbenzene	10	9.4	94	9.3	93	1	70-130/30
141-78-6	Ethyl Acetate	10	11.7	117	11.6	116	1	70-130/30
622-96-8	4-Ethyltoluene	10	9.6	96	9.4	94	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-BS	5W17553.D	1	04/07/16	TCH	n/a	n/a	V5W700
V5W700-BSD	5W17554.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.9	109	10.6	106	3	70-130/30
76-14-2	Freon 114	10	10.5	105	10.2	102	3	70-130/30
142-82-5	Heptane	10	10.1	101	9.9	99	2	70-130/30
87-68-3	Hexachlorobutadiene	10	8.5	85	8.4	84	1	70-130/30
110-54-3	Hexane	10	9.6	96	9.5	95	1	70-130/30
591-78-6	2-Hexanone	10	10.8	108	10.8	108	0	70-130/30
67-63-0	Isopropyl Alcohol	10	8.9	89	8.7	87	2	70-130/30
75-09-2	Methylene chloride	10	10.1	101	9.8	98	3	70-130/30
78-93-3	Methyl ethyl ketone	10	11.1	111	10.8	108	3	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.5	115	11.4	114	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.9	99	9.7	97	2	70-130/30
80-62-6	Methylmethacrylate	10	9.8	98	9.6	96	2	70-130/30
115-07-1	Propylene	10	11.1	111	10.7	107	4	70-130/30
100-42-5	Styrene	10	9.6	96	9.5	95	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.7	97	9.5	95	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.1	101	9.9	99	2	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.0	100	9.9	99	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.1	71	7.1	71	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.4	94	9.2	92	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.2	92	9.1	91	1	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.6	106	10.4	104	2	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.8	108	10.5	105	3	70-130/30
127-18-4	Tetrachloroethylene	10	9.6	96	9.4	94	2	70-130/30
109-99-9	Tetrahydrofuran	10	11.6	116	11.4	114	2	70-130/30
108-88-3	Toluene	10	9.9	99	9.8	98	1	70-130/30
79-01-6	Trichloroethylene	10	9.7	97	9.6	96	1	70-130/30
75-69-4	Trichlorofluoromethane	10	9.7	97	9.6	96	1	70-130/30
75-01-4	Vinyl chloride	10	11.5	115	11.2	112	3	70-130/30
108-05-4	Vinyl Acetate	10	11.5	115	11.3	113	2	70-130/30
	m,p-Xylene	20	19.1	96	18.9	95	1	70-130/30
95-47-6	o-Xylene	10	9.5	95	9.4	94	1	70-130/30
1330-20-7	Xylenes (total)	30	28.6	95	28.2	94	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W700-BS	5W17553.D	1	04/07/16	TCH	n/a	n/a	V5W700
V5W700-BSD	5W17554.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	95%	96%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W701-BS	5W17585.D	1	04/08/16	TCH	n/a	n/a	V5W701
V5W701-BSD	5W17586.D	1	04/08/16	TCH	n/a	n/a	V5W701

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-10

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethylene	10	10.3	103	10.2	102	1	70-130/30
127-18-4	Tetrachloroethylene	10	9.5	95	9.3	93	2	70-130/30
79-01-6	Trichloroethylene	10	9.6	96	9.6	96	0	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	65-128%

* = Outside of Control Limits.

Raw Data: 5W17076.D 5W17077.D

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-BS	5W17076.D	1	03/17/16	TCH	n/a	n/a	V5W683
V5W683-BSD	5W17077.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.9	99	9.1	91	8	70-130/30
106-99-0	1,3-Butadiene	10	11.5	115	10.5	105	9	70-130/30
71-43-2	Benzene	10	9.8	98	9.1	91	7	70-130/30
75-27-4	Bromodichloromethane	10	11.0	110	9.9	99	11	70-130/30
75-25-2	Bromoform	10	10.9	109	10.2	102	7	70-130/30
74-83-9	Bromomethane	10	11.0	110	10.0	100	10	70-130/30
593-60-2	Bromoethene	10	11.2	112	10.3	103	8	70-130/30
100-44-7	Benzyl Chloride	10	9.0	90	8.4	84	7	70-130/30
75-15-0	Carbon disulfide	10	10.7	107	9.7	97	10	70-130/30
108-90-7	Chlorobenzene	10	9.5	95	8.7	87	9	70-130/30
75-00-3	Chloroethane	10	11.2	112	10.3	103	8	70-130/30
67-66-3	Chloroform	10	10.6	106	9.8	98	8	70-130/30
74-87-3	Chloromethane	10	12.2	122	11.2	112	9	70-130/30
107-05-1	3-Chloropropene	10	10.2	102	9.4	94	8	70-130/30
95-49-8	2-Chlorotoluene	10	9.3	93	8.5	85	9	70-130/30
56-23-5	Carbon tetrachloride	10	10.8	108	10.0	100	8	70-130/30
110-82-7	Cyclohexane	10	10.2	102	9.5	95	7	70-130/30
75-34-3	1,1-Dichloroethane	10	10.8	108	9.9	99	9	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.6	106	9.8	98	8	70-130/30
106-93-4	1,2-Dibromoethane	10	10.5	105	9.7	97	8	70-130/30
107-06-2	1,2-Dichloroethane	10	11.2	112	10.4	104	7	70-130/30
78-87-5	1,2-Dichloropropane	10	11.6	116	10.6	106	9	70-130/30
123-91-1	1,4-Dioxane	10	10.4	104	9.7	97	7	70-130/30
75-71-8	Dichlorodifluoromethane	10	11.6	116	10.7	107	8	70-130/30
124-48-1	Dibromochloromethane	10	11.5	115	10.6	106	8	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.6	106	9.8	98	8	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.1	101	9.6	96	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	9.2	92	7	70-130/30
541-73-1	m-Dichlorobenzene	10	9.3	93	8.6	86	8	70-130/30
95-50-1	o-Dichlorobenzene	10	9.4	94	8.6	86	9	70-130/30
106-46-7	p-Dichlorobenzene	10	8.6	86	7.9	79	8	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.5	105	9.9	99	6	70-130/30
64-17-5	Ethanol	10	11.5	115	10.4	104	10	70-130/30
100-41-4	Ethylbenzene	10	9.5	95	8.9	89	7	70-130/30
141-78-6	Ethyl Acetate	10	11.8	118	10.8	108	9	70-130/30
622-96-8	4-Ethyltoluene	10	9.5	95	8.8	88	8	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-BS	5W17076.D	1	03/17/16	TCH	n/a	n/a	V5W683
V5W683-BSD	5W17077.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.6	106	9.8	98	8	70-130/30
76-14-2	Freon 114	10	11.9	119	11.0	110	8	70-130/30
142-82-5	Heptane	10	10.5	105	9.7	97	8	70-130/30
87-68-3	Hexachlorobutadiene	10	10.5	105	9.4	94	11	70-130/30
110-54-3	Hexane	10	9.8	98	8.9	89	10	70-130/30
591-78-6	2-Hexanone	10	11.2	112	10.4	104	7	70-130/30
67-63-0	Isopropyl Alcohol	10	10.6	106	9.8	98	8	70-130/30
75-09-2	Methylene chloride	10	9.4	94	8.8	88	7	70-130/30
78-93-3	Methyl ethyl ketone	10	9.9	99	9.3	93	6	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.6	116	10.6	106	9	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.4	94	8.7	87	8	70-130/30
80-62-6	Methylmethacrylate	10	10.1	101	9.3	93	8	70-130/30
115-07-1	Propylene	10	11.8	118	11.1	111	6	70-130/30
100-42-5	Styrene	10	9.2	92	8.5	85	8	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.5	105	9.6	96	9	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.4	104	9.7	97	7	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.8	108	10.0	100	8	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	8.3	83	7.7	77	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.6	96	8.9	89	8	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.3	93	8.7	87	7	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.4	114	10.4	104	9	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10	100	9.2	92	8	70-130/30
127-18-4	Tetrachloroethylene	10	11.0	110	10.1	101	9	70-130/30
109-99-9	Tetrahydrofuran	10	10.8	108	10.1	101	7	70-130/30
108-88-3	Toluene	10	10.2	102	9.5	95	7	70-130/30
79-01-6	Trichloroethylene	10	10.7	107	9.6	96	11	70-130/30
75-69-4	Trichlorofluoromethane	10	11.6	116	10.6	106	9	70-130/30
75-01-4	Vinyl chloride	10	12.0	120	11.1	111	8	70-130/30
108-05-4	Vinyl Acetate	10	12.1	121	11.3	113	7	70-130/30
	m,p-Xylene	20	19.4	97	18.0	90	7	70-130/30
95-47-6	o-Xylene	10	9.7	97	9.1	91	6	70-130/30
1330-20-7	Xylenes (total)	30	29.1	97	27.1	90	7	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-BS	5W17076.D	1	03/17/16	TCH	n/a	n/a	V5W683
V5W683-BSD	5W17077.D	1	03/17/16	TCH	n/a	n/a	V5W683

The QC reported here applies to the following samples: **Method:** TO-15

V5W683-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	102%	101%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-BS	5W17107.D	1	03/18/16	TCH	n/a	n/a	V5W684
V5W684-BSD	5W17108.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10	100	10.2	102	2	70-130/30
106-99-0	1,3-Butadiene	10	10.7	107	11.2	112	5	70-130/30
71-43-2	Benzene	10	9.0	90	9.4	94	4	70-130/30
75-27-4	Bromodichloromethane	10	10.5	105	10.8	108	3	70-130/30
75-25-2	Bromoform	10	10.2	102	9.9	99	3	70-130/30
74-83-9	Bromomethane	10	10.3	103	10.3	103	0	70-130/30
593-60-2	Bromoethene	10	10.6	106	10.7	107	1	70-130/30
100-44-7	Benzyl Chloride	10	8.6	86	8.4	84	2	70-130/30
75-15-0	Carbon disulfide	10	10.2	102	10.4	104	2	70-130/30
108-90-7	Chlorobenzene	10	9.0	90	8.9	89	1	70-130/30
75-00-3	Chloroethane	10	11.0	110	11.0	110	0	70-130/30
67-66-3	Chloroform	10	10.2	102	10.3	103	1	70-130/30
74-87-3	Chloromethane	10	12.0	120	12.0	120	0	70-130/30
107-05-1	3-Chloropropene	10	9.5	95	9.8	98	3	70-130/30
95-49-8	2-Chlorotoluene	10	8.7	87	8.3	83	5	70-130/30
56-23-5	Carbon tetrachloride	10	10.2	102	10.3	103	1	70-130/30
110-82-7	Cyclohexane	10	9.5	95	9.8	98	3	70-130/30
75-34-3	1,1-Dichloroethane	10	10.2	102	10.4	104	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.2	102	10.5	105	3	70-130/30
106-93-4	1,2-Dibromoethane	10	10.0	100	10.4	104	4	70-130/30
107-06-2	1,2-Dichloroethane	10	10.8	108	11.0	110	2	70-130/30
78-87-5	1,2-Dichloropropane	10	11.1	111	11.5	115	4	70-130/30
123-91-1	1,4-Dioxane	10	10.3	103	10.8	108	5	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.9	109	11.0	110	1	70-130/30
124-48-1	Dibromochloromethane	10	11.0	110	11.2	112	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.1	101	10.4	104	3	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.8	98	10.1	101	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.2	92	9.8	98	6	70-130/30
541-73-1	m-Dichlorobenzene	10	8.9	89	8.5	85	5	70-130/30
95-50-1	o-Dichlorobenzene	10	8.7	87	8.4	84	4	70-130/30
106-46-7	p-Dichlorobenzene	10	8.2	82	7.9	79	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.2	102	10.7	107	5	70-130/30
64-17-5	Ethanol	10	11.7	117	12.1	121	3	70-130/30
100-41-4	Ethylbenzene	10	9.1	91	8.6	86	6	70-130/30
141-78-6	Ethyl Acetate	10	11.6	116	11.8	118	2	70-130/30
622-96-8	4-Ethyltoluene	10	9.1	91	8.6	86	6	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-BS	5W17107.D	1	03/18/16	TCH	n/a	n/a	V5W684
V5W684-BSD	5W17108.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10	100	10.1	101	1	70-130/30
76-14-2	Freon 114	10	11.2	112	11.3	113	1	70-130/30
142-82-5	Heptane	10	10	100	10.5	105	5	70-130/30
87-68-3	Hexachlorobutadiene	10	9.1	91	8.6	86	6	70-130/30
110-54-3	Hexane	10	9.5	95	9.6	96	1	70-130/30
591-78-6	2-Hexanone	10	11.0	110	11.8	118	7	70-130/30
67-63-0	Isopropyl Alcohol	10	11.0	110	10.9	109	1	70-130/30
75-09-2	Methylene chloride	10	9.1	91	9.1	91	0	70-130/30
78-93-3	Methyl ethyl ketone	10	9.5	95	9.8	98	3	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.0	110	12.0	120	9	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.7	87	9.1	91	4	70-130/30
80-62-6	Methylmethacrylate	10	9.6	96	10.1	101	5	70-130/30
115-07-1	Propylene	10	11.5	115	11.8	118	3	70-130/30
100-42-5	Styrene	10	8.7	87	8.4	84	4	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.9	99	10.2	102	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.1	101	9.8	98	3	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.1	101	10.5	105	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.2	72	7.1	71	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	8.9	89	8.6	86	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	8.8	88	8.4	84	5	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.9	109	11.4	114	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.4	94	9.5	95	1	70-130/30
127-18-4	Tetrachloroethylene	10	10.1	101	10.5	105	4	70-130/30
109-99-9	Tetrahydrofuran	10	10.2	102	10.5	105	3	70-130/30
108-88-3	Toluene	10	9.5	95	9.9	99	4	70-130/30
79-01-6	Trichloroethylene	10	10.1	101	10.4	104	3	70-130/30
75-69-4	Trichlorofluoromethane	10	11.0	110	11.1	111	1	70-130/30
75-01-4	Vinyl chloride	10	11.5	115	11.6	116	1	70-130/30
108-05-4	Vinyl Acetate	10	11.5	115	12.0	120	4	70-130/30
	m,p-Xylene	20	18.5	93	17.7	89	4	70-130/30
95-47-6	o-Xylene	10	9.3	93	9.0	90	3	70-130/30
1330-20-7	Xylenes (total)	30	27.8	93	26.7	89	4	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-BS	5W17107.D	1	03/18/16	TCH	n/a	n/a	V5W684
V5W684-BSD	5W17108.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here applies to the following samples: **Method:** TO-15

V5W684-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	100%	98%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-BS	3W52854.D	1	03/18/16	YMH	n/a	n/a	V3W1996
V3W1996-BSD	3W52855.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.4	104	10.4	104	0	70-130/30
106-99-0	1,3-Butadiene	10	11.2	112	11.2	112	0	70-130/30
71-43-2	Benzene	10	10.0	100	10.2	102	2	70-130/30
75-27-4	Bromodichloromethane	10	9.7	97	9.9	99	2	70-130/30
75-25-2	Bromoform	10	9.7	97	9.6	96	1	70-130/30
74-83-9	Bromomethane	10	10.3	103	10.3	103	0	70-130/30
593-60-2	Bromoethene	10	10.2	102	10.2	102	0	70-130/30
100-44-7	Benzyl Chloride	10	10.5	105	9.4	94	11	70-130/30
75-15-0	Carbon disulfide	10	10.6	106	10.8	108	2	70-130/30
108-90-7	Chlorobenzene	10	9.5	95	9.6	96	1	70-130/30
75-00-3	Chloroethane	10	11.2	112	11.1	111	1	70-130/30
67-66-3	Chloroform	10	10.4	104	10.6	106	2	70-130/30
74-87-3	Chloromethane	10	11.1	111	11.1	111	0	70-130/30
107-05-1	3-Chloropropene	10	10.8	108	10.8	108	0	70-130/30
95-49-8	2-Chlorotoluene	10	9.9	99	9.4	94	5	70-130/30
56-23-5	Carbon tetrachloride	10	10.3	103	10.5	105	2	70-130/30
110-82-7	Cyclohexane	10	9.7	97	9.7	97	0	70-130/30
75-34-3	1,1-Dichloroethane	10	9.4	94	9.6	96	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.8	98	9.9	99	1	70-130/30
106-93-4	1,2-Dibromoethane	10	9.8	98	9.8	98	0	70-130/30
107-06-2	1,2-Dichloroethane	10	10.7	107	11.0	110	3	70-130/30
78-87-5	1,2-Dichloropropane	10	10.5	105	10.8	108	3	70-130/30
123-91-1	1,4-Dioxane	10	10.1	101	10.2	102	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	11.0	110	11.1	111	1	70-130/30
124-48-1	Dibromochloromethane	10	9.7	97	9.7	97	0	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.6	96	10	100	4	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.9	99	10.1	101	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.4	94	9.9	99	5	70-130/30
541-73-1	m-Dichlorobenzene	10	9.4	94	8.9	89	5	70-130/30
95-50-1	o-Dichlorobenzene	10	9.4	94	8.6	86	9	70-130/30
106-46-7	p-Dichlorobenzene	10	9.3	93	8.6	86	8	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.0	100	10.6	106	6	70-130/30
64-17-5	Ethanol	10	10.5	105	10.3	103	2	70-130/30
100-41-4	Ethylbenzene	10	9.6	96	9.3	93	3	70-130/30
141-78-6	Ethyl Acetate	10	10.9	109	11.2	112	3	70-130/30
622-96-8	4-Ethyltoluene	10	10.3	103	9.1	91	12	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-BS	3W52854.D	1	03/18/16	YMH	n/a	n/a	V3W1996
V3W1996-BSD	3W52855.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.9	99	9.9	99	0	70-130/30
76-14-2	Freon 114	10	10.7	107	10.7	107	0	70-130/30
142-82-5	Heptane	10	9.9	99	10.3	103	4	70-130/30
87-68-3	Hexachlorobutadiene	10	8.8	88	7.9	79	11	70-130/30
110-54-3	Hexane	10	10.4	104	10.6	106	2	70-130/30
591-78-6	2-Hexanone	10	11.0	110	10.1	101	9	70-130/30
67-63-0	Isopropyl Alcohol	10	11.3	113	10.8	108	5	70-130/30
75-09-2	Methylene chloride	10	9.7	97	9.8	98	1	70-130/30
78-93-3	Methyl ethyl ketone	10	10.1	101	10.4	104	3	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.0	110	10.6	106	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.7	87	9.0	90	3	70-130/30
80-62-6	Methylmethacrylate	10	9.6	96	9.6	96	0	70-130/30
115-07-1	Propylene	10	11.8	118	11.9	119	1	70-130/30
100-42-5	Styrene	10	9.9	99	9.4	94	5	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.3	103	10.5	105	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10	100	9.2	92	8	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.1	101	10.5	105	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	9.2	92	8.1	81	13	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.0	100	8.9	89	12	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.9	99	9.0	90	10	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.1	101	10.5	105	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.5	105	10.3	103	2	70-130/30
127-18-4	Tetrachloroethylene	10	9.1	91	9.1	91	0	70-130/30
109-99-9	Tetrahydrofuran	10	10.3	103	10.8	108	5	70-130/30
108-88-3	Toluene	10	9.8	98	10.5	105	7	70-130/30
79-01-6	Trichloroethylene	10	9.5	95	9.7	97	2	70-130/30
75-69-4	Trichlorofluoromethane	10	10.4	104	10.5	105	1	70-130/30
75-01-4	Vinyl chloride	10	11.5	115	11.6	116	1	70-130/30
108-05-4	Vinyl Acetate	10	9.8	98	9.8	98	0	70-130/30
	m,p-Xylene	20	19.7	99	18.8	94	5	70-130/30
95-47-6	o-Xylene	10	10.0	100	9.4	94	6	70-130/30
1330-20-7	Xylenes (total)	30	29.7	99	28.3	94	5	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-BS	3W52854.D	1	03/18/16	YMH	n/a	n/a	V3W1996
V3W1996-BSD	3W52855.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here applies to the following samples: **Method:** TO-15

V3W1996-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	98%	102%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-BS	W54286.D	1	03/18/16	YMH	n/a	n/a	VW2168
VW2168-BSD	W54287.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	11.1	111	10.7	107	4	70-130/30
106-99-0	1,3-Butadiene	10	11.1	111	11.0	110	1	70-130/30
71-43-2	Benzene	10	10.4	104	10.5	105	1	70-130/30
75-27-4	Bromodichloromethane	10	10.1	101	10.0	100	1	70-130/30
75-25-2	Bromoform	10	11.1	111	11.0	110	1	70-130/30
74-83-9	Bromomethane	10	10.7	107	10.7	107	0	70-130/30
593-60-2	Bromoethene	10	10.2	102	10.1	101	1	70-130/30
100-44-7	Benzyl Chloride	10	11.3	113	10.8	108	5	70-130/30
75-15-0	Carbon disulfide	10	10.3	103	10.5	105	2	70-130/30
108-90-7	Chlorobenzene	10	10.4	104	10.4	104	0	70-130/30
75-00-3	Chloroethane	10	11.2	112	11.0	110	2	70-130/30
67-66-3	Chloroform	10	10.6	106	10.5	105	1	70-130/30
74-87-3	Chloromethane	10	11.5	115	11.7	117	2	70-130/30
107-05-1	3-Chloropropene	10	10.7	107	10.7	107	0	70-130/30
95-49-8	2-Chlorotoluene	10	10.9	109	10.7	107	2	70-130/30
56-23-5	Carbon tetrachloride	10	10.4	104	10.3	103	1	70-130/30
110-82-7	Cyclohexane	10	9.8	98	9.9	99	1	70-130/30
75-34-3	1,1-Dichloroethane	10	10.6	106	10.7	107	1	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.3	93	9.4	94	1	70-130/30
106-93-4	1,2-Dibromoethane	10	10.7	107	10.8	108	1	70-130/30
107-06-2	1,2-Dichloroethane	10	11.0	110	10.9	109	1	70-130/30
78-87-5	1,2-Dichloropropane	10	10	100	9.9	99	1	70-130/30
123-91-1	1,4-Dioxane	10	10.7	107	10.7	107	0	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.9	99	10.3	103	4	70-130/30
124-48-1	Dibromochloromethane	10	10.5	105	10.6	106	1	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.2	92	9.5	95	3	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.3	93	9.4	94	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.1	101	10.0	100	1	70-130/30
541-73-1	m-Dichlorobenzene	10	11.1	111	10.7	107	4	70-130/30
95-50-1	o-Dichlorobenzene	10	10.7	107	10.3	103	4	70-130/30
106-46-7	p-Dichlorobenzene	10	11.3	113	10.9	109	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	11.5	115	11.3	113	2	70-130/30
64-17-5	Ethanol	10	9.5	95	9.3	93	2	70-130/30
100-41-4	Ethylbenzene	10	10.3	103	10.2	102	1	70-130/30
141-78-6	Ethyl Acetate	10	11.8	118	11.1	111	6	70-130/30
622-96-8	4-Ethyltoluene	10	11.1	111	10.6	106	5	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-BS	W54286.D	1	03/18/16	YMH	n/a	n/a	VW2168
VW2168-BSD	W54287.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.5	105	10.5	105	0	70-130/30
76-14-2	Freon 114	10	10.4	104	10.3	103	1	70-130/30
142-82-5	Heptane	10	10.2	102	10.2	102	0	70-130/30
87-68-3	Hexachlorobutadiene	10	10	100	9.8	98	2	70-130/30
110-54-3	Hexane	10	10.4	104	10.4	104	0	70-130/30
591-78-6	2-Hexanone	10	10.7	107	10.7	107	0	70-130/30
67-63-0	Isopropyl Alcohol	10	7.8	78	7.7	77	1	70-130/30
75-09-2	Methylene chloride	10	9.7	97	10.7	107	10	70-130/30
78-93-3	Methyl ethyl ketone	10	11.0	110	10.9	109	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.9	109	10.6	106	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.1	101	10	100	1	70-130/30
80-62-6	Methylmethacrylate	10	10.8	108	10.5	105	3	70-130/30
115-07-1	Propylene	10	9.9	99	10.4	104	5	70-130/30
100-42-5	Styrene	10	11.6	116	11.4	114	2	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.4	104	10.3	103	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.9	109	10.5	105	4	70-130/30
79-00-5	1,1,2-Trichloroethane	10	11.0	110	10.9	109	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10	100	9.7	97	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.8	108	10.5	105	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.7	107	10.4	104	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.2	102	10.1	101	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	11.2	112	11.4	114	2	70-130/30
127-18-4	Tetrachloroethylene	10	10.0	100	10.2	102	2	70-130/30
109-99-9	Tetrahydrofuran	10	11.3	113	11.2	112	1	70-130/30
108-88-3	Toluene	10	10.9	109	10.7	107	2	70-130/30
79-01-6	Trichloroethylene	10	10	100	9.9	99	1	70-130/30
75-69-4	Trichlorofluoromethane	10	9.8	98	9.7	97	1	70-130/30
75-01-4	Vinyl chloride	10	11.2	112	11.3	113	1	70-130/30
108-05-4	Vinyl Acetate	10	11.9	119	11.9	119	0	70-130/30
	m,p-Xylene	20	21.7	109	21.5	108	1	70-130/30
95-47-6	o-Xylene	10	11.0	110	10.8	108	2	70-130/30
1330-20-7	Xylenes (total)	30	32.8	109	32.3	108	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-BS	W54286.D	1	03/18/16	YMH	n/a	n/a	VW2168
VW2168-BSD	W54287.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here applies to the following samples: **Method:** TO-15

VW2168-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	110%	108%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-BS	5W17137.D	1	03/19/16	TCH	n/a	n/a	V5W685
V5W685-BSD	5W17138.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.6	96	10.0	100	4	70-130/30
106-99-0	1,3-Butadiene	10	11.1	111	11.5	115	4	70-130/30
71-43-2	Benzene	10	9.2	92	9.7	97	5	70-130/30
75-27-4	Bromodichloromethane	10	10.4	104	10.6	106	2	70-130/30
75-25-2	Bromoform	10	9.3	93	9.5	95	2	70-130/30
74-83-9	Bromomethane	10	10	100	10.3	103	3	70-130/30
593-60-2	Bromoethene	10	10.1	101	10.5	105	4	70-130/30
100-44-7	Benzyl Chloride	10	8.1	81	8.5	85	5	70-130/30
75-15-0	Carbon disulfide	10	10.0	100	10.4	104	4	70-130/30
108-90-7	Chlorobenzene	10	8.3	83	8.4	84	1	70-130/30
75-00-3	Chloroethane	10	10.6	106	11.1	111	5	70-130/30
67-66-3	Chloroform	10	10.1	101	10.5	105	4	70-130/30
74-87-3	Chloromethane	10	12.1	121	12.6	126	4	70-130/30
107-05-1	3-Chloropropene	10	9.8	98	10.0	100	2	70-130/30
95-49-8	2-Chlorotoluene	10	8.2	82	8.4	84	2	70-130/30
56-23-5	Carbon tetrachloride	10	10.1	101	10.3	103	2	70-130/30
110-82-7	Cyclohexane	10	10	100	10.4	104	4	70-130/30
75-34-3	1,1-Dichloroethane	10	10.4	104	10.8	108	4	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.5	105	10.9	109	4	70-130/30
106-93-4	1,2-Dibromoethane	10	9.6	96	9.9	99	3	70-130/30
107-06-2	1,2-Dichloroethane	10	11.0	110	11.4	114	4	70-130/30
78-87-5	1,2-Dichloropropane	10	11.4	114	11.3	113	1	70-130/30
123-91-1	1,4-Dioxane	10	9.7	97	9.9	99	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.9	109	11.2	112	3	70-130/30
124-48-1	Dibromochloromethane	10	10.2	102	10.5	105	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.4	104	11.0	110	6	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.1	101	10.7	107	6	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.5	95	9.9	99	4	70-130/30
541-73-1	m-Dichlorobenzene	10	8.0	80	8.3	83	4	70-130/30
95-50-1	o-Dichlorobenzene	10	8.1	81	8.4	84	4	70-130/30
106-46-7	p-Dichlorobenzene	10	7.4	74	7.7	77	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.3	103	10.5	105	2	70-130/30
64-17-5	Ethanol	10	11.6	116	12.1	121	4	70-130/30
100-41-4	Ethylbenzene	10	8.5	85	8.7	87	2	70-130/30
141-78-6	Ethyl Acetate	10	11.6	116	11.8	118	2	70-130/30
622-96-8	4-Ethyltoluene	10	8.5	85	8.8	88	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-BS	5W17137.D	1	03/19/16	TCH	n/a	n/a	V5W685
V5W685-BSD	5W17138.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.8	98	10.1	101	3	70-130/30
76-14-2	Freon 114	10	11.1	111	11.4	114	3	70-130/30
142-82-5	Heptane	10	10.1	101	10.1	101	0	70-130/30
87-68-3	Hexachlorobutadiene	10	9.1	91	8.8	88	3	70-130/30
110-54-3	Hexane	10	9.6	96	10	100	4	70-130/30
591-78-6	2-Hexanone	10	11.0	110	11.4	114	4	70-130/30
67-63-0	Isopropyl Alcohol	10	10.4	104	10.8	108	4	70-130/30
75-09-2	Methylene chloride	10	8.9	89	9.0	90	1	70-130/30
78-93-3	Methyl ethyl ketone	10	9.7	97	9.9	99	2	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.4	114	11.7	117	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.2	92	9.6	96	4	70-130/30
80-62-6	Methylmethacrylate	10	9.7	97	10.1	101	4	70-130/30
115-07-1	Propylene	10	12.2	122	12.8	128	5	70-130/30
100-42-5	Styrene	10	8.3	83	8.3	83	0	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10	100	10.3	103	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.4	94	9.8	98	4	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.9	99	10.2	102	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.3	73	7.4	74	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	8.5	85	8.7	87	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	8.3	83	8.6	86	4	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	11.2	112	11.3	113	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.8	98	10.3	103	5	70-130/30
127-18-4	Tetrachloroethylene	10	9.8	98	9.9	99	1	70-130/30
109-99-9	Tetrahydrofuran	10	10.6	106	10.9	109	3	70-130/30
108-88-3	Toluene	10	9.4	94	9.6	96	2	70-130/30
79-01-6	Trichloroethylene	10	9.7	97	9.9	99	2	70-130/30
75-69-4	Trichlorofluoromethane	10	10.6	106	11.1	111	5	70-130/30
75-01-4	Vinyl chloride	10	11.6	116	12.0	120	3	70-130/30
108-05-4	Vinyl Acetate	10	12.2	122	13.0	130	6	70-130/30
	m,p-Xylene	20	17.3	87	17.7	89	2	70-130/30
95-47-6	o-Xylene	10	8.7	87	9.1	91	4	70-130/30
1330-20-7	Xylenes (total)	30	26.0	87	26.8	89	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-BS	5W17137.D	1	03/19/16	TCH	n/a	n/a	V5W685
V5W685-BSD	5W17138.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here applies to the following samples: **Method:** TO-15

V5W685-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	102%	101%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-BS	5W17165.D	1	03/21/16	TCH	n/a	n/a	V5W686
V5W686-BSD	5W17166.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.0	90	9.7	97	7	70-130/30
106-99-0	1,3-Butadiene	10	10.4	104	11.4	114	9	70-130/30
71-43-2	Benzene	10	8.8	88	9.6	96	9	70-130/30
75-27-4	Bromodichloromethane	10	9.7	97	10.6	106	9	70-130/30
75-25-2	Bromoform	10	9.2	92	10	100	8	70-130/30
74-83-9	Bromomethane	10	9.4	94	10.2	102	8	70-130/30
593-60-2	Bromoethene	10	9.5	95	10.5	105	10	70-130/30
100-44-7	Benzyl Chloride	10	8.6	86	9.4	94	9	70-130/30
75-15-0	Carbon disulfide	10	9.4	94	10.2	102	8	70-130/30
108-90-7	Chlorobenzene	10	8.3	83	8.9	89	7	70-130/30
75-00-3	Chloroethane	10	9.9	99	11.0	110	11	70-130/30
67-66-3	Chloroform	10	9.5	95	10.3	103	8	70-130/30
74-87-3	Chloromethane	10	11.7	117	12.6	126	7	70-130/30
107-05-1	3-Chloropropene	10	9.1	91	10.1	101	10	70-130/30
95-49-8	2-Chlorotoluene	10	8.3	83	8.9	89	7	70-130/30
56-23-5	Carbon tetrachloride	10	9.7	97	10.5	105	8	70-130/30
110-82-7	Cyclohexane	10	9.4	94	10.5	105	11	70-130/30
75-34-3	1,1-Dichloroethane	10	9.7	97	10.6	106	9	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.7	97	10.8	108	11	70-130/30
106-93-4	1,2-Dibromoethane	10	9.3	93	10.3	103	10	70-130/30
107-06-2	1,2-Dichloroethane	10	10.5	105	11.5	115	9	70-130/30
78-87-5	1,2-Dichloropropane	10	10.4	104	11.4	114	9	70-130/30
123-91-1	1,4-Dioxane	10	9.1	91	10.1	101	10	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.5	105	11.2	112	6	70-130/30
124-48-1	Dibromochloromethane	10	9.8	98	10.7	107	9	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.8	98	10.9	109	11	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.5	95	10.6	106	11	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.1	91	9.9	99	8	70-130/30
541-73-1	m-Dichlorobenzene	10	8.4	84	8.9	89	6	70-130/30
95-50-1	o-Dichlorobenzene	10	8.0	80	8.7	87	8	70-130/30
106-46-7	p-Dichlorobenzene	10	7.8	78	8.6	86	10	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.0	100	11.1	111	10	70-130/30
64-17-5	Ethanol	10	10.5	105	11.4	114	8	70-130/30
100-41-4	Ethylbenzene	10	8.3	83	9.0	90	8	70-130/30
141-78-6	Ethyl Acetate	10	11.0	110	11.8	118	7	70-130/30
622-96-8	4-Ethyltoluene	10	8.6	86	9.3	93	8	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-BS	5W17165.D	1	03/21/16	TCH	n/a	n/a	V5W686
V5W686-BSD	5W17166.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.1	91	10.1	101	10	70-130/30
76-14-2	Freon 114	10	10.5	105	11.3	113	7	70-130/30
142-82-5	Heptane	10	9.2	92	10.2	102	10	70-130/30
87-68-3	Hexachlorobutadiene	10	8.7	87	9.4	94	8	70-130/30
110-54-3	Hexane	10	9.1	91	9.8	98	7	70-130/30
591-78-6	2-Hexanone	10	10.6	106	11.7	117	10	70-130/30
67-63-0	Isopropyl Alcohol	10	9.6	96	10.6	106	10	70-130/30
75-09-2	Methylene chloride	10	8.4	84	9.1	91	8	70-130/30
78-93-3	Methyl ethyl ketone	10	8.9	89	9.8	98	10	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.7	107	11.5	115	7	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.8	88	9.6	96	9	70-130/30
80-62-6	Methylmethacrylate	10	9.0	90	10.0	100	11	70-130/30
115-07-1	Propylene	10	11.7	117	12.6	126	7	70-130/30
100-42-5	Styrene	10	8.2	82	9.0	90	9	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.5	95	10.3	103	8	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.0	90	9.7	97	7	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.3	93	10.2	102	9	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.7	77	8.4	84	9	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	8.3	83	8.9	89	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	8.0	80	8.7	87	8	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.2	102	11.2	112	9	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.2	92	10.3	103	11	70-130/30
127-18-4	Tetrachloroethylene	10	9.2	92	10.1	101	9	70-130/30
109-99-9	Tetrahydrofuran	10	9.8	98	11.1	111	12	70-130/30
108-88-3	Toluene	10	8.9	89	9.8	98	10	70-130/30
79-01-6	Trichloroethylene	10	9.2	92	10.2	102	10	70-130/30
75-69-4	Trichlorofluoromethane	10	10.1	101	11.0	110	9	70-130/30
75-01-4	Vinyl chloride	10	10.8	108	11.9	119	10	70-130/30
108-05-4	Vinyl Acetate	10	11.8	118	13.2	132* [a]	11	70-130/30
	m,p-Xylene	20	16.8	84	18.0	90	7	70-130/30
95-47-6	o-Xylene	10	8.6	86	9.1	91	6	70-130/30
1330-20-7	Xylenes (total)	30	25.4	85	27.1	90	6	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-BS	5W17165.D	1	03/21/16	TCH	n/a	n/a	V5W686
V5W686-BSD	5W17166.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here applies to the following samples: **Method:** TO-15

V5W686-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	101%	97%	65-128%

(a) High percent recoveries and no associated positive found in the QC batch.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-BS	W54346.D	1	03/21/16	YMH	n/a	n/a	VW2170
VW2170-BSD	W54347.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.3	103	9.8	98	5	70-130/30
106-99-0	1,3-Butadiene	10	11.4	114	11.0	110	4	70-130/30
71-43-2	Benzene	10	10.8	108	10.9	109	1	70-130/30
75-27-4	Bromodichloromethane	10	8.9	89	9.3	93	4	70-130/30
75-25-2	Bromoform	10	10.0	100	10.2	102	2	70-130/30
74-83-9	Bromomethane	10	10.2	102	10.4	104	2	70-130/30
593-60-2	Bromoethene	10	9.5	95	9.8	98	3	70-130/30
100-44-7	Benzyl Chloride	10	9.4	94	9.3	93	1	70-130/30
75-15-0	Carbon disulfide	10	11.6	116	11.8	118	2	70-130/30
108-90-7	Chlorobenzene	10	10.2	102	10.5	105	3	70-130/30
75-00-3	Chloroethane	10	11.1	111	11.3	113	2	70-130/30
67-66-3	Chloroform	10	10.3	103	10.4	104	1	70-130/30
74-87-3	Chloromethane	10	12.5	125	11.6	116	7	70-130/30
107-05-1	3-Chloropropene	10	11.7	117	12.2	122	4	70-130/30
95-49-8	2-Chlorotoluene	10	9.9	99	10.0	100	1	70-130/30
56-23-5	Carbon tetrachloride	10	9.5	95	9.6	96	1	70-130/30
110-82-7	Cyclohexane	10	10.0	100	10.2	102	2	70-130/30
75-34-3	1,1-Dichloroethane	10	11.7	117	11.9	119	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	8.8	88	8.7	87	1	70-130/30
106-93-4	1,2-Dibromoethane	10	10.6	106	10.8	108	2	70-130/30
107-06-2	1,2-Dichloroethane	10	10.3	103	10.6	106	3	70-130/30
78-87-5	1,2-Dichloropropane	10	10.2	102	10.3	103	1	70-130/30
123-91-1	1,4-Dioxane	10	10.4	104	10.1	101	3	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.7	97	9.0	90	7	70-130/30
124-48-1	Dibromochloromethane	10	9.7	97	10	100	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.7	97	9.9	99	2	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.8	98	10.1	101	3	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	10.6	106	7	70-130/30
541-73-1	m-Dichlorobenzene	10	9.5	95	9.5	95	0	70-130/30
95-50-1	o-Dichlorobenzene	10	9.2	92	9.0	90	2	70-130/30
106-46-7	p-Dichlorobenzene	10	9.9	99	9.5	95	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.9	109	10.9	109	0	70-130/30
64-17-5	Ethanol	10	9.1	91	9.5	95	4	70-130/30
100-41-4	Ethylbenzene	10	10.0	100	10.3	103	3	70-130/30
141-78-6	Ethyl Acetate	10	11.9	119	11.8	118	1	70-130/30
622-96-8	4-Ethyltoluene	10	9.9	99	9.7	97	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-BS	W54346.D	1	03/21/16	YMH	n/a	n/a	VW2170
VW2170-BSD	W54347.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.1	101	10.1	101	0	70-130/30
76-14-2	Freon 114	10	10	100	9.3	93	7	70-130/30
142-82-5	Heptane	10	10.2	102	10.3	103	1	70-130/30
87-68-3	Hexachlorobutadiene	10	8.6	86	8.2	82	5	70-130/30
110-54-3	Hexane	10	10.8	108	11.2	112	4	70-130/30
591-78-6	2-Hexanone	10	10.6	106	11.0	110	4	70-130/30
67-63-0	Isopropyl Alcohol	10	7.0	70	8.9	89	24	70-130/30
75-09-2	Methylene chloride	10	10.5	105	10.1	101	4	70-130/30
78-93-3	Methyl ethyl ketone	10	12.2	122	12.1	121	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.2	102	10.4	104	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.2	102	10.2	102	0	70-130/30
80-62-6	Methylmethacrylate	10	10.7	107	10.6	106	1	70-130/30
115-07-1	Propylene	10	10.9	109	10.1	101	8	70-130/30
100-42-5	Styrene	10	10.9	109	10.9	109	0	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.7	97	9.8	98	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.0	100	10.1	101	1	70-130/30
79-00-5	1,1,2-Trichloroethane	10	11.1	111	11.1	111	0	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	8.8	88	8.1	81	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.0	90	9.0	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.1	91	9.1	91	0	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.1	101	10.3	103	2	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.4	104	10.3	103	1	70-130/30
127-18-4	Tetrachloroethylene	10	9.7	97	9.9	99	2	70-130/30
109-99-9	Tetrahydrofuran	10	12.7	127	12.5	125	2	70-130/30
108-88-3	Toluene	10	10.7	107	10.7	107	0	70-130/30
79-01-6	Trichloroethylene	10	9.0	90	9.3	93	3	70-130/30
75-69-4	Trichlorofluoromethane	10	9.0	90	9.0	90	0	70-130/30
75-01-4	Vinyl chloride	10	11.6	116	11.2	112	4	70-130/30
108-05-4	Vinyl Acetate	10	12.6	126	12.1	121	4	70-130/30
	m,p-Xylene	20	20.2	101	20.4	102	1	70-130/30
95-47-6	o-Xylene	10	9.9	99	10.0	100	1	70-130/30
1330-20-7	Xylenes (total)	30	30.1	100	30.4	101	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-BS	W54346.D	1	03/21/16	YMH	n/a	n/a	VW2170
VW2170-BSD	W54347.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here applies to the following samples: **Method:** TO-15

VW2170-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	102%	103%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-BS	5W17191.D	1	03/22/16	TCH	n/a	n/a	V5W687
V5W687-BSD	5W17192.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.2	92	9.9	99	7	70-130/30
106-99-0	1,3-Butadiene	10	10.6	106	11.3	113	6	70-130/30
71-43-2	Benzene	10	9.1	91	9.4	94	3	70-130/30
75-27-4	Bromodichloromethane	10	9.4	94	9.8	98	4	70-130/30
75-25-2	Bromoform	10	9.2	92	9.7	97	5	70-130/30
74-83-9	Bromomethane	10	9.5	95	10.0	100	5	70-130/30
593-60-2	Bromoethene	10	9.6	96	10.2	102	6	70-130/30
100-44-7	Benzyl Chloride	10	8.7	87	9.1	91	4	70-130/30
75-15-0	Carbon disulfide	10	9.8	98	10.4	104	6	70-130/30
108-90-7	Chlorobenzene	10	8.6	86	8.8	88	2	70-130/30
75-00-3	Chloroethane	10	10.1	101	11.0	110	9	70-130/30
67-66-3	Chloroform	10	9.3	93	9.9	99	6	70-130/30
74-87-3	Chloromethane	10	11.8	118	12.7	127	7	70-130/30
107-05-1	3-Chloropropene	10	9.6	96	10.3	103	7	70-130/30
95-49-8	2-Chlorotoluene	10	8.4	84	8.7	87	4	70-130/30
56-23-5	Carbon tetrachloride	10	9.0	90	9.2	92	2	70-130/30
110-82-7	Cyclohexane	10	9.8	98	10.2	102	4	70-130/30
75-34-3	1,1-Dichloroethane	10	9.9	99	10.6	106	7	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.7	97	10.5	105	8	70-130/30
106-93-4	1,2-Dibromoethane	10	9.4	94	9.8	98	4	70-130/30
107-06-2	1,2-Dichloroethane	10	9.8	98	10.5	105	7	70-130/30
78-87-5	1,2-Dichloropropane	10	10.8	108	11.3	113	5	70-130/30
123-91-1	1,4-Dioxane	10	9.3	93	9.7	97	4	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.8	98	10.4	104	6	70-130/30
124-48-1	Dibromochloromethane	10	9.5	95	10.1	101	6	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.0	100	10.6	106	6	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.7	97	10.3	103	6	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.1	91	9.6	96	5	70-130/30
541-73-1	m-Dichlorobenzene	10	8.4	84	8.9	89	6	70-130/30
95-50-1	o-Dichlorobenzene	10	8.3	83	8.7	87	5	70-130/30
106-46-7	p-Dichlorobenzene	10	8.0	80	8.4	84	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.7	97	10.2	102	5	70-130/30
64-17-5	Ethanol	10	10.7	107	11.5	115	7	70-130/30
100-41-4	Ethylbenzene	10	8.7	87	8.8	88	1	70-130/30
141-78-6	Ethyl Acetate	10	11.3	113	12.3	123	8	70-130/30
622-96-8	4-Ethyltoluene	10	8.6	86	9.0	90	5	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-BS	5W17191.D	1	03/22/16	TCH	n/a	n/a	V5W687
V5W687-BSD	5W17192.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.2	92	9.9	99	7	70-130/30
76-14-2	Freon 114	10	10.3	103	10.9	109	6	70-130/30
142-82-5	Heptane	10	9.9	99	10.1	101	2	70-130/30
87-68-3	Hexachlorobutadiene	10	8.3	83	9.0	90	8	70-130/30
110-54-3	Hexane	10	9.3	93	10	100	7	70-130/30
591-78-6	2-Hexanone	10	11.0	110	11.7	117	6	70-130/30
67-63-0	Isopropyl Alcohol	10	9.3	93	10.2	102	9	70-130/30
75-09-2	Methylene chloride	10	8.6	86	9.2	92	7	70-130/30
78-93-3	Methyl ethyl ketone	10	9.5	95	10.0	100	5	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.0	110	11.6	116	5	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	8.6	86	9.2	92	7	70-130/30
80-62-6	Methylmethacrylate	10	9.6	96	9.8	98	2	70-130/30
115-07-1	Propylene	10	12.0	120	13.0	130	8	70-130/30
100-42-5	Styrene	10	8.6	86	8.8	88	2	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.9	89	9.5	95	7	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.6	96	9.9	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.4	94	9.8	98	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.7	77	8.0	80	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	8.4	84	8.8	88	5	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	8.4	84	8.6	86	2	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.6	106	11.0	110	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	9.1	91	9.8	98	7	70-130/30
127-18-4	Tetrachloroethylene	10	9.1	91	9.4	94	3	70-130/30
109-99-9	Tetrahydrofuran	10	10.4	104	10.9	109	5	70-130/30
108-88-3	Toluene	10	9.0	90	9.4	94	4	70-130/30
79-01-6	Trichloroethylene	10	9.1	91	9.4	94	3	70-130/30
75-69-4	Trichlorofluoromethane	10	9.2	92	9.7	97	5	70-130/30
75-01-4	Vinyl chloride	10	11.1	111	11.7	117	5	70-130/30
108-05-4	Vinyl Acetate	10	12.4	124	13.3	133* [a]	7	70-130/30
	m,p-Xylene	20	17.5	88	17.9	90	2	70-130/30
95-47-6	o-Xylene	10	8.7	87	9.0	90	3	70-130/30
1330-20-7	Xylenes (total)	30	26.2	87	26.9	90	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-BS	5W17191.D	1	03/22/16	TCH	n/a	n/a	V5W687
V5W687-BSD	5W17192.D	1	03/22/16	TCH	n/a	n/a	V5W687

The QC reported here applies to the following samples: **Method:** TO-15

V5W687-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	100%	99%	65-128%

(a) High percent recoveries and no associated positive found in the QC batch.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-BS	W54371.D	1	03/22/16	YMH	n/a	n/a	VW2171
VW2171-BSD	W54372.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	9.9	99	9.8	98	1	70-130/30
106-99-0	1,3-Butadiene	10	11.6	116	11.0	110	5	70-130/30
71-43-2	Benzene	10	10.8	108	10.5	105	3	70-130/30
75-27-4	Bromodichloromethane	10	9.3	93	8.9	89	4	70-130/30
75-25-2	Bromoform	10	9.7	97	9.3	93	4	70-130/30
74-83-9	Bromomethane	10	10.2	102	9.7	97	5	70-130/30
593-60-2	Bromoethene	10	9.5	95	9.1	91	4	70-130/30
100-44-7	Benzyl Chloride	10	9.3	93	9.2	92	1	70-130/30
75-15-0	Carbon disulfide	10	11.6	116	11.0	110	5	70-130/30
108-90-7	Chlorobenzene	10	9.9	99	9.6	96	3	70-130/30
75-00-3	Chloroethane	10	11.0	110	10.8	108	2	70-130/30
67-66-3	Chloroform	10	10.2	102	9.8	98	4	70-130/30
74-87-3	Chloromethane	10	12.4	124	11.7	117	6	70-130/30
107-05-1	3-Chloropropene	10	11.6	116	11.6	116	0	70-130/30
95-49-8	2-Chlorotoluene	10	9.4	94	9.4	94	0	70-130/30
56-23-5	Carbon tetrachloride	10	8.9	89	8.7	87	2	70-130/30
110-82-7	Cyclohexane	10	9.7	97	9.5	95	2	70-130/30
75-34-3	1,1-Dichloroethane	10	11.7	117	11.2	112	4	70-130/30
75-35-4	1,1-Dichloroethylene	10	8.8	88	8.6	86	2	70-130/30
106-93-4	1,2-Dibromoethane	10	10.3	103	9.8	98	5	70-130/30
107-06-2	1,2-Dichloroethane	10	10.3	103	9.9	99	4	70-130/30
78-87-5	1,2-Dichloropropane	10	10.5	105	10.1	101	4	70-130/30
123-91-1	1,4-Dioxane	10	10.3	103	10.1	101	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.1	91	8.8	88	3	70-130/30
124-48-1	Dibromochloromethane	10	9.3	93	8.9	89	4	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.6	96	9.3	93	3	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	9.8	98	9.6	96	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.5	105	10.0	100	5	70-130/30
541-73-1	m-Dichlorobenzene	10	8.8	88	9.0	90	2	70-130/30
95-50-1	o-Dichlorobenzene	10	8.6	86	8.6	86	0	70-130/30
106-46-7	p-Dichlorobenzene	10	9.6	96	9.1	91	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.9	109	10.3	103	6	70-130/30
64-17-5	Ethanol	10	9.3	93	9.5	95	2	70-130/30
100-41-4	Ethylbenzene	10	9.6	96	9.5	95	1	70-130/30
141-78-6	Ethyl Acetate	10	12.0	120	11.7	117	3	70-130/30
622-96-8	4-Ethyltoluene	10	8.9	89	9.1	91	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-BS	W54371.D	1	03/22/16	YMH	n/a	n/a	VW2171
VW2171-BSD	W54372.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.5	95	9.1	91	4	70-130/30
76-14-2	Freon 114	10	9.6	96	9.1	91	5	70-130/30
142-82-5	Heptane	10	10.5	105	10.3	103	2	70-130/30
87-68-3	Hexachlorobutadiene	10	7.5	75	7.5	75	0	70-130/30
110-54-3	Hexane	10	11.3	113	11.0	110	3	70-130/30
591-78-6	2-Hexanone	10	11.2	112	11.4	114	2	70-130/30
67-63-0	Isopropyl Alcohol	10	8.9	89	8.8	88	1	70-130/30
75-09-2	Methylene chloride	10	10.3	103	10	100	3	70-130/30
78-93-3	Methyl ethyl ketone	10	12.0	120	11.9	119	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.5	105	10.7	107	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.9	99	9.8	98	1	70-130/30
80-62-6	Methylmethacrylate	10	10.7	107	10.6	106	1	70-130/30
115-07-1	Propylene	10	10.6	106	10.3	103	3	70-130/30
100-42-5	Styrene	10	10.3	103	10.2	102	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	9.3	93	9.1	91	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.9	99	9.9	99	0	70-130/30
79-00-5	1,1,2-Trichloroethane	10	11.2	112	10.8	108	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	7.8	78	7.8	78	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	8.7	87	8.7	87	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.0	90	8.7	87	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.2	102	10.0	100	2	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.8	108	10.6	106	2	70-130/30
127-18-4	Tetrachloroethylene	10	9.2	92	8.9	89	3	70-130/30
109-99-9	Tetrahydrofuran	10	12.1	121	12.0	120	1	70-130/30
108-88-3	Toluene	10	10.7	107	10.2	102	5	70-130/30
79-01-6	Trichloroethylene	10	9.1	91	8.8	88	3	70-130/30
75-69-4	Trichlorofluoromethane	10	8.7	87	8.3	83	5	70-130/30
75-01-4	Vinyl chloride	10	11.7	117	10.9	109	7	70-130/30
108-05-4	Vinyl Acetate	10	11.9	119	11.6	116	3	70-130/30
	m,p-Xylene	20	19.4	97	19.1	96	2	70-130/30
95-47-6	o-Xylene	10	9.5	95	9.5	95	0	70-130/30
1330-20-7	Xylenes (total)	30	28.9	96	28.6	95	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-BS	W54371.D	1	03/22/16	YMH	n/a	n/a	VW2171
VW2171-BSD	W54372.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here applies to the following samples: **Method:** TO-15

VW2171-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	100%	102%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-BS	3W52945.D	1	03/24/16	YMH	n/a	n/a	V3W1999
V3W1999-BSD	3W52946.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10	10.6	106	10.3	103	3	70-130/30
106-99-0	1,3-Butadiene	10	11.3	113	10.7	107	5	70-130/30
71-43-2	Benzene	10	10.9	109	10.7	107	2	70-130/30
75-27-4	Bromodichloromethane	10	10.6	106	10.3	103	3	70-130/30
75-25-2	Bromoform	10	11.4	114	11.3	113	1	70-130/30
74-83-9	Bromomethane	10	11.1	111	10.7	107	4	70-130/30
593-60-2	Bromoethene	10	10.9	109	10.7	107	2	70-130/30
100-44-7	Benzyl Chloride	10	11.1	111	10.9	109	2	70-130/30
75-15-0	Carbon disulfide	10	11.2	112	10.9	109	3	70-130/30
108-90-7	Chlorobenzene	10	10.9	109	10.7	107	2	70-130/30
75-00-3	Chloroethane	10	11.7	117	11.3	113	3	70-130/30
67-66-3	Chloroform	10	11.0	110	10.8	108	2	70-130/30
74-87-3	Chloromethane	10	11.2	112	10.9	109	3	70-130/30
107-05-1	3-Chloropropene	10	11.4	114	11.0	110	4	70-130/30
95-49-8	2-Chlorotoluene	10	11.3	113	11.1	111	2	70-130/30
56-23-5	Carbon tetrachloride	10	10.8	108	10.7	107	1	70-130/30
110-82-7	Cyclohexane	10	10.8	108	10.6	106	2	70-130/30
75-34-3	1,1-Dichloroethane	10	10.9	109	10.7	107	2	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.6	106	10.3	103	3	70-130/30
106-93-4	1,2-Dibromoethane	10	11.0	110	10.9	109	1	70-130/30
107-06-2	1,2-Dichloroethane	10	10.8	108	10.6	106	2	70-130/30
78-87-5	1,2-Dichloropropane	10	10.8	108	10.6	106	2	70-130/30
123-91-1	1,4-Dioxane	10	10.5	105	10.6	106	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	11.1	111	10.7	107	4	70-130/30
124-48-1	Dibromochloromethane	10	11.2	112	11.0	110	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.7	107	10.6	106	1	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.5	105	10.4	104	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.3	103	10.1	101	2	70-130/30
541-73-1	m-Dichlorobenzene	10	11.1	111	10.9	109	2	70-130/30
95-50-1	o-Dichlorobenzene	10	11.2	112	11.0	110	2	70-130/30
106-46-7	p-Dichlorobenzene	10	10.8	108	10.6	106	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	11.1	111	10.9	109	2	70-130/30
64-17-5	Ethanol	10	8.9	89	8.6	86	3	70-130/30
100-41-4	Ethylbenzene	10	11.0	110	10.9	109	1	70-130/30
141-78-6	Ethyl Acetate	10	10.7	107	10.5	105	2	70-130/30
622-96-8	4-Ethyltoluene	10	11.3	113	11.1	111	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-BS	3W52945.D	1	03/24/16	YMH	n/a	n/a	V3W1999
V3W1999-BSD	3W52946.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	11.1	111	10.9	109	2	70-130/30
76-14-2	Freon 114	10	11.4	114	11.0	110	4	70-130/30
142-82-5	Heptane	10	10.3	103	9.9	99	4	70-130/30
87-68-3	Hexachlorobutadiene	10	11.3	113	10.8	108	5	70-130/30
110-54-3	Hexane	10	10.6	106	10.3	103	3	70-130/30
591-78-6	2-Hexanone	10	10.7	107	10.4	104	3	70-130/30
67-63-0	Isopropyl Alcohol	10	9.6	96	9.2	92	4	70-130/30
75-09-2	Methylene chloride	10	11.0	110	10.7	107	3	70-130/30
78-93-3	Methyl ethyl ketone	10	10.2	102	10.2	102	0	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.5	105	10.4	104	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.0	100	9.9	99	1	70-130/30
80-62-6	Methylmethacrylate	10	10.1	101	9.9	99	2	70-130/30
115-07-1	Propylene	10	11.2	112	10.4	104	7	70-130/30
100-42-5	Styrene	10	11.2	112	11.0	110	2	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.8	108	10.6	106	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	11.4	114	11.2	112	2	70-130/30
79-00-5	1,1,2-Trichloroethane	10	11.2	112	10.9	109	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	11.0	110	10.2	102	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	11.2	112	11.0	110	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	11.4	114	11.2	112	2	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.6	106	10.3	103	3	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.4	104	10.1	101	3	70-130/30
127-18-4	Tetrachloroethylene	10	10.7	107	10.7	107	0	70-130/30
109-99-9	Tetrahydrofuran	10	10.3	103	10.3	103	0	70-130/30
108-88-3	Toluene	10	10.9	109	10.6	106	3	70-130/30
79-01-6	Trichloroethylene	10	10.7	107	10.6	106	1	70-130/30
75-69-4	Trichlorofluoromethane	10	10.6	106	10.3	103	3	70-130/30
75-01-4	Vinyl chloride	10	11.7	117	11.2	112	4	70-130/30
108-05-4	Vinyl Acetate	10	11.4	114	11.3	113	1	70-130/30
	m,p-Xylene	20	22.1	111	21.9	110	1	70-130/30
95-47-6	o-Xylene	10	11.4	114	11.1	111	3	70-130/30
1330-20-7	Xylenes (total)	30	33.5	112	33.0	110	2	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-BS	3W52945.D	1	03/24/16	YMH	n/a	n/a	V3W1999
V3W1999-BSD	3W52946.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here applies to the following samples: **Method:** TO-15

V3W1999-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	101%	65-128%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17015-3DUP	5W17511.D	1	04/05/16	TCH	n/a	n/a	V5W698
JC17015-3	5W17510.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	JC17015-3 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	6.7		6.7		0	27
106-99-0	1,3-Butadiene	ND		ND		nc	20
71-43-2	Benzene	0.22		0.22		0	17
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
593-60-2	Bromoethene	ND		ND		nc	30
100-44-7	Benzyl Chloride	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	11
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	0.16	J	0.16	J	0	12
74-87-3	Chloromethane	0.71		0.70		1	22
107-05-1	3-Chloropropene	ND		ND		nc	10
95-49-8	2-Chlorotoluene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	10
110-82-7	Cyclohexane	ND		ND		nc	12
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethylene	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
123-91-1	1,4-Dioxane	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	0.53		0.52		2	22
124-48-1	Dibromochloromethane	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	10
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	10
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
541-73-1	m-Dichlorobenzene	ND		ND		nc	20
95-50-1	o-Dichlorobenzene	ND		ND		nc	10
106-46-7	p-Dichlorobenzene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
64-17-5	Ethanol	158	E	158	E	0	33
100-41-4	Ethylbenzene	ND		ND		nc	15
141-78-6	Ethyl Acetate	3.1		3.0		3	20
622-96-8	4-Ethyltoluene	ND		ND		nc	13

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17015-3DUP	5W17511.D	1	04/05/16	TCH	n/a	n/a	V5W698
JC17015-3	5W17510.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Compound	JC17015-3 ppbv	Q	DUP ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	10
76-14-2	Freon 114	ND		ND		nc	20
142-82-5	Heptane	ND		ND		nc	20
87-68-3	Hexachlorobutadiene	ND		ND		nc	20
110-54-3	Hexane	0.52		0.52		0	17
591-78-6	2-Hexanone	ND		ND		nc	20
67-63-0	Isopropyl Alcohol	1.4		1.5		7	26
75-09-2	Methylene chloride	0.89		0.87		2	26
78-93-3	Methyl ethyl ketone	0.26		0.26		0	21
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
80-62-6	Methylmethacrylate	ND		ND		nc	20
115-07-1	Propylene	2.4		2.4		0	16
100-42-5	Styrene	ND		ND		nc	11
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	ND		ND		nc	19
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	13
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	18
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	21
127-18-4	Tetrachloroethylene	0.038	J	0.039	J	3	17
109-99-9	Tetrahydrofuran	ND		ND		nc	20
108-88-3	Toluene	0.53		0.52		2	20
79-01-6	Trichloroethylene	ND		ND		nc	13
75-69-4	Trichlorofluoromethane	0.32		0.32		0	21
75-01-4	Vinyl chloride	ND		ND		nc	20
108-05-4	Vinyl Acetate	ND		ND		nc	20
	m,p-Xylene	0.11	J	0.11	J	0	26
95-47-6	o-Xylene	ND		ND		nc	20
1330-20-7	Xylenes (total)	0.11	J	0.11	J	0	26

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17015-3DUP	5W17511.D	1	04/05/16	TCH	n/a	n/a	V5W698
JC17015-3	5W17510.D	1	04/05/16	TCH	n/a	n/a	V5W698

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-1, JC17438-2, JC17438-3, JC17438-4

CAS No.	Surrogate Recoveries	DUP	JC17015-3	Limits
460-00-4	4-Bromofluorobenzene	96%	97%	65-128%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-8DUP	5W17540.D	1	04/06/16	TCH	n/a	n/a	V5W699
JC17438-8	5W17539.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	JC17438-8 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	18.8		18.1		4	27
106-99-0	1,3-Butadiene	ND		ND		nc	20
71-43-2	Benzene	0.49		0.47		4	17
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
593-60-2	Bromoethene	ND		ND		nc	30
100-44-7	Benzyl Chloride	ND		ND		nc	20
75-15-0	Carbon disulfide	0.52		0.49		6	11
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	10.5		10		5	12
74-87-3	Chloromethane	0.90		0.83		8	22
107-05-1	3-Chloropropene	ND		ND		nc	10
95-49-8	2-Chlorotoluene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	10
110-82-7	Cyclohexane	5.4		4.9		10	12
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethylene	0.18	J	0.21		15	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
123-91-1	1,4-Dioxane	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	ND		ND		nc	22
124-48-1	Dibromochloromethane	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	10
156-59-2	cis-1,2-Dichloroethylene	3.9		3.7		5	10
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
541-73-1	m-Dichlorobenzene	ND		ND		nc	20
95-50-1	o-Dichlorobenzene	ND		ND		nc	10
106-46-7	p-Dichlorobenzene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
64-17-5	Ethanol	253	E	242	E	4	33
100-41-4	Ethylbenzene	1.3		1.3		0	15
141-78-6	Ethyl Acetate	12.2		11.7		4	20
622-96-8	4-Ethyltoluene	0.11	J	0.10	J	10	13

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-8DUP	5W17540.D	1	04/06/16	TCH	n/a	n/a	V5W699
JC17438-8	5W17539.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Compound	JC17438-8 ppbv	Q	DUP ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	10
76-14-2	Freon 114	ND		ND		nc	20
142-82-5	Heptane	8.3		7.8		6	20
87-68-3	Hexachlorobutadiene	ND		ND		nc	20
110-54-3	Hexane	7.4		7.1		4	17
591-78-6	2-Hexanone	ND		ND		nc	20
67-63-0	Isopropyl Alcohol	20.2		19.2		5	26
75-09-2	Methylene chloride	0.26		0.32		21	26
78-93-3	Methyl ethyl ketone	0.94		0.89		5	21
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
80-62-6	Methylmethacrylate	ND		ND		nc	20
115-07-1	Propylene	ND		ND		nc	16
100-42-5	Styrene	0.27		0.25		8	11
71-55-6	1,1,1-Trichloroethane	0.30		0.30		0	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	0.18	J	0.17	J	6	19
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	13
540-84-1	2,2,4-Trimethylpentane	10.9		10.3		6	18
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	21
127-18-4	Tetrachloroethylene	5.4		5.1		6	17
109-99-9	Tetrahydrofuran	0.19	J	0.18	J	5	20
108-88-3	Toluene	0.46		0.44		4	20
79-01-6	Trichloroethylene	122	E	115	E	6	13
75-69-4	Trichlorofluoromethane	1.5		1.4		7	21
75-01-4	Vinyl chloride	ND		ND		nc	20
108-05-4	Vinyl Acetate	ND		ND		nc	20
	m,p-Xylene	0.48		0.46		4	26
95-47-6	o-Xylene	0.14	J	0.13	J	7	20
1330-20-7	Xylenes (total)	0.62		0.59		5	26

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-8DUP	5W17540.D	1	04/06/16	TCH	n/a	n/a	V5W699
JC17438-8	5W17539.D	1	04/06/16	TCH	n/a	n/a	V5W699

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-5, JC17438-6, JC17438-8, JC17438-9, JC17438-10, JC17438-11

CAS No.	Surrogate Recoveries	DUP	JC17438-8	Limits
460-00-4	4-Bromofluorobenzene	100%	100%	65-128%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-12DUP	5W17563.D	1	04/07/16	TCH	n/a	n/a	V5W700
JC17438-12	5W17562.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	JC17438-12 ppbv	Q	DUP ppbv	Q	RPD	Limits
67-64-1	Acetone	2.0		2.0		0	27
106-99-0	1,3-Butadiene	ND		ND		nc	20
71-43-2	Benzene	0.14	J	0.14	J	0	17
75-27-4	Bromodichloromethane	ND		ND		nc	20
75-25-2	Bromoform	ND		ND		nc	20
74-83-9	Bromomethane	ND		ND		nc	20
593-60-2	Bromoethene	ND		ND		nc	30
100-44-7	Benzyl Chloride	ND		ND		nc	20
75-15-0	Carbon disulfide	ND		ND		nc	11
108-90-7	Chlorobenzene	ND		ND		nc	20
75-00-3	Chloroethane	ND		ND		nc	20
67-66-3	Chloroform	0.25		0.25		0	12
74-87-3	Chloromethane	0.67		0.66		2	22
107-05-1	3-Chloropropene	ND		ND		nc	10
95-49-8	2-Chlorotoluene	ND		ND		nc	20
56-23-5	Carbon tetrachloride	ND		ND		nc	10
110-82-7	Cyclohexane	ND		ND		nc	12
75-34-3	1,1-Dichloroethane	ND		ND		nc	20
75-35-4	1,1-Dichloroethylene	ND		ND		nc	20
106-93-4	1,2-Dibromoethane	ND		ND		nc	20
107-06-2	1,2-Dichloroethane	ND		ND		nc	20
78-87-5	1,2-Dichloropropane	ND		ND		nc	20
123-91-1	1,4-Dioxane	ND		ND		nc	20
75-71-8	Dichlorodifluoromethane	0.55		0.55		0	22
124-48-1	Dibromochloromethane	ND		ND		nc	20
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	10
156-59-2	cis-1,2-Dichloroethylene	0.77		0.78		1	10
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	20
541-73-1	m-Dichlorobenzene	ND		ND		nc	20
95-50-1	o-Dichlorobenzene	ND		ND		nc	10
106-46-7	p-Dichlorobenzene	ND		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	20
64-17-5	Ethanol	4.6		4.6		0	33
100-41-4	Ethylbenzene	0.14	J	0.14	J	0	15
141-78-6	Ethyl Acetate	2.3		2.3		0	20
622-96-8	4-Ethyltoluene	ND		ND		nc	13

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-12DUP	5W17563.D	1	04/07/16	TCH	n/a	n/a	V5W700
JC17438-12	5W17562.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Compound	JC17438-12 ppbv	Q	DUP ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	10
76-14-2	Freon 114	ND		ND		nc	20
142-82-5	Heptane	ND		ND		nc	20
87-68-3	Hexachlorobutadiene	ND		ND		nc	20
110-54-3	Hexane	ND		ND		nc	17
591-78-6	2-Hexanone	ND		ND		nc	20
67-63-0	Isopropyl Alcohol	0.26		0.27		4	26
75-09-2	Methylene chloride	ND		ND		nc	26
78-93-3	Methyl ethyl ketone	0.28		0.27		4	21
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	20
80-62-6	Methylmethacrylate	ND		ND		nc	20
115-07-1	Propylene	ND		ND		nc	16
100-42-5	Styrene	ND		ND		nc	11
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	20
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	20
95-63-6	1,2,4-Trimethylbenzene	0.23		0.24		4	19
108-67-8	1,3,5-Trimethylbenzene	ND		ND		nc	13
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	18
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	21
127-18-4	Tetrachloroethylene	0.46		0.42		9	17
109-99-9	Tetrahydrofuran	0.56		0.53		6	20
108-88-3	Toluene	1.3		1.4		7	20
79-01-6	Trichloroethylene	0.14		0.12		15* [a]	13
75-69-4	Trichlorofluoromethane	0.24		0.25		4	21
75-01-4	Vinyl chloride	ND		ND		nc	20
108-05-4	Vinyl Acetate	ND		ND		nc	20
	m,p-Xylene	0.62		0.65		5	26
95-47-6	o-Xylene	0.22		0.24		9	20
1330-20-7	Xylenes (total)	0.85		0.89		5	26

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17438-12DUP	5W17563.D	1	04/07/16	TCH	n/a	n/a	V5W700
JC17438-12	5W17562.D	1	04/07/16	TCH	n/a	n/a	V5W700

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-6, JC17438-7, JC17438-8, JC17438-10, JC17438-11, JC17438-12

CAS No.	Surrogate Recoveries	DUP	JC17438-12	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	65-128%

(a) Outside in house control limits.

Duplicate Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC17199-5DUP	5W17600.D	1	04/08/16	TCH	n/a	n/a	V5W701
JC17199-5	5W17599.D	1	04/08/16	TCH	n/a	n/a	V5W701

The QC reported here applies to the following samples: **Method:** TO-15

JC17438-10

CAS No.	Compound	JC17199-5 ppbv	Q	DUP ppbv	Q	RPD	Limits
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	10
127-18-4	Tetrachloroethylene	0.18		0.19		5	17
79-01-6	Trichloroethylene	1.6		1.8		12	13

CAS No.	Surrogate Recoveries	DUP	JC17199-5	Limits
460-00-4	4-Bromofluorobenzene	102%	97%	65-128%

* = Outside of Control Limits.

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-SCC	5W17096.D	1	03/18/16	TCH	n/a	n/a	V5W683

The QC reported here (Summa A300) applies to the following samples: **Method:** TO-15

Batch CP8336 cleaned 03/15/16: JC17438-1(A300)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-SCC	5W17096.D	1	03/18/16	TCH	n/a	n/a	V5W683

The QC reported here (Summa A300) applies to the following samples: **Method:** TO-15

Batch CP8336 cleaned 03/15/16: JC17438-1(A300)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W683-SCC	5W17096.D	1	03/18/16	TCH	n/a	n/a	V5W683

The QC reported here (Summa A300) applies to the following samples: **Method:** TO-15

Batch CP8336 cleaned 03/15/16: JC17438-1(A300)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-SCC	5W17111.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here (Summa A987) applies to the following samples: **Method:** TO-15

Batch CP8339 cleaned 03/15/16: JC17438-2(A987)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-SCC	5W17111.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here (Summa A987) applies to the following samples: **Method:** TO-15

Batch CP8339 cleaned 03/15/16: JC17438-2(A987)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W684-SCC	5W17111.D	1	03/18/16	TCH	n/a	n/a	V5W684

The QC reported here (Summa A987) applies to the following samples: **Method:** TO-15

Batch CP8339 cleaned 03/15/16: JC17438-2(A987)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-SCC	W54291.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here (Summa M037) applies to the following samples: **Method:** TO-15

Batch CP8330 cleaned 03/14/16: JC17438-11(M037)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-SCC	W54291.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here (Summa M037) applies to the following samples: **Method:** TO-15

Batch CP8330 cleaned 03/14/16: JC17438-11(M037)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2168-SCC	W54291.D	1	03/18/16	YMH	n/a	n/a	VW2168

The QC reported here (Summa M037) applies to the following samples: **Method:** TO-15

Batch CP8330 cleaned 03/14/16: JC17438-11(M037)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	82%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-SCC	3W52863.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here (Summa A463) applies to the following samples: **Method:** TO-15

Batch CP8340 cleaned 03/16/16: JC17438-6(A463)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-SCC	3W52863.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here (Summa A463) applies to the following samples: **Method:** TO-15

Batch CP8340 cleaned 03/16/16: JC17438-6(A463)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1996-SCC	3W52863.D	1	03/18/16	YMH	n/a	n/a	V3W1996

The QC reported here (Summa A463) applies to the following samples: **Method:** TO-15

Batch CP8340 cleaned 03/16/16: JC17438-6(A463)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	92%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-SCC	5W17145.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here (Summa A373) applies to the following samples: **Method:** TO-15

Batch CP8342 cleaned 03/16/16: JC17438-5(A373)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-SCC	5W17145.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here (Summa A373) applies to the following samples: **Method:** TO-15

Batch CP8342 cleaned 03/16/16: JC17438-5(A373)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W685-SCC	5W17145.D	1	03/19/16	TCH	n/a	n/a	V5W685

The QC reported here (Summa A373) applies to the following samples: **Method:** TO-15

Batch CP8342 cleaned 03/16/16: JC17438-5(A373)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	100%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17170.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa A478) applies to the following samples: **Method:** TO-15

Batch CP8344 cleaned 03/17/16: JC17438-8(A478)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17170.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa A478) applies to the following samples: **Method:** TO-15

Batch CP8344 cleaned 03/17/16: JC17438-8(A478)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17170.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa A478) applies to the following samples: **Method:** TO-15

Batch CP8344 cleaned 03/17/16: JC17438-8(A478)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	97%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17179.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa LA 2962) applies to the following samples: **Method:** TO-15

Batch CP8345 cleaned 03/18/16: JC17438-7(LA 2962)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17179.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa LA 2962) applies to the following samples: **Method:** TO-15

Batch CP8345 cleaned 03/18/16: JC17438-7(LA 2962)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W686-SCC	5W17179.D	1	03/21/16	TCH	n/a	n/a	V5W686

The QC reported here (Summa LA 2962) applies to the following samples: **Method:** TO-15

Batch CP8345 cleaned 03/18/16: JC17438-7(LA 2962)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-SCC	W54354.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here (Summa LA 2135) applies to the following samples: **Method:** TO-15

Batch CP8346 cleaned 03/18/16: JC17438-3(LA 2135)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-SCC	W54354.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here (Summa LA 2135) applies to the following samples: **Method:** TO-15

Batch CP8346 cleaned 03/18/16: JC17438-3(LA 2135)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2170-SCC	W54354.D	1	03/21/16	YMH	n/a	n/a	VW2170

The QC reported here (Summa LA 2135) applies to the following samples: **Method:** TO-15

Batch CP8346 cleaned 03/18/16: JC17438-3(LA 2135)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	80%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-SCC	W54380.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here (Summa M122) applies to the following samples: **Method:** TO-15

Batch CP8347 cleaned 03/18/16: JC17438-4(M122)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-SCC	W54380.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here (Summa M122) applies to the following samples: **Method:** TO-15

Batch CP8347 cleaned 03/18/16: JC17438-4(M122)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW2171-SCC	W54380.D	1	03/22/16	YMH	n/a	n/a	VW2171

The QC reported here (Summa M122) applies to the following samples: **Method:** TO-15

Batch CP8347 cleaned 03/18/16: JC17438-4(M122)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	71%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-SCC	5W17214.D	1	03/23/16	TCH	n/a	n/a	V5W687

The QC reported here (Summa M076) applies to the following samples: **Method:** TO-15

Batch CP8350 cleaned 03/21/16: JC17438-12(M076)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-SCC	5W17214.D	1	03/23/16	TCH	n/a	n/a	V5W687

The QC reported here (Summa M076) applies to the following samples: **Method:** TO-15

Batch CP8350 cleaned 03/21/16: JC17438-12(M076)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W687-SCC	5W17214.D	1	03/23/16	TCH	n/a	n/a	V5W687

The QC reported here (Summa M076) applies to the following samples: **Method:** TO-15

Batch CP8350 cleaned 03/21/16: JC17438-12(M076)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	97%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52954.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A1177) applies to the following samples: **Method:** TO-15

Batch CP8351 cleaned 03/21/16: JC17438-10(A1177)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52954.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A1177) applies to the following samples: **Method:** TO-15

Batch CP8351 cleaned 03/21/16: JC17438-10(A1177)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52954.D	1	03/24/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A1177) applies to the following samples: **Method:** TO-15

Batch CP8351 cleaned 03/21/16: JC17438-10(A1177)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	93%	65-128%

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52963.D	1	03/25/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A016) applies to the following samples: **Method:** TO-15

Batch CP8355 cleaned 03/21/16: JC17438-9(A016)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
67-64-1	Acetone	ND	0.20	0.036	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	0.031	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	0.019	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	0.075	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	0.075	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52963.D	1	03/25/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A016) applies to the following samples: **Method:** TO-15

Batch CP8355 cleaned 03/21/16: JC17438-9(A016)

CAS No.	Compound	Result	RL	MDL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	0.020	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	0.023	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	0.16	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	0.025	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	0.032	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	0.015	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	0.012	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3W1999-SCC	3W52963.D	1	03/25/16	YMH	n/a	n/a	V3W1999

The QC reported here (Summa A016) applies to the following samples: **Method:** TO-15

Batch CP8355 cleaned 03/21/16: JC17438-9(A016)

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	86%	65-128%

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V3W1994-BFB	**Injection Date:**	03/16/16
Lab File ID:	3W52817.D	**Injection Time:**	21:29
Instrument ID:	GCMS3W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	12688	17.3		Pass
75	30.0 - 66.0% of mass 95	32941	44.9		Pass
95	Base peak, 100% relative abundance	73306	100.0		Pass
96	5.0 - 9.0% of mass 95	4983	6.80		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	61005	83.2		Pass
175	4.0 - 9.01% of mass 174	4554	6.21	(7.46) [a]	Pass
176	93.0 - 101.0% of mass 174	59482	81.1	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	3929	5.36	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3W1994-ICC1994	3W52818.D	03/16/16	22:10	00:41	Initial cal 10
V3W1994-IC1994	3W52819.D	03/16/16	22:50	01:21	Initial cal 5
V3W1994-IC1994	3W52820.D	03/16/16	23:31	02:02	Initial cal 0.5
V3W1994-IC1994	3W52821.D	03/17/16	00:11	02:42	Initial cal 0.2
V3W1994-IC1994	3W52822.D	03/17/16	00:52	03:23	Initial cal 20
V3W1994-IC1994	3W52823.D	03/17/16	01:32	04:03	Initial cal 15
V3W1994-IC1994	3W52825.D	03/17/16	02:53	05:24	Initial cal 0.1
V3W1994-IC1994	3W52826.D	03/17/16	03:33	06:04	Initial cal 0.04
V3W1994-IC1994	3W52827.D	03/17/16	04:16	06:47	Initial cal 30
V3W1994-IC1994	3W52829.D	03/17/16	05:40	08:11	Initial cal 40
V3W1994-ICV1994	3W52831.D	03/17/16	07:00	09:31	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: V3W1996-BFB
Lab File ID: 3W52852.D
Instrument ID: GCMS3W
Injection Date: 03/18/16
Injection Time: 08:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	13112	18.7		Pass
75	30.0 - 66.0% of mass 95	32088	45.7		Pass
95	Base peak, 100% relative abundance	70168	100.0		Pass
96	5.0 - 9.0% of mass 95	4751	6.77		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	56573	80.6		Pass
175	4.0 - 9.01% of mass 174	4323	6.16	(7.64) [a]	Pass
176	93.0 - 101.0% of mass 174	54725	78.0	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	3538	5.04	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W52852.D	03/18/16	08:57	00:00	(unrelated sample)
V3W1996-CC1994	3W52853.D	03/18/16	09:40	00:43	Continuing cal 10
V3W1996-BS	3W52854.D	03/18/16	10:22	01:25	Blank Spike
V3W1996-BSD	3W52855.D	03/18/16	11:04	02:07	Blank Spike Duplicate
V3W1996-MB	3W52857.D	03/18/16	12:38	03:41	Method Blank
ZZZZZZ	3W52858.D	03/18/16	13:21	04:24	(unrelated sample)
ZZZZZZ	3W52859.D	03/18/16	14:03	05:06	(unrelated sample)
ZZZZZZ	3W52860.D	03/18/16	14:46	05:49	(unrelated sample)
ZZZZZZ	3W52861.D	03/18/16	15:28	06:31	(unrelated sample)
ZZZZZZ	3W52862.D	03/18/16	16:11	07:14	(unrelated sample)
V3W1996-SCC	3W52863.D	03/18/16	16:53	07:56	Summa Cleaning Certification
ZZZZZZ	3W52864.D	03/18/16	17:36	08:39	(unrelated sample)
JC16139-7	3W52865.D	03/18/16	18:18	09:21	(used for QC only; not part of job JC17438)
JC16139-7DUP	3W52866.D	03/18/16	19:01	10:04	Duplicate
ZZZZZZ	3W52867.D	03/18/16	19:41	10:44	(unrelated sample)
ZZZZZZ	3W52868.D	03/18/16	20:22	11:25	(unrelated sample)
ZZZZZZ	3W52869.D	03/18/16	21:03	12:06	(unrelated sample)
V3W1996-SCC	3W52870.D	03/18/16	21:45	12:48	Summa Cleaning Certification
ZZZZZZ	3W52871.D	03/18/16	22:29	13:32	(unrelated sample)
ZZZZZZ	3W52872.D	03/18/16	23:11	14:14	(unrelated sample)
ZZZZZZ	3W52873.D	03/18/16	23:52	14:55	(unrelated sample)
ZZZZZZ	3W52874.D	03/19/16	00:34	15:37	(unrelated sample)
ZZZZZZ	3W52875.D	03/19/16	01:17	16:20	(unrelated sample)
ZZZZZZ	3W52876.D	03/19/16	01:57	17:00	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V3W1996-BFB	**Injection Date:**	03/18/16
Lab File ID:	3W52852.D	**Injection Time:**	08:57
Instrument ID:	GCMS3W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W52877.D	03/19/16	02:38	17:41	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V3W1998-BFB	**Injection Date:**	03/22/16
Lab File ID:	3W52928.D	**Injection Time:**	19:06
Instrument ID:	GCMS3W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	19690	17.4		Pass
75	30.0 - 66.0% of mass 95	52722	46.5		Pass
95	Base peak, 100% relative abundance	113482	100.0		Pass
96	5.0 - 9.0% of mass 95	7523	6.63		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	102605	90.4		Pass
175	4.0 - 9.01% of mass 174	7808	6.88	(7.61) [a]	Pass
176	93.0 - 101.0% of mass 174	99165	87.4	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6635	5.85	(6.69) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V3W1998-ICC1998	3W52929.D	03/22/16	19:47	00:41	Initial cal 10
V3W1998-IC1998	3W52930.D	03/22/16	20:28	01:22	Initial cal 5
V3W1998-IC1998	3W52931.D	03/22/16	21:10	02:04	Initial cal 0.5
V3W1998-IC1998	3W52932.D	03/22/16	21:50	02:44	Initial cal 0.2
V3W1998-IC1998	3W52933.D	03/22/16	22:31	03:25	Initial cal 20
V3W1998-IC1998	3W52934.D	03/22/16	23:12	04:06	Initial cal 15
V3W1998-IC1998	3W52936.D	03/23/16	00:34	05:28	Initial cal 0.1
V3W1998-IC1998	3W52937.D	03/23/16	01:15	06:09	Initial cal 0.04
V3W1998-IC1998	3W52938.D	03/23/16	01:56	06:50	Initial cal 30
V3W1998-IC1998	3W52940.D	03/23/16	03:20	08:14	Initial cal 40
V3W1998-ICV1998	3W52942.D	03/23/16	04:42	09:36	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V3W1999-BFB	**Injection Date:**	03/24/16
Lab File ID:	3W52943.D	**Injection Time:**	10:04
Instrument ID:	GCMS3W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	20242	19.0		Pass
75	30.0 - 66.0% of mass 95	50610	47.5		Pass
95	Base peak, 100% relative abundance	106552	100.0		Pass
96	5.0 - 9.0% of mass 95	7146	6.71		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	91778	86.1		Pass
175	4.0 - 9.01% of mass 174	7169	6.73	(7.81) [a]	Pass
176	93.0 - 101.0% of mass 174	88712	83.3	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	5835	5.48	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W52943.D	03/24/16	10:04	00:00	(unrelated sample)
V3W1999-CC1998	3W52944.D	03/24/16	11:10	01:06	Continuing cal 10
V3W1999-BS	3W52945.D	03/24/16	11:58	01:54	Blank Spike
V3W1999-BSD	3W52946.D	03/24/16	12:39	02:35	Blank Spike Duplicate
V3W1999-MB	3W52948.D	03/24/16	14:13	04:09	Method Blank
ZZZZZZ	3W52949.D	03/24/16	15:03	04:59	(unrelated sample)
ZZZZZZ	3W52950.D	03/24/16	15:47	05:43	(unrelated sample)
ZZZZZZ	3W52951.D	03/24/16	16:28	06:24	(unrelated sample)
ZZZZZZ	3W52952.D	03/24/16	17:10	07:06	(unrelated sample)
V3W1999-SCC	3W52954.D	03/24/16	18:32	08:28	Summa Cleaning Certification
ZZZZZZ	3W52955.D	03/24/16	19:15	09:11	(unrelated sample)
JC14973-3	3W52956.D	03/24/16	19:58	09:54	(used for QC only; not part of job JC17438)
JC14973-3DUP	3W52957.D	03/24/16	20:42	10:38	Duplicate
ZZZZZZ	3W52958.D	03/24/16	21:24	11:20	(unrelated sample)
ZZZZZZ	3W52959.D	03/24/16	22:05	12:01	(unrelated sample)
ZZZZZZ	3W52960.D	03/24/16	22:46	12:42	(unrelated sample)
ZZZZZZ	3W52961.D	03/24/16	23:27	13:23	(unrelated sample)
ZZZZZZ	3W52962.D	03/25/16	00:08	14:04	(unrelated sample)
V3W1999-SCC	3W52963.D	03/25/16	00:50	14:46	Summa Cleaning Certification
ZZZZZZ	3W52964.D	03/25/16	01:32	15:28	(unrelated sample)
ZZZZZZ	3W52965.D	03/25/16	02:13	16:09	(unrelated sample)
ZZZZZZ	3W52966.D	03/25/16	02:56	16:52	(unrelated sample)
ZZZZZZ	3W52967.D	03/25/16	03:37	17:33	(unrelated sample)
ZZZZZZ	3W52968.D	03/25/16	04:18	18:14	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V3W1999-BFB	**Injection Date:**	03/24/16
Lab File ID:	3W52943.D	**Injection Time:**	10:04
Instrument ID:	GCMS3W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	3W52970.D	03/25/16	05:43	19:39	(unrelated sample)
ZZZZZZ	3W52971.D	03/25/16	06:29	20:25	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W637-BFB	**Injection Date:**	01/22/16
Lab File ID:	5W15840.D	**Injection Time:**	21:05
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	21160	14.2		Pass
75	30.0 - 66.0% of mass 95	62069	41.6		Pass
95	Base peak, 100% relative abundance	149226	100.0		Pass
96	5.0 - 9.0% of mass 95	9967	6.68		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	131890	88.4		Pass
175	4.0 - 9.01% of mass 174	9709	6.51	(7.36) [a]	Pass
176	93.0 - 101.0% of mass 174	127597	85.5	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	8559	5.74	(6.71) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W637-ICC637	5W15841.D	01/22/16	21:47	00:42	Initial cal 10
V5W637-IC637	5W15842.D	01/22/16	22:29	01:24	Initial cal 5
V5W637-IC637	5W15843.D	01/22/16	23:13	02:08	Initial cal 0.5
V5W637-IC637	5W15844.D	01/22/16	23:56	02:51	Initial cal 0.2
V5W637-IC637	5W15845.D	01/23/16	00:40	03:35	Initial cal 20
V5W637-IC637	5W15847.D	01/23/16	02:07	05:02	Initial cal 0.1
V5W637-IC637	5W15848.D	01/23/16	02:48	05:43	Initial cal 0.04
V5W637-IC637	5W15849.D	01/23/16	03:33	06:28	Initial cal 30
V5W637-IC637	5W15851.D	01/23/16	05:01	07:56	Initial cal 40
V5W637-ICV637	5W15853.D	01/23/16	06:25	09:20	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W683-BFB	**Injection Date:**	03/17/16
Lab File ID:	5W17073.D	**Injection Time:**	08:17
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	23024	16.7		Pass
75	30.0 - 66.0% of mass 95	61592	44.7		Pass
95	Base peak, 100% relative abundance	137797	100.0		Pass
96	5.0 - 9.0% of mass 95	9284	6.74		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	136640	99.2		Pass
175	4.0 - 9.0% of mass 174	10486	7.61	(7.67) [a]	Pass
176	93.0 - 101.0% of mass 174	130677	94.8	(95.6) [a]	Pass
177	5.0 - 9.0% of mass 176	8581	6.23	(6.57) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W683-CC637	5W17074.D	03/17/16	08:59	00:42	Continuing cal 10
V5W683-BS	5W17076.D	03/17/16	10:35	02:18	Blank Spike
V5W683-BSD	5W17077.D	03/17/16	11:22	03:05	Blank Spike Duplicate
V5W683-MB	5W17079.D	03/17/16	12:56	04:39	Method Blank
ZZZZZZ	5W17080.D	03/17/16	13:44	05:27	(unrelated sample)
ZZZZZZ	5W17081.D	03/17/16	14:26	06:09	(unrelated sample)
ZZZZZZ	5W17082.D	03/17/16	15:08	06:51	(unrelated sample)
ZZZZZZ	5W17083.D	03/17/16	15:51	07:34	(unrelated sample)
ZZZZZZ	5W17084.D	03/17/16	16:34	08:17	(unrelated sample)
JC15479-20	5W17085.D	03/17/16	17:16	08:59	(used for QC only; not part of job JC17438)
JC15479-20DUP	5W17086.D	03/17/16	17:58	09:41	Duplicate
ZZZZZZ	5W17088.D	03/17/16	19:31	11:14	(unrelated sample)
ZZZZZZ	5W17089.D	03/17/16	20:18	12:01	(unrelated sample)
ZZZZZZ	5W17090.D	03/17/16	21:04	12:47	(unrelated sample)
ZZZZZZ	5W17091.D	03/17/16	21:47	13:30	(unrelated sample)
ZZZZZZ	5W17092.D	03/17/16	22:29	14:12	(unrelated sample)
ZZZZZZ	5W17093.D	03/17/16	23:12	14:55	(unrelated sample)
ZZZZZZ	5W17094.D	03/17/16	23:56	15:39	(unrelated sample)
ZZZZZZ	5W17095.D	03/18/16	00:43	16:26	(unrelated sample)
V5W683-SCC	5W17096.D	03/18/16	01:28	17:11	Summa Cleaning Certification
ZZZZZZ	5W17097.D	03/18/16	02:12	17:55	(unrelated sample)
ZZZZZZ	5W17098.D	03/18/16	02:55	18:38	(unrelated sample)
ZZZZZZ	5W17099.D	03/18/16	03:38	19:21	(unrelated sample)
ZZZZZZ	5W17103.D	03/18/16	06:28	22:11	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W684-BFB	**Injection Date:**	03/18/16
Lab File ID:	5W17105.D	**Injection Time:**	08:34
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	22746	17.5		Pass
75	30.0 - 66.0% of mass 95	58256	44.8		Pass
95	Base peak, 100% relative abundance	130173	100.0		Pass
96	5.0 - 9.0% of mass 95	8550	6.57		Pass
173	Less than 2.0% of mass 174	695	0.53	(0.55) [a]	Pass
174	50.0 - 120.0% of mass 95	125472	96.4		Pass
175	4.0 - 9.01% of mass 174	9768	7.50	(7.79) [a]	Pass
176	93.0 - 101.0% of mass 174	121224	93.1	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	7675	5.90	(6.33) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W684-CC637	5W17106.D	03/18/16	09:24	00:50	Continuing cal 10
V5W684-BS	5W17107.D	03/18/16	10:08	01:34	Blank Spike
V5W684-BSD	5W17108.D	03/18/16	10:50	02:16	Blank Spike Duplicate
V5W684-MB	5W17110.D	03/18/16	12:20	03:46	Method Blank
V5W684-SCC	5W17111.D	03/18/16	13:05	04:31	Summa Cleaning Certification
ZZZZZZ	5W17112.D	03/18/16	13:53	05:19	(unrelated sample)
ZZZZZZ	5W17113.D	03/18/16	14:36	06:02	(unrelated sample)
ZZZZZZ	5W17114.D	03/18/16	15:23	06:49	(unrelated sample)
JC15571-2	5W17115.D	03/18/16	16:10	07:36	(used for QC only; not part of job JC17438)
JC15571-2DUP	5W17116.D	03/18/16	16:58	08:24	Duplicate
ZZZZZZ	5W17117.D	03/18/16	17:45	09:11	(unrelated sample)
ZZZZZZ	5W17118.D	03/18/16	18:33	09:59	(unrelated sample)
ZZZZZZ	5W17119.D	03/18/16	19:19	10:45	(unrelated sample)
ZZZZZZ	5W17120.D	03/18/16	20:06	11:32	(unrelated sample)
ZZZZZZ	5W17121.D	03/18/16	20:51	12:17	(unrelated sample)
ZZZZZZ	5W17122.D	03/18/16	21:33	12:59	(unrelated sample)
ZZZZZZ	5W17123.D	03/18/16	22:15	13:41	(unrelated sample)
ZZZZZZ	5W17124.D	03/18/16	23:03	14:29	(unrelated sample)
ZZZZZZ	5W17125.D	03/18/16	23:48	15:14	(unrelated sample)
ZZZZZZ	5W17125R.D	03/18/16	23:48	15:14	(unrelated sample)
ZZZZZZ	5W17126.D	03/19/16	00:31	15:57	(unrelated sample)
ZZZZZZ	5W17126R.D	03/19/16	00:31	15:57	(unrelated sample)
ZZZZZZ	5W17127.D	03/19/16	01:14	16:40	(unrelated sample)
ZZZZZZ	5W17127R.D	03/19/16	01:14	16:40	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W684-BFB	**Injection Date:**	03/18/16
Lab File ID:	5W17105.D	**Injection Time:**	08:34
Instrument ID:	GCMS5W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	5W17129.D	03/19/16	02:42	18:08	(unrelated sample)
ZZZZZZ	5W17130.D	03/19/16	03:30	18:56	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W685-BFB	**Injection Date:**	03/19/16
Lab File ID:	5W17133.D	**Injection Time:**	08:47
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	20146	17.1		Pass
75	30.0 - 66.0% of mass 95	51178	43.5		Pass
95	Base peak, 100% relative abundance	117600	100.0		Pass
96	5.0 - 9.0% of mass 95	7567	6.43		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	112328	95.5		Pass
175	4.0 - 9.01% of mass 174	8953	7.61	(7.97) [a]	Pass
176	93.0 - 101.0% of mass 174	109482	93.1	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	7525	6.40	(6.87) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W685-CC637	5W17134.D	03/19/16	09:32	00:45	Continuing cal 10
V5W685-BS	5W17137.D	03/19/16	11:55	03:08	Blank Spike
V5W685-BSD	5W17138.D	03/19/16	12:37	03:50	Blank Spike Duplicate
V5W685-MB	5W17140.D	03/19/16	14:09	05:22	Method Blank
ZZZZZZ	5W17141.D	03/19/16	14:51	06:04	(unrelated sample)
ZZZZZZ	5W17142.D	03/19/16	15:32	06:45	(unrelated sample)
ZZZZZZ	5W17142R.D	03/19/16	15:32	06:45	(unrelated sample)
ZZZZZZ	5W17143R.D	03/19/16	16:14	07:27	(unrelated sample)
ZZZZZZ	5W17143.D	03/19/16	16:14	07:27	(unrelated sample)
ZZZZZZ	5W17144.D	03/19/16	16:54	08:07	(unrelated sample)
ZZZZZZ	5W17144R.D	03/19/16	16:54	08:07	(unrelated sample)
V5W685-SCC	5W17145.D	03/19/16	17:40	08:53	Summa Cleaning Certification
ZZZZZZ	5W17146.D	03/19/16	18:23	09:36	(unrelated sample)
ZZZZZZ	5W17147.D	03/19/16	19:08	10:21	(unrelated sample)
ZZZZZZ	5W17148.D	03/19/16	19:50	11:03	(unrelated sample)
ZZZZZZ	5W17149.D	03/19/16	20:38	11:51	(unrelated sample)
ZZZZZZ	5W17150.D	03/19/16	21:23	12:36	(unrelated sample)
JC16353-4	5W17151.D	03/19/16	22:05	13:18	(used for QC only; not part of job JC17438)
JC16353-4DUP	5W17152.D	03/19/16	22:48	14:01	Duplicate
ZZZZZZ	5W17153.D	03/19/16	23:30	14:43	(unrelated sample)
ZZZZZZ	5W17154.D	03/20/16	00:13	15:26	(unrelated sample)
ZZZZZZ	5W17155.D	03/20/16	01:01	16:14	(unrelated sample)
ZZZZZZ	5W17156.D	03/20/16	01:47	17:00	(unrelated sample)
ZZZZZZ	5W17158.D	03/20/16	03:13	18:26	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W685-BFB	**Injection Date:**	03/19/16
Lab File ID:	5W17133.D	**Injection Time:**	08:47
Instrument ID:	GCMS5W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	5W17159.D	03/20/16	04:00	19:13	(unrelated sample)
ZZZZZZ	5W17160.D	03/20/16	04:47	20:00	(unrelated sample)
ZZZZZZ	5W17161.D	03/20/16	05:38	20:51	(unrelated sample)
ZZZZZZ	5W17162.D	03/20/16	06:25	21:38	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W686-BFB	**Injection Date:**	03/21/16
Lab File ID:	5W17163.D	**Injection Time:**	07:57
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	24674	17.6		Pass
75	30.0 - 66.0% of mass 95	64728	46.0		Pass
95	Base peak, 100% relative abundance	140565	100.0		Pass
96	5.0 - 9.0% of mass 95	9681	6.89		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	133802	95.2		Pass
175	4.0 - 9.01% of mass 174	10721	7.63	(8.01) [a]	Pass
176	93.0 - 101.0% of mass 174	129554	92.2	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	8590	6.11	(6.63) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W686-CC637	5W17164.D	03/21/16	08:59	01:02	Continuing cal 10
V5W686-BS	5W17165.D	03/21/16	09:54	01:57	Blank Spike
V5W686-BSD	5W17166.D	03/21/16	10:38	02:41	Blank Spike Duplicate
V5W686-MB	5W17168.D	03/21/16	12:17	04:20	Method Blank
V5W686-SCC	5W17169.D	03/21/16	13:44	05:47	Summa Cleaning Certification
V5W686-SCC	5W17170.D	03/21/16	15:10	07:13	Summa Cleaning Certification
ZZZZZZ	5W17172.D	03/21/16	16:39	08:42	(unrelated sample)
ZZZZZZ	5W17173.D	03/21/16	17:26	09:29	(unrelated sample)
JC16031-3	5W17174.D	03/21/16	18:13	10:16	(used for QC only; not part of job JC17438)
JC16031-3DUP	5W17175.D	03/21/16	19:02	11:05	Duplicate
ZZZZZZ	5W17176.D	03/21/16	19:44	11:47	(unrelated sample)
ZZZZZZ	5W17177.D	03/21/16	20:34	12:37	(unrelated sample)
ZZZZZZ	5W17178.D	03/21/16	21:20	13:23	(unrelated sample)
V5W686-SCC	5W17179.D	03/21/16	22:05	14:08	Summa Cleaning Certification
ZZZZZZ	5W17180.D	03/21/16	22:51	14:54	(unrelated sample)
ZZZZZZ	5W17181.D	03/21/16	23:38	15:41	(unrelated sample)
ZZZZZZ	5W17182.D	03/22/16	00:25	16:28	(unrelated sample)
ZZZZZZ	5W17183.D	03/22/16	01:12	17:15	(unrelated sample)
ZZZZZZ	5W17184.D	03/22/16	01:57	18:00	(unrelated sample)
ZZZZZZ	5W17185.D	03/22/16	02:39	18:42	(unrelated sample)
ZZZZZZ	5W17186.D	03/22/16	03:22	19:25	(unrelated sample)
ZZZZZZ	5W17187.D	03/22/16	04:06	20:09	(unrelated sample)
ZZZZZZ	5W17188.D	03/22/16	04:49	20:52	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W687-BFB	**Injection Date:**	03/22/16
Lab File ID:	5W17189.D	**Injection Time:**	08:14
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	25925	17.9		Pass
75	30.0 - 66.0% of mass 95	66440	45.8		Pass
95	Base peak, 100% relative abundance	144960	100.0		Pass
96	5.0 - 9.0% of mass 95	9697	6.69		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	136008	93.8		Pass
175	4.0 - 9.01% of mass 174	10551	7.28	(7.76) [a]	Pass
176	93.0 - 101.0% of mass 174	131002	90.4	(96.3) [a]	Pass
177	5.0 - 9.0% of mass 176	8690	5.99	(6.63) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W687-CC637	5W17190.D	03/22/16	08:56	00:42	Continuing cal 10
V5W687-BS	5W17191.D	03/22/16	09:47	01:33	Blank Spike
V5W687-BSD	5W17192.D	03/22/16	10:29	02:15	Blank Spike Duplicate
V5W687-MB	5W17194.D	03/22/16	12:12	03:58	Method Blank
ZZZZZZ	5W17195.D	03/22/16	12:53	04:39	(unrelated sample)
ZZZZZZ	5W17196.D	03/22/16	13:35	05:21	(unrelated sample)
ZZZZZZ	5W17197.D	03/22/16	14:16	06:02	(unrelated sample)
ZZZZZZ	5W17198.D	03/22/16	14:59	06:45	(unrelated sample)
ZZZZZZ	5W17199.D	03/22/16	15:41	07:27	(unrelated sample)
V5W687-SCC	5W17200.D	03/22/16	16:26	08:12	Summa Cleaning Certification
ZZZZZZ	5W17201.D	03/22/16	17:07	08:53	(unrelated sample)
ZZZZZZ	5W17202.D	03/22/16	17:49	09:35	(unrelated sample)
ZZZZZZ	5W17203.D	03/22/16	18:31	10:17	(unrelated sample)
ZZZZZZ	5W17204.D	03/22/16	19:14	11:00	(unrelated sample)
ZZZZZZ	5W17205.D	03/22/16	19:56	11:42	(unrelated sample)
JC16043-14	5W17206.D	03/22/16	20:40	12:26	(used for QC only; not part of job JC17438)
JC16043-14DUP	5W17207.D	03/22/16	21:22	13:08	Duplicate
ZZZZZZ	5W17208.D	03/22/16	22:05	13:51	(unrelated sample)
ZZZZZZ	5W17209.D	03/22/16	22:48	14:34	(unrelated sample)
ZZZZZZ	5W17210.D	03/22/16	23:32	15:18	(unrelated sample)
ZZZZZZ	5W17211.D	03/23/16	00:14	16:00	(unrelated sample)
ZZZZZZ	5W17212.D	03/23/16	00:56	16:42	(unrelated sample)
ZZZZZZ	5W17213.D	03/23/16	01:39	17:25	(unrelated sample)
V5W687-SCC	5W17214.D	03/23/16	02:24	18:10	Summa Cleaning Certification

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W687-BFB	**Injection Date:**	03/22/16
Lab File ID:	5W17189.D	**Injection Time:**	08:14
Instrument ID:	GCMS5W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	5W17215.D	03/23/16	03:11	18:57	(unrelated sample)
ZZZZZZ	5W17216.D	03/23/16	03:58	19:44	(unrelated sample)
ZZZZZZ	5W17217.D	03/23/16	04:50	20:36	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W693-BFB	**Injection Date:**	03/29/16
Lab File ID:	5W17371.D	**Injection Time:**	19:32
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	25594	15.4		Pass
75	30.0 - 66.0% of mass 95	72960	43.8		Pass
95	Base peak, 100% relative abundance	166634	100.0		Pass
96	5.0 - 9.0% of mass 95	11042	6.63		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	159466	95.7		Pass
175	4.0 - 9.01% of mass 174	11879	7.13	(7.45) [a]	Pass
176	93.0 - 101.0% of mass 174	153920	92.4	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	10360	6.22	(6.73) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W693-ICC693	5W17372.D	03/29/16	20:14	00:42	Initial cal 10
V5W693-IC693	5W17373.D	03/29/16	20:56	01:24	Initial cal 5
V5W693-IC693	5W17374.D	03/29/16	21:39	02:07	Initial cal 0.5
V5W693-IC693	5W17375.D	03/29/16	22:22	02:50	Initial cal 0.2
V5W693-IC693	5W17376.D	03/29/16	23:06	03:34	Initial cal 20
V5W693-IC693	5W17378.D	03/30/16	00:31	04:59	Initial cal 0.1
V5W693-IC693	5W17379.D	03/30/16	01:13	05:41	Initial cal 0.04
V5W693-IC693	5W17380.D	03/30/16	01:59	06:27	Initial cal 30
V5W693-IC693	5W17382.D	03/30/16	03:28	07:56	Initial cal 40
V5W693-ICV693	5W17384.D	03/30/16	04:52	09:20	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W698-BFB	**Injection Date:**	04/05/16
Lab File ID:	5W17496.D	**Injection Time:**	07:39
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	31709	17.5		Pass
75	30.0 - 66.0% of mass 95	83512	46.0		Pass
95	Base peak, 100% relative abundance	181568	100.0		Pass
96	5.0 - 9.0% of mass 95	12071	6.65		Pass
173	Less than 2.0% of mass 174	680	0.37	(0.40) [a]	Pass
174	50.0 - 120.0% of mass 95	168725	92.9		Pass
175	4.0 - 9.01% of mass 174	12598	6.94	(7.47) [a]	Pass
176	93.0 - 101.0% of mass 174	163050	89.8	(96.6) [a]	Pass
177	5.0 - 9.0% of mass 176	10624	5.85	(6.52) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W698-CC693	5W17497.D	04/05/16	08:34	00:55	Continuing cal 10
V5W698-BS	5W17498.D	04/05/16	09:26	01:47	Blank Spike
V5W698-BSD	5W17499.D	04/05/16	10:07	02:28	Blank Spike Duplicate
V5W698-MB	5W17502.D	04/05/16	12:21	04:42	Method Blank
V5W698-SCC	5W17503.D	04/05/16	13:34	05:55	Summa Cleaning Certification
V5W698-SCC	5W17504.D	04/05/16	14:38	06:59	Summa Cleaning Certification
ZZZZZZ	5W17505.D	04/05/16	15:21	07:42	(unrelated sample)
V5W698-SCC	5W17506.D	04/05/16	16:08	08:29	Summa Cleaning Certification
ZZZZZZ	5W17507.D	04/05/16	16:52	09:13	(unrelated sample)
ZZZZZZ	5W17508.D	04/05/16	17:34	09:55	(unrelated sample)
ZZZZZZ	5W17509.D	04/05/16	18:18	10:39	(unrelated sample)
JC17015-3	5W17510.D	04/05/16	19:03	11:24	(used for QC only; not part of job JC17438)
JC17015-3DUP	5W17511.D	04/05/16	19:49	12:10	Duplicate
ZZZZZZ	5W17512.D	04/05/16	20:37	12:58	(unrelated sample)
ZZZZZZ	5W17513.D	04/05/16	21:20	13:41	(unrelated sample)
ZZZZZZ	5W17514.D	04/05/16	22:04	14:25	(unrelated sample)
ZZZZZZ	5W17516.D	04/05/16	23:38	15:59	(unrelated sample)
ZZZZZZ	5W17517.D	04/06/16	00:26	16:47	(unrelated sample)
ZZZZZZ	5W17518.D	04/06/16	01:09	17:30	(unrelated sample)
ZZZZZZ	5W17519.D	04/06/16	01:51	18:12	(unrelated sample)
JC17438-1	5W17520.D	04/06/16	02:38	18:59	IA-01
JC17438-2	5W17521.D	04/06/16	03:24	19:45	SS-01
JC17438-3	5W17522.D	04/06/16	04:10	20:31	IA-07
JC17438-4	5W17523.D	04/06/16	04:58	21:19	IA-06

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W699-BFB	**Injection Date:**	04/06/16
Lab File ID:	5W17527.D	**Injection Time:**	10:29
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	29056	15.4		Pass
75	30.0 - 66.0% of mass 95	81973	43.5		Pass
95	Base peak, 100% relative abundance	188586	100.0		Pass
96	5.0 - 9.0% of mass 95	12465	6.61		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	178282	94.5		Pass
175	4.0 - 9.01% of mass 174	13279	7.04	(7.45) [a]	Pass
176	93.0 - 101.0% of mass 174	173056	91.8	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	11462	6.08	(6.62) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W699-CC693	5W17528.D	04/06/16	11:11	00:42	Continuing cal 10
V5W699-BS	5W17529.D	04/06/16	12:02	01:33	Blank Spike
V5W699-BSD	5W17530.D	04/06/16	12:43	02:14	Blank Spike Duplicate
V5W699-SCC	5W17532A.D	04/06/16	14:29	04:00	Summa Cleaning Certification
V5W699-MB	5W17532.D	04/06/16	14:29	04:00	Method Blank
ZZZZZZ	5W17533.D	04/06/16	15:27	04:58	(unrelated sample)
ZZZZZZ	5W17534.D	04/06/16	16:15	05:46	(unrelated sample)
ZZZZZZ	5W17535.D	04/06/16	16:58	06:29	(unrelated sample)
JC17438-5	5W17536.D	04/06/16	17:44	07:15	IA-02
JC17438-6	5W17537.D	04/06/16	18:30	08:01	SS-02
JC17438-8	5W17539.D	04/06/16	20:04	09:35	SS-03
JC17438-8DUP	5W17540.D	04/06/16	20:49	10:20	Duplicate
JC17438-9	5W17542.D	04/06/16	22:22	11:53	IA-03
JC17438-10	5W17543.D	04/06/16	23:04	12:35	SS-07
JC17438-11	5W17544.D	04/06/16	23:52	13:23	SS-06
ZZZZZZ	5W17546.D	04/07/16	01:25	14:56	(unrelated sample)
ZZZZZZ	5W17547.D	04/07/16	02:14	15:45	(unrelated sample)
ZZZZZZ	5W17548.D	04/07/16	03:01	16:32	(unrelated sample)
ZZZZZZ	5W17549.D	04/07/16	03:48	17:19	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W700-BFB	**Injection Date:**	04/07/16
Lab File ID:	5W17551.D	**Injection Time:**	07:55
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	31245	15.8		Pass
75	30.0 - 66.0% of mass 95	86733	43.8		Pass
95	Base peak, 100% relative abundance	197866	100.0		Pass
96	5.0 - 9.0% of mass 95	13103	6.62		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	183978	93.0		Pass
175	4.0 - 9.01% of mass 174	13519	6.83	(7.35) [a]	Pass
176	93.0 - 101.0% of mass 174	178410	90.2	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	11801	5.96	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W700-CC693	5W17552.D	04/07/16	08:40	00:45	Continuing cal 10
V5W700-BS	5W17553.D	04/07/16	09:23	01:28	Blank Spike
V5W700-BSD	5W17554.D	04/07/16	10:06	02:11	Blank Spike Duplicate
V5W700-SCC	5W17556A.D	04/07/16	11:47	03:52	Summa Cleaning Certification
V5W700-MB	5W17556.D	04/07/16	11:47	03:52	Method Blank
JC17438-6	5W17557.D	04/07/16	13:02	05:07	SS-02
JC17438-7	5W17558.D	04/07/16	13:50	05:55	IA-08
JC17438-8	5W17559.D	04/07/16	14:30	06:35	SS-03
JC17438-10	5W17560.D	04/07/16	15:12	07:17	SS-07
JC17438-11	5W17561.D	04/07/16	15:55	08:00	SS-06
JC17438-12	5W17562.D	04/07/16	16:41	08:46	BG-01
JC17438-12DUP	5W17563.D	04/07/16	17:29	09:34	Duplicate
ZZZZZZ	5W17564.D	04/07/16	18:10	10:15	(unrelated sample)
ZZZZZZ	5W17565.D	04/07/16	18:54	10:59	(unrelated sample)
ZZZZZZ	5W17566.D	04/07/16	19:37	11:42	(unrelated sample)
V5W700-SCC	5W17567.D	04/07/16	20:24	12:29	Summa Cleaning Certification
ZZZZZZ	5W17568.D	04/07/16	21:11	13:16	(unrelated sample)
ZZZZZZ	5W17569.D	04/07/16	21:59	14:04	(unrelated sample)
ZZZZZZ	5W17570.D	04/07/16	22:46	14:51	(unrelated sample)
ZZZZZZ	5W17571.D	04/07/16	23:32	15:37	(unrelated sample)
ZZZZZZ	5W17572.D	04/08/16	00:21	16:26	(unrelated sample)
ZZZZZZ	5W17573.D	04/08/16	01:08	17:13	(unrelated sample)
ZZZZZZ	5W17574.D	04/08/16	01:56	18:01	(unrelated sample)
ZZZZZZ	5W17575.D	04/08/16	02:43	18:48	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W700-BFB	**Injection Date:**	04/07/16
Lab File ID:	5W17551.D	**Injection Time:**	07:55
Instrument ID:	GCMS5W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	5W17576.D	04/08/16	03:31	19:36	(unrelated sample)
ZZZZZZ	5W17577.D	04/08/16	04:22	20:27	(unrelated sample)
ZZZZZZ	5W17578.D	04/08/16	05:07	21:12	(unrelated sample)
ZZZZZZ	5W17579.D	04/08/16	05:49	21:54	(unrelated sample)
ZZZZZZ	5W17580.D	04/08/16	06:31	22:36	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	V5W701-BFB	**Injection Date:**	04/08/16
Lab File ID:	5W17583.D	**Injection Time:**	09:20
Instrument ID:	GCMS5W		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	29034	15.8		Pass
75	30.0 - 66.0% of mass 95	81021	44.1		Pass
95	Base peak, 100% relative abundance	183616	100.0		Pass
96	5.0 - 9.0% of mass 95	12155	6.62		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	172629	94.0		Pass
175	4.0 - 9.01% of mass 174	12737	6.94	(7.38) [a]	Pass
176	93.0 - 101.0% of mass 174	166549	90.7	(96.5) [a]	Pass
177	5.0 - 9.0% of mass 176	11032	6.01	(6.62) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W701-CC693	5W17584.D	04/08/16	10:03	00:43	Continuing cal 10
V5W701-BS	5W17585.D	04/08/16	10:46	01:26	Blank Spike
V5W701-BSD	5W17586.D	04/08/16	11:28	02:08	Blank Spike Duplicate
V5W701-MB	5W17588.D	04/08/16	12:55	03:35	Method Blank
JC17438-10	5W17589.D	04/08/16	13:54	04:34	SS-07
ZZZZZZ	5W17590.D	04/08/16	14:43	05:23	(unrelated sample)
ZZZZZZ	5W17592.D	04/08/16	16:06	06:46	(unrelated sample)
ZZZZZZ	5W17594.D	04/08/16	17:37	08:17	(unrelated sample)
JC17199-5	5W17599.D	04/08/16	21:32	12:12	(used for QC only; not part of job JC17438)
JC17199-5DUP	5W17600.D	04/08/16	22:20	13:00	Duplicate

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: VW2167-BFB
Lab File ID: W54269.D
Instrument ID: GCMSW
Injection Date: 03/17/16
Injection Time: 22:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	8498	16.1		Pass
75	30.0 - 66.0% of mass 95	23458	44.5		Pass
95	Base peak, 100% relative abundance	52725	100.0		Pass
96	5.0 - 9.0% of mass 95	3451	6.55		Pass
173	Less than 2.0% of mass 174	223	0.42	(0.44) [a]	Pass
174	50.0 - 120.0% of mass 95	50421	95.6		Pass
175	4.0 - 9.01% of mass 174	3605	6.84	(7.15) [a]	Pass
176	93.0 - 101.0% of mass 174	49122	93.2	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	3263	6.19	(6.64) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VW2167-ICC2167	W54270.D	03/17/16	23:00	00:43	Initial cal 10
VW2167-IC2167	W54271.D	03/17/16	23:42	01:25	Initial cal 5
VW2167-IC2167	W54272.D	03/18/16	00:24	02:07	Initial cal 0.5
VW2167-IC2167	W54273.D	03/18/16	01:06	02:49	Initial cal 0.2
VW2167-IC2167	W54274.D	03/18/16	01:48	03:31	Initial cal 20
VW2167-IC2167	W54275.D	03/18/16	02:29	04:12	Initial cal 15
VW2167-IC2167	W54277.D	03/18/16	03:52	05:35	Initial cal 0.1
VW2167-IC2167	W54278.D	03/18/16	04:35	06:18	Initial cal 0.04
VW2167-IC2167	W54279.D	03/18/16	05:17	07:00	Initial cal 30
VW2167-IC2167	W54281.D	03/18/16	06:41	08:24	Initial cal 40
VW2167-ICV2167	W54283.D	03/18/16	08:04	09:47	Initial cal verification 10

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: VW2168-BFB **Injection Date:** 03/18/16
Lab File ID: W54284.D **Injection Time:** 09:27
Instrument ID: GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	10074	16.9		Pass
75	30.0 - 66.0% of mass 95	27749	46.5		Pass
95	Base peak, 100% relative abundance	59656	100.0		Pass
96	5.0 - 9.0% of mass 95	4037	6.77		Pass
173	Less than 2.0% of mass 174	342	0.57	(0.62) [a]	Pass
174	50.0 - 120.0% of mass 95	55365	92.8		Pass
175	4.0 - 9.01% of mass 174	3876	6.50	(7.00) [a]	Pass
176	93.0 - 101.0% of mass 174	53842	90.3	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	3460	5.80	(6.43) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VW2168-CC2167	W54285.D	03/18/16	10:14	00:47	Continuing cal 10
VW2168-BS	W54286.D	03/18/16	10:56	01:29	Blank Spike
VW2168-BSD	W54287.D	03/18/16	11:37	02:10	Blank Spike Duplicate
VW2168-MB	W54289.D	03/18/16	13:12	03:45	Method Blank
VW2168-SCC	W54290.D	03/18/16	13:54	04:27	Summa Cleaning Certification
VW2168-SCC	W54291.D	03/18/16	14:37	05:10	Summa Cleaning Certification
VW2168-SCC	W54292.D	03/18/16	15:18	05:51	Summa Cleaning Certification
VW2168-SCC	W54293.D	03/18/16	16:01	06:34	Summa Cleaning Certification
JC15580-1	W54294.D	03/18/16	16:42	07:15	(used for QC only; not part of job JC17438)
JC15580-1DUP	W54295.D	03/18/16	17:23	07:56	Duplicate
ZZZZZZ	W54296.D	03/18/16	18:06	08:39	(unrelated sample)
ZZZZZZ	W54297.D	03/18/16	18:48	09:21	(unrelated sample)
ZZZZZZ	W54298.D	03/18/16	19:30	10:03	(unrelated sample)
ZZZZZZ	W54299.D	03/18/16	20:11	10:44	(unrelated sample)
ZZZZZZ	W54300.D	03/18/16	20:55	11:28	(unrelated sample)
ZZZZZZ	W54301.D	03/18/16	21:37	12:10	(unrelated sample)
ZZZZZZ	W54302.D	03/18/16	22:19	12:52	(unrelated sample)
ZZZZZZ	W54303.D	03/18/16	23:00	13:33	(unrelated sample)
ZZZZZZ	W54304.D	03/18/16	23:42	14:15	(unrelated sample)
ZZZZZZ	W54305.D	03/19/16	00:23	14:56	(unrelated sample)
ZZZZZZ	W54306.D	03/19/16	01:05	15:38	(unrelated sample)
ZZZZZZ	W54307.D	03/19/16	01:47	16:20	(unrelated sample)
ZZZZZZ	W54308.D	03/19/16	02:29	17:02	(unrelated sample)
ZZZZZZ	W54309.D	03/19/16	03:10	17:43	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	VW2168-BFB	**Injection Date:**	03/18/16
Lab File ID:	W54284.D	**Injection Time:**	09:27
Instrument ID:	GCMSW		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	W54310.D	03/19/16	03:52	18:25	(unrelated sample)
ZZZZZZ	W54311.D	03/19/16	04:33	19:06	(unrelated sample)
ZZZZZZ	W54312.D	03/19/16	05:16	19:49	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	VW2170-BFB	**Injection Date:**	03/21/16
Lab File ID:	W54342.D	**Injection Time:**	08:58
Instrument ID:	GCMSW		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	11320	18.1		Pass
75	30.0 - 66.0% of mass 95	29402	47.0		Pass
95	Base peak, 100% relative abundance	62533	100.0		Pass
96	5.0 - 9.0% of mass 95	4229	6.76		Pass
173	Less than 2.0% of mass 174	442	0.71	(0.84) [a]	Pass
174	50.0 - 120.0% of mass 95	52922	84.6		Pass
175	4.0 - 9.01% of mass 174	3940	6.30	(7.44) [a]	Pass
176	93.0 - 101.0% of mass 174	51229	81.9	(96.8) [a]	Pass
177	5.0 - 9.0% of mass 176	3346	5.35	(6.53) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	W54342.D	03/21/16	08:58	00:00	(unrelated sample)
VW2170-CC2167	W54344.D	03/21/16	12:13	03:15	Continuing cal 10
VW2170-BS	W54346.D	03/21/16	15:26	06:28	Blank Spike
VW2170-BSD	W54347.D	03/21/16	17:42	08:44	Blank Spike Duplicate
VW2170-MB	W54349.D	03/21/16	19:19	10:21	Method Blank
ZZZZZZ	W54350.D	03/21/16	20:01	11:03	(unrelated sample)
ZZZZZZ	W54351.D	03/21/16	20:42	11:44	(unrelated sample)
ZZZZZZ	W54352.D	03/21/16	21:23	12:25	(unrelated sample)
ZZZZZZ	W54353.D	03/21/16	22:04	13:06	(unrelated sample)
VW2170-SCC	W54354.D	03/21/16	22:46	13:48	Summa Cleaning Certification
ZZZZZZ	W54355.D	03/21/16	23:27	14:29	(unrelated sample)
JC16053-2	W54356.D	03/22/16	00:08	15:10	(used for QC only; not part of job JC17438)
JC16053-2DUP	W54357.D	03/22/16	00:49	15:51	Duplicate
ZZZZZZ	W54358.D	03/22/16	01:30	16:32	(unrelated sample)
ZZZZZZ	W54359.D	03/22/16	02:13	17:15	(unrelated sample)
ZZZZZZ	W54360.D	03/22/16	02:54	17:56	(unrelated sample)
ZZZZZZ	W54361.D	03/22/16	03:36	18:38	(unrelated sample)
ZZZZZZ	W54362.D	03/22/16	04:18	19:20	(unrelated sample)
ZZZZZZ	W54363.D	03/22/16	05:00	20:02	(unrelated sample)
ZZZZZZ	W54364.D	03/22/16	05:41	20:43	(unrelated sample)
ZZZZZZ	W54365.D	03/22/16	06:22	21:24	(unrelated sample)
ZZZZZZ	W54366.D	03/22/16	07:04	22:06	(unrelated sample)
ZZZZZZ	W54367.D	03/22/16	07:45	22:47	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	VW2171-BFB	**Injection Date:**	03/22/16
Lab File ID:	W54368.D	**Injection Time:**	08:41
Instrument ID:	GCMSW		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	8.0 - 40.0% of mass 95	10038	15.9		Pass
75	30.0 - 66.0% of mass 95	27528	43.6		Pass
95	Base peak, 100% relative abundance	63109	100.0		Pass
96	5.0 - 9.0% of mass 95	4128	6.54		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	58085	92.0		Pass
175	4.0 - 9.01% of mass 174	4275	6.77	(7.36) [a]	Pass
176	93.0 - 101.0% of mass 174	56325	89.3	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	3645	5.78	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	W54368.D	03/22/16	08:41	00:00	(unrelated sample)
VW2171-CC2167	W54370.D	03/22/16	12:17	03:36	Continuing cal 10
VW2171-BS	W54371.D	03/22/16	13:05	04:24	Blank Spike
VW2171-BSD	W54372.D	03/22/16	13:46	05:05	Blank Spike Duplicate
VW2171-MB	W54374.D	03/22/16	15:43	07:02	Method Blank
ZZZZZZ	W54375.D	03/22/16	16:24	07:43	(unrelated sample)
ZZZZZZ	W54376.D	03/22/16	17:05	08:24	(unrelated sample)
ZZZZZZ	W54377.D	03/22/16	17:48	09:07	(unrelated sample)
ZZZZZZ	W54378.D	03/22/16	18:31	09:50	(unrelated sample)
ZZZZZZ	W54379.D	03/22/16	19:12	10:31	(unrelated sample)
VW2171-SCC	W54380.D	03/22/16	19:54	11:13	Summa Cleaning Certification
ZZZZZZ	W54381.D	03/22/16	20:35	11:54	(unrelated sample)
JC16098-12	W54382.D	03/22/16	21:16	12:35	(used for QC only; not part of job JC17438)
JC16098-12DUP	W54383.D	03/22/16	21:59	13:18	Duplicate
ZZZZZZ	W54384.D	03/22/16	22:40	13:59	(unrelated sample)
ZZZZZZ	W54385.D	03/22/16	23:21	14:40	(unrelated sample)
ZZZZZZ	W54386.D	03/23/16	00:03	15:22	(unrelated sample)
ZZZZZZ	W54387.D	03/23/16	00:45	16:04	(unrelated sample)
ZZZZZZ	W54388.D	03/23/16	01:26	16:45	(unrelated sample)
VW2171-SCC	W54389.D	03/23/16	02:08	17:27	Summa Cleaning Certification
ZZZZZZ	W54390.D	03/23/16	02:50	18:09	(unrelated sample)
ZZZZZZ	W54391.D	03/23/16	03:32	18:51	(unrelated sample)
ZZZZZZ	W54392.D	03/23/16	04:14	19:33	(unrelated sample)
ZZZZZZ	W54393.D	03/23/16	04:55	20:14	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample:	VW2171-BFB	**Injection Date:**	03/22/16
Lab File ID:	W54368.D	**Injection Time:**	08:41
Instrument ID:	GCMSW		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	W54394.D	03/23/16	05:37	20:56	(unrelated sample)
ZZZZZZ	W54395.D	03/23/16	06:18	21:37	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V3W1996-CC1994	**Injection Date:**	03/18/16
Lab File ID:	3W52853.D	**Injection Time:**	09:40
Instrument ID:	GCMS3W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	76783	9.15	390697	10.77	218969	14.76
Upper Limit [a]	107496	9.48	546976	11.10	306557	15.09
Lower Limit [b]	46070	8.82	234418	10.44	131381	14.43

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V3W1996-BS	80624	9.16	407103	10.77	224153	14.76
V3W1996-BSD	83188	9.15	426252	10.77	242555	14.76
V3W1996-MB	96472	9.15	427572	10.77	185690	14.76
ZZZZZZ	78882	9.15	400220	10.77	200074	14.76
ZZZZZZ	75870	9.15	371398	10.77	176700	14.76
ZZZZZZ	76679	9.15	379588	10.77	194132	14.76
ZZZZZZ	74489	9.15	369956	10.77	187065	14.76
ZZZZZZ	75440	9.14	374125	10.76	187831	14.76
V3W1996-SCC	78178	9.14	343923	10.76	155494	14.76
ZZZZZZ	74305	9.14	370488	10.76	187138	14.76
JC16139-7	81311	9.14	378553	10.76	190616	14.76
JC16139-7DUP	71588	9.14	362786	10.76	185762	14.76
ZZZZZZ	70952	9.14	358949	10.76	188272	14.76
ZZZZZZ	68377	9.14	340110	10.76	179409	14.76
ZZZZZZ	65873	9.14	326142	10.76	174436	14.76
V3W1996-SCC	67519	9.14	292145	10.76	138258	14.76
ZZZZZZ	67238	9.15	336674	10.76	186693	14.76
ZZZZZZ	70635	9.14	342004	10.76	163425	14.76
ZZZZZZ	69709	9.14	359490	10.76	190312	14.76
ZZZZZZ	72421	9.14	375667	10.76	186516	14.76
ZZZZZZ	66912	9.14	306039	10.76	159897	14.76
ZZZZZZ	66490	9.14	320727	10.76	153175	14.75
ZZZZZZ	64140	9.14	328880	10.76	174619	14.76

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V3W1999-CC1998	**Injection Date:**	03/24/16
Lab File ID:	3W52944.D	**Injection Time:**	11:10
Instrument ID:	GCMS3W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	108812	9.11	538426	10.73	286604	14.73
Upper Limit [a]	152337	9.44	753796	11.06	401246	15.06
Lower Limit [b]	65287	8.78	323056	10.40	171962	14.40

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V3W1999-BS	112995	9.10	553713	10.73	291343	14.73
V3W1999-BSD	117573	9.10	577304	10.73	299775	14.73
V3W1999-MB	108877	9.10	519317	10.73	243570	14.73
ZZZZZZ	108337	9.10	520029	10.73	256381	14.73
ZZZZZZ	107842	9.10	517348	10.72	259028	14.73
ZZZZZZ	105461	9.11	516121	10.73	304145	14.73
ZZZZZZ	126297	9.11	607995	10.73	341470	14.73
V3W1999-SCC	117110	9.10	555501	10.73	263150	14.73
ZZZZZZ	107555	9.11	523929	10.73	257222	14.73
JC14973-3	114708	9.10	550289	10.73	264795	14.73
JC14973-3DUP	113857	9.10	531908	10.73	263056	14.73
ZZZZZZ	110273	9.10	527199	10.73	259171	14.73
ZZZZZZ	108118	9.10	520156	10.73	269143	14.73
ZZZZZZ	106929	9.10	518552	10.73	270054	14.73
ZZZZZZ	109121	9.10	520736	10.72	261218	14.73
ZZZZZZ	101248	9.10	486890	10.72	243452	14.73
V3W1999-SCC	97789	9.10	465172	10.73	232399	14.73
ZZZZZZ	102704	9.11	491866	10.73	248513	14.73
ZZZZZZ	105066	9.10	510036	10.73	258079	14.73
ZZZZZZ	106651	9.10	516048	10.72	260845	14.73
ZZZZZZ	108009	9.10	523620	10.72	267005	14.73
ZZZZZZ	123315	9.11	656273	10.73	406958 [c]	14.74
ZZZZZZ	108677	9.11	516998	10.73	257757	14.73
ZZZZZZ	104057	9.10	491826	10.72	245446	14.73
ZZZZZZ	98127	9.10	469480	10.72	235616	14.73

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.
(c) Outside control limits due to matrix interference. Confirmed by reanalysis.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W683-CC637	**Injection Date:**	03/17/16
Lab File ID:	5W17074.D	**Injection Time:**	08:59
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	151986	8.25	528789	10.45	262780	16.02
Upper Limit [a]	212780	8.58	740305	10.78	367892	16.35
Lower Limit [b]	91192	7.92	317273	10.12	157668	15.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W683-BS	129689	8.25	458611	10.45	234235	16.02
V5W683-BSD	143538	8.25	508587	10.45	258552	16.02
V5W683-MB	130491	8.25	444921	10.45	211044	16.02
ZZZZZZ	137150	8.25	454969	10.45	218470	16.02
ZZZZZZ	129317	8.25	421702	10.45	212048	16.02
ZZZZZZ	140284	8.25	483836	10.46	219063	16.02
ZZZZZZ	138653	8.25	427303	10.45	222554	16.02
ZZZZZZ	135019	8.25	460662	10.45	223534	16.02
JC15479-20	137393	8.25	469261	10.45	231760	16.02
JC15479-20DUP	138537	8.25	480911	10.45	228615	16.02
ZZZZZZ	131110	8.25	446188	10.45	217920	16.02
ZZZZZZ	132802	8.25	451089	10.45	221319	16.02
ZZZZZZ	137330	8.25	432468	10.45	213309	16.02
ZZZZZZ	125171	8.25	418693	10.45	213174	16.02
ZZZZZZ	130028	8.25	422629	10.45	214825	16.02
ZZZZZZ	128494	8.25	412498	10.45	209046	16.02
ZZZZZZ	113340	8.25	382722	10.45	201879	16.02
ZZZZZZ	120559	8.25	381502	10.45	195209	16.02
V5W683-SCC	133416	8.24	428940	10.45	207871	16.02
ZZZZZZ	147286	8.25	501163	10.45	228024	16.02
ZZZZZZ	141045	8.25	490413	10.45	233454	16.02
ZZZZZZ	143553	8.27	459087	10.46	216812	16.02
ZZZZZZ	130995	8.25	412607	10.45	208222	16.02

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std: V5W684-CC637 **Injection Date:** 03/18/16
Lab File ID: 5W17106.D **Injection Time:** 09:24
Instrument ID: GCMS5W **Method:** TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	149110	8.25	514833	10.45	261079	16.02
Upper Limit [a]	208754	8.58	720766	10.78	365511	16.35
Lower Limit [b]	89466	7.92	308900	10.12	156647	15.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W684-BS	139058	8.25	491417	10.46	244580	16.02
V5W684-BSD	133712	8.25	460992	10.45	249608	16.02
V5W684-MB	130167	8.25	444517	10.45	212726	16.02
V5W684-SCC	132587	8.25	442705	10.44	214549	16.02
ZZZZZZ	136508	8.26	471006	10.46	248709	16.02
ZZZZZZ	125001	8.26	397841	10.46	206608	16.02
ZZZZZZ	140293	8.25	453778	10.45	236908	16.02
JC15571-2	124698	8.25	426677	10.45	222344	16.02
JC15571-2DUP	123283	8.25	426946	10.45	218865	16.02
ZZZZZZ	125432	8.25	424657	10.45	216023	16.02
ZZZZZZ	122321	8.25	421690	10.45	216092	16.02
ZZZZZZ	126776	8.25	419365	10.45	219814	16.02
ZZZZZZ	119118	8.24	398334	10.45	201190	16.02
ZZZZZZ	119338	8.25	396005	10.45	203787	16.02
ZZZZZZ	139090	8.25	477699	10.45	256179	16.02
ZZZZZZ	133366	8.25	451813	10.45	249242	16.02
ZZZZZZ	101351	8.24	347540	10.45	214053	16.02
ZZZZZZ	160338	8.25	538112	10.45	286614	16.02
ZZZZZZ	160338	8.25	538112	10.45	286614	16.02
ZZZZZZ	142724	8.25	488220	10.45	252042	16.02
ZZZZZZ	142724	8.25	488220	10.45	252042	16.02
ZZZZZZ	148384	8.25	519937	10.45	268321	16.02
ZZZZZZ	148384	8.25	519937	10.45	268321	16.02
ZZZZZZ	136425	8.25	456352	10.45	222152	16.02
ZZZZZZ	122179	8.25	413756	10.45	210161	16.02

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W685-CC637	**Injection Date:**	03/19/16
Lab File ID:	5W17134.D	**Injection Time:**	09:32
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	141587	8.26	491797	10.46	255076	16.02
Upper Limit [a]	198222	8.59	688516	10.79	357106	16.35
Lower Limit [b]	84952	7.93	295078	10.13	153046	15.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W685-BS	140182	8.25	493585	10.45	262513	16.02
V5W685-BSD	137781	8.25	491652	10.45	260299	16.02
V5W685-MB	136356	8.25	480385	10.44	238545	16.02
ZZZZZZ	146213	8.25	518954	10.44	274757	16.02
ZZZZZZ	142424	8.25	506790	10.44	301258	16.02
ZZZZZZ	142424	8.25	506790	10.44	301258	16.02
ZZZZZZ	148392	8.25	540076	10.45	205229	16.02
ZZZZZZ	148392	8.25	540076	10.45	205229	16.02
ZZZZZZ	165070	8.25	600268	10.44	305186	16.02
ZZZZZZ	165070	8.25	600268	10.44	305186	16.02
V5W685-SCC	181579	8.25	617529	10.45	295873	16.02
ZZZZZZ	154564	8.25	513056	10.45	266977	16.02
ZZZZZZ	133261	8.24	458134	10.44	242749	16.02
ZZZZZZ	138829	8.25	484691	10.44	252500	16.02
ZZZZZZ	141368	8.25	490330	10.45	251305	16.02
ZZZZZZ	138981	8.25	494526	10.46	256705	16.02
JC16353-4	159436	8.25	556898	10.45	264283	16.02
JC16353-4DUP	137370	8.25	472221	10.45	236117	16.02
ZZZZZZ	136848	8.25	472067	10.45	225916	16.02
ZZZZZZ	136831	8.24	468314	10.46	228255	16.02
ZZZZZZ	130146	8.25	443738	10.45	227206	16.02
ZZZZZZ	141927	8.25	489120	10.46	250434	16.02
ZZZZZZ	130278	8.25	483084	10.45	281680	16.02
ZZZZZZ	174517	8.25	590584	10.44	292150	16.02
ZZZZZZ	152526	8.25	534611	10.44	268756	16.02
ZZZZZZ	132746	8.25	469883	10.45	240900	16.02
ZZZZZZ	129778	8.25	458905	10.45	235963	16.02

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W686-CC637	**Injection Date:**	03/21/16
Lab File ID:	5W17164.D	**Injection Time:**	08:59
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	133767	8.25	484077	10.45	258758	16.01
Upper Limit [a]	187274	8.58	677708	10.78	362261	16.34
Lower Limit [b]	80260	7.92	290446	10.12	155255	15.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W686-BS	156231	8.25	563454	10.44	294801	16.02
V5W686-BSD	144587	8.25	525964	10.45	277245	16.02
V5W686-MB	143987	8.24	513244	10.44	257876	16.01
V5W686-SCC	140671	8.24	511327	10.44	251252	16.02
V5W686-SCC	146174	8.24	526654	10.44	263227	16.01
ZZZZZZ	124582	8.24	438123	10.44	230418	16.01
ZZZZZZ	121573	8.24	430666	10.44	230224	16.01
JC16031-3	120061	8.24	430868	10.44	228292	16.01
JC16031-3DUP	119906	8.24	422544	10.44	225079	16.01
ZZZZZZ	125732	8.25	411310	10.45	213380	16.02
ZZZZZZ	115136	8.24	395478	10.44	220741	16.01
ZZZZZZ	127733	8.25	419475	10.44	222712	16.01
V5W686-SCC	129397	8.24	441284	10.44	228906	16.01
ZZZZZZ	131021	8.25	452038	10.45	248593	16.02
ZZZZZZ	135669	8.24	471849	10.44	247464	16.01
ZZZZZZ	125337	8.24	444529	10.44	243203	16.01
ZZZZZZ	123215	8.24	421016	10.44	230484	16.01
ZZZZZZ	125958	8.24	440921	10.44	241766	16.02
ZZZZZZ	129877	8.25	444450	10.44	225077	16.01
ZZZZZZ	127678	8.25	447734	10.44	240969	16.01
ZZZZZZ	140819	8.24	490645	10.45	267394	16.01
ZZZZZZ	121565	8.25	428236	10.44	242277	16.01

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W687-CC637	**Injection Date:**	03/22/16
Lab File ID:	5W17190.D	**Injection Time:**	08:56
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	157352	8.25	559314	10.45	292401	16.02
Upper Limit [a]	220293	8.58	783040	10.78	409361	16.35
Lower Limit [b]	94411	7.92	335588	10.12	175441	15.69

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W687-BS	196497	8.25	711158	10.45	353933	16.02
V5W687-BSD	183859	8.25	669881	10.45	339642	16.01
V5W687-MB	172539	8.24	607510	10.44	299187	16.01
ZZZZZZ	157134	8.25	553322	10.44	270676	16.01
ZZZZZZ	162258	8.25	559129	10.44	280710	16.01
ZZZZZZ	167535	8.25	562552	10.44	279790	16.01
ZZZZZZ	164415	8.25	554584	10.44	282569	16.01
ZZZZZZ	156046	8.25	497071	10.44	268328	16.01
V5W687-SCC	167649	8.25	558673	10.44	282395	16.02
ZZZZZZ	149814	8.25	500109	10.44	249405	16.01
ZZZZZZ	140031	8.25	478107	10.45	261847	16.01
ZZZZZZ	175593	8.24	585363	10.44	291868	16.01
ZZZZZZ	162394	8.24	544691	10.44	273316	16.01
ZZZZZZ	176697	8.25	611306	10.45	311019	16.01
JC16043-14	163129	8.25	559448	10.44	298248	16.01
JC16043-14DUP	157831	8.24	560281	10.44	293679	16.01
ZZZZZZ	172499	8.26	600131	10.45	281746	16.02
ZZZZZZ	169038	8.25	584750	10.44	278511	16.01
ZZZZZZ	168809	8.25	582731	10.44	279858	16.01
ZZZZZZ	166356	8.25	565946	10.44	272832	16.01
ZZZZZZ	164577	8.25	548527	10.44	262830	16.01
ZZZZZZ	165798	8.25	557834	10.44	269613	16.01
V5W687-SCC	166649	8.24	556696	10.44	275134	16.01
ZZZZZZ	157053	8.24	516011	10.44	269197	16.01
ZZZZZZ	155744	8.25	511537	10.44	274472	16.01
ZZZZZZ	173585	8.24	552935	10.44	278298	16.02

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W698-CC693	**Injection Date:**	04/05/16
Lab File ID:	5W17497.D	**Injection Time:**	08:34
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	154769	8.40	552768	10.53	309497	16.01
Upper Limit [a]	216677	8.73	773875	10.86	433296	16.34
Lower Limit [b]	92861	8.07	331661	10.20	185698	15.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W698-BS	180970	8.40	637302	10.53	342085	16.01
V5W698-BSD	185761	8.40	660016	10.53	350872	16.01
V5W698-MB	154004	8.40	584267	10.53	286919	16.01
V5W698-SCC	159900	8.40	595791	10.53	290610	16.01
V5W698-SCC	155427	8.40	578082	10.53	284235	16.01
ZZZZZZ	134867	8.39	510983	10.52	263212	16.01
V5W698-SCC	148552	8.40	557902	10.53	274444	16.01
ZZZZZZ	132647	8.41	491548	10.54	254078	16.01
ZZZZZZ	152104	8.40	554957	10.53	270908	16.01
ZZZZZZ	149007	8.40	541449	10.53	264807	16.01
JC17015-3	139364	8.40	506204	10.53	255220	16.01
JC17015-3DUP	141481	8.40	503778	10.53	256781	16.01
ZZZZZZ	120355	8.40	450155	10.53	229729	16.01
ZZZZZZ	142547	8.40	525933	10.53	261374	16.01
ZZZZZZ	133254	8.38	501688	10.56	434542 [c]	16.04
ZZZZZZ	188635	8.40	707180	10.53	334044	16.01
ZZZZZZ	175530	8.39	664230	10.52	311595	16.01
ZZZZZZ	192920	8.39	718144	10.53	330078	16.01
ZZZZZZ	171769	8.40	637605	10.53	300763	16.01
JC17438-1	154236	8.40	562674	10.53	273309	16.01
JC17438-2	160502	8.41	586923	10.54	290968	16.01
JC17438-3	151082	8.41	556987	10.54	273932	16.01
JC17438-4	151071	8.40	557205	10.53	275064	16.01

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.
(c) Outside control limits due to matrix interference.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W699-CC693	**Injection Date:**	04/06/16
Lab File ID:	5W17528.D	**Injection Time:**	11:11
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	182557	8.40	685881	10.53	357334	16.01
Upper Limit [a]	255580	8.73	960233	10.86	500268	16.34
Lower Limit [b]	109534	8.07	411529	10.20	214400	15.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W699-BS	210433	8.40	782562	10.53	383271	16.01
V5W699-BSD	214560	8.40	810680	10.53	395053	16.01
V5W699-MB	198860	8.40	759634	10.53	350716	16.01
V5W699-SCC	198860	8.40	759634	10.53	350716	16.01
ZZZZZZ	193749	8.39	742505	10.53	348273	16.01
ZZZZZZ	180346	8.40	674632	10.53	331384	16.01
ZZZZZZ	207391	8.40	778389	10.53	368666	16.01
JC17438-5	195830	8.40	736733	10.54	346521	16.01
JC17438-6	204287	8.40	762218	10.54	360631	16.01
JC17438-8	206692	8.40	764678	10.54	363784	16.01
JC17438-8DUP	215562	8.41	804906	10.54	377529	16.01
JC17438-9	201811	8.41	751939	10.54	365246	16.01
JC17438-10	178033	8.41	646027	10.54	337333	16.01
JC17438-11	195033	8.41	717134	10.54	348808	16.02
ZZZZZZ	184006	8.40	686012	10.53	334618	16.01
ZZZZZZ	186094	8.40	693034	10.53	335683	16.01
ZZZZZZ	197342	8.40	724879	10.53	355999	16.01
ZZZZZZ	184443	8.40	671176	10.54	332925	16.01

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W700-CC693	**Injection Date:**	04/07/16
Lab File ID:	5W17552.D	**Injection Time:**	08:40
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	194794	8.40	718497	10.53	374467	16.01
Upper Limit [a]	272712	8.73	1005896	10.86	524254	16.34
Lower Limit [b]	116876	8.07	431098	10.20	224680	15.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W700-BS	219743	8.40	824830	10.53	405988	16.01
V5W700-BSD	220294	8.40	820411	10.53	404462	16.01
V5W700-MB	203394	8.40	774231	10.53	358507	16.01
V5W700-SCC	203394	8.40	774231	10.53	358507	16.01
JC17438-6	195397	8.39	735685	10.53	350742	16.01
JC17438-7	179289	8.40	679019	10.54	331564	16.02
JC17438-8	184317	8.41	674724	10.54	328737	16.01
JC17438-10	180184	8.42	651088	10.54	314995	16.01
JC17438-11	195335	8.43	728090	10.55	349416	16.01
JC17438-12	181165	8.40	672202	10.53	327455	16.01
JC17438-12DUP	178513	8.40	657260	10.53	310163	16.01
ZZZZZZ	172315	8.40	609412	10.53	299462	16.01
ZZZZZZ	178846	8.40	651366	10.53	312097	16.01
ZZZZZZ	179754	8.40	653022	10.53	316765	16.01
V5W700-SCC	188585	8.40	709477	10.53	332574	16.01
ZZZZZZ	166546	8.40	611970	10.53	309119	16.01
ZZZZZZ	190509	8.40	692682	10.53	348572	16.01
ZZZZZZ	190677	8.40	702354	10.53	340031	16.01
ZZZZZZ	174702	8.41	653482	10.54	317961	16.01
ZZZZZZ	192496	8.40	711386	10.53	349757	16.01
ZZZZZZ	181507	8.40	679108	10.53	326456	16.01
ZZZZZZ	180411	8.40	663344	10.53	326337	16.01
ZZZZZZ	168639	8.39	627499	10.53	316876	16.01
ZZZZZZ	199447	8.41	736908	10.54	353950	16.01
ZZZZZZ	170336	8.40	643317	10.53	330503	16.01
ZZZZZZ	172682	8.40	647081	10.53	319788	16.01
ZZZZZZ	175350	8.40	654368	10.53	308016	16.01
ZZZZZZ	181785	8.40	674825	10.53	329136	16.01

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	V5W701-CC693	**Injection Date:**	04/08/16
Lab File ID:	5W17584.D	**Injection Time:**	10:03
Instrument ID:	GCMS5W	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	194659	8.40	716081	10.53	369751	16.01
Upper Limit [a]	272523	8.73	1002513	10.86	517651	16.34
Lower Limit [b]	116795	8.07	429649	10.20	221851	15.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W701-BS	216704	8.40	800857	10.53	395051	16.01
V5W701-BSD	216539	8.40	804535	10.53	397163	16.01
V5W701-MB	188830	8.40	713265	10.53	330925	16.01
JC17438-10	201402	8.40	743827	10.53	345216	16.01
ZZZZZZ	191781	8.40	718445	10.53	337600	16.01
ZZZZZZ	178457	8.42	649880	10.54	307857	16.01
ZZZZZZ	182148	8.40	675661	10.53	330230	16.01
JC17199-5	191473	8.41	706616	10.54	343689	16.01
JC17199-5DUP	176226	8.40	653948	10.53	312127	16.01

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	VW2168-CC2167	**Injection Date:**	03/18/16
Lab File ID:	W54285.D	**Injection Time:**	10:14
Instrument ID:	GCMSW	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	101499	9.17	527175	10.89	242590	15.16
Upper Limit [a]	142099	9.50	738045	11.22	339626	15.49
Lower Limit [b]	60899	8.84	316305	10.56	145554	14.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VW2168-BS	112469	9.16	587178	10.88	275066	15.14
VW2168-BSD	112708	9.16	583498	10.88	266561	15.14
VW2168-MB	87615	9.17	454177	10.89	177177	15.14
VW2168-SCC	81084	9.16	422895	10.88	166265	15.14
VW2168-SCC	76465	9.16	400427	10.88	159625	15.14
VW2168-SCC	81647	9.16	435989	10.88	172526	15.14
VW2168-SCC	75462	9.17	404891	10.88	156459	15.14
JC15580-1	78979	9.16	424656	10.88	177115	15.14
JC15580-1DUP	81595	9.17	440041	10.88	180841	15.14
ZZZZZZ	83164	9.15	443936	10.87	192118	15.14
ZZZZZZ	78653	9.16	420465	10.88	169768	15.14
ZZZZZZ	80263	9.15	424096	10.87	171291	15.14
ZZZZZZ	81321	9.16	420201	10.87	170718	15.14
ZZZZZZ	75263	9.17	399283	10.88	156528	15.14
ZZZZZZ	77679	9.16	411756	10.88	167116	15.14
ZZZZZZ	78237	9.15	415284	10.87	173281	15.14
ZZZZZZ	79932	9.16	422443	10.88	177435	15.14
ZZZZZZ	80652	9.16	428410	10.88	186478	15.14
ZZZZZZ	79546	9.18	435609	10.90	191344	15.15
ZZZZZZ	79080	9.15	429955	10.87	174074	15.14
ZZZZZZ	75866	9.15	404267	10.87	161906	15.14
ZZZZZZ	76846	9.15	412236	10.87	168419	15.13
ZZZZZZ	74869	9.15	402716	10.87	167148	15.14
ZZZZZZ	73743	9.16	397425	10.88	165363	15.14
ZZZZZZ	67560	9.15	375734	10.87	152491	15.14
ZZZZZZ	69848	9.16	377780	10.88	177021	15.14

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std:	VW2170-CC2167	**Injection Date:**	03/21/16
Lab File ID:	W54344.D	**Injection Time:**	12:13
Instrument ID:	GCMSW	**Method:**	TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	117601	9.15	610739	10.87	285490	15.13
Upper Limit [a]	164641	9.48	855035	11.20	399686	15.46
Lower Limit [b]	70561	8.82	366443	10.54	171294	14.80

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VW2170-BS	106973	9.15	593601	10.88	263759	15.14
VW2170-BSD	104944	9.16	583756	10.88	250525	15.14
VW2170-MB	117954	9.14	620983	10.86	238442	15.13
ZZZZZZ	120723	9.14	642750	10.86	254387	15.13
ZZZZZZ	101383	9.15	550389	10.87	211790	15.13
ZZZZZZ	105742	9.15	564479	10.87	216763	15.13
ZZZZZZ	111012	9.14	601667	10.86	233643	15.13
VW2170-SCC	106324	9.15	575188	10.87	214471	15.13
ZZZZZZ	103182	9.14	556415	10.86	211689	15.13
JC16053-2	115419	9.16	623563	10.87	237946	15.13
JC16053-2DUP	109526	9.16	568597	10.88	218995	15.13
ZZZZZZ	104480	9.15	544058	10.87	221807	15.13
ZZZZZZ	110552	9.15	594134	10.87	230190	15.13
ZZZZZZ	111317	9.15	596694	10.86	234710	15.13
ZZZZZZ	108869	9.14	579660	10.86	225625	15.13
ZZZZZZ	111657	9.15	578141	10.87	224312	15.13
ZZZZZZ	109358	9.15	582767	10.87	229178	15.13
ZZZZZZ	118897	9.14	633603	10.86	252571	15.13
ZZZZZZ	113810	9.15	619609	10.87	247035	15.13
ZZZZZZ	105812	9.15	557159	10.87	218000	15.13
ZZZZZZ	108853	9.15	592151	10.87	237088	15.13
ZZZZZZ	109008	9.15	584357	10.86	231160	15.13

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Volatile Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Check Std: VW2171-CC2167
Lab File ID: W54370.D
Instrument ID: GCMSW
Injection Date: 03/22/16
Injection Time: 12:17
Method: TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	114764	9.15	625763	10.87	275205	15.14
Upper Limit [a]	160670	9.48	876068	11.20	385287	15.47
Lower Limit [b]	68858	8.82	375458	10.54	165123	14.81

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VW2171-BS	114106	9.14	626548	10.86	282905	15.13
VW2171-BSD	118574	9.14	653435	10.86	292553	15.13
VW2171-MB	127393	9.15	708577	10.87	265524	15.13
ZZZZZZ	122493	9.14	664583	10.86	268430	15.13
ZZZZZZ	109533	9.14	586806	10.86	234606	15.13
ZZZZZZ	107892	9.14	593243	10.86	253312	15.13
ZZZZZZ	111131	9.14	606947	10.86	241513	15.13
ZZZZZZ	113555	9.15	616047	10.87	251833	15.13
VW2171-SCC	107117	9.17	578672	10.88	220283	15.14
ZZZZZZ	111119	9.15	602917	10.87	241378	15.13
JC16098-12	113391	9.14	614969	10.86	247707	15.13
JC16098-12DUP	121083	9.14	662453	10.86	269507	15.13
ZZZZZZ	113106	9.15	599290	10.87	236501	15.13
ZZZZZZ	117406	9.15	636312	10.87	257794	15.13
ZZZZZZ	116186	9.15	613327	10.87	241891	15.13
ZZZZZZ	118541	9.14	642556	10.86	255896	15.13
ZZZZZZ	122627	9.15	651492	10.87	259555	15.13
VW2171-SCC	112134	9.14	599001	10.86	230539	15.13
ZZZZZZ	112089	9.14	621282	10.86	252103	15.13
ZZZZZZ	110907	9.14	597917	10.86	243828	15.13
ZZZZZZ	113644	9.16	607634	10.87	242799	15.13
ZZZZZZ	116409	9.15	650734	10.87	268345	15.13
ZZZZZZ	115003	9.15	634301	10.87	263187	15.13
ZZZZZZ	118835	9.14	645451	10.86	275417	15.13

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.15	0.723	ok	0.724	0.664-0.784
Acrylonitrile	7.00	9.15	0.765	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.15	0.698	ok	0.699	0.639-0.759
1,3-Butadiene	5.69	9.15	0.622	ok	0.622	0.562-0.682
Benzene	10.50	10.77	0.975	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.77	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.77	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.15	0.649	ok	0.649	0.589-0.709
Bromoethene	6.40	9.15	0.699	ok	0.699	0.639-0.759
n-Butane	5.74	9.15	0.627	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.77	1.206	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.77	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.77	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.77	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.66	9.15	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.77	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.08	9.15	0.555	ok	0.555	0.495-0.615
Chloroethane	6.09	9.15	0.666	ok	0.665	0.605-0.725
Chloroform	9.25	9.15	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.15	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.47	9.15	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.77	1.148	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.15	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.15	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.15	0.796	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.77	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.89	9.15	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.77	1.062	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.19	9.15	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.15	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.49	14.77	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.14	9.15	0.890	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.15	0.984	ok	0.984	0.924-1.044

6.7.1

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.77	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.77	1.208	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.77	1.238	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.77	1.213	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.15	1.001	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.91	10.77	1.013	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.15	1.081	ok	1.081	1.021-1.141
Ethanol	6.19	9.15	0.677	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.77	1.027	ok	1.027	0.967-1.087
Ethyl Acetate	9.18	9.15	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.77	1.160	ok	1.161	1.101-1.221
Freon 113	7.57	9.15	0.827	ok	0.827	0.767-0.887
Freon 114	5.44	9.15	0.595	ok	0.594	0.534-0.654
Freon 123	6.51	9.15	0.711	ok	0.711	0.651-0.771
Freon 123A	6.55	9.15	0.716	ok	0.716	0.656-0.776
Freon 152A	5.04	9.15	0.551	ok	0.550	0.490-0.610
Heptane	11.63	10.77	1.080	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.77	1.397	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.77	1.288	ok	1.288	1.228-1.348
Hexane	9.14	9.15	0.999	ok	0.999	0.939-1.059
2-Hexanone	13.32	14.77	0.902	ok	0.902	0.842-0.962
Iodomethane	7.24	9.15	0.791	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.77	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.82	9.15	0.745	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.77	1.227	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.15	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.66	9.15	0.946	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.22	10.77	1.135	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.37	9.15	0.915	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.28	14.77	1.373	ok	1.373	1.313-1.433
Nonane	16.03	14.77	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.77	0.945	ok	0.945	0.885-1.005
Pentane	7.03	9.15	0.768	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.77	1.150	ok	1.151	1.091-1.211
Propylene	5.11	9.15	0.558	ok	0.559	0.499-0.619
Styrene	15.73	14.77	1.065	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.10	9.15	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.80	14.77	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.77	1.072	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.77	1.364	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.77	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.77	1.196	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.23	14.77	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.33	9.15	0.801	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.77	0.957	ok	0.958	0.898-1.018
Tetrahydrofuran	9.65	9.15	1.055	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.41	10.77	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.75	9.15	0.738	ok	0.737	0.677-0.797
Vinyl chloride	5.56	9.15	0.608	ok	0.608	0.548-0.668
Vinyl Acetate	8.41	9.15	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.77	1.039	ok	1.040	0.980-1.100
o-Xylene	15.84	14.77	1.072	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.03	9.15	0.768	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.15	ok	9.15	8.82-9.48	89375	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	456637	ok	432724	259634-605814
Chlorobenzene-D5	14.77	ok	14.76	14.43-15.09	250306	ok	236386	141832-330940

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.14	0.724	ok	0.724	0.664-0.784
Acrylonitrile	6.98	9.14	0.764	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.14	0.699	ok	0.699	0.639-0.759
1,3-Butadiene	5.68	9.14	0.621	ok	0.622	0.562-0.682
Benzene	10.49	10.77	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.76	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.76	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.14	0.650	ok	0.649	0.589-0.709
Bromoethene	6.39	9.14	0.699	ok	0.699	0.639-0.759
n-Butane	5.72	9.14	0.626	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.76	1.217	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.14	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.07	9.14	0.555	ok	0.555	0.495-0.615
Chloroethane	6.08	9.14	0.665	ok	0.665	0.605-0.725
Chloroform	9.25	9.14	1.012	ok	1.011	0.951-1.071
Chloromethane	5.35	9.14	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.14	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.76	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.14	1.162	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.30	9.14	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.27	9.14	0.795	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.76	0.930	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.88	9.14	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.45	10.77	1.063	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.18	9.14	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.14	0.674	ok	0.673	0.613-0.733
Dibromochloromethane	13.48	14.76	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.14	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.14	0.985	ok	0.984	0.924-1.044

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.77	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.76	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.14	1.002	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.14	1.082	ok	1.081	1.021-1.141
Ethanol	6.21	9.14	0.679	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
Ethyl Acetate	9.18	9.14	1.004	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.76	1.161	ok	1.161	1.101-1.221
Freon 113	7.56	9.14	0.827	ok	0.827	0.767-0.887
Freon 114	5.43	9.14	0.594	ok	0.594	0.534-0.654
Freon 123	6.50	9.14	0.711	ok	0.711	0.651-0.771
Freon 123A	6.55	9.14	0.717	ok	0.716	0.656-0.776
Freon 152A	5.03	9.14	0.550	ok	0.550	0.490-0.610
Heptane	11.62	10.77	1.079	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.76	1.398	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.76	1.289	ok	1.288	1.228-1.348
Hexane	9.14	9.14	1.000	ok	0.999	0.939-1.059
2-Hexanone	13.31	14.76	0.902	ok	0.902	0.842-0.962
Iodomethane	7.23	9.14	0.791	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.76	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.82	9.14	0.746	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.76	1.228	ok	1.228	1.168-1.288
Methylene chloride	7.36	9.14	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.66	9.14	0.947	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.22	10.77	1.135	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.37	9.14	0.916	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.27	14.76	1.373	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.76	0.946	ok	0.945	0.885-1.005
Pentane	7.02	9.14	0.768	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.76	1.151	ok	1.151	1.091-1.211
Propylene	5.10	9.14	0.558	ok	0.559	0.499-0.619
Styrene	15.73	14.76	1.066	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.09	9.14	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.76	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.76	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.76	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.33	9.14	0.802	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.65	9.14	1.056	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.40	10.77	1.058	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.74	9.14	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.55	9.14	0.607	ok	0.608	0.548-0.668
Vinyl Acetate	8.40	9.14	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.76	1.040	ok	1.040	0.980-1.100
o-Xylene	15.84	14.76	1.073	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.01	9.14	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.14	ok	9.15	8.82-9.48	89738	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	454139	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	232087	ok	236386	141832-330940

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.64	9.14	0.726	ok	0.724	0.664-0.784
Acrylonitrile	7.00	9.14	0.766	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.14	0.699	ok	0.699	0.639-0.759
1,3-Butadiene	5.68	9.14	0.621	ok	0.622	0.562-0.682
Benzene	10.49	10.77	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.55	14.76	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.45	14.76	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.14	0.650	ok	0.649	0.589-0.709
Bromoethene	6.40	9.14	0.700	ok	0.699	0.639-0.759
n-Butane	5.73	9.14	0.627	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.95	14.76	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.14	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.07	9.14	0.555	ok	0.555	0.495-0.615
Chloroethane	6.08	9.14	0.665	ok	0.665	0.605-0.725
Chloroform	9.25	9.14	1.012	ok	1.011	0.951-1.071
Chloromethane	5.35	9.14	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.14	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.76	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.14	1.162	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.14	0.909	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.27	9.14	0.795	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.71	14.76	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.88	9.14	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.20	10.77	1.040	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.47	10.77	1.065	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.18	9.14	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.15	9.14	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.48	14.76	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.14	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.14	0.985	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.16	10.77	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.76	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.17	9.14	1.003	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.14	1.082	ok	1.081	1.021-1.141
Ethanol	6.22	9.14	0.681	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
Ethyl Acetate	9.19	9.14	1.005	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.76	1.161	ok	1.161	1.101-1.221
Freon 113	7.57	9.14	0.828	ok	0.827	0.767-0.887
Freon 114	5.44	9.14	0.595	ok	0.594	0.534-0.654
Freon 123	6.50	9.14	0.711	ok	0.711	0.651-0.771
Freon 123A	6.54	9.14	0.716	ok	0.716	0.656-0.776
Freon 152A	5.03	9.14	0.550	ok	0.550	0.490-0.610
Heptane	11.62	10.77	1.079	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.76	1.398	ok	1.398	1.338-1.458
Hexachloroethane	19.01	14.76	1.288	ok	1.288	1.228-1.348
Hexane	9.14	9.14	1.000	ok	0.999	0.939-1.059
2-Hexanone	13.33	14.76	0.903	ok	0.902	0.842-0.962
Iodomethane	7.23	9.14	0.791	ok	0.791	0.731-0.851
Isopropylbenzene	16.44	14.76	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.84	9.14	0.748	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.76	1.228	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.14	0.806	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.68	9.14	0.950	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.23	10.77	1.136	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.39	9.14	0.918	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.28	14.76	1.374	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.76	0.946	ok	0.945	0.885-1.005
Pentane	7.03	9.14	0.769	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.76	1.151	ok	1.151	1.091-1.211
Propylene	5.12	9.14	0.560	ok	0.559	0.499-0.619
Styrene	15.72	14.76	1.065	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.09	9.14	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.76	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.76	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.81	10.77	1.189	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.76	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.36	9.14	0.805	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.66	9.14	1.057	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.40	10.77	1.058	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.75	9.14	0.739	ok	0.737	0.677-0.797
Vinyl chloride	5.55	9.14	0.607	ok	0.608	0.548-0.668
Vinyl Acetate	8.40	9.14	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.76	1.040	ok	1.040	0.980-1.100
o-Xylene	15.84	14.76	1.073	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.01	9.14	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.14	ok	9.15	8.82-9.48	84654	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	388137	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	186725	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.64	9.14	0.726	ok	0.724	0.664-0.784
Acrylonitrile	7.00	9.14	0.766	ok	0.765	0.705-0.825
Acetonitrile	6.40	9.14	0.700	ok	0.699	0.639-0.759
1,3-Butadiene	5.69	9.14	0.623	ok	0.622	0.562-0.682
Benzene	10.49	10.77	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.76	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.76	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.14	0.650	ok	0.649	0.589-0.709
Bromoethene	6.40	9.14	0.700	ok	0.699	0.639-0.759
n-Butane	5.74	9.14	0.628	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.95	14.76	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.65	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.14	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.08	9.14	0.556	ok	0.555	0.495-0.615
Chloroethane	6.08	9.14	0.665	ok	0.665	0.605-0.725
Chloroform	9.25	9.14	1.012	ok	1.011	0.951-1.071
Chloromethane	5.35	9.14	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.14	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.76	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.14	1.162	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.14	0.909	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.14	0.796	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.71	14.76	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.87	9.14	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.47	10.77	1.065	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.19	9.14	0.568	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.15	9.14	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.48	14.76	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.18	10.77	1.038	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.14	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.14	0.985	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.16	10.77	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.76	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.18	9.14	1.004	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.14	1.082	ok	1.081	1.021-1.141
Ethanol	6.22	9.14	0.681	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
Ethyl Acetate	9.19	9.14	1.005	ok	1.004	0.944-1.064
4-Ethyltoluene	17.22	14.76	1.167	ok	1.161	1.101-1.221
Freon 113	7.56	9.14	0.827	ok	0.827	0.767-0.887
Freon 114	5.44	9.14	0.595	ok	0.594	0.534-0.654
Freon 123	6.50	9.14	0.711	ok	0.711	0.651-0.771
Freon 123A	6.55	9.14	0.717	ok	0.716	0.656-0.776
Freon 152A	5.03	9.14	0.550	ok	0.550	0.490-0.610
Heptane	11.61	10.77	1.078	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.76	1.398	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.76	1.289	ok	1.288	1.228-1.348
Hexane	9.14	9.14	1.000	ok	0.999	0.939-1.059
2-Hexanone	13.33	14.76	0.903	ok	0.902	0.842-0.962
Iodomethane	7.23	9.14	0.791	ok	0.791	0.731-0.851
Isopropylbenzene	16.44	14.76	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.85	9.14	0.749	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.12	14.76	1.228	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.14	0.806	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.68	9.14	0.950	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.23	10.77	1.136	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.40	9.14	0.919	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.27	14.76	1.373	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.95	14.76	0.945	ok	0.945	0.885-1.005
Pentane	7.03	9.14	0.769	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.76	1.151	ok	1.151	1.091-1.211
Propylene	5.12	9.14	0.560	ok	0.559	0.499-0.619
Styrene	15.72	14.76	1.065	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.09	9.14	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.76	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.76	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.98	14.76	1.083	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.37	9.14	0.806	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.68	9.14	1.059	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.40	10.77	1.058	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.74	9.14	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.56	9.14	0.608	ok	0.608	0.548-0.668
Vinyl Acetate	8.41	9.14	0.920	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.76	1.040	ok	1.040	0.980-1.100
o-Xylene	15.84	14.76	1.073	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.01	9.14	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.14	ok	9.15	8.82-9.48	89516	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	396748	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	205117	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.15	0.723	ok	0.724	0.664-0.784
Acrylonitrile	6.99	9.15	0.764	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.15	0.698	ok	0.699	0.639-0.759
1,3-Butadiene	5.68	9.15	0.621	ok	0.622	0.562-0.682
Benzene	10.49	10.77	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.77	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.77	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.15	0.649	ok	0.649	0.589-0.709
Bromoethene	6.39	9.15	0.698	ok	0.699	0.639-0.759
n-Butane	5.73	9.15	0.626	ok	0.627	0.567-0.687
Benzyl Chloride	17.67	14.77	1.196	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.77	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.77	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.67	14.77	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.15	0.836	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.77	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.07	9.15	0.554	ok	0.555	0.495-0.615
Chloroethane	6.09	9.15	0.666	ok	0.665	0.605-0.725
Chloroform	9.25	9.15	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.15	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.15	0.815	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.77	1.148	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.15	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.15	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.15	0.796	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.77	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.89	9.15	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.77	1.062	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.18	9.15	0.566	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.15	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.49	14.77	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.15	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.15	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.77	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.77	1.208	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.77	1.238	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.77	1.213	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.15	1.001	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.15	1.081	ok	1.081	1.021-1.141
Ethanol	6.21	9.15	0.679	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.77	1.027	ok	1.027	0.967-1.087
Ethyl Acetate	9.18	9.15	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.77	1.160	ok	1.161	1.101-1.221
Freon 113	7.56	9.15	0.826	ok	0.827	0.767-0.887
Freon 114	5.43	9.15	0.593	ok	0.594	0.534-0.654
Freon 123	6.50	9.15	0.710	ok	0.711	0.651-0.771
Freon 123A	6.55	9.15	0.716	ok	0.716	0.656-0.776
Freon 152A	5.03	9.15	0.550	ok	0.550	0.490-0.610
Heptane	11.63	10.77	1.080	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.77	1.397	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.77	1.288	ok	1.288	1.228-1.348
Hexane	9.14	9.15	0.999	ok	0.999	0.939-1.059
2-Hexanone	13.31	14.77	0.901	ok	0.902	0.842-0.962
Iodomethane	7.23	9.15	0.790	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.77	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.82	9.15	0.745	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.77	1.227	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.15	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.66	9.15	0.946	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.21	10.77	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.36	9.15	0.914	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.27	14.77	1.372	ok	1.373	1.313-1.433
Nonane	16.03	14.77	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.77	0.945	ok	0.945	0.885-1.005
Pentane	7.02	9.15	0.767	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.77	1.150	ok	1.151	1.091-1.211
Propylene	5.11	9.15	0.558	ok	0.559	0.499-0.619
Styrene	15.73	14.77	1.065	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

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V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.10	9.15	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.77	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.77	1.072	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.77	1.364	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.77	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.77	1.196	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.23	14.77	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.32	9.15	0.800	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.77	0.957	ok	0.958	0.898-1.018
Tetrahydrofuran	9.64	9.15	1.054	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.41	10.77	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.74	9.15	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.56	9.15	0.608	ok	0.608	0.548-0.668
Vinyl Acetate	8.41	9.15	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.77	1.039	ok	1.040	0.980-1.100
o-Xylene	15.84	14.77	1.072	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.02	9.15	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.15	ok	9.15	8.82-9.48	89293	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	445910	ok	432724	259634-605814
Chlorobenzene-D5	14.77	ok	14.76	14.43-15.09	255504	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

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V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.15	0.723	ok	0.724	0.664-0.784
Acrylonitrile	6.99	9.15	0.764	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.15	0.698	ok	0.699	0.639-0.759
1,3-Butadiene	5.68	9.15	0.621	ok	0.622	0.562-0.682
Benzene	10.49	10.77	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.76	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.38	10.77	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.76	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.15	0.649	ok	0.649	0.589-0.709
Bromoethene	6.40	9.15	0.699	ok	0.699	0.639-0.759
n-Butane	5.73	9.15	0.626	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.76	1.217	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.15	0.836	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.08	9.15	0.555	ok	0.555	0.495-0.615
Chloroethane	6.09	9.15	0.666	ok	0.665	0.605-0.725
Chloroform	9.25	9.15	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.15	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.15	0.815	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.76	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.15	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.15	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.15	0.796	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.76	0.930	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.89	9.15	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.77	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.77	1.062	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.19	9.15	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.15	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.49	14.76	0.914	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.15	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.15	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.77	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.76	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.15	1.001	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.15	1.081	ok	1.081	1.021-1.141
Ethanol	6.21	9.15	0.679	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
Ethyl Acetate	9.18	9.15	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.76	1.161	ok	1.161	1.101-1.221
Freon 113	7.56	9.15	0.826	ok	0.827	0.767-0.887
Freon 114	5.44	9.15	0.595	ok	0.594	0.534-0.654
Freon 123	6.50	9.15	0.710	ok	0.711	0.651-0.771
Freon 123A	6.55	9.15	0.716	ok	0.716	0.656-0.776
Freon 152A	5.04	9.15	0.551	ok	0.550	0.490-0.610
Heptane	11.62	10.77	1.079	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.76	1.398	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.76	1.289	ok	1.288	1.228-1.348
Hexane	9.14	9.15	0.999	ok	0.999	0.939-1.059
2-Hexanone	13.31	14.76	0.902	ok	0.902	0.842-0.962
Iodomethane	7.23	9.15	0.790	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.76	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.82	9.15	0.745	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.76	1.228	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.15	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.66	9.15	0.946	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.21	10.77	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.36	9.15	0.914	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.27	14.76	1.373	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.76	0.946	ok	0.945	0.885-1.005
Pentane	7.02	9.15	0.767	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.76	1.151	ok	1.151	1.091-1.211
Propylene	5.11	9.15	0.558	ok	0.559	0.499-0.619
Styrene	15.72	14.76	1.065	ok	1.065	1.005-1.125

6.7.1

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.09	9.15	1.103	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.76	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.76	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.76	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.33	9.15	0.801	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.64	9.15	1.054	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.40	10.77	1.058	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.74	9.15	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.56	9.15	0.608	ok	0.608	0.548-0.668
Vinyl Acetate	8.40	9.15	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.76	1.040	ok	1.040	0.980-1.100
o-Xylene	15.84	14.76	1.073	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.02	9.15	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.15	ok	9.15	8.82-9.48	92498	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	463692	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	257853	ok	236386	141832-330940

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	7.00	9.14	0.766	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.14	0.699	ok	0.699	0.639-0.759
1,3-Butadiene	5.69	9.14	0.623	ok	0.622	0.562-0.682
Benzene	10.49	10.76	0.975	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.76	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.37	10.76	1.057	ok	1.057	0.997-1.117
Bromoform	15.45	14.76	1.047	ok	1.047	0.987-1.107
Bromomethane	5.93	9.14	0.649	ok	0.649	0.589-0.709
Bromoethene	6.39	9.14	0.699	ok	0.699	0.639-0.759
n-Butane	5.73	9.14	0.627	ok	0.627	0.567-0.687
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.95	14.76	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.14	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.07	9.14	0.555	ok	0.555	0.495-0.615
Chloroethane	6.10	9.14	0.667	ok	0.665	0.605-0.725
Chloroform	9.24	9.14	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.14	0.585	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.14	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.76	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.14	1.162	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.76	0.997	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.30	9.14	0.908	ok	0.908	0.848-0.968
1,2-Dibromoethane	13.71	14.76	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.88	9.14	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.19	10.76	1.040	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.76	1.217	ok	1.216	1.156-1.276
Dichlorodifluoromethane	5.18	9.14	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.15	9.14	0.673	ok	0.673	0.613-0.733
Dibromochloromethane	13.47	14.76	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.76	1.040	ok	1.039	0.979-1.099
cis-1,2-Dichloroethylene	8.99	9.14	0.984	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	12.15	10.76	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.76	1.214	ok	1.214	1.154-1.274

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
trans-1,3-Dichloropropene	12.63	10.76	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.17	9.14	1.003	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.76	1.013	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.14	1.082	ok	1.081	1.021-1.141
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
Ethyl Acetate	9.19	9.14	1.005	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.76	1.161	ok	1.161	1.101-1.221
Freon 113	7.56	9.14	0.827	ok	0.827	0.767-0.887
Freon 114	5.44	9.14	0.595	ok	0.594	0.534-0.654
Freon 123	6.50	9.14	0.711	ok	0.711	0.651-0.771
Freon 123A	6.54	9.14	0.716	ok	0.716	0.656-0.776
Freon 152A	5.04	9.14	0.551	ok	0.550	0.490-0.610
Heptane	11.61	10.76	1.079	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.76	1.398	ok	1.398	1.338-1.458
Hexachloroethane	19.01	14.76	1.288	ok	1.288	1.228-1.348
Hexane	9.14	9.14	1.000	ok	0.999	0.939-1.059
2-Hexanone	13.32	14.76	0.902	ok	0.902	0.842-0.962
Iodomethane	7.23	9.14	0.791	ok	0.791	0.731-0.851
Isopropylbenzene	16.44	14.76	1.114	ok	1.114	1.054-1.174
p-Isopropyltoluene	18.13	14.76	1.228	ok	1.228	1.168-1.288
Methylene chloride	7.36	9.14	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.69	9.14	0.951	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.23	10.76	1.137	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.40	9.14	0.919	ok	0.916	0.856-0.976
Methylmethacrylate	11.57	10.76	1.075	ok	1.074	1.014-1.134
Naphthalene	20.28	14.76	1.374	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.95	14.76	0.945	ok	0.945	0.885-1.005
Pentane	7.02	9.14	0.768	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.76	1.151	ok	1.151	1.091-1.211
Propylene	5.12	9.14	0.560	ok	0.559	0.499-0.619
Styrene	15.72	14.76	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.10	9.14	1.105	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.78	14.76	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.83	14.76	1.072	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.81	10.76	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.97	14.76	1.082	ok	1.082	1.022-1.142

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.76	1.060	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.39	9.14	0.809	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.67	9.14	1.058	ok	1.055	0.995-1.115
Toluene	13.07	10.76	1.215	ok	1.214	1.154-1.274
Trichloroethylene	11.39	10.76	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.74	9.14	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.55	9.14	0.607	ok	0.608	0.548-0.668
Vinyl Acetate	8.40	9.14	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.34	14.76	1.039	ok	1.040	0.980-1.100
o-Xylene	15.83	14.76	1.072	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.14	ok	9.15	8.82-9.48	86110	ok	88972	53383-124561
1,4-Difluorobenzene	10.76	ok	10.77	10.44-11.10	414644	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	200773	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	7.00	9.14	0.766	ok	0.765	0.705-0.825
Benzene	10.49	10.76	0.975	ok	0.974	0.914-1.034
Bromobenzene	16.55	14.76	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.37	10.76	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.76	1.047	ok	1.047	0.987-1.107
Bromoethene	6.40	9.14	0.700	ok	0.699	0.639-0.759
Benzyl Chloride	17.82	14.76	1.207	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.76	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.95	14.76	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.66	14.76	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.65	9.14	0.837	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.76	1.003	ok	1.003	0.943-1.063
Chloroethane	6.07	9.14	0.664	ok	0.665	0.605-0.725
Chloroform	9.24	9.14	1.011	ok	1.011	0.951-1.071
Chloromethane	5.33	9.14	0.583	ok	0.585	0.525-0.645
3-Chloropropene	7.46	9.14	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.95	14.76	1.148	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.14	1.162	ok	1.161	1.101-1.221
1,1-Dichloroethane	8.30	9.14	0.908	ok	0.908	0.848-0.968
1,2-Dibromoethane	13.71	14.76	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.87	9.14	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.19	10.76	1.040	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.09	10.76	1.217	ok	1.216	1.156-1.276
Dichlorodifluoromethane	5.16	9.14	0.565	ok	0.567	0.507-0.627
Dibromochloromethane	13.48	14.76	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.18	10.76	1.039	ok	1.039	0.979-1.099
cis-1,3-Dichloropropene	12.16	10.76	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.76	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.76	1.239	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.91	14.76	1.213	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.76	1.175	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.17	9.14	1.003	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.89	10.76	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.88	9.14	1.081	ok	1.081	1.021-1.141
Ethylbenzene	15.17	14.76	1.028	ok	1.027	0.967-1.087
4-Ethyltoluene	17.14	14.76	1.161	ok	1.161	1.101-1.221
Freon 113	7.54	9.14	0.825	ok	0.827	0.767-0.887
Freon 114	5.42	9.14	0.593	ok	0.594	0.534-0.654

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Freon 123	6.50	9.14	0.711	ok	0.711	0.651-0.771
Freon 123A	6.53	9.14	0.714	ok	0.716	0.656-0.776
Freon 152A	5.02	9.14	0.549	ok	0.550	0.490-0.610
Heptane	11.62	10.76	1.080	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.65	14.76	1.399	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.76	1.289	ok	1.288	1.228-1.348
Hexane	9.14	9.14	1.000	ok	0.999	0.939-1.059
2-Hexanone	13.33	14.76	0.903	ok	0.902	0.842-0.962
Iodomethane	7.22	9.14	0.790	ok	0.791	0.731-0.851
Isopropylbenzene	16.44	14.76	1.114	ok	1.114	1.054-1.174
p-Isopropyltoluene	18.12	14.76	1.228	ok	1.228	1.168-1.288
Methyl Isobutyl Ketone	12.23	10.76	1.137	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.40	9.14	0.919	ok	0.916	0.856-0.976
Methylmethacrylate	11.57	10.76	1.075	ok	1.074	1.014-1.134
Naphthalene	20.28	14.76	1.374	ok	1.373	1.313-1.433
Nonane	16.02	14.76	1.085	ok	1.085	1.025-1.145
Octane	13.95	14.76	0.945	ok	0.945	0.885-1.005
n-Propylbenzene	16.98	14.76	1.150	ok	1.151	1.091-1.211
Styrene	15.71	14.76	1.064	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.09	9.14	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.76	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.76	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.81	10.76	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.76	1.365	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.96	14.76	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.76	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.22	14.76	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.39	10.76	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.38	9.14	0.807	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.76	0.958	ok	0.958	0.898-1.018
Toluene	13.07	10.76	1.215	ok	1.214	1.154-1.274
Trichloroethylene	11.39	10.76	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.73	9.14	0.736	ok	0.737	0.677-0.797
Vinyl chloride	5.55	9.14	0.607	ok	0.608	0.548-0.668
m,p-Xylene	15.35	14.76	1.040	ok	1.040	0.980-1.100
o-Xylene	15.83	14.76	1.072	ok	1.073	1.013-1.133

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.14	ok	9.15	8.82-9.48	82321	ok	88972	53383-124561
1,4-Difluorobenzene	10.76	ok	10.77	10.44-11.10	395615	ok	432724	259634-605814
Chlorobenzene-D5	14.76	ok	14.76	14.43-15.09	187840	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.16	0.723	ok	0.724	0.664-0.784
Acrylonitrile	7.00	9.16	0.764	ok	0.765	0.705-0.825
Acetonitrile	6.40	9.16	0.699	ok	0.699	0.639-0.759
1,3-Butadiene	5.69	9.16	0.621	ok	0.622	0.562-0.682
Benzene	10.50	10.78	0.974	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.77	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.39	10.78	1.057	ok	1.057	0.997-1.117
Bromoform	15.46	14.77	1.047	ok	1.047	0.987-1.107
Bromomethane	5.95	9.16	0.650	ok	0.649	0.589-0.709
Bromoethene	6.40	9.16	0.699	ok	0.699	0.639-0.759
n-Butane	5.74	9.16	0.627	ok	0.627	0.567-0.687
Benzyl Chloride	17.67	14.77	1.196	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.77	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.77	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.67	14.77	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.66	9.16	0.836	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.77	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.09	9.16	0.556	ok	0.555	0.495-0.615
Chloroethane	6.10	9.16	0.666	ok	0.665	0.605-0.725
Chloroform	9.26	9.16	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.16	0.584	ok	0.585	0.525-0.645
3-Chloropropene	7.47	9.16	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.77	1.148	ok	1.149	1.089-1.209
Carbon tetrachloride	10.63	9.16	1.160	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.78	0.995	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.32	9.16	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.16	0.795	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.77	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.89	9.16	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.78	1.040	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.10	10.78	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.78	1.061	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.19	9.16	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.16	0.672	ok	0.673	0.613-0.733
Dibromochloromethane	13.49	14.77	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.20	10.78	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.14	9.16	0.889	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.01	9.16	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.78	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.84	14.77	1.208	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.77	1.238	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.77	1.213	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.78	1.173	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.16	1.000	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.91	10.78	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.90	9.16	1.081	ok	1.081	1.021-1.141
Ethanol	6.21	9.16	0.678	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.77	1.027	ok	1.027	0.967-1.087
Ethyl Acetate	9.19	9.16	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.77	1.160	ok	1.161	1.101-1.221
Freon 113	7.57	9.16	0.826	ok	0.827	0.767-0.887
Freon 114	5.44	9.16	0.594	ok	0.594	0.534-0.654
Freon 123	6.51	9.16	0.711	ok	0.711	0.651-0.771
Freon 123A	6.55	9.16	0.715	ok	0.716	0.656-0.776
Freon 152A	5.04	9.16	0.550	ok	0.550	0.490-0.610
Heptane	11.63	10.78	1.079	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.77	1.397	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.77	1.288	ok	1.288	1.228-1.348
Hexane	9.15	9.16	0.999	ok	0.999	0.939-1.059
2-Hexanone	13.32	14.77	0.902	ok	0.902	0.842-0.962
Iodomethane	7.24	9.16	0.790	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.77	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.83	9.16	0.746	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.77	1.227	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.16	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.67	9.16	0.947	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.21	10.78	1.133	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.38	9.16	0.915	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.78	1.072	ok	1.074	1.014-1.134
Naphthalene	20.27	14.77	1.372	ok	1.373	1.313-1.433
Nonane	16.03	14.77	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.77	0.945	ok	0.945	0.885-1.005
Pentane	7.03	9.16	0.767	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.77	1.150	ok	1.151	1.091-1.211
Propylene	5.12	9.16	0.559	ok	0.559	0.499-0.619
Styrene	15.73	14.77	1.065	ok	1.065	1.005-1.125

6.7.1

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.10	9.16	1.103	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.79	14.77	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.77	1.072	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.78	1.189	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.77	1.364	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.98	14.77	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.77	1.196	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.23	14.77	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.78	1.058	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.34	9.16	0.801	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.77	0.957	ok	0.958	0.898-1.018
Tetrahydrofuran	9.64	9.16	1.052	ok	1.055	0.995-1.115
Toluene	13.07	10.78	1.212	ok	1.214	1.154-1.274
Trichloroethylene	11.41	10.78	1.058	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.75	9.16	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.57	9.16	0.608	ok	0.608	0.548-0.668
Vinyl Acetate	8.41	9.16	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.77	1.039	ok	1.040	0.980-1.100
o-Xylene	15.84	14.77	1.072	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.03	9.16	0.767	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.15	8.82-9.48	91134	ok	88972	53383-124561
1,4-Difluorobenzene	10.78	ok	10.77	10.44-11.10	450573	ok	432724	259634-605814
Chlorobenzene-D5	14.77	ok	14.76	14.43-15.09	282544	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.62	9.16	0.723	ok	0.724	0.664-0.784
Acrylonitrile	7.00	9.16	0.764	ok	0.765	0.705-0.825
Acetonitrile	6.39	9.16	0.698	ok	0.699	0.639-0.759
1,3-Butadiene	5.69	9.16	0.621	ok	0.622	0.562-0.682
Benzene	10.50	10.77	0.975	ok	0.974	0.914-1.034
Bromobenzene	16.56	14.77	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.39	10.77	1.058	ok	1.057	0.997-1.117
Bromoform	15.46	14.77	1.047	ok	1.047	0.987-1.107
Bromomethane	5.94	9.16	0.648	ok	0.649	0.589-0.709
Bromoethene	6.40	9.16	0.699	ok	0.699	0.639-0.759
n-Butane	5.73	9.16	0.626	ok	0.627	0.567-0.687
Benzyl Chloride	17.67	14.77	1.196	ok	1.204	1.144-1.264
n-Butylbenzene	18.59	14.77	1.259	ok	1.259	1.199-1.319
sec-Butylbenzene	17.96	14.77	1.216	ok	1.216	1.156-1.276
tert-Butylbenzene	17.67	14.77	1.196	ok	1.196	1.136-1.256
Carbon disulfide	7.66	9.16	0.836	ok	0.837	0.777-0.897
Chlorobenzene	14.81	14.77	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.08	9.16	0.555	ok	0.555	0.495-0.615
Chloroethane	6.09	9.16	0.665	ok	0.665	0.605-0.725
Chloroform	9.26	9.16	1.011	ok	1.011	0.951-1.071
Chloromethane	5.35	9.16	0.584	ok	0.585	0.525-0.645
3-Chloropropene	7.47	9.16	0.816	ok	0.816	0.756-0.876
2-Chlorotoluene	16.96	14.77	1.148	ok	1.149	1.089-1.209
Carbon tetrachloride	10.62	9.16	1.159	ok	1.161	1.101-1.221
Cyclohexane	10.73	10.77	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.31	9.16	0.907	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.28	9.16	0.795	ok	0.795	0.735-0.855
1,2-Dibromoethane	13.72	14.77	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.89	9.16	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.21	10.77	1.041	ok	1.040	0.980-1.100
1,3-Dichloropropane	13.10	10.77	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.77	1.062	ok	1.063	1.003-1.123
Dichlorodifluoromethane	5.19	9.16	0.567	ok	0.567	0.507-0.627
Dichlorofluoromethane	6.16	9.16	0.672	ok	0.673	0.613-0.733
Dibromochloromethane	13.49	14.77	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.19	10.77	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.13	9.16	0.888	ok	0.889	0.829-0.949
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.17	10.77	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.85	14.77	1.209	ok	1.208	1.148-1.268
o-Dichlorobenzene	18.29	14.77	1.238	ok	1.239	1.179-1.299
p-Dichlorobenzene	17.92	14.77	1.213	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.64	10.77	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.16	9.16	1.000	ok	1.002	0.942-1.062
2,3-Dimethylpentane	10.90	10.77	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.89	9.16	1.080	ok	1.081	1.021-1.141
Ethanol	6.21	9.16	0.678	ok	0.679	0.619-0.739
Ethylbenzene	15.17	14.77	1.027	ok	1.027	0.967-1.087
Ethyl Acetate	9.19	9.16	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.14	14.77	1.160	ok	1.161	1.101-1.221
Freon 113	7.57	9.16	0.826	ok	0.827	0.767-0.887
Freon 114	5.44	9.16	0.594	ok	0.594	0.534-0.654
Freon 123	6.50	9.16	0.710	ok	0.711	0.651-0.771
Freon 123A	6.55	9.16	0.715	ok	0.716	0.656-0.776
Freon 152A	5.04	9.16	0.550	ok	0.550	0.490-0.610
Heptane	11.63	10.77	1.080	ok	1.079	1.019-1.139
Hexachlorobutadiene	20.64	14.77	1.397	ok	1.398	1.338-1.458
Hexachloroethane	19.02	14.77	1.288	ok	1.288	1.228-1.348
Hexane	9.14	9.16	0.998	ok	0.999	0.939-1.059
2-Hexanone	13.32	14.77	0.902	ok	0.902	0.842-0.962
Iodomethane	7.24	9.16	0.790	ok	0.791	0.731-0.851
Isopropylbenzene	16.45	14.77	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.83	9.16	0.746	ok	0.746	0.686-0.806
p-Isopropyltoluene	18.13	14.77	1.227	ok	1.228	1.168-1.288
Methylene chloride	7.37	9.16	0.805	ok	0.805	0.745-0.865
Methyl ethyl ketone	8.66	9.16	0.945	ok	0.948	0.888-1.008
Methyl Isobutyl Ketone	12.21	10.77	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.37	9.16	0.914	ok	0.916	0.856-0.976
Methylmethacrylate	11.56	10.77	1.073	ok	1.074	1.014-1.134
Naphthalene	20.27	14.77	1.372	ok	1.373	1.313-1.433
Nonane	16.03	14.77	1.085	ok	1.085	1.025-1.145
Octane	13.96	14.77	0.945	ok	0.945	0.885-1.005
Pentane	7.03	9.16	0.767	ok	0.768	0.708-0.828
n-Propylbenzene	16.99	14.77	1.150	ok	1.151	1.091-1.211
Propylene	5.11	9.16	0.558	ok	0.559	0.499-0.619
Styrene	15.73	14.77	1.065	ok	1.065	1.005-1.125

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1994-ICC1994	3W52818.D	03/16/16 22:10	YMH	10	GCMS3W	TO-15	
V3W1994-IC1994	3W52819.D	03/16/16 22:50	YMH	5	GCMS3W	TO-15	
V3W1994-IC1994	3W52820.D	03/16/16 23:31	YMH	0.5	GCMS3W	TO-15	
V3W1994-IC1994	3W52821.D	03/17/16 00:11	YMH	0.2	GCMS3W	TO-15	
V3W1994-IC1994	3W52822.D	03/17/16 00:52	YMH	20	GCMS3W	TO-15	
V3W1994-IC1994	3W52823.D	03/17/16 01:32	YMH	15	GCMS3W	TO-15	
V3W1994-IC1994	3W52825.D	03/17/16 02:53	YMH	0.1	GCMS3W	TO-15	
V3W1994-IC1994	3W52826.D	03/17/16 03:33	YMH	0.04	GCMS3W	TO-15	
V3W1994-IC1994	3W52827.D	03/17/16 04:16	YMH	30	GCMS3W	TO-15	
V3W1994-IC1994	3W52829.D	03/17/16 05:40	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.10	9.16	1.103	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.80	14.77	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.84	14.77	1.072	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.82	10.77	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.15	14.77	1.364	ok	1.365	1.305-1.425
1,2,3-Trichloropropane	15.98	14.77	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.67	14.77	1.196	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.23	14.77	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.41	10.77	1.059	ok	1.059	0.999-1.119
Tertiary Butyl Alcohol	7.34	9.16	0.801	ok	0.803	0.743-0.863
Tetrachloroethylene	14.14	14.77	0.957	ok	0.958	0.898-1.018
Tetrahydrofuran	9.64	9.16	1.052	ok	1.055	0.995-1.115
Toluene	13.07	10.77	1.214	ok	1.214	1.154-1.274
Trichloroethylene	11.41	10.77	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.75	9.16	0.737	ok	0.737	0.677-0.797
Vinyl chloride	5.56	9.16	0.607	ok	0.608	0.548-0.668
Vinyl Acetate	8.41	9.16	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.35	14.77	1.039	ok	1.040	0.980-1.100
o-Xylene	15.84	14.77	1.072	ok	1.073	1.013-1.133
TVHC As Equiv Pentane	7.02	9.16	0.766	ok	0.767	0.707-0.827

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.15	8.82-9.48	95079	ok	88972	53383-124561
1,4-Difluorobenzene	10.77	ok	10.77	10.44-11.10	461149	ok	432724	259634-605814
Chlorobenzene-D5	14.77	ok	14.76	14.43-15.09	305112	ok	236386	141832-330940

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.57	9.12	0.720	ok	0.722	0.662-0.782
Acrylonitrile	6.95	9.12	0.762	ok	0.762	0.702-0.822
Acetonitrile	6.35	9.12	0.696	ok	0.696	0.636-0.756
1,3-Butadiene	5.64	9.12	0.618	ok	0.618	0.558-0.678
Benzene	10.47	10.74	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.54	14.74	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.35	10.74	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.69	9.12	0.624	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.62	9.12	0.836	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.03	9.12	0.552	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.22	9.12	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.12	0.815	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.74	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.24	9.12	0.794	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.18	10.74	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.74	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.41	10.74	1.062	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.12	0.564	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.46	14.74	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.74	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.10	9.12	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.12	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.74	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.74	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.74	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.15	9.12	0.674	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.15	9.12	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.12	0.708	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.99	9.12	0.547	ok	0.546	0.486-0.606
Heptane	11.60	10.74	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.12	9.12	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.77	9.12	0.742	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.74	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.34	9.12	0.914	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.74	1.074	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.97	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.12	0.555	ok	0.555	0.495-0.615

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V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.77	14.74	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.79	10.74	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.14	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.21	14.74	1.168	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.38	10.74	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.29	9.12	0.799	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.61	9.12	1.054	ok	1.055	0.995-1.115
Toluene	13.05	10.74	1.215	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.74	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.12	0.604	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.12	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.33	14.74	1.040	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	128079	ok	118364	71018-165710
1,4-Difluorobenzene	10.74	ok	10.74	10.41-11.07	641393	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	331160	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.58	9.12	0.721	ok	0.722	0.662-0.782
Acrylonitrile	6.95	9.12	0.762	ok	0.762	0.702-0.822
Acetonitrile	6.34	9.12	0.695	ok	0.696	0.636-0.756
1,3-Butadiene	5.64	9.12	0.618	ok	0.618	0.558-0.678
Benzene	10.47	10.74	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.74	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.35	10.74	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.68	9.12	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.62	9.12	0.836	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.03	9.12	0.552	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.22	9.12	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.12	0.815	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.74	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.23	9.12	0.793	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.74	1.040	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.74	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.41	10.74	1.062	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.12	0.564	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.45	14.74	0.912	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.74	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.11	9.12	0.889	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.12	0.984	ok	0.984	0.924-1.044

6.7.2

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.74	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.74	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.74	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.17	9.12	0.677	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.14	9.12	1.002	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.12	0.708	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.98	9.12	0.546	ok	0.546	0.486-0.606
Heptane	11.59	10.74	1.079	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.12	9.12	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.78	9.12	0.743	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.74	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.34	9.12	0.914	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.74	1.074	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.12	0.555	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.76	14.74	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.74	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.38	10.74	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.30	9.12	0.800	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.61	9.12	1.054	ok	1.055	0.995-1.115
Toluene	13.05	10.74	1.215	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.74	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.12	0.604	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.12	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.32	14.74	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	117810	ok	118364	71018-165710
1,4-Difluorobenzene	10.74	ok	10.74	10.41-11.07	577578	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	292313	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.60	9.11	0.724	ok	0.722	0.662-0.782
Acrylonitrile	6.95	9.11	0.763	ok	0.762	0.702-0.822
Acetonitrile	6.35	9.11	0.697	ok	0.696	0.636-0.756
1,3-Butadiene	5.63	9.11	0.618	ok	0.618	0.558-0.678
Benzene	10.46	10.73	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.74	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.34	10.73	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.11	0.647	ok	0.646	0.586-0.706
Bromoethene	6.35	9.11	0.697	ok	0.696	0.636-0.756
n-Butane	5.69	9.11	0.625	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.64	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.11	0.835	ok	0.835	0.775-0.895
Chlorobenzene	14.78	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.03	9.11	0.552	ok	0.551	0.491-0.611
Chloroethane	6.04	9.11	0.663	ok	0.662	0.602-0.722
Chloroform	9.21	9.11	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.11	0.582	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.11	0.816	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.11	1.162	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.73	0.997	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.11	0.909	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.24	9.11	0.795	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.11	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.73	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.73	1.217	ok	1.216	1.156-1.276
1,4-Dioxane	11.43	10.73	1.065	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.11	0.564	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.11	0.671	ok	0.670	0.610-0.730
Dibromochloromethane	13.45	14.74	0.912	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.73	1.040	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.09	9.11	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.11	0.985	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.13	10.73	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.73	1.175	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.13	9.11	1.002	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.86	10.73	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.11	1.082	ok	1.081	1.021-1.141
Ethanol	6.17	9.11	0.677	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.16	9.11	1.005	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.52	9.11	0.825	ok	0.825	0.765-0.885
Freon 114	5.39	9.11	0.592	ok	0.591	0.531-0.651
Freon 115	4.86	9.11	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.11	0.709	ok	0.708	0.648-0.768
Freon 123A	6.50	9.11	0.714	ok	0.713	0.653-0.773
Freon 152A	4.97	9.11	0.546	ok	0.546	0.486-0.606
Heptane	11.59	10.73	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.12	9.11	1.001	ok	1.000	0.940-1.060
2-Hexanone	13.30	14.74	0.902	ok	0.902	0.842-0.962
Iodomethane	7.19	9.11	0.789	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.80	9.11	0.746	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.11	0.805	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.64	9.11	0.948	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.20	10.73	1.137	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.36	9.11	0.918	ok	0.915	0.855-0.975
Methylmethacrylate	11.54	10.73	1.075	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.11	0.766	ok	0.765	0.705-0.825
n-Propylbenzene	16.97	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.11	0.555	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.11	1.105	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.76	14.74	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.73	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.94	14.74	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.37	10.73	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.33	9.11	0.805	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.63	9.11	1.057	ok	1.055	0.995-1.115
Toluene	13.04	10.73	1.215	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.73	1.060	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.11	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.11	0.605	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.11	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.32	14.74	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.11	ok	9.12	8.79-9.45	129028	ok	118364	71018-165710
1,4-Difluorobenzene	10.73	ok	10.74	10.41-11.07	634274	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	307133	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.60	9.12	0.724	ok	0.722	0.662-0.782
Acrylonitrile	6.95	9.12	0.762	ok	0.762	0.702-0.822
Acetonitrile	6.37	9.12	0.698	ok	0.696	0.636-0.756
1,3-Butadiene	5.64	9.12	0.618	ok	0.618	0.558-0.678
Benzene	10.46	10.73	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.74	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.34	10.73	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.69	9.12	0.624	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.64	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.62	9.12	0.836	ok	0.835	0.775-0.895
Chlorobenzene	14.78	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.04	9.12	0.553	ok	0.551	0.491-0.611
Chloroethane	6.03	9.12	0.661	ok	0.662	0.602-0.722
Chloroform	9.22	9.12	1.011	ok	1.011	0.951-1.071
Chloromethane	5.31	9.12	0.582	ok	0.581	0.521-0.641
3-Chloropropene	7.42	9.12	0.814	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.73	0.997	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.23	9.12	0.793	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.73	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.73	1.217	ok	1.216	1.156-1.276
1,4-Dioxane	11.45	10.73	1.067	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.12	0.564	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.45	14.74	0.912	ok	0.913	0.853-0.973
Dibromomethane	11.15	10.73	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.10	9.12	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.96	9.12	0.982	ok	0.984	0.924-1.044

6.7.2

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.73	1.131	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.73	1.175	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.15	9.12	1.003	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.73	1.013	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.19	9.12	0.679	ok	0.676	0.616-0.736
Ethylbenzene	15.14	14.74	1.027	ok	1.028	0.968-1.088
Ethyl Acetate	9.16	9.12	1.004	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.12	0.708	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.98	9.12	0.546	ok	0.546	0.486-0.606
Heptane	11.59	10.73	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	18.99	14.74	1.288	ok	1.289	1.229-1.349
Hexane	9.11	9.12	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.30	14.74	0.902	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.81	9.12	0.747	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.64	9.12	0.947	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.20	10.73	1.137	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.37	9.12	0.918	ok	0.915	0.855-0.975
Methylmethacrylate	11.54	10.73	1.075	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.12	0.555	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.69	14.74	1.064	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.06	9.12	1.103	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.76	14.74	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.73	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.14	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.94	14.74	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.37	10.73	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.35	9.12	0.806	ok	0.802	0.742-0.862
Tetrachloroethylene	14.11	14.74	0.957	ok	0.958	0.898-1.018
Tetrahydrofuran	9.63	9.12	1.056	ok	1.055	0.995-1.115
Toluene	13.04	10.73	1.215	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.73	1.060	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.52	9.12	0.605	ok	0.604	0.544-0.664
Vinyl Acetate	8.39	9.12	0.920	ok	0.919	0.859-0.979
m,p-Xylene	15.32	14.74	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	113840	ok	118364	71018-165710
1,4-Difluorobenzene	10.73	ok	10.74	10.41-11.07	560929	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	271350	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.57	9.12	0.720	ok	0.722	0.662-0.782
Acrylonitrile	6.94	9.12	0.761	ok	0.762	0.702-0.822
Acetonitrile	6.34	9.12	0.695	ok	0.696	0.636-0.756
1,3-Butadiene	5.63	9.12	0.617	ok	0.618	0.558-0.678
Benzene	10.47	10.74	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.54	14.74	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.35	10.74	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.68	9.12	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.12	0.834	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.02	9.12	0.550	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.22	9.12	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.12	0.815	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.74	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.23	9.12	0.793	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.74	1.040	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.74	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.40	10.74	1.061	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.13	9.12	0.562	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.46	14.74	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.74	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.10	9.12	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.12	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.74	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.74	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.74	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.15	9.12	0.674	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.14	9.12	1.002	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.45	9.12	0.707	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.98	9.12	0.546	ok	0.546	0.486-0.606
Heptane	11.60	10.74	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.11	9.12	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.77	9.12	0.742	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.74	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.33	9.12	0.913	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.74	1.074	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.97	9.12	0.764	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.12	0.555	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.77	14.74	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.74	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.21	14.74	1.168	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.38	10.74	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.29	9.12	0.799	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.60	9.12	1.053	ok	1.055	0.995-1.115
Toluene	13.04	10.74	1.214	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.74	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.12	0.604	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.12	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.33	14.74	1.040	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	113291	ok	118364	71018-165710
1,4-Difluorobenzene	10.74	ok	10.74	10.41-11.07	562380	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	312637	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.57	9.12	0.720	ok	0.722	0.662-0.782
Acrylonitrile	6.94	9.12	0.761	ok	0.762	0.702-0.822
Acetonitrile	6.34	9.12	0.695	ok	0.696	0.636-0.756
1,3-Butadiene	5.63	9.12	0.617	ok	0.618	0.558-0.678
Benzene	10.46	10.74	0.974	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.74	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.35	10.74	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.34	9.12	0.695	ok	0.696	0.636-0.756
n-Butane	5.67	9.12	0.622	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.64	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.12	0.834	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.02	9.12	0.550	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.22	9.12	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.42	9.12	0.814	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.69	10.74	0.995	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.23	9.12	0.793	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.74	1.040	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.74	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.40	10.74	1.061	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.13	9.12	0.562	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.45	14.74	0.912	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.74	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.10	9.12	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.12	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.13	10.74	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.74	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.74	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.15	9.12	0.674	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.14	9.12	1.002	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.52	9.12	0.825	ok	0.825	0.765-0.885
Freon 114	5.38	9.12	0.590	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.45	9.12	0.707	ok	0.708	0.648-0.768
Freon 123A	6.49	9.12	0.712	ok	0.713	0.653-0.773
Freon 152A	4.98	9.12	0.546	ok	0.546	0.486-0.606
Heptane	11.59	10.74	1.079	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.11	9.12	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.18	9.12	0.787	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.77	9.12	0.742	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.32	9.12	0.803	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.74	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.33	9.12	0.913	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.74	1.074	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.05	9.12	0.554	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.76	14.74	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.79	10.74	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.94	14.74	1.081	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.38	10.74	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.29	9.12	0.799	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.60	9.12	1.053	ok	1.055	0.995-1.115
Toluene	13.04	10.74	1.214	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.74	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.69	9.12	0.734	ok	0.735	0.675-0.795
Vinyl chloride	5.50	9.12	0.603	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.12	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.32	14.74	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	120785	ok	118364	71018-165710
1,4-Difluorobenzene	10.74	ok	10.74	10.41-11.07	594996	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	316631	ok	304846	182908-426784

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	6.96	9.11	0.764	ok	0.762	0.702-0.822
1,3-Butadiene	5.64	9.11	0.619	ok	0.618	0.558-0.678
Benzene	10.46	10.73	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.74	1.121	ok	1.122	1.062-1.182
Bromodichloromethane	11.34	10.73	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.74	1.047	ok	1.047	0.987-1.107
Bromoethene	6.34	9.11	0.696	ok	0.696	0.636-0.756
n-Butane	5.67	9.11	0.622	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.56	14.74	1.259	ok	1.260	1.200-1.320
sec-Butylbenzene	17.93	14.74	1.216	ok	1.217	1.157-1.277
tert-Butylbenzene	17.64	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.11	0.835	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chloroethane	6.04	9.11	0.663	ok	0.662	0.602-0.722
Chloroform	9.21	9.11	1.011	ok	1.011	0.951-1.071
Chloromethane	5.30	9.11	0.582	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.11	0.816	ok	0.815	0.755-0.875
2-Chlorotoluene	16.93	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.11	1.162	ok	1.161	1.101-1.221
1,1-Dichloroethane	8.27	9.11	0.908	ok	0.908	0.848-0.968
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.11	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.73	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.73	1.217	ok	1.216	1.156-1.276
1,4-Dioxane	11.45	10.73	1.067	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.11	0.564	ok	0.563	0.503-0.623
Dibromochloromethane	13.45	14.74	0.912	ok	0.913	0.853-0.973
Dibromomethane	11.15	10.73	1.039	ok	1.039	0.979-1.099
cis-1,2-Dichloroethylene	8.96	9.11	0.984	ok	0.984	0.924-1.044
cis-1,3-Dichloropropene	12.13	10.73	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.89	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.73	1.175	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.15	9.11	1.004	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.86	10.73	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.11	1.082	ok	1.081	1.021-1.141

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.17	9.11	1.007	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.52	9.11	0.825	ok	0.825	0.765-0.885
Freon 114	5.39	9.11	0.592	ok	0.591	0.531-0.651
Freon 115	4.87	9.11	0.535	ok	0.533	0.473-0.593
Freon 123	6.46	9.11	0.709	ok	0.708	0.648-0.768
Freon 123A	6.51	9.11	0.715	ok	0.713	0.653-0.773
Freon 152A	4.99	9.11	0.548	ok	0.546	0.486-0.606
Heptane	11.59	10.73	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.12	9.11	1.001	ok	1.000	0.940-1.060
2-Hexanone	13.31	14.74	0.903	ok	0.902	0.842-0.962
Iodomethane	7.18	9.11	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.82	9.11	0.749	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.11	0.805	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.64	9.11	0.948	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.21	10.73	1.138	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.37	9.11	0.919	ok	0.915	0.855-0.975
Methylmethacrylate	11.54	10.73	1.075	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Styrene	15.69	14.74	1.064	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.11	1.105	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.77	14.74	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.73	1.191	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.37	10.73	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.35	9.11	0.807	ok	0.802	0.742-0.862
Tetrachloroethylene	14.11	14.74	0.957	ok	0.958	0.898-1.018

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Tetrahydrofuran	9.66	9.11	1.060	ok	1.055	0.995-1.115
Toluene	13.04	10.73	1.215	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.73	1.060	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.11	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.11	0.605	ok	0.604	0.544-0.664
Vinyl Acetate	8.39	9.11	0.921	ok	0.919	0.859-0.979
m,p-Xylene	15.32	14.74	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.11	ok	9.12	8.79-9.45	116743	ok	118364	71018-165710
1,4-Difluorobenzene	10.73	ok	10.74	10.41-11.07	566389	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	270271	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	6.95	9.11	0.763	ok	0.762	0.702-0.822
Benzene	10.45	10.73	0.974	ok	0.975	0.915-1.035
Bromobenzene	16.53	14.73	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.34	10.73	1.057	ok	1.057	0.997-1.117
Bromoform	15.43	14.73	1.048	ok	1.047	0.987-1.107
Bromoethene	6.35	9.11	0.697	ok	0.696	0.636-0.756
Benzyl Chloride	17.80	14.73	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.73	1.261	ok	1.260	1.200-1.320
sec-Butylbenzene	17.93	14.73	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.64	14.73	1.198	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.11	0.835	ok	0.835	0.775-0.895
Chlorobenzene	14.78	14.73	1.003	ok	1.003	0.943-1.063
Chloroethane	6.04	9.11	0.663	ok	0.662	0.602-0.722
Chloroform	9.21	9.11	1.011	ok	1.011	0.951-1.071
Chloromethane	5.28	9.11	0.580	ok	0.581	0.521-0.641
2-Chlorotoluene	16.93	14.73	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.58	9.11	1.161	ok	1.161	1.101-1.221
1,1-Dichloroethane	8.28	9.11	0.909	ok	0.908	0.848-0.968
1,2-Dibromoethane	13.69	14.73	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.83	9.11	1.079	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.17	10.73	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.73	1.217	ok	1.216	1.156-1.276
1,4-Dioxane	11.44	10.73	1.066	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.11	0.564	ok	0.563	0.503-0.623
Dibromochloromethane	13.45	14.73	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.15	10.73	1.039	ok	1.039	0.979-1.099
m-Dichlorobenzene	17.82	14.73	1.210	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.73	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.89	14.73	1.215	ok	1.214	1.154-1.274
2,3-Dimethylpentane	10.87	10.73	1.013	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.11	1.082	ok	1.081	1.021-1.141
Ethylbenzene	15.14	14.73	1.028	ok	1.028	0.968-1.088
4-Ethyltoluene	17.12	14.73	1.162	ok	1.162	1.102-1.222
Freon 113	7.52	9.11	0.825	ok	0.825	0.765-0.885
Freon 123	6.45	9.11	0.708	ok	0.708	0.648-0.768
Freon 123A	6.49	9.11	0.712	ok	0.713	0.653-0.773
Freon 152A	4.97	9.11	0.546	ok	0.546	0.486-0.606
Hexachlorobutadiene	20.62	14.73	1.400	ok	1.400	1.340-1.460

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Hexachloroethane	19.00	14.73	1.290	ok	1.289	1.229-1.349
Hexane	9.10	9.11	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.30	14.73	0.903	ok	0.902	0.842-0.962
Iodomethane	7.18	9.11	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.73	1.115	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.80	9.11	0.746	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.10	14.73	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.11	0.805	ok	0.804	0.744-0.864
Methyl Isobutyl Ketone	12.20	10.73	1.137	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.36	9.11	0.918	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.73	1.075	ok	1.074	1.014-1.134
Naphthalene	20.26	14.73	1.375	ok	1.375	1.315-1.435
Nonane	16.00	14.73	1.086	ok	1.086	1.026-1.146
n-Propylbenzene	16.96	14.73	1.151	ok	1.151	1.091-1.211
Styrene	15.69	14.73	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.05	9.11	1.103	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.76	14.73	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.80	14.73	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.77	10.73	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.73	1.367	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.94	14.73	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.64	14.73	1.198	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.73	1.168	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.37	10.73	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.35	9.11	0.807	ok	0.802	0.742-0.862
Tetrachloroethylene	14.11	14.73	0.958	ok	0.958	0.898-1.018
Toluene	13.03	10.73	1.214	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.73	1.060	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.69	9.11	0.734	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.11	0.605	ok	0.604	0.544-0.664
m,p-Xylene	15.31	14.73	1.039	ok	1.040	0.980-1.100
o-Xylene	15.81	14.73	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.11	ok	9.12	8.79-9.45	110201	ok	118364	71018-165710
1,4-Difluorobenzene	10.73	ok	10.74	10.41-11.07	532265	ok	580741	348445-813037

6.7.2

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Chlorobenzene-D5	14.73	ok	14.74	14.41-15.07	265473	ok	304846	182908-426784

6.7.2

6

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.57	9.12	0.720	ok	0.722	0.662-0.782
Acrylonitrile	6.95	9.12	0.762	ok	0.762	0.702-0.822
Acetonitrile	6.34	9.12	0.695	ok	0.696	0.636-0.756
1,3-Butadiene	5.64	9.12	0.618	ok	0.618	0.558-0.678
Benzene	10.47	10.74	0.975	ok	0.975	0.915-1.035
Bromobenzene	16.54	14.74	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.35	10.74	1.057	ok	1.057	0.997-1.117
Bromoform	15.44	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.68	9.12	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	17.80	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.62	9.12	0.836	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.03	9.12	0.552	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.23	9.12	1.012	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.12	0.815	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.74	0.996	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.23	9.12	0.793	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.69	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.85	9.12	1.080	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.18	10.74	1.041	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.74	1.216	ok	1.216	1.156-1.276
1,4-Dioxane	11.40	10.74	1.061	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.12	0.564	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.46	14.74	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.16	10.74	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.10	9.12	0.888	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.97	9.12	0.984	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.74	1.130	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.82	14.74	1.209	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.74	1.174	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.74	1.012	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.15	9.12	0.674	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.15	9.12	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.12	0.708	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.99	9.12	0.547	ok	0.546	0.486-0.606
Heptane	11.60	10.74	1.080	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.11	9.12	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.42	14.74	1.114	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.77	9.12	0.742	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.74	1.134	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.33	9.12	0.913	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.74	1.074	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.06	9.12	0.555	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	Reporting this level
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.77	14.74	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.78	10.74	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.20	14.74	1.167	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.38	10.74	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.29	9.12	0.799	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.60	9.12	1.053	ok	1.055	0.995-1.115
Toluene	13.04	10.74	1.214	ok	1.215	1.155-1.275
Trichloroethylene	11.37	10.74	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.12	0.604	ok	0.604	0.544-0.664
Vinyl Acetate	8.37	9.12	0.918	ok	0.919	0.859-0.979
m,p-Xylene	15.33	14.74	1.040	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	116378	ok	118364	71018-165710
1,4-Difluorobenzene	10.74	ok	10.74	10.41-11.07	566005	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	338696	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.58	9.12	0.721	ok	0.722	0.662-0.782
Acrylonitrile	6.96	9.12	0.763	ok	0.762	0.702-0.822
Acetonitrile	6.35	9.12	0.696	ok	0.696	0.636-0.756
1,3-Butadiene	5.63	9.12	0.617	ok	0.618	0.558-0.678
Benzene	10.47	10.75	0.974	ok	0.975	0.915-1.035
Bromobenzene	16.54	14.74	1.122	ok	1.122	1.062-1.182
Bromodichloromethane	11.36	10.75	1.057	ok	1.057	0.997-1.117
Bromoform	15.44	14.74	1.047	ok	1.047	0.987-1.107
Bromomethane	5.89	9.12	0.646	ok	0.646	0.586-0.706
Bromoethene	6.35	9.12	0.696	ok	0.696	0.636-0.756
n-Butane	5.68	9.12	0.623	ok	0.623	0.563-0.683
Benzyl Chloride	17.81	14.74	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	18.57	14.74	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	17.94	14.74	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.12	0.834	ok	0.835	0.775-0.895
Chlorobenzene	14.79	14.74	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.02	9.12	0.550	ok	0.551	0.491-0.611
Chloroethane	6.04	9.12	0.662	ok	0.662	0.602-0.722
Chloroform	9.23	9.12	1.012	ok	1.011	0.951-1.071
Chloromethane	5.30	9.12	0.581	ok	0.581	0.521-0.641
3-Chloropropene	7.43	9.12	0.815	ok	0.815	0.755-0.875
2-Chlorotoluene	16.94	14.74	1.149	ok	1.149	1.089-1.209
Carbon tetrachloride	10.59	9.12	1.161	ok	1.161	1.101-1.221
Cyclohexane	10.70	10.75	0.995	ok	0.996	0.936-1.056
1,1-Dichloroethane	8.28	9.12	0.908	ok	0.908	0.848-0.968
1,1-Dichloroethylene	7.24	9.12	0.794	ok	0.793	0.733-0.853
1,2-Dibromoethane	13.70	14.74	0.929	ok	0.929	0.869-0.989
1,2-Dichloroethane	9.86	9.12	1.081	ok	1.080	1.020-1.140
1,2-Dichloropropane	11.18	10.75	1.040	ok	1.041	0.981-1.101
1,3-Dichloropropane	13.06	10.75	1.215	ok	1.216	1.156-1.276
1,4-Dioxane	11.40	10.75	1.060	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.13	9.12	0.562	ok	0.563	0.503-0.623
Dichlorofluoromethane	6.11	9.12	0.670	ok	0.670	0.610-0.730
Dibromochloromethane	13.46	14.74	0.913	ok	0.913	0.853-0.973
Dibromomethane	11.17	10.75	1.039	ok	1.039	0.979-1.099
trans-1,2-Dichloroethylene	8.11	9.12	0.889	ok	0.888	0.828-0.948
cis-1,2-Dichloroethylene	8.98	9.12	0.985	ok	0.984	0.924-1.044

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	12.14	10.75	1.129	ok	1.130	1.070-1.190
m-Dichlorobenzene	17.83	14.74	1.210	ok	1.209	1.149-1.269
o-Dichlorobenzene	18.27	14.74	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	17.90	14.74	1.214	ok	1.214	1.154-1.274
trans-1,3-Dichloropropene	12.61	10.75	1.173	ok	1.174	1.114-1.234
Di-Isopropyl ether	9.12	9.12	1.000	ok	1.001	0.941-1.061
2,3-Dimethylpentane	10.87	10.75	1.011	ok	1.012	0.952-1.072
2,4-Dimethylpentane	9.86	9.12	1.081	ok	1.081	1.021-1.141
Ethanol	6.17	9.12	0.677	ok	0.676	0.616-0.736
Ethylbenzene	15.15	14.74	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.15	9.12	1.003	ok	1.004	0.944-1.064
4-Ethyltoluene	17.12	14.74	1.161	ok	1.162	1.102-1.222
Freon 113	7.53	9.12	0.826	ok	0.825	0.765-0.885
Freon 114	5.39	9.12	0.591	ok	0.591	0.531-0.651
Freon 115	4.86	9.12	0.533	ok	0.533	0.473-0.593
Freon 123	6.46	9.12	0.708	ok	0.708	0.648-0.768
Freon 123A	6.50	9.12	0.713	ok	0.713	0.653-0.773
Freon 152A	4.98	9.12	0.546	ok	0.546	0.486-0.606
Heptane	11.60	10.75	1.079	ok	1.080	1.020-1.140
Hexachlorobutadiene	20.63	14.74	1.400	ok	1.400	1.340-1.460
Hexachloroethane	19.00	14.74	1.289	ok	1.289	1.229-1.349
Hexane	9.12	9.12	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.28	14.74	0.901	ok	0.902	0.842-0.962
Iodomethane	7.19	9.12	0.788	ok	0.788	0.728-0.848
Isopropylbenzene	16.43	14.74	1.115	ok	1.114	1.054-1.174
Isopropyl Alcohol	6.79	9.12	0.745	ok	0.745	0.685-0.805
p-Isopropyltoluene	18.11	14.74	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.33	9.12	0.804	ok	0.804	0.744-0.864
Methyl ethyl ketone	8.62	9.12	0.945	ok	0.946	0.886-1.006
Methyl Isobutyl Ketone	12.18	10.75	1.133	ok	1.135	1.075-1.195
Methyl Tert Butyl Ether	8.33	9.12	0.913	ok	0.915	0.855-0.975
Methylmethacrylate	11.53	10.75	1.073	ok	1.074	1.014-1.134
Naphthalene	20.26	14.74	1.374	ok	1.375	1.315-1.435
Nonane	16.00	14.74	1.085	ok	1.086	1.026-1.146
Octane	13.93	14.74	0.945	ok	0.945	0.885-1.005
Pentane	6.98	9.12	0.765	ok	0.765	0.705-0.825
n-Propylbenzene	16.96	14.74	1.151	ok	1.151	1.091-1.211
Propylene	5.05	9.12	0.554	ok	0.555	0.495-0.615

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V3W1998-ICC1998	3W52929.D	03/22/16 19:47	YMH	10	GCMS3W	TO-15	
V3W1998-IC1998	3W52930.D	03/22/16 20:28	YMH	5	GCMS3W	TO-15	
V3W1998-IC1998	3W52931.D	03/22/16 21:10	YMH	0.5	GCMS3W	TO-15	
V3W1998-IC1998	3W52932.D	03/22/16 21:50	YMH	0.2	GCMS3W	TO-15	
V3W1998-IC1998	3W52933.D	03/22/16 22:31	YMH	20	GCMS3W	TO-15	
V3W1998-IC1998	3W52934.D	03/22/16 23:12	YMH	15	GCMS3W	TO-15	
V3W1998-IC1998	3W52936.D	03/23/16 00:34	YMH	0.1	GCMS3W	TO-15	
V3W1998-IC1998	3W52937.D	03/23/16 01:15	YMH	0.04	GCMS3W	TO-15	
V3W1998-IC1998	3W52938.D	03/23/16 01:56	YMH	30	GCMS3W	TO-15	
V3W1998-IC1998	3W52940.D	03/23/16 03:20	YMH	40	GCMS3W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	15.70	14.74	1.065	ok	1.065	1.005-1.125
1,1,1-Trichloroethane	10.07	9.12	1.104	ok	1.104	1.044-1.164
1,1,1,2-Tetrachloroethane	14.77	14.74	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	15.81	14.74	1.073	ok	1.073	1.013-1.133
1,1,2-Trichloroethane	12.79	10.75	1.190	ok	1.190	1.130-1.250
1,2,4-Trichlorobenzene	20.13	14.74	1.366	ok	1.366	1.306-1.426
1,2,3-Trichloropropane	15.95	14.74	1.082	ok	1.082	1.022-1.142
1,2,4-Trimethylbenzene	17.65	14.74	1.197	ok	1.197	1.137-1.257
1,3,5-Trimethylbenzene	17.21	14.74	1.168	ok	1.167	1.107-1.227
2,2,4-Trimethylpentane	11.39	10.75	1.060	ok	1.060	1.000-1.120
Tertiary Butyl Alcohol	7.30	9.12	0.800	ok	0.802	0.742-0.862
Tetrachloroethylene	14.12	14.74	0.958	ok	0.958	0.898-1.018
Tetrahydrofuran	9.60	9.12	1.053	ok	1.055	0.995-1.115
Toluene	13.05	10.75	1.214	ok	1.215	1.155-1.275
Trichloroethylene	11.38	10.75	1.059	ok	1.059	0.999-1.119
Trichlorofluoromethane	6.70	9.12	0.735	ok	0.735	0.675-0.795
Vinyl chloride	5.51	9.12	0.604	ok	0.604	0.544-0.664
Vinyl Acetate	8.38	9.12	0.919	ok	0.919	0.859-0.979
m,p-Xylene	15.33	14.74	1.040	ok	1.040	0.980-1.100
o-Xylene	15.81	14.74	1.073	ok	1.073	1.013-1.133

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.12	ok	9.12	8.79-9.45	117481	ok	118364	71018-165710
1,4-Difluorobenzene	10.75	ok	10.74	10.41-11.07	571202	ok	580741	348445-813037
Chlorobenzene-D5	14.74	ok	14.74	14.41-15.07	342793	ok	304846	182908-426784

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.29	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.69	8.29	0.686	ok	0.688	0.628-0.748
Acetonitrile	5.06	8.29	0.610	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.29	0.530	ok	0.530	0.470-0.590
Benzene	10.05	8.29	1.212	ok	1.213	1.153-1.273
Bromobenzene	18.62	16.05	1.160	ok	1.161	1.101-1.221
Bromodichloromethane	11.27	10.49	1.074	ok	1.075	1.015-1.135
Bromoform	17.00	16.05	1.059	ok	1.060	1.000-1.120
Bromomethane	4.61	8.29	0.556	ok	0.556	0.496-0.616
Bromoethene	5.06	8.29	0.610	ok	0.610	0.550-0.670
n-Butane	4.43	8.29	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.38	16.05	1.332	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.20	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.29	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.11	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.88	8.29	0.468	ok	0.468	0.408-0.528
Chloroethane	4.76	8.29	0.574	ok	0.574	0.514-0.634
Chloroform	8.43	8.29	1.017	ok	1.017	0.957-1.077
Chloromethane	4.10	8.29	0.495	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.29	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.23	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.22	8.29	1.233	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.29	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.22	8.29	0.871	ok	0.872	0.812-0.932
1,1-Dichloroethylene	6.00	8.29	0.724	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.49	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.24	8.29	1.115	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.02	10.49	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.49	1.305	ok	1.306	1.246-1.366
1,4-Dioxane	11.34	10.49	1.081	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.29	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.29	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.49	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.00	10.49	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.01	8.29	0.846	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.29	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.40	10.49	1.182	ok	1.183	1.123-1.243

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.41	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.08	10.49	1.247	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.31	8.29	1.002	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.29	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.29	1.121	ok	1.121	1.061-1.181
Ethanol	4.87	8.29	0.587	ok	0.588	0.528-0.648
Ethylbenzene	16.65	16.05	1.037	ok	1.038	0.978-1.098
Ethyl Acetate	8.35	8.29	1.007	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.29	0.766	ok	0.766	0.706-0.826
Freon 114	4.17	8.29	0.503	ok	0.503	0.443-0.563
Freon 123	5.18	8.29	0.625	ok	0.625	0.565-0.685
Freon 123A	5.23	8.29	0.631	ok	0.631	0.571-0.691
Freon 141B	5.52	8.29	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.29	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.29	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.29	0.463	ok	0.463	0.403-0.523
Heptane	11.68	10.49	1.113	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.30	8.29	1.001	ok	1.002	0.942-1.062
2-Hexanone	14.02	10.49	1.337	ok	1.338	1.278-1.398
Iodomethane	5.93	8.29	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.51	16.05	1.153	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.50	8.29	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.81	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.29	0.737	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.64	8.29	0.922	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.45	10.49	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.28	8.29	0.878	ok	0.880	0.820-0.940
Methylmethacrylate	11.59	10.49	1.105	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	14.99	10.49	1.429	ok	1.430	1.370-1.490
Pentane	5.72	8.29	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.91	8.29	0.472	ok	0.471	0.411-0.531

6.7.3

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.45	16.05	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.52	8.29	1.148	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.49	1.534	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.60	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.29	10.49	1.267	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.16	16.05	1.443	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.49	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.03	8.29	0.727	ok	0.731	0.671-0.791
Tetrachloroethylene	15.16	10.49	1.445	ok	1.446	1.386-1.506
Tetrahydrofuran	8.87	8.29	1.070	ok	1.074	1.014-1.134
Toluene	13.64	10.49	1.300	ok	1.302	1.242-1.362
Trichloroethylene	11.32	10.49	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.29	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.29	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.38	8.29	0.890	ok	0.892	0.832-0.952
m,p-Xylene	16.93	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.60	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.29	ok	8.29	7.96-8.62	165817	ok	162544	97526-227562
1,4-Difluorobenzene	10.49	ok	10.49	10.16-10.82	626348	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	304742	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.29	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.69	8.29	0.686	ok	0.688	0.628-0.748
Acetonitrile	5.05	8.29	0.609	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.29	0.530	ok	0.530	0.470-0.590
Benzene	10.05	8.29	1.212	ok	1.213	1.153-1.273
Bromobenzene	18.62	16.05	1.160	ok	1.161	1.101-1.221
Bromodichloromethane	11.27	10.48	1.075	ok	1.075	1.015-1.135
Bromoform	17.00	16.05	1.059	ok	1.060	1.000-1.120
Bromomethane	4.61	8.29	0.556	ok	0.556	0.496-0.616
Bromoethene	5.05	8.29	0.609	ok	0.610	0.550-0.670
n-Butane	4.43	8.29	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.38	16.05	1.332	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.20	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.29	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.11	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.88	8.29	0.468	ok	0.468	0.408-0.528
Chloroethane	4.76	8.29	0.574	ok	0.574	0.514-0.634
Chloroform	8.42	8.29	1.016	ok	1.017	0.957-1.077
Chloromethane	4.10	8.29	0.495	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.29	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.22	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.22	8.29	1.233	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.29	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.22	8.29	0.871	ok	0.872	0.812-0.932
1,1-Dichloroethylene	5.99	8.29	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.52	10.48	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.24	8.29	1.115	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.02	10.48	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.48	1.306	ok	1.306	1.246-1.366
1,4-Dioxane	11.34	10.48	1.082	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.29	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.29	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.20	10.48	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.00	10.48	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.01	8.29	0.846	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.10	8.29	0.977	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.40	10.48	1.183	ok	1.183	1.123-1.243

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.41	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.08	10.48	1.248	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.31	8.29	1.002	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.29	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.29	1.121	ok	1.121	1.061-1.181
Ethanol	4.87	8.29	0.587	ok	0.588	0.528-0.648
Ethylbenzene	16.65	16.05	1.037	ok	1.038	0.978-1.098
Ethyl Acetate	8.35	8.29	1.007	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.29	0.766	ok	0.766	0.706-0.826
Freon 114	4.17	8.29	0.503	ok	0.503	0.443-0.563
Freon 123	5.18	8.29	0.625	ok	0.625	0.565-0.685
Freon 123A	5.23	8.29	0.631	ok	0.631	0.571-0.691
Freon 141B	5.52	8.29	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.29	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.29	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.29	0.463	ok	0.463	0.403-0.523
Heptane	11.68	10.48	1.115	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.30	8.29	1.001	ok	1.002	0.942-1.062
2-Hexanone	14.02	10.48	1.338	ok	1.338	1.278-1.398
Iodomethane	5.92	8.29	0.714	ok	0.715	0.655-0.775
Isopropylbenzene	18.51	16.05	1.153	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.50	8.29	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.81	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.29	0.737	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.64	8.29	0.922	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.45	10.48	1.188	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.28	8.29	0.878	ok	0.880	0.820-0.940
Methylmethacrylate	11.59	10.48	1.106	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	14.99	10.48	1.430	ok	1.430	1.370-1.490
Pentane	5.72	8.29	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.90	8.29	0.470	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.45	16.05	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.52	8.29	1.148	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.48	1.535	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.60	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.29	10.48	1.268	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.16	16.05	1.443	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.21	16.05	1.259	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.48	1.082	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.04	8.29	0.729	ok	0.731	0.671-0.791
Tetrachloroethylene	15.16	10.48	1.447	ok	1.446	1.386-1.506
Tetrahydrofuran	8.88	8.29	1.071	ok	1.074	1.014-1.134
Toluene	13.64	10.48	1.302	ok	1.302	1.242-1.362
Trichloroethylene	11.31	10.48	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.29	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.29	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.38	8.29	0.890	ok	0.892	0.832-0.952
m,p-Xylene	16.93	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.60	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.29	ok	8.29	7.96-8.62	157743	ok	162544	97526-227562
1,4-Difluorobenzene	10.48	ok	10.49	10.16-10.82	605028	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	285988	ok	297348	178409-416287

6.7.3

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.31	8.29	0.641	ok	0.638	0.578-0.698
Acrylonitrile	5.71	8.29	0.689	ok	0.688	0.628-0.748
Acetonitrile	5.08	8.29	0.613	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.29	0.530	ok	0.530	0.470-0.590
Benzene	10.06	8.29	1.214	ok	1.213	1.153-1.273
Bromobenzene	18.63	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.27	10.49	1.074	ok	1.075	1.015-1.135
Bromoform	17.01	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.29	0.556	ok	0.556	0.496-0.616
Bromoethene	5.05	8.29	0.609	ok	0.610	0.550-0.670
n-Butane	4.43	8.29	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.38	16.05	1.332	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.20	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.29	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.12	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.87	8.29	0.467	ok	0.468	0.408-0.528
Chloroethane	4.76	8.29	0.574	ok	0.574	0.514-0.634
Chloroform	8.43	8.29	1.017	ok	1.017	0.957-1.077
Chloromethane	4.09	8.29	0.493	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.29	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.24	16.05	1.199	ok	1.198	1.138-1.258
Carbon tetrachloride	10.23	8.29	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.29	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.23	8.29	0.872	ok	0.872	0.812-0.932
1,1-Dichloroethylene	5.99	8.29	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.49	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.25	8.29	1.116	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.49	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.49	1.305	ok	1.306	1.246-1.366
1,4-Dioxane	11.37	10.49	1.084	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.29	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.29	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.49	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.00	10.49	1.049	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.02	8.29	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.29	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.40	10.49	1.182	ok	1.183	1.123-1.243

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.41	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.09	10.49	1.248	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.33	8.29	1.005	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.29	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.29	1.121	ok	1.121	1.061-1.181
Ethanol	4.88	8.29	0.589	ok	0.588	0.528-0.648
Ethylbenzene	16.66	16.05	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.38	8.29	1.011	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.29	0.766	ok	0.766	0.706-0.826
Freon 114	4.17	8.29	0.503	ok	0.503	0.443-0.563
Freon 123	5.18	8.29	0.625	ok	0.625	0.565-0.685
Freon 123A	5.23	8.29	0.631	ok	0.631	0.571-0.691
Freon 141B	5.52	8.29	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.29	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.29	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.29	0.463	ok	0.463	0.403-0.523
Heptane	11.69	10.49	1.114	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.31	8.29	1.002	ok	1.002	0.942-1.062
2-Hexanone	14.04	10.49	1.338	ok	1.338	1.278-1.398
Iodomethane	5.92	8.29	0.714	ok	0.715	0.655-0.775
Isopropylbenzene	18.51	16.05	1.153	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.51	8.29	0.665	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.81	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.29	0.737	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.68	8.29	0.926	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.46	10.49	1.188	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.31	8.29	0.882	ok	0.880	0.820-0.940
Methylmethacrylate	11.60	10.49	1.106	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	15.00	10.49	1.430	ok	1.430	1.370-1.490
Pentane	5.72	8.29	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.90	8.29	0.470	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

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V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
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V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.46	16.05	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.52	8.29	1.148	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.49	1.534	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.49	1.268	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.17	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.49	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.08	8.29	0.733	ok	0.731	0.671-0.791
Tetrachloroethylene	15.17	10.49	1.446	ok	1.446	1.386-1.506
Tetrahydrofuran	8.92	8.29	1.076	ok	1.074	1.014-1.134
Toluene	13.65	10.49	1.301	ok	1.302	1.242-1.362
Trichloroethylene	11.32	10.49	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.29	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.29	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.29	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.90	16.05	1.053	ok	1.055	0.995-1.115
o-Xylene	17.60	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.29	ok	8.29	7.96-8.62	178138	ok	162544	97526-227562
1,4-Difluorobenzene	10.49	ok	10.49	10.16-10.82	673869	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	314609	ok	297348	178409-416287

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Initial Calibration Retention Time/Internal Standard Area Summary

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V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.31	8.28	0.641	ok	0.638	0.578-0.698
Acrylonitrile	5.70	8.28	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.07	8.28	0.612	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.28	0.530	ok	0.530	0.470-0.590
Benzene	10.05	8.28	1.214	ok	1.213	1.153-1.273
Bromobenzene	18.63	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.26	10.48	1.074	ok	1.075	1.015-1.135
Bromoform	17.01	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.28	0.557	ok	0.556	0.496-0.616
Bromoethene	5.06	8.28	0.611	ok	0.610	0.550-0.670
n-Butane	4.43	8.28	0.535	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.39	16.05	1.333	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.20	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.28	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.11	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.87	8.28	0.467	ok	0.468	0.408-0.528
Chloroethane	4.76	8.28	0.575	ok	0.574	0.514-0.634
Chloroform	8.41	8.28	1.016	ok	1.017	0.957-1.077
Chloromethane	4.09	8.28	0.494	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.28	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.23	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.22	8.28	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.35	8.28	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.22	8.28	0.872	ok	0.872	0.812-0.932
1,1-Dichloroethylene	5.99	8.28	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.48	1.386	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.24	8.28	1.116	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.48	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.48	1.306	ok	1.306	1.246-1.366
1,4-Dioxane	11.38	10.48	1.086	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.28	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.28	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.48	1.356	ok	1.355	1.295-1.415
Dibromomethane	11.00	10.48	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.02	8.28	0.848	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.10	8.28	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.40	10.48	1.183	ok	1.183	1.123-1.243

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V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

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Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.42	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.09	10.48	1.249	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.32	8.28	1.005	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.64	8.28	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.28	1.122	ok	1.121	1.061-1.181
Ethylbenzene	16.66	16.05	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.37	8.28	1.011	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.28	0.767	ok	0.766	0.706-0.826
Freon 114	4.17	8.28	0.504	ok	0.503	0.443-0.563
Freon 123	5.18	8.28	0.626	ok	0.625	0.565-0.685
Freon 123A	5.23	8.28	0.632	ok	0.631	0.571-0.691
Freon 141B	5.52	8.28	0.667	ok	0.666	0.606-0.726
Freon 142B	4.08	8.28	0.493	ok	0.492	0.432-0.552
Freon 143a	3.75	8.28	0.453	ok	0.452	0.392-0.512
Freon 152A	3.84	8.28	0.464	ok	0.463	0.403-0.523
Heptane	11.68	10.48	1.115	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.31	8.28	1.004	ok	1.002	0.942-1.062
2-Hexanone	14.06	10.48	1.342	ok	1.338	1.278-1.398
Iodomethane	5.92	8.28	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.51	16.05	1.153	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.52	8.28	0.667	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.28	0.738	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.68	8.28	0.928	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.48	10.48	1.191	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.31	8.28	0.883	ok	0.880	0.820-0.940
Methylmethacrylate	11.61	10.48	1.108	ok	1.106	1.046-1.166
Naphthalene	23.30	16.05	1.452	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	15.00	10.48	1.431	ok	1.430	1.370-1.490
Pentane	5.72	8.28	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.90	8.28	0.471	ok	0.471	0.411-0.531
Styrene	17.46	16.05	1.088	ok	1.088	1.028-1.148

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V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
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V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	9.51	8.28	1.149	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.48	1.535	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.48	1.269	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.17	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.48	1.082	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.07	8.28	0.733	ok	0.731	0.671-0.791
Tetrachloroethylene	15.16	10.48	1.447	ok	1.446	1.386-1.506
Tetrahydrofuran	8.93	8.28	1.079	ok	1.074	1.014-1.134
Toluene	13.65	10.48	1.302	ok	1.302	1.242-1.362
Trichloroethylene	11.31	10.48	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.28	0.655	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.28	0.517	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.28	0.893	ok	0.892	0.832-0.952
m,p-Xylene	16.91	16.05	1.054	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.28	ok	8.29	7.96-8.62	156402	ok	162544	97526-227562
1,4-Difluorobenzene	10.48	ok	10.49	10.16-10.82	586634	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	270919	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.29	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.70	8.29	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.06	8.29	0.610	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.29	0.530	ok	0.530	0.470-0.590
Benzene	10.06	8.29	1.214	ok	1.213	1.153-1.273
Bromobenzene	18.63	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.28	10.49	1.075	ok	1.075	1.015-1.135
Bromoform	17.01	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.62	8.29	0.557	ok	0.556	0.496-0.616
Bromoethene	5.06	8.29	0.610	ok	0.610	0.550-0.670
n-Butane	4.43	8.29	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.38	16.05	1.332	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.21	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.29	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.12	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.88	8.29	0.468	ok	0.468	0.408-0.528
Chloroethane	4.76	8.29	0.574	ok	0.574	0.514-0.634
Chloroform	8.43	8.29	1.017	ok	1.017	0.957-1.077
Chloromethane	4.10	8.29	0.495	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.29	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.23	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.23	8.29	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.29	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.23	8.29	0.872	ok	0.872	0.812-0.932
1,1-Dichloroethylene	6.00	8.29	0.724	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.49	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.24	8.29	1.115	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.49	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.49	1.305	ok	1.306	1.246-1.366
1,4-Dioxane	11.34	10.49	1.081	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.97	8.29	0.479	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.29	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.49	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.01	10.49	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.02	8.29	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.29	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.40	10.49	1.182	ok	1.183	1.123-1.243

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.41	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.08	10.49	1.247	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.31	8.29	1.002	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.29	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.29	1.121	ok	1.121	1.061-1.181
Ethanol	4.87	8.29	0.587	ok	0.588	0.528-0.648
Ethylbenzene	16.66	16.05	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.35	8.29	1.007	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.29	0.766	ok	0.766	0.706-0.826
Freon 114	4.18	8.29	0.504	ok	0.503	0.443-0.563
Freon 123	5.18	8.29	0.625	ok	0.625	0.565-0.685
Freon 123A	5.23	8.29	0.631	ok	0.631	0.571-0.691
Freon 141B	5.52	8.29	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.29	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.29	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.29	0.463	ok	0.463	0.403-0.523
Heptane	11.68	10.49	1.113	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.31	8.29	1.002	ok	1.002	0.942-1.062
2-Hexanone	14.02	10.49	1.337	ok	1.338	1.278-1.398
Iodomethane	5.93	8.29	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.51	16.05	1.153	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.50	8.29	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.29	0.737	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.64	8.29	0.922	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.45	10.49	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.28	8.29	0.878	ok	0.880	0.820-0.940
Methylmethacrylate	11.59	10.49	1.105	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	15.00	10.49	1.430	ok	1.430	1.370-1.490
Pentane	5.72	8.29	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.90	8.29	0.470	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.46	16.05	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.52	8.29	1.148	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.49	1.534	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.49	1.268	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.16	16.05	1.443	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.49	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.04	8.29	0.729	ok	0.731	0.671-0.791
Tetrachloroethylene	15.17	10.49	1.446	ok	1.446	1.386-1.506
Tetrahydrofuran	8.87	8.29	1.070	ok	1.074	1.014-1.134
Toluene	13.65	10.49	1.301	ok	1.302	1.242-1.362
Trichloroethylene	11.32	10.49	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.29	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.29	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.29	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.93	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.29	ok	8.29	7.96-8.62	159701	ok	162544	97526-227562
1,4-Difluorobenzene	10.49	ok	10.49	10.16-10.82	592191	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	300685	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.31	8.28	0.641	ok	0.638	0.578-0.698
Acrylonitrile	5.70	8.28	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.07	8.28	0.612	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.28	0.530	ok	0.530	0.470-0.590
Benzene	10.06	8.28	1.215	ok	1.213	1.153-1.273
Bromobenzene	18.64	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.27	10.48	1.075	ok	1.075	1.015-1.135
Bromoform	17.02	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.28	0.557	ok	0.556	0.496-0.616
Bromoethene	5.05	8.28	0.610	ok	0.610	0.550-0.670
n-Butane	4.43	8.28	0.535	ok	0.534	0.474-0.594
Benzyl Chloride	20.41	16.05	1.272	ok	1.271	1.211-1.331
n-Butylbenzene	21.39	16.05	1.333	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.21	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.28	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.11	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.88	8.28	0.469	ok	0.468	0.408-0.528
Chloroethane	4.76	8.28	0.575	ok	0.574	0.514-0.634
Chloroform	8.42	8.28	1.017	ok	1.017	0.957-1.077
Chloromethane	4.10	8.28	0.495	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.28	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.24	16.05	1.199	ok	1.198	1.138-1.258
Carbon tetrachloride	10.22	8.28	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.35	8.28	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.22	8.28	0.872	ok	0.872	0.812-0.932
1,1-Dichloroethylene	6.00	8.28	0.725	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.48	1.386	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.24	8.28	1.116	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.48	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.70	10.48	1.307	ok	1.306	1.246-1.366
Dichlorodifluoromethane	3.96	8.28	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.28	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.48	1.356	ok	1.355	1.295-1.415
Dibromomethane	11.01	10.48	1.051	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.02	8.28	0.848	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.28	0.979	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.41	10.48	1.184	ok	1.183	1.123-1.243
m-Dichlorobenzene	20.42	16.05	1.272	ok	1.272	1.212-1.332

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.52	16.05	1.279	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.10	10.48	1.250	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.33	8.28	1.006	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.28	1.286	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.28	1.122	ok	1.121	1.061-1.181
Ethylbenzene	16.67	16.05	1.039	ok	1.038	0.978-1.098
Ethyl Acetate	8.39	8.28	1.013	ok	1.009	0.949-1.069
4-Ethyltoluene	19.53	16.05	1.217	ok	1.216	1.156-1.276
Freon 113	6.35	8.28	0.767	ok	0.766	0.706-0.826
Freon 114	4.17	8.28	0.504	ok	0.503	0.443-0.563
Freon 123	5.18	8.28	0.626	ok	0.625	0.565-0.685
Freon 123A	5.23	8.28	0.632	ok	0.631	0.571-0.691
Freon 141B	5.51	8.28	0.665	ok	0.666	0.606-0.726
Freon 142B	4.08	8.28	0.493	ok	0.492	0.432-0.552
Freon 143a	3.75	8.28	0.453	ok	0.452	0.392-0.512
Freon 152A	3.84	8.28	0.464	ok	0.463	0.403-0.523
Heptane	11.69	10.48	1.115	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.31	8.28	1.004	ok	1.002	0.942-1.062
2-Hexanone	14.08	10.48	1.344	ok	1.338	1.278-1.398
Iodomethane	5.92	8.28	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.52	16.05	1.154	ok	1.154	1.094-1.214
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.28	0.738	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.69	8.28	0.929	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.49	10.48	1.192	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.31	8.28	0.883	ok	0.880	0.820-0.940
Methylmethacrylate	11.61	10.48	1.108	ok	1.106	1.046-1.166
Naphthalene	23.30	16.05	1.452	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	15.00	10.48	1.431	ok	1.430	1.370-1.490
Pentane	5.72	8.28	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.31	16.05	1.203	ok	1.203	1.143-1.263
Propylene	3.90	8.28	0.471	ok	0.471	0.411-0.531
Styrene	17.47	16.05	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.52	8.28	1.150	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.10	10.48	1.536	ok	1.535	1.475-1.595

6.7.3

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.48	1.269	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.18	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.65	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.33	10.48	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.09	8.28	0.736	ok	0.731	0.671-0.791
Tetrachloroethylene	15.16	10.48	1.447	ok	1.446	1.386-1.506
Tetrahydrofuran	8.95	8.28	1.081	ok	1.074	1.014-1.134
Toluene	13.65	10.48	1.302	ok	1.302	1.242-1.362
Trichloroethylene	11.32	10.48	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.41	8.28	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.28	0.517	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.28	0.893	ok	0.892	0.832-0.952
m,p-Xylene	16.94	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.28	ok	8.29	7.96-8.62	157444	ok	162544	97526-227562
1,4-Difluorobenzene	10.48	ok	10.49	10.16-10.82	596904	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	276760	ok	297348	178409-416287

6.7.3

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	5.71	8.28	0.690	ok	0.688	0.628-0.748
Acetonitrile	5.07	8.28	0.612	ok	0.611	0.551-0.671
1,3-Butadiene	4.38	8.28	0.529	ok	0.530	0.470-0.590
Benzene	10.05	8.28	1.214	ok	1.213	1.153-1.273
Bromobenzene	18.64	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.27	10.48	1.075	ok	1.075	1.015-1.135
Bromoform	17.02	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.28	0.557	ok	0.556	0.496-0.616
Bromoethene	5.06	8.28	0.611	ok	0.610	0.550-0.670
Benzyl Chloride	20.42	16.05	1.272	ok	1.271	1.211-1.331
n-Butylbenzene	21.40	16.05	1.333	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.21	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.28	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.11	16.05	1.004	ok	1.004	0.944-1.064
Chloroethane	4.76	8.28	0.575	ok	0.574	0.514-0.634
Chloroform	8.42	8.28	1.017	ok	1.017	0.957-1.077
Chloromethane	4.09	8.28	0.494	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.28	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.24	16.05	1.199	ok	1.198	1.138-1.258
Carbon tetrachloride	10.22	8.28	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.28	1.251	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.23	8.28	0.873	ok	0.872	0.812-0.932
1,1-Dichloroethylene	5.99	8.28	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.48	1.386	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.23	8.28	1.115	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.02	10.48	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.71	10.48	1.308	ok	1.306	1.246-1.366
Dichlorodifluoromethane	3.96	8.28	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.28	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.48	1.356	ok	1.355	1.295-1.415
Dibromomethane	11.00	10.48	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.01	8.28	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.10	8.28	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.41	10.48	1.184	ok	1.183	1.123-1.243
m-Dichlorobenzene	20.43	16.05	1.273	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.98	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.52	16.05	1.279	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.11	10.48	1.251	ok	1.248	1.188-1.308

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Di-Isopropyl ether	8.33	8.28	1.006	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.63	8.28	1.284	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.28	8.28	1.121	ok	1.121	1.061-1.181
Ethylbenzene	16.67	16.05	1.039	ok	1.038	0.978-1.098
4-Ethyltoluene	19.54	16.05	1.217	ok	1.216	1.156-1.276
Freon 113	6.35	8.28	0.767	ok	0.766	0.706-0.826
Freon 114	4.17	8.28	0.504	ok	0.503	0.443-0.563
Freon 123	5.18	8.28	0.626	ok	0.625	0.565-0.685
Freon 123A	5.23	8.28	0.632	ok	0.631	0.571-0.691
Freon 141B	5.52	8.28	0.667	ok	0.666	0.606-0.726
Freon 142B	4.08	8.28	0.493	ok	0.492	0.432-0.552
Freon 143a	3.74	8.28	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.28	0.464	ok	0.463	0.403-0.523
Heptane	11.67	10.48	1.114	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.30	8.28	1.002	ok	1.002	0.942-1.062
Iodomethane	5.92	8.28	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.52	16.05	1.154	ok	1.154	1.094-1.214
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.28	0.738	ok	0.737	0.677-0.797
Methyl Tert Butyl Ether	7.31	8.28	0.883	ok	0.880	0.820-0.940
Methylmethacrylate	11.63	10.48	1.110	ok	1.106	1.046-1.166
Naphthalene	23.31	16.05	1.452	ok	1.451	1.391-1.511
Nonane	17.99	16.05	1.121	ok	1.120	1.060-1.180
Octane	15.00	10.48	1.431	ok	1.430	1.370-1.490
n-Propylbenzene	19.32	16.05	1.204	ok	1.203	1.143-1.263
Styrene	17.48	16.05	1.089	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.51	8.28	1.149	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.09	10.48	1.535	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.31	10.48	1.270	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.18	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.82	16.05	1.110	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.23	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.65	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.48	1.082	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.09	8.28	0.736	ok	0.731	0.671-0.791
Tetrachloroethylene	15.17	10.48	1.448	ok	1.446	1.386-1.506

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Tetrahydrofuran	8.94	8.28	1.080	ok	1.074	1.014-1.134
Toluene	13.66	10.48	1.303	ok	1.302	1.242-1.362
Trichloroethylene	11.32	10.48	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.41	8.28	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.28	0.517	ok	0.516	0.456-0.576
Vinyl Acetate	7.40	8.28	0.894	ok	0.892	0.832-0.952
m,p-Xylene	16.94	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.28	ok	8.29	7.96-8.62	159611	ok	162544	97526-227562
1,4-Difluorobenzene	10.48	ok	10.49	10.16-10.82	599773	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	280374	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
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V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.30	0.636	ok	0.638	0.578-0.698
Acrylonitrile	5.70	8.30	0.687	ok	0.688	0.628-0.748
Acetonitrile	5.07	8.30	0.611	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.30	0.529	ok	0.530	0.470-0.590
Benzene	10.07	8.30	1.213	ok	1.213	1.153-1.273
Bromobenzene	18.63	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.28	10.49	1.075	ok	1.075	1.015-1.135
Bromoform	17.01	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.30	0.555	ok	0.556	0.496-0.616
Bromoethene	5.06	8.30	0.610	ok	0.610	0.550-0.670
n-Butane	4.43	8.30	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.39	16.05	1.333	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.21	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.40	8.30	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.12	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.88	8.30	0.467	ok	0.468	0.408-0.528
Chloroethane	4.76	8.30	0.573	ok	0.574	0.514-0.634
Chloroform	8.44	8.30	1.017	ok	1.017	0.957-1.077
Chloromethane	4.10	8.30	0.494	ok	0.494	0.434-0.554
3-Chloropropene	6.23	8.30	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.23	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.23	8.30	1.233	ok	1.234	1.174-1.294
Cyclohexane	10.37	8.30	1.249	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.23	8.30	0.871	ok	0.872	0.812-0.932
1,1-Dichloroethylene	6.00	8.30	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.49	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.25	8.30	1.114	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.49	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.49	1.305	ok	1.306	1.246-1.366
1,4-Dioxane	11.34	10.49	1.081	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.30	0.477	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.30	0.582	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.49	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.01	10.49	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.03	8.30	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.30	0.977	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.41	10.49	1.183	ok	1.183	1.123-1.243

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.42	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.08	10.49	1.247	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.32	8.30	1.002	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.30	1.283	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.30	1.119	ok	1.121	1.061-1.181
Ethanol	4.88	8.30	0.588	ok	0.588	0.528-0.648
Ethylbenzene	16.66	16.05	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.36	8.30	1.007	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.36	8.30	0.766	ok	0.766	0.706-0.826
Freon 114	4.17	8.30	0.502	ok	0.503	0.443-0.563
Freon 123	5.19	8.30	0.625	ok	0.625	0.565-0.685
Freon 123A	5.24	8.30	0.631	ok	0.631	0.571-0.691
Freon 141B	5.53	8.30	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.30	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.30	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.30	0.463	ok	0.463	0.403-0.523
Heptane	11.69	10.49	1.114	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.32	8.30	1.002	ok	1.002	0.942-1.062
2-Hexanone	14.02	10.49	1.337	ok	1.338	1.278-1.398
Iodomethane	5.94	8.30	0.716	ok	0.715	0.655-0.775
Isopropylbenzene	18.52	16.05	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.51	8.30	0.664	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.13	8.30	0.739	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.65	8.30	0.922	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.45	10.49	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.28	8.30	0.877	ok	0.880	0.820-0.940
Methylmethacrylate	11.59	10.49	1.105	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.98	16.05	1.120	ok	1.120	1.060-1.180
Octane	15.00	10.49	1.430	ok	1.430	1.370-1.490
Pentane	5.73	8.30	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.91	8.30	0.471	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

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V5W637-ICC637	5W15841.D	01/22/16 21:47	TCH	10	GCMS5W	TO-15	
V5W637-IC637	5W15842.D	01/22/16 22:29	TCH	5	GCMS5W	TO-15	
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V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	Reporting this level
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.46	16.05	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.53	8.30	1.148	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.10	10.49	1.535	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.49	1.268	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.17	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.22	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.64	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.49	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.05	8.30	0.729	ok	0.731	0.671-0.791
Tetrachloroethylene	15.17	10.49	1.446	ok	1.446	1.386-1.506
Tetrahydrofuran	8.87	8.30	1.069	ok	1.074	1.014-1.134
Toluene	13.65	10.49	1.301	ok	1.302	1.242-1.362
Trichloroethylene	11.33	10.49	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.30	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.30	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.30	0.890	ok	0.892	0.832-0.952
m,p-Xylene	16.94	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.73	16.05	0.357	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.30	ok	8.29	7.96-8.62	156620	ok	162544	97526-227562
1,4-Difluorobenzene	10.49	ok	10.49	10.16-10.82	575274	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	302180	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

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V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.29	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.70	8.29	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.06	8.29	0.610	ok	0.611	0.551-0.671
1,3-Butadiene	4.39	8.29	0.530	ok	0.530	0.470-0.590
Benzene	10.06	8.29	1.214	ok	1.213	1.153-1.273
Bromobenzene	18.63	16.05	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.28	10.49	1.075	ok	1.075	1.015-1.135
Bromoform	17.02	16.05	1.060	ok	1.060	1.000-1.120
Bromomethane	4.61	8.29	0.556	ok	0.556	0.496-0.616
Bromoethene	5.06	8.29	0.610	ok	0.610	0.550-0.670
n-Butane	4.43	8.29	0.534	ok	0.534	0.474-0.594
Benzyl Chloride	20.40	16.05	1.271	ok	1.271	1.211-1.331
n-Butylbenzene	21.39	16.05	1.333	ok	1.333	1.273-1.393
sec-Butylbenzene	20.59	16.05	1.283	ok	1.283	1.223-1.343
tert-Butylbenzene	20.21	16.05	1.259	ok	1.259	1.199-1.319
Carbon disulfide	6.39	8.29	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.12	16.05	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.87	8.29	0.467	ok	0.468	0.408-0.528
Chloroethane	4.76	8.29	0.574	ok	0.574	0.514-0.634
Chloroform	8.43	8.29	1.017	ok	1.017	0.957-1.077
Chloromethane	4.09	8.29	0.493	ok	0.494	0.434-0.554
3-Chloropropene	6.22	8.29	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.23	16.05	1.198	ok	1.198	1.138-1.258
Carbon tetrachloride	10.23	8.29	1.234	ok	1.234	1.174-1.294
Cyclohexane	10.36	8.29	1.250	ok	1.250	1.190-1.310
1,1-Dichloroethane	7.23	8.29	0.872	ok	0.872	0.812-0.932
1,1-Dichloroethylene	6.00	8.29	0.724	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.53	10.49	1.385	ok	1.386	1.326-1.446
1,2-Dichloroethane	9.25	8.29	1.116	ok	1.115	1.055-1.175
1,2-Dichloropropane	11.03	10.49	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.69	10.49	1.305	ok	1.306	1.246-1.366
1,4-Dioxane	11.34	10.49	1.081	ok	1.082	1.022-1.142
Dichlorodifluoromethane	3.96	8.29	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.83	8.29	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.21	10.49	1.355	ok	1.355	1.295-1.415
Dibromomethane	11.01	10.49	1.050	ok	1.049	0.989-1.109
trans-1,2-Dichloroethylene	7.02	8.29	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.11	8.29	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.41	10.49	1.183	ok	1.183	1.123-1.243

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V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.42	16.05	1.272	ok	1.272	1.212-1.332
o-Dichlorobenzene	20.97	16.05	1.307	ok	1.307	1.247-1.367
p-Dichlorobenzene	20.51	16.05	1.278	ok	1.278	1.218-1.338
trans-1,3-Dichloropropene	13.08	10.49	1.247	ok	1.248	1.188-1.308
Di-Isopropyl ether	8.32	8.29	1.004	ok	1.004	0.944-1.064
2,3-Dimethylpentane	10.65	8.29	1.285	ok	1.285	1.225-1.345
2,4-Dimethylpentane	9.29	8.29	1.121	ok	1.121	1.061-1.181
Ethanol	4.87	8.29	0.587	ok	0.588	0.528-0.648
Ethylbenzene	16.66	16.05	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.36	8.29	1.008	ok	1.009	0.949-1.069
4-Ethyltoluene	19.52	16.05	1.216	ok	1.216	1.156-1.276
Freon 113	6.35	8.29	0.766	ok	0.766	0.706-0.826
Freon 114	4.17	8.29	0.503	ok	0.503	0.443-0.563
Freon 123	5.18	8.29	0.625	ok	0.625	0.565-0.685
Freon 123A	5.23	8.29	0.631	ok	0.631	0.571-0.691
Freon 141B	5.52	8.29	0.666	ok	0.666	0.606-0.726
Freon 142B	4.08	8.29	0.492	ok	0.492	0.432-0.552
Freon 143a	3.75	8.29	0.452	ok	0.452	0.392-0.512
Freon 152A	3.84	8.29	0.463	ok	0.463	0.403-0.523
Heptane	11.69	10.49	1.114	ok	1.114	1.054-1.174
Hexachlorobutadiene	23.74	16.05	1.479	ok	1.479	1.419-1.539
Hexachloroethane	21.85	16.05	1.361	ok	1.361	1.301-1.421
Hexane	8.31	8.29	1.002	ok	1.002	0.942-1.062
2-Hexanone	14.02	10.49	1.337	ok	1.338	1.278-1.398
Iodomethane	5.93	8.29	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.52	16.05	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.50	8.29	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.82	16.05	1.297	ok	1.297	1.237-1.357
Methylene chloride	6.11	8.29	0.737	ok	0.737	0.677-0.797
Methyl ethyl ketone	7.64	8.29	0.922	ok	0.924	0.864-0.984
Methyl Isobutyl Ketone	12.45	10.49	1.187	ok	1.188	1.128-1.248
Methyl Tert Butyl Ether	7.28	8.29	0.878	ok	0.880	0.820-0.940
Methylmethacrylate	11.59	10.49	1.105	ok	1.106	1.046-1.166
Naphthalene	23.29	16.05	1.451	ok	1.451	1.391-1.511
Nonane	17.99	16.05	1.121	ok	1.120	1.060-1.180
Octane	15.00	10.49	1.430	ok	1.430	1.370-1.490
Pentane	5.72	8.29	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.30	16.05	1.202	ok	1.203	1.143-1.263
Propylene	3.90	8.29	0.470	ok	0.471	0.411-0.531

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V5W637-IC637	5W15843.D	01/22/16 23:13	TCH	0.5	GCMS5W	TO-15	
V5W637-IC637	5W15844.D	01/22/16 23:56	TCH	0.2	GCMS5W	TO-15	
V5W637-IC637	5W15845.D	01/23/16 00:40	TCH	20	GCMS5W	TO-15	
V5W637-IC637	5W15847.D	01/23/16 02:07	TCH	0.1	GCMS5W	TO-15	
V5W637-IC637	5W15848.D	01/23/16 02:48	TCH	0.04	GCMS5W	TO-15	
V5W637-IC637	5W15849.D	01/23/16 03:33	TCH	30	GCMS5W	TO-15	
V5W637-IC637	5W15851.D	01/23/16 05:01	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.46	16.05	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.53	8.29	1.150	ok	1.149	1.089-1.209
1,1,1,2-Tetrachloroethane	16.10	10.49	1.535	ok	1.535	1.475-1.595
1,1,2,2-Tetrachloroethane	17.61	16.05	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.30	10.49	1.268	ok	1.268	1.208-1.328
1,2,4-Trichlorobenzene	23.17	16.05	1.444	ok	1.444	1.384-1.504
1,2,3-Trichloropropane	17.80	16.05	1.109	ok	1.109	1.049-1.169
1,2,4-Trimethylbenzene	20.23	16.05	1.260	ok	1.260	1.200-1.320
1,3,5-Trimethylbenzene	19.65	16.05	1.224	ok	1.224	1.164-1.284
2,2,4-Trimethylpentane	11.34	10.49	1.081	ok	1.081	1.021-1.141
Tertiary Butyl Alcohol	6.05	8.29	0.730	ok	0.731	0.671-0.791
Tetrachloroethylene	15.17	10.49	1.446	ok	1.446	1.386-1.506
Tetrahydrofuran	8.87	8.29	1.070	ok	1.074	1.014-1.134
Toluene	13.65	10.49	1.301	ok	1.302	1.242-1.362
Trichloroethylene	11.33	10.49	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.42	8.29	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.28	8.29	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.39	8.29	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.94	16.05	1.055	ok	1.055	0.995-1.115
o-Xylene	17.61	16.05	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.72	16.05	0.356	ok	0.356	0.296-0.416

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.29	ok	8.29	7.96-8.62	171418	ok	162544	97526-227562
1,4-Difluorobenzene	10.49	ok	10.49	10.16-10.82	631746	ok	609752	365851-853653
Chlorobenzene-D5	16.05	ok	16.05	15.72-16.38	339871	ok	297348	178409-416287

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.25	8.25	0.636	ok	0.638	0.578-0.698
Acrylonitrile	5.67	8.25	0.687	ok	0.688	0.628-0.748
Acetonitrile	5.03	8.25	0.610	ok	0.611	0.551-0.671
1,3-Butadiene	4.36	8.25	0.528	ok	0.529	0.469-0.589
Benzene	10.01	8.25	1.213	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.25	0.556	ok	0.557	0.497-0.617
Bromoethene	5.03	8.25	0.610	ok	0.610	0.550-0.670
n-Butane	4.41	8.25	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.17	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.25	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.25	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.25	0.573	ok	0.574	0.514-0.634
Chloroform	8.38	8.25	1.016	ok	1.017	0.957-1.077
Chloromethane	4.08	8.25	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.25	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.18	8.25	1.234	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.25	1.251	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.25	0.870	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.25	0.722	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.48	10.44	1.387	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.25	1.115	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.65	10.44	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.30	10.44	1.082	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.94	8.25	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.80	8.25	0.582	ok	0.583	0.523-0.643
Dibromochloromethane	14.16	10.44	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.25	0.846	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.06	8.25	0.977	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.36	10.44	1.184	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

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V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.38	16.01	1.273	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.44	1.249	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.28	8.25	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.25	1.285	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.25	8.25	1.121	ok	1.122	1.062-1.182
Ethanol	4.85	8.25	0.588	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.32	8.25	1.008	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.25	0.766	ok	0.767	0.707-0.827
Freon 114	4.16	8.25	0.504	ok	0.505	0.445-0.565
Freon 123	5.15	8.25	0.624	ok	0.625	0.565-0.685
Freon 123A	5.20	8.25	0.630	ok	0.631	0.571-0.691
Freon 141B	5.49	8.25	0.665	ok	0.666	0.606-0.726
Freon 142B	4.06	8.25	0.492	ok	0.493	0.433-0.553
Freon 143a	3.73	8.25	0.452	ok	0.452	0.392-0.512
Freon 152A	3.83	8.25	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.25	1.002	ok	1.003	0.943-1.063
2-Hexanone	13.99	10.44	1.340	ok	1.340	1.280-1.400
Iodomethane	5.89	8.25	0.714	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.47	8.25	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.25	0.737	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.61	8.25	0.922	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.41	10.44	1.189	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.25	8.25	0.879	ok	0.881	0.821-0.941
Methylmethacrylate	11.56	10.44	1.107	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.95	10.44	1.432	ok	1.432	1.372-1.492
Pentane	5.69	8.25	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.26	16.01	1.203	ok	1.203	1.143-1.263
Propylene	3.89	8.25	0.472	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.41	16.01	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.25	1.149	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.14	16.01	1.445	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.01	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.18	16.01	1.260	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.60	16.01	1.224	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.01	8.25	0.728	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.84	8.25	1.072	ok	1.075	1.015-1.135
Toluene	13.61	10.44	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.25	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.26	8.25	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.34	8.25	0.890	ok	0.892	0.832-0.952
m,p-Xylene	16.89	16.01	1.055	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.25	ok	8.25	7.92-8.58	180567	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	667683	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	325233	ok	317888	190733-445043

6.7.4

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Initial Calibration Retention Time/Internal Standard Area Summary

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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

6.7.4

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Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.25	8.24	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.66	8.24	0.687	ok	0.688	0.628-0.748
Acetonitrile	5.03	8.24	0.610	ok	0.611	0.551-0.671
1,3-Butadiene	4.36	8.24	0.529	ok	0.529	0.469-0.589
Benzene	10.01	8.24	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.24	0.557	ok	0.557	0.497-0.617
Bromoethene	5.02	8.24	0.609	ok	0.610	0.550-0.670
n-Butane	4.41	8.24	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.35	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.17	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.24	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.24	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.24	0.574	ok	0.574	0.514-0.634
Chloroform	8.38	8.24	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.24	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.24	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.18	8.24	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.24	1.252	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.24	0.871	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.24	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.48	10.44	1.387	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.24	1.117	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.64	10.44	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.31	10.44	1.083	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.94	8.24	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.80	8.24	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.16	10.44	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.24	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.06	8.24	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.36	10.44	1.184	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

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V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.38	16.01	1.273	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.44	1.249	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.27	8.24	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.24	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.25	8.24	1.123	ok	1.122	1.062-1.182
Ethanol	4.84	8.24	0.587	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.32	8.24	1.010	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.24	0.767	ok	0.767	0.707-0.827
Freon 114	4.16	8.24	0.505	ok	0.505	0.445-0.565
Freon 123	5.15	8.24	0.625	ok	0.625	0.565-0.685
Freon 123A	5.20	8.24	0.631	ok	0.631	0.571-0.691
Freon 141B	5.49	8.24	0.666	ok	0.666	0.606-0.726
Freon 142B	4.06	8.24	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.24	0.453	ok	0.452	0.392-0.512
Freon 152A	3.82	8.24	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.71	16.01	1.481	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.24	1.004	ok	1.003	0.943-1.063
2-Hexanone	13.99	10.44	1.340	ok	1.340	1.280-1.400
Iodomethane	5.89	8.24	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.47	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.46	8.24	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.24	0.738	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.61	8.24	0.924	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.41	10.44	1.189	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.25	8.24	0.880	ok	0.881	0.821-0.941
Methylmethacrylate	11.55	10.44	1.106	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.94	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.95	10.44	1.432	ok	1.432	1.372-1.492
Pentane	5.69	8.24	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.26	16.01	1.203	ok	1.203	1.143-1.263
Propylene	3.89	8.24	0.472	ok	0.471	0.411-0.531

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.41	16.01	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.24	1.150	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.14	16.01	1.445	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.01	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.18	16.01	1.260	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.60	16.01	1.224	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.01	8.24	0.729	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.85	8.24	1.074	ok	1.075	1.015-1.135
Toluene	13.60	10.44	1.303	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.24	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.25	8.24	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.34	8.24	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.89	16.01	1.055	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.24	ok	8.25	7.92-8.58	177341	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	659619	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	312271	ok	317888	190733-445043

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.27	8.24	0.640	ok	0.638	0.578-0.698
Acrylonitrile	5.67	8.24	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.04	8.24	0.612	ok	0.611	0.551-0.671
1,3-Butadiene	4.36	8.24	0.529	ok	0.529	0.469-0.589
Benzene	10.01	8.24	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.22	10.44	1.075	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.24	0.557	ok	0.557	0.497-0.617
Bromoethene	5.02	8.24	0.609	ok	0.610	0.550-0.670
n-Butane	4.41	8.24	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.17	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.24	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.24	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.24	0.574	ok	0.574	0.514-0.634
Chloroform	8.38	8.24	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.24	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.24	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.18	8.24	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.24	1.252	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.24	0.871	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.24	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.48	10.44	1.387	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.24	1.117	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.65	10.44	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.34	10.44	1.086	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.94	8.24	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.80	8.24	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.16	10.44	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.24	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.06	8.24	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.36	10.44	1.184	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.38	16.01	1.273	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.44	1.249	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.28	8.24	1.005	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.24	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.25	8.24	1.123	ok	1.122	1.062-1.182
Ethanol	4.85	8.24	0.589	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.34	8.24	1.012	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.24	0.767	ok	0.767	0.707-0.827
Freon 114	4.16	8.24	0.505	ok	0.505	0.445-0.565
Freon 123	5.15	8.24	0.625	ok	0.625	0.565-0.685
Freon 123A	5.20	8.24	0.631	ok	0.631	0.571-0.691
Freon 141B	5.49	8.24	0.666	ok	0.666	0.606-0.726
Freon 142B	4.06	8.24	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.24	0.453	ok	0.452	0.392-0.512
Freon 152A	3.82	8.24	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.24	1.004	ok	1.003	0.943-1.063
2-Hexanone	14.01	10.44	1.342	ok	1.340	1.280-1.400
Iodomethane	5.89	8.24	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.48	8.24	0.665	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.24	0.738	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.64	8.24	0.927	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.43	10.44	1.191	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.26	8.24	0.881	ok	0.881	0.821-0.941
Methylmethacrylate	11.56	10.44	1.107	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.94	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.95	10.44	1.432	ok	1.432	1.372-1.492
Pentane	5.69	8.24	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.27	16.01	1.204	ok	1.203	1.143-1.263
Propylene	3.88	8.24	0.471	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.42	16.01	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.24	1.150	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.01	1.446	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.01	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.19	16.01	1.261	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.60	16.01	1.224	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.03	8.24	0.732	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.88	8.24	1.078	ok	1.075	1.015-1.135
Toluene	13.61	10.44	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.24	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.25	8.24	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.36	8.24	0.893	ok	0.892	0.832-0.952
m,p-Xylene	16.87	16.01	1.054	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.24	ok	8.25	7.92-8.58	171672	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	641990	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	292264	ok	317888	190733-445043

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

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Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.28	8.24	0.641	ok	0.638	0.578-0.698
Acrylonitrile	5.67	8.24	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.05	8.24	0.613	ok	0.611	0.551-0.671
1,3-Butadiene	4.36	8.24	0.529	ok	0.529	0.469-0.589
Benzene	10.01	8.24	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.24	0.557	ok	0.557	0.497-0.617
Bromoethene	5.02	8.24	0.609	ok	0.610	0.550-0.670
n-Butane	4.40	8.24	0.534	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.17	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.35	8.24	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.24	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.24	0.574	ok	0.574	0.514-0.634
Chloroform	8.38	8.24	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.24	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.24	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.20	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.19	8.24	1.237	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.24	1.252	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.24	0.871	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.24	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.44	1.388	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.24	1.117	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.66	10.44	1.308	ok	1.308	1.248-1.368
1,4-Dioxane	11.36	10.44	1.088	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.94	8.24	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.80	8.24	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.16	10.44	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.24	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.06	8.24	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.37	10.44	1.185	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.39	16.01	1.274	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.05	10.44	1.250	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.29	8.24	1.006	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.24	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.24	8.24	1.121	ok	1.122	1.062-1.182
Ethanol	4.86	8.24	0.590	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.34	8.24	1.012	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.24	0.767	ok	0.767	0.707-0.827
Freon 114	4.16	8.24	0.505	ok	0.505	0.445-0.565
Freon 123	5.15	8.24	0.625	ok	0.625	0.565-0.685
Freon 123A	5.20	8.24	0.631	ok	0.631	0.571-0.691
Freon 141B	5.49	8.24	0.666	ok	0.666	0.606-0.726
Freon 142B	4.06	8.24	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.24	0.453	ok	0.452	0.392-0.512
Freon 152A	3.82	8.24	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.24	1.004	ok	1.003	0.943-1.063
2-Hexanone	14.03	10.44	1.344	ok	1.340	1.280-1.400
Iodomethane	5.89	8.24	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.49	8.24	0.666	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.24	0.738	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.66	8.24	0.930	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.45	10.44	1.193	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.27	8.24	0.882	ok	0.881	0.821-0.941
Methylmethacrylate	11.58	10.44	1.109	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.96	10.44	1.433	ok	1.432	1.372-1.492
Pentane	5.69	8.24	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.27	16.01	1.204	ok	1.203	1.143-1.263
Propylene	3.88	8.24	0.471	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

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V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

6.7.4

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Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.42	16.01	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.24	1.150	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.01	1.446	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.77	16.01	1.110	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.19	16.01	1.261	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.61	16.01	1.225	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.05	8.24	0.734	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.90	8.24	1.080	ok	1.075	1.015-1.135
Toluene	13.61	10.44	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.27	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.24	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.25	8.24	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.36	8.24	0.893	ok	0.892	0.832-0.952
m,p-Xylene	16.88	16.01	1.054	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.24	ok	8.25	7.92-8.58	179905	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	664989	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	305318	ok	317888	190733-445043

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V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.25	8.25	0.636	ok	0.638	0.578-0.698
Acrylonitrile	5.67	8.25	0.687	ok	0.688	0.628-0.748
Acetonitrile	5.04	8.25	0.611	ok	0.611	0.551-0.671
1,3-Butadiene	4.36	8.25	0.528	ok	0.529	0.469-0.589
Benzene	10.02	8.25	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.25	0.556	ok	0.557	0.497-0.617
Bromoethene	5.03	8.25	0.610	ok	0.610	0.550-0.670
n-Butane	4.41	8.25	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.18	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.25	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.25	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.25	0.573	ok	0.574	0.514-0.634
Chloroform	8.39	8.25	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.25	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.25	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.19	8.25	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.25	1.251	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.19	8.25	0.872	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.25	0.722	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.44	1.388	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.25	1.115	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.65	10.44	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.30	10.44	1.082	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.94	8.25	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.80	8.25	0.582	ok	0.583	0.523-0.643
Dibromochloromethane	14.17	10.44	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.25	0.846	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.07	8.25	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.36	10.44	1.184	ok	1.184	1.124-1.244

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V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.38	16.01	1.273	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.44	1.249	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.28	8.25	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.61	8.25	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.25	8.25	1.121	ok	1.122	1.062-1.182
Ethanol	4.85	8.25	0.588	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.32	8.25	1.008	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.25	0.766	ok	0.767	0.707-0.827
Freon 114	4.16	8.25	0.504	ok	0.505	0.445-0.565
Freon 123	5.15	8.25	0.624	ok	0.625	0.565-0.685
Freon 123A	5.20	8.25	0.630	ok	0.631	0.571-0.691
Freon 141B	5.49	8.25	0.665	ok	0.666	0.606-0.726
Freon 142B	4.06	8.25	0.492	ok	0.493	0.433-0.553
Freon 143a	3.73	8.25	0.452	ok	0.452	0.392-0.512
Freon 152A	3.83	8.25	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.25	1.002	ok	1.003	0.943-1.063
2-Hexanone	13.99	10.44	1.340	ok	1.340	1.280-1.400
Iodomethane	5.90	8.25	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.47	8.25	0.663	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.25	0.737	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.61	8.25	0.922	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.41	10.44	1.189	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.25	8.25	0.879	ok	0.881	0.821-0.941
Methylmethacrylate	11.56	10.44	1.107	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.95	10.44	1.432	ok	1.432	1.372-1.492
Pentane	5.69	8.25	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.27	16.01	1.204	ok	1.203	1.143-1.263
Propylene	3.89	8.25	0.472	ok	0.471	0.411-0.531

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V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.41	16.01	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.25	1.149	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.01	1.446	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.01	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.19	16.01	1.261	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.61	16.01	1.225	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.02	8.25	0.730	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.84	8.25	1.072	ok	1.075	1.015-1.135
Toluene	13.61	10.44	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.25	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.26	8.25	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.35	8.25	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.89	16.01	1.055	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.25	ok	8.25	7.92-8.58	177749	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	650547	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	329194	ok	317888	190733-445043

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.29	8.24	0.642	ok	0.638	0.578-0.698
Acrylonitrile	5.68	8.24	0.689	ok	0.688	0.628-0.748
1,3-Butadiene	4.37	8.24	0.530	ok	0.529	0.469-0.589
Benzene	10.02	8.24	1.216	ok	1.215	1.155-1.275
Bromobenzene	18.60	16.01	1.162	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.59	8.24	0.557	ok	0.557	0.497-0.617
Bromoethene	5.03	8.24	0.610	ok	0.610	0.550-0.670
n-Butane	4.41	8.24	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.38	16.01	1.273	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.17	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.24	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.24	0.468	ok	0.468	0.408-0.528
Chloroethane	4.73	8.24	0.574	ok	0.574	0.514-0.634
Chloroform	8.38	8.24	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.24	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.24	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.20	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.18	8.24	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.31	8.24	1.251	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.24	0.871	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.24	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.44	1.388	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.24	1.117	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.66	10.44	1.308	ok	1.308	1.248-1.368
Dichlorodifluoromethane	3.94	8.24	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.81	8.24	0.584	ok	0.583	0.523-0.643
Dibromochloromethane	14.17	10.44	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.24	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.06	8.24	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.37	10.44	1.185	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.39	16.01	1.274	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.95	16.01	1.309	ok	1.308	1.248-1.368

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.06	10.44	1.251	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.30	8.24	1.007	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.24	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.24	8.24	1.121	ok	1.122	1.062-1.182
Ethylbenzene	16.63	16.01	1.039	ok	1.038	0.978-1.098
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.24	0.767	ok	0.767	0.707-0.827
Freon 114	4.16	8.24	0.505	ok	0.505	0.445-0.565
Freon 123	5.15	8.24	0.625	ok	0.625	0.565-0.685
Freon 123A	5.20	8.24	0.631	ok	0.631	0.571-0.691
Freon 141B	5.49	8.24	0.666	ok	0.666	0.606-0.726
Freon 142B	4.06	8.24	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.24	0.453	ok	0.452	0.392-0.512
Freon 152A	3.82	8.24	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.26	8.24	1.002	ok	1.003	0.943-1.063
Iodomethane	5.89	8.24	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
p-Isopropyltoluene	20.79	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.24	0.738	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.66	8.24	0.930	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.46	10.44	1.193	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.29	8.24	0.885	ok	0.881	0.821-0.941
Methylmethacrylate	11.59	10.44	1.110	ok	1.107	1.047-1.167
Naphthalene	23.28	16.01	1.454	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.96	10.44	1.433	ok	1.432	1.372-1.492
n-Propylbenzene	19.27	16.01	1.204	ok	1.203	1.143-1.263
Propylene	3.88	8.24	0.471	ok	0.471	0.411-0.531
Styrene	17.43	16.01	1.089	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.24	1.150	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.26	10.44	1.270	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.01	1.446	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.77	16.01	1.110	ok	1.110	1.050-1.170

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,2,4-Trimethylbenzene	20.19	16.01	1.261	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.62	16.01	1.225	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.44	1.082	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.06	8.24	0.735	ok	0.732	0.672-0.792
Tetrachloroethylene	15.13	10.44	1.449	ok	1.448	1.388-1.508
Tetrahydrofuran	8.90	8.24	1.080	ok	1.075	1.015-1.135
Toluene	13.61	10.44	1.304	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.24	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.26	8.24	0.517	ok	0.516	0.456-0.576
Vinyl Acetate	7.36	8.24	0.893	ok	0.892	0.832-0.952
m,p-Xylene	16.87	16.01	1.054	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.24	ok	8.25	7.92-8.58	171654	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	638243	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	289153	ok	317888	190733-445043

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	5.67	8.24	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	4.36	8.24	0.529	ok	0.529	0.469-0.589
Benzene	10.01	8.24	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.60	16.01	1.162	ok	1.161	1.101-1.221
Bromodichloromethane	11.23	10.44	1.076	ok	1.075	1.015-1.135
Bromoform	16.98	16.01	1.061	ok	1.060	1.000-1.120
Bromomethane	4.60	8.24	0.558	ok	0.557	0.497-0.617
Bromoethene	5.03	8.24	0.610	ok	0.610	0.550-0.670
Benzyl Chloride	20.39	16.01	1.274	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.18	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.24	0.772	ok	0.771	0.711-0.831
Chlorobenzene	16.07	16.01	1.004	ok	1.004	0.944-1.064
Chloroethane	4.72	8.24	0.573	ok	0.574	0.514-0.634
Chloroform	8.38	8.24	1.017	ok	1.017	0.957-1.077
Chloromethane	4.08	8.24	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.24	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.21	16.01	1.200	ok	1.199	1.139-1.259
Carbon tetrachloride	10.18	8.24	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.31	8.24	1.251	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.18	8.24	0.871	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.96	8.24	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.44	1.388	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.20	8.24	1.117	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.98	10.44	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.67	10.44	1.309	ok	1.308	1.248-1.368
Dichlorodifluoromethane	3.94	8.24	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.81	8.24	0.584	ok	0.583	0.523-0.643
Dibromochloromethane	14.18	10.44	1.358	ok	1.357	1.297-1.417
Dibromomethane	10.96	10.44	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.98	8.24	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.07	8.24	0.979	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.38	10.44	1.186	ok	1.184	1.124-1.244
m-Dichlorobenzene	20.39	16.01	1.274	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.95	16.01	1.309	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.49	16.01	1.280	ok	1.279	1.219-1.339
Di-Isopropyl ether	8.30	8.24	1.007	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.60	8.24	1.286	ok	1.286	1.226-1.346

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
2,4-Dimethylpentane	9.25	8.24	1.123	ok	1.122	1.062-1.182
Ethylbenzene	16.64	16.01	1.039	ok	1.038	0.978-1.098
4-Ethyltoluene	19.50	16.01	1.218	ok	1.217	1.157-1.277
Freon 113	6.32	8.24	0.767	ok	0.767	0.707-0.827
Freon 114	4.16	8.24	0.505	ok	0.505	0.445-0.565
Freon 123	5.15	8.24	0.625	ok	0.625	0.565-0.685
Freon 123A	5.20	8.24	0.631	ok	0.631	0.571-0.691
Freon 141B	5.49	8.24	0.666	ok	0.666	0.606-0.726
Freon 142B	4.06	8.24	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.24	0.453	ok	0.452	0.392-0.512
Freon 152A	3.82	8.24	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.44	1.115	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.71	16.01	1.481	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.24	1.004	ok	1.003	0.943-1.063
Iodomethane	5.89	8.24	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
p-Isopropyltoluene	20.80	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.08	8.24	0.738	ok	0.738	0.678-0.798
Methyl Tert Butyl Ether	7.29	8.24	0.885	ok	0.881	0.821-0.941
Naphthalene	23.29	16.01	1.455	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.96	10.44	1.433	ok	1.432	1.372-1.492
n-Propylbenzene	19.28	16.01	1.204	ok	1.203	1.143-1.263
Styrene	17.44	16.01	1.089	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.24	1.150	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.44	1.537	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.58	16.01	1.098	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.25	10.44	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.16	16.01	1.447	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.78	16.01	1.111	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.20	16.01	1.262	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.61	16.01	1.225	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.29	10.44	1.081	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.08	8.24	0.738	ok	0.732	0.672-0.792
Tetrachloroethylene	15.12	10.44	1.448	ok	1.448	1.388-1.508
Toluene	13.62	10.44	1.305	ok	1.303	1.243-1.363
Trichloroethylene	11.27	10.44	1.080	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.38	8.24	0.653	ok	0.654	0.594-0.714

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Vinyl chloride	4.25	8.24	0.516	ok	0.516	0.456-0.576
m,p-Xylene	16.91	16.01	1.056	ok	1.055	0.995-1.115
o-Xylene	17.58	16.01	1.098	ok	1.097	1.037-1.157

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.24	ok	8.25	7.92-8.58	175600	ok	178014	106808-249220
1,4-Difluorobenzene	10.44	ok	10.44	10.11-10.77	648235	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	298093	ok	317888	190733-445043

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.26	8.26	0.637	ok	0.638	0.578-0.698
Acrylonitrile	5.68	8.26	0.688	ok	0.688	0.628-0.748
Acetonitrile	5.05	8.26	0.611	ok	0.611	0.551-0.671
1,3-Butadiene	4.38	8.26	0.530	ok	0.529	0.469-0.589
Benzene	10.02	8.26	1.213	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.02	1.160	ok	1.161	1.101-1.221
Bromodichloromethane	11.24	10.46	1.075	ok	1.075	1.015-1.135
Bromoform	16.97	16.02	1.059	ok	1.060	1.000-1.120
Bromomethane	4.60	8.26	0.557	ok	0.557	0.497-0.617
Bromoethene	5.04	8.26	0.610	ok	0.610	0.550-0.670
n-Butane	4.41	8.26	0.534	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.02	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.02	1.333	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.02	1.283	ok	1.284	1.224-1.344
tert-Butylbenzene	20.18	16.02	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.37	8.26	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.08	16.02	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.87	8.26	0.469	ok	0.468	0.408-0.528
Chloroethane	4.74	8.26	0.574	ok	0.574	0.514-0.634
Chloroform	8.40	8.26	1.017	ok	1.017	0.957-1.077
Chloromethane	4.09	8.26	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.20	8.26	0.751	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.02	1.198	ok	1.199	1.139-1.259
Carbon tetrachloride	10.19	8.26	1.234	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.26	1.249	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.20	8.26	0.872	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.97	8.26	0.723	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.46	1.385	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.21	8.26	1.115	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.99	10.46	1.051	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.66	10.46	1.306	ok	1.308	1.248-1.368
1,4-Dioxane	11.31	10.46	1.081	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.95	8.26	0.478	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.82	8.26	0.584	ok	0.583	0.523-0.643
Dibromochloromethane	14.18	10.46	1.356	ok	1.357	1.297-1.417
Dibromomethane	10.97	10.46	1.049	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.99	8.26	0.846	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.08	8.26	0.978	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.37	10.46	1.183	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.39	16.02	1.273	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.02	1.307	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.02	1.278	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.46	1.247	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.29	8.26	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.62	8.26	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.26	8.26	1.121	ok	1.122	1.062-1.182
Ethanol	4.87	8.26	0.590	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.02	1.037	ok	1.038	0.978-1.098
Ethyl Acetate	8.33	8.26	1.008	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.02	1.217	ok	1.217	1.157-1.277
Freon 113	6.33	8.26	0.766	ok	0.767	0.707-0.827
Freon 114	4.16	8.26	0.504	ok	0.505	0.445-0.565
Freon 123	5.17	8.26	0.626	ok	0.625	0.565-0.685
Freon 123A	5.21	8.26	0.631	ok	0.631	0.571-0.691
Freon 141B	5.50	8.26	0.666	ok	0.666	0.606-0.726
Freon 142B	4.07	8.26	0.493	ok	0.493	0.433-0.553
Freon 143a	3.73	8.26	0.452	ok	0.452	0.392-0.512
Freon 152A	3.83	8.26	0.464	ok	0.464	0.404-0.524
Heptane	11.65	10.46	1.114	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.02	1.481	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.02	1.362	ok	1.363	1.303-1.423
Hexane	8.28	8.26	1.002	ok	1.003	0.943-1.063
2-Hexanone	13.99	10.46	1.337	ok	1.340	1.280-1.400
Iodomethane	5.91	8.26	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.02	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.49	8.26	0.665	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.79	16.02	1.298	ok	1.299	1.239-1.359
Methylene chloride	6.09	8.26	0.737	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.62	8.26	0.923	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.42	10.46	1.187	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.25	8.26	0.878	ok	0.881	0.821-0.941
Methylmethacrylate	11.56	10.46	1.105	ok	1.107	1.047-1.167
Naphthalene	23.27	16.02	1.453	ok	1.454	1.394-1.514
Nonane	17.94	16.02	1.120	ok	1.121	1.061-1.181
Octane	14.96	10.46	1.430	ok	1.432	1.372-1.492
Pentane	5.70	8.26	0.690	ok	0.690	0.630-0.750
n-Propylbenzene	19.27	16.02	1.203	ok	1.203	1.143-1.263
Propylene	3.89	8.26	0.471	ok	0.471	0.411-0.531

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	Reporting this level
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.42	16.02	1.087	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.49	8.26	1.149	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.46	1.534	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.02	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.26	10.46	1.268	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.02	1.445	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.02	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.19	16.02	1.260	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.61	16.02	1.224	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.46	1.080	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.03	8.26	0.730	ok	0.732	0.672-0.792
Tetrachloroethylene	15.13	10.46	1.446	ok	1.448	1.388-1.508
Tetrahydrofuran	8.85	8.26	1.071	ok	1.075	1.015-1.135
Toluene	13.61	10.46	1.301	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.46	1.078	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.40	8.26	0.654	ok	0.654	0.594-0.714
Vinyl chloride	4.27	8.26	0.517	ok	0.516	0.456-0.576
Vinyl Acetate	7.36	8.26	0.891	ok	0.892	0.832-0.952
m,p-Xylene	16.89	16.02	1.054	ok	1.055	0.995-1.115
o-Xylene	17.57	16.02	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.70	16.02	0.356	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.26	ok	8.25	7.92-8.58	182768	ok	178014	106808-249220
1,4-Difluorobenzene	10.46	ok	10.44	10.11-10.77	654579	ok	653651	392191-915111
Chlorobenzene-D5	16.02	ok	16.01	15.68-16.34	346476	ok	317888	190733-445043

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	5.25	8.25	0.636	ok	0.638	0.578-0.698
Acrylonitrile	5.67	8.25	0.687	ok	0.688	0.628-0.748
Acetonitrile	5.04	8.25	0.611	ok	0.611	0.551-0.671
1,3-Butadiene	4.37	8.25	0.530	ok	0.529	0.469-0.589
Benzene	10.02	8.25	1.215	ok	1.215	1.155-1.275
Bromobenzene	18.59	16.01	1.161	ok	1.161	1.101-1.221
Bromodichloromethane	11.24	10.45	1.076	ok	1.075	1.015-1.135
Bromoform	16.97	16.01	1.060	ok	1.060	1.000-1.120
Bromomethane	4.60	8.25	0.558	ok	0.557	0.497-0.617
Bromoethene	5.03	8.25	0.610	ok	0.610	0.550-0.670
n-Butane	4.41	8.25	0.535	ok	0.535	0.475-0.595
Benzyl Chloride	20.37	16.01	1.272	ok	1.272	1.212-1.332
n-Butylbenzene	21.36	16.01	1.334	ok	1.334	1.274-1.394
sec-Butylbenzene	20.56	16.01	1.284	ok	1.284	1.224-1.344
tert-Butylbenzene	20.18	16.01	1.260	ok	1.260	1.200-1.320
Carbon disulfide	6.36	8.25	0.771	ok	0.771	0.711-0.831
Chlorobenzene	16.08	16.01	1.004	ok	1.004	0.944-1.064
Chlorodifluoromethane	3.86	8.25	0.468	ok	0.468	0.408-0.528
Chloroethane	4.74	8.25	0.575	ok	0.574	0.514-0.634
Chloroform	8.40	8.25	1.018	ok	1.017	0.957-1.077
Chloromethane	4.08	8.25	0.495	ok	0.495	0.435-0.555
3-Chloropropene	6.19	8.25	0.750	ok	0.751	0.691-0.811
2-Chlorotoluene	19.19	16.01	1.199	ok	1.199	1.139-1.259
Carbon tetrachloride	10.19	8.25	1.235	ok	1.235	1.175-1.295
Cyclohexane	10.32	8.25	1.251	ok	1.251	1.191-1.311
1,1-Dichloroethane	7.20	8.25	0.873	ok	0.871	0.811-0.931
1,1-Dichloroethylene	5.97	8.25	0.724	ok	0.723	0.663-0.783
1,2-Dibromoethane	14.49	10.45	1.387	ok	1.387	1.327-1.447
1,2-Dichloroethane	9.21	8.25	1.116	ok	1.116	1.056-1.176
1,2-Dichloropropane	10.99	10.45	1.052	ok	1.052	0.992-1.112
1,3-Dichloropropane	13.66	10.45	1.307	ok	1.308	1.248-1.368
1,4-Dioxane	11.30	10.45	1.081	ok	1.084	1.024-1.144
Dichlorodifluoromethane	3.95	8.25	0.479	ok	0.478	0.418-0.538
Dichlorofluoromethane	4.81	8.25	0.583	ok	0.583	0.523-0.643
Dibromochloromethane	14.18	10.45	1.357	ok	1.357	1.297-1.417
Dibromomethane	10.97	10.45	1.050	ok	1.050	0.990-1.110
trans-1,2-Dichloroethylene	6.99	8.25	0.847	ok	0.847	0.787-0.907
cis-1,2-Dichloroethylene	8.08	8.25	0.979	ok	0.978	0.918-1.038
cis-1,3-Dichloropropene	12.37	10.45	1.184	ok	1.184	1.124-1.244

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	20.39	16.01	1.274	ok	1.273	1.213-1.333
o-Dichlorobenzene	20.94	16.01	1.308	ok	1.308	1.248-1.368
p-Dichlorobenzene	20.48	16.01	1.279	ok	1.279	1.219-1.339
trans-1,3-Dichloropropene	13.04	10.45	1.248	ok	1.249	1.189-1.309
Di-Isopropyl ether	8.28	8.25	1.004	ok	1.005	0.945-1.065
2,3-Dimethylpentane	10.61	8.25	1.286	ok	1.286	1.226-1.346
2,4-Dimethylpentane	9.25	8.25	1.121	ok	1.122	1.062-1.182
Ethanol	4.85	8.25	0.588	ok	0.588	0.528-0.648
Ethylbenzene	16.62	16.01	1.038	ok	1.038	0.978-1.098
Ethyl Acetate	8.33	8.25	1.010	ok	1.010	0.950-1.070
4-Ethyltoluene	19.49	16.01	1.217	ok	1.217	1.157-1.277
Freon 113	6.32	8.25	0.766	ok	0.767	0.707-0.827
Freon 114	4.16	8.25	0.504	ok	0.505	0.445-0.565
Freon 123	5.16	8.25	0.625	ok	0.625	0.565-0.685
Freon 123A	5.21	8.25	0.632	ok	0.631	0.571-0.691
Freon 141B	5.50	8.25	0.667	ok	0.666	0.606-0.726
Freon 142B	4.06	8.25	0.492	ok	0.493	0.433-0.553
Freon 143a	3.73	8.25	0.452	ok	0.452	0.392-0.512
Freon 152A	3.83	8.25	0.464	ok	0.464	0.404-0.524
Heptane	11.64	10.45	1.114	ok	1.115	1.055-1.175
Hexachlorobutadiene	23.72	16.01	1.482	ok	1.481	1.421-1.541
Hexachloroethane	21.82	16.01	1.363	ok	1.363	1.303-1.423
Hexane	8.27	8.25	1.002	ok	1.003	0.943-1.063
2-Hexanone	13.99	10.45	1.339	ok	1.340	1.280-1.400
Iodomethane	5.90	8.25	0.715	ok	0.715	0.655-0.775
Isopropylbenzene	18.48	16.01	1.154	ok	1.154	1.094-1.214
Isopropyl Alcohol	5.48	8.25	0.664	ok	0.664	0.604-0.724
p-Isopropyltoluene	20.80	16.01	1.299	ok	1.299	1.239-1.359
Methylene chloride	6.09	8.25	0.738	ok	0.738	0.678-0.798
Methyl ethyl ketone	7.61	8.25	0.922	ok	0.925	0.865-0.985
Methyl Isobutyl Ketone	12.41	10.45	1.188	ok	1.190	1.130-1.250
Methyl Tert Butyl Ether	7.25	8.25	0.879	ok	0.881	0.821-0.941
Methylmethacrylate	11.56	10.45	1.106	ok	1.107	1.047-1.167
Naphthalene	23.27	16.01	1.453	ok	1.454	1.394-1.514
Nonane	17.95	16.01	1.121	ok	1.121	1.061-1.181
Octane	14.96	10.45	1.432	ok	1.432	1.372-1.492
Pentane	5.70	8.25	0.691	ok	0.690	0.630-0.750
n-Propylbenzene	19.27	16.01	1.204	ok	1.203	1.143-1.263
Propylene	3.89	8.25	0.472	ok	0.471	0.411-0.531

6.7.4

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W693-ICC693	5W17372.D	03/29/16 20:14	TCH	10	GCMS5W	TO-15	
V5W693-IC693	5W17373.D	03/29/16 20:56	TCH	5	GCMS5W	TO-15	
V5W693-IC693	5W17374.D	03/29/16 21:39	TCH	0.5	GCMS5W	TO-15	
V5W693-IC693	5W17375.D	03/29/16 22:22	TCH	0.2	GCMS5W	TO-15	
V5W693-IC693	5W17376.D	03/29/16 23:06	TCH	20	GCMS5W	TO-15	
V5W693-IC693	5W17378.D	03/30/16 00:31	TCH	0.1	GCMS5W	TO-15	
V5W693-IC693	5W17379.D	03/30/16 01:13	TCH	0.04	GCMS5W	TO-15	
V5W693-IC693	5W17380.D	03/30/16 01:59	TCH	30	GCMS5W	TO-15	
V5W693-IC693	5W17382.D	03/30/16 03:28	TCH	40	GCMS5W	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	17.42	16.01	1.088	ok	1.088	1.028-1.148
1,1,1-Trichloroethane	9.48	8.25	1.149	ok	1.150	1.090-1.210
1,1,1,2-Tetrachloroethane	16.05	10.45	1.536	ok	1.537	1.477-1.597
1,1,2,2-Tetrachloroethane	17.57	16.01	1.097	ok	1.097	1.037-1.157
1,1,2-Trichloroethane	13.26	10.45	1.269	ok	1.269	1.209-1.329
1,2,4-Trichlorobenzene	23.15	16.01	1.446	ok	1.446	1.386-1.506
1,2,3-Trichloropropane	17.76	16.01	1.109	ok	1.110	1.050-1.170
1,2,4-Trimethylbenzene	20.20	16.01	1.262	ok	1.261	1.201-1.321
1,3,5-Trimethylbenzene	19.61	16.01	1.225	ok	1.225	1.165-1.285
2,2,4-Trimethylpentane	11.30	10.45	1.081	ok	1.082	1.022-1.142
Tertiary Butyl Alcohol	6.02	8.25	0.730	ok	0.732	0.672-0.792
Tetrachloroethylene	15.13	10.45	1.448	ok	1.448	1.388-1.508
Tetrahydrofuran	8.84	8.25	1.072	ok	1.075	1.015-1.135
Toluene	13.61	10.45	1.302	ok	1.303	1.243-1.363
Trichloroethylene	11.28	10.45	1.079	ok	1.080	1.020-1.140
Trichlorofluoromethane	5.39	8.25	0.653	ok	0.654	0.594-0.714
Vinyl chloride	4.26	8.25	0.516	ok	0.516	0.456-0.576
Vinyl Acetate	7.36	8.25	0.892	ok	0.892	0.832-0.952
m,p-Xylene	16.90	16.01	1.056	ok	1.055	0.995-1.115
o-Xylene	17.57	16.01	1.097	ok	1.097	1.037-1.157
TVHC As Equiv Pentane	5.69	16.01	0.355	ok	0.355	0.295-0.415

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	8.25	ok	8.25	7.92-8.58	184873	ok	178014	106808-249220
1,4-Difluorobenzene	10.45	ok	10.44	10.11-10.77	656970	ok	653651	392191-915111
Chlorobenzene-D5	16.01	ok	16.01	15.68-16.34	362990	ok	317888	190733-445043

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.51	9.16	0.711	ok	0.713	0.653-0.773
Acrolein	6.40	9.16	0.699	ok	0.700	0.640-0.760
Acrylonitrile	6.90	9.16	0.753	ok	0.754	0.694-0.814
Acetonitrile	6.29	9.16	0.687	ok	0.688	0.628-0.748
1,3-Butadiene	5.62	9.16	0.614	ok	0.614	0.554-0.674
Benzene	10.59	10.88	0.973	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.52	10.88	1.059	ok	1.060	1.000-1.120
Bromoform	15.88	15.14	1.049	ok	1.049	0.989-1.109
Bromomethane	5.87	9.16	0.641	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.66	9.16	0.618	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.43	15.14	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.13	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.60	9.16	0.830	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.04	9.16	0.550	ok	0.550	0.490-0.610
Chloroethane	6.01	9.16	0.656	ok	0.657	0.597-0.717
Chloroform	9.26	9.16	1.011	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.39	9.16	0.807	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.72	9.16	1.170	ok	1.171	1.111-1.231
Cyclohexane	10.84	10.88	0.996	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.27	9.16	0.903	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.20	9.16	0.786	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.93	9.16	1.084	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.34	10.88	1.042	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.35	10.88	1.227	ok	1.228	1.168-1.288
1,4-Dioxane	11.56	10.88	1.062	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.16	0.561	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.07	9.16	0.663	ok	0.664	0.604-0.724
Dibromochloromethane	13.77	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.36	10.88	1.136	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.32	15.14	1.210	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.40	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.14	9.16	0.998	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.02	10.88	1.013	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.95	9.16	1.086	ok	1.086	1.026-1.146
Ethanol	6.08	9.16	0.664	ok	0.667	0.607-0.727
Ethylbenzene	15.56	15.14	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.16	9.16	1.000	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.50	9.16	0.819	ok	0.819	0.759-0.879
Freon 114	5.38	9.16	0.587	ok	0.588	0.528-0.648
Freon 152A	4.99	9.16	0.545	ok	0.546	0.486-0.606
Heptane	11.79	10.88	1.084	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.18	15.14	1.399	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.56	15.14	0.896	ok	0.897	0.837-0.957
Iodomethane	7.15	9.16	0.781	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.69	9.16	0.730	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.29	9.16	0.796	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.61	9.16	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.39	10.88	1.139	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.32	9.16	0.908	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.27	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.94	9.16	0.758	ok	0.759	0.699-0.819
n-Propylbenzene	17.44	15.14	1.152	ok	1.152	1.092-1.212
Propylene	5.07	9.16	0.553	ok	0.554	0.494-0.614
Styrene	16.15	15.14	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.16	9.16	1.109	ok	1.110	1.050-1.170

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1,2-Tetrachloroethane	15.16	15.14	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.26	15.14	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.05	10.88	1.199	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.41	15.14	1.084	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.68	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.56	10.88	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.21	9.16	0.787	ok	0.793	0.733-0.853
Tetrachloroethylene	14.48	15.14	0.956	ok	0.957	0.897-1.017
Tetrahydrofuran	9.64	9.16	1.052	ok	1.054	0.994-1.114
Toluene	13.33	10.88	1.225	ok	1.226	1.166-1.286
Trichloroethylene	11.56	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.66	9.16	0.727	ok	0.728	0.668-0.788
Vinyl chloride	5.50	9.16	0.600	ok	0.601	0.541-0.661
Vinyl Acetate	8.36	9.16	0.913	ok	0.914	0.854-0.974
m,p-Xylene	15.76	15.14	1.041	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	104086	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	542178	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	246338	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.52	9.16	0.712	ok	0.713	0.653-0.773
Acrolein	6.41	9.16	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.91	9.16	0.754	ok	0.754	0.694-0.814
Acetonitrile	6.30	9.16	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	5.63	9.16	0.615	ok	0.614	0.554-0.674
Benzene	10.60	10.88	0.974	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.87	15.14	1.048	ok	1.049	0.989-1.109
Bromomethane	5.88	9.16	0.642	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.68	9.16	0.620	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.43	15.14	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.13	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.16	0.831	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.04	9.16	0.550	ok	0.550	0.490-0.610
Chloroethane	6.02	9.16	0.657	ok	0.657	0.597-0.717
Chloroform	9.27	9.16	1.012	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.40	9.16	0.808	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.73	9.16	1.171	ok	1.171	1.111-1.231
Cyclohexane	10.85	10.88	0.997	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.28	9.16	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.21	9.16	0.787	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.94	9.16	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
1,4-Dioxane	11.58	10.88	1.064	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.15	9.16	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.08	9.16	0.664	ok	0.664	0.604-0.724
Dibromochloromethane	13.78	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.37	10.88	1.137	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.33	15.14	1.211	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.40	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.15	9.16	0.999	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.03	10.88	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.16	1.087	ok	1.086	1.026-1.146
Ethanol	6.11	9.16	0.667	ok	0.667	0.607-0.727
Ethylbenzene	15.57	15.14	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.17	9.16	1.001	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.51	9.16	0.820	ok	0.819	0.759-0.879
Freon 114	5.39	9.16	0.588	ok	0.588	0.528-0.648
Freon 141B	6.76	9.16	0.738	ok	0.738	0.678-0.798
Freon 142B	5.28	9.16	0.576	ok	0.576	0.516-0.636
Freon 152A	5.01	9.16	0.547	ok	0.546	0.486-0.606
Heptane	11.80	10.88	1.085	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.18	15.14	1.399	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.58	15.14	0.897	ok	0.897	0.837-0.957
Iodomethane	7.16	9.16	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.71	9.16	0.733	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.62	9.16	0.941	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.40	10.88	1.140	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.32	9.16	0.908	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.28	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.96	9.16	0.760	ok	0.759	0.699-0.819
n-Propylbenzene	17.45	15.14	1.153	ok	1.152	1.092-1.212
Propylene	5.07	9.16	0.553	ok	0.554	0.494-0.614

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.16	15.14	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.17	9.16	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.17	15.14	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.27	15.14	1.075	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.06	10.88	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.41	15.14	1.084	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.68	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.56	10.88	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.22	9.16	0.788	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.14	0.957	ok	0.957	0.897-1.017
Tetrahydrofuran	9.66	9.16	1.055	ok	1.054	0.994-1.114
Toluene	13.34	10.88	1.226	ok	1.226	1.166-1.286
Trichloroethylene	11.56	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.67	9.16	0.728	ok	0.728	0.668-0.788
Vinyl chloride	5.51	9.16	0.602	ok	0.601	0.541-0.661
Vinyl Acetate	8.37	9.16	0.914	ok	0.914	0.854-0.974
m,p-Xylene	15.76	15.14	1.041	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	117094	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	607248	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	264452	ok	250472	150283-350661

6.7.5
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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.54	9.16	0.714	ok	0.713	0.653-0.773
Acrolein	6.41	9.16	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.91	9.16	0.754	ok	0.754	0.694-0.814
Acetonitrile	6.31	9.16	0.689	ok	0.688	0.628-0.748
1,3-Butadiene	5.62	9.16	0.614	ok	0.614	0.554-0.674
Benzene	10.59	10.88	0.973	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.87	15.14	1.048	ok	1.049	0.989-1.109
Bromomethane	5.87	9.16	0.641	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.67	9.16	0.619	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.07	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.43	15.14	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.12	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.60	9.16	0.830	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.04	9.16	0.550	ok	0.550	0.490-0.610
Chloroethane	6.02	9.16	0.657	ok	0.657	0.597-0.717
Chloroform	9.26	9.16	1.011	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.40	9.16	0.808	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.72	9.16	1.170	ok	1.171	1.111-1.231
Cyclohexane	10.85	10.88	0.997	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.28	9.16	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.21	9.16	0.787	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.93	9.16	1.084	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.35	10.88	1.227	ok	1.228	1.168-1.288
1,4-Dioxane	11.60	10.88	1.066	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.15	9.16	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.07	9.16	0.663	ok	0.664	0.604-0.724
Dibromochloromethane	13.77	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.36	10.88	1.136	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.32	15.14	1.210	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.39	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.15	9.16	0.999	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.03	10.88	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.95	9.16	1.086	ok	1.086	1.026-1.146
Ethanol	6.11	9.16	0.667	ok	0.667	0.607-0.727
Ethylbenzene	15.56	15.14	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.18	9.16	1.002	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.50	9.16	0.819	ok	0.819	0.759-0.879
Freon 114	5.38	9.16	0.587	ok	0.588	0.528-0.648
Freon 141B	6.75	9.16	0.737	ok	0.738	0.678-0.798
Freon 142B	5.27	9.16	0.575	ok	0.576	0.516-0.636
Freon 152A	5.00	9.16	0.546	ok	0.546	0.486-0.606
Heptane	11.79	10.88	1.084	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.18	15.14	1.399	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.58	15.14	0.897	ok	0.897	0.837-0.957
Iodomethane	7.16	9.16	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.72	9.16	0.734	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.60	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.63	9.16	0.942	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.41	10.88	1.141	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.33	9.16	0.909	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.27	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.94	9.16	0.758	ok	0.759	0.699-0.819
n-Propylbenzene	17.44	15.14	1.152	ok	1.152	1.092-1.212
Propylene	5.08	9.16	0.555	ok	0.554	0.494-0.614

6.7.5

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.15	15.14	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.17	9.16	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.17	15.14	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.26	15.14	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.05	10.88	1.199	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.40	15.14	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.68	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.56	10.88	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.25	9.16	0.791	ok	0.793	0.733-0.853
Tetrachloroethylene	14.48	15.14	0.956	ok	0.957	0.897-1.017
Tetrahydrofuran	9.68	9.16	1.057	ok	1.054	0.994-1.114
Toluene	13.33	10.88	1.225	ok	1.226	1.166-1.286
Trichloroethylene	11.55	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.66	9.16	0.727	ok	0.728	0.668-0.788
Vinyl chloride	5.50	9.16	0.600	ok	0.601	0.541-0.661
Vinyl Acetate	8.38	9.16	0.915	ok	0.914	0.854-0.974
m,p-Xylene	15.75	15.14	1.040	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	103910	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	540443	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	211386	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.54	9.16	0.714	ok	0.713	0.653-0.773
Acrolein	6.41	9.16	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.91	9.16	0.754	ok	0.754	0.694-0.814
Acetonitrile	6.32	9.16	0.690	ok	0.688	0.628-0.748
1,3-Butadiene	5.62	9.16	0.614	ok	0.614	0.554-0.674
Benzene	10.59	10.88	0.973	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.52	10.88	1.059	ok	1.060	1.000-1.120
Bromoform	15.88	15.14	1.049	ok	1.049	0.989-1.109
Bromomethane	5.87	9.16	0.641	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.66	9.16	0.618	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.43	15.14	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.12	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.60	9.16	0.830	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.04	9.16	0.550	ok	0.550	0.490-0.610
Chloroethane	6.01	9.16	0.656	ok	0.657	0.597-0.717
Chloroform	9.26	9.16	1.011	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.40	9.16	0.808	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.72	9.16	1.170	ok	1.171	1.111-1.231
Cyclohexane	10.84	10.88	0.996	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.27	9.16	0.903	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.20	9.16	0.786	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.93	9.16	1.084	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.34	10.88	1.042	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
1,4-Dioxane	11.60	10.88	1.066	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.14	9.16	0.561	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.07	9.16	0.663	ok	0.664	0.604-0.724
Dibromochloromethane	13.77	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.32	10.88	1.040	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.09	9.16	0.883	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	8.99	9.16	0.981	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.36	10.88	1.136	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.32	15.14	1.210	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.41	15.14	1.216	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.16	9.16	1.000	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.02	10.88	1.013	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.95	9.16	1.086	ok	1.086	1.026-1.146
Ethylbenzene	15.56	15.14	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.18	9.16	1.002	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.50	9.16	0.819	ok	0.819	0.759-0.879
Freon 114	5.38	9.16	0.587	ok	0.588	0.528-0.648
Freon 141B	6.75	9.16	0.737	ok	0.738	0.678-0.798
Freon 142B	5.27	9.16	0.575	ok	0.576	0.516-0.636
Freon 152A	4.99	9.16	0.545	ok	0.546	0.486-0.606
Heptane	11.79	10.88	1.084	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.19	15.14	1.400	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.58	15.14	0.897	ok	0.897	0.837-0.957
Iodomethane	7.16	9.16	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.72	9.16	0.734	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.63	9.16	0.942	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.40	10.88	1.140	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.33	9.16	0.909	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.27	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.94	9.16	0.758	ok	0.759	0.699-0.819
n-Propylbenzene	17.44	15.14	1.152	ok	1.152	1.092-1.212
Propylene	5.07	9.16	0.553	ok	0.554	0.494-0.614
Styrene	16.14	15.14	1.066	ok	1.067	1.007-1.127

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	10.16	9.16	1.109	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.16	15.14	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.26	15.14	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.05	10.88	1.199	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.39	15.14	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.67	15.14	1.167	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.56	10.88	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.25	9.16	0.791	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.14	0.957	ok	0.957	0.897-1.017
Tetrahydrofuran	9.69	9.16	1.058	ok	1.054	0.994-1.114
Toluene	13.33	10.88	1.225	ok	1.226	1.166-1.286
Trichloroethylene	11.55	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.66	9.16	0.727	ok	0.728	0.668-0.788
Vinyl chloride	5.50	9.16	0.600	ok	0.601	0.541-0.661
Vinyl Acetate	8.38	9.16	0.915	ok	0.914	0.854-0.974
m,p-Xylene	15.75	15.14	1.040	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	93122	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	480061	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	187576	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.52	9.16	0.712	ok	0.713	0.653-0.773
Acrolein	6.41	9.16	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.90	9.16	0.753	ok	0.754	0.694-0.814
Acetonitrile	6.30	9.16	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	5.63	9.16	0.615	ok	0.614	0.554-0.674
Benzene	10.60	10.88	0.974	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.15	1.123	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.88	15.15	1.048	ok	1.049	0.989-1.109
Bromomethane	5.88	9.16	0.642	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.68	9.16	0.620	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.15	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.15	1.259	ok	1.260	1.200-1.320
sec-Butylbenzene	18.44	15.15	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.14	15.15	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.60	9.16	0.830	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.15	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.05	9.16	0.551	ok	0.550	0.490-0.610
Chloroethane	6.02	9.16	0.657	ok	0.657	0.597-0.717
Chloroform	9.27	9.16	1.012	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.40	9.16	0.808	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.15	1.150	ok	1.150	1.090-1.210
Carbon tetrachloride	10.73	9.16	1.171	ok	1.171	1.111-1.231
Cyclohexane	10.85	10.88	0.997	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.28	9.16	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.21	9.16	0.787	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.15	0.926	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.94	9.16	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
1,4-Dioxane	11.57	10.88	1.063	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.15	9.16	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.08	9.16	0.664	ok	0.664	0.604-0.724
Dibromochloromethane	13.78	15.15	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944

6.7.5

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Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.37	10.88	1.137	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.33	15.15	1.210	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.15	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.40	15.15	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.88	10.88	1.184	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.15	9.16	0.999	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.03	10.88	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.16	1.087	ok	1.086	1.026-1.146
Ethanol	6.10	9.16	0.666	ok	0.667	0.607-0.727
Ethylbenzene	15.57	15.15	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.17	9.16	1.001	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.15	1.162	ok	1.162	1.102-1.222
Freon 113	7.51	9.16	0.820	ok	0.819	0.759-0.879
Freon 114	5.39	9.16	0.588	ok	0.588	0.528-0.648
Freon 141B	6.76	9.16	0.738	ok	0.738	0.678-0.798
Freon 142B	5.28	9.16	0.576	ok	0.576	0.516-0.636
Freon 152A	5.01	9.16	0.547	ok	0.546	0.486-0.606
Heptane	11.80	10.88	1.085	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.18	15.15	1.398	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.15	1.289	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.57	15.15	0.896	ok	0.897	0.837-0.957
Iodomethane	7.16	9.16	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.15	1.115	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.71	9.16	0.733	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.15	1.228	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.61	9.16	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.39	10.88	1.139	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.32	9.16	0.908	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.15	1.374	ok	1.374	1.314-1.434
Nonane	16.45	15.15	1.086	ok	1.086	1.026-1.146
Octane	14.28	15.15	0.943	ok	0.943	0.883-1.003
Pentane	6.96	9.16	0.760	ok	0.759	0.699-0.819
n-Propylbenzene	17.45	15.15	1.152	ok	1.152	1.092-1.212
Propylene	5.08	9.16	0.555	ok	0.554	0.494-0.614

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
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Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.16	15.15	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.17	9.16	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.17	15.15	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.27	15.15	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.06	10.88	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.15	1.392	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.41	15.15	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.15	1.197	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.69	15.15	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.57	10.88	1.063	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.22	9.16	0.788	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.15	0.956	ok	0.957	0.897-1.017
Tetrahydrofuran	9.65	9.16	1.053	ok	1.054	0.994-1.114
Toluene	13.34	10.88	1.226	ok	1.226	1.166-1.286
Trichloroethylene	11.56	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.67	9.16	0.728	ok	0.728	0.668-0.788
Vinyl chloride	5.51	9.16	0.602	ok	0.601	0.541-0.661
Vinyl Acetate	8.37	9.16	0.914	ok	0.914	0.854-0.974
m,p-Xylene	15.76	15.15	1.040	ok	1.041	0.981-1.101
o-Xylene	16.27	15.15	1.074	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	108133	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	544828	ok	546790	328074-765506
Chlorobenzene-D5	15.15	ok	15.15	14.82-15.48	278715	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.52	9.16	0.712	ok	0.713	0.653-0.773
Acrolein	6.41	9.16	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.90	9.16	0.753	ok	0.754	0.694-0.814
Acetonitrile	6.30	9.16	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	5.63	9.16	0.615	ok	0.614	0.554-0.674
Benzene	10.60	10.88	0.974	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.88	15.14	1.049	ok	1.049	0.989-1.109
Bromomethane	5.88	9.16	0.642	ok	0.642	0.582-0.702
Bromoethene	6.32	9.16	0.690	ok	0.690	0.630-0.750
n-Butane	5.68	9.16	0.620	ok	0.619	0.559-0.679
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.44	15.14	1.218	ok	1.217	1.157-1.277
tert-Butylbenzene	18.13	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.60	9.16	0.830	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.05	9.16	0.551	ok	0.550	0.490-0.610
Chloroethane	6.02	9.16	0.657	ok	0.657	0.597-0.717
Chloroform	9.27	9.16	1.012	ok	1.012	0.952-1.072
Chloromethane	5.30	9.16	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.40	9.16	0.808	ok	0.807	0.747-0.867
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.73	9.16	1.171	ok	1.171	1.111-1.231
Cyclohexane	10.85	10.88	0.997	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.28	9.16	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.21	9.16	0.787	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.94	9.16	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
1,4-Dioxane	11.57	10.88	1.063	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.15	9.16	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.08	9.16	0.664	ok	0.664	0.604-0.724
Dibromochloromethane	13.78	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.37	10.88	1.137	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.33	15.14	1.211	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.40	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.15	9.16	0.999	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.03	10.88	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.16	1.087	ok	1.086	1.026-1.146
Ethanol	6.10	9.16	0.666	ok	0.667	0.607-0.727
Ethylbenzene	15.57	15.14	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.16	9.16	1.000	ok	1.001	0.941-1.061
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.50	9.16	0.819	ok	0.819	0.759-0.879
Freon 114	5.39	9.16	0.588	ok	0.588	0.528-0.648
Freon 141B	6.76	9.16	0.738	ok	0.738	0.678-0.798
Freon 142B	5.27	9.16	0.575	ok	0.576	0.516-0.636
Freon 152A	5.00	9.16	0.546	ok	0.546	0.486-0.606
Heptane	11.80	10.88	1.085	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.19	15.14	1.400	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.57	15.14	0.896	ok	0.897	0.837-0.957
Iodomethane	7.16	9.16	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.70	9.16	0.731	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.61	9.16	0.940	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.39	10.88	1.139	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.32	9.16	0.908	ok	0.909	0.849-0.969
Methylmethacrylate	11.71	10.88	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.28	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.95	9.16	0.759	ok	0.759	0.699-0.819
n-Propylbenzene	17.44	15.14	1.152	ok	1.152	1.092-1.212
Propylene	5.07	9.16	0.553	ok	0.554	0.494-0.614

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.16	15.14	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.17	9.16	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.17	15.14	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.27	15.14	1.075	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.06	10.88	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.41	15.14	1.084	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.68	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.57	10.88	1.063	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.22	9.16	0.788	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.14	0.957	ok	0.957	0.897-1.017
Tetrahydrofuran	9.65	9.16	1.053	ok	1.054	0.994-1.114
Toluene	13.34	10.88	1.226	ok	1.226	1.166-1.286
Trichloroethylene	11.56	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.66	9.16	0.727	ok	0.728	0.668-0.788
Vinyl chloride	5.51	9.16	0.602	ok	0.601	0.541-0.661
Vinyl Acetate	8.37	9.16	0.914	ok	0.914	0.854-0.974
m,p-Xylene	15.76	15.14	1.041	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	118021	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	610114	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	286678	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.58	9.17	0.718	ok	0.713	0.653-0.773
Acrylonitrile	6.95	9.17	0.758	ok	0.754	0.694-0.814
1,3-Butadiene	5.65	9.17	0.616	ok	0.614	0.554-0.674
Benzene	10.60	10.88	0.974	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.88	15.14	1.049	ok	1.049	0.989-1.109
Bromomethane	5.89	9.17	0.642	ok	0.642	0.582-0.702
Bromoethene	6.33	9.17	0.690	ok	0.690	0.630-0.750
Benzyl Chloride	18.30	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.43	15.14	1.217	ok	1.217	1.157-1.277
tert-Butylbenzene	18.13	15.14	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.62	9.17	0.831	ok	0.830	0.770-0.890
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chloroethane	6.04	9.17	0.659	ok	0.657	0.597-0.717
Chloroform	9.27	9.17	1.011	ok	1.012	0.952-1.072
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.74	9.17	1.171	ok	1.171	1.111-1.231
Cyclohexane	10.86	10.88	0.998	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.29	9.17	0.904	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.22	9.17	0.787	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.94	9.17	1.084	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
Dichlorodifluoromethane	5.16	9.17	0.563	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.10	9.17	0.665	ok	0.664	0.604-0.724
Dibromochloromethane	13.78	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.17	0.883	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	9.01	9.17	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.37	10.88	1.137	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.32	15.14	1.210	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.39	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.88	10.88	1.184	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.18	9.17	1.001	ok	0.999	0.939-1.059

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
2,3-Dimethylpentane	11.04	10.88	1.015	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.17	1.086	ok	1.086	1.026-1.146
Ethylbenzene	15.57	15.14	1.028	ok	1.028	0.968-1.088
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.52	9.17	0.820	ok	0.819	0.759-0.879
Freon 114	5.40	9.17	0.589	ok	0.588	0.528-0.648
Freon 141B	6.78	9.17	0.739	ok	0.738	0.678-0.798
Freon 142B	5.29	9.17	0.577	ok	0.576	0.516-0.636
Freon 152A	5.01	9.17	0.546	ok	0.546	0.486-0.606
Heptane	11.80	10.88	1.085	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.19	15.14	1.400	ok	1.399	1.339-1.459
Hexachloroethane	19.52	15.14	1.289	ok	1.289	1.229-1.349
Hexane	9.17	9.17	1.000	ok	1.000	0.940-1.060
Iodomethane	7.17	9.17	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
p-Isopropyltoluene	18.61	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.17	0.796	ok	0.797	0.737-0.857
Methyl Isobutyl Ketone	12.45	10.88	1.144	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.37	9.17	0.913	ok	0.909	0.849-0.969
Naphthalene	20.82	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.28	15.14	0.943	ok	0.943	0.883-1.003
Pentane	6.97	9.17	0.760	ok	0.759	0.699-0.819
n-Propylbenzene	17.44	15.14	1.152	ok	1.152	1.092-1.212
Propylene	5.09	9.17	0.555	ok	0.554	0.494-0.614
Styrene	16.16	15.14	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.18	9.17	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.17	15.14	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.27	15.14	1.075	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.06	10.88	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.14	1.393	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.41	15.14	1.084	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.69	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.57	10.88	1.063	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.35	9.17	0.802	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.14	0.957	ok	0.957	0.897-1.017
Toluene	13.34	10.88	1.226	ok	1.226	1.166-1.286

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Trichloroethylene	11.57	10.88	1.063	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.68	9.17	0.728	ok	0.728	0.668-0.788
Vinyl chloride	5.52	9.17	0.602	ok	0.601	0.541-0.661
m,p-Xylene	15.76	15.14	1.041	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.17	ok	9.17	8.84-9.50	97000	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	503597	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	194782	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

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Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
1,3-Butadiene	5.63	9.16	0.615	ok	0.614	0.554-0.674
Benzene	10.60	10.88	0.974	ok	0.974	0.914-1.034
Bromobenzene	17.02	15.14	1.124	ok	1.124	1.064-1.184
Bromodichloromethane	11.53	10.88	1.060	ok	1.060	1.000-1.120
Bromoform	15.88	15.14	1.049	ok	1.049	0.989-1.109
Bromomethane	5.88	9.16	0.642	ok	0.642	0.582-0.702
Bromoethene	6.33	9.16	0.691	ok	0.690	0.630-0.750
Benzyl Chloride	18.31	15.14	1.209	ok	1.208	1.148-1.268
n-Butylbenzene	19.07	15.14	1.260	ok	1.260	1.200-1.320
sec-Butylbenzene	18.44	15.14	1.218	ok	1.217	1.157-1.277
tert-Butylbenzene	18.14	15.14	1.198	ok	1.197	1.137-1.257
Chlorobenzene	15.19	15.14	1.003	ok	1.003	0.943-1.063
Chloroform	9.27	9.16	1.012	ok	1.012	0.952-1.072
2-Chlorotoluene	17.42	15.14	1.151	ok	1.150	1.090-1.210
Carbon tetrachloride	10.73	9.16	1.171	ok	1.171	1.111-1.231
1,1-Dichloroethane	8.28	9.16	0.904	ok	0.904	0.844-0.964
1,2-Dibromoethane	14.03	15.14	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.94	9.16	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.35	10.88	1.043	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.36	10.88	1.228	ok	1.228	1.168-1.288
Dichlorodifluoromethane	5.15	9.16	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.10	9.16	0.666	ok	0.664	0.604-0.724
Dibromochloromethane	13.77	15.14	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.33	10.88	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.10	9.16	0.884	ok	0.884	0.824-0.944
cis-1,2-Dichloroethylene	9.00	9.16	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.38	10.88	1.138	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.33	15.14	1.211	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.78	15.14	1.240	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.40	15.14	1.215	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.87	10.88	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.18	9.16	1.002	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.03	10.88	1.014	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.16	1.087	ok	1.086	1.026-1.146
Ethylbenzene	15.56	15.14	1.028	ok	1.028	0.968-1.088
4-Ethyltoluene	17.60	15.14	1.162	ok	1.162	1.102-1.222
Freon 113	7.51	9.16	0.820	ok	0.819	0.759-0.879
Freon 114	5.40	9.16	0.590	ok	0.588	0.528-0.648

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Freon 141B	6.75	9.16	0.737	ok	0.738	0.678-0.798
Freon 142B	5.29	9.16	0.578	ok	0.576	0.516-0.636
Heptane	11.80	10.88	1.085	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.18	15.14	1.399	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.14	1.290	ok	1.289	1.229-1.349
Hexane	9.16	9.16	1.000	ok	1.000	0.940-1.060
Iodomethane	7.17	9.16	0.783	ok	0.782	0.722-0.842
Isopropylbenzene	16.89	15.14	1.116	ok	1.115	1.055-1.175
p-Isopropyltoluene	18.60	15.14	1.229	ok	1.229	1.169-1.289
Methylene chloride	7.30	9.16	0.797	ok	0.797	0.737-0.857
Methyl Isobutyl Ketone	12.45	10.88	1.144	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.36	9.16	0.913	ok	0.909	0.849-0.969
Naphthalene	20.82	15.14	1.375	ok	1.374	1.314-1.434
Nonane	16.45	15.14	1.087	ok	1.086	1.026-1.146
Octane	14.27	15.14	0.943	ok	0.943	0.883-1.003
n-Propylbenzene	17.45	15.14	1.153	ok	1.152	1.092-1.212
Styrene	16.14	15.14	1.066	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.17	9.16	1.110	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.16	15.14	1.001	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.26	15.14	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.06	10.88	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.10	15.14	1.394	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.40	15.14	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.14	15.14	1.198	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.69	15.14	1.168	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.56	10.88	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.33	9.16	0.800	ok	0.793	0.733-0.853
Tetrachloroethylene	14.49	15.14	0.957	ok	0.957	0.897-1.017
Toluene	13.33	10.88	1.225	ok	1.226	1.166-1.286
Trichloroethylene	11.56	10.88	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.67	9.16	0.728	ok	0.728	0.668-0.788
Vinyl chloride	5.51	9.16	0.602	ok	0.601	0.541-0.661
m,p-Xylene	15.75	15.14	1.040	ok	1.041	0.981-1.101
o-Xylene	16.27	15.14	1.075	ok	1.075	1.015-1.135

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.16	ok	9.17	8.84-9.50	91873	ok	106736	64042-149430
1,4-Difluorobenzene	10.88	ok	10.89	10.56-11.22	484125	ok	546790	328074-765506
Chlorobenzene-D5	15.14	ok	15.15	14.82-15.48	191491	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.54	9.18	0.712	ok	0.713	0.653-0.773
Acrolein	6.42	9.18	0.699	ok	0.700	0.640-0.760
Acrylonitrile	6.92	9.18	0.754	ok	0.754	0.694-0.814
Acetonitrile	6.32	9.18	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	5.64	9.18	0.614	ok	0.614	0.554-0.674
Benzene	10.61	10.90	0.973	ok	0.974	0.914-1.034
Bromobenzene	17.03	15.16	1.123	ok	1.124	1.064-1.184
Bromodichloromethane	11.55	10.90	1.060	ok	1.060	1.000-1.120
Bromoform	15.90	15.16	1.049	ok	1.049	0.989-1.109
Bromomethane	5.89	9.18	0.642	ok	0.642	0.582-0.702
Bromoethene	6.33	9.18	0.690	ok	0.690	0.630-0.750
n-Butane	5.69	9.18	0.620	ok	0.619	0.559-0.679
Benzyl Chloride	18.31	15.16	1.208	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.16	1.259	ok	1.260	1.200-1.320
sec-Butylbenzene	18.44	15.16	1.216	ok	1.217	1.157-1.277
tert-Butylbenzene	18.14	15.16	1.197	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.18	0.829	ok	0.830	0.770-0.890
Chlorobenzene	15.21	15.16	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.05	9.18	0.550	ok	0.550	0.490-0.610
Chloroethane	6.04	9.18	0.658	ok	0.657	0.597-0.717
Chloroform	9.29	9.18	1.012	ok	1.012	0.952-1.072
Chloromethane	5.32	9.18	0.580	ok	0.579	0.519-0.639
3-Chloropropene	7.41	9.18	0.807	ok	0.807	0.747-0.867
2-Chlorotoluene	17.44	15.16	1.150	ok	1.150	1.090-1.210
Carbon tetrachloride	10.74	9.18	1.170	ok	1.171	1.111-1.231
Cyclohexane	10.86	10.90	0.996	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.29	9.18	0.903	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.22	9.18	0.786	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.05	15.16	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.96	9.18	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.36	10.90	1.042	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.38	10.90	1.228	ok	1.228	1.168-1.288
1,4-Dioxane	11.60	10.90	1.064	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.16	9.18	0.562	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.10	9.18	0.664	ok	0.664	0.604-0.724
Dibromochloromethane	13.80	15.16	0.910	ok	0.910	0.850-0.970
Dibromomethane	11.35	10.90	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.11	9.18	0.883	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.02	9.18	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.39	10.90	1.137	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.33	15.16	1.209	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.79	15.16	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.41	15.16	1.214	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.89	10.90	1.183	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.16	9.18	0.998	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.04	10.90	1.013	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.96	9.18	1.085	ok	1.086	1.026-1.146
Ethanol	6.15	9.18	0.670	ok	0.667	0.607-0.727
Ethylbenzene	15.58	15.16	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.19	9.18	1.001	ok	1.001	0.941-1.061
4-Ethyltoluene	17.61	15.16	1.162	ok	1.162	1.102-1.222
Freon 113	7.52	9.18	0.819	ok	0.819	0.759-0.879
Freon 114	5.40	9.18	0.588	ok	0.588	0.528-0.648
Freon 141B	6.77	9.18	0.737	ok	0.738	0.678-0.798
Freon 142B	5.29	9.18	0.576	ok	0.576	0.516-0.636
Freon 152A	5.02	9.18	0.547	ok	0.546	0.486-0.606
Heptane	11.81	10.90	1.083	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.19	15.16	1.398	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.16	1.288	ok	1.289	1.229-1.349
Hexane	9.18	9.18	1.000	ok	1.000	0.940-1.060
2-Hexanone	13.60	15.16	0.897	ok	0.897	0.837-0.957
Iodomethane	7.18	9.18	0.782	ok	0.782	0.722-0.842
Isopropylbenzene	16.91	15.16	1.115	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.77	9.18	0.737	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.16	1.228	ok	1.229	1.169-1.289
Methylene chloride	7.31	9.18	0.796	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.64	9.18	0.941	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.42	10.90	1.139	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.33	9.18	0.907	ok	0.909	0.849-0.969
Methylmethacrylate	11.74	10.90	1.077	ok	1.076	1.016-1.136
Naphthalene	20.81	15.16	1.373	ok	1.374	1.314-1.434
Nonane	16.47	15.16	1.086	ok	1.086	1.026-1.146
Octane	14.29	15.16	0.943	ok	0.943	0.883-1.003
Pentane	6.97	9.18	0.759	ok	0.759	0.699-0.819
n-Propylbenzene	17.45	15.16	1.151	ok	1.152	1.092-1.212
Propylene	5.09	9.18	0.554	ok	0.554	0.494-0.614

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	Reporting this level
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.17	15.16	1.067	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.18	9.18	1.109	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.19	15.16	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.28	15.16	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.09	10.90	1.201	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.16	1.391	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.42	15.16	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.15	15.16	1.197	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.69	15.16	1.167	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.58	10.90	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.29	9.18	0.794	ok	0.793	0.733-0.853
Tetrachloroethylene	14.50	15.16	0.956	ok	0.957	0.897-1.017
Tetrahydrofuran	9.67	9.18	1.053	ok	1.054	0.994-1.114
Toluene	13.36	10.90	1.226	ok	1.226	1.166-1.286
Trichloroethylene	11.58	10.90	1.062	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.68	9.18	0.728	ok	0.728	0.668-0.788
Vinyl chloride	5.52	9.18	0.601	ok	0.601	0.541-0.661
Vinyl Acetate	8.39	9.18	0.914	ok	0.914	0.854-0.974
m,p-Xylene	15.78	15.16	1.041	ok	1.041	0.981-1.101
o-Xylene	16.29	15.16	1.075	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.18	ok	9.17	8.84-9.50	117266	ok	106736	64042-149430
1,4-Difluorobenzene	10.90	ok	10.89	10.56-11.22	571091	ok	546790	328074-765506
Chlorobenzene-D5	15.16	ok	15.15	14.82-15.48	317822	ok	250472	150283-350661

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	6.54	9.19	0.712	ok	0.713	0.653-0.773
Acrolein	6.43	9.19	0.700	ok	0.700	0.640-0.760
Acrylonitrile	6.93	9.19	0.754	ok	0.754	0.694-0.814
Acetonitrile	6.32	9.19	0.688	ok	0.688	0.628-0.748
1,3-Butadiene	5.64	9.19	0.614	ok	0.614	0.554-0.674
Benzene	10.62	10.92	0.973	ok	0.974	0.914-1.034
Bromobenzene	17.03	15.17	1.123	ok	1.124	1.064-1.184
Bromodichloromethane	11.57	10.92	1.060	ok	1.060	1.000-1.120
Bromoform	15.91	15.17	1.049	ok	1.049	0.989-1.109
Bromomethane	5.89	9.19	0.641	ok	0.642	0.582-0.702
Bromoethene	6.33	9.19	0.689	ok	0.690	0.630-0.750
n-Butane	5.69	9.19	0.619	ok	0.619	0.559-0.679
Benzyl Chloride	18.31	15.17	1.207	ok	1.208	1.148-1.268
n-Butylbenzene	19.08	15.17	1.258	ok	1.260	1.200-1.320
sec-Butylbenzene	18.44	15.17	1.216	ok	1.217	1.157-1.277
tert-Butylbenzene	18.14	15.17	1.196	ok	1.197	1.137-1.257
Carbon disulfide	7.61	9.19	0.828	ok	0.830	0.770-0.890
Chlorobenzene	15.22	15.17	1.003	ok	1.003	0.943-1.063
Chlorodifluoromethane	5.05	9.19	0.550	ok	0.550	0.490-0.610
Chloroethane	6.03	9.19	0.656	ok	0.657	0.597-0.717
Chloroform	9.30	9.19	1.012	ok	1.012	0.952-1.072
Chloromethane	5.32	9.19	0.579	ok	0.579	0.519-0.639
3-Chloropropene	7.41	9.19	0.806	ok	0.807	0.747-0.867
2-Chlorotoluene	17.44	15.17	1.150	ok	1.150	1.090-1.210
Carbon tetrachloride	10.75	9.19	1.170	ok	1.171	1.111-1.231
Cyclohexane	10.86	10.92	0.995	ok	0.997	0.937-1.057
1,1-Dichloroethane	8.30	9.19	0.903	ok	0.904	0.844-0.964
1,1-Dichloroethylene	7.22	9.19	0.786	ok	0.787	0.727-0.847
1,2-Dibromoethane	14.07	15.17	0.927	ok	0.927	0.867-0.987
1,2-Dichloroethane	9.97	9.19	1.085	ok	1.085	1.025-1.145
1,2-Dichloropropane	11.38	10.92	1.042	ok	1.043	0.983-1.103
1,3-Dichloropropane	13.39	10.92	1.226	ok	1.228	1.168-1.288
1,4-Dioxane	11.62	10.92	1.064	ok	1.064	1.004-1.124
Dichlorodifluoromethane	5.16	9.19	0.561	ok	0.562	0.502-0.622
Dichlorofluoromethane	6.10	9.19	0.664	ok	0.664	0.604-0.724
Dibromochloromethane	13.82	15.17	0.911	ok	0.910	0.850-0.970
Dibromomethane	11.37	10.92	1.041	ok	1.041	0.981-1.101
trans-1,2-Dichloroethylene	8.11	9.19	0.882	ok	0.884	0.824-0.944

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	9.03	9.19	0.983	ok	0.982	0.922-1.042
cis-1,3-Dichloropropene	12.41	10.92	1.136	ok	1.137	1.077-1.197
m-Dichlorobenzene	18.34	15.17	1.209	ok	1.210	1.150-1.270
o-Dichlorobenzene	18.79	15.17	1.239	ok	1.240	1.180-1.300
p-Dichlorobenzene	18.41	15.17	1.214	ok	1.215	1.155-1.275
trans-1,3-Dichloropropene	12.91	10.92	1.182	ok	1.183	1.123-1.243
Di-Isopropyl ether	9.18	9.19	0.999	ok	0.999	0.939-1.059
2,3-Dimethylpentane	11.05	10.92	1.012	ok	1.013	0.953-1.073
2,4-Dimethylpentane	9.97	9.19	1.085	ok	1.086	1.026-1.146
Ethanol	6.16	9.19	0.670	ok	0.667	0.607-0.727
Ethylbenzene	15.59	15.17	1.028	ok	1.028	0.968-1.088
Ethyl Acetate	9.22	9.19	1.003	ok	1.001	0.941-1.061
4-Ethyltoluene	17.61	15.17	1.161	ok	1.162	1.102-1.222
Freon 113	7.52	9.19	0.818	ok	0.819	0.759-0.879
Freon 114	5.40	9.19	0.588	ok	0.588	0.528-0.648
Freon 141B	6.77	9.19	0.737	ok	0.738	0.678-0.798
Freon 142B	5.29	9.19	0.576	ok	0.576	0.516-0.636
Freon 152A	5.02	9.19	0.546	ok	0.546	0.486-0.606
Heptane	11.82	10.92	1.082	ok	1.084	1.024-1.144
Hexachlorobutadiene	21.19	15.17	1.397	ok	1.399	1.339-1.459
Hexachloroethane	19.53	15.17	1.287	ok	1.289	1.229-1.349
Hexane	9.18	9.19	0.999	ok	1.000	0.940-1.060
2-Hexanone	13.61	15.17	0.897	ok	0.897	0.837-0.957
Iodomethane	7.18	9.19	0.781	ok	0.782	0.722-0.842
Isopropylbenzene	16.91	15.17	1.115	ok	1.115	1.055-1.175
Isopropyl Alcohol	6.79	9.19	0.739	ok	0.734	0.674-0.794
p-Isopropyltoluene	18.61	15.17	1.227	ok	1.229	1.169-1.289
Methylene chloride	7.31	9.19	0.795	ok	0.797	0.737-0.857
Methyl ethyl ketone	8.67	9.19	0.943	ok	0.941	0.881-1.001
Methyl Isobutyl Ketone	12.45	10.92	1.140	ok	1.140	1.080-1.200
Methyl Tert Butyl Ether	8.34	9.19	0.908	ok	0.909	0.849-0.969
Methylmethacrylate	11.75	10.92	1.076	ok	1.076	1.016-1.136
Naphthalene	20.81	15.17	1.372	ok	1.374	1.314-1.434
Nonane	16.47	15.17	1.086	ok	1.086	1.026-1.146
Octane	14.30	15.17	0.943	ok	0.943	0.883-1.003
Pentane	6.97	9.19	0.758	ok	0.759	0.699-0.819
n-Propylbenzene	17.46	15.17	1.151	ok	1.152	1.092-1.212
Propylene	5.08	9.19	0.553	ok	0.554	0.494-0.614

Initial Calibration Retention Time/Internal Standard Area Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
VW2167-ICC2167	W54270.D	03/17/16 23:00	YMH	10	GCMSW	TO-15	
VW2167-IC2167	W54271.D	03/17/16 23:42	YMH	5	GCMSW	TO-15	
VW2167-IC2167	W54272.D	03/18/16 00:24	YMH	0.5	GCMSW	TO-15	
VW2167-IC2167	W54273.D	03/18/16 01:06	YMH	0.2	GCMSW	TO-15	
VW2167-IC2167	W54274.D	03/18/16 01:48	YMH	20	GCMSW	TO-15	
VW2167-IC2167	W54275.D	03/18/16 02:29	YMH	15	GCMSW	TO-15	
VW2167-IC2167	W54277.D	03/18/16 03:52	YMH	0.1	GCMSW	TO-15	
VW2167-IC2167	W54278.D	03/18/16 04:35	YMH	0.04	GCMSW	TO-15	
VW2167-IC2167	W54279.D	03/18/16 05:17	YMH	30	GCMSW	TO-15	
VW2167-IC2167	W54281.D	03/18/16 06:41	YMH	40	GCMSW	TO-15	Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
Styrene	16.17	15.17	1.066	ok	1.067	1.007-1.127
1,1,1-Trichloroethane	10.19	9.19	1.109	ok	1.110	1.050-1.170
1,1,1,2-Tetrachloroethane	15.20	15.17	1.002	ok	1.002	0.942-1.062
1,1,2,2-Tetrachloroethane	16.29	15.17	1.074	ok	1.074	1.014-1.134
1,1,2-Trichloroethane	13.10	10.92	1.200	ok	1.200	1.140-1.260
1,2,4-Trichlorobenzene	21.09	15.17	1.390	ok	1.393	1.333-1.453
1,2,3-Trichloropropane	16.43	15.17	1.083	ok	1.083	1.023-1.143
1,2,4-Trimethylbenzene	18.15	15.17	1.196	ok	1.198	1.138-1.258
1,3,5-Trimethylbenzene	17.70	15.17	1.167	ok	1.168	1.108-1.228
2,2,4-Trimethylpentane	11.60	10.92	1.062	ok	1.063	1.003-1.123
Tertiary Butyl Alcohol	7.33	9.19	0.798	ok	0.793	0.733-0.853
Tetrachloroethylene	14.51	15.17	0.956	ok	0.957	0.897-1.017
Tetrahydrofuran	9.68	9.19	1.053	ok	1.054	0.994-1.114
Toluene	13.37	10.92	1.224	ok	1.226	1.166-1.286
Trichloroethylene	11.59	10.92	1.061	ok	1.062	1.002-1.122
Trichlorofluoromethane	6.68	9.19	0.727	ok	0.728	0.668-0.788
Vinyl chloride	5.52	9.19	0.601	ok	0.601	0.541-0.661
Vinyl Acetate	8.40	9.19	0.914	ok	0.914	0.854-0.974
m,p-Xylene	15.78	15.17	1.040	ok	1.041	0.981-1.101
o-Xylene	16.30	15.17	1.074	ok	1.075	1.015-1.135

Internal Standard	RT (min.)		Mean RT(min.)	RT Range (+ /- 0.33)	Area		Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	9.19	ok	9.17	8.84-9.50	116858	ok	106736	64042-149430
1,4-Difluorobenzene	10.92	ok	10.89	10.56-11.22	584212	ok	546790	328074-765506
Chlorobenzene-D5	15.17	ok	15.15	14.82-15.48	325483	ok	250472	150283-350661

6.7.5

6

Volatile Surrogate Recovery Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Method: TO-15 **Matrix:** AIR

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JC17438-1	5W17520.D	102
JC17438-2	5W17521.D	99
JC17438-3	5W17522.D	99
JC17438-4	5W17523.D	99
JC17438-5	5W17536.D	101
JC17438-6	5W17557.D	97
JC17438-6	5W17537.D	101
JC17438-7	5W17558.D	100
JC17438-8	5W17559.D	98
JC17438-8	5W17539.D	100
JC17438-9	5W17542.D	99
JC17438-10	5W17560.D	100
JC17438-10	5W17589.D	96
JC17438-10	5W17543.D	99
JC17438-11	5W17561.D	96
JC17438-11	5W17544.D	104
JC17438-12	5W17562.D	98
JC17015-3DUP	5W17511.D	96
JC17199-5DUP	5W17600.D	102
JC17438-12DUP	5W17563.D	99
JC17438-8DUP	5W17540.D	100
V3W1996-SCC	3W52863.D	92
V3W1999-SCC	3W52954.D	93
V3W1999-SCC	3W52963.D	86
V5W683-SCC	5W17096.D	99
V5W684-SCC	5W17111.D	99
V5W685-SCC	5W17145.D	100
V5W686-SCC	5W17170.D	97
V5W686-SCC	5W17179.D	96
V5W687-SCC	5W17214.D	97
V5W698-BS	5W17498.D	98
V5W698-BSD	5W17499.D	96
V5W698-MB	5W17502.D	97
V5W699-BS	5W17529.D	95
V5W699-BSD	5W17530.D	97
V5W699-MB	5W17532.D	96
V5W700-BS	5W17553.D	95
V5W700-BSD	5W17554.D	96
V5W700-MB	5W17556.D	96
V5W701-BS	5W17585.D	96

Volatile Surrogate Recovery Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Method: TO-15 **Matrix:** AIR

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
V5W701-BSD	5W17586.D	96
V5W701-MB	5W17588.D	95
VW2168-SCC	W54291.D	82
VW2170-SCC	W54354.D	80
VW2171-SCC	W54380.D	71
V3W1996-BS	3W52854.D	98
V3W1996-BSD	3W52855.D	102
V3W1996-MB	3W52857.D	108
V3W1999-BS	3W52945.D	99
V3W1999-BSD	3W52946.D	101
V3W1999-MB	3W52948.D	96
V5W683-BS	5W17076.D	102
V5W683-BSD	5W17077.D	101
V5W683-MB	5W17079.D	99
V5W684-BS	5W17107.D	100
V5W684-BSD	5W17108.D	98
V5W684-MB	5W17110.D	100
V5W685-BS	5W17137.D	102
V5W685-BSD	5W17138.D	101
V5W685-MB	5W17140.D	99
V5W686-BS	5W17165.D	101
V5W686-BSD	5W17166.D	97
V5W686-MB	5W17168.D	99
V5W687-BS	5W17191.D	100
V5W687-BSD	5W17192.D	99
V5W687-MB	5W17194.D	98
VW2168-BS	W54286.D	110
VW2168-BSD	W54287.D	108
VW2168-MB	W54289.D	85
VW2170-BS	W54346.D	102
VW2170-BSD	W54347.D	103
VW2170-MB	W54349.D	80
VW2171-BS	W54371.D	100
VW2171-BSD	W54372.D	102
VW2171-MB	W54374.D	80

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	65-128%

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1994-ICC1994
Lab FileID: 3W52818.D

```
                    Response Factor Report   MS3W

 Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
 Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
 Last Update   : Thu Mar 31 12:16:30 2016
 Response via  : Initial Calibration

 Calibration Files
 0.04=3W52826.D   0.1 =3W52825.D   0.2 =3W52821.D   0.5 =3W52820.D
 5   =3W52819.D   10  =3W52818.D   20  =3W52822.D   40  =3W52829.D
 15  =3W52823.D   30  =3W52827.D       =                =

 Compound
         0.04  0.1   0.2   0.5    5     10    20    40    15    30     Avg   %RSD
 ---------------------------------------------------------------------------

 1) I   BROMOCHLOROMETHANE    ----------------ISTD---------------------
 2)  1,1,1-TRIFLUOROETHANE
                                                                      0.000  -1.00
 3)  FREON 115
                                                                      0.000  -1.00
 4)  FREON 152A
      1.230 1.179 1.153 1.157 1.176 1.057 1.059 1.037 1.075 1.048  1.117   6.19
 5)  CHLORODIFLUOROMETHANE
            0.512 0.523 0.464 0.428 0.389 0.377 0.365 0.385 0.371  0.424  14.53
 6)  DICHLORODIFLUOROMETHANE
      4.589 4.243 4.178 4.190 4.460 4.022 3.875 3.752 3.989 3.810  4.111   6.67
 7)  PROPYLENE
            1.941 1.585 1.519 1.604 1.497 1.451 1.419 1.457 1.454  1.547  10.35
 8)  1-CHLORO-1,1-DIFLUOROETHANE
                                                                      0.000  -1.00
 9)  FREON 114
      5.770 5.140 4.792 4.939 5.143 4.551 4.570 4.601 4.768 4.586  4.886   7.84
10)  CHLOROMETHANE
      2.672 2.157 2.033 1.928 2.042 1.804 1.798 1.747 1.820 1.786  1.979  14.11
11)  VINYL CHLORIDE
      2.402 2.176 2.074 2.247 2.347 2.079 2.087 2.053 2.159 2.069  2.169   5.74
12)  1,3-BUTADIENE
            2.021 1.738 1.686 1.748 1.600 1.620 1.613 1.647 1.618  1.699   7.80
13)  n-BUTANE
            4.437 3.941 3.610 3.679 3.327 3.286 3.221 3.294 3.271  3.563  11.45
14)  BROMOMETHANE
            2.172 2.022 1.910 1.937 1.731 1.716 1.710 1.818 1.699  1.857   8.91
15)  CHLOROETHANE
      0.908 1.137 1.132 1.111 1.104 1.029 1.049 1.059 1.062 1.060  1.065   6.23
16)  DICHLOROFLUOROMETHANE
            5.026 4.767 4.401 4.028 3.826 3.826 3.849 3.914 3.898  4.170  10.87
17)  ACETONITRILE
            1.711 1.335 1.519 1.253 1.334 1.510 1.569 1.439 1.584  1.473   9.88
18)  FREON 123
      4.956 4.619 4.265 4.270 4.412 4.171 4.303 4.428 4.372 4.418  4.421   5.07
19)  FREON 123A
      2.226 2.325 2.107 2.215 2.281 2.146 2.218 2.291 2.272 2.279  2.236   3.04
20)  TRICHLOROFLUOROMETHANE
      4.315 4.124 3.953 4.085 4.211 3.906 3.918 3.929 4.055 3.923  4.042   3.50
21)  1,1-DICHLORO-1-FLUOROETHANE
                                                                      0.000  -1.00
22)  ISOPROPYL ALCOHOL
                  3.154 3.511 3.374 3.395 3.728 3.709 3.697 3.768  3.542   6.22
23)  ACETONE
```

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: V3W1994-ICC1994
Lab FileID: 3W52818.D

				0.927	0.956	0.738	0.767	0.846	0.897	0.857	0.902	0.861	8.85
24)	PENTANE												
			2.604	2.150	2.324	2.245	2.161	2.217	2.220	2.209	2.254	2.265	6.05
25)	TVHC as EQUIV PENTANE												
				1.651	1.457	1.294	1.255	1.307	1.322	1.295	1.338	1.365 E1	9.51
26)	IODOMETHANE												
		4.489	4.235	4.170	4.306	4.449	4.094	4.200	4.302	4.405	4.242	4.289	2.95
27)	1,1-DICHLOROETHYLENE												
				2.411	2.170	2.053	1.796	1.844	1.891	1.905	1.872	1.993	10.45
28)	CARBON DISULFIDE												
		7.170	6.261	5.848	6.047	6.387	5.806	5.758	5.679	5.923	5.736	6.061	7.48
29)	ETHANOL												
				0.926	0.941	0.788	0.777	0.851	0.847	0.844	0.862	0.854	6.73
30)	BROMOETHENE												
		1.904	1.797	1.663	1.775	1.889	1.704	1.730	1.741	1.816	1.719	1.774	4.43
31)	ACRYLONITRILE												
		1.084	1.195	0.917	1.039	0.966	0.999	1.147	1.210	1.118	1.213	1.089	9.73
32)	METHYLENE CHLORIDE												
			2.303	1.978	1.918	1.761	1.616	1.653	1.677	1.706	1.683	1.811	12.23
33)	3-CHLOROPROPENE												
		0.817	0.888	0.917	0.925	0.983	0.921	0.950	0.969	0.962	0.969	0.930	5.32
34)	FREON 113												
		2.836	2.551	2.680	2.670	2.713	2.557	2.667	2.733	2.718	2.728	2.686	3.14
35)	TRANS-1,2-DICHLOROETHYLENE												
				2.361	1.869	1.941	1.833	1.825	1.850	1.860	1.861	1.925	9.33
36)	TERTIARY BUTYL ALCOHOL												
		5.506	4.674	3.673	4.218	4.218	4.157	4.631	4.550	4.586	4.623	4.484	10.62
37)	METHYL TERTIARY BUTYL ETHER												
		6.329	5.476	4.306	4.708	4.201	4.311	4.605	4.452	4.644	4.419	4.745	13.95
38)	TETRAHYDROFURAN												
			0.771	0.601	0.734	0.695	0.713	0.774	0.819	0.782	0.821	0.745	9.30
39)	HEXANE												
		3.371	2.968	2.840	2.766	2.858	2.807	3.037	3.138	2.935	3.129	2.985	6.27
40)	VINYL ACETATE												
			0.286	0.305	0.375	0.347	0.364	0.420	0.421	0.411	0.414	0.371	13.69
41)	1,1-DICHLOROETHANE												
		4.367	3.680	3.537	3.553	3.623	3.498	3.560	3.420	3.538	3.480	3.626	7.46
42)	METHYL ETHYL KETONE												
			0.808	0.607	0.769	0.697	0.723	0.793	0.832	0.805	0.828	0.763	9.75
43)	cis-1,2-DICHLOROETHYLENE												
			1.809	1.720	1.762	1.755	1.664	1.720	1.763	1.712	1.752	1.740	2.36
44)	DIISOPROPYL ETHER												
		0.680	0.852	0.621	0.766	0.704	0.726	0.803	0.866	0.795	0.861	0.767	10.87
45)	ETHYL ACETATE												
			0.442	0.402	0.509	0.477	0.509	0.596	0.605	0.588	0.606	0.526	14.52
46)	METHYL ACRYLATE												
				2.773	3.127	2.663	2.823	3.240	3.454	3.126	3.439	3.080	9.76
47)	CHLOROFORM												
		3.508	3.360	3.060	3.288	3.332	3.218	3.331	3.371	3.310	3.396	3.318	3.54
48)	2,4-DIMETHYLPENTANE												
		3.177	3.161	3.140	3.138	3.307	3.236	3.477	3.686	3.361	3.667	3.335	6.30
49)	1,1,1-TRICHLOROETHANE												
		3.243	2.969	2.942	3.057	3.146	3.045	3.165	3.229	3.137	3.233	3.117	3.49
50)	CARBON TETRACHLORIDE												
		3.210	3.132	3.177	3.159	3.257	3.177	3.316	3.398	3.287	3.401	3.251	2.98
51)	1,2-DICHLOROETHANE												
		2.004	1.894	1.781	1.891	2.071	2.017	2.069	2.110	2.037	2.122	2.000	5.52
52) I	1,4-DIFLUOROBENZENE	----------------ISTD--------------------											
53)	BENZENE												

6.9.1

6

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1994-ICC1994
Lab FileID: 3W52818.D

		1.169	1.049	1.082	1.057	1.044	1.007	1.082	1.148	1.067	1.121	1.083	4.62
54)	CYCLOHEXANE		0.582	0.575	0.523	0.471	0.451	0.482	0.511	0.477	0.498	0.508	8.94
55)	2,3-DIMETHYLPENTANE	0.239	0.229	0.245	0.257	0.241	0.236	0.255	0.280	0.249	0.270	0.250	6.35
56)	TRICHLOROETHYLENE	0.492	0.453	0.484	0.471	0.449	0.442	0.482	0.538	0.468	0.519	0.480	6.35
57)	1,2-DICHLOROPROPANE	0.430	0.403	0.379	0.389	0.406	0.400	0.432	0.480	0.418	0.465	0.420	7.68
58)	DIBROMOMETHANE	0.435	0.389	0.376	0.396	0.383	0.367	0.403	0.444	0.399	0.429	0.402	6.48
59)	ETHYL ACRYLATE	0.957	0.852	0.636	0.751	0.661	0.697	0.803	0.893	0.793	0.874	0.792	13.30
60)	BROMODICHLOROMETHANE	0.787	0.720	0.730	0.744	0.728	0.712	0.760	0.824	0.743	0.806	0.755	5.07
61)	2,2,4-TRIMETHYLPENTANE	2.032	1.769	1.907	1.818	1.780	1.772	1.943	2.159	1.861	2.109	1.915	7.45
62)	1,4-DIOXANE			0.179	0.139	0.208	0.218	0.254	0.282	0.253	0.273	0.226	21.89
63)	HEPTANE	0.895	0.726	0.755	0.719	0.642	0.639	0.687	0.756	0.664	0.739	0.722	10.35
64)	METHYL METHACRYLATE	0.444	0.372	0.314	0.367	0.308	0.329	0.379	0.415	0.376	0.409	0.371	11.98
65)	METHYL ISOBUTYL KETONE	0.277	0.292	0.251	0.300	0.282	0.297	0.348	0.373	0.344	0.370	0.313	13.40
66)	cis-1,3-DICHLOROPROPENE	0.706	0.657	0.608	0.635	0.656	0.633	0.677	0.735	0.669	0.720	0.670	6.06
67)	TOLUENE	0.603	0.616	0.555	0.601	0.711	0.692	0.739	0.828	0.721	0.797	0.686	13.15
68)	1,3-DICHLOROPROPANE	0.618	0.566	0.479	0.540	0.583	0.570	0.633	0.701	0.611	0.679	0.598	10.92
69)	trans-1,3-DICHLOROPROPENE	0.595	0.543	0.455	0.499	0.566	0.535	0.568	0.614	0.562	0.601	0.554	8.77
70)	1,1,2-TRICHLOROETHANE	0.376	0.355	0.306	0.339	0.370	0.356	0.381	0.413	0.374	0.404	0.367	8.40
71) I	CHLOROBENZENE-D5	----------------ISTD---------------------											
72)	2-HEXANONE	0.906	0.597	0.607	0.795	0.779	0.780	0.894	0.826	0.880	0.861	0.792	13.94
73)	ETHYL METHACRYLATE	1.379	1.186	0.880	1.158	1.047	1.040	1.193	1.113	1.196	1.162	1.135	11.47
74)	TETRACHLOROETHYLENE	1.004	0.902	0.824	0.939	0.857	0.769	0.815	0.792	0.823	0.803	0.853	8.64
75)	DIBROMOCHLOROMETHANE	1.461	1.367	1.246	1.415	1.394	1.262	1.308	1.228	1.323	1.264	1.327	5.98
76)	1,2-DIBROMOETHANE	1.274	1.236	1.001	1.207	1.246	1.125	1.158	1.087	1.176	1.120	1.163	7.13
77)	OCTANE	2.549	2.099	1.806	2.006	1.761	1.599	1.633	1.557	1.649	1.613	1.827	17.03
78)	1,1,1,2-TETRACHLOROETHANE	1.037	1.035	0.831	1.002	1.046	0.946	0.977	0.923	0.985	0.954	0.974	6.66
79)	CHLOROBENZENE	2.115	1.871	1.512	1.864	1.889	1.716	1.796	1.732	1.806	1.778	1.808	8.47
80)	ETHYLBENZENE	3.124	2.785	2.195	2.742	2.525	2.431	2.638	2.503	2.635	2.595	2.617	9.32
81)	m,p-XYLENE	1.095	1.025	0.801	1.023	0.938	0.924	1.043	1.010	1.025	1.039	0.992	8.42
82)	o-XYLENE	1.023	1.017	0.749	0.969	0.903	0.899	1.040	1.002	1.007	1.036	0.964	9.45
83)	STYRENE												

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1994-ICC1994
Lab FileID: 3W52818.D

```
         1.605 1.475 1.087 1.557 1.501 1.401 1.555 1.476 1.532 1.536  1.473    9.96
 84)    NONANE
         2.264 2.121 1.574 1.982 1.903 1.728 1.778 1.621 1.762 1.712  1.845   11.98
 85)    BROMOFORM
         1.304 1.250 1.006 1.308 1.363 1.263 1.314 1.232 1.314 1.279  1.263    7.75
 86)    4-BROMOFLUOROBENZENE
         1.025 0.926 1.152 1.134 1.018 1.081 0.962 0.958 0.650 0.974  0.988   14.26
 87)    1,1,2,2-TETRACHLOROETHANE
         2.060 1.853 1.363 1.808 1.600 1.562 1.777 1.664 1.721 1.741  1.715   10.90
 88)    1,2,3-TRICHLOROPROPANE
         1.535 1.352 0.978 1.279 1.096 1.075 1.224 1.136 1.183 1.193  1.205   13.02
 89)    ISOPROPYLBENZENE
         3.443 3.134 2.438 3.059 2.701 2.661 3.028 2.816 2.939 2.958  2.918    9.63
 90)    BROMOBENZENE
         1.948 1.645 1.259 1.577 1.565 1.451 1.518 1.430 1.489 1.484  1.537   11.58
 91)    2-CHLOROTOLUENE
         0.643 0.729 0.545 0.735 0.721 0.691 0.771 0.736 0.742 0.761  0.707    9.58
 92)    n-PROPYLBENZENE
         0.764 0.768 0.571 0.778 0.703 0.709 0.841 0.804 0.807 0.833  0.758   10.58
 93)    4-ETHYLTOLUENE
         2.985 2.747 1.873 2.652 2.322 2.329 2.755 2.564 2.650 2.706  2.558   12.18
 94)    1,3,5-TRIMETHYLBENZENE
         2.654 2.501 1.873 2.379 2.027 2.009 2.388 2.204 2.281 2.330  2.265   10.60
 95)    ALPHA-METHYLSTYRENE
         1.021 1.010 0.760 1.036 0.993 1.010 1.203 1.133 1.154 1.195  1.051   12.43
 96)    tert-BUTYLBENZENE
         0.583 0.573 0.428 0.570 0.498 0.505 0.612 0.573 0.583 0.608  0.553   10.50
 97)    1,2,4-TRIMETHYLBENZENE
         2.433 2.344 1.688 2.267 1.956 1.981 2.427 2.266 2.304 2.403  2.207   11.27
 98)    m-DICHLOROBENZENE
         1.794 1.569 1.057 1.372 1.353 1.306 1.485 1.434 1.434 1.500  1.431   13.25
 99)    BENZYL CHLORIDE
         2.279 1.901 1.288 1.736 1.630 1.670 1.761 1.648 1.946 1.737  1.760   14.49
100)    p-DICHLOROBENZENE
         1.741 1.578 1.068 1.442 1.395 1.350 1.527 1.412 1.471 1.479  1.446   11.95
101)    sec-BUTYLBENZENE
         0.701 0.700 0.494 0.690 0.599 0.600 0.725 0.682 0.693 0.719  0.660   11.13
102)    p-ISOPROPYLTOLUENE
         0.671 0.747 0.536 0.720 0.627 0.647 0.799 0.752 0.751 0.793  0.704   11.78
103)    o-DICHLOROBENZENE
         1.551 1.410 1.004 1.330 1.206 1.193 1.366 1.273 1.309 1.346  1.299   11.22
104)    n-BUTYLBENZENE
         0.562 0.584 0.384 0.581 0.523 0.541 0.672 0.629 0.632 0.665  0.577   14.65
105)    HEXACHLOROETHANE
         1.185 1.139 0.877 1.079 1.094 1.038 1.134 1.078 1.084 1.120  1.083    7.66
106)    HEXACHLOROBUTADIENE
         0.901 0.886 0.656 0.838 0.700 0.698 0.850 0.813 0.795 0.840  0.798   10.62
107)    1,2,4-TRICHLOROBENZENE
         0.634 0.513 0.317 0.448 0.422 0.454 0.609 0.585 0.567 0.614  0.516   20.04
108)    NAPHTHALENE
         1.557 1.145 0.666 0.912 0.861 0.913 1.203 1.129 1.125 1.182  1.069   22.82
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M3W1994.M         Thu Mar 31 13:59:22 2016   MS3W
```

Initial Calibration Verification

Job Number: JC17438 **Sample:** V3W1994-ICV1994
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52831.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52831.D   Vial: 4
Acq On    : 17 Mar 2016   7:00 am                      Operator: YOUMINH
Sample    : ICV1994-10                                 Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev  :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	94	0.00	9.14
2		1,1,1-TRIFLUOROETHANE		-----------NA-----------				
3		FREON 115		-----------NA-----------				
4		FREON 152A	1.117	1.205	-7.9	107	-0.01	5.03
5		CHLORODIFLUOROMETHANE	0.424	0.436	-2.8	105	0.00	5.07
6		DICHLORODIFLUOROMETHANE	4.111	4.409	-7.2	103	-0.01	5.18
7		PROPYLENE	1.547	1.723	-11.4	108	0.00	5.10
8		1-CHLORO-1,1-DIFLUOROETHA		-----------NA-----------				
9		FREON 114	4.886	5.205	-6.5	107	-0.01	5.43
10		CHLOROMETHANE	1.979	2.091	-5.7	109	-0.01	5.34
11		VINYL CHLORIDE	2.169	2.402	-10.7	108	-0.01	5.55
12		1,3-BUTADIENE	1.699	1.814	-6.8	106	-0.01	5.68
13		n-BUTANE	3.563	3.786	-6.3	107	-0.02	5.72
14		BROMOMETHANE	1.857	1.901	-2.4	103	-0.01	5.93
15		CHLOROETHANE	1.065	1.142	-7.2	104	-0.01	6.08
16		DICHLOROFLUOROMETHANE	4.170	4.230	-1.4	104	-0.01	6.15
17		ACETONITRILE	1.473	1.504	-2.1	106	0.00	6.38
18		FREON 123	4.421	4.316	2.4	97	-0.02	6.49
19		FREON 123A	2.236	2.088	6.6	91	-0.01	6.54
20		TRICHLOROFLUOROMETHANE	4.042	4.200	-3.9	101	-0.01	6.73
21		1,1-DICHLORO-1-FLUOROETHA		-----------NA-----------				
22		ISOPROPYL ALCOHOL	3.542	3.690	-4.2	102	0.00	6.81
23		ACETONE	0.861	0.849	1.4	104	-0.01	6.61
24		PENTANE	2.265	2.564	-13.2	111	-0.01	7.01
25	H	TVHC as EQUIV PENTANE	13.650	14.533	-6.5	109	-0.01	7.01
26		IODOMETHANE	4.289	4.504	-5.0	103	-0.02	7.22
27		1,1-DICHLOROETHYLENE	1.993	1.992	0.1	104	-0.01	7.27
28		CARBON DISULFIDE	6.061	6.522	-7.6	105	-0.01	7.65
29		ETHANOL	0.854	0.826	3.3	100	0.00	6.19
30		BROMOETHENE	1.774	1.848	-4.2	102	-0.01	6.39
31		ACRYLONITRILE	1.089	1.130	-3.8	106	-0.01	6.98
32		METHYLENE CHLORIDE	1.811	1.763	2.7	102	0.00	7.36
33		3-CHLOROPROPENE	0.930	0.977	-5.1	100	-0.01	7.46
34		FREON 113	2.686	2.773	-3.2	102	-0.01	7.56
35		TRANS-1,2-DICHLOROETHYLEN	1.925	1.928	-0.2	99	-0.01	8.13
36		TERTIARY BUTYL ALCOHOL	4.484	4.460	0.5	101	-0.01	7.32
37		METHYL TERTIARY BUTYL ETH	4.745	4.124	13.1	90	0.00	8.36
38		TETRAHYDROFURAN	0.745	0.766	-2.8	101	-0.01	9.64
39		HEXANE	2.985	2.953	1.1	99	0.00	9.14
40		VINYL ACETATE	0.371	0.363	2.2	94	0.00	8.40
41		1,1-DICHLOROETHANE	3.626	3.626	0.0	97	-0.01	8.30
42		METHYL ETHYL KETONE	0.763	0.767	-0.5	100	-0.01	8.65

Initial Calibration Verification

Job Number: JC17438 **Sample:** V3W1994-ICV1994
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52831.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		cis-1,2-DICHLOROETHYLENE	1.740	1.758	-1.0	99	-0.01	8.99
44		DIISOPROPYL ETHER	0.767	0.781	-1.8	101	0.00	9.15
45		ETHYL ACETATE	0.526	0.557	-5.9	103	0.00	9.17
46		METHYL ACRYLATE	3.080	2.913	5.4	97	-0.01	9.17
47		CHLOROFORM	3.318	3.441	-3.7	100	0.00	9.25
48		2,4-DIMETHYLPENTANE	3.335	3.469	-4.0	101	0.00	9.89
49		1,1,1-TRICHLOROETHANE	3.117	3.203	-2.8	99	-0.01	10.09
50		CARBON TETRACHLORIDE	3.251	3.359	-3.3	99	0.00	10.62
51		1,2-DICHLOROETHANE	2.000	2.090	-4.5	97	-0.01	9.87
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	94	-0.01	10.76
53		BENZENE	1.083	1.071	1.1	100	-0.01	10.49
54		CYCLOHEXANE	0.508	0.485	4.5	101	-0.01	10.72
55		2,3-DIMETHYLPENTANE	0.250	0.250	0.0	100	-0.01	10.90
56		TRICHLOROETHYLENE	0.480	0.462	3.7	98	-0.01	11.39
57		1,2-DICHLOROPROPANE	0.420	0.423	-0.7	99	0.00	11.20
58		DIBROMOMETHANE	0.402	0.391	2.7	100	-0.01	11.18
59		ETHYL ACRYLATE	0.792	0.760	4.0	102	-0.01	11.17
60		BROMODICHLOROMETHANE	0.755	0.723	4.2	95	-0.01	11.37
61		2,2,4-TRIMETHYLPENTANE	1.915	1.867	2.5	99	-0.01	11.40
62		1,4-DIOXANE	0.226	0.239	-5.8	103	0.00	11.44
63		HEPTANE	0.722	0.675	6.5	99	-0.01	11.61
64		METHYL METHACRYLATE	0.371	0.347	6.5	99	-0.01	11.55
65		METHYL ISOBUTYL KETONE	0.313	0.326	-4.2	103	-0.01	12.20
66		cis-1,3-DICHLOROPROPENE	0.670	0.638	4.8	94	0.00	12.16
67		TOLUENE	0.686	0.689	-0.4	93	-0.01	13.06
68		1,3-DICHLOROPROPANE	0.598	0.576	3.7	95	0.00	13.09
69		trans-1,3-DICHLOROPROPENE	0.554	0.567	-2.3	99	0.00	12.64
70		1,1,2-TRICHLOROETHANE	0.367	0.372	-1.4	98	0.00	12.81
71	I	CHLOROBENZENE-D5	1.000	1.000	0.0	94	-0.01	14.76
72		2-HEXANONE	0.792	0.831	-4.9	100	-0.01	13.30
73		ETHYL METHACRYLATE	1.135	1.149	-1.2	103	0.00	13.29
74		TETRACHLOROETHYLENE	0.853	0.815	4.5	99	0.00	14.14
75		DIBROMOCHLOROMETHANE	1.327	1.329	-0.2	99	0.00	13.48
76		1,2-DIBROMOETHANE	1.163	1.170	-0.6	97	0.00	13.71
77		OCTANE	1.827	1.726	5.5	101	0.00	13.95
78		1,1,1,2-TETRACHLOROETHANE	0.974	1.003	-3.0	99	-0.01	14.78
79		CHLOROBENZENE	1.808	1.790	1.0	98	0.00	14.81
80		ETHYLBENZENE	2.617	2.488	4.9	96	0.00	15.17
81		m,p-XYLENE	0.992	0.970	2.2	98	0.00	15.34
82		o-XYLENE	0.964	0.950	1.5	99	0.00	15.83
83		STYRENE	1.473	1.452	1.4	97	0.00	15.72
84		NONANE	1.845	1.855	-0.5	100	0.00	16.02
85		BROMOFORM	1.263	1.287	-1.9	95	0.00	15.45
86	S	4-BROMOFLUOROBENZENE	0.988	0.998	-1.0	86	0.00	16.31
87		1,1,2,2-TETRACHLOROETHANE	1.715	1.629	5.0	98	0.00	15.83
88		1,2,3-TRICHLOROPROPANE	1.205	1.152	4.4	100	0.00	15.96
89		ISOPROPYLBENZENE	2.918	2.842	2.6	100	0.00	16.44
90		BROMOBENZENE	1.537	1.438	6.4	93	0.00	16.55
91		2-CHLOROTOLUENE	0.707	0.703	0.6	95	0.00	16.95
92		n-PROPYLBENZENE	0.758	0.758	0.0	100	0.00	16.99
93		4-ETHYLTOLUENE	2.558	2.499	2.3	100	0.00	17.14
94		1,3,5-TRIMETHYLBENZENE	2.265	2.183	3.6	102	0.00	17.22
95		ALPHA-METHYLSTYRENE	1.051	1.110	-5.6	103	0.00	17.39
96		tert-BUTYLBENZENE	0.553	0.549	0.7	102	0.00	17.66
97		1,2,4-TRIMETHYLBENZENE	2.207	2.126	3.7	100	0.00	17.67
98		m-DICHLOROBENZENE	1.431	1.333	6.8	96	0.00	17.84
99		BENZYL CHLORIDE	1.760	1.765	-0.3	99	0.00	17.82
100		p-DICHLOROBENZENE	1.446	1.373	5.0	95	0.00	17.91

Initial Calibration Verification

Job Number: JC17438 **Sample:** V3W1994-ICV1994
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52831.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	sec-BUTYLBENZENE	0.660	0.658	0.3	103	0.00	17.95
102	p-ISOPROPYLTOLUENE	0.704	0.717	-1.8	104	0.00	18.12
103	o-DICHLOROBENZENE	1.299	1.230	5.3	97	0.00	18.28
104	n-BUTYLBENZENE	0.577	0.592	-2.6	102	0.00	18.59
105	HEXACHLOROETHANE	1.083	1.071	1.1	97	0.00	19.01
106	HEXACHLOROBUTADIENE	0.798	0.716	10.3	96	0.00	20.64
107	1,2,4-TRICHLOROBENZENE	0.516	0.466	9.7	96	0.00	20.15
108	NAPHTHALENE	1.069	0.914	14.5	94	0.00	20.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3W52818.D M3W1994.M Thu Mar 31 14:01:11 2016 MS3W

Continuing Calibration Summary

Page 1 of 3

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1996-CC1994
Lab FileID: 3W52853.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\3W52853.D                 Vial: 2
Acq On    : 18 Mar 2016   9:40 am                   Operator: YOUMINH
Sample    : CC1994-10                               Inst     : MS3W
Misc      : MS99296,V3W1996,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	86	0.00	9.15
2		1,1,1-TRIFLUOROETHANE		-----------NA-----------				
3		FREON 115		-----------NA-----------				
4		FREON 152A	1.117	1.248	-11.7	101	0.00	5.03
5		CHLORODIFLUOROMETHANE	0.424	0.441	-4.0	97	0.00	5.08
6		DICHLORODIFLUOROMETHANE	4.111	4.414	-7.4	94	0.00	5.19
7		PROPYLENE	1.547	1.854	-19.8	106	0.00	5.11
8		1-CHLORO-1,1-DIFLUOROETHA		-----------NA-----------				
9		FREON 114	4.886	5.023	-2.8	95	0.00	5.44
10		CHLOROMETHANE	1.979	2.158	-9.0	103	0.00	5.35
11		VINYL CHLORIDE	2.169	2.394	-10.4	99	0.00	5.56
12		1,3-BUTADIENE	1.699	1.864	-9.7	100	0.00	5.68
13		n-BUTANE	3.563	4.064	-14.1	105	0.00	5.73
14		BROMOMETHANE	1.857	1.870	-0.7	93	0.00	5.94
15		CHLOROETHANE	1.065	1.189	-11.6	99	0.00	6.09
16		DICHLOROFLUOROMETHANE	4.170	4.382	-5.1	98	0.00	6.16
17		ACETONITRILE	1.473	1.692	-14.9	109	0.00	6.39
18		FREON 123	4.421	4.566	-3.3	94	0.00	6.50
19		FREON 123A	2.236	2.269	-1.5	91	0.00	6.55
20		TRICHLOROFLUOROMETHANE	4.042	4.311	-6.7	95	0.00	6.75
21		1,1-DICHLORO-1-FLUOROETHA		-----------NA-----------				
22		ISOPROPYL ALCOHOL	3.542	4.587	-29.5	116	0.00	6.82
23		ACETONE	0.861	0.889	-3.3	100	0.00	6.62
24		PENTANE	2.265	2.687	-18.6	107	0.00	7.02
25	H	TVHC as EQUIV PENTANE	13.650	15.233	-11.6	104	0.00	7.02
26		IODOMETHANE	4.289	4.160	3.0	87	0.00	7.23
27		1,1-DICHLOROETHYLENE	1.993	1.930	3.2	92	0.00	7.28
28		CARBON DISULFIDE	6.061	6.404	-5.7	95	0.00	7.65
29		ETHANOL	0.854	0.998	-16.9	110	0.00	6.20
30		BROMOETHENE	1.774	1.806	-1.8	91	0.00	6.40
31		ACRYLONITRILE	1.089	1.194	-9.6	103	0.00	6.99
32		METHYLENE CHLORIDE	1.811	1.769	2.3	94	0.00	7.37
33		3-CHLOROPROPENE	0.930	0.998	-7.3	93	0.00	7.46
34		FREON 113	2.686	2.646	1.5	89	0.00	7.56
35		TRANS-1,2-DICHLOROETHYLEN	1.925	1.885	2.1	88	0.00	8.13
36		TERTIARY BUTYL ALCOHOL	4.484	4.792	-6.9	99	0.00	7.33
37		METHYL TERTIARY BUTYL ETH	4.745	4.026	15.2	80	0.00	8.37
38		TETRAHYDROFURAN	0.763	0.760	0.4	90	0.00	8.66
39		HEXANE	2.985	3.152	-5.6	96	0.00	9.14
40		VINYL ACETATE	0.371	0.343	7.5	81	0.00	8.41
41		1,1-DICHLOROETHANE	3.626	3.451	4.8	85	0.00	8.31
42		METHYL ETHYL KETONE	0.763	0.760	0.4	90	0.00	8.66

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V3W1996-CC1994
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52853.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43	cis-1,2-DICHLOROETHYLENE	1.740	1.742	-0.1	90	0.00	9.00
44	DIISOPROPYL ETHER	0.767	0.787	-2.6	93	0.00	9.16
45	ETHYL ACETATE	0.526	0.556	-5.7	94	0.00	9.18
46	METHYL ACRYLATE	3.080	3.131	-1.7	95	0.00	9.17
47	CHLOROFORM	3.318	3.450	-4.0	92	0.00	9.25
48	2,4-DIMETHYLPENTANE	3.335	3.665	-9.9	97	0.00	9.89
49	1,1,1-TRICHLOROETHANE	3.117	3.234	-3.8	91	0.00	10.10
50	CARBON TETRACHLORIDE	3.251	3.366	-3.5	91	0.00	10.62
51	1,2-DICHLOROETHANE	2.000	2.188	-9.4	93	0.00	9.89
52 I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	86	0.00	10.77
53	BENZENE	1.083	1.078	0.5	92	0.00	10.49
54	CYCLOHEXANE	0.508	0.484	4.7	92	0.00	10.73
55	2,3-DIMETHYLPENTANE	0.250	0.256	-2.4	93	0.00	10.90
56	TRICHLOROETHYLENE	0.480	0.464	3.3	90	0.00	11.40
57	1,2-DICHLOROPROPANE	0.420	0.442	-5.2	95	0.00	11.21
58	DIBROMOMETHANE	0.402	0.367	8.7	86	0.00	11.19
59	ETHYL ACRYLATE	0.792	0.762	3.8	94	0.00	11.18
60	BROMODICHLOROMETHANE	0.755	0.757	-0.3	91	0.00	11.38
61	2,2,4-TRIMETHYLPENTANE	1.915	2.054	-7.3	99	0.00	11.41
62	1,4-DIOXANE	0.226	0.230	-1.8	90	0.00	11.44
63	HEPTANE	0.722	0.731	-1.2	98	0.00	11.62
64	METHYL METHACRYLATE	0.371	0.349	5.9	91	0.00	11.56
65	METHYL ISOBUTYL KETONE	0.313	0.341	-8.9	98	0.00	12.21
66	cis-1,3-DICHLOROPROPENE	0.670	0.669	0.1	90	0.00	12.17
67	TOLUENE	0.686	0.686	0.0	85	0.00	13.07
68	1,3-DICHLOROPROPANE	0.598	0.606	-1.3	91	0.00	13.09
69	trans-1,3-DICHLOROPROPENE	0.554	0.563	-1.6	90	0.00	12.64
70	1,1,2-TRICHLOROETHANE	0.367	0.376	-2.5	90	0.00	12.81
71 I	CHLOROBENZENE-D5	1.000	1.000	0.0	87	0.00	14.76
72	2-HEXANONE	0.792	0.865	-9.2	97	0.00	13.31
73	ETHYL METHACRYLATE	1.135	1.123	1.1	95	0.00	13.29
74	TETRACHLOROETHYLENE	0.853	0.752	11.8	85	0.00	14.14
75	DIBROMOCHLOROMETHANE	1.327	1.264	4.7	88	0.00	13.48
76	1,2-DIBROMOETHANE	1.163	1.120	3.7	87	0.00	13.72
77	OCTANE	1.827	1.784	2.4	98	0.00	13.96
78	1,1,1,2-TETRACHLOROETHANE	0.974	0.948	2.7	88	0.00	14.79
79	CHLOROBENZENE	1.808	1.716	5.1	87	0.00	14.81
80	ETHYLBENZENE	2.617	2.460	6.0	89	0.00	15.17
81	m,p-XYLENE	0.992	0.942	5.0	89	0.00	15.35
82	o-XYLENE	0.964	0.939	2.6	91	0.00	15.84
83	STYRENE	1.473	1.405	4.6	88	0.00	15.72
84	NONANE	1.845	1.996	-8.2	101	0.00	16.02
85	BROMOFORM	1.263	1.223	3.2	85	0.00	15.45
86 S	4-BROMOFLUOROBENZENE	0.988	0.981	0.7	79	0.00	16.31
87	1,1,2,2-TETRACHLOROETHANE	1.715	1.681	2.0	94	0.00	15.83
88	1,2,3-TRICHLOROPROPANE	1.205	1.182	1.9	96	0.00	15.97
89	ISOPROPYLBENZENE	2.918	2.800	4.0	92	0.00	16.44
90	BROMOBENZENE	1.537	1.482	3.6	89	0.00	16.55
91	2-CHLOROTOLUENE	0.707	0.700	1.0	89	0.00	16.96
92	n-PROPYLBENZENE	0.758	0.755	0.4	93	0.00	16.99
93	4-ETHYLTOLUENE	2.558	2.537	0.8	95	0.00	17.14
94	1,3,5-TRIMETHYLBENZENE	2.265	2.186	3.5	95	0.00	17.22
95	ALPHA-METHYLSTYRENE	1.051	1.060	-0.9	92	0.00	17.39
96	tert-BUTYLBENZENE	0.553	0.541	2.2	94	0.00	17.66
97	1,2,4-TRIMETHYLBENZENE	2.207	2.177	1.4	96	0.00	17.67
98	m-DICHLOROBENZENE	1.431	1.340	6.4	90	0.00	17.84
99	BENZYL CHLORIDE	1.760	1.819	-3.4	95	0.00	17.82
100	p-DICHLOROBENZENE	1.446	1.343	7.1	87	0.00	17.91

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1996-CC1994
Lab FileID: 3W52853.D

101	sec-BUTYLBENZENE	0.660	0.648	1.8	94	0.00	17.95
102	p-ISOPROPYLTOLUENE	0.704	0.703	0.1	95	0.00	18.12
103	o-DICHLOROBENZENE	1.299	1.208	7.0	89	0.00	18.29
104	n-BUTYLBENZENE	0.577	0.578	-0.2	93	0.00	18.59
105	HEXACHLOROETHANE	1.083	1.071	1.1	90	0.00	19.01
106	HEXACHLOROBUTADIENE	0.798	0.679	14.9	85	0.00	20.64
107	1,2,4-TRICHLOROBENZENE	0.516	0.443	14.1	85	0.00	20.15
108	NAPHTHALENE	1.069	0.894	16.4	86	0.00	20.27

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3W52818.D M3W1994.M Mon Mar 21 13:10:24 2016 MS3W

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1998-ICC1998
Lab FileID: 3W52929.D

Response Factor Report MS3W

Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration

Calibration Files
0.04=3W52937.D 0.1 =3W52936.D 0.2 =3W52932.D 0.5 =3W52931.D
5 =3W52930.D 10 =3W52929.D 20 =3W52933.D 40 =3W52940.D
15 =3W52934.D 30 =3W52938.D = =

Compound		0.04	0.1	0.2	0.5	5	10	20	40	15	30	Avg	%RSD
1)	I BROMOCHLOROMETHANE	-----ISTD-----											
2)	1,1,1-TRIFLUOROETHANE											0.000	-1.00
3)	FREON 115		0.259	0.312	0.349	0.360	0.300	0.337	0.303	0.352	0.310	0.320	10.11
4)	FREON 152A	0.522	0.741	0.807	0.652	0.817	0.676	0.771	0.744	0.747	0.743	0.722	12.02
5)	CHLORODIFLUOROMETHANE			0.329	0.300	0.352	0.292	0.337	0.323	0.322	0.326	0.323	5.93
6)	DICHLORODIFLUOROMETHANE	3.811	3.453	3.341	2.868	3.563	3.021	3.320	3.168	3.221	3.168	3.294	8.23
7)	PROPYLENE			1.427	0.884	1.096	0.927	1.028	0.991	0.983	0.996	1.042	16.11
8)	1-CHLORO-1,1-DIFLUOROETHANE											0.000	-1.00
9)	FREON 114		3.627	3.494	2.909	3.599	3.027	3.454	3.379	3.393	3.363	3.360	7.22
10)	CHLOROMETHANE	1.282	1.227	1.333	0.997	1.250	1.062	1.170	1.118	1.137	1.132	1.171	8.79
11)	VINYL CHLORIDE	1.450	1.385	1.295	1.154	1.494	1.248	1.398	1.350	1.364	1.346	1.348	7.25
12)	1,3-BUTADIENE		1.195	1.213	0.949	1.133	0.965	1.113	1.088	1.070	1.086	1.090	8.22
13)	n-BUTANE		2.240	2.605	1.977	2.312	1.925	2.205	2.132	2.107	2.140	2.183	9.13
14)	BROMOMETHANE			1.398	1.109	1.336	1.111	1.229	1.200	1.238	1.189	1.226	8.20
15)	CHLOROETHANE	0.544	0.623	0.694	0.597	0.718	0.622	0.705	0.685	0.691	0.688	0.657	8.64
16)	DICHLOROFLUOROMETHANE			3.053	2.521	2.919	2.494	2.903	2.817	2.809	2.833	2.794	6.92
17)	ACETONITRILE			1.107	0.982	0.976	0.852	1.089	1.074	0.998	1.050	1.016	8.16
18)	FREON 123	3.755	3.442	2.992	2.632	3.147	2.734	3.168	3.151	3.131	3.077	3.123	10.21
19)	FREON 123A	2.064	1.882	1.685	1.495	1.830	1.585	1.810	1.804	1.829	1.751	1.774	8.94
20)	TRICHLOROFLUOROMETHANE	3.718	3.314	3.202	2.697	3.306	2.772	3.226	3.178	3.134	3.176	3.172	8.96
21)	1,1-DICHLORO-1-FLUOROETHANE											0.000	-1.00
22)	ISOPROPYL ALCOHOL	3.673	2.987	2.788	2.624	2.612	2.263	2.702	2.693	2.542	2.555	2.744	13.68
23)	ACETONE												

6.9.4
6

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V3W1998-ICC1998
Lab FileID: 3W52929.D

				0.732	0.607	0.612	0.530	0.642	0.647	0.613	0.623	0.626	8.93
24)	PENTANE			1.682	1.667	1.488	1.276	1.522	1.502	1.426	1.518	1.510	8.55
25)	TVHC as EQUIV PENTANE											0.000	-1.00
26)	IODOMETHANE	3.807	3.419	3.235	2.841	3.501	2.944	3.350	3.326	3.372	3.295	3.309	8.19
27)	1,1-DICHLOROETHYLENE			1.620	1.221	1.382	1.157	1.330	1.335	1.319	1.316	1.335	10.16
28)	CARBON DISULFIDE	4.213	3.794	3.753	3.197	3.994	3.352	3.819	3.754	3.768	3.718	3.736	7.70
29)	ETHANOL			0.858	0.675	0.567	0.489	0.587	0.581	0.549	0.555	0.608	18.69
30)	BROMOETHENE	1.266	1.379	1.285	1.089	1.359	1.146	1.278	1.259	1.300	1.246	1.261	6.94
31)	ACRYLONITRILE	0.662	0.771	0.774	0.707	0.754	0.675	0.843	0.849	0.793	0.824	0.765	8.68
32)	METHYLENE CHLORIDE	1.318	1.215	1.145	0.982	1.180	1.000	1.163	1.157	1.143	1.144	1.145	8.45
33)	3-CHLOROPROPENE		0.544	0.567	0.510	0.638	0.553	0.640	0.640	0.632	0.627	0.595	8.56
34)	FREON 113	2.373	2.166	1.946	1.759	2.167	1.865	2.151	2.166	2.154	2.124	2.087	8.56
35)	TRANS-1,2-DICHLOROETHYLENE			1.636	1.155	1.359	1.120	1.327	1.318	1.305	1.293	1.314	11.83
36)	TERTIARY BUTYL ALCOHOL	3.441	3.334	3.083	2.770	3.287	2.917	3.430	3.392	3.273	3.192	3.212	7.01
37)	METHYL TERTIARY BUTYL ETHER	4.265	3.522	3.596	3.128	3.581	3.103	3.695	3.724	3.575	3.638	3.583	9.03
38)	TETRAHYDROFURAN		0.656	0.587	0.555	0.615	0.534	0.641	0.645	0.610	0.620	0.607	6.84
39)	HEXANE	2.427	2.123	1.976	1.671	2.018	1.754	2.132	2.156	2.031	2.121	2.041	10.43
40)	VINYL ACETATE		0.201	0.266	0.238	0.289	0.260	0.325	0.335	0.311	0.323	0.283	16.03
41)	1,1-DICHLOROETHANE	2.598	2.355	2.265	1.925	2.369	2.056	2.413	2.400	2.345	2.344	2.307	8.23
42)	METHYL ETHYL KETONE		0.572	0.603	0.552	0.627	0.542	0.649	0.658	0.624	0.631	0.607	6.95
43)	cis-1,2-DICHLOROETHYLENE		1.578	1.334	1.109	1.360	1.171	1.358	1.375	1.332	1.330	1.327	9.94
44)	DIISOPROPYL ETHER		0.575	0.571	0.510	0.581	0.506	0.624	0.645	0.581	0.633	0.581	8.47
45)	ETHYL ACETATE		0.333	0.355	0.347	0.406	0.351	0.434	0.452	0.402	0.432	0.390	11.41
46)	METHYL ACRYLATE		2.614	2.461	2.076	2.298	2.016	2.513	2.578	2.345	2.515	2.380	9.03
47)	CHLOROFORM	2.979	2.590	2.605	2.257	2.708	2.343	2.765	2.732	2.668	2.700	2.635	7.86
48)	2,4-DIMETHYLPENTANE	2.632	2.460	2.250	1.924	2.391	2.101	2.539	2.575	2.415	2.505	2.379	9.42
49)	1,1,1-TRICHLOROETHANE	2.938	2.780	2.698	2.278	2.770	2.403	2.839	2.829	2.729	2.763	2.703	7.55
50)	CARBON TETRACHLORIDE	3.015	2.804	2.705	2.353	2.922	2.508	2.944	2.925	2.828	2.870	2.787	7.52
51)	1,2-DICHLOROETHANE	1.733	1.664	1.660	1.440	1.721	1.514	1.790	1.769	1.682	1.737	1.671	6.71
52) I	1,4-DIFLUOROBENZENE	----------------ISTD--------------------											
53)	BENZENE												

Initial Calibration Summary

Job Number: JC17438
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		0.858	0.819	0.761	0.648	0.808	0.691	0.822	0.838	0.796	0.821	0.786	8.56
54)	CYCLOHEXANE			0.396	0.308	0.370	0.307	0.365	0.372	0.355	0.365	0.355	8.82
55)	2,3-DIMETHYLPENTANE	0.153	0.189	0.162	0.148	0.186	0.159	0.192	0.199	0.184	0.194	0.177	10.80
56)	TRICHLOROETHYLENE	0.380	0.338	0.332	0.285	0.357	0.305	0.371	0.395	0.355	0.381	0.350	10.07
57)	1,2-DICHLOROPROPANE	0.305	0.285	0.275	0.246	0.292	0.251	0.306	0.324	0.290	0.313	0.289	8.80
58)	DIBROMOMETHANE	0.354	0.312	0.294	0.272	0.331	0.282	0.336	0.356	0.325	0.342	0.320	9.22
59)	ETHYL ACRYLATE		0.622	0.564	0.508	0.581	0.493	0.623	0.656	0.576	0.623	0.583	9.44
60)	BROMODICHLOROMETHANE	0.664	0.572	0.556	0.491	0.606	0.519	0.628	0.654	0.598	0.635	0.592	9.69
61)	2,2,4-TRIMETHYLPENTANE	1.481	1.286	1.211	1.101	1.325	1.142	1.413	1.490	1.333	1.457	1.324	10.54
62)	1,4-DIOXANE	0.108	0.145	0.168	0.257	0.192	0.164	0.203	0.215	0.190	0.198	0.184	22.10
63)	HEPTANE		0.561	0.512	0.404	0.477	0.396	0.494	0.522	0.464	0.512	0.482	11.26
64)	METHYL METHACRYLATE	0.308	0.287	0.264	0.240	0.280	0.239	0.301	0.318	0.281	0.302	0.282	9.70
65)	METHYL ISOBUTYL KETONE	0.209	0.258	0.220	0.209	0.249	0.211	0.263	0.276	0.243	0.253	0.239	10.39
66)	cis-1,3-DICHLOROPROPENE		0.512	0.457	0.404	0.501	0.428	0.516	0.535	0.492	0.521	0.485	9.33
67)	TOLUENE	0.601	0.528	0.458	0.431	0.531	0.462	0.576	0.608	0.541	0.596	0.533	12.07
68)	1,3-DICHLOROPROPANE	0.436	0.403	0.386	0.348	0.440	0.374	0.475	0.501	0.443	0.483	0.429	11.71
69)	trans-1,3-DICHLOROPROPENE		0.423	0.380	0.343	0.435	0.369	0.448	0.462	0.423	0.448	0.414	9.87
70)	1,1,2-TRICHLOROETHANE	0.264	0.235	0.253	0.220	0.275	0.234	0.285	0.298	0.271	0.287	0.262	9.87
71) I	CHLOROBENZENE-D5	----------------ISTD---------------------											
72)	2-HEXANONE	0.536	0.648	0.594	0.624	0.690	0.579	0.684	0.661	0.657	0.603	0.628	7.86
73)	ETHYL METHACRYLATE	0.956	0.937	0.854	0.799	0.955	0.800	0.949	0.916	0.907	0.856	0.893	6.86
74)	TETRACHLOROETHYLENE	0.797	0.730	0.688	0.613	0.739	0.623	0.696	0.688	0.698	0.679	0.695	7.72
75)	DIBROMOCHLOROMETHANE	1.165	1.154	1.066	0.973	1.190	0.994	1.134	1.086	1.115	1.058	1.093	6.59
76)	1,2-DIBROMOETHANE	1.030	1.000	0.905	0.796	0.990	0.832	0.936	0.917	0.936	0.894	0.924	7.92
77)	OCTANE			1.261	1.078	1.243	1.042	1.216	1.186	1.177	1.178	1.173	6.52
78)	1,1,1,2-TETRACHLOROETHANE	0.784	0.804	0.765	0.669	0.834	0.702	0.792	0.764	0.786	0.749	0.765	6.36
79)	CHLOROBENZENE	1.570	1.432	1.264	1.163	1.455	1.225	1.400	1.365	1.384	1.338	1.360	8.75
80)	ETHYLBENZENE	2.325	2.187	1.907	1.823	2.182	1.849	2.219	2.133	2.153	2.068	2.085	8.13
81)	m,p-XYLENE	0.936	0.849	0.734	0.695	0.854	0.722	0.883	0.863	0.851	0.821	0.821	9.49
82)	o-XYLENE	0.783	0.790	0.680	0.665	0.825	0.701	0.868	0.860	0.829	0.799	0.780	9.42
83)	STYRENE												

Initial Calibration Summary

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		1.233	1.217	1.036	1.052	1.328	1.089	1.321	1.295	1.281	1.219	1.207	9.12
84)	NONANE												
		1.680	1.451	1.310	1.144	1.368	1.109	1.304	1.243	1.251	1.215	1.308	12.62
85)	BROMOFORM												
		0.998	1.012	0.922	0.903	1.155	0.983	1.139	1.114	1.119	1.056	1.040	8.69
86)	4-BROMOFLUOROBENZENE												
		1.050	1.096	1.106	1.100	1.141	1.149	1.121	1.035	0.748	1.074	1.062	10.95
87)	1,1,2,2-TETRACHLOROETHANE												
		1.250	1.252	1.147	1.072	1.313	1.114	1.305	1.273	1.257	1.211	1.220	6.72
88)	1,2,3-TRICHLOROPROPANE												
		1.078	1.001	0.886	0.813	0.949	0.806	0.970	0.935	0.937	0.864	0.924	9.12
89)	ISOPROPYLBENZENE												
		2.480	2.414	2.231	2.070	2.525	2.120	2.560	2.471	2.476	2.311	2.366	7.33
90)	BROMOBENZENE												
		1.371	1.255	1.070	0.992	1.191	1.007	1.199	1.165	1.160	1.100	1.151	9.97
91)	2-CHLOROTOLUENE												
		0.529	0.587	0.512	0.491	0.603	0.513	0.622	0.612	0.599	0.566	0.563	8.53
92)	n-PROPYLBENZENE												
		0.559	0.620	0.538	0.522	0.675	0.575	0.710	0.707	0.675	0.638	0.622	11.23
93)	4-ETHYLTOLUENE												
		2.195	2.279	1.941	1.796	2.283	1.926	2.359	2.280	2.269	2.084	2.141	9.00
94)	1,3,5-TRIMETHYLBENZENE												
		1.837	1.888	1.714	1.598	1.986	1.683	2.030	1.963	1.944	1.790	1.844	7.82
95)	ALPHA-METHYLSTYRENE												
		0.799	0.860	0.744	0.731	0.972	0.833	1.019	1.002	0.978	0.899	0.884	12.07
96)	tert-BUTYLBENZENE												
		0.389	0.465	0.426	0.391	0.477	0.408	0.501	0.498	0.478	0.448	0.448	9.49
97)	1,2,4-TRIMETHYLBENZENE												
		1.856	1.794	1.642	1.506	1.919	1.619	2.000	1.956	1.914	1.760	1.797	9.10
98)	m-DICHLOROBENZENE												
		1.309	1.215	1.033	0.929	1.185	1.008	1.271	1.265	1.204	1.139	1.156	10.96
99)	BENZYL CHLORIDE												
		1.656	1.464	1.240	1.132	1.546	1.320	1.647	1.624	1.582	1.433	1.464	12.44
100)	p-DICHLOROBENZENE												
		1.349	1.237	1.031	0.969	1.216	1.036	1.247	1.242	1.218	1.105	1.165	10.46
101)	sec-BUTYLBENZENE												
		0.477	0.522	0.486	0.460	0.579	0.492	0.606	0.605	0.577	0.538	0.534	10.25
102)	p-ISOPROPYLTOLUENE												
		0.514	0.567	0.515	0.482	0.610	0.522	0.654	0.646	0.620	0.571	0.570	10.65
103)	o-DICHLOROBENZENE												
		1.129	1.078	0.938	0.855	1.085	0.919	1.140	1.121	1.098	1.005	1.037	9.74
104)	n-BUTYLBENZENE												
		0.441	0.456	0.408	0.393	0.511	0.434	0.549	0.540	0.520	0.471	0.472	11.68
105)	HEXACHLOROETHANE												
		0.839	0.839	0.796	0.700	0.864	0.740	0.878	0.856	0.841	0.783	0.813	7.09
106)	HEXACHLOROBUTADIENE												
		0.624	0.645	0.631	0.574	0.644	0.558	0.698	0.699	0.657	0.605	0.633	7.32
107)	1,2,4-TRICHLOROBENZENE												
		0.470	0.428	0.307	0.301	0.385	0.344	0.472	0.486	0.445	0.402	0.404	16.88
108)	NAPHTHALENE												
		1.013	0.871	0.609	0.589	0.751	0.657	0.897	0.926	0.834	0.756	0.790	17.99

(#) = Out of Range ### Number of calibration levels exceeded format ###

M3W1998.M Thu Mar 31 16:04:26 2016 MS3W

6.9.4

6

Initial Calibration Verification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: V3W1998-ICV1998
Lab FileID: 3W52942.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52942.D   Vial: 4
Acq On    : 23 Mar 2016   4:42 am                      Operator: YOUMINH
Sample    : ICV1998-10                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	89	0.00	9.11
2		1,1,1-TRIFLUOROETHANE		----------NA----------				
3		FREON 115	0.320	0.337	-5.3	100	0.00	4.86
4		FREON 152A	0.744	0.820	-10.2	108	-0.01	4.97
5		CHLORODIFLUOROMETHANE	0.323	0.360	-11.5	109	0.00	5.02
6		DICHLORODIFLUOROMETHANE	3.294	3.522	-6.9	103	0.00	5.13
7		PROPYLENE	1.042	1.121	-7.6	107	0.00	5.05
8		1-CHLORO-1,1-DIFLUOROETHA		----------NA----------				
9		FREON 114	3.360	3.672	-9.3	108	0.00	5.38
10		CHLOROMETHANE	1.171	1.255	-7.2	105	-0.01	5.29
11		VINYL CHLORIDE	1.348	1.485	-10.2	106	0.00	5.50
12		1,3-BUTADIENE	1.090	1.159	-6.3	107	-0.01	5.62
13		n-BUTANE	2.183	2.343	-7.3	108	-0.01	5.67
14		BROMOMETHANE	1.226	1.267	-3.3	101	0.00	5.89
15		CHLOROETHANE	0.657	0.713	-8.5	102	-0.01	6.03
16		DICHLOROFLUOROMETHANE	2.794	3.027	-8.3	108	-0.01	6.10
17		ACETONITRILE	1.016	1.108	-9.1	115	-0.01	6.34
18		FREON 123	3.123	3.151	-0.9	102	-0.01	6.45
19		FREON 123A	1.774	1.693	4.6	95	0.00	6.49
20		TRICHLOROFLUOROMETHANE	3.172	3.280	-3.4	105	-0.01	6.69
21		1,1-DICHLORO-1-FLUOROETHA		----------NA----------				
22		ISOPROPYL ALCOHOL	2.744	2.289	16.6	90	0.00	6.77
23		ACETONE	0.626	0.644	-2.9	108	0.00	6.57
24		PENTANE	1.510	1.657	-9.7	115	-0.01	6.97
25	H	TVHC as EQUIV PENTANE		----------NA----------				
26		IODOMETHANE	3.309	3.508	-6.0	106	-0.01	7.18
27		1,1-DICHLOROETHYLENE	1.335	1.355	-1.5	104	-0.01	7.22
28		CARBON DISULFIDE	3.736	4.037	-8.1	107	-0.01	7.61
29		ETHANOL	0.608	0.489	19.6	89	0.00	6.15
30		BROMOETHENE	1.261	1.292	-2.5	100	0.00	6.34
31		ACRYLONITRILE	0.765	0.873	-14.1	115	-0.01	6.94
32		METHYLENE CHLORIDE	1.145	1.195	-4.4	106	0.00	7.32
33		3-CHLOROPROPENE	0.595	0.643	-8.1	103	0.00	7.42
34		FREON 113	2.087	2.199	-5.4	105	0.00	7.52
35		TRANS-1,2-DICHLOROETHYLEN	1.314	1.368	-4.1	108	0.00	8.09
36		TERTIARY BUTYL ALCOHOL	3.212	2.856	11.1	87	0.00	7.29
37		METHYL TERTIARY BUTYL ETH	3.583	3.617	-0.9	103	-0.01	8.33
38		TETRAHYDROFURAN	0.607	0.630	-3.8	105	-0.01	9.60
39		HEXANE	2.041	2.124	-4.1	107	-0.01	9.10
40		VINYL ACETATE	0.283	0.336	-18.7	114	0.00	8.37
41		1,1-DICHLOROETHANE	2.307	2.448	-6.1	106	0.00	8.27
42		METHYL ETHYL KETONE	0.607	0.619	-2.0	101	0.00	8.61

Initial Calibration Verification

Job Number: JC17438 **Sample:** V3W1998-ICV1998
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52942.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		cis-1,2-DICHLOROETHYLENE	1.327	1.376	-3.7	104	-0.01	8.96
44		DIISOPROPYL ETHER	0.581	0.621	-6.9	109	0.00	9.12
45		ETHYL ACETATE	0.390	0.420	-7.7	106	-0.01	9.13
46		METHYL ACRYLATE	2.380	2.407	-1.1	106	0.00	9.13
47		CHLOROFORM	2.635	2.846	-8.0	108	0.00	9.21
48		2,4-DIMETHYLPENTANE	2.379	2.559	-7.6	108	-0.01	9.85
49		1,1,1-TRICHLOROETHANE	2.703	2.881	-6.6	106	0.00	10.06
50		CARBON TETRACHLORIDE	2.787	2.973	-6.7	105	-0.01	10.58
51		1,2-DICHLOROETHANE	1.671	1.825	-9.2	107	0.00	9.85
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	88	0.00	10.73
53		BENZENE	0.786	0.847	-7.8	107	0.00	10.46
54		CYCLOHEXANE	0.355	0.372	-4.8	106	0.00	10.69
55		2,3-DIMETHYLPENTANE	0.177	0.194	-9.6	107	0.00	10.87
56		TRICHLOROETHYLENE	0.350	0.371	-6.0	107	0.00	11.37
57		1,2-DICHLOROPROPANE	0.289	0.316	-9.3	110	-0.01	11.17
58		DIBROMOMETHANE	0.320	0.345	-7.8	107	0.00	11.15
59		ETHYL ACRYLATE	0.583	0.585	-0.3	104	0.00	11.14
60		BROMODICHLOROMETHANE	0.592	0.626	-5.7	106	0.00	11.34
61		2,2,4-TRIMETHYLPENTANE	1.324	1.422	-7.4	109	0.00	11.37
62		1,4-DIOXANE	0.184	0.174	5.4	93	-0.01	11.40
63		HEPTANE	0.482	0.519	-7.7	115	-0.01	11.59
64		METHYL METHACRYLATE	0.282	0.282	0.0	103	0.00	11.53
65		METHYL ISOBUTYL KETONE	0.239	0.220	7.9	91	-0.01	12.17
66		cis-1,3-DICHLOROPROPENE	0.485	0.509	-4.9	104	-0.01	12.13
67		TOLUENE	0.533	0.597	-12.0	113	-0.01	13.03
68		1,3-DICHLOROPROPANE	0.429	0.470	-9.6	110	0.00	13.06
69		trans-1,3-DICHLOROPROPENE	0.414	0.462	-11.6	110	0.00	12.60
70		1,1,2-TRICHLOROETHANE	0.262	0.292	-11.5	109	-0.01	12.78
71	I	CHLOROBENZENE-D5	1.000	1.000	0.0	93	0.00	14.74
72		2-HEXANONE	0.628	0.540	14.0	87	0.00	13.28
73		ETHYL METHACRYLATE	0.893	0.830	7.1	96	-0.01	13.26
74		TETRACHLOROETHYLENE	0.695	0.730	-5.0	109	0.00	14.11
75		DIBROMOCHLOROMETHANE	1.093	1.167	-6.8	109	-0.01	13.45
76		1,2-DIBROMOETHANE	0.924	0.983	-6.4	110	0.00	13.69
77		OCTANE	1.173	1.302	-11.0	116	-0.01	13.92
78		1,1,1,2-TETRACHLOROETHANE	0.765	0.829	-8.4	109	0.00	14.76
79		CHLOROBENZENE	1.360	1.445	-6.2	109	0.00	14.78
80		ETHYLBENZENE	2.085	2.223	-6.6	112	0.00	15.14
81		m,p-XYLENE	0.821	0.868	-5.7	111	0.00	15.32
82		o-XYLENE	0.780	0.837	-7.3	111	-0.01	15.80
83		STYRENE	1.207	1.288	-6.7	110	0.00	15.69
84		NONANE	1.308	1.351	-3.3	113	0.00	16.00
85		BROMOFORM	1.040	1.132	-8.8	107	0.00	15.43
86	S	4-BROMOFLUOROBENZENE	1.062	1.134	-6.8	92	0.00	16.29
87		1,1,2,2-TETRACHLOROETHANE	1.220	1.231	-0.9	102	-0.01	15.80
88		1,2,3-TRICHLOROPROPANE	0.924	0.928	-0.4	107	0.00	15.94
89		ISOPROPYLBENZENE	2.366	2.502	-5.7	109	0.00	16.42
90		BROMOBENZENE	1.151	1.198	-4.1	110	0.00	16.53
91		2-CHLOROTOLUENE	0.563	0.596	-5.9	108	0.00	16.93
92		n-PROPYLBENZENE	0.622	0.653	-5.0	105	0.00	16.96
93		4-ETHYLTOLUENE	2.141	2.195	-2.5	106	0.00	17.12
94		1,3,5-TRIMETHYLBENZENE	1.844	1.890	-2.5	104	0.00	17.20
95		ALPHA-METHYLSTYRENE	0.884	0.958	-8.4	107	0.00	17.37
96		tert-BUTYLBENZENE	0.448	0.460	-2.7	105	0.00	17.64
97		1,2,4-TRIMETHYLBENZENE	1.797	1.794	0.2	103	0.00	17.65
98		m-DICHLOROBENZENE	1.156	1.178	-1.9	108	0.00	17.82
99		BENZYL CHLORIDE	1.464	1.444	1.4	101	0.00	17.80
100		p-DICHLOROBENZENE	1.165	1.142	2.0	102	0.00	17.89

Initial Calibration Verification

Job Number: JC17438 **Sample:** V3W1998-ICV1998
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52942.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	sec-BUTYLBENZENE	0.534	0.553	-3.6	104	0.00	17.93
102	p-ISOPROPYLTOLUENE	0.570	0.588	-3.2	105	0.00	18.11
103	o-DICHLOROBENZENE	1.037	1.048	-1.1	106	0.00	18.27
104	n-BUTYLBENZENE	0.472	0.483	-2.3	103	0.00	18.56
105	HEXACHLOROETHANE	0.813	0.866	-6.5	109	0.00	19.00
106	HEXACHLOROBUTADIENE	0.633	0.624	1.4	104	0.00	20.63
107	1,2,4-TRICHLOROBENZENE	0.404	0.358	11.4	96	0.00	20.13
108	NAPHTHALENE	0.790	0.632	20.0	89	0.00	20.26

```
(#) = Out of Range              SPCC's out = 0  CCC's out = 0
 3W52929.D  M3W1998.M        Thu Mar 31 16:04:25 2016    MS3W
```

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V3W1999-CC1998
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52944.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                    Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D   Vial: 2
Acq On    : 24 Mar 2016  11:10 am                      Operator: YOUMINH
Sample    : CC1998-10                                  Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	85	0.00	9.11
2		1,1,1-TRIFLUOROETHANE		----------NA----------				
3		FREON 115	0.320	0.316	1.3	89	0.00	4.86
4		FREON 152A	0.744	0.781	-5.0	98	0.00	4.99
5		CHLORODIFLUOROMETHANE	0.323	0.350	-8.4	102	0.00	5.03
6		DICHLORODIFLUOROMETHANE	3.294	3.478	-5.6	98	0.00	5.14
7		PROPYLENE	1.042	1.075	-3.2	99	0.00	5.06
8		1-CHLORO-1,1-DIFLUOROETHA		----------NA----------				
9		FREON 114	3.360	3.654	-8.8	103	0.00	5.39
10		CHLOROMETHANE	1.171	1.272	-8.6	102	0.00	5.30
11		VINYL CHLORIDE	1.348	1.458	-8.2	99	0.00	5.51
12		1,3-BUTADIENE	1.090	1.134	-4.0	100	0.00	5.64
13		n-BUTANE	2.183	2.284	-4.6	101	0.00	5.68
14		BROMOMETHANE	1.226	1.265	-3.2	97	0.00	5.89
15		CHLOROETHANE	0.657	0.688	-4.7	94	0.00	6.04
16		DICHLOROFLUOROMETHANE	2.794	2.856	-2.2	97	0.00	6.11
17		ACETONITRILE	1.016	1.053	-3.6	105	-0.01	6.34
18		FREON 123	3.123	3.086	1.2	96	0.00	6.45
19		FREON 123A	1.774	1.733	2.3	93	0.00	6.50
20		TRICHLOROFLUOROMETHANE	3.172	3.244	-2.3	99	0.00	6.70
21		1,1-DICHLORO-1-FLUOROETHA		----------NA----------				
22		ISOPROPYL ALCOHOL	2.744	3.336	-21.6	125	0.00	6.77
23		ACETONE	0.626	0.639	-2.1	102	0.00	6.57
24		PENTANE	1.510	1.519	-0.6	101	0.00	6.98
25	H	TVHC as EQUIV PENTANE		----------NA----------				
26		IODOMETHANE	3.309	3.372	-1.9	97	0.00	7.19
27		1,1-DICHLOROETHYLENE	1.335	1.350	-1.1	99	0.00	7.23
28		CARBON DISULFIDE	3.736	4.028	-7.8	102	0.00	7.61
29		ETHANOL	0.608	0.605	0.5	105	0.00	6.15
30		BROMOETHENE	1.261	1.286	-2.0	95	0.00	6.35
31		ACRYLONITRILE	0.765	0.809	-5.8	102	0.00	6.94
32		METHYLENE CHLORIDE	1.145	1.186	-3.6	101	0.00	7.32
33		3-CHLOROPROPENE	0.595	0.634	-6.6	97	0.00	7.42
34		FREON 113	2.087	2.072	0.7	94	0.00	7.53
35		TRANS-1,2-DICHLOROETHYLEN	1.314	1.301	1.0	99	0.00	8.10
36		TERTIARY BUTYL ALCOHOL	3.212	3.296	-2.6	96	0.00	7.29
37		METHYL TERTIARY BUTYL ETH	3.583	3.510	2.0	96	0.00	8.33
38		TETRAHYDROFURAN	0.607	0.604	0.5	96	-0.01	9.60
39		HEXANE	2.041	2.023	0.9	98	0.00	9.11
40		VINYL ACETATE	0.283	0.300	-6.0	98	0.00	8.37
41		1,1-DICHLOROETHANE	2.307	2.316	-0.4	96	0.00	8.28
42		METHYL ETHYL KETONE	0.607	0.617	-1.6	97	0.00	8.61

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V3W1999-CC1998
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52944.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		cis-1,2-DICHLOROETHYLENE	1.327	1.310	1.3	95	0.00	8.96
44		DIISOPROPYL ETHER	0.581	0.589	-1.4	99	0.00	9.12
45		ETHYL ACETATE	0.390	0.411	-5.4	99	-0.01	9.13
46		METHYL ACRYLATE	2.380	2.373	0.3	100	0.00	9.13
47		CHLOROFORM	2.635	2.648	-0.5	96	0.00	9.21
48		2,4-DIMETHYLPENTANE	2.379	2.331	2.0	94	-0.01	9.85
49		1,1,1-TRICHLOROETHANE	2.703	2.671	1.2	94	0.00	10.06
50		CARBON TETRACHLORIDE	2.787	2.777	0.4	94	-0.01	10.58
51		1,2-DICHLOROETHANE	1.671	1.708	-2.2	96	0.00	9.85
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	84	0.00	10.73
53		BENZENE	0.786	0.788	-0.3	96	-0.01	10.45
54		CYCLOHEXANE	0.355	0.347	2.3	95	0.00	10.69
55		2,3-DIMETHYLPENTANE	0.177	0.177	0.0	93	-0.01	10.86
56		TRICHLOROETHYLENE	0.350	0.351	-0.3	97	0.00	11.37
57		1,2-DICHLOROPROPANE	0.289	0.288	0.3	96	-0.01	11.17
58		DIBROMOMETHANE	0.320	0.322	-0.6	96	0.00	11.15
59		ETHYL ACRYLATE	0.583	0.583	0.0	99	0.00	11.14
60		BROMODICHLOROMETHANE	0.592	0.605	-2.2	98	-0.01	11.34
61		2,2,4-TRIMETHYLPENTANE	1.324	1.287	2.8	95	0.00	11.37
62		1,4-DIOXANE	0.184	0.170	7.6	87	-0.01	11.40
63		HEPTANE	0.482	0.458	5.0	97	-0.01	11.59
64		METHYL METHACRYLATE	0.282	0.283	-0.4	99	-0.01	11.52
65		METHYL ISOBUTYL KETONE	0.239	0.247	-3.3	98	-0.01	12.17
66		cis-1,3-DICHLOROPROPENE	0.485	0.494	-1.9	97	-0.01	12.13
67		TOLUENE	0.533	0.547	-2.6	99	-0.01	13.03
68		1,3-DICHLOROPROPANE	0.429	0.454	-5.8	102	-0.01	13.05
69		trans-1,3-DICHLOROPROPENE	0.414	0.430	-3.9	98	0.00	12.60
70		1,1,2-TRICHLOROETHANE	0.262	0.279	-6.5	100	-0.01	12.78
71	I	CHLOROBENZENE-D5	1.000	1.000	0.0	87	-0.01	14.73
72		2-HEXANONE	0.628	0.639	-1.8	95	-0.01	13.27
73		ETHYL METHACRYLATE	0.893	0.931	-4.3	101	-0.02	13.25
74		TETRACHLOROETHYLENE	0.695	0.692	0.4	96	-0.01	14.11
75		DIBROMOCHLOROMETHANE	1.093	1.136	-3.9	99	-0.01	13.45
76		1,2-DIBROMOETHANE	0.924	0.952	-3.0	99	-0.01	13.68
77		OCTANE	1.173	1.210	-3.2	100	-0.01	13.92
78		1,1,1,2-TETRACHLOROETHANE	0.765	0.802	-4.8	99	-0.01	14.76
79		CHLOROBENZENE	1.360	1.405	-3.3	99	-0.01	14.77
80		ETHYLBENZENE	2.085	2.207	-5.9	103	-0.01	15.13
81		m,p-XYLENE	0.821	0.869	-5.8	104	-0.01	15.32
82		o-XYLENE	0.780	0.860	-10.3	106	-0.01	15.80
83		STYRENE	1.207	1.292	-7.0	103	-0.01	15.69
84		NONANE	1.308	1.353	-3.4	106	-0.01	15.99
85		BROMOFORM	1.040	1.161	-11.6	102	-0.01	15.42
86	S	4-BROMOFLUOROBENZENE	1.062	1.062	0.0	80	-0.01	16.28
87		1,1,2,2-TETRACHLOROETHANE	1.220	1.397	-14.5	109	-0.02	15.80
88		1,2,3-TRICHLOROPROPANE	0.924	0.986	-6.7	106	-0.01	15.94
89		ISOPROPYLBENZENE	2.366	2.597	-9.8	106	-0.01	16.41
90		BROMOBENZENE	1.151	1.227	-6.6	105	-0.01	16.53
91		2-CHLOROTOLUENE	0.563	0.633	-12.4	107	-0.01	16.93
92		n-PROPYLBENZENE	0.622	0.707	-13.7	107	-0.01	16.96
93		4-ETHYLTOLUENE	2.141	2.389	-11.6	107	-0.01	17.11
94		1,3,5-TRIMETHYLBENZENE	1.844	2.100	-13.9	108	-0.01	17.20
95		ALPHA-METHYLSTYRENE	0.884	1.024	-15.8	106	-0.01	17.37
96		tert-BUTYLBENZENE	0.448	0.505	-12.7	107	-0.01	17.63
97		1,2,4-TRIMETHYLBENZENE	1.797	2.043	-13.7	109	-0.01	17.64
98		m-DICHLOROBENZENE	1.156	1.267	-9.6	109	0.00	17.82
99		BENZYL CHLORIDE	1.464	1.619	-10.6	106	-0.01	17.79
100		p-DICHLOROBENZENE	1.165	1.252	-7.5	105	-0.01	17.88

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V3W1999-CC1998
Account: AEICNJF AEI Consultants **Lab FileID:** 3W52944.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	sec-BUTYLBENZENE	0.534	0.613	-14.8	108	-0.01	17.93
102	p-ISOPROPYLTOLUENE	0.570	0.661	-16.0	110	0.00	18.10
103	o-DICHLOROBENZENE	1.037	1.172	-13.0	110	-0.01	18.26
104	n-BUTYLBENZENE	0.472	0.552	-16.9	110	-0.01	18.56
105	HEXACHLOROETHANE	0.813	0.943	-16.0	110	0.00	18.99
106	HEXACHLOROBUTADIENE	0.633	0.768	-21.3	119	-0.01	20.62
107	1,2,4-TRICHLOROBENZENE	0.404	0.451	-11.6	113	-0.01	20.13
108	NAPHTHALENE	0.790	0.903	-14.3	119	0.00	20.25

(#) = Out of Range SPCC's out = 0 CCC's out = 0
3W52929.D M3W1998.M Fri Apr 01 08:46:00 2016 MS3W

Initial Calibration Summary

Job Number: JC17438 **Sample:** V5W637-ICC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W15841.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Response Factor Report GCMS5W

```
Method Path : C:\msdchem\1\METHODS\
Method File : m5w637.M
Title       : TO-15 Full Scan Mode
Last Update  : Mon Jan 25 09:32:20 2016
Response Via : Initial Calibration

Calibration Files
20   =5W15845.D  30   =5W15849.D  0.5 =5W15843.D  0.2 =5W15844.D  0.1 =5W15847.D  0.04=5W15848.D  10   =5W15841.D
5    =5W15842.D  40   =5W15851.D
```

	Compound	20	30	0.5	0.2	0.1	0.04	10	5	40	Avg	%RSD
1) I	Bromochloromethane	----------------ISTD--------------------										
2)	1,1,1-Trifluor...	2.375	2.434	2.174	2.538	2.563	3.034	2.540	2.520	2.199	2.486	10.13
3)	Freon 152A	0.529	0.537	0.471	0.555	0.623	0.628	0.564	0.559	0.492	0.551	9.51
4)	Chlorodifluoro...	0.198	0.205	0.190	0.226	0.200		0.210	0.210	0.186	0.203	6.31
5)	Propene	0.538	0.548	0.566	0.775	0.918		0.574	0.574	0.502	0.624	23.10
6)	Dichlorodifluo...	2.192	2.238	1.964	2.323	2.320	2.616	2.337	2.328	2.039	2.262	8.36
7)	1-Chloro-1,1-d...	1.456	1.491	1.302	1.566	1.582	1.781	1.542	1.532	1.365	1.513	9.08
8)	Chloromethane	0.743	0.753	0.676	0.865	0.806	1.009	0.792	0.786	0.690	0.791	12.67
9)	Dichlorotetraf...	2.476	2.512	2.224	2.586	2.712	2.843	2.631	2.619	2.280	2.543	7.74
10)	Vinyl Chloride	0.893	0.903	0.772	0.920	0.870	0.940	0.945	0.936	0.820	0.889	6.63
11)	1,3-Butadiene	0.629	0.638	0.573	0.682	0.695	0.838	0.674	0.668	0.581	0.664	11.77
12)	n-Butane	0.138	0.138	0.132	0.157	0.188		0.146	0.146	0.126	0.146	13.31
13)	Bromomethane	0.971	0.980	0.881	1.064	1.115	1.266	1.027	1.018	0.897	1.024	11.42
14)	Chloroethane	0.436	0.443	0.377	0.469	0.458	0.428	0.466	0.461	0.406	0.438	7.01
15)	Dichlorofluoro...	1.974	2.001	1.760	2.153	2.255	2.439	2.094	2.090	1.841	2.068	9.97
16)	Acetonitrile	0.616	0.626	0.696	0.924	0.823	0.855	0.665	0.658	0.575	0.715	16.99
17)	Freon 123	2.364	2.389	2.103	2.544	2.589	2.656	2.508	2.495	2.193	2.427	7.56
18)	Freon 123A	1.265	1.378	1.106	1.376	1.315	1.300	1.445	1.426	1.279	1.321	7.76
19)	Bromoethene	1.001	1.015	0.860	0.984	1.012	0.951	1.065	1.051	0.933	0.986	6.43
20)	Trichlorofluor...	2.295	2.320	1.988	2.352	2.392	2.550	2.420	2.391	2.136	2.316	7.14
21)	Acetone	0.399	0.407	0.431	0.580	0.774		0.419	0.427	0.372	0.476	28.48
22)	Pentane	0.212	0.213	0.224	0.303	0.292		0.228	0.230	0.197	0.237	16.30
23)	1,1-Dichloro-1...	1.863	1.846	1.657	2.017	2.117	2.492	1.968	1.954	1.736	1.961	12.43
24)	Iodomethane	2.790	2.812	2.415	2.820	2.800	2.906	2.964	2.909	2.602	2.780	6.16
25)	Isopropyl Alcohol	0.260	0.258	0.356	0.504			0.275	0.282	0.238	0.310	29.93
26)	1,1-Dichloroet...	1.396	1.414	1.227	1.444	1.383	1.436	1.477	1.457	1.307	1.394	5.73
27)	Freon 113	2.059	2.086	1.752	2.017	2.083	2.187	2.170	2.149	1.933	2.049	6.66
28)	Methylene Chlo...	0.863	0.876	0.773	0.900	1.165	1.289	0.921	0.908	0.809	0.945	17.96
29)	Carbon Disulfide	2.783	2.818	2.392	2.682	2.718	2.844	2.955	2.899	2.596	2.743	6.27
30)	Ethanol	0.327	0.334	0.530				0.347	0.348	0.307	0.365	22.44
31)	Acrylonitrile	0.667	0.672	0.681	0.728	0.708	0.658	0.704	0.688	0.619	0.681	4.70
32)	3-Chloropropene	0.438	0.441	0.370	0.424	0.423	0.309	0.456	0.458	0.410	0.414	11.54
33)	trans-1,2-Dich...	1.286	1.299	1.070	1.272	1.255	1.181	1.362	1.332	1.200	1.251	7.12
34)	tert-Butyl Alc...	1.975	1.991	1.718	2.025	1.979	1.751	2.130	2.099	1.827	1.944	7.54
35)	Methyl tert-Bu...	2.434	2.486	2.128	2.528	2.536	2.716	2.618	2.582	2.294	2.480	7.15
36)	Vinyl Acetate	2.179	2.217	1.902	2.211	1.918	2.409	2.346	2.290	2.055	2.170	8.23
37)	1,1-Dichloroet...	1.662	1.680	1.452	1.647	1.636	1.710	1.766	1.737	1.554	1.649	5.83
38)	2-Butanone	0.451	0.456	0.403	0.462	0.309		0.478	0.471	0.423	0.431	12.86
39)	Hexane	1.294	1.309	1.185	1.503	1.630	1.861	1.362	1.356	1.200	1.411	15.52
40)	cis-1,2-Dichlo...	1.247	1.260	1.064	1.228	1.217	1.266	1.315	1.281	1.162	1.227	6.07
41)	Di-isopropyl E...	0.785	0.797	0.655	0.779	0.740	0.630	0.820	0.804	0.734	0.749	8.96
42)	Ethyl Acetate	0.310	0.316	0.258	0.264	0.154		0.329	0.321	0.288	0.280	20.49
43)	Methyl Acrylate	1.696	1.731	1.544	2.231			1.791	1.770	1.575	1.763	12.86
44)	Chloroform	2.027	2.065	1.785	2.081	2.085	2.307	2.140	2.129	1.888	2.056	7.29
45)	2,4-Dimethylpe...	1.596	1.594	1.413	1.750	1.701	2.041	1.680	1.653	1.468	1.655	10.93

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W637-ICC637
Lab FileID: 5W15841.D

46)	Tetrahydrofuran	0.453	0.460	0.388	0.417	0.329	0.191	0.480	0.472	0.420	0.401	22.91
47)	1,1,1-Trichlor...	1.997	2.011	1.677	2.024	1.997	2.102	2.079	2.075	1.844	1.978	6.87
48)	1,2-Dichloroet...	1.158	1.165	0.969	1.142	1.096	1.042	1.215	1.198	1.076	1.118	7.10
49)	Benzene	2.994	3.018	2.583	2.959	3.054	3.274	3.186	3.148	2.778	2.999	7.06
50)	Carbon Tetrach...	2.095	2.135	1.729	1.998	1.949	2.091	2.180	2.173	1.982	2.037	6.98
51)	Cyclohexane	1.340	1.353	1.197	1.440	1.415	1.668	1.419	1.413	1.255	1.389	9.57
52)	2,3-Dimethylpe...	0.622	0.627	0.536	0.654	0.608	0.650	0.651	0.650	0.581	0.620	6.43
53) I	1,4-Difluorobenzene	----------------ISTD--------------------										
54)	2,2,4-Trimethy...	1.194	1.209	1.036	1.245	1.239	1.311	1.249	1.215	1.095	1.199	7.01
55)	Heptane	0.252	0.255	0.208	0.248	0.255	0.240	0.260	0.251	0.234	0.245	6.49
56)	Trichloroethene	0.389	0.397	0.329	0.387	0.374	0.399	0.399	0.388	0.363	0.380	5.99
57)	1,2-Dichloropr...	0.299	0.306	0.247	0.289	0.278	0.256	0.308	0.301	0.281	0.285	7.67
58)	Dibromomethane	0.388	0.394	0.324	0.366	0.351	0.405	0.389	0.383	0.363	0.374	6.71
59)	Ethyl Acrylate	0.575	0.588	0.534	0.558	0.531	0.511	0.597	0.578	0.539	0.557	5.28
60)	Methyl Methacr...	0.284	0.291	0.253	0.294	0.239	0.243	0.295	0.291	0.265	0.273	8.46
61)	1,4-Dioxane	0.198	0.203	0.172	0.182			0.201	0.197	0.184	0.191	6.02
62)	Bromodichlorom...	0.620	0.633	0.519	0.604	0.597	0.580	0.633	0.623	0.581	0.599	6.04
63)	cis-1,3-Dichlo...	0.511	0.521	0.418	0.473	0.449	0.463	0.527	0.512	0.481	0.484	7.66
64)	4-Methyl-2-pen...	0.241	0.248	0.193	0.194	0.163		0.252	0.239	0.228	0.220	14.77
65)	trans-1,3-Dich...	0.433	0.446	0.366	0.391	0.362	0.302	0.450	0.434	0.413	0.400	12.27
66)	Toluene	0.995	1.006	0.831	0.966	0.994	1.005	1.027	1.006	0.918	0.972	6.32
67)	1,1,2-Trichlor...	0.361	0.370	0.301	0.349	0.336	0.331	0.371	0.363	0.340	0.347	6.53
68)	1,3-Dichloropr...	0.467	0.474	0.392	0.445	0.405	0.382	0.485	0.471	0.437	0.440	8.75
69)	2-Hexanone	0.338	0.347	0.289	0.278	0.157		0.351	0.341	0.317	0.302	21.41
70)	Ethyl Methacry...	0.493	0.510	0.427	0.467	0.421	0.365	0.515	0.499	0.465	0.462	10.74
71)	Dibromochlorom...	0.678	0.692	0.556	0.645	0.607	0.597	0.687	0.673	0.633	0.641	7.29
72)	Tetrachloroethene	0.523	0.534	0.437	0.498	0.492	0.532	0.535	0.525	0.493	0.508	6.25
73)	1,2-Dibromoethane	0.593	0.604	0.504	0.567	0.554	0.550	0.607	0.593	0.553	0.569	5.89
74)	Octane	0.531	0.537	0.453	0.547	0.522	0.678	0.556	0.532	0.495	0.539	11.26
75)	1,1,1,2-Tetrac...	0.463	0.473	0.374	0.435	0.421	0.436	0.471	0.459	0.434	0.441	7.03
76) I	Chlorobenzene-d5	----------------ISTD--------------------										
77)	Chlorobenzene	1.627	1.597	1.439	1.725	1.711	1.831	1.718	1.738	1.423	1.645	8.42
78)	Ethylbenzene	2.535	2.477	2.311	2.687	2.603	2.790	2.719	2.731	2.215	2.563	7.72
79)	m,p-Xylene	1.901	1.896	1.725	2.207	2.018	2.185	2.064	2.066	1.677	1.971	9.48
80)	Styrene	1.520	1.507	1.340	1.488	1.407	1.366	1.616	1.625	1.348	1.469	7.46
81)	Nonane	1.046	1.027	1.013	1.214	1.303	1.448	1.132	1.106	0.916	1.134	14.47
82)	o-Xylene	1.945	1.923	1.785	2.143	2.084	2.294	2.091	2.102	1.690	2.006	9.39
83)	Bromoform	1.415	1.412	1.216	1.371	1.324	1.314	1.493	1.501	1.262	1.368	7.16
84)	1,1,2,2-Tetrac...	1.591	1.583	1.453	1.703	1.603	1.729	1.705	1.705	1.399	1.608	7.33
85)	1,2,3-Trichlor...	1.111	1.099	1.023	1.183	1.166	1.230	1.202	1.200	0.993	1.134	7.34
86)	Isopropylbenzene	2.786	2.729	2.515	2.954	2.930	3.042	2.983	2.995	2.433	2.819	7.82
87)	Bromobenzene	0.994	0.979	0.903	1.034	1.040	1.068	1.045	1.045	0.880	0.999	6.69
88)	2-Chlorotoluene	0.730	0.728	0.643	0.747	0.703	0.689	0.770	0.776	0.648	0.715	6.75
89)	n-Propylbenzene	0.762	0.756	0.663	0.756	0.761	0.664	0.799	0.802	0.677	0.738	7.48
90) S	4-Bromofluorob...	1.280	1.251	1.359	1.379	1.362	1.358	1.332	1.345	1.210	1.320	4.43
91)	4-Ethyltoluene	2.603	2.561	2.378	2.778	2.736	2.822	2.769	2.788	2.269	2.634	7.51
92)	1,3,5-Trimethy...	2.224	2.187	2.000	2.396	2.424	2.520	2.348	2.369	1.951	2.269	8.55
93)	alpha-Methylst...	1.179	1.161	1.031	1.161	1.102	1.063	1.250	1.255	1.048	1.139	7.31
94)	tert-Butylbenzene	0.494	0.491	0.434	0.510	0.471	0.436	0.521	0.519	0.439	0.479	7.43
95)	1,2,4-Trimethy...	2.248	2.226	2.040	2.308	2.282	2.564	2.400	2.423	1.966	2.273	8.17
96)	1,3-Dichlorobe...	1.563	1.549	1.418	1.630	1.704	1.803	1.630	1.649	1.390	1.593	8.20
97)	Benzyl Chloride	2.025	2.016	1.780	1.973	1.976	2.017	2.134	2.106	1.802	1.981	6.07
98)	1,4-Dichlorobe...	1.565	1.555	1.476	1.686	1.836	2.006	1.647	1.657	1.387	1.646	11.33
99)	sec-Butylbenzene	0.612	0.624	0.538	0.612	0.596	0.594	0.645	0.648	0.555	0.603	6.18
100)	p-Isopropyltol...	0.699	0.692	0.616	0.681	0.630	0.620	0.726	0.725	0.610	0.667	7.13
101)	1,2-Dichlorobe...	1.475	1.475	1.345	1.542	1.696	1.687	1.554	1.560	1.309	1.516	8.75
102)	n-Butylbenzene	0.640	0.639	0.542	0.583	0.543	0.489	0.651	0.661	0.575	0.591	10.13
103)	Hexachloroethane	0.960	0.957	0.776	0.909	0.825	0.832	0.983	0.983	0.854	0.898	8.68

Initial Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: V5W637-ICC637
Lab FileID: 5W15841.D

```
104)     1,2,4-Trichlor... 0.918 0.929 0.852 0.855 1.074 1.071 0.928 0.933 0.839 0.933    9.33
105)     Naphthalene       1.927 1.954 1.926 1.965 2.494 2.526 1.982 2.005 1.741 2.058   12.99
106)     Hexachlorobuta... 0.890 0.878 0.844 0.935 0.959 0.972 0.901 0.949 0.775 0.900    6.97

107) I   Bromochloromethane... ----------------ISTD--------------------
108)     TVHC as equiv ... 4.998 5.038 4.630 5.004             5.340 5.312 4.635 4.994    5.69
 ----------------------------------------------------------------------------
 (#) = Out of Range

m5w637.M Mon Jan 25 12:13:25 2016 GCMS5W
```

Initial Calibration Verification

Job Number: JC17438 **Sample:** V5W637-ICV637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W15853.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W15853.D                 Vial: 4
Acq On    : 23 Jan 2016   6:25 am                   Operator: THOMASH
Sample    : ICV637-10                               Inst     : GCMS5W
Misc      : MS97607,v5w637,,,,,1                    Multiplr: 1.00
MS Integration Params: Rteint.p

Method        : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
Title         : TO-15 Full Scan Mode
Last Update   : Mon Jan 25 09:32:20 2016
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	95	0.00	8.29
2	1,1,1-Trifluoroethane		----------NA----------				
3	Freon 152A	0.551	0.585	-6.2	98	0.00	3.84
4	Chlorodifluoromethane	0.203	0.227	-11.8	102	0.00	3.88
5	Propene	0.624	0.609	2.4	100	0.00	3.90
6	Dichlorodifluoromethane	2.262	2.471	-9.2	100	0.00	3.97
7	1-Chloro-1,1-difluoroetha	1.513	1.654	-9.3	102	0.00	4.08
8	Chloromethane	0.791	0.813	-2.8	97	0.00	4.10
9	Dichlorotetrafluoroethane	2.543	2.718	-6.9	98	0.00	4.17
10	Vinyl Chloride	0.889	0.972	-9.3	98	0.00	4.28
11	1,3-Butadiene	0.664	0.679	-2.3	95	0.00	4.39
12	n-Butane	0.146	0.150	-2.7	98	0.00	4.43
13	Bromomethane	1.024	1.024	0.0	95	0.00	4.61
14	Chloroethane	0.438	0.466	-6.4	95	0.00	4.76
15	Dichlorofluoromethane	2.068	2.196	-6.2	99	0.00	4.83
16	Acetonitrile	0.715	0.703	1.7	100	0.00	5.06
17	Freon 123	2.427	2.532	-4.3	96	0.00	5.18
18	Freon 123A	1.321	1.263	4.4	83	0.00	5.23
19	Bromoethene	0.986	1.050	-6.5	93	0.00	5.06
20	Trichlorofluoromethane	2.316	2.474	-6.8	97	0.00	5.42
21	Acetone	0.476	0.447	6.1	101	0.00	5.28
22	Pentane	0.237	0.243	-2.5	101	0.00	5.72
23	1,1-Dichloro-1-fluoroetha		----------NA----------				
24	Iodomethane	2.780	3.074	-10.6	98	0.00	5.92
25	Isopropyl Alcohol	0.310	0.277	10.6	95	0.00	5.50
26	1,1-Dichloroethene	1.394	1.529	-9.7	98	0.00	6.00
27	Freon 113	2.049	2.275	-11.0	99	0.00	6.35
28	Methylene Chloride	0.945	0.952	-0.7	98	0.00	6.11
29	Carbon Disulfide	2.743	3.038	-10.8	97	0.00	6.39
30	Ethanol	0.365	0.348	4.7	95	0.00	4.87
31	Acrylonitrile	0.681	0.756	-11.0	102	0.00	5.69
32	3-Chloropropene	0.414	0.470	-13.5	98	0.00	6.22
33	trans-1,2-Dichloroethene	1.251	1.420	-13.5	99	0.00	7.02
34	tert-Butyl Alcohol	1.944	2.129	-9.5	95	0.00	6.04
35	Methyl tert-Butyl Ether	2.480	2.684	-8.2	97	0.00	7.28
36	Vinyl Acetate	2.170	2.513	-15.8	102	0.00	7.38
37	1,1-Dichloroethane	1.649	1.825	-10.7	98	0.00	7.23
38	2-Butanone	0.431	0.484	-12.3	96	0.00	7.64
39	Hexane	1.411	1.421	-0.7	99	0.00	8.30
40	cis-1,2-Dichloroethene	1.227	1.337	-9.0	96	0.00	8.11
41	Di-isopropyl Ether	0.749	0.883	-17.9	102	0.00	8.31
42	Ethyl Acetate	0.280	0.347	-23.9	100	0.00	8.35

Initial Calibration Verification

Job Number: JC17438 **Sample:** V5W637-ICV637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W15853.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43	Methyl Acrylate	1.763	1.844	-4.6	98	0.00	8.34
44	Chloroform	2.056	2.285	-11.1	101	0.00	8.43
45	2,4-Dimethylpentane	1.655	1.734	-4.8	98	0.00	9.29
46	Tetrahydrofuran	0.401	0.505	-25.9	100	0.00	8.87
47	1,1,1-Trichloroethane	1.978	2.211	-11.8	101	0.00	9.52
48	1,2-Dichloroethane	1.118	1.287	-15.1	100	0.00	9.24
49	Benzene	2.999	3.299	-10.0	98	0.00	10.05
50	Carbon Tetrachloride	2.037	2.330	-14.4	101	0.00	10.22
51	Cyclohexane	1.389	1.479	-6.5	99	0.00	10.36
52	2,3-Dimethylpentane	0.620	0.680	-9.7	99	0.00	10.65
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00	10.49
54	2,2,4-Trimethylpentane	1.199	1.306	-8.9	98	0.00	11.34
55	Heptane	0.245	0.269	-9.8	97	0.00	11.68
56	Trichloroethene	0.380	0.417	-9.7	98	0.00	11.32
57	1,2-Dichloropropane	0.285	0.326	-14.4	99	0.00	11.02
58	Dibromomethane	0.374	0.416	-11.2	100	0.00	11.00
59	Ethyl Acrylate	0.557	0.627	-12.6	99	0.00	11.06
60	Methyl Methacrylate	0.273	0.301	-10.3	96	0.00	11.59
61	1,4-Dioxane	0.191	0.215	-12.6	100	0.00	11.34
62	Bromodichloromethane	0.599	0.657	-9.7	98	0.00	11.27
63	cis-1,3-Dichloropropene	0.484	0.521	-7.6	93	0.00	12.40
64	4-Methyl-2-pentanone	0.220	0.257	-16.8	96	0.00	12.45
65	trans-1,3-Dichloropropene	0.400	0.468	-17.0	98	0.00	13.08
66	Toluene	0.972	1.069	-10.0	98	0.00	13.64
67	1,1,2-Trichloroethane	0.347	0.385	-11.0	98	0.00	13.29
68	1,3-Dichloropropane	0.440	0.500	-13.6	97	0.00	13.69
69	2-Hexanone	0.302	0.354	-17.2	95	0.00	14.02
70	Ethyl Methacrylate	0.462	0.536	-16.0	98	0.00	14.05
71	Dibromochloromethane	0.641	0.733	-14.4	100	0.00	14.21
72	Tetrachloroethene	0.508	0.565	-11.2	99	0.00	15.16
73	1,2-Dibromoethane	0.569	0.637	-12.0	99	0.00	14.53
74	Octane	0.539	0.581	-7.8	98	0.00	15.00
75	1,1,1,2-Tetrachloroethane	0.441	0.501	-13.6	100	0.00	16.09
76 I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00	16.05
77	Chlorobenzene	1.645	1.789	-8.8	98	0.00	16.11
78	Ethylbenzene	2.563	2.806	-9.5	97	0.00	16.65
79	m,p-Xylene	1.971	2.164	-9.8	99	0.00	16.92
80	Styrene	1.469	1.686	-14.8	98	0.00	17.45
81	Nonane	1.134	1.184	-4.4	98	0.00	17.98
82	o-Xylene	2.006	2.202	-9.8	99	0.00	17.60
83	Bromoform	1.368	1.543	-12.8	97	0.00	17.01
84	1,1,2,2-Tetrachloroethane	1.608	1.765	-9.8	97	0.00	17.60
85	1,2,3-Trichloropropane	1.134	1.257	-10.8	98	0.00	17.80
86	Isopropylbenzene	2.819	3.136	-11.2	99	0.00	18.51
87	Bromobenzene	0.999	1.088	-8.9	98	0.00	18.62
88	2-Chlorotoluene	0.715	0.790	-10.5	97	0.00	19.23
89	n-Propylbenzene	0.738	0.830	-12.5	98	0.00	19.30
90 S	4-Bromofluorobenzene	1.320	1.339	-1.4	95	0.00	18.30
91	4-Ethyltoluene	2.634	2.979	-13.1	101	0.00	19.52
92	1,3,5-Trimethylbenzene	2.269	2.452	-8.1	98	0.00	19.64
93	alpha-Methylstyrene	1.139	1.318	-15.7	99	0.00	19.87
94	tert-Butylbenzene	0.479	0.543	-13.4	98	0.00	20.21
95	1,2,4-Trimethylbenzene	2.273	2.483	-9.2	97	0.00	20.22
96	1,3-Dichlorobenzene	1.593	1.703	-6.9	98	0.00	20.41
97	Benzyl Chloride	1.981	2.160	-9.0	95	0.00	20.40
98	1,4-Dichlorobenzene	1.646	1.676	-1.8	96	0.00	20.51
99	sec-Butylbenzene	0.603	0.680	-12.8	99	0.00	20.59
100	p-Isopropyltoluene	0.667	0.773	-15.9	100	0.00	20.82

Initial Calibration Verification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W637-ICV637
Lab FileID: 5W15853.D

101	1,2-Dichlorobenzene	1.516	1.604	-5.8	97	0.00	20.97
102	n-Butylbenzene	0.591	0.682	-15.4	99	0.00	21.38
103	Hexachloroethane	0.898	1.022	-13.8	98	0.00	21.85
104	1,2,4-Trichlorobenzene	0.933	0.940	-0.8	95	0.00	23.16
105	Naphthalene	2.058	1.978	3.9	94	0.00	23.29
106	Hexachlorobutadiene	0.900	0.927	-3.0	97	0.00	23.74
107 I	Bromochloromethane (A)	1.000	1.000	0.0	95	0.00	8.29
108	TVHC as equiv Pentane	4.994	5.781	-15.8	103	0.00	5.72

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Mon Jan 25 12:14:13 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W683-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17074.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                    Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\5W17074.D                 Vial: 2
Acq On    : 17 Mar 2016   8:59 am                   Operator: THOMASH
Sample    : CC637-10                                Inst     : GCMS5W
Misc      : MS99296,v5w683,,,,,1                    Multiplr: 1.00
MS Integration Params: Rteint.p

Method        : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
Title         : TO-15 Full Scan Mode
Last Update   : Mon Jan 25 09:32:20 2016
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev  :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	92	-0.04	8.25
2		1,1,1-Trifluoroethane	2.486	2.696	-8.4	97	-0.02	3.73
3		Freon 152A	0.551	0.586	-6.4	95	-0.02	3.82
4		Chlorodifluoromethane	0.203	0.225	-10.8	98	-0.02	3.86
5		Propene	0.624	0.661	-5.9	105	-0.02	3.88
6		Dichlorodifluoromethane	2.262	2.429	-7.4	95	-0.02	3.94
7		1-Chloro-1,1-difluoroetha	1.513	1.760	-16.3	105	-0.02	4.06
8		Chloromethane	0.791	0.928	-17.3	107	-0.02	4.08
9		Dichlorotetrafluoroethane	2.543	2.821	-10.9	98	-0.02	4.16
10		Vinyl Chloride	0.889	0.987	-11.0	96	-0.02	4.25
11		1,3-Butadiene	0.664	0.700	-5.4	95	-0.02	4.36
12		n-Butane	0.146	0.146	0.0	92	-0.02	4.41
13		Bromomethane	1.024	1.076	-5.1	96	-0.02	4.59
14		Chloroethane	0.438	0.472	-7.8	93	-0.02	4.73
15		Dichlorofluoromethane	2.068	2.301	-11.3	101	-0.02	4.80
16		Acetonitrile	0.715	0.852	-19.2	117	-0.02	5.03
17		Freon 123	2.427	2.642	-8.9	97	-0.03	5.15
18		Freon 123A	1.321	1.378	-4.3	87	-0.03	5.20
19		Bromoethene	0.986	1.065	-8.0	92	-0.03	5.02
20		Trichlorofluoromethane	2.316	2.652	-14.5	100	-0.03	5.39
21		Acetone	0.476	0.462	2.9	101	-0.02	5.25
22		Pentane	0.237	0.213	10.1	86	-0.03	5.69
23		1,1-Dichloro-1-fluoroetha	1.961	2.055	-4.8	96	-0.03	5.49
24		Iodomethane	2.780	2.696	3.0	83	-0.03	5.90
25		Isopropyl Alcohol	0.310	0.351	-13.2	117	-0.03	5.47
26		1,1-Dichloroethene	1.394	1.399	-0.4	87	-0.04	5.96
27		Freon 113	2.049	2.054	-0.2	87	-0.04	6.32
28		Methylene Chloride	0.945	0.861	8.9	86	-0.03	6.08
29		Carbon Disulfide	2.743	2.806	-2.3	87	-0.04	6.36
30		Ethanol	0.365	0.415	-13.7	110	-0.02	4.84
31		Acrylonitrile	0.681	0.668	1.9	87	-0.03	5.66
32		3-Chloropropene	0.414	0.392	5.3	79	-0.03	6.19
33		trans-1,2-Dichloroethene	1.251	1.231	1.6	83	-0.03	6.98
34		tert-Butyl Alcohol	1.944	1.831	5.8	79	-0.02	6.01
35		Methyl tert-Butyl Ether	2.480	2.141	13.7	75	-0.03	7.25
36		Vinyl Acetate	2.170	2.289	-5.5	89	-0.03	7.35
37		1,1-Dichloroethane	1.649	1.660	-0.7	86	-0.03	7.19
38		2-Butanone	0.431	0.403	6.5	77	-0.03	7.61
39		Hexane	1.411	1.328	5.9	89	-0.04	8.27
40		cis-1,2-Dichloroethene	1.227	1.184	3.5	83	-0.04	8.07
41		Di-isopropyl Ether	0.749	0.711	5.1	79	-0.03	8.28
42		Ethyl Acetate	0.280	0.311	-11.1	87	-0.03	8.32

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W683-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17074.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.763	1.803	-2.3	92	-0.03	8.31
44		Chloroform	2.056	2.112	-2.7	90	-0.04	8.39
45		2,4-Dimethylpentane	1.655	1.560	5.7	85	-0.04	9.25
46		Tetrahydrofuran	0.401	0.390	2.7	74	-0.02	8.85
47		1,1,1-Trichloroethane	1.978	1.962	0.8	87	-0.04	9.48
48		1,2-Dichloroethane	1.118	1.210	-8.2	91	-0.04	9.20
49		Benzene	2.999	2.723	9.2	78	-0.04	10.02
50		Carbon Tetrachloride	2.037	2.060	-1.1	87	-0.03	10.19
51		Cyclohexane	1.389	1.280	7.8	83	-0.04	10.32
52		2,3-Dimethylpentane	0.620	0.558	10.0	79	-0.04	10.61
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	84	-0.04	10.45
54		2,2,4-Trimethylpentane	1.199	1.303	-8.7	88	-0.04	11.30
55		Heptane	0.245	0.246	-0.4	80	-0.03	11.65
56		Trichloroethene	0.380	0.393	-3.4	83	-0.04	11.28
57		1,2-Dichloropropane	0.285	0.311	-9.1	85	-0.03	10.99
58		Dibromomethane	0.374	0.403	-7.8	87	-0.04	10.96
59		Ethyl Acrylate	0.557	0.586	-5.2	83	-0.03	11.03
60		Methyl Methacrylate	0.273	0.263	3.7	75	-0.02	11.56
61		1,4-Dioxane	0.191	0.193	-1.0	81	-0.03	11.31
62		Bromodichloromethane	0.599	0.655	-9.3	87	-0.04	11.23
63		cis-1,3-Dichloropropene	0.484	0.468	3.3	75	-0.03	12.37
64		4-Methyl-2-pentanone	0.220	0.247	-12.3	83	-0.02	12.42
65		trans-1,3-Dichloropropene	0.400	0.407	-1.7	76	-0.03	13.04
66		Toluene	0.972	0.953	2.0	78	-0.03	13.61
67		1,1,2-Trichloroethane	0.347	0.364	-4.9	83	-0.03	13.26
68		1,3-Dichloropropane	0.440	0.485	-10.2	84	-0.03	13.66
69		2-Hexanone	0.302	0.340	-12.6	82	-0.02	13.99
70		Ethyl Methacrylate	0.462	0.491	-6.3	81	-0.03	14.02
71		Dibromochloromethane	0.641	0.718	-12.0	88	-0.03	14.18
72		Tetrachloroethene	0.508	0.541	-6.5	85	-0.03	15.13
73		1,2-Dibromoethane	0.569	0.585	-2.8	81	-0.04	14.49
74		Octane	0.539	0.644	-19.5	98	-0.02	14.97
75		1,1,1,2-Tetrachloroethane	0.441	0.467	-5.9	84	-0.03	16.06
76	I	Chlorobenzene-d5	1.000	1.000	0.0	86	-0.03	16.02
77		Chlorobenzene	1.645	1.590	3.3	80	-0.03	16.08
78		Ethylbenzene	2.563	2.420	5.6	77	-0.02	16.63
79		m,p-Xylene	1.971	1.899	3.7	79	-0.03	16.90
80		Styrene	1.469	1.361	7.4	73	-0.02	17.43
81		Nonane	1.134	1.315	-16.0	100	-0.03	17.95
82		o-Xylene	2.006	1.990	0.8	82	-0.03	17.57
83		Bromoform	1.368	1.479	-8.1	85	-0.02	16.98
84		1,1,2,2-Tetrachloroethane	1.608	1.757	-9.3	89	-0.02	17.58
85		1,2,3-Trichloropropane	1.134	1.171	-3.3	84	-0.03	17.77
86		Isopropylbenzene	2.819	2.750	2.4	79	-0.03	18.48
87		Bromobenzene	0.999	1.021	-2.2	84	-0.03	18.59
88		2-Chlorotoluene	0.715	0.688	3.8	77	-0.03	19.20
89		n-Propylbenzene	0.738	0.725	1.8	78	-0.02	19.27
90	S	4-Bromofluorobenzene	1.320	1.346	-2.0	87	-0.03	18.27
91		4-Ethyltoluene	2.634	2.515	4.5	78	-0.02	19.49
92		1,3,5-Trimethylbenzene	2.269	2.179	4.0	80	-0.02	19.62
93		alpha-Methylstyrene	1.139	1.101	3.3	76	-0.02	19.85
94		tert-Butylbenzene	0.479	0.470	1.9	78	-0.02	20.18
95		1,2,4-Trimethylbenzene	2.273	2.301	-1.2	83	-0.02	20.20
96		1,3-Dichlorobenzene	1.593	1.607	-0.9	85	-0.02	20.39
97		Benzyl Chloride	1.981	1.942	2.0	79	-0.02	20.37
98		1,4-Dichlorobenzene	1.646	1.539	6.5	81	-0.02	20.48
99		sec-Butylbenzene	0.603	0.581	3.6	78	-0.02	20.56
100		p-Isopropyltoluene	0.667	0.667	0.0	79	-0.02	20.80

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Sample: V5W683-CC637
Lab FileID: 5W17074.D

101	1,2-Dichlorobenzene	1.516	1.473	2.8	82	-0.02	20.95
102	n-Butylbenzene	0.591	0.576	2.5	76	-0.02	21.36
103	Hexachloroethane	0.898	0.987	-9.9	87	-0.02	21.83
104	1,2,4-Trichlorobenzene	0.933	0.778	16.6	72	-0.02	23.15
105	Naphthalene	2.058	1.589	22.8	69	-0.02	23.27
106	Hexachlorobutadiene	0.900	0.906	-0.7	87	-0.02	23.72
107 I	Bromochloromethane (A)	1.000	1.000	0.0	92	-0.04	8.25
108	TVHC as equiv Pentane	4.994	5.712	-14.4	98	-0.04	5.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Thu Mar 17 14:31:04 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W684-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17106.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                    Evaluate Continuing Calibration Report

  Data File : C:\msdchem\1\DATA\5W17106.D                Vial: 2
  Acq On    : 18 Mar 2016   9:24 am                  Operator: THOMASH
  Sample    : CC637-10                               Inst     : GCMS5W
  Misc      : MS99296,v5w684,,,,,1                   Multiplr: 1.00
  MS Integration Params: Rteint.p

  Method       : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
  Title        : TO-15 Full Scan Mode
  Last Update  : Mon Jan 25 09:32:20 2016
  Response via : Multiple Level Calibration

  Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
  Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	90	-0.04	8.25
2	1,1,1-Trifluoroethane	2.486	2.891	-16.3	102	-0.02	3.72
3	Freon 152A	0.551	0.598	-8.5	95	-0.02	3.81
4	Chlorodifluoromethane	0.203	0.228	-12.3	98	-0.02	3.86
5	Propene	0.624	0.695	-11.4	109	-0.02	3.88
6	Dichlorodifluoromethane	2.262	2.470	-9.2	95	-0.02	3.94
7	1-Chloro-1,1-difluoroetha	1.513	1.794	-18.6	105	-0.02	4.05
8	Chloromethane	0.791	0.964	-21.9	110	-0.02	4.08
9	Dichlorotetrafluoroethane	2.543	2.911	-14.5	100	-0.02	4.15
10	Vinyl Chloride	0.889	1.027	-15.5	98	-0.02	4.25
11	1,3-Butadiene	0.664	0.732	-10.2	98	-0.02	4.36
12	n-Butane	0.146	0.156	-6.8	96	-0.03	4.40
13	Bromomethane	1.024	1.090	-6.4	95	-0.02	4.59
14	Chloroethane	0.438	0.493	-12.6	95	-0.02	4.73
15	Dichlorofluoromethane	2.068	2.366	-14.4	102	-0.02	4.80
16	Acetonitrile	0.715	0.868	-21.4	117	-0.02	5.03
17	Freon 123	2.427	2.713	-11.8	97	-0.03	5.15
18	Freon 123A	1.321	1.398	-5.8	87	-0.02	5.20
19	Bromoethene	0.986	1.067	-8.2	90	-0.03	5.02
20	Trichlorofluoromethane	2.316	2.690	-16.1	100	-0.03	5.39
21	Acetone	0.476	0.472	0.8	101	-0.02	5.25
22	Pentane	0.237	0.216	8.9	85	-0.03	5.69
23	1,1-Dichloro-1-fluoroetha	1.961	2.174	-10.9	99	-0.03	5.49
24	Iodomethane	2.780	2.581	7.2	78	-0.04	5.89
25	Isopropyl Alcohol	0.310	0.380	-22.6	124	-0.02	5.47
26	1,1-Dichloroethene	1.394	1.432	-2.7	87	-0.04	5.96
27	Freon 113	2.049	2.065	-0.8	86	-0.04	6.32
28	Methylene Chloride	0.945	0.868	8.1	85	-0.04	6.08
29	Carbon Disulfide	2.743	2.825	-3.0	86	-0.04	6.36
30	Ethanol	0.365	0.433	-18.6	112	-0.02	4.84
31	Acrylonitrile	0.681	0.672	1.3	86	-0.02	5.67
32	3-Chloropropene	0.414	0.390	5.8	77	-0.03	6.19
33	trans-1,2-Dichloroethene	1.251	1.235	1.3	82	-0.03	6.98
34	tert-Butyl Alcohol	1.944	1.847	5.0	78	-0.02	6.01
35	Methyl tert-Butyl Ether	2.480	2.122	14.4	73	-0.02	7.25
36	Vinyl Acetate	2.170	2.380	-9.7	91	-0.03	7.35
37	1,1-Dichloroethane	1.649	1.674	-1.5	85	-0.03	7.19
38	2-Butanone	0.431	0.402	6.7	76	-0.02	7.62
39	Hexane	1.411	1.319	6.5	87	-0.03	8.27
40	cis-1,2-Dichloroethene	1.227	1.190	3.0	81	-0.04	8.07
41	Di-isopropyl Ether	0.749	0.704	6.0	77	-0.03	8.28
42	Ethyl Acetate	0.280	0.313	-11.8	86	-0.02	8.33

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W684-CC637
Lab FileID: 5W17106.D

43	Methyl Acrylate	1.763	1.828	-3.7	92	-0.03	8.31
44	Chloroform	2.056	2.094	-1.8	88	-0.04	8.39
45	2,4-Dimethylpentane	1.655	1.593	3.7	85	-0.04	9.25
46	Tetrahydrofuran	0.401	0.382	4.7	72	-0.02	8.85
47	1,1,1-Trichloroethane	1.978	1.963	0.8	85	-0.04	9.48
48	1,2-Dichloroethane	1.118	1.241	-11.0	92	-0.04	9.20
49	Benzene	2.999	2.696	10.1	76	-0.03	10.02
50	Carbon Tetrachloride	2.037	2.088	-2.5	86	-0.04	10.19
51	Cyclohexane	1.389	1.301	6.3	82	-0.04	10.32
52	2,3-Dimethylpentane	0.620	0.569	8.2	79	-0.04	10.61
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	82	-0.04	10.45
54	2,2,4-Trimethylpentane	1.199	1.354	-12.9	89	-0.04	11.30
55	Heptane	0.245	0.255	-4.1	81	-0.03	11.65
56	Trichloroethene	0.380	0.399	-5.0	82	-0.04	11.28
57	1,2-Dichloropropane	0.285	0.320	-12.3	85	-0.03	10.99
58	Dibromomethane	0.374	0.396	-5.9	84	-0.03	10.97
59	Ethyl Acrylate	0.557	0.606	-8.8	83	-0.02	11.03
60	Methyl Methacrylate	0.273	0.263	3.7	73	-0.02	11.56
61	1,4-Dioxane	0.191	0.193	-1.0	79	-0.02	11.31
62	Bromodichloromethane	0.599	0.668	-11.5	87	-0.04	11.23
63	cis-1,3-Dichloropropene	0.484	0.478	1.2	75	-0.02	12.37
64	4-Methyl-2-pentanone	0.220	0.252	-14.5	82	-0.02	12.42
65	trans-1,3-Dichloropropene	0.400	0.411	-2.7	75	-0.03	13.04
66	Toluene	0.972	0.943	3.0	75	-0.03	13.61
67	1,1,2-Trichloroethane	0.347	0.370	-6.6	82	-0.03	13.26
68	1,3-Dichloropropane	0.440	0.489	-11.1	83	-0.03	13.66
69	2-Hexanone	0.302	0.355	-17.5	83	-0.02	13.99
70	Ethyl Methacrylate	0.462	0.508	-10.0	81	-0.03	14.02
71	Dibromochloromethane	0.641	0.721	-12.5	86	-0.03	14.18
72	Tetrachloroethene	0.508	0.528	-3.9	81	-0.03	15.13
73	1,2-Dibromoethane	0.569	0.588	-3.3	80	-0.04	14.49
74	Octane	0.539	0.653	-21.2	97	-0.02	14.97
75	1,1,1,2-Tetrachloroethane	0.441	0.464	-5.2	81	-0.03	16.06
76 I	Chlorobenzene-d5	1.000	1.000	0.0	86	-0.03	16.02
77	Chlorobenzene	1.645	1.550	5.8	77	-0.03	16.08
78	Ethylbenzene	2.563	2.335	8.9	74	-0.02	16.63
79	m,p-Xylene	1.971	1.899	3.7	79	-0.03	16.90
80	Styrene	1.469	1.318	10.3	70	-0.02	17.43
81	Nonane	1.134	1.321	-16.5	100	-0.03	17.95
82	o-Xylene	2.006	1.900	5.3	78	-0.03	17.57
83	Bromoform	1.368	1.444	-5.6	83	-0.02	16.98
84	1,1,2,2-Tetrachloroethane	1.608	1.736	-8.0	87	-0.03	17.57
85	1,2,3-Trichloropropane	1.134	1.169	-3.1	83	-0.03	17.77
86	Isopropylbenzene	2.819	2.599	7.8	75	-0.03	18.48
87	Bromobenzene	0.999	0.962	3.7	79	-0.03	18.59
88	2-Chlorotoluene	0.715	0.660	7.7	74	-0.03	19.20
89	n-Propylbenzene	0.738	0.716	3.0	77	-0.02	19.27
90 S	4-Bromofluorobenzene	1.320	1.322	-0.2	85	-0.03	18.27
91	4-Ethyltoluene	2.634	2.421	8.1	75	-0.02	19.49
92	1,3,5-Trimethylbenzene	2.269	2.122	6.5	77	-0.02	19.62
93	alpha-Methylstyrene	1.139	1.028	9.7	70	-0.02	19.85
94	tert-Butylbenzene	0.479	0.442	7.7	73	-0.02	20.18
95	1,2,4-Trimethylbenzene	2.273	2.218	2.4	79	-0.02	20.20
96	1,3-Dichlorobenzene	1.593	1.536	3.6	81	-0.02	20.39
97	Benzyl Chloride	1.981	1.881	5.0	76	-0.02	20.37
98	1,4-Dichlorobenzene	1.646	1.500	8.9	78	-0.02	20.48
99	sec-Butylbenzene	0.603	0.565	6.3	75	-0.02	20.56
100	p-Isopropyltoluene	0.667	0.648	2.8	77	-0.02	20.80

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W684-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17106.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.516	1.449	4.4	80	-0.02	20.95
102	n-Butylbenzene	0.591	0.553	6.4	73	-0.02	21.36
103	Hexachloroethane	0.898	0.941	-4.8	82	-0.02	21.83
104	1,2,4-Trichlorobenzene	0.933	0.766	17.9	71	-0.01	23.15
105	Naphthalene	2.058	1.550	24.7	67	-0.02	23.27
106	Hexachlorobutadiene	0.900	0.879	2.3	84	-0.01	23.73
107 I	Bromochloromethane (A)	1.000	1.000	0.0	90	-0.04	8.25
108	TVHC as equiv Pentane	4.994	5.802	-16.2	98	-0.04	5.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Mon Mar 21 11:37:22 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W685-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17134.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17134.D                Vial: 2
Acq On    : 19 Mar 2016   9:32 am                  Operator: THOMASH
Sample    : CC637-10                               Inst    : GCMS5W
Misc      : MS99296,v5w685,,,,,1                   Multiplr: 1.00
MS Integration Params: Rteint.p

Method        : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
Title         : TO-15 Full Scan Mode
Last Update   : Mon Jan 25 09:32:20 2016
Response via  : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	85	-0.02	8.26
2		1,1,1-Trifluoroethane	2.486	2.803	-12.8	94	-0.01	3.73
3		Freon 152A	0.551	0.611	-10.9	93	0.00	3.83
4		Chlorodifluoromethane	0.203	0.241	-18.7	98	-0.01	3.87
5		Propene	0.624	0.745	-19.4	111	-0.02	3.89
6		Dichlorodifluoromethane	2.262	2.518	-11.3	92	0.00	3.95
7		1-Chloro-1,1-difluoroetha	1.513	1.823	-20.5	101	0.00	4.07
8		Chloromethane	0.791	0.982	-24.1	106	-0.01	4.09
9		Dichlorotetrafluoroethane	2.543	2.880	-13.3	93	0.00	4.17
10		Vinyl Chloride	0.889	1.027	-15.5	93	-0.01	4.27
11		1,3-Butadiene	0.664	0.747	-12.5	95	-0.01	4.38
12		n-Butane	0.146	0.155	-6.2	91	-0.01	4.42
13		Bromomethane	1.024	1.062	-3.7	88	-0.01	4.60
14		Chloroethane	0.438	0.484	-10.5	89	-0.01	4.74
15		Dichlorofluoromethane	2.068	2.300	-11.2	94	-0.01	4.82
16		Acetonitrile	0.715	0.870	-21.7	112	0.00	5.06
17		Freon 123	2.427	2.582	-6.4	88	-0.01	5.17
18		Freon 123A	1.321	1.377	-4.2	81	-0.01	5.21
19		Bromoethene	0.986	1.065	-8.0	85	-0.01	5.04
20		Trichlorofluoromethane	2.316	2.631	-13.6	93	-0.02	5.40
21		Acetone	0.476	0.466	2.1	95	0.00	5.27
22		Pentane	0.237	0.222	6.3	83	-0.02	5.70
23		1,1-Dichloro-1-fluoroetha	1.961	2.041	-4.1	89	-0.01	5.51
24		Iodomethane	2.780	2.756	0.9	79	-0.02	5.91
25		Isopropyl Alcohol	0.310	0.344	-11.0	107	0.00	5.49
26		1,1-Dichloroethene	1.394	1.496	-7.3	87	-0.02	5.98
27		Freon 113	2.049	2.055	-0.3	81	-0.02	6.33
28		Methylene Chloride	0.945	0.864	8.6	80	-0.02	6.10
29		Carbon Disulfide	2.743	2.831	-3.2	82	-0.02	6.37
30		Ethanol	0.365	0.435	-19.2	107	0.00	4.87
31		Acrylonitrile	0.681	0.707	-3.8	86	0.00	5.69
32		3-Chloropropene	0.414	0.412	0.5	77	-0.01	6.21
33		trans-1,2-Dichloroethene	1.251	1.311	-4.8	82	-0.02	6.99
34		tert-Butyl Alcohol	1.944	1.998	-2.8	80	0.00	6.03
35		Methyl tert-Butyl Ether	2.480	2.344	5.5	76	-0.01	7.26
36		Vinyl Acetate	2.170	2.538	-17.0	92	-0.01	7.37
37		1,1-Dichloroethane	1.649	1.746	-5.9	84	-0.02	7.20
38		2-Butanone	0.431	0.426	1.2	76	-0.01	7.63
39		Hexane	1.411	1.400	0.8	88	-0.02	8.28
40		cis-1,2-Dichloroethene	1.227	1.261	-2.8	82	-0.02	8.09
41		Di-isopropyl Ether	0.749	0.728	2.8	76	-0.01	8.30
42		Ethyl Acetate	0.280	0.319	-13.9	83	-0.01	8.34

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W685-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17134.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.763	1.854	-5.2	88	-0.01	8.33
44		Chloroform	2.056	2.110	-2.6	84	-0.02	8.40
45		2,4-Dimethylpentane	1.655	1.656	-0.1	84	-0.02	9.26
46		Tetrahydrofuran	0.401	0.420	-4.7	75	-0.01	8.86
47		1,1,1-Trichloroethane	1.978	2.017	-2.0	83	-0.02	9.50
48		1,2-Dichloroethane	1.118	1.281	-14.6	90	-0.02	9.22
49		Benzene	2.999	2.852	4.9	76	-0.02	10.03
50		Carbon Tetrachloride	2.037	2.120	-4.1	83	-0.02	10.20
51		Cyclohexane	1.389	1.390	-0.1	84	-0.02	10.33
52		2,3-Dimethylpentane	0.620	0.578	6.8	76	-0.02	10.62
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	79	-0.02	10.46
54		2,2,4-Trimethylpentane	1.199	1.360	-13.4	85	-0.03	11.31
55		Heptane	0.245	0.255	-4.1	77	-0.02	11.66
56		Trichloroethene	0.380	0.401	-5.5	79	-0.03	11.29
57		1,2-Dichloropropane	0.285	0.326	-14.4	83	-0.02	11.00
58		Dibromomethane	0.374	0.394	-5.3	80	-0.02	10.98
59		Ethyl Acrylate	0.557	0.636	-14.2	84	-0.02	11.04
60		Methyl Methacrylate	0.273	0.281	-2.9	75	-0.02	11.57
61		1,4-Dioxane	0.191	0.197	-3.1	77	-0.02	11.32
62		Bromodichloromethane	0.599	0.673	-12.4	83	-0.02	11.25
63		cis-1,3-Dichloropropene	0.484	0.517	-6.8	77	-0.02	12.38
64		4-Methyl-2-pentanone	0.220	0.262	-19.1	82	-0.02	12.43
65		trans-1,3-Dichloropropene	0.400	0.437	-9.2	76	-0.02	13.05
66		Toluene	0.972	0.970	0.2	74	-0.02	13.62
67		1,1,2-Trichloroethane	0.347	0.367	-5.8	78	-0.02	13.27
68		1,3-Dichloropropane	0.440	0.501	-13.9	81	-0.02	13.66
69		2-Hexanone	0.302	0.360	-19.2	80	-0.02	14.00
70		Ethyl Methacrylate	0.462	0.514	-11.3	78	-0.02	14.03
71		Dibromochloromethane	0.641	0.716	-11.7	82	-0.03	14.18
72		Tetrachloroethene	0.508	0.538	-5.9	79	-0.02	15.14
73		1,2-Dibromoethane	0.569	0.597	-4.9	77	-0.03	14.49
74		Octane	0.539	0.693	-28.6	98	-0.02	14.97
75		1,1,1,2-Tetrachloroethane	0.441	0.475	-7.7	79	-0.03	16.06
76	I	Chlorobenzene-d5	1.000	1.000	0.0	84	-0.02	16.02
77		Chlorobenzene	1.645	1.550	5.8	76	-0.02	16.09
78		Ethylbenzene	2.563	2.457	4.1	76	-0.02	16.63
79		m,p-Xylene	1.971	1.875	4.9	76	-0.03	16.90
80		Styrene	1.469	1.373	6.5	71	-0.02	17.43
81		Nonane	1.134	1.384	-22.0	102	-0.03	17.95
82		o-Xylene	2.006	1.942	3.2	78	-0.02	17.58
83		Bromoform	1.368	1.404	-2.6	79	-0.02	16.98
84		1,1,2,2-Tetrachloroethane	1.608	1.706	-6.1	84	-0.02	17.58
85		1,2,3-Trichloropropane	1.134	1.174	-3.5	82	-0.03	17.77
86		Isopropylbenzene	2.819	2.716	3.7	76	-0.03	18.48
87		Bromobenzene	0.999	0.985	1.4	79	-0.02	18.60
88		2-Chlorotoluene	0.715	0.683	4.5	74	-0.02	19.21
89		n-Propylbenzene	0.738	0.708	4.1	74	-0.02	19.27
90	S	4-Bromofluorobenzene	1.320	1.300	1.5	82	-0.03	18.27
91		4-Ethyltoluene	2.634	2.545	3.4	77	-0.02	19.49
92		1,3,5-Trimethylbenzene	2.269	2.174	4.2	77	-0.02	19.62
93		alpha-Methylstyrene	1.139	1.087	4.6	73	-0.02	19.85
94		tert-Butylbenzene	0.479	0.456	4.8	73	-0.02	20.18
95		1,2,4-Trimethylbenzene	2.273	2.250	1.0	78	-0.02	20.20
96		1,3-Dichlorobenzene	1.593	1.568	1.6	81	-0.02	20.39
97		Benzyl Chloride	1.981	1.958	1.2	77	-0.02	20.37
98		1,4-Dichlorobenzene	1.646	1.521	7.6	77	-0.02	20.48
99		sec-Butylbenzene	0.603	0.580	3.8	75	-0.02	20.56
100		p-Isopropyltoluene	0.667	0.662	0.7	76	-0.02	20.80

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W685-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17134.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.516	1.443	4.8	78	-0.02	20.95
102	n-Butylbenzene	0.591	0.584	1.2	75	-0.02	21.36
103	Hexachloroethane	0.898	0.958	-6.7	82	-0.02	21.83
104	1,2,4-Trichlorobenzene	0.933	0.828	11.3	75	-0.02	23.15
105	Naphthalene	2.058	1.628	20.9	69	-0.02	23.27
106	Hexachlorobutadiene	0.900	0.912	-1.3	85	-0.02	23.72
107 I	Bromochloromethane (A)	1.000	1.000	0.0	85	-0.02	8.26
108	TVHC as equiv Pentane	4.994	5.937	-18.9	95	-0.02	5.70

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Mon Mar 21 11:54:39 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W686-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17164.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                     Evaluate Continuing Calibration Report

  Data File : C:\msdchem\1\DATA\5W17164.D                Vial: 2
  Acq On    : 21 Mar 2016   8:59 am                  Operator: THOMASH
  Sample    : CC637-10                               Inst     : GCMS5W
  Misc      : MS99296,v5w686,,,,,1                   Multiplr: 1.00
  MS Integration Params: Rteint.p

  Method        : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
  Title         : TO-15 Full Scan Mode
  Last Update   : Mon Jan 25 09:32:20 2016
  Response via  : Multiple Level Calibration

  Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
  Max. RRF Dev  :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	81	-0.04	8.25
2		1,1,1-Trifluoroethane	2.486	2.858	-15.0	91	-0.02	3.72
3		Freon 152A	0.551	0.612	-11.1	88	-0.02	3.82
4		Chlorodifluoromethane	0.203	0.250	-23.2	96	-0.02	3.86
5		Propene	0.624	0.770	-23.4	108	-0.02	3.88
6		Dichlorodifluoromethane	2.262	2.563	-13.3	88	-0.02	3.94
7		1-Chloro-1,1-difluoroetha	1.513	1.902	-25.7	100	-0.02	4.06
8		Chloromethane	0.791	0.984	-24.4	100	-0.02	4.08
9		Dichlorotetrafluoroethane	2.543	2.891	-13.7	89	-0.02	4.16
10		Vinyl Chloride	0.889	1.039	-16.9	89	-0.02	4.25
11		1,3-Butadiene	0.664	0.754	-13.6	90	-0.02	4.36
12		n-Butane	0.146	0.156	-6.8	86	-0.02	4.41
13		Bromomethane	1.024	1.075	-5.0	84	-0.02	4.59
14		Chloroethane	0.438	0.483	-10.3	84	-0.02	4.73
15		Dichlorofluoromethane	2.068	2.312	-11.8	89	-0.02	4.80
16		Acetonitrile	0.715	0.883	-23.5	107	-0.02	5.03
17		Freon 123	2.427	2.612	-7.6	84	-0.02	5.15
18		Freon 123A	1.321	1.391	-5.3	78	-0.02	5.20
19		Bromoethene	0.986	1.073	-8.8	81	-0.03	5.02
20		Trichlorofluoromethane	2.316	2.699	-16.5	90	-0.03	5.39
21		Acetone	0.476	0.457	4.0	88	-0.02	5.25
22		Pentane	0.237	0.225	5.1	79	-0.03	5.69
23		1,1-Dichloro-1-fluoroetha	1.961	2.217	-13.1	91	-0.03	5.49
24		Iodomethane	2.780	2.740	1.4	75	-0.04	5.89
25		Isopropyl Alcohol	0.310	0.351	-13.2	103	-0.02	5.47
26		1,1-Dichloroethene	1.394	1.499	-7.5	82	-0.04	5.96
27		Freon 113	2.049	2.027	1.1	75	-0.04	6.32
28		Methylene Chloride	0.945	0.844	10.7	74	-0.03	6.08
29		Carbon Disulfide	2.743	2.807	-2.3	77	-0.04	6.36
30		Ethanol	0.365	0.455	-24.7	106	-0.02	4.85
31		Acrylonitrile	0.681	0.705	-3.5	81	-0.03	5.66
32		3-Chloropropene	0.414	0.412	0.5	73	-0.03	6.19
33		trans-1,2-Dichloroethene	1.251	1.360	-8.7	81	-0.03	6.98
34		tert-Butyl Alcohol	1.944	2.059	-5.9	78	-0.02	6.01
35		Methyl tert-Butyl Ether	2.480	2.437	1.7	75	-0.03	7.25
36		Vinyl Acetate	2.170	2.662	-22.7	92	-0.03	7.35
37		1,1-Dichloroethane	1.649	1.763	-6.9	81	-0.03	7.19
38		2-Butanone	0.431	0.433	-0.5	73	-0.03	7.61
39		Hexane	1.411	1.410	0.1	84	-0.03	8.27
40		cis-1,2-Dichloroethene	1.227	1.310	-6.8	80	-0.04	8.07
41		Di-isopropyl Ether	0.749	0.743	0.8	73	-0.03	8.28
42		Ethyl Acetate	0.280	0.321	-14.6	79	-0.03	8.32

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W686-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17164.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.763	1.888	-7.1	85	-0.03	8.31
44		Chloroform	2.056	2.163	-5.2	82	-0.04	8.39
45		2,4-Dimethylpentane	1.655	1.657	-0.1	80	-0.04	9.25
46		Tetrahydrofuran	0.401	0.436	-8.7	73	-0.02	8.85
47		1,1,1-Trichloroethane	1.978	2.105	-6.4	82	-0.04	9.48
48		1,2-Dichloroethane	1.118	1.301	-16.4	86	-0.04	9.20
49		Benzene	2.999	2.929	2.3	74	-0.04	10.02
50		Carbon Tetrachloride	2.037	2.156	-5.8	80	-0.04	10.19
51		Cyclohexane	1.389	1.426	-2.7	81	-0.04	10.32
52		2,3-Dimethylpentane	0.620	0.599	3.4	74	-0.04	10.61
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	77	-0.04	10.45
54		2,2,4-Trimethylpentane	1.199	1.362	-13.6	84	-0.04	11.30
55		Heptane	0.245	0.254	-3.7	75	-0.04	11.64
56		Trichloroethene	0.380	0.397	-4.5	77	-0.04	11.28
57		1,2-Dichloropropane	0.285	0.325	-14.0	81	-0.03	10.99
58		Dibromomethane	0.374	0.390	-4.3	77	-0.04	10.96
59		Ethyl Acrylate	0.557	0.622	-11.7	81	-0.03	11.03
60		Methyl Methacrylate	0.273	0.277	-1.5	72	-0.03	11.56
61		1,4-Dioxane	0.191	0.191	0.0	73	-0.03	11.31
62		Bromodichloromethane	0.599	0.658	-9.8	80	-0.04	11.23
63		cis-1,3-Dichloropropene	0.484	0.515	-6.4	76	-0.03	12.37
64		4-Methyl-2-pentanone	0.220	0.253	-15.0	78	-0.03	12.41
65		trans-1,3-Dichloropropene	0.400	0.446	-11.5	77	-0.03	13.04
66		Toluene	0.972	0.971	0.1	73	-0.03	13.61
67		1,1,2-Trichloroethane	0.347	0.354	-2.0	74	-0.04	13.25
68		1,3-Dichloropropane	0.440	0.484	-10.0	77	-0.03	13.66
69		2-Hexanone	0.302	0.353	-16.9	78	-0.02	13.99
70		Ethyl Methacrylate	0.462	0.498	-7.8	75	-0.03	14.02
71		Dibromochloromethane	0.641	0.698	-8.9	79	-0.03	14.18
72		Tetrachloroethene	0.508	0.527	-3.7	76	-0.03	15.13
73		1,2-Dibromoethane	0.569	0.575	-1.1	73	-0.04	14.49
74		Octane	0.539	0.710	-31.7#	99	-0.03	14.96
75		1,1,1,2-Tetrachloroethane	0.441	0.463	-5.0	76	-0.04	16.05
76	I	Chlorobenzene-d5	1.000	1.000	0.0	85	-0.04	16.01
77		Chlorobenzene	1.645	1.461	11.2	72	-0.03	16.08
78		Ethylbenzene	2.563	2.346	8.5	73	-0.03	16.62
79		m,p-Xylene	1.971	1.832	7.1	75	-0.03	16.90
80		Styrene	1.469	1.308	11.0	69	-0.03	17.42
81		Nonane	1.134	1.341	-18.3	101	-0.03	17.95
82		o-Xylene	2.006	1.894	5.6	77	-0.03	17.57
83		Bromoform	1.368	1.390	-1.6	79	-0.03	16.97
84		1,1,2,2-Tetrachloroethane	1.608	1.599	0.6	80	-0.03	17.57
85		1,2,3-Trichloropropane	1.134	1.127	0.6	80	-0.03	17.77
86		Isopropylbenzene	2.819	2.594	8.0	74	-0.04	18.48
87		Bromobenzene	0.999	0.913	8.6	74	-0.03	18.59
88		2-Chlorotoluene	0.715	0.663	7.3	73	-0.03	19.20
89		n-Propylbenzene	0.738	0.682	7.6	73	-0.03	19.27
90	S	4-Bromofluorobenzene	1.320	1.364	-3.3	87	-0.04	18.26
91		4-Ethyltoluene	2.634	2.397	9.0	74	-0.02	19.49
92		1,3,5-Trimethylbenzene	2.269	2.087	8.0	75	-0.03	19.61
93		alpha-Methylstyrene	1.139	0.999	12.3	68	-0.03	19.84
94		tert-Butylbenzene	0.479	0.434	9.4	71	-0.02	20.18
95		1,2,4-Trimethylbenzene	2.273	2.133	6.2	75	-0.03	20.19
96		1,3-Dichlorobenzene	1.593	1.460	8.3	76	-0.02	20.39
97		Benzyl Chloride	1.981	1.884	4.9	75	-0.02	20.37
98		1,4-Dichlorobenzene	1.646	1.397	15.1	72	-0.02	20.48
99		sec-Butylbenzene	0.603	0.541	10.3	71	-0.02	20.56
100		p-Isopropyltoluene	0.667	0.622	6.7	73	-0.02	20.79

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W686-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17164.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.516	1.375	9.3	75	-0.02	20.94
102	n-Butylbenzene	0.591	0.544	8.0	71	-0.02	21.36
103	Hexachloroethane	0.898	0.927	-3.2	80	-0.02	21.82
104	1,2,4-Trichlorobenzene	0.933	0.772	17.3	71	-0.02	23.15
105	Naphthalene	2.058	1.615	21.5	69	-0.02	23.27
106	Hexachlorobutadiene	0.900	0.897	0.3	85	-0.02	23.72
107 I	Bromochloromethane (A)	1.000	1.000	0.0	81	-0.04	8.25
108	TVHC as equiv Pentane	4.994	5.920	-18.5	89	-0.03	5.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Mon Mar 21 11:54:41 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W687-CC637
Lab FileID: 5W17190.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17190.D                 Vial: 2
Acq On    : 22 Mar 2016   8:56 am                   Operator: THOMASH
Sample    : cc637-10                                Inst     : GCMS5W
Misc      : MS99577,v5w687,,,,,1                    Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\msdchem\1\METHODS\m5w637.M (RTE Integrator)
Title        : TO-15 Full Scan Mode
Last Update  : Mon Jan 25 09:32:20 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	95	-0.04	8.25
2		1,1,1-Trifluoroethane	2.486	2.946	-18.5	110	-0.01	3.73
3		Freon 152A	0.551	0.629	-14.2	106	-0.01	3.83
4		Chlorodifluoromethane	0.203	0.246	-21.2	111	-0.02	3.86
5		Propene	0.624	0.786	-26.0	130	-0.02	3.89
6		Dichlorodifluoromethane	2.262	2.539	-12.2	103	-0.01	3.95
7		1-Chloro-1,1-difluoroetha	1.513	1.856	-22.7	114	-0.02	4.06
8		Chloromethane	0.791	1.008	-27.4	121	-0.02	4.08
9		Dichlorotetrafluoroethane	2.543	2.842	-11.8	103	-0.02	4.16
10		Vinyl Chloride	0.889	1.041	-17.1	104	-0.02	4.26
11		1,3-Butadiene	0.664	0.760	-14.5	107	-0.02	4.37
12		n-Butane	0.146	0.159	-8.9	104	-0.02	4.41
13		Bromomethane	1.024	1.069	-4.4	99	-0.02	4.60
14		Chloroethane	0.438	0.490	-11.9	100	-0.02	4.73
15		Dichlorofluoromethane	2.068	2.320	-12.2	105	-0.02	4.81
16		Acetonitrile	0.715	0.856	-19.7	122	-0.02	5.04
17		Freon 123	2.427	2.580	-6.3	98	-0.02	5.15
18		Freon 123A	1.321	1.330	-0.7	87	-0.02	5.20
19		Bromoethene	0.986	1.054	-6.9	94	-0.02	5.03
20		Trichlorofluoromethane	2.316	2.657	-14.7	104	-0.02	5.39
21		Acetone	0.476	0.462	2.9	105	-0.02	5.25
22		Pentane	0.237	0.220	7.2	92	-0.03	5.69
23		1,1-Dichloro-1-fluoroetha	1.961	2.099	-7.0	101	-0.02	5.50
24		Iodomethane	2.780	2.657	4.4	85	-0.03	5.90
25		Isopropyl Alcohol	0.310	0.366	-18.1	126	-0.02	5.47
26		1,1-Dichloroethene	1.394	1.503	-7.8	97	-0.03	5.97
27		Freon 113	2.049	2.023	1.3	88	-0.03	6.32
28		Methylene Chloride	0.945	0.847	10.4	87	-0.03	6.08
29		Carbon Disulfide	2.743	2.851	-3.9	92	-0.04	6.36
30		Ethanol	0.365	0.416	-14.0	114	-0.02	4.85
31		Acrylonitrile	0.681	0.706	-3.7	95	-0.02	5.67
32		3-Chloropropene	0.414	0.421	-1.7	88	-0.02	6.19
33		trans-1,2-Dichloroethene	1.251	1.337	-6.9	93	-0.03	6.98
34		tert-Butyl Alcohol	1.944	2.039	-4.9	91	-0.02	6.02
35		Methyl tert-Butyl Ether	2.480	2.358	4.9	85	-0.02	7.25
36		Vinyl Acetate	2.170	2.727	-25.7	110	-0.03	7.35
37		1,1-Dichloroethane	1.649	1.755	-6.4	94	-0.03	7.19
38		2-Butanone	0.431	0.429	0.5	85	-0.03	7.61
39		Hexane	1.411	1.398	0.9	97	-0.03	8.27
40		cis-1,2-Dichloroethene	1.227	1.322	-7.7	95	-0.04	8.07
41		Di-isopropyl Ether	0.749	0.712	4.9	82	-0.03	8.28
42		Ethyl Acetate	0.280	0.321	-14.6	93	-0.02	8.33

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W687-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17190.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.763	1.897	-7.6	101	-0.03	8.31
44		Chloroform	2.056	2.120	-3.1	94	-0.04	8.39
45		2,4-Dimethylpentane	1.655	1.677	-1.3	95	-0.04	9.25
46		Tetrahydrofuran	0.401	0.418	-4.2	83	-0.02	8.85
47		1,1,1-Trichloroethane	1.978	2.038	-3.0	93	-0.04	9.48
48		1,2-Dichloroethane	1.118	1.305	-16.7	102	-0.04	9.20
49		Benzene	2.999	2.822	5.9	84	-0.04	10.02
50		Carbon Tetrachloride	2.037	2.136	-4.9	93	-0.04	10.19
51		Cyclohexane	1.389	1.418	-2.1	95	-0.04	10.32
52		2,3-Dimethylpentane	0.620	0.590	4.8	86	-0.04	10.61
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	-0.04	10.45
54		2,2,4-Trimethylpentane	1.199	1.363	-13.7	97	-0.04	11.30
55		Heptane	0.245	0.252	-2.9	87	-0.04	11.64
56		Trichloroethene	0.380	0.388	-2.1	87	-0.04	11.28
57		1,2-Dichloropropane	0.285	0.326	-14.4	94	-0.04	10.98
58		Dibromomethane	0.374	0.374	0.0	86	-0.04	10.96
59		Ethyl Acrylate	0.557	0.641	-15.1	96	-0.03	11.03
60		Methyl Methacrylate	0.273	0.278	-1.8	84	-0.03	11.56
61		1,4-Dioxane	0.191	0.188	1.6	83	-0.03	11.31
62		Bromodichloromethane	0.599	0.658	-9.8	93	-0.04	11.23
63		cis-1,3-Dichloropropene	0.484	0.512	-5.8	87	-0.03	12.37
64		4-Methyl-2-pentanone	0.220	0.268	-21.8	95	-0.03	12.41
65		trans-1,3-Dichloropropene	0.400	0.445	-11.2	88	-0.03	13.04
66		Toluene	0.972	0.961	1.1	84	-0.03	13.61
67		1,1,2-Trichloroethane	0.347	0.353	-1.7	85	-0.03	13.26
68		1,3-Dichloropropane	0.440	0.489	-11.1	90	-0.04	13.65
69		2-Hexanone	0.302	0.380	-25.8	97	-0.03	13.99
70		Ethyl Methacrylate	0.462	0.511	-10.6	89	-0.03	14.02
71		Dibromochloromethane	0.641	0.702	-9.5	91	-0.04	14.17
72		Tetrachloroethene	0.508	0.499	1.8	83	-0.03	15.13
73		1,2-Dibromoethane	0.569	0.577	-1.4	85	-0.04	14.49
74		Octane	0.539	0.702	-30.2#	113	-0.03	14.96
75		1,1,1,2-Tetrachloroethane	0.441	0.455	-3.2	86	-0.04	16.05
76	I	Chlorobenzene-d5	1.000	1.000	0.0	96	-0.03	16.02
77		Chlorobenzene	1.645	1.478	10.2	83	-0.03	16.08
78		Ethylbenzene	2.563	2.352	8.2	83	-0.03	16.62
79		m,p-Xylene	1.971	1.812	8.1	84	-0.04	16.89
80		Styrene	1.469	1.328	9.6	79	-0.03	17.42
81		Nonane	1.134	1.372	-21.0	116	-0.03	17.95
82		o-Xylene	2.006	1.897	5.4	87	-0.03	17.57
83		Bromoform	1.368	1.384	-1.2	89	-0.03	16.97
84		1,1,2,2-Tetrachloroethane	1.608	1.641	-2.1	92	-0.03	17.57
85		1,2,3-Trichloropropane	1.134	1.139	-0.4	91	-0.04	17.76
86		Isopropylbenzene	2.819	2.587	8.2	83	-0.03	18.48
87		Bromobenzene	0.999	0.926	7.3	85	-0.03	18.59
88		2-Chlorotoluene	0.715	0.654	8.5	82	-0.04	19.19
89		n-Propylbenzene	0.738	0.676	8.4	81	-0.03	19.27
90	S	4-Bromofluorobenzene	1.320	1.326	-0.5	96	-0.04	18.26
91		4-Ethyltoluene	2.634	2.430	7.7	84	-0.03	19.49
92		1,3,5-Trimethylbenzene	2.269	2.067	8.9	84	-0.03	19.61
93		alpha-Methylstyrene	1.139	1.032	9.4	79	-0.03	19.84
94		tert-Butylbenzene	0.479	0.424	11.5	78	-0.02	20.18
95		1,2,4-Trimethylbenzene	2.273	2.145	5.6	86	-0.03	20.19
96		1,3-Dichlorobenzene	1.593	1.448	9.1	85	-0.02	20.39
97		Benzyl Chloride	1.981	1.937	2.2	87	-0.02	20.37
98		1,4-Dichlorobenzene	1.646	1.420	13.7	83	-0.02	20.48
99		sec-Butylbenzene	0.603	0.540	10.4	80	-0.02	20.56
100		p-Isopropyltoluene	0.667	0.614	7.9	81	-0.02	20.79

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W687-CC637
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17190.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.516	1.377	9.2	85	-0.02	20.94
102	n-Butylbenzene	0.591	0.539	8.8	79	-0.02	21.36
103	Hexachloroethane	0.898	0.919	-2.3	90	-0.02	21.82
104	1,2,4-Trichlorobenzene	0.933	0.797	14.6	82	-0.02	23.15
105	Naphthalene	2.058	1.636	20.5	79	-0.02	23.27
106	Hexachlorobutadiene	0.900	0.858	4.7	91	-0.02	23.72
107 I	Bromochloromethane (A)	1.000	1.000	0.0	95	-0.04	8.25
108	TVHC as equiv Pentane	4.994	6.032	-20.8	107	-0.03	5.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W15841.D m5w637.M Tue Mar 22 13:18:04 2016 GCMS5W

Initial Calibration Summary

Job Number: JC17438 **Sample:** V5W693-ICC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17372.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Response Factor Report GCMS5W

```
Method Path : C:\msdchem\1\METHODS\
Method File : m5w693.M
Title       : TO-15 Full Scan Mode
Last Update  : Wed Mar 30 08:05:45 2016
Response Via : Initial Calibration

Calibration Files
20   =5W17376.D  30   =5W17380.D  0.5 =5W17374.D  0.2 =5W17375.D  0.1 =5W17378.D  0.04=5W17379.D  10   =5W17372.D
5    =5W17373.D  40   =5W17382.D
```

	Compound	20	30	0.5	0.2	0.1	0.04	10	5	40	Avg	%RSD
1) I	Bromochloromethane	----------------ISTD--------------------										
2)	1,1,1-Trifluor...	2.195	1.939	2.308	2.366	2.422	2.894	2.293	2.423	1.965	2.312	12.24
3)	Freon 152A	0.454	0.437	0.500	0.560	0.555	0.634	0.478	0.508	0.434	0.507	13.07
4)	Chlorodifluoro...	0.208	0.200	0.270	0.313	0.334		0.215	0.233	0.198	0.246	21.64
5)	Propene	0.480	0.460	0.518	0.563	0.658		0.498	0.527	0.452	0.519	12.84
6)	Dichlorodifluo...	2.172	2.081	2.252	2.309	2.350	2.659	2.251	2.408	2.069	2.283	7.95
7)	1-Chloro-1,1-d...	1.560	1.490	1.623	1.674	1.709	2.019	1.603	1.697	1.471	1.650	9.85
8)	Chloromethane	0.630	0.599	0.699	0.756	0.865	0.877	0.656	0.699	0.599	0.709	14.81
9)	Dichlorotetraf...	2.259	2.158	2.385	2.393	2.421	2.822	2.345	2.483	2.149	2.379	8.49
10)	Vinyl Chloride	0.740	0.705	0.763	0.776	0.756	0.834	0.776	0.818	0.705	0.764	5.79
11)	1,3-Butadiene	0.525	0.503	0.622	0.673	0.671	0.843	0.555	0.588	0.503	0.609	17.94
12)	n-Butane	0.112	0.106	0.130	0.170	0.155		0.120	0.129	0.109	0.129	17.60
13)	Bromomethane	0.873	0.833	0.944	1.014	1.102	1.418	0.913	0.970	0.832	0.989	18.52
14)	Chloroethane	0.364	0.348	0.376	0.421	0.447	0.491	0.380	0.404	0.352	0.398	12.00
15)	Dichlorofluoro...	1.775	1.705	1.832	2.134	1.910	2.654	1.843	1.951	1.702	1.945	15.29
16)	Acetonitrile	0.536	0.520	0.630	0.641			0.551	0.591	0.519	0.570	8.95
17)	Freon 123	2.135	2.061	2.177	2.492	2.362	2.917	2.207	2.316	2.063	2.303	11.75
18)	Freon 123A	1.212	1.259	1.271	1.340	1.445	1.592	1.253	1.310	1.261	1.327	9.05
19)	Bromoethene	0.932	0.892	0.945	0.964	0.954	1.069	0.958	1.017	0.897	0.959	5.81
20)	Trichlorofluor...	2.338	2.255	2.424	2.394	2.444	2.632	2.402	2.554	2.240	2.409	5.29
21)	Acetone	0.330	0.315	0.425	0.485	0.516		0.340	0.380	0.319	0.389	20.13
22)	Pentane	0.182	0.176	0.196	0.224			0.192	0.204	0.178	0.193	8.84
23)	1,1-Dichloro-1...	1.923	1.823	2.043	2.124	2.184	2.800	1.958	2.097	1.811	2.085	14.30
24)	Iodomethane	2.741	2.643	2.800	2.762	2.769	2.931	2.823	2.998	2.636	2.789	4.27
25)	Isopropyl Alcohol	0.259	0.244	0.375	0.439			0.267	0.286	0.241	0.302	25.12
26)	1,1-Dichloroet...	1.307	1.258	1.330	1.321	1.306	1.365	1.349	1.432	1.246	1.324	4.23
27)	Freon 113	1.956	1.895	1.982	1.968	1.819	1.996	2.015	2.128	1.881	1.960	4.54
28)	Methylene Chlo...	0.776	0.754	0.811	0.876	0.932	1.039	0.799	0.847	0.743	0.842	11.33
29)	Carbon Disulfide	2.435	2.326	2.430	2.410	2.375	2.575	2.524	2.675	2.304	2.451	4.92
30)	Ethanol	0.281	0.267	0.442	0.450			0.292	0.312	0.268	0.330	24.42
31)	Acrylonitrile	0.572	0.550	0.723	0.699	0.621	0.759	0.579	0.622	0.546	0.630	12.50
32)	3-Chloropropene	0.385	0.374	0.375	0.392	0.380	0.382	0.397	0.417	0.372	0.386	3.71
33)	trans-1,2-Dich...	1.163	1.121	1.140	1.137	1.123	1.163	1.200	1.259	1.116	1.158	4.00
34)	tert-Butyl Alc...	1.863	1.798	1.865	1.829	1.723	1.701	1.929	2.033	1.780	1.836	5.60
35)	Methyl tert-Bu...	2.319	2.232	2.436	2.495	2.487	2.970	2.400	2.543	2.231	2.457	9.07
36)	Vinyl Acetate	2.023	1.968	2.001	1.975	1.629		2.112	2.208	1.951	1.983	8.44
37)	1,1-Dichloroet...	1.493	1.442	1.506	1.498	1.543	1.765	1.541	1.620	1.427	1.537	6.69
38)	2-Butanone	0.394	0.382	0.379	0.350	0.323		0.413	0.428	0.378	0.381	8.71
39)	Hexane	1.139	1.109	1.157	1.436	1.639	2.071	1.183	1.239	1.103	1.342	24.32
40)	cis-1,2-Dichlo...	1.133	1.092	1.115	1.146	1.053	1.170	1.169	1.235	1.086	1.133	4.81
41)	Di-isopropyl E...	0.727	0.706	0.707	0.706	0.661	0.567	0.748	0.780	0.708	0.701	8.57
42)	Ethyl Acetate	0.268	0.261	0.257	0.229			0.279	0.294	0.260	0.264	7.65
43)	Methyl Acrylate	1.529	1.474	1.359	1.339			1.578	1.658	1.472	1.487	7.66
44)	Chloroform	1.954	1.880	2.034	2.030	2.101	2.309	2.022	2.149	1.859	2.038	6.82
45)	2,4-Dimethylpe...	1.387	1.335	1.579	1.427	1.699	2.076	1.440	1.498	1.319	1.529	15.54

Initial Calibration Summary

Job Number: JC17438 **Sample:** V5W693-ICC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17372.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

46)	Tetrahydrofuran	0.394	0.382	0.375	0.380	0.269		0.408	0.433	0.379	0.378	12.68
47)	1,1,1-Trichlor...	2.013	1.943	2.061	2.198	2.163	2.533	2.072	2.185	1.913	2.120	8.73
48)	1,2-Dichloroet...	1.176	1.140	1.168	1.174	1.126	1.110	1.215	1.281	1.123	1.168	4.58
49)	Benzene	2.672	2.558	2.723	2.708	2.724	3.139	2.772	2.925	2.546	2.752	6.68
50)	Carbon Tetrach...	2.173	2.111	2.157	2.157	2.148	2.251	2.239	2.348	2.108	2.188	3.54
51)	Cyclohexane	1.158	1.106	1.191	1.367	1.422	1.698	1.193	1.262	1.104	1.278	15.02
52)	2,3-Dimethylpe...	0.547	0.525	0.592	0.638	0.549	0.763	0.572	0.604	0.525	0.591	12.67
53) I	1,4-Difluorobenzene	----------------ISTD--------------------										
54)	2,2,4-Trimethy...	1.067	1.051	1.046	1.058	1.144	1.358	1.099	1.147	1.047	1.113	8.99
55)	Heptane	0.226	0.222	0.231	0.251	0.244	0.272	0.232	0.242	0.224	0.238	6.77
56)	Trichloroethene	0.371	0.368	0.374	0.377	0.359	0.435	0.380	0.398	0.368	0.381	5.99
57)	1,2-Dichloropr...	0.262	0.259	0.257	0.252	0.235	0.287	0.269	0.283	0.261	0.263	5.88
58)	Dibromomethane	0.394	0.387	0.380	0.382	0.372	0.440	0.399	0.418	0.390	0.396	5.38
59)	Ethyl Acrylate	0.520	0.510	0.497	0.452	0.327		0.534	0.557	0.513	0.489	14.75
60)	Methyl Methacr...	0.254	0.252	0.275	0.293	0.300		0.260	0.268	0.253	0.270	6.90
61)	1,4-Dioxane	0.184	0.181	0.179	0.162			0.185	0.195	0.182	0.181	5.49
62)	Bromodichlorom...	0.604	0.597	0.606	0.631	0.592	0.666	0.619	0.656	0.598	0.619	4.33
63)	cis-1,3-Dichlo...	0.479	0.466	0.449	0.446	0.442	0.461	0.488	0.510	0.473	0.468	4.70
64)	4-Methyl-2-pen...	0.217	0.211	0.204	0.176	0.130		0.221	0.230	0.212	0.200	16.20
65)	trans-1,3-Dich...	0.421	0.414	0.400	0.356	0.343	0.282	0.431	0.448	0.417	0.390	13.60
66)	Toluene	0.937	0.913	0.934	0.945	0.936	1.066	0.960	1.000	0.909	0.955	5.16
67)	1,1,2-Trichlor...	0.342	0.336	0.339	0.343	0.339	0.358	0.349	0.368	0.335	0.345	3.20
68)	1,3-Dichloropr...	0.436	0.427	0.416	0.376	0.372	0.395	0.444	0.464	0.426	0.417	7.40
69)	2-Hexanone	0.307	0.304	0.265	0.218			0.312	0.326	0.305	0.291	12.72
70)	Ethyl Methacry...	0.459	0.454	0.412	0.427	0.435		0.467	0.485	0.452	0.449	5.21
71)	Dibromochlorom...	0.688	0.677	0.678	0.651	0.606	0.697	0.702	0.738	0.682	0.680	5.32
72)	Tetrachloroethene	0.537	0.524	0.536	0.524	0.537	0.596	0.546	0.574	0.528	0.545	4.50
73)	1,2-Dibromoethane	0.574	0.565	0.564	0.544	0.486	0.535	0.585	0.608	0.565	0.558	6.20
74)	Octane	0.493	0.481	0.490	0.483	0.551	0.609	0.506	0.519	0.483	0.513	8.31
75)	1,1,1,2-Tetrac...	0.472	0.462	0.452	0.452	0.446	0.473	0.476	0.500	0.464	0.467	3.53
76) I	Chlorobenzene-d5	----------------ISTD--------------------										
77)	Chlorobenzene	1.572	1.475	1.698	1.718	1.768	2.001	1.645	1.782	1.416	1.675	10.50
78)	Ethylbenzene	2.426	2.279	2.662	2.749	2.709	3.206	2.580	2.778	2.179	2.619	11.65
79)	m,p-Xylene	1.865	1.747	1.940	1.954	1.964	2.635	1.962	2.109	1.666	1.982	13.98
80)	Styrene	1.485	1.397	1.527	1.510	1.462	1.653	1.554	1.664	1.343	1.511	7.02
81)	Nonane	0.978	0.929	1.098	1.119	1.228	1.333	1.035	1.056	0.890	1.074	13.12
82)	o-Xylene	1.891	1.775	2.103	2.126	2.227	2.534	2.004	2.164	1.696	2.058	12.33
83)	Bromoform	1.486	1.399	1.548	1.473	1.415	1.460	1.561	1.666	1.345	1.484	6.55
84)	1,1,2,2-Tetrac...	1.491	1.410	1.630	1.626	1.585	1.744	1.580	1.692	1.345	1.567	8.28
85)	1,2,3-Trichlor...	1.057	0.994	1.143	1.123	1.098	1.276	1.119	1.205	0.952	1.108	8.99
86)	Isopropylbenzene	2.732	2.565	3.007	3.016	2.956	3.440	2.904	3.112	2.462	2.910	10.14
87)	Bromobenzene	1.015	0.961	1.093	1.075	1.104	1.169	1.068	1.148	0.924	1.062	7.68
88)	2-Chlorotoluene	0.725	0.683	0.771	0.754	0.744	0.782	0.763	0.808	0.660	0.743	6.37
89)	n-Propylbenzene	0.752	0.715	0.771	0.748	0.728	0.769	0.794	0.843	0.682	0.756	6.16
90) S	4-Bromofluorob...	1.335	1.289	1.419	1.418	1.421	1.417	1.388	1.403	1.233	1.369	5.00
91)	4-Ethyltoluene	2.569	2.439	2.779	2.809	2.803	3.111	2.693	2.861	2.318	2.709	8.79
92)	1,3,5-Trimethy...	2.215	2.104	2.410	2.430	2.524	2.931	2.330	2.463	2.006	2.379	11.32
93)	alpha-Methylst...	1.179	1.116	1.185	1.137	1.130	1.160	1.234	1.298	1.082	1.169	5.61
94)	tert-Butylbenzene	0.495	0.475	0.529	0.509	0.513	0.551	0.523	0.545	0.453	0.510	6.25
95)	1,2,4-Trimethy...	2.240	2.139	2.405	2.363	2.396	2.704	2.368	2.497	2.021	2.348	8.48
96)	1,3-Dichlorobe...	1.591	1.506	1.711	1.656	1.805	2.030	1.667	1.781	1.438	1.687	10.39
97)	Benzyl Chloride	2.023	1.925	2.121	2.052	2.127	2.533	2.109	2.233	1.842	2.107	9.36
98)	1,4-Dichlorobe...	1.605	1.522	1.745	1.738	1.938	2.237	1.661	1.805	1.458	1.745	13.46
99)	sec-Butylbenzene	0.623	0.595	0.646	0.644	0.619	0.684	0.646	0.685	0.572	0.635	5.90
100)	p-Isopropyltol...	0.710	0.673	0.708	0.696	0.680	0.714	0.735	0.768	0.642	0.703	5.19
101)	1,2-Dichlorobe...	1.518	1.428	1.660	1.600	1.712	1.840	1.575	1.665	1.379	1.597	8.96
102)	n-Butylbenzene	0.648	0.625	0.653	0.610	0.557	0.511	0.662	0.699	0.606	0.619	9.22
103)	Hexachloroethane	1.005	0.958	1.019	0.994	0.949	0.983	1.036	1.084	0.924	0.995	4.87

Initial Calibration Summary

Job Number: JC17438 **Sample:** V5W693-ICC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17372.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

104)		1,2,4-Trichlor...	0.963	0.932	1.084	0.931	1.191	1.214	0.971	1.021	0.919	1.025	11.03
105)		Naphthalene	1.945	1.876	2.308	2.025	2.644	2.824	1.959	2.114	1.828	2.169	16.25
106)		Hexachlorobuta...	0.959	0.928	1.111	1.094	1.082	1.226	1.007	1.058	0.900	1.041	9.90
107)	I	Bromochloromethane...	----------------ISTD--------------------										
108)		TVHC as equiv ...	4.533	4.362	4.776	5.425			4.717	5.040	4.320	4.739	8.28

(#) = Out of Range

m5w693.M Wed Mar 30 08:10:41 2016 GCMS5W

6.9.14

6

Initial Calibration Verification

Job Number: JC17438 **Sample:** V5W693-ICV693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17384.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17384.D            Vial: 4
Acq On    : 30 Mar 2016   4:52 am              Operator: THOMASH
Sample    : ICV693-10                          Inst    : GCMS5W
Misc      : MS99822,v5w693,,,,,1               Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\msdchem\1\METHODS\m5w693.M (RTE Integrator)
Title        : TO-15 Full Scan Mode
Last Update  : Wed Mar 30 08:05:45 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	97	0.00	8.25
2		1,1,1-Trifluoroethane		----------NA----------				
3		Freon 152A	0.507	0.479	5.5	97	0.00	3.83
4		Chlorodifluoromethane	0.246	0.222	9.8	100	0.00	3.86
5		Propene	0.519	0.512	1.3	100	0.00	3.89
6		Dichlorodifluoromethane	2.283	2.327	-1.9	101	0.00	3.95
7		1-Chloro-1,1-difluoroetha	1.650	1.640	0.6	99	0.00	4.06
8		Chloromethane	0.709	0.660	6.9	98	0.00	4.08
9		Dichlorotetrafluoroethane	2.379	2.374	0.2	98	0.00	4.16
10		Vinyl Chloride	0.764	0.775	-1.4	97	0.00	4.26
11		1,3-Butadiene	0.609	0.541	11.2	95	0.00	4.37
12		n-Butane	0.129	0.116	10.1	94	0.00	4.41
13		Bromomethane	0.989	0.899	9.1	96	0.00	4.60
14		Chloroethane	0.398	0.378	5.0	97	0.00	4.73
15		Dichlorofluoromethane	1.945	1.907	2.0	101	0.00	4.81
16		Acetonitrile	0.570	0.580	-1.8	102	0.00	5.04
17		Freon 123	2.303	2.201	4.4	97	0.00	5.15
18		Freon 123A	1.327	1.188	10.5	92	0.00	5.20
19		Bromoethene	0.959	0.942	1.8	96	0.00	5.03
20		Trichlorofluoromethane	2.409	2.428	-0.8	98	0.00	5.39
21		Acetone	0.389	0.350	10.0	100	0.00	5.25
22		Pentane	0.193	0.201	-4.1	102	0.00	5.69
23		1,1-Dichloro-1-fluoroetha		----------NA----------				
24		Iodomethane	2.789	2.878	-3.2	99	0.00	5.89
25		Isopropyl Alcohol	0.302	0.249	17.5	91	0.00	5.47
26		1,1-Dichloroethene	1.324	1.358	-2.6	98	0.00	5.96
27		Freon 113	1.960	2.078	-6.0	100	0.00	6.32
28		Methylene Chloride	0.842	0.809	3.9	98	0.00	6.08
29		Carbon Disulfide	2.451	2.537	-3.5	98	0.00	6.36
30		Ethanol	0.330	0.276	16.4	92	0.00	4.85
31		Acrylonitrile	0.630	0.608	3.5	102	0.00	5.67
32		3-Chloropropene	0.386	0.397	-2.8	97	0.00	6.19
33		trans-1,2-Dichloroethene	1.158	1.217	-5.1	99	0.00	6.98
34		tert-Butyl Alcohol	1.836	1.868	-1.7	94	0.00	6.01
35		Methyl tert-Butyl Ether	2.457	2.397	2.4	97	0.00	7.25
36		Vinyl Acetate	1.983	2.177	-9.8	100	0.00	7.34
37		1,1-Dichloroethane	1.537	1.559	-1.4	98	0.00	7.18
38		2-Butanone	0.381	0.397	-4.2	94	0.00	7.61
39		Hexane	1.342	1.170	12.8	96	0.00	8.27
40		cis-1,2-Dichloroethene	1.133	1.158	-2.2	96	0.00	8.07
41		Di-isopropyl Ether	0.701	0.762	-8.7	99	0.00	8.27
42		Ethyl Acetate	0.264	0.283	-7.2	98	0.00	8.32

Initial Calibration Verification

Job Number: JC17438 **Sample:** V5W693-ICV693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17384.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43	Methyl Acrylate	1.487	1.523	-2.4	94	0.00	8.31
44	Chloroform	2.038	2.082	-2.2	100	0.00	8.38
45	2,4-Dimethylpentane	1.529	1.430	6.5	97	0.00	9.25
46	Tetrahydrofuran	0.378	0.415	-9.8	99	0.00	8.84
47	1,1,1-Trichloroethane	2.120	2.144	-1.1	101	0.00	9.48
48	1,2-Dichloroethane	1.168	1.227	-5.1	98	0.00	9.20
49	Benzene	2.752	2.786	-1.2	98	0.00	10.01
50	Carbon Tetrachloride	2.188	2.313	-5.7	101	0.00	10.18
51	Cyclohexane	1.278	1.208	5.5	99	0.00	10.32
52	2,3-Dimethylpentane	0.591	0.566	4.2	96	0.00	10.60
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	96	0.00	10.44
54	2,2,4-Trimethylpentane	1.113	1.100	1.2	96	0.00	11.30
55	Heptane	0.238	0.232	2.5	96	0.00	11.64
56	Trichloroethene	0.381	0.381	0.0	97	0.00	11.28
57	1,2-Dichloropropane	0.263	0.273	-3.8	98	0.00	10.98
58	Dibromomethane	0.396	0.412	-4.0	100	0.00	10.96
59	Ethyl Acrylate	0.489	0.534	-9.2	96	0.00	11.02
60	Methyl Methacrylate	0.270	0.258	4.4	95	0.00	11.55
61	1,4-Dioxane	0.181	0.187	-3.3	97	0.00	11.30
62	Bromodichloromethane	0.619	0.615	0.6	96	0.00	11.23
63	cis-1,3-Dichloropropene	0.468	0.463	1.1	92	0.00	12.36
64	4-Methyl-2-pentanone	0.200	0.215	-7.5	94	0.00	12.41
65	trans-1,3-Dichloropropene	0.390	0.428	-9.7	96	0.00	13.04
66	Toluene	0.955	0.957	-0.2	96	0.00	13.61
67	1,1,2-Trichloroethane	0.345	0.348	-0.9	96	0.00	13.25
68	1,3-Dichloropropane	0.417	0.436	-4.6	95	0.00	13.65
69	2-Hexanone	0.291	0.301	-3.4	93	0.00	13.99
70	Ethyl Methacrylate	0.449	0.469	-4.5	97	0.00	14.02
71	Dibromochloromethane	0.680	0.717	-5.4	98	0.00	14.16
72	Tetrachloroethene	0.545	0.559	-2.6	99	0.00	15.12
73	1,2-Dibromoethane	0.558	0.586	-5.0	97	0.00	14.48
74	Octane	0.513	0.504	1.8	96	0.00	14.95
75	1,1,1,2-Tetrachloroethane	0.467	0.492	-5.4	100	0.00	16.05
76 I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00	16.01
77	Chlorobenzene	1.675	1.657	1.1	97	0.00	16.07
78	Ethylbenzene	2.619	2.566	2.0	96	0.00	16.62
79	m,p-Xylene	1.982	1.993	-0.6	98	0.00	16.89
80	Styrene	1.511	1.550	-2.6	96	0.00	17.41
81	Nonane	1.074	1.027	4.4	95	0.00	17.94
82	o-Xylene	2.058	2.020	1.8	97	0.00	17.57
83	Bromoform	1.484	1.550	-4.4	96	0.00	16.97
84	1,1,2,2-Tetrachloroethane	1.567	1.544	1.5	94	0.00	17.57
85	1,2,3-Trichloropropane	1.108	1.119	-1.0	96	0.00	17.76
86	Isopropylbenzene	2.910	2.939	-1.0	97	0.00	18.47
87	Bromobenzene	1.062	1.067	-0.5	96	0.00	18.59
88	2-Chlorotoluene	0.743	0.753	-1.3	95	0.00	19.19
89	n-Propylbenzene	0.756	0.786	-4.0	95	0.00	19.26
90 S	4-Bromofluorobenzene	1.369	1.376	-0.5	95	0.00	18.26
91	4-Ethyltoluene	2.709	2.804	-3.5	100	0.00	19.49
92	1,3,5-Trimethylbenzene	2.379	2.346	1.4	97	0.00	19.60
93	alpha-Methylstyrene	1.169	1.260	-7.8	98	0.00	19.84
94	tert-Butylbenzene	0.510	0.529	-3.7	97	0.00	20.17
95	1,2,4-Trimethylbenzene	2.348	2.353	-0.2	96	0.00	20.18
96	1,3-Dichlorobenzene	1.687	1.675	0.7	97	0.00	20.38
97	Benzyl Chloride	2.107	2.023	4.0	92	0.00	20.37
98	1,4-Dichlorobenzene	1.745	1.632	6.5	94	0.00	20.48
99	sec-Butylbenzene	0.635	0.653	-2.8	97	0.00	20.56
100	p-Isopropyltoluene	0.703	0.747	-6.3	98	0.00	20.79

Initial Calibration Verification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W693-ICV693
Lab FileID: 5W17384.D

101	1,2-Dichlorobenzene	1.597	1.567	1.9	96	0.00	20.94
102	n-Butylbenzene	0.619	0.661	-6.8	96	0.00	21.36
103	Hexachloroethane	0.995	1.047	-5.2	97	0.00	21.82
104	1,2,4-Trichlorobenzene	1.025	0.937	8.6	93	0.00	23.14
105	Naphthalene	2.169	1.796	17.2	88	0.00	23.27
106	Hexachlorobutadiene	1.041	0.999	4.0	95	0.00	23.71
107 I	Bromochloromethane (A)	1.000	1.000	0.0	97	0.00	8.25
108	TVHC as equiv Pentane	4.739	4.956	-4.6	102	0.00	5.69

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W17372.D m5w693.M Wed Mar 30 08:10:54 2016 GCMS5W

6.9.15

6

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W698-CC693
Lab FileID: 5W17497.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17497.D                Vial: 2
Acq On    :  5 Apr 2016   8:34 am                  Operator: THOMASH
Sample    : CC693-10                               Inst     : GCMS5W
Misc      : MS107,v5w698,,,,,1                     Multiplr: 1.00
MS Integration Params: Rteint.p

Method        : C:\msdchem\1\METHODS\m5w693.M (RTE Integrator)
Title         : TO-15 Full Scan Mode
Last Update   : Wed Mar 30 08:05:45 2016
Response via  : Multiple Level Calibration

Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev  :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	86	0.15	8.40
2		1,1,1-Trifluoroethane	2.312	2.684	-16.1	100	0.26	3.99
3		Freon 152A	0.507	0.515	-1.6	93	0.26	4.08
4		Chlorodifluoromethane	0.246	0.256	-4.1	102	0.26	4.12
5		Propene	0.519	0.584	-12.5	101	0.26	4.14
6		Dichlorodifluoromethane	2.283	2.537	-11.1	97	0.26	4.20
7		1-Chloro-1,1-difluoroetha	1.650	2.038	-23.5	109	0.26	4.31
8		Chloromethane	0.709	0.844	-19.0	110	0.26	4.33
9		Dichlorotetrafluoroethane	2.379	2.925	-23.0	107	0.26	4.41
10		Vinyl Chloride	0.764	0.961	-25.8	106	0.25	4.51
11		1,3-Butadiene	0.609	0.681	-11.8	105	0.26	4.62
12		n-Butane	0.129	0.151	-17.1	108	0.25	4.66
13		Bromomethane	0.989	1.106	-11.8	104	0.26	4.85
14		Chloroethane	0.398	0.480	-20.6	108	0.25	4.98
15		Dichlorofluoromethane	1.945	2.411	-24.0	112	0.25	5.06
16		Acetonitrile	0.570	0.722	-26.7	112	0.24	5.28
17		Freon 123	2.303	2.849	-23.7	111	0.24	5.39
18		Freon 123A	1.327	1.636	-23.3	112	0.24	5.44
19		Bromoethene	0.959	1.139	-18.8	102	0.24	5.28
20		Trichlorofluoromethane	2.409	2.973	-23.4	106	0.24	5.62
21		Acetone	0.389	0.450	-15.7	113	0.23	5.48
22		Pentane	0.193	0.206	-6.7	92	0.23	5.92
23		1,1-Dichloro-1-fluoroetha	2.085	2.334	-11.9	102	0.23	5.72
24		Iodomethane	2.789	2.782	0.3	84	0.23	6.12
25		Isopropyl Alcohol	0.302	0.358	-18.5	115	0.23	5.70
26		1,1-Dichloroethene	1.324	1.517	-14.6	96	0.22	6.18
27		Freon 113	1.960	2.161	-10.3	92	0.21	6.52
28		Methylene Chloride	0.842	0.827	1.8	89	0.21	6.30
29		Carbon Disulfide	2.451	2.638	-7.6	90	0.21	6.57
30		Ethanol	0.330	0.365	-10.6	107	0.24	5.09
31		Acrylonitrile	0.630	0.601	4.6	89	0.22	5.89
32		3-Chloropropene	0.386	0.402	-4.1	87	0.21	6.40
33		trans-1,2-Dichloroethene	1.158	1.280	-10.5	91	0.19	7.17
34		tert-Butyl Alcohol	1.836	2.098	-14.3	93	0.21	6.22
35		Methyl tert-Butyl Ether	2.457	2.493	-1.5	89	0.18	7.42
36		Vinyl Acetate	1.983	2.319	-16.9	94	0.18	7.52
37		1,1-Dichloroethane	1.537	1.680	-9.3	93	0.18	7.37
38		2-Butanone	0.381	0.413	-8.4	86	0.16	7.77
39		Hexane	1.342	1.374	-2.4	100	0.15	8.41
40		cis-1,2-Dichloroethene	1.133	1.258	-11.0	92	0.16	8.22
41		Di-isopropyl Ether	0.701	0.812	-15.8	93	0.14	8.42
42		Ethyl Acetate	0.264	0.308	-16.7	94	0.13	8.46

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W698-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17497.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43	Methyl Acrylate	1.487	1.775	-19.4	96	0.14	8.45
44	Chloroform	2.038	2.241	-10.0	95	0.15	8.53
45	2,4-Dimethylpentane	1.529	1.585	-3.7	94	0.12	9.37
46	Tetrahydrofuran	0.378	0.419	-10.8	88	0.13	8.97
47	1,1,1-Trichloroethane	2.120	2.227	-5.0	92	0.12	9.59
48	1,2-Dichloroethane	1.168	1.376	-17.8	97	0.12	9.32
49	Benzene	2.752	2.914	-5.9	90	0.10	10.11
50	Carbon Tetrachloride	2.188	2.354	-7.6	90	0.10	10.28
51	Cyclohexane	1.278	1.290	-0.9	93	0.09	10.41
52	2,3-Dimethylpentane	0.591	0.600	-1.5	90	0.09	10.69
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	83	0.09	10.53
54	2,2,4-Trimethylpentane	1.113	1.344	-20.8	101	0.07	11.36
55	Heptane	0.238	0.266	-11.8	95	0.06	11.70
56	Trichloroethene	0.381	0.441	-15.7	96	0.07	11.35
57	1,2-Dichloropropane	0.263	0.314	-19.4	97	0.07	11.06
58	Dibromomethane	0.396	0.418	-5.6	87	0.08	11.04
59	Ethyl Acrylate	0.489	0.609	-24.5	94	0.07	11.09
60	Methyl Methacrylate	0.270	0.288	-6.7	91	0.06	11.61
61	1,4-Dioxane	0.181	0.212	-17.1	95	0.07	11.37
62	Bromodichloromethane	0.619	0.708	-14.4	95	0.07	11.30
63	cis-1,3-Dichloropropene	0.468	0.531	-13.5	90	0.05	12.41
64	4-Methyl-2-pentanone	0.200	0.250	-25.0	94	0.04	12.46
65	trans-1,3-Dichloropropene	0.390	0.460	-17.9	88	0.04	13.08
66	Toluene	0.955	1.048	-9.7	90	0.03	13.64
67	1,1,2-Trichloroethane	0.345	0.382	-10.7	91	0.03	13.28
68	1,3-Dichloropropane	0.417	0.508	-21.8	95	0.02	13.68
69	2-Hexanone	0.291	0.361	-24.1	96	0.02	14.01
70	Ethyl Methacrylate	0.449	0.552	-22.9	98	0.02	14.04
71	Dibromochloromethane	0.680	0.809	-19.0	95	0.02	14.19
72	Tetrachloroethene	0.545	0.606	-11.2	92	0.01	15.14
73	1,2-Dibromoethane	0.558	0.631	-13.1	89	0.02	14.50
74	Octane	0.513	0.625	-21.8	102	0.01	14.97
75	1,1,1,2-Tetrachloroethane	0.467	0.554	-18.6	96	0.00	16.05
76 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00	16.01
77	Chlorobenzene	1.675	1.617	3.5	94	0.00	16.07
78	Ethylbenzene	2.619	2.565	2.1	95	0.00	16.61
79	m,p-Xylene	1.982	2.029	-2.4	98	0.00	16.89
80	Styrene	1.511	1.515	-0.3	93	0.00	17.41
81	Nonane	1.074	1.163	-8.3	107	-0.01	17.93
82	o-Xylene	2.058	2.129	-3.4	101	0.00	17.56
83	Bromoform	1.484	1.515	-2.1	92	0.00	16.96
84	1,1,2,2-Tetrachloroethane	1.567	1.740	-11.0	105	-0.01	17.55
85	1,2,3-Trichloropropane	1.108	1.171	-5.7	100	-0.01	17.75
86	Isopropylbenzene	2.910	2.958	-1.6	97	-0.02	18.46
87	Bromobenzene	1.062	1.050	1.1	94	-0.01	18.58
88	2-Chlorotoluene	0.743	0.756	-1.7	94	-0.02	19.17
89	n-Propylbenzene	0.756	0.808	-6.9	97	-0.01	19.25
90 S	4-Bromofluorobenzene	1.369	1.398	-2.1	96	-0.01	18.24
91	4-Ethyltoluene	2.709	2.801	-3.4	99	-0.02	19.47
92	1,3,5-Trimethylbenzene	2.379	2.415	-1.5	99	-0.01	19.59
93	alpha-Methylstyrene	1.169	1.238	-5.9	95	-0.01	19.82
94	tert-Butylbenzene	0.510	0.555	-8.8	101	-0.01	20.16
95	1,2,4-Trimethylbenzene	2.348	2.582	-10.0	104	-0.01	20.17
96	1,3-Dichlorobenzene	1.687	1.714	-1.6	98	-0.02	20.36
97	Benzyl Chloride	2.107	2.152	-2.1	97	-0.02	20.35
98	1,4-Dichlorobenzene	1.745	1.672	4.2	96	-0.02	20.46
99	sec-Butylbenzene	0.635	0.671	-5.7	99	-0.02	20.54
100	p-Isopropyltoluene	0.703	0.770	-9.5	100	-0.02	20.77

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W698-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17497.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.597	1.609	-0.8	97	-0.01	20.92
102	n-Butylbenzene	0.619	0.669	-8.1	96	-0.02	21.34
103	Hexachloroethane	0.995	1.054	-5.9	97	-0.02	21.81
104	1,2,4-Trichlorobenzene	1.025	0.811	20.9	79	-0.01	23.13
105	Naphthalene	2.169	1.562	28.0	76	-0.02	23.25
106	Hexachlorobutadiene	1.041	0.955	8.3	90	-0.02	23.70
107 I	Bromochloromethane (A)	1.000	1.000	0.0	86	0.15	8.40
108	TVHC as equiv Pentane	4.739	5.257	-10.9	96	0.23	5.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W17372.D m5w693.M Tue Apr 05 11:31:42 2016 GCMS5W

6.9.16

6

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W699-CC693
Lab FileID: 5W17528.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17528.D                Vial: 2
Acq On    :  6 Apr 2016  11:11 am                   Operator: THOMASH
Sample    : CC693-10                                Inst    : GCMS5W
Misc      : MS107,v5w699,,,,,1                      Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\msdchem\1\METHODS\m5w693.M (RTE Integrator)
Title        : TO-15 Full Scan Mode
Last Update  : Wed Mar 30 08:05:45 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Bromochloromethane	1.000	1.000	0.0	101	0.15	8.40
2	1,1,1-Trifluoroethane	2.312	2.663	-15.2	117	0.26	3.98
3	Freon 152A	0.507	0.558	-10.1	118	0.26	4.08
4	Chlorodifluoromethane	0.246	0.228	7.3	107	0.26	4.12
5	Propene	0.519	0.594	-14.5	121	0.25	4.14
6	Dichlorodifluoromethane	2.283	2.433	-6.6	109	0.26	4.20
7	1-Chloro-1,1-difluoroetha	1.650	1.768	-7.2	111	0.26	4.31
8	Chloromethane	0.709	0.794	-12.0	122	0.26	4.33
9	Dichlorotetrafluoroethane	2.379	2.672	-12.3	115	0.26	4.41
10	Vinyl Chloride	0.764	0.918	-20.2	120	0.25	4.51
11	1,3-Butadiene	0.609	0.645	-5.9	118	0.26	4.62
12	n-Butane	0.129	0.141	-9.3	119	0.25	4.66
13	Bromomethane	0.989	1.021	-3.2	113	0.26	4.85
14	Chloroethane	0.398	0.462	-16.1	123	0.25	4.98
15	Dichlorofluoromethane	1.945	2.142	-10.1	117	0.25	5.05
16	Acetonitrile	0.570	0.655	-14.9	120	0.24	5.28
17	Freon 123	2.303	2.557	-11.0	117	0.24	5.39
18	Freon 123A	1.327	1.476	-11.2	119	0.24	5.44
19	Bromoethene	0.959	1.045	-9.0	110	0.24	5.28
20	Trichlorofluoromethane	2.409	2.591	-7.6	109	0.24	5.62
21	Acetone	0.389	0.419	-7.7	124	0.23	5.48
22	Pentane	0.193	0.220	-14.0	116	0.23	5.92
23	1,1-Dichloro-1-fluoroetha	2.085	2.147	-3.0	111	0.23	5.72
24	Iodomethane	2.789	2.938	-5.3	105	0.23	6.12
25	Isopropyl Alcohol	0.302	0.304	-0.7	115	0.23	5.70
26	1,1-Dichloroethene	1.324	1.517	-14.6	114	0.22	6.18
27	Freon 113	1.960	2.232	-13.9	112	0.21	6.52
28	Methylene Chloride	0.842	0.894	-6.2	113	0.21	6.30
29	Carbon Disulfide	2.451	2.835	-15.7	114	0.21	6.57
30	Ethanol	0.330	0.349	-5.8	121	0.24	5.09
31	Acrylonitrile	0.630	0.647	-2.7	113	0.22	5.89
32	3-Chloropropene	0.386	0.441	-14.2	112	0.21	6.40
33	trans-1,2-Dichloroethene	1.158	1.323	-14.2	111	0.18	7.17
34	tert-Butyl Alcohol	1.836	2.138	-16.4	112	0.21	6.22
35	Methyl tert-Butyl Ether	2.457	2.609	-6.2	110	0.18	7.42
36	Vinyl Acetate	1.983	2.317	-16.8	111	0.17	7.51
37	1,1-Dichloroethane	1.537	1.774	-15.4	116	0.18	7.37
38	2-Butanone	0.381	0.452	-18.6	111	0.16	7.77
39	Hexane	1.342	1.374	-2.4	117	0.15	8.41
40	cis-1,2-Dichloroethene	1.133	1.295	-14.3	112	0.16	8.22
41	Di-isopropyl Ether	0.701	0.815	-16.3	110	0.14	8.42
42	Ethyl Acetate	0.264	0.323	-22.3	117	0.13	8.46

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: V5W699-CC693
Lab FileID: 5W17528.D

43	Methyl Acrylate	1.487	1.773	-19.2	114	0.14	8.45
44	Chloroform	2.038	2.194	-7.7	110	0.15	8.53
45	2,4-Dimethylpentane	1.529	1.645	-7.6	116	0.12	9.37
46	Tetrahydrofuran	0.378	0.458	-21.2	114	0.13	8.97
47	1,1,1-Trichloroethane	2.120	2.154	-1.6	105	0.12	9.59
48	1,2-Dichloroethane	1.168	1.275	-9.2	106	0.12	9.32
49	Benzene	2.752	3.067	-11.4	112	0.10	10.11
50	Carbon Tetrachloride	2.188	2.282	-4.3	103	0.10	10.28
51	Cyclohexane	1.278	1.375	-7.6	117	0.09	10.41
52	2,3-Dimethylpentane	0.591	0.632	-6.9	112	0.09	10.69
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	103	0.09	10.53
54	2,2,4-Trimethylpentane	1.113	1.243	-11.7	116	0.07	11.36
55	Heptane	0.238	0.254	-6.7	113	0.06	11.70
56	Trichloroethene	0.381	0.401	-5.2	108	0.07	11.34
57	1,2-Dichloropropane	0.263	0.305	-16.0	116	0.07	11.06
58	Dibromomethane	0.396	0.397	-0.3	102	0.08	11.04
59	Ethyl Acrylate	0.489	0.585	-19.6	113	0.07	11.09
60	Methyl Methacrylate	0.270	0.280	-3.7	111	0.05	11.61
61	1,4-Dioxane	0.181	0.199	-9.9	110	0.07	11.37
62	Bromodichloromethane	0.619	0.653	-5.5	108	0.07	11.30
63	cis-1,3-Dichloropropene	0.468	0.518	-10.7	109	0.05	12.41
64	4-Methyl-2-pentanone	0.200	0.239	-19.5	111	0.04	12.46
65	trans-1,3-Dichloropropene	0.390	0.437	-12.1	104	0.04	13.08
66	Toluene	0.955	1.010	-5.8	108	0.03	13.64
67	1,1,2-Trichloroethane	0.345	0.372	-7.8	110	0.03	13.28
68	1,3-Dichloropropane	0.417	0.482	-15.6	112	0.02	13.67
69	2-Hexanone	0.291	0.336	-15.5	110	0.02	14.01
70	Ethyl Methacrylate	0.449	0.498	-10.9	110	0.02	14.04
71	Dibromochloromethane	0.680	0.712	-4.7	104	0.02	14.19
72	Tetrachloroethene	0.545	0.560	-2.8	105	0.01	15.14
73	1,2-Dibromoethane	0.558	0.602	-7.9	106	0.02	14.50
74	Octane	0.513	0.558	-8.8	113	0.01	14.97
75	1,1,1,2-Tetrachloroethane	0.467	0.489	-4.7	106	0.00	16.05
76 I	Chlorobenzene-d5	1.000	1.000	0.0	110	0.00	16.01
77	Chlorobenzene	1.675	1.600	4.5	107	0.00	16.07
78	Ethylbenzene	2.619	2.529	3.4	108	0.00	16.61
79	m,p-Xylene	1.982	1.921	3.1	108	0.00	16.89
80	Styrene	1.511	1.488	1.5	105	0.00	17.41
81	Nonane	1.074	1.083	-0.8	115	-0.01	17.93
82	o-Xylene	2.058	1.967	4.4	108	-0.01	17.55
83	Bromoform	1.484	1.425	4.0	100	0.00	16.96
84	1,1,2,2-Tetrachloroethane	1.567	1.616	-3.1	112	-0.01	17.55
85	1,2,3-Trichloropropane	1.108	1.124	-1.4	110	-0.01	17.75
86	Isopropylbenzene	2.910	2.813	3.3	106	-0.02	18.46
87	Bromobenzene	1.062	0.994	6.4	102	-0.01	18.58
88	2-Chlorotoluene	0.743	0.725	2.4	105	-0.02	19.17
89	n-Propylbenzene	0.756	0.752	0.5	104	-0.01	19.25
90 S	4-Bromofluorobenzene	1.369	1.357	0.9	107	-0.01	18.24
91	4-Ethyltoluene	2.709	2.625	3.1	107	-0.02	19.47
92	1,3,5-Trimethylbenzene	2.379	2.233	6.1	105	-0.01	19.59
93	alpha-Methylstyrene	1.169	1.159	0.9	103	-0.01	19.82
94	tert-Butylbenzene	0.510	0.498	2.4	105	-0.01	20.16
95	1,2,4-Trimethylbenzene	2.348	2.284	2.7	106	-0.01	20.17
96	1,3-Dichlorobenzene	1.687	1.552	8.0	102	-0.02	20.36
97	Benzyl Chloride	2.107	1.940	7.9	101	-0.01	20.36
98	1,4-Dichlorobenzene	1.745	1.544	11.5	102	-0.02	20.46
99	sec-Butylbenzene	0.635	0.621	2.2	106	-0.02	20.54
100	p-Isopropyltoluene	0.703	0.699	0.6	105	-0.02	20.77

6.9.17

6

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W699-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17528.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.597	1.485	7.0	104	-0.01	20.92
102	n-Butylbenzene	0.619	0.620	-0.2	103	-0.02	21.34
103	Hexachloroethane	0.995	0.981	1.4	104	-0.02	21.81
104	1,2,4-Trichlorobenzene	1.025	0.785	23.4	89	-0.01	23.13
105	Naphthalene	2.169	1.570	27.6	88	-0.02	23.25
106	Hexachlorobutadiene	1.041	0.902	13.4	98	-0.02	23.70
107 I	Bromochloromethane (A)	1.000	1.000	0.0	101	0.15	8.40
108	TVHC as equiv Pentane	4.739	5.335	-12.6	114	0.23	5.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W17372.D m5w693.M Wed Apr 06 13:56:18 2016 GCMS5W

6.9.17

6

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W700-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17552.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                    Evaluate Continuing Calibration Report

  Data File : C:\msdchem\1\DATA\5W17552.D                Vial: 2
  Acq On    :  7 Apr 2016   8:40 am                  Operator: THOMASH
  Sample    : CC693-10                               Inst     : GCMS5W
  Misc      : MS514,v5w700,,,,,1                     Multiplr: 1.00
  MS Integration Params: Rteint.p

  Method       : C:\msdchem\1\METHODS\m5w693.M (RTE Integrator)
  Title        : TO-15 Full Scan Mode
  Last Update  : Wed Mar 30 08:05:45 2016
  Response via : Multiple Level Calibration

  Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
  Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	108	0.15	8.40
2		1,1,1-Trifluoroethane	2.312	2.631	-13.8	124	0.26	3.98
3		Freon 152A	0.507	0.551	-8.7	124	0.25	4.08
4		Chlorodifluoromethane	0.246	0.228	7.3	114	0.25	4.11
5		Propene	0.519	0.603	-16.2	131	0.25	4.14
6		Dichlorodifluoromethane	2.283	2.404	-5.3	115	0.26	4.20
7		1-Chloro-1,1-difluoroetha	1.650	1.733	-5.0	117	0.26	4.31
8		Chloromethane	0.709	0.796	-12.3	131	0.26	4.33
9		Dichlorotetrafluoroethane	2.379	2.632	-10.6	121	0.26	4.41
10		Vinyl Chloride	0.764	0.909	-19.0	126	0.25	4.51
11		1,3-Butadiene	0.609	0.650	-6.7	126	0.26	4.62
12		n-Butane	0.129	0.141	-9.3	127	0.25	4.66
13		Bromomethane	0.989	0.998	-0.9	118	0.25	4.84
14		Chloroethane	0.398	0.442	-11.1	125	0.25	4.98
15		Dichlorofluoromethane	1.945	2.111	-8.5	124	0.25	5.05
16		Acetonitrile	0.570	0.663	-16.3	130	0.24	5.28
17		Freon 123	2.303	2.513	-9.1	123	0.24	5.39
18		Freon 123A	1.327	1.431	-7.8	123	0.24	5.44
19		Bromoethene	0.959	1.014	-5.7	114	0.24	5.28
20		Trichlorofluoromethane	2.409	2.535	-5.2	114	0.24	5.62
21		Acetone	0.389	0.418	-7.5	132	0.23	5.48
22		Pentane	0.193	0.220	-14.0	124	0.23	5.92
23		1,1-Dichloro-1-fluoroetha	2.085	2.115	-1.4	116	0.23	5.72
24		Iodomethane	2.789	2.885	-3.4	110	0.23	6.12
25		Isopropyl Alcohol	0.302	0.311	-3.0	126	0.22	5.69
26		1,1-Dichloroethene	1.324	1.525	-15.2	122	0.22	6.18
27		Freon 113	1.960	2.202	-12.3	118	0.21	6.52
28		Methylene Chloride	0.842	0.890	-5.7	120	0.21	6.30
29		Carbon Disulfide	2.451	2.836	-15.7	121	0.21	6.57
30		Ethanol	0.330	0.398	-20.6	147#	0.24	5.09
31		Acrylonitrile	0.630	0.645	-2.4	120	0.22	5.89
32		3-Chloropropene	0.386	0.441	-14.2	120	0.21	6.40
33		trans-1,2-Dichloroethene	1.158	1.320	-14.0	119	0.18	7.17
34		tert-Butyl Alcohol	1.836	2.136	-16.3	119	0.21	6.22
35		Methyl tert-Butyl Ether	2.457	2.545	-3.6	114	0.18	7.42
36		Vinyl Acetate	1.983	2.329	-17.4	119	0.17	7.51
37		1,1-Dichloroethane	1.537	1.755	-14.2	123	0.18	7.37
38		2-Butanone	0.381	0.450	-18.1	117	0.16	7.77
39		Hexane	1.342	1.383	-3.1	126	0.15	8.41
40		cis-1,2-Dichloroethene	1.133	1.282	-13.2	118	0.16	8.22
41		Di-isopropyl Ether	0.701	0.813	-16.0	117	0.14	8.42
42		Ethyl Acetate	0.264	0.321	-21.6	124	0.14	8.46

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W700-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17552.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.487	1.779	-19.6	122	0.14	8.45
44		Chloroform	2.038	2.174	-6.7	116	0.15	8.53
45		2,4-Dimethylpentane	1.529	1.634	-6.9	122	0.12	9.37
46		Tetrahydrofuran	0.378	0.445	-17.7	118	0.13	8.97
47		1,1,1-Trichloroethane	2.120	2.144	-1.1	112	0.12	9.59
48		1,2-Dichloroethane	1.168	1.273	-9.0	113	0.12	9.32
49		Benzene	2.752	3.033	-10.2	118	0.10	10.11
50		Carbon Tetrachloride	2.188	2.241	-2.4	108	0.10	10.28
51		Cyclohexane	1.278	1.354	-5.9	122	0.09	10.41
52		2,3-Dimethylpentane	0.591	0.623	-5.4	117	0.09	10.69
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.09	10.53
54		2,2,4-Trimethylpentane	1.113	1.254	-12.7	123	0.07	11.37
55		Heptane	0.238	0.257	-8.0	119	0.06	11.70
56		Trichloroethene	0.381	0.401	-5.2	113	0.07	11.35
57		1,2-Dichloropropane	0.263	0.309	-17.5	123	0.07	11.06
58		Dibromomethane	0.396	0.396	0.0	107	0.08	11.04
59		Ethyl Acrylate	0.489	0.588	-20.2	118	0.07	11.09
60		Methyl Methacrylate	0.270	0.282	-4.4	116	0.05	11.61
61		1,4-Dioxane	0.181	0.198	-9.4	115	0.07	11.37
62		Bromodichloromethane	0.619	0.654	-5.7	114	0.07	11.30
63		cis-1,3-Dichloropropene	0.468	0.519	-10.9	115	0.05	12.41
64		4-Methyl-2-pentanone	0.200	0.242	-21.0	118	0.04	12.46
65		trans-1,3-Dichloropropene	0.390	0.437	-12.1	109	0.04	13.08
66		Toluene	0.955	1.009	-5.7	113	0.03	13.64
67		1,1,2-Trichloroethane	0.345	0.373	-8.1	115	0.03	13.28
68		1,3-Dichloropropane	0.417	0.483	-15.8	117	0.02	13.67
69		2-Hexanone	0.291	0.342	-17.5	118	0.02	14.01
70		Ethyl Methacrylate	0.449	0.501	-11.6	116	0.02	14.04
71		Dibromochloromethane	0.680	0.713	-4.9	109	0.02	14.19
72		Tetrachloroethene	0.545	0.555	-1.8	109	0.01	15.14
73		1,2-Dibromoethane	0.558	0.600	-7.5	110	0.02	14.50
74		Octane	0.513	0.580	-13.1	123	0.01	14.97
75		1,1,1,2-Tetrachloroethane	0.467	0.487	-4.3	110	0.00	16.05
76	I	Chlorobenzene-d5	1.000	1.000	0.0	115	0.00	16.01
77		Chlorobenzene	1.675	1.594	4.8	112	0.00	16.07
78		Ethylbenzene	2.619	2.524	3.6	113	0.00	16.62
79		m,p-Xylene	1.982	1.910	3.6	112	0.00	16.89
80		Styrene	1.511	1.485	1.7	110	0.00	17.41
81		Nonane	1.074	1.126	-4.8	125	-0.01	17.93
82		o-Xylene	2.058	1.979	3.8	114	0.00	17.56
83		Bromoform	1.484	1.393	6.1	103	0.00	16.96
84		1,1,2,2-Tetrachloroethane	1.567	1.636	-4.4	119	0.00	17.56
85		1,2,3-Trichloropropane	1.108	1.132	-2.2	116	-0.01	17.75
86		Isopropylbenzene	2.910	2.812	3.4	111	-0.02	18.46
87		Bromobenzene	1.062	0.989	6.9	107	-0.01	18.58
88		2-Chlorotoluene	0.743	0.728	2.0	110	-0.02	19.17
89		n-Propylbenzene	0.756	0.758	-0.3	110	-0.01	19.25
90	S	4-Bromofluorobenzene	1.369	1.346	1.7	112	-0.01	18.24
91		4-Ethyltoluene	2.709	2.629	3.0	112	-0.02	19.47
92		1,3,5-Trimethylbenzene	2.379	2.229	6.3	110	-0.01	19.59
93		alpha-Methylstyrene	1.169	1.159	0.9	108	-0.01	19.82
94		tert-Butylbenzene	0.510	0.500	2.0	110	-0.01	20.16
95		1,2,4-Trimethylbenzene	2.348	2.302	2.0	112	-0.01	20.17
96		1,3-Dichlorobenzene	1.687	1.564	7.3	108	-0.02	20.36
97		Benzyl Chloride	2.107	1.950	7.5	106	-0.01	20.36
98		1,4-Dichlorobenzene	1.745	1.540	11.7	107	-0.02	20.46
99		sec-Butylbenzene	0.635	0.617	2.8	110	-0.02	20.54
100		p-Isopropyltoluene	0.703	0.694	1.3	109	-0.02	20.77

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W700-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17552.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.597	1.477	7.5	108	-0.01	20.92
102	n-Butylbenzene	0.619	0.619	0.0	108	-0.02	21.34
103	Hexachloroethane	0.995	0.965	3.0	107	-0.02	21.81
104	1,2,4-Trichlorobenzene	1.025	0.726	29.2	86	-0.01	23.13
105	Naphthalene	2.169	1.446	33.3#	85	-0.02	23.25
106	Hexachlorobutadiene	1.041	0.860	17.4	98	-0.02	23.70
107 I	Bromochloromethane (A)	1.000	1.000	0.0	108	0.15	8.40
108	TVHC as equiv Pentane	4.739	5.366	-13.2	123	0.23	5.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W17372.D m5w693.M Fri Apr 08 16:07:32 2016 GCMS5W

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W701-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17584.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\DATA\5W17584.D            Vial: 2
Acq On    :  8 Apr 2016  10:03 am              Operator: THOMASH
Sample    : CC693-10                           Inst     : GCMS5W
Misc      : MS676,v5w701,,,,,1                 Multiplr: 1.00
MS Integration Params: Rteint.p

Method       : C:\msdchem\1\METHODS\m5w693.M (RTE Integrator)
Title        : TO-15 Full Scan Mode
Last Update  : Wed Mar 30 08:05:45 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.33min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Bromochloromethane	1.000	1.000	0.0	108	0.15	8.40
2		1,1,1-Trifluoroethane	2.312	2.487	-7.6	117	0.26	3.98
3		Freon 152A	0.507	0.514	-1.4	116	0.26	4.08
4		Chlorodifluoromethane	0.246	0.216	12.2	108	0.26	4.12
5		Propene	0.519	0.543	-4.6	118	0.25	4.14
6		Dichlorodifluoromethane	2.283	2.281	0.1	109	0.26	4.20
7		1-Chloro-1,1-difluoroetha	1.650	1.629	1.3	110	0.26	4.31
8		Chloromethane	0.709	0.731	-3.1	120	0.26	4.33
9		Dichlorotetrafluoroethane	2.379	2.494	-4.8	115	0.26	4.41
10		Vinyl Chloride	0.764	0.844	-10.5	117	0.25	4.51
11		1,3-Butadiene	0.609	0.596	2.1	116	0.26	4.62
12		n-Butane	0.129	0.131	-1.6	118	0.25	4.66
13		Bromomethane	0.989	0.942	4.8	111	0.26	4.85
14		Chloroethane	0.398	0.421	-5.8	119	0.25	4.98
15		Dichlorofluoromethane	1.945	2.008	-3.2	117	0.25	5.06
16		Acetonitrile	0.570	0.609	-6.8	119	0.24	5.28
17		Freon 123	2.303	2.391	-3.8	117	0.24	5.39
18		Freon 123A	1.327	1.367	-3.0	118	0.24	5.44
19		Bromoethene	0.959	0.953	0.6	107	0.24	5.28
20		Trichlorofluoromethane	2.409	2.412	-0.1	108	0.24	5.62
21		Acetone	0.389	0.393	-1.0	125	0.24	5.49
22		Pentane	0.193	0.205	-6.2	115	0.23	5.92
23		1,1-Dichloro-1-fluoroetha	2.085	1.976	5.2	109	0.23	5.72
24		Iodomethane	2.789	2.681	3.9	102	0.23	6.12
25		Isopropyl Alcohol	0.302	0.288	4.6	116	0.23	5.70
26		1,1-Dichloroethene	1.324	1.412	-6.6	113	0.23	6.19
27		Freon 113	1.960	2.072	-5.7	111	0.21	6.52
28		Methylene Chloride	0.842	0.834	1.0	113	0.21	6.30
29		Carbon Disulfide	2.451	2.650	-8.1	113	0.21	6.57
30		Ethanol	0.330	0.322	2.4	119	0.24	5.09
31		Acrylonitrile	0.630	0.598	5.1	111	0.23	5.89
32		3-Chloropropene	0.386	0.406	-5.2	110	0.21	6.40
33		trans-1,2-Dichloroethene	1.158	1.210	-4.5	109	0.18	7.17
34		tert-Butyl Alcohol	1.836	1.931	-5.2	108	0.21	6.22
35		Methyl tert-Butyl Ether	2.457	2.366	3.7	106	0.18	7.42
36		Vinyl Acetate	1.983	2.096	-5.7	107	0.18	7.52
37		1,1-Dichloroethane	1.537	1.632	-6.2	114	0.18	7.37
38		2-Butanone	0.381	0.415	-8.9	108	0.16	7.77
39		Hexane	1.342	1.289	3.9	117	0.15	8.41
40		cis-1,2-Dichloroethene	1.133	1.187	-4.8	109	0.16	8.22
41		Di-isopropyl Ether	0.701	0.755	-7.7	109	0.14	8.42
42		Ethyl Acetate	0.264	0.297	-12.5	114	0.14	8.46

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W701-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17584.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		Methyl Acrylate	1.487	1.648	-10.8	113	0.14	8.45
44		Chloroform	2.038	2.064	-1.3	110	0.15	8.53
45		2,4-Dimethylpentane	1.529	1.534	-0.3	115	0.12	9.37
46		Tetrahydrofuran	0.378	0.418	-10.6	111	0.13	8.97
47		1,1,1-Trichloroethane	2.120	2.024	4.5	105	0.12	9.59
48		1,2-Dichloroethane	1.168	1.193	-2.1	106	0.12	9.32
49		Benzene	2.752	2.823	-2.6	110	0.10	10.11
50		Carbon Tetrachloride	2.188	2.106	3.7	101	0.10	10.28
51		Cyclohexane	1.278	1.263	1.2	114	0.09	10.41
52		2,3-Dimethylpentane	0.591	0.581	1.7	109	0.09	10.69
53	I	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.09	10.53
54		2,2,4-Trimethylpentane	1.113	1.182	-6.2	115	0.07	11.37
55		Heptane	0.238	0.241	-1.3	112	0.06	11.70
56		Trichloroethene	0.381	0.381	0.0	108	0.07	11.35
57		1,2-Dichloropropane	0.263	0.289	-9.9	115	0.07	11.06
58		Dibromomethane	0.396	0.375	5.3	101	0.08	11.04
59		Ethyl Acrylate	0.489	0.549	-12.3	110	0.07	11.09
60		Methyl Methacrylate	0.270	0.265	1.9	109	0.06	11.61
61		1,4-Dioxane	0.181	0.186	-2.8	108	0.07	11.37
62		Bromodichloromethane	0.619	0.619	0.0	107	0.07	11.30
63		cis-1,3-Dichloropropene	0.468	0.482	-3.0	106	0.05	12.41
64		4-Methyl-2-pentanone	0.200	0.227	-13.5	110	0.04	12.46
65		trans-1,3-Dichloropropene	0.390	0.410	-5.1	102	0.04	13.08
66		Toluene	0.955	0.949	0.6	106	0.03	13.64
67		1,1,2-Trichloroethane	0.345	0.354	-2.6	109	0.03	13.28
68		1,3-Dichloropropane	0.417	0.458	-9.8	111	0.03	13.68
69		2-Hexanone	0.291	0.319	-9.6	110	0.02	14.01
70		Ethyl Methacrylate	0.449	0.476	-6.0	110	0.02	14.04
71		Dibromochloromethane	0.680	0.681	-0.1	104	0.02	14.19
72		Tetrachloroethene	0.545	0.529	2.9	104	0.01	15.14
73		1,2-Dibromoethane	0.558	0.569	-2.0	104	0.02	14.50
74		Octane	0.513	0.536	-4.5	113	0.01	14.97
75		1,1,1,2-Tetrachloroethane	0.467	0.467	0.0	105	0.00	16.05
76	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00	16.01
77		Chlorobenzene	1.675	1.534	8.4	106	0.00	16.07
78		Ethylbenzene	2.619	2.427	7.3	107	0.00	16.62
79		m,p-Xylene	1.982	1.841	7.1	107	0.00	16.89
80		Styrene	1.511	1.415	6.4	103	0.00	17.41
81		Nonane	1.074	1.061	1.2	117	-0.01	17.93
82		o-Xylene	2.058	1.907	7.3	108	0.00	17.56
83		Bromoform	1.484	1.379	7.1	100	0.00	16.97
84		1,1,2,2-Tetrachloroethane	1.567	1.600	-2.1	115	0.00	17.56
85		1,2,3-Trichloropropane	1.108	1.092	1.4	111	-0.01	17.75
86		Isopropylbenzene	2.910	2.724	6.4	107	-0.01	18.47
87		Bromobenzene	1.062	0.965	9.1	103	-0.01	18.58
88		2-Chlorotoluene	0.743	0.702	5.5	105	-0.02	19.17
89		n-Propylbenzene	0.756	0.745	1.5	107	-0.01	19.25
90	S	4-Bromofluorobenzene	1.369	1.331	2.8	109	-0.01	18.24
91		4-Ethyltoluene	2.709	2.545	6.1	107	-0.02	19.47
92		1,3,5-Trimethylbenzene	2.379	2.172	8.7	106	-0.01	19.59
93		alpha-Methylstyrene	1.169	1.129	3.4	104	-0.01	19.82
94		tert-Butylbenzene	0.510	0.483	5.3	105	-0.01	20.16
95		1,2,4-Trimethylbenzene	2.348	2.256	3.9	108	-0.01	20.17
96		1,3-Dichlorobenzene	1.687	1.529	9.4	104	-0.02	20.36
97		Benzyl Chloride	2.107	1.892	10.2	102	-0.01	20.36
98		1,4-Dichlorobenzene	1.745	1.516	13.1	104	-0.02	20.46
99		sec-Butylbenzene	0.635	0.601	5.4	106	-0.01	20.55
100		p-Isopropyltoluene	0.703	0.678	3.6	105	-0.02	20.77

Continuing Calibration Summary

Job Number: JC17438 **Sample:** V5W701-CC693
Account: AEICNJF AEI Consultants **Lab FileID:** 5W17584.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	1,2-Dichlorobenzene	1.597	1.457	8.8	105	-0.01	20.92
102	n-Butylbenzene	0.619	0.604	2.4	104	-0.02	21.34
103	Hexachloroethane	0.995	0.955	4.0	105	-0.02	21.81
104	1,2,4-Trichlorobenzene	1.025	0.741	27.7	87	-0.01	23.13
105	Naphthalene	2.169	1.472	32.1#	85	-0.02	23.25
106	Hexachlorobutadiene	1.041	0.899	13.6	101	-0.02	23.70
107 I	Bromochloromethane (A)	1.000	1.000	0.0	108	0.15	8.40
108	TVHC as equiv Pentane	4.739	4.985	-5.2	114	0.23	5.92

(#) = Out of Range SPCC's out = 0 CCC's out = 0
5W17372.D m5w693.M Fri Apr 08 13:31:30 2016 GCMS5W

6.9.19

6

Initial Calibration Summary

Job Number: JC17438 **Sample:** VW2167-ICC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54270.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                          Response Factor Report   MSW

  Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
  Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
  Last Update   : Fri Mar 18 09:44:17 2016
  Response via  : Initial Calibration

  Calibration Files
  0.04=W54278.D    15   =W54275.D    0.2 =W54273.D    0.5 =W54272.D
  5   =W54271.D    10   =W54270.D    20  =W54274.D    0.1 =W54277.D
  30  =W54279.D    40   =W54281.D        =                =

  Compound
          0.04  15    0.2   0.5   5     10    20    0.1   30    40      Avg    %RSD
  ---------------------------------------------------------------------------

  1) I   BROMOCHLOROMETHANE    ----------------ISTD--------------------
  2)   1,1,1-TRIFLUOROETHANE
                                                                    0.000   -1.00
  3)   FREON 152A
             0.616 0.684 0.665 0.757 0.697 0.636 0.529 0.556 0.599  0.638   11.25
  4)   CHLORODIFLUOROMETHANE
             0.242 0.295 0.265 0.300 0.284 0.264       0.233 0.243  0.266    9.59
  5)   DICHLORODIFLUOROMETHANE
       4.060 2.618 3.370 2.936 3.037 2.937 2.731 3.063 2.398 2.553  2.970   16.05
  6)   PROPYLENE
             0.792 1.180 0.941 0.914 0.879 0.793 1.230 0.700 0.764  0.910   20.18
  7)   FREON 114
       4.169 2.788 3.401 3.030 3.404 3.114 2.901 3.084 2.535 2.753  3.118   14.75
  8)   1-CHLORO-1,1-DIFLUOROETHANE
       2.950 1.803 2.234 1.944 2.227 2.099 1.981 2.047 1.762 1.848  2.089   16.45
  9)   CHLOROMETHANE
             0.273 0.254 0.279 0.324 0.300 0.272       0.233 0.253  0.274   10.46
 10)   VINYL CHLORIDE
       1.007 1.017 1.251 1.122 1.214 1.118 1.021 1.035 0.864 0.940  1.059   11.23
 11)   1,3-BUTADIENE
       0.816 0.807 0.946 0.868 0.972 0.904 0.829 0.769 0.704 0.768  0.838   10.05
 12)   n-BUTANE
             0.235 0.256 0.247 0.275 0.260 0.234       0.198 0.218  0.240   10.34
 13)   BROMOMETHANE
       1.012 0.981 1.173 1.031 1.200 1.091 1.004 0.998 0.862 0.938  1.029    9.96
 14)   CHLOROETHANE
             0.573 0.644 0.595 0.709 0.647 0.602 0.510 0.507 0.543  0.592   11.34
 15)   DICHLOROFLUOROMETHANE
       3.399 2.211 2.729 2.421 2.760 2.512 2.404 2.507 2.055 2.158  2.516   15.33
 16)   ACROLEIN
             0.443 0.753 0.576 0.582 0.504 0.499       0.437 0.446  0.530   20.07
 17)   TRICHLOROFLUOROMETHANE
       3.927 2.415 3.029 2.668 3.003 2.790 2.682 2.830 2.411 2.512  2.827   15.69
 18)   ISOPROPYL ALCOHOL
             2.243 4.072 3.091 2.822 2.558 2.570       2.310 2.385  2.756   21.77
 19)   ACETONE
             0.501 0.622 0.562 0.647 0.559 0.569 0.502 0.498 0.511  0.552    9.91
 20)   1,1-DICHLORO-1-FLUOROETHANE
       3.818 2.085 2.705 2.330 2.629 2.387 2.341 2.648 2.096 2.154  2.519   20.22
 21)   ACRYLONITRILE
             0.795 0.929 0.854 1.019 0.891 0.916 0.674 0.824 0.816  0.858   11.37
 22)   PENTANE
             0.305 0.596 0.431 0.393 0.355 0.336 0.508 0.296 0.307  0.392   26.32
 23)   IODOMETHANE
```

Initial Calibration Summary

Job Number:	JC17438	**Sample:**	VW2167-ICC2167
Account:	AEICNJF AEI Consultants	**Lab FileID:**	W54270.D
Project:	NU-Clear, 180 East Park Avenue, Long Beach, NY		

		4.359	2.830	3.045	2.977	3.472	3.158	2.942	3.142	2.640	2.733	3.130	15.74
24)	1,1-DICHLOROETHYLENE		1.084	1.469	1.242	1.390	1.149	1.077	2.188	1.050	1.089	1.304	27.83
25)	CARBON DISULFIDE		2.748	3.274	3.039	3.491	3.030	2.662	3.281	2.355	2.533	2.935	13.04
26)	ETHANOL		0.418		0.836	0.543	0.455	0.467		0.379	0.397	0.499	31.62
27)	ACETONITRILE		0.777	0.963	0.923	0.983	0.872	0.908		0.774	0.788	0.873	9.70
28)	BROMOETHENE	1.241	1.048	1.268	1.129	1.291	1.173	1.108	1.079	0.965	1.023	1.133	9.63
29)	METHYLENE CHLORIDE	1.491	0.869	0.926	0.938	1.176	0.939	0.861	0.954	0.825	0.924	0.990	20.19
30)	3-CHLOROPROPENE		0.479	0.427	0.462	0.608	0.515	0.480		0.425	0.530	0.491	12.28
31)	FREON 113	2.373	1.963	2.030	1.954	2.391	2.085	1.984	1.903	1.758	1.920	2.036	9.89
32)	TRANS-1,2-DICHLOROETHYLENE	1.905	1.008	1.242	1.116	1.272	1.098	1.011	1.356	0.894	0.942	1.184	24.78
33)	TERTIARY BUTYL ALCOHOL	3.284	2.290	2.262	2.135	2.926	2.406	2.101	1.990	2.134	2.282	2.381	17.14
34)	METHYL TERTIARY BUTYL ETHER	4.596	2.885	2.950	2.899	3.652	2.989	2.993	3.140	2.674	2.852	3.163	17.89
35)	TETRAHYDROFURAN		0.470	0.376	0.404	0.591	0.488	0.485		0.434	0.461	0.464	13.96
36)	HEXANE	2.035	1.679	1.633	1.551	2.005	1.762	1.803	1.541	1.643	1.727	1.738	9.82
37)	VINYL ACETATE		0.281	0.140	0.228	0.347	0.293	0.294		0.262	0.274	0.265	22.88
38)	1,1-DICHLOROETHANE	2.204	1.743	1.762	1.697	2.154	1.857	1.768	1.626	1.566	1.682	1.806	11.78
39)	METHYL ETHYL KETONE		0.474	0.377	0.438	0.591	0.492	0.488		0.439	0.468	0.471	12.92
40)	cis-1,2-DICHLOROETHYLENE	1.801	1.065	1.265	1.165	1.343	1.163	1.079	1.301	0.964	1.005	1.215	19.85
41)	DI-ISOPROPYL ETHER	0.879	0.968	0.837	0.845	1.197	0.998	1.050	0.688	0.960	1.022	0.944	14.81
42)	ETHYL ACETATE		0.337	0.185	0.271	0.409	0.349	0.366		0.330	0.336	0.323	21.01
43)	METHYL ACRYLATE		1.878	1.521	1.626	2.296	1.978	2.093		1.892	1.930	1.902	12.89
44)	CHLOROFORM	2.732	2.043	2.103	2.016	2.548	2.222	2.149	1.919	1.898	1.999	2.163	12.63
45)	2,4-DIMETHYLPENTANE	2.422	1.883	1.847	1.798	2.289	1.992	1.957	1.706	1.779	1.943	1.962	11.59
46)	1,1,1-TRICHLOROETHANE	2.912	2.205	2.357	2.140	2.736	2.372	2.306	2.190	2.034	2.166	2.342	11.83
47)	CARBON TETRACHLORIDE	2.928	2.330	2.381	2.254	2.873	2.522	2.482	2.362	2.209	2.334	2.467	10.00
48)	1,2-DICHLOROETHANE	1.148	1.234	1.175	1.174	1.546	1.378	1.363	1.016	1.223	1.253	1.251	11.74
49) I	1,4-DIFLUOROBENZENE	----------------ISTD--------------------											
50)	BENZENE	0.753	0.621	0.583	0.588	0.769	0.664	0.652	0.569	0.598	0.622	0.642	10.84
51)	CYCLOHEXANE		0.278	0.341	0.293	0.342	0.298	0.292	0.354	0.269	0.281	0.305	10.35
52)	2,3-DIMETHYLPENTANE	0.134	0.141	0.138	0.132	0.172	0.149	0.152	0.115	0.142	0.150	0.142	10.67
53)	TRICHLOROETHYLENE												

6.9.20

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Initial Calibration Summary

Job Number: JC17438 **Sample:** VW2167-ICC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54270.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

		0.318	0.281	0.261	0.250	0.342	0.307	0.331	0.238	0.316	0.317	0.296	12.20
54)	DIBROMOMETHANE	0.307	0.273	0.257	0.247	0.331	0.300	0.310	0.229	0.294	0.290	0.284	11.18
55)	1,2-DICHLOROPROPANE	0.335	0.216	0.210	0.203	0.263	0.228	0.240	0.198	0.231	0.241	0.237	16.80
56)	ETHYL ACRYLATE		0.412	0.313	0.331	0.490	0.424	0.459		0.452	0.471	0.419	15.47
57)	BROMODICHLOROMETHANE	0.525	0.454	0.436	0.406	0.557	0.491	0.517	0.396	0.492	0.501	0.478	11.08
58)	2,2,4-TRIMETHYLPENTANE	1.310	1.038	0.971	0.907	1.238	1.092	1.183	0.888	1.135	1.178	1.094	12.92
59)	1,4-DIOXANE		0.137	0.102	0.110	0.158	0.140	0.155		0.145	0.150	0.137	14.85
60)	METHYL METHACRYLATE		0.221	0.161	0.178	0.270	0.231	0.236		0.237	0.245	0.222	16.15
61)	HEPTANE	0.461	0.344	0.349	0.326	0.416	0.366	0.384	0.325	0.364	0.377	0.371	11.27
62)	METHYL ISOBUTYL KETONE	0.478	0.416	0.348	0.357	0.499	0.429	0.464	0.313	0.451	0.464	0.422	14.80
63)	cis-1,3-DICHLOROPROPENE	0.367	0.351	0.272	0.286	0.426	0.386	0.406	0.249	0.384	0.383	0.351	17.28
64)	TOLUENE	0.456	0.473	0.358	0.385	0.567	0.488	0.526	0.332	0.504	0.515	0.460	16.85
65)	1,3-DICHLOROPROPANE	0.251	0.350	0.250	0.267	0.426	0.371	0.406	0.218	0.388	0.388	0.331	23.13
66)	trans-1,3-DICHLOROPROPENE	0.190	0.267	0.186	0.193	0.304	0.283	0.310	0.146	0.302	0.303	0.248	25.17
67)	1,1,2-TRICHLOROETHANE	0.164	0.202	0.156	0.165	0.250	0.213	0.225	0.147	0.214	0.219	0.196	17.81
68) I	CHLOROBENZENE-D5	----------------ISTD--------------------											
69)	ETHYL METHACRYLATE		0.800	0.655	0.700	1.007	0.844	0.838		0.761	0.783	0.798	13.29
70)	2-HEXANONE		0.498	0.379	0.455	0.611	0.516	0.513		0.472	0.496	0.493	13.25
71)	TETRACHLOROETHYLENE	0.889	0.713	0.745	0.769	0.936	0.796	0.753	0.679	0.649	0.653	0.758	12.55
72)	DIBROMOCHLOROMETHANE	1.208	1.006	0.928	0.982	1.332	1.127	1.070	0.860	0.927	0.927	1.037	14.26
73)	1,2-DIBROMOETHANE	0.714	0.728	0.599	0.640	0.942	0.822	0.806	0.501	0.714	0.704	0.717	17.18
74)	OCTANE	1.370	1.030	1.097	1.094	1.345	1.151	1.089	1.013	0.959	0.975	1.112	12.78
75)	1,1,1,2-TETRACHLOROETHANE	0.920	0.772	0.786	0.801	1.015	0.841	0.814	0.687	0.713	0.713	0.806	12.47
76)	CHLOROBENZENE	1.444	1.319	1.242	1.337	1.717	1.441	1.410	1.097	1.251	1.257	1.351	12.35
77)	ETHYLBENZENE	2.565	2.070	2.058	2.001	2.673	2.201	2.164	1.924	1.940	1.952	2.155	12.18
78)	m,p-XYLENE	0.894	0.868	0.812	0.842	1.130	0.939	0.935	0.731	0.824	0.816	0.879	12.27
79)	o-XYLENE	0.885	0.826	0.725	0.804	1.073	0.895	0.897	0.658	0.795	0.783	0.834	13.59
80)	STYRENE	0.949	1.274	1.000	1.106	1.617	1.365	1.372	0.844	1.221	1.214	1.196	19.22
81)	1,2,3-TRICHLOROPROPANE	1.260	0.779	0.858	0.826	1.015	0.847	0.854	0.858	0.759	0.751	0.881	17.32
82)	NONANE	1.196	1.085	1.037	0.989	1.391	1.214	1.175	0.880	1.029	1.020	1.102	13.15
83)	BROMOFORM												

6.9.20

6

Initial Calibration Summary

Job Number: JC17438 **Sample:** VW2167-ICC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54270.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
        0.783 0.992 0.777 0.904 1.251 1.072 1.080 0.679 0.956 0.948  0.944   17.90
 84)   4-BROMOFLUOROBENZENE
        0.966 1.194 0.986 0.987 1.179 1.192 1.199 0.944 1.187 1.132  1.097   10.07
 85)   1,1,2,2-TETRACHLOROETHANE
        1.170 1.117 1.078 1.059 1.439 1.208 1.220 0.931 1.094 1.067  1.138   11.82
 86)   ISOPROPYLBENZENE
        3.260 2.460 2.467 2.402 3.242 2.682 2.653 2.333 2.332 2.291  2.612   13.80
 87)   BROMOBENZENE
        0.574 0.720 0.578 0.657 0.902 0.773 0.788 0.510 0.697 0.691  0.689   16.89
 88)   2-CHLOROTOLUENE
        0.512 0.580 0.540 0.552 0.744 0.622 0.629 0.459 0.558 0.552  0.575   13.44
 89)   n-PROPYLBENZENE
        0.638 0.662 0.574 0.586 0.845 0.710 0.727 0.505 0.645 0.635  0.653   14.34
 90)   4-ETHYLTOLUENE
        2.370 2.094 1.843 1.778 2.660 2.241 2.324 1.773 2.083 2.051  2.122   13.43
 91)   1,3,5-TRIMETHYLBENZENE
        2.616 1.990 1.995 1.895 2.632 2.167 2.122 1.922 1.844 1.807  2.099   14.22
 92)   ALPHA-METHYLSTYRENE
        0.796 0.906 0.737 0.726 1.141 0.973 1.003 0.662 0.892 0.880  0.872   16.69
 93)   TERT-BUTYLBENZENE
        0.445 0.506 0.479 0.467 0.666 0.551 0.560 0.405 0.489 0.473  0.504   14.51
 94)   1,2,4-TRIMETHYLBENZENE
        2.263 1.881 1.732 1.661 2.408 2.017 2.068 1.700 1.832 1.775  1.934   12.97
 95)   m-DICHLOROBENZENE
        1.014 1.006 0.793 0.748 1.171 1.054 1.116 0.827 1.050 1.033  0.981   14.49
 96)   BENZYL CHLORIDE
        1.076 1.136 0.722 0.758 1.223 1.138 1.311 0.828 1.234 1.244  1.067   20.36
 97)   p-DICHLOROBENZENE
        0.943 0.989 0.633 0.698 1.105 1.008 1.118 0.672 0.985 0.991  0.914   19.59
 98)   SEC-BUTYLBENZENE
        0.590 0.594 0.576 0.539 0.774 0.645 0.653 0.510 0.576 0.562  0.602   12.37
 99)   p-ISOPROPYLTOLUENE
        0.723 0.627 0.560 0.555 0.800 0.674 0.696 0.580 0.613 0.592  0.642   12.44
100)   o-DICHLOROBENZENE
        1.266 0.976 0.836 0.840 1.196 1.035 1.080 0.909 0.974 0.957  1.007   14.05
101)   n-BUTYLBENZENE
        0.482 0.508 0.393 0.416 0.614 0.534 0.560 0.403 0.508 0.499  0.492   14.47
102)   1,2-DIBROMO-3-CHLOROPROPANE
        0.568 0.428 0.389 0.395 0.474 0.445 0.477 0.505 0.488 0.478  0.465   11.46
103)   HEXACHLOROETHANE
        0.906 0.784 0.740 0.745 1.029 0.866 0.856 0.668 0.757 0.736  0.809   13.08
104)   HEXACHLOROBUTADIENE
        1.272 0.775 0.891 0.889 1.025 0.908 0.819 0.829 0.784 0.677  0.887   18.51
105)   1,2,4-TRICHLOROBENZENE
        0.608 0.333 0.299 0.321 0.292 0.347 0.302 0.482 0.375 0.339  0.370   27.09
106)   NAPHTHALENE
        1.370 0.813 0.640 0.701 0.760 0.822 0.876 1.075 1.060 0.991  0.911   23.85
 ----------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           MW2167.M          Fri Mar 18 09:54:12 2016   MSW
```

Initial Calibration Verification

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: VW2167-ICV2167
Lab FileID: W54283.D

```
                Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\W54283.D                    Vial: 4
Acq On    : 18 Mar 2016   8:04 am                     Operator: YOUMINH
Sample    : ICV2167-10                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

#		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	101	0.01
2		1,1,1-TRIFLUOROETHANE	0.000	0.000	0.0	0#	-4.97#
3		FREON 152A	0.638	0.709	-11.1	103	0.02
4		CHLORODIFLUOROMETHANE	0.266	0.300	-12.8	107	0.02
5		DICHLORODIFLUOROMETHANE	2.970	3.081	-3.7	106	0.02
6		PROPYLENE	0.910	0.928	-2.0	107	0.02
7		FREON 114	3.118	3.133	-0.5	102	0.02
8		1-CHLORO-1,1-DIFLUOROETHANE	2.089	2.146	-2.7	104	0.02
9		CHLOROMETHANE	0.274	0.305	-11.3	103	0.02
10		VINYL CHLORIDE	1.059	1.118	-5.6	101	0.02
11		1,3-BUTADIENE	0.838	0.871	-3.9	98	0.02
12		n-BUTANE	0.240	0.259	-7.9	101	0.02
13		BROMOMETHANE	1.029	1.055	-2.5	98	0.02
14		CHLOROETHANE	0.592	0.620	-4.7	97	0.02
15		DICHLOROFLUOROMETHANE	2.516	2.535	-0.8	102	0.02
16		ACROLEIN	0.530	0.495	6.6	100	0.02
17		TRICHLOROFLUOROMETHANE	2.827	2.794	1.2	102	0.02
18		ISOPROPYL ALCOHOL	2.756	2.084	24.4	83	0.04
19		ACETONE	0.552	0.580	-5.1	105	0.02
20		1,1-DICHLORO-1-FLUOROETHANE	2.519	0.000	100.0#	0#	-6.75#
21		ACRYLONITRILE	0.858	0.978	-14.0	111	0.02
22		PENTANE	0.392	0.376	4.1	107	0.02
23		IODOMETHANE	3.130	3.132	-0.1	101	0.02
24		1,1-DICHLOROETHYLENE	1.304	1.238	5.1	109	0.02
25		CARBON DISULFIDE	2.935	2.943	-0.3	99	0.02
26		ETHANOL	0.499	0.437	12.4	97	0.04
27		ACETONITRILE	0.873	0.926	-6.1	108	0.02
28		BROMOETHENE	1.133	1.128	0.4	98	0.02
29		METHYLENE CHLORIDE	0.990	1.003	-1.3	108	0.02
30		3-CHLOROPROPENE	0.491	0.504	-2.6	99	0.02
31		FREON 113	2.036	2.062	-1.3	100	0.02
32		TRANS-1,2-DICHLOROETHYLENE	1.184	1.079	8.9	100	0.01
33		TERTIARY BUTYL ALCOHOL	2.381	2.601	-9.2	110	0.04
34		METHYL TERTIARY BUTYL ETHER	3.163	2.982	5.7	101	0.01
35		TETRAHYDROFURAN	0.464	0.489	-5.4	102	0.02
36		HEXANE	1.738	1.761	-1.3	101	0.01
37		VINYL ACETATE	0.265	0.297	-12.1	103	0.02
38		1,1-DICHLOROETHANE	1.806	1.848	-2.3	101	0.02
39		METHYL ETHYL KETONE	0.471	0.483	-2.5	100	0.02
40		cis-1,2-DICHLOROETHYLENE	1.215	1.103	9.2	96	0.02
41		DI-ISOPROPYL ETHER	0.944	1.022	-8.3	104	0.01
42		ETHYL ACETATE	0.323	0.355	-9.9	103	0.02

Initial Calibration Verification

Job Number: JC17438 **Sample:** VW2167-ICV2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54283.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		METHYL ACRYLATE	1.902	1.932	-1.6	99	0.02
44		CHLOROFORM	2.163	2.238	-3.5	102	0.01
45		2,4-DIMETHYLPENTANE	1.962	1.993	-1.6	102	0.01
46		1,1,1-TRICHLOROETHANE	2.342	2.374	-1.4	102	0.01
47		CARBON TETRACHLORIDE	2.467	2.522	-2.2	101	0.01
48		1,2-DICHLOROETHANE	1.251	1.383	-10.6	102	0.01
49	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	101	0.01
50		BENZENE	0.642	0.653	-1.7	100	0.01
51		CYCLOHEXANE	0.305	0.297	2.6	101	0.01
52		2,3-DIMETHYLPENTANE	0.142	0.148	-4.2	101	0.01
53		TRICHLOROETHYLENE	0.296	0.299	-1.0	99	0.00
54		DIBROMOMETHANE	0.284	0.292	-2.8	99	0.01
55		1,2-DICHLOROPROPANE	0.237	0.226	4.6	100	0.01
56		ETHYL ACRYLATE	0.419	0.416	0.7	100	0.02
57		BROMODICHLOROMETHANE	0.478	0.477	0.2	98	0.01
58		2,2,4-TRIMETHYLPENTANE	1.094	1.086	0.7	101	0.00
59		1,4-DIOXANE	0.137	0.134	2.2	97	0.02
60		METHYL METHACRYLATE	0.222	0.223	-0.5	97	0.01
61		HEPTANE	0.371	0.371	0.0	103	0.01
62		METHYL ISOBUTYL KETONE	0.422	0.419	0.7	99	0.02
63		cis-1,3-DICHLOROPROPENE	0.351	0.354	-0.9	93	0.01
64		TOLUENE	0.460	0.481	-4.6	100	0.01
65		1,3-DICHLOROPROPANE	0.331	0.360	-8.8	98	0.01
66		trans-1,3-DICHLOROPROPENE	0.248	0.276	-11.3	99	0.01
67		1,1,2-TRICHLOROETHANE	0.196	0.208	-6.1	99	0.02
68	I	CHLOROBENZENE-D5	1.000	1.000	0.0	102	0.00
69		ETHYL METHACRYLATE	0.798	0.813	-1.9	99	0.01
70		2-HEXANONE	0.493	0.483	2.0	96	0.02
71		TETRACHLOROETHYLENE	0.758	0.758	0.0	98	0.00
72		DIBROMOCHLOROMETHANE	1.037	1.098	-5.9	100	0.02
73		1,2-DIBROMOETHANE	0.717	0.778	-8.5	97	0.01
74		OCTANE	1.112	1.130	-1.6	101	0.00
75		1,1,1,2-TETRACHLOROETHANE	0.806	0.841	-4.3	102	0.01
76		CHLOROBENZENE	1.351	1.386	-2.6	98	0.01
77		ETHYLBENZENE	2.155	2.130	1.2	99	0.01
78		m,p-XYLENE	0.879	0.913	-3.9	100	0.00
79		o-XYLENE	0.834	0.880	-5.5	101	0.01
80		STYRENE	1.196	1.316	-10.0	99	0.00
81		1,2,3-TRICHLOROPROPANE	0.881	0.846	4.0	102	0.00
82		NONANE	1.102	1.194	-8.3	101	0.00
83		BROMOFORM	0.944	1.026	-8.7	98	0.01
84	S	4-BROMOFLUOROBENZENE	1.097	1.187	-8.2	102	0.00
85		1,1,2,2-TETRACHLOROETHANE	1.138	1.177	-3.4	100	0.01
86		ISOPROPYLBENZENE	2.612	2.653	-1.6	101	0.00
87		BROMOBENZENE	0.689	0.736	-6.8	97	0.00
88		2-CHLOROTOLUENE	0.575	0.601	-4.5	99	0.00
89		n-PROPYLBENZENE	0.653	0.688	-5.4	99	0.00
90		4-ETHYLTOLUENE	2.122	2.241	-5.6	102	0.00
91		1,3,5-TRIMETHYLBENZENE	2.099	2.106	-0.3	100	0.00
92		ALPHA-METHYLSTYRENE	0.872	0.965	-10.7	102	0.00
93		TERT-BUTYLBENZENE	0.504	0.555	-10.1	103	0.00
94		1,2,4-TRIMETHYLBENZENE	1.934	1.990	-2.9	101	0.00
95		m-DICHLOROBENZENE	0.981	1.030	-5.0	100	0.00
96		BENZYL CHLORIDE	1.067	1.082	-1.4	97	0.00
97		p-DICHLOROBENZENE	0.914	0.922	-0.9	94	0.00
98		SEC-BUTYLBENZENE	0.602	0.645	-7.1	102	0.00
99		p-ISOPROPYLTOLUENE	0.642	0.686	-6.9	104	0.00
100		o-DICHLOROBENZENE	1.007	1.005	0.2	99	0.00

Initial Calibration Verification

Job Number: JC17438 **Sample:** VW2167-ICV2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54283.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	n-BUTYLBENZENE	0.492	0.530	-7.7	102	0.00
102	1,2-DIBROMO-3-CHLOROPROPANE	0.465	0.417	10.3	96	0.00
103	HEXACHLOROETHANE	0.809	0.869	-7.4	103	0.00
104	HEXACHLOROBUTADIENE	0.887	0.908	-2.4	102	0.00
105	1,2,4-TRICHLOROBENZENE	0.370	0.323	12.7	95	0.00
106	NAPHTHALENE	0.911	0.760	16.6	95	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
W54270.D MW2167.M Fri Mar 18 09:53:49 2016 MSW

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: VW2168-CC2167
Lab FileID: W54285.D

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\W54285.D                  Vial: 1
Acq On    : 18 Mar 2016  10:14 am                   Operator: YOUMINH
Sample    : cc2167-10                               Inst     : MSW
Misc      : MS99296,VW2168,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 09:44:17 2016
Response via  : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev :  30%     Max. Rel. Area : 140%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	98	0.01
2	1,1,1-TRIFLUOROETHANE	0.000	0.000	0.0	0#	-4.97#
3	FREON 152A	0.638	0.677	-6.1	95	0.02
4	CHLORODIFLUOROMETHANE	0.266	0.290	-9.0	100	0.02
5	DICHLORODIFLUOROMETHANE	2.970	3.017	-1.6	100	0.02
6	PROPYLENE	0.910	0.889	2.3	99	0.02
7	FREON 114	3.118	3.030	2.8	95	0.02
8	1-CHLORO-1,1-DIFLUOROETHANE	2.089	2.154	-3.1	100	0.02
9	CHLOROMETHANE	0.274	0.291	-6.2	94	0.02
10	VINYL CHLORIDE	1.059	1.054	0.5	92	0.02
11	1,3-BUTADIENE	0.838	0.831	0.8	90	0.02
12	n-BUTANE	0.240	0.242	-0.8	91	0.02
13	BROMOMETHANE	1.029	1.034	-0.5	92	0.02
14	CHLOROETHANE	0.592	0.605	-2.2	91	0.02
15	DICHLOROFLUOROMETHANE	2.516	2.442	2.9	95	0.02
16	ACROLEIN	0.530	0.491	7.4	95	0.02
17	TRICHLOROFLUOROMETHANE	2.827	2.928	-3.6	102	0.02
18	ISOPROPYL ALCOHOL	2.756	2.815	-2.1	107	0.06
19	ACETONE	0.552	0.571	-3.4	100	0.02
20	1,1-DICHLORO-1-FLUOROETHANE	2.519	2.539	-0.8	104	0.02
21	ACRYLONITRILE	0.858	0.947	-10.4	104	0.02
22	PENTANE	0.392	0.363	7.4	100	0.02
23	IODOMETHANE	3.130	3.111	0.6	96	0.02
24	1,1-DICHLOROETHYLENE	1.304	1.246	4.4	106	0.02
25	CARBON DISULFIDE	2.935	2.881	1.8	93	0.02
26	ETHANOL	0.499	0.451	9.6	97	0.05
27	ACETONITRILE	0.873	0.877	-0.5	98	0.02
28	BROMOETHENE	1.133	1.146	-1.1	95	0.02
29	METHYLENE CHLORIDE	0.990	1.083	-9.4	112	0.02
30	3-CHLOROPROPENE	0.491	0.519	-5.7	98	0.01
31	FREON 113	2.036	1.987	2.4	93	0.02
32	TRANS-1,2-DICHLOROETHYLENE	1.184	1.016	14.2	90	0.01
33	TERTIARY BUTYL ALCOHOL	2.381	2.787	-17.1	113	0.05
34	METHYL TERTIARY BUTYL ETHER	3.163	2.986	5.6	97	0.01
35	TETRAHYDROFURAN	0.464	0.480	-3.4	96	0.02
36	HEXANE	1.738	1.757	-1.1	97	0.01
37	VINYL ACETATE	0.265	0.286	-7.9	95	0.02
38	1,1-DICHLOROETHANE	1.806	1.808	-0.1	95	0.01
39	METHYL ETHYL KETONE	0.471	0.485	-3.0	96	0.02
40	cis-1,2-DICHLOROETHYLENE	1.215	1.062	12.6	89	0.01
41	DI-ISOPROPYL ETHER	0.944	1.001	-6.0	98	0.01
42	ETHYL ACETATE	0.323	0.346	-7.1	96	0.02

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2168-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54285.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43	METHYL ACRYLATE	1.902	1.962	-3.2	97	0.02
44	CHLOROFORM	2.163	2.169	-0.3	95	0.01
45	2,4-DIMETHYLPENTANE	1.962	1.949	0.7	95	0.01
46	1,1,1-TRICHLOROETHANE	2.342	2.326	0.7	96	0.01
47	CARBON TETRACHLORIDE	2.467	2.483	-0.6	96	0.01
48	1,2-DICHLOROETHANE	1.251	1.346	-7.6	95	0.01
49 I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	97	0.01
50	BENZENE	0.642	0.638	0.6	93	0.01
51	CYCLOHEXANE	0.305	0.288	5.6	94	0.01
52	2,3-DIMETHYLPENTANE	0.142	0.146	-2.8	95	0.01
53	TRICHLOROETHYLENE	0.296	0.290	2.0	92	0.01
54	DIBROMOMETHANE	0.284	0.284	0.0	92	0.01
55	1,2-DICHLOROPROPANE	0.237	0.228	3.8	97	0.02
56	ETHYL ACRYLATE	0.419	0.422	-0.7	97	0.02
57	BROMODICHLOROMETHANE	0.478	0.482	-0.8	95	0.02
58	2,2,4-TRIMETHYLPENTANE	1.094	1.077	1.6	96	0.00
59	1,4-DIOXANE	0.137	0.135	1.5	93	0.03
60	METHYL METHACRYLATE	0.222	0.229	-3.2	96	0.02
61	HEPTANE	0.371	0.368	0.8	98	0.01
62	METHYL ISOBUTYL KETONE	0.422	0.429	-1.7	97	0.02
63	cis-1,3-DICHLOROPROPENE	0.351	0.363	-3.4	91	0.02
64	TOLUENE	0.460	0.481	-4.6	96	0.02
65	1,3-DICHLOROPROPANE	0.331	0.362	-9.4	95	0.02
66	trans-1,3-DICHLOROPROPENE	0.248	0.277	-11.7	95	0.01
67	1,1,2-TRICHLOROETHANE	0.196	0.208	-6.1	95	0.02
68 I	CHLOROBENZENE-D5	1.000	1.000	0.0	98	0.01
69	ETHYL METHACRYLATE	0.798	0.812	-1.8	95	0.02
70	2-HEXANONE	0.493	0.494	-0.2	94	0.02
71	TETRACHLOROETHYLENE	0.758	0.743	2.0	92	0.01
72	DIBROMOCHLOROMETHANE	1.037	1.069	-3.1	93	0.02
73	1,2-DIBROMOETHANE	0.717	0.757	-5.6	91	0.01
74	OCTANE	1.112	1.113	-0.1	95	0.01
75	1,1,1,2-TETRACHLOROETHANE	0.806	0.838	-4.0	98	0.01
76	CHLOROBENZENE	1.351	1.387	-2.7	95	0.01
77	ETHYLBENZENE	2.155	2.187	-1.5	98	0.01
78	m,p-XYLENE	0.879	0.924	-5.1	97	0.00
79	o-XYLENE	0.834	0.903	-8.3	99	0.01
80	STYRENE	1.196	1.343	-12.3	97	0.01
81	1,2,3-TRICHLOROPROPANE	0.881	0.865	1.8	101	0.01
82	NONANE	1.102	1.229	-11.5	100	0.00
83	BROMOFORM	0.944	1.061	-12.4	97	0.01
84 S	4-BROMOFLUOROBENZENE	1.097	1.234	-12.5	102	0.01
85	1,1,2,2-TETRACHLOROETHANE	1.138	1.226	-7.7	100	0.02
86	ISOPROPYLBENZENE	2.612	2.734	-4.7	100	0.00
87	BROMOBENZENE	0.689	0.769	-11.6	98	0.00
88	2-CHLOROTOLUENE	0.575	0.636	-10.6	101	0.00
89	n-PROPYLBENZENE	0.653	0.725	-11.0	101	0.00
90	4-ETHYLTOLUENE	2.122	2.340	-10.3	103	0.00
91	1,3,5-TRIMETHYLBENZENE	2.099	2.186	-4.1	99	0.00
92	ALPHA-METHYLSTYRENE	0.872	0.985	-13.0	100	0.00
93	TERT-BUTYLBENZENE	0.504	0.574	-13.9	102	0.00
94	1,2,4-TRIMETHYLBENZENE	1.934	2.115	-9.4	103	0.00
95	m-DICHLOROBENZENE	0.981	1.089	-11.0	102	0.00
96	BENZYL CHLORIDE	1.067	1.171	-9.7	101	0.00
97	p-DICHLOROBENZENE	0.914	1.002	-9.6	98	0.00
98	SEC-BUTYLBENZENE	0.602	0.672	-11.6	103	0.00
99	p-ISOPROPYLTOLUENE	0.642	0.708	-10.3	103	0.00
100	o-DICHLOROBENZENE	1.007	1.057	-5.0	101	0.00

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2168-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54285.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	n-BUTYLBENZENE	0.492	0.561	-14.0	103	0.00
102	1,2-DIBROMO-3-CHLOROPROPANE	0.465	0.447	3.9	99	0.00
103	HEXACHLOROETHANE	0.809	0.890	-10.0	101	0.00
104	HEXACHLOROBUTADIENE	0.887	0.855	3.6	93	0.00
105	1,2,4-TRICHLOROBENZENE	0.370	0.338	8.6	96	0.00
106	NAPHTHALENE	0.911	0.782	14.2	94	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
W54270.D MW2167.M Fri Mar 18 12:15:39 2016 MSW

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2170-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54344.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\W54344.D                   Vial: 2
Acq On    : 21 Mar 2016  12:13 pm                    Operator: YOUMINH
Sample    : CC2167-10                                Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p

Method         : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title          : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update    : Fri Mar 18 09:44:17 2016
Response via   : Multiple Level Calibration

Min. RRF       :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
Max. RRF Dev   :  30%     Max. Rel. Area : 140%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	113	0.00
2		1,1,1-TRIFLUOROETHANE	0.000	0.000	0.0	0#	-4.97#
3		FREON 152A	0.638	0.685	-7.4	111	0.00
4		CHLORODIFLUOROMETHANE	0.266	0.257	3.4	102	0.00
5		DICHLORODIFLUOROMETHANE	2.970	2.690	9.4	103	0.00
6		PROPYLENE	0.910	0.873	4.1	112	0.00
7		FREON 114	3.118	2.910	6.7	106	0.00
8		1-CHLORO-1,1-DIFLUOROETHANE	2.089	1.939	7.2	104	0.00
9		CHLOROMETHANE	0.274	0.307	-12.0	116	-0.01
10		VINYL CHLORIDE	1.059	1.136	-7.3	115	0.00
11		1,3-BUTADIENE	0.838	0.911	-8.7	114	0.00
12		n-BUTANE	0.240	0.259	-7.9	113	0.00
13		BROMOMETHANE	1.029	0.982	4.6	102	-0.01
14		CHLOROETHANE	0.592	0.618	-4.4	108	0.00
15		DICHLOROFLUOROMETHANE	2.516	2.327	7.5	105	0.00
16		ACROLEIN	0.530	0.443	16.4	99	0.00
17		TRICHLOROFLUOROMETHANE	2.827	2.414	14.6	98	0.00
18		ISOPROPYL ALCOHOL	2.756	2.425	12.0	107	0.00
19		ACETONE	0.552	0.528	4.3	107	0.00
20		1,1-DICHLORO-1-FLUOROETHANE	2.519	2.152	14.6	102	0.00
21		ACRYLONITRILE	0.858	0.840	2.1	106	0.00
22		PENTANE	0.392	0.307	21.7	98	0.00
23		IODOMETHANE	3.130	2.667	14.8	95	0.00
24		1,1-DICHLOROETHYLENE	1.304	1.105	15.3	109	0.00
25		CARBON DISULFIDE	2.935	3.174	-8.1	118	0.00
26		ETHANOL	0.499	0.458	8.2	114	0.00
27		ACETONITRILE	0.873	0.815	6.6	106	0.00
28		BROMOETHENE	1.133	0.958	15.4	92	0.00
29		METHYLENE CHLORIDE	0.990	0.970	2.0	117	0.00
30		3-CHLOROPROPENE	0.491	0.540	-10.0	118	0.00
31		FREON 113	2.036	1.821	10.6	99	0.00
32		TRANS-1,2-DICHLOROETHYLENE	1.184	1.105	6.7	114	0.00
33		TERTIARY BUTYL ALCOHOL	2.381	2.573	-8.1	121	0.00
34		METHYL TERTIARY BUTYL ETHER	3.163	3.229	-2.1	122	0.00
35		TETRAHYDROFURAN	0.464	0.554	-19.4	128	0.00
36		HEXANE	1.738	1.874	-7.8	120	0.00
37		VINYL ACETATE	0.265	0.313	-18.1	121	0.00
38		1,1-DICHLOROETHANE	1.806	2.012	-11.4	122	0.00
39		METHYL ETHYL KETONE	0.471	0.565	-20.0	130	0.00
40		cis-1,2-DICHLOROETHYLENE	1.215	1.187	2.3	115	0.00
41		DI-ISOPROPYL ETHER	0.944	1.033	-9.4	117	0.00
42		ETHYL ACETATE	0.323	0.397	-22.9	128	0.00

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2170-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54344.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		METHYL ACRYLATE	1.902	2.180	-14.6	125	0.00
44		CHLOROFORM	2.163	2.209	-2.1	112	0.00
45		2,4-DIMETHYLPENTANE	1.962	2.191	-11.7	124	0.00
46		1,1,1-TRICHLOROETHANE	2.342	2.230	4.8	106	0.00
47		CARBON TETRACHLORIDE	2.467	2.250	8.8	101	0.00
48		1,2-DICHLOROETHANE	1.251	1.358	-8.6	111	0.00
49	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	113	0.00
50		BENZENE	0.642	0.705	-9.8	120	0.00
51		CYCLOHEXANE	0.305	0.306	-0.3	116	0.00
52		2,3-DIMETHYLPENTANE	0.142	0.159	-12.0	120	0.00
53		TRICHLOROETHYLENE	0.296	0.293	1.0	108	0.00
54		DIBROMOMETHANE	0.284	0.263	7.4	99	0.00
55		1,2-DICHLOROPROPANE	0.237	0.249	-5.1	123	0.00
56		ETHYL ACRYLATE	0.419	0.475	-13.4	126	0.00
57		BROMODICHLOROMETHANE	0.478	0.477	0.2	109	0.00
58		2,2,4-TRIMETHYLPENTANE	1.094	1.151	-5.2	119	0.00
59		1,4-DIOXANE	0.137	0.146	-6.6	117	0.00
60		METHYL METHACRYLATE	0.222	0.255	-14.9	124	0.00
61		HEPTANE	0.371	0.394	-6.2	121	0.00
62		METHYL ISOBUTYL KETONE	0.422	0.480	-13.7	126	0.00
63		cis-1,3-DICHLOROPROPENE	0.351	0.398	-13.4	116	0.00
64		TOLUENE	0.460	0.505	-9.8	117	0.00
65		1,3-DICHLOROPROPANE	0.331	0.391	-18.1	119	0.00
66		trans-1,3-DICHLOROPROPENE	0.248	0.297	-19.8	118	-0.01
67		1,1,2-TRICHLOROETHANE	0.196	0.224	-14.3	118	0.00
68	I	CHLOROBENZENE-D5	1.000	1.000	0.0	116	-0.01
69		ETHYL METHACRYLATE	0.798	0.879	-10.2	121	0.00
70		2-HEXANONE	0.493	0.561	-13.8	126	0.00
71		TETRACHLOROETHYLENE	0.758	0.674	11.1	98	0.00
72		DIBROMOCHLOROMETHANE	1.037	0.994	4.1	102	0.00
73		1,2-DIBROMOETHANE	0.717	0.781	-8.9	110	-0.01
74		OCTANE	1.112	1.171	-5.3	118	0.00
75		1,1,1,2-TETRACHLOROETHANE	0.806	0.732	9.2	101	0.00
76		CHLOROBENZENE	1.351	1.336	1.1	107	0.00
77		ETHYLBENZENE	2.155	2.152	0.1	113	0.00
78		m,p-XYLENE	0.879	0.884	-0.6	109	-0.01
79		o-XYLENE	0.834	0.833	0.1	108	0.00
80		STYRENE	1.196	1.283	-7.3	109	0.00
81		1,2,3-TRICHLOROPROPANE	0.881	0.841	4.5	115	-0.01
82		NONANE	1.102	1.202	-9.1	115	0.00
83		BROMOFORM	0.944	0.912	3.4	99	0.00
84	S	4-BROMOFLUOROBENZENE	1.097	1.134	-3.4	110	0.00
85		1,1,2,2-TETRACHLOROETHANE	1.138	1.178	-3.5	113	0.00
86		ISOPROPYLBENZENE	2.612	2.487	4.8	107	0.00
87		BROMOBENZENE	0.689	0.672	2.5	101	0.00
88		2-CHLOROTOLUENE	0.575	0.552	4.0	103	0.00
89		n-PROPYLBENZENE	0.653	0.646	1.1	106	0.00
90		4-ETHYLTOLUENE	2.122	2.066	2.6	107	0.00
91		1,3,5-TRIMETHYLBENZENE	2.099	2.011	4.2	108	0.00
92		ALPHA-METHYLSTYRENE	0.872	0.868	0.5	103	0.00
93		TERT-BUTYLBENZENE	0.504	0.483	4.2	102	0.00
94		1,2,4-TRIMETHYLBENZENE	1.934	1.839	4.9	106	0.00
95		m-DICHLOROBENZENE	0.981	0.915	6.7	101	0.00
96		BENZYL CHLORIDE	1.067	1.086	-1.8	111	0.00
97		p-DICHLOROBENZENE	0.914	0.889	2.7	102	-0.01
98		SEC-BUTYLBENZENE	0.602	0.567	5.8	102	0.00
99		p-ISOPROPYLTOLUENE	0.642	0.594	7.5	102	0.00
100		o-DICHLOROBENZENE	1.007	0.911	9.5	102	0.00

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2170-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54344.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

101	n-BUTYLBENZENE	0.492	0.482	2.0	105	0.00
102	1,2-DIBROMO-3-CHLOROPROPANE	0.465	0.393	15.5	102	0.00
103	HEXACHLOROETHANE	0.809	0.713	11.9	95	0.00
104	HEXACHLOROBUTADIENE	0.887	0.753	15.1	96	0.00
105	1,2,4-TRICHLOROBENZENE	0.370	0.328	11.4	110	0.00
106	NAPHTHALENE	0.911	0.794	12.8	112	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
W54270.D MW2167.M Tue Mar 22 10:56:01 2016 MSW

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2171-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54370.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

```
                    Evaluate Continuing Calibration Report

  Data File : C:\MSDCHEM\1\DATA\W54370.D                  Vial: 2
  Acq On    : 22 Mar 2016  12:17 pm                   Operator: YOUMINH
  Sample    : cc2167-10                               Inst     : MSW
  Misc      : MS99636,VW2171,,,,,1                    Multiplr: 1.00
  MS Integration Params: rteint.p

  Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
  Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
  Last Update   : Fri Mar 18 09:44:17 2016
  Response via  : Multiple Level Calibration

  Min. RRF      :   0.000  Min. Rel. Area :  60%  Max. R.T. Dev  0.50min
  Max. RRF Dev  :  30%     Max. Rel. Area : 140%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	110	0.00
2	1,1,1-TRIFLUOROETHANE	0.000	0.000	0.0	0#	-4.97#
3	FREON 152A	0.638	0.746	-16.9	118	0.00
4	CHLORODIFLUOROMETHANE	0.266	0.259	2.6	101	0.01
5	DICHLORODIFLUOROMETHANE	2.970	2.745	7.6	103	0.00
6	PROPYLENE	0.910	0.960	-5.5	120	0.00
7	FREON 114	3.118	3.020	3.1	107	0.01
8	1-CHLORO-1,1-DIFLUOROETHANE	2.089	1.872	10.4	98	0.01
9	CHLOROMETHANE	0.274	0.329	-20.1	121	0.00
10	VINYL CHLORIDE	1.059	1.199	-13.2	118	0.00
11	1,3-BUTADIENE	0.838	0.936	-11.7	114	0.00
12	n-BUTANE	0.240	0.280	-16.7	119	0.01
13	BROMOMETHANE	1.029	1.062	-3.2	107	0.00
14	CHLOROETHANE	0.592	0.664	-12.2	113	0.00
15	DICHLOROFLUOROMETHANE	2.516	2.443	2.9	107	0.01
16	ACROLEIN	0.530	0.466	12.1	102	0.00
17	TRICHLOROFLUOROMETHANE	2.827	2.462	12.9	97	0.00
18	ISOPROPYL ALCOHOL	2.756	2.351	14.7	101	0.01
19	ACETONE	0.552	0.536	2.9	106	0.00
20	1,1-DICHLORO-1-FLUOROETHANE	2.519	2.147	14.8	99	0.00
21	ACRYLONITRILE	0.858	0.821	4.3	102	0.00
22	PENTANE	0.392	0.322	17.9	100	0.00
23	IODOMETHANE	3.130	2.833	9.5	99	0.00
24	1,1-DICHLOROETHYLENE	1.304	1.155	11.4	111	0.00
25	CARBON DISULFIDE	2.935	3.351	-14.2	122	0.00
26	ETHANOL	0.499	0.469	6.0	114	0.02
27	ACETONITRILE	0.873	0.843	3.4	107	0.00
28	BROMOETHENE	1.133	1.100	2.9	103	0.00
29	METHYLENE CHLORIDE	0.990	1.005	-1.5	118	0.00
30	3-CHLOROPROPENE	0.491	0.558	-13.6	119	0.00
31	FREON 113	2.036	1.945	4.5	103	0.00
32	TRANS-1,2-DICHLOROETHYLENE	1.184	1.115	5.8	112	0.00
33	TERTIARY BUTYL ALCOHOL	2.381	2.539	-6.6	116	0.00
34	METHYL TERTIARY BUTYL ETHER	3.163	2.997	5.2	111	0.00
35	TETRAHYDROFURAN	0.464	0.537	-15.7	121	0.00
36	HEXANE	1.738	1.896	-9.1	119	0.00
37	VINYL ACETATE	0.265	0.298	-12.5	112	0.00
38	1,1-DICHLOROETHANE	1.806	2.036	-12.7	121	0.00
39	METHYL ETHYL KETONE	0.471	0.539	-14.4	121	0.00
40	cis-1,2-DICHLOROETHYLENE	1.215	1.164	4.2	110	0.00
41	DI-ISOPROPYL ETHER	0.944	0.984	-4.2	109	0.00
42	ETHYL ACETATE	0.323	0.360	-11.5	114	0.00

Continuing Calibration Summary

Job Number: JC17438 **Sample:** VW2171-CC2167
Account: AEICNJF AEI Consultants **Lab FileID:** W54370.D
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY

43		METHYL ACRYLATE	1.902	2.015	-5.9	112	0.00
44		CHLOROFORM	2.163	2.136	1.2	106	0.00
45		2,4-DIMETHYLPENTANE	1.962	2.236	-14.0	124	0.00
46		1,1,1-TRICHLOROETHANE	2.342	2.132	9.0	99	0.00
47		CARBON TETRACHLORIDE	2.467	2.175	11.8	95	0.00
48		1,2-DICHLOROETHANE	1.251	1.230	1.7	98	0.00
49	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	115	0.00
50		BENZENE	0.642	0.681	-6.1	118	0.00
51		CYCLOHEXANE	0.305	0.296	3.0	115	0.00
52		2,3-DIMETHYLPENTANE	0.142	0.154	-8.5	119	0.00
53		TRICHLOROETHYLENE	0.296	0.265	10.5	100	0.00
54		DIBROMOMETHANE	0.284	0.254	10.6	98	0.00
55		1,2-DICHLOROPROPANE	0.237	0.237	0.0	120	0.00
56		ETHYL ACRYLATE	0.419	0.428	-2.1	117	0.00
57		BROMODICHLOROMETHANE	0.478	0.430	10.0	101	0.00
58		2,2,4-TRIMETHYLPENTANE	1.094	1.099	-0.5	116	0.00
59		1,4-DIOXANE	0.137	0.134	2.2	110	0.00
60		METHYL METHACRYLATE	0.222	0.228	-2.7	114	0.00
61		HEPTANE	0.371	0.381	-2.7	120	0.00
62		METHYL ISOBUTYL KETONE	0.422	0.434	-2.8	117	0.00
63		cis-1,3-DICHLOROPROPENE	0.351	0.352	-0.3	105	0.00
64		TOLUENE	0.460	0.469	-2.0	111	0.00
65		1,3-DICHLOROPROPANE	0.331	0.345	-4.2	108	0.00
66		trans-1,3-DICHLOROPROPENE	0.248	0.254	-2.4	104	0.00
67		1,1,2-TRICHLOROETHANE	0.196	0.210	-7.1	114	0.00
68	I	CHLOROBENZENE-D5	1.000	1.000	0.0	112	0.00
69		ETHYL METHACRYLATE	0.798	0.842	-5.5	111	0.00
70		2-HEXANONE	0.493	0.556	-12.8	120	0.00
71		TETRACHLOROETHYLENE	0.758	0.702	7.4	99	0.00
72		DIBROMOCHLOROMETHANE	1.037	0.959	7.5	95	0.00
73		1,2-DIBROMOETHANE	0.717	0.716	0.1	97	0.00
74		OCTANE	1.112	1.182	-6.3	115	0.00
75		1,1,1,2-TETRACHLOROETHANE	0.806	0.737	8.6	98	0.00
76		CHLOROBENZENE	1.351	1.308	3.2	101	0.00
77		ETHYLBENZENE	2.155	2.078	3.6	105	0.00
78		m,p-XYLENE	0.879	0.847	3.6	101	-0.01
79		o-XYLENE	0.834	0.802	3.8	100	0.00
80		STYRENE	1.196	1.227	-2.6	100	0.00
81		1,2,3-TRICHLOROPROPANE	0.881	0.784	11.0	103	0.00
82		NONANE	1.102	1.187	-7.7	109	0.00
83		BROMOFORM	0.944	0.896	5.1	93	0.00
84	S	4-BROMOFLUOROBENZENE	1.097	1.139	-3.8	107	0.00
85		1,1,2,2-TETRACHLOROETHANE	1.138	1.123	1.3	104	0.00
86		ISOPROPYLBENZENE	2.612	2.369	9.3	99	0.00
87		BROMOBENZENE	0.689	0.658	4.5	95	0.00
88		2-CHLOROTOLUENE	0.575	0.546	5.0	98	0.00
89		n-PROPYLBENZENE	0.653	0.615	5.8	97	0.00
90		4-ETHYLTOLUENE	2.122	1.959	7.7	98	0.00
91		1,3,5-TRIMETHYLBENZENE	2.099	1.847	12.0	95	0.00
92		ALPHA-METHYLSTYRENE	0.872	0.821	5.8	94	0.00
93		TERT-BUTYLBENZENE	0.504	0.464	7.9	94	0.00
94		1,2,4-TRIMETHYLBENZENE	1.934	1.681	13.1	93	0.00
95		m-DICHLOROBENZENE	0.981	0.875	10.8	93	0.00
96		BENZYL CHLORIDE	1.067	0.956	10.4	94	0.00
97		p-DICHLOROBENZENE	0.914	0.835	8.6	93	0.00
98		SEC-BUTYLBENZENE	0.602	0.556	7.6	96	0.00
99		p-ISOPROPYLTOLUENE	0.642	0.563	12.3	93	0.00
100		o-DICHLOROBENZENE	1.007	0.867	13.9	94	0.00

Continuing Calibration Summary

Job Number: JC17438
Account: AEICNJF AEI Consultants
Project: NU-Clear, 180 East Park Avenue, Long Beach, NY
Sample: VW2171-CC2167
Lab FileID: W54370.D

101	n-BUTYLBENZENE	0.492	0.449	8.7	94	0.00
102	1,2-DIBROMO-3-CHLOROPROPANE	0.465	0.365	21.5	92	0.00
103	HEXACHLOROETHANE	0.809	0.734	9.3	95	0.00
104	HEXACHLOROBUTADIENE	0.887	0.674	24.0	83	0.00
105	1,2,4-TRICHLOROBENZENE	0.370	0.284	23.2	91	0.00
106	NAPHTHALENE	0.911	0.677	25.7	92	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
W54270.D MW2167.M Wed Mar 23 10:00:08 2016 MSW

6.9.24

6

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17520.D
Acq On    :  6 Apr 2016   2:38 am
Operator  : THOMASH
Sample    : JC17438-1
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Apr 07 10:02:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.402	130	154236	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.531	114	562674	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	273309	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.402	130	154312	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	380104	10.16 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery =	101.60%	
Target Compounds					Qvalue
6) Dichlorodifluoromethane	4.186	85	19603	0.56 ppb(v	100
8) Chloromethane	4.321	50	7652	0.70 ppb(v	98
20) Trichlorofluoromethane	5.618	101	11120	0.30 ppb(v	96
21) Acetone	5.508	58	52093	8.69 ppb(v	82
22) Pentane	5.912	57	1458	0.49 ppb(v	95
25) Isopropyl Alcohol	5.710	43	7930	1.70 ppb(v	69
30) Ethanol	5.092	45	84282	16.55 ppb(v	99
38) 2-Butanone	7.808	72	1595	0.27 ppb(v	85
42) Ethyl Acetate	8.475	61	5168	1.27 ppb(v	97
48) 1,2-Dichloroethane	9.325	62	6183	0.34 ppb(v	94
49) Benzene	10.115	78	10471	0.25 ppb(v	98
55) Heptane	11.699	71	3533	0.26 ppb(v	94
56) Trichloroethene	11.350	95	2223	0.10 ppb(v	95
66) Toluene	13.638	91	30655	0.57 ppb(v	97
72) Tetrachloroethene	15.131	166	9484	0.31 ppb(v	98
78) Ethylbenzene	16.618	91	4186	0.06 ppb(v	98
79) m,p-Xylene	16.862	91	8655	0.16 ppb(v	98

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17520.D
Acq On    :  6 Apr 2016   2:38 am
Operator  : THOMASH
Sample    : JC17438-1
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Apr 07 10:02:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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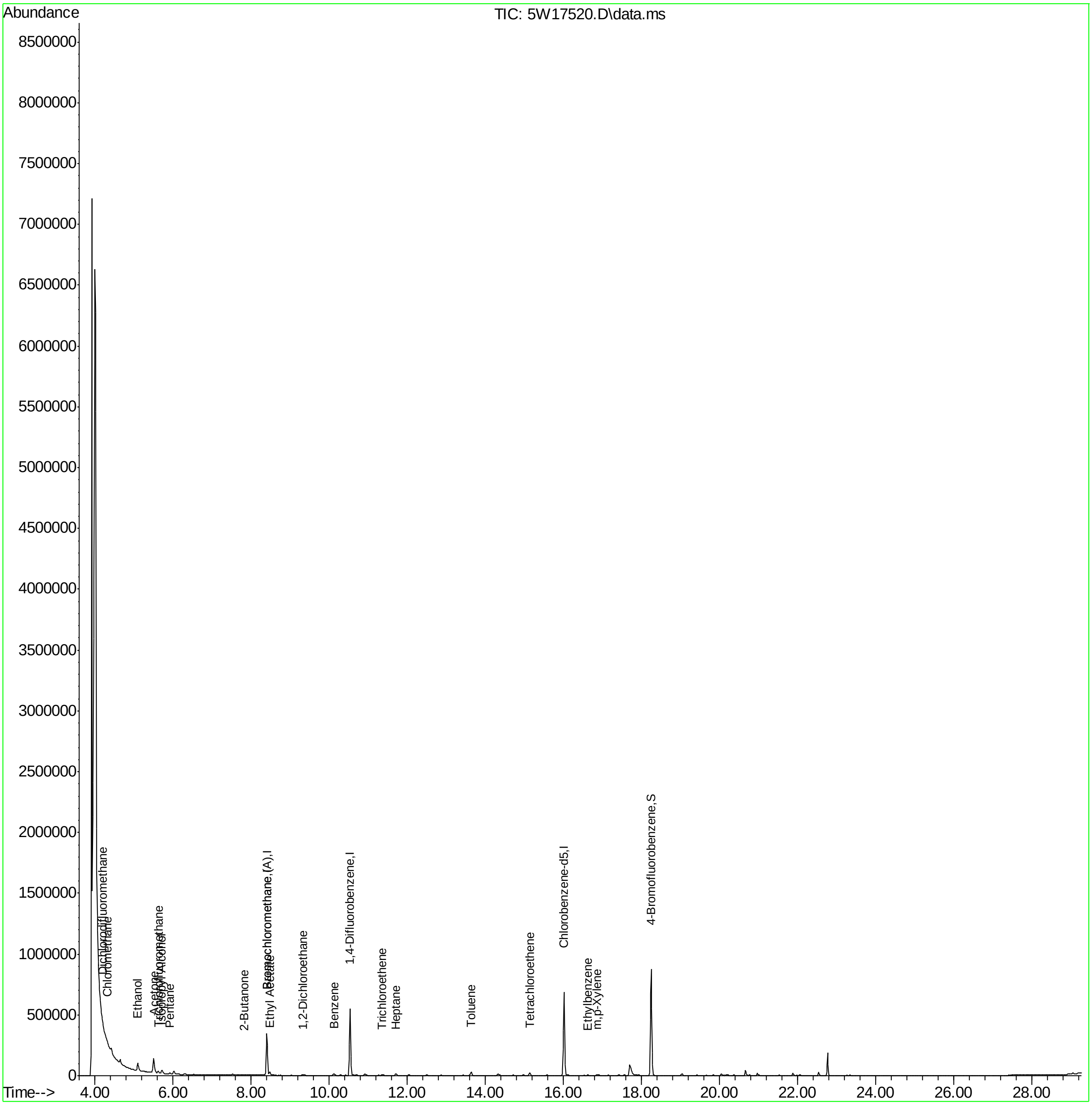
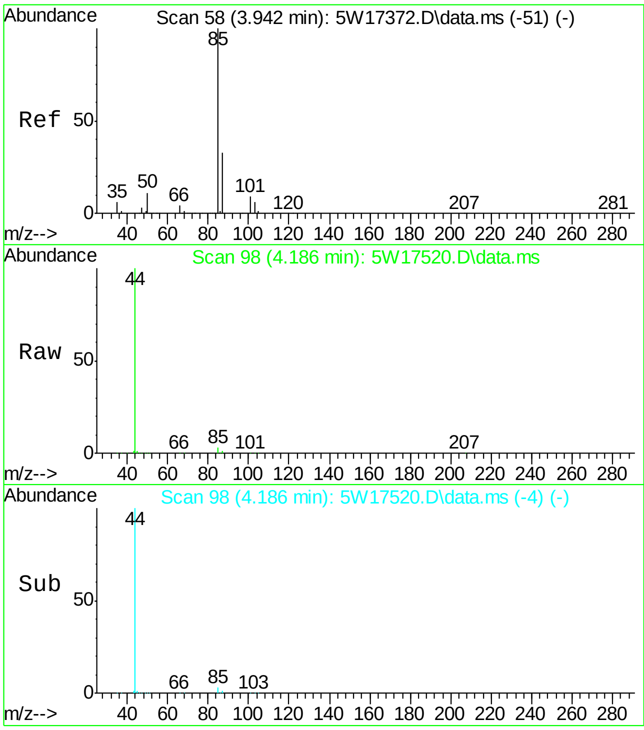
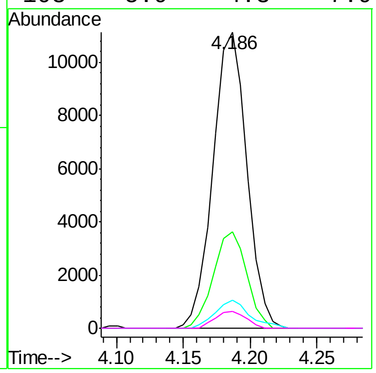


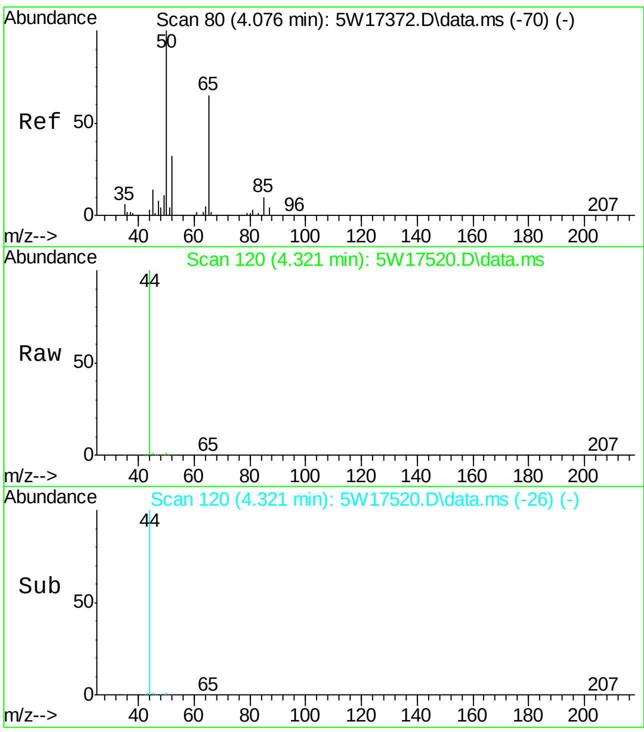


#6
Dichlorodifluoromethane
Concen: 0.56 ppb(v)
RT: 4.186 min Scan# 98
Delta R.T. 0.245 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 85 Resp: 19603

Ion	Ratio	Lower	Upper
85	100		
87	32.6	22.7	42.3
101	9.3	6.6	12.2
103	5.9	4.3	7.9

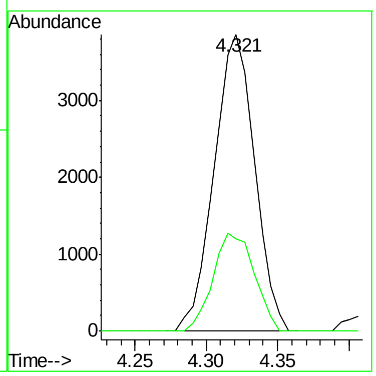


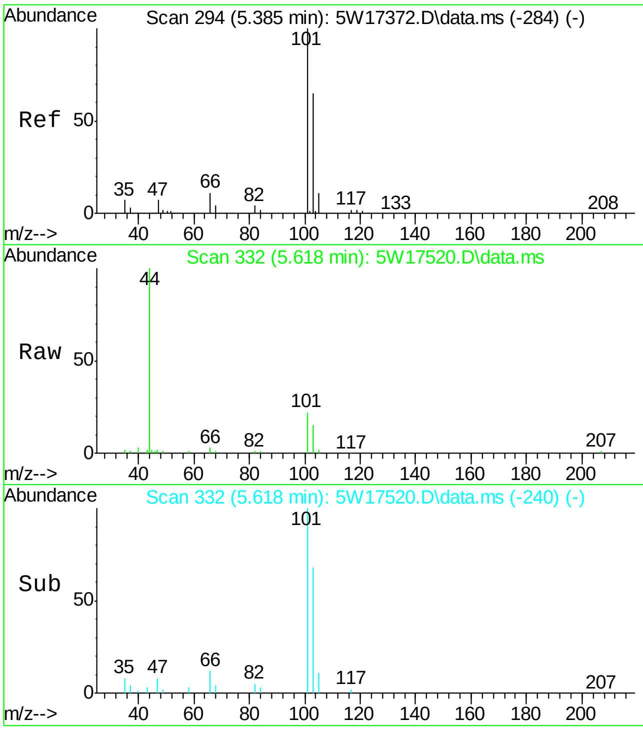


#8
Chloromethane
Concen: 0.70 ppb(v)
RT: 4.321 min Scan# 120
Delta R.T. 0.245 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 50 Resp: 7652

Ion	Ratio	Lower	Upper
50	100		
52	31.1	22.7	42.1

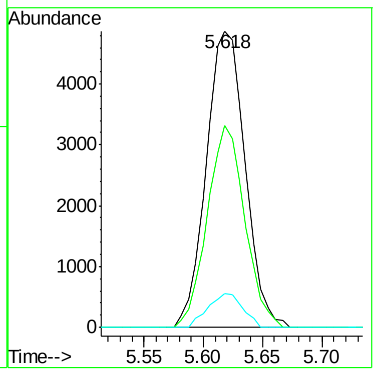


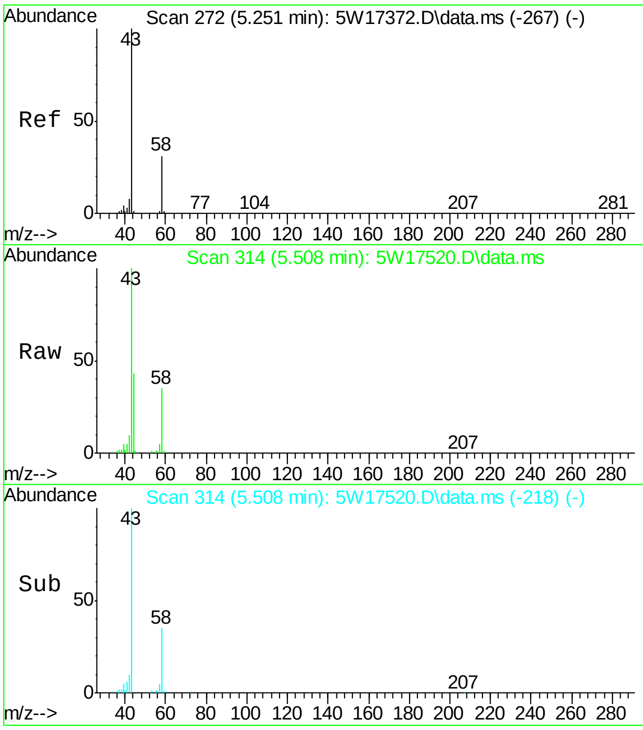


#20
Trichlorofluoromethane
Concen: 0.30 ppb(v)
RT: 5.618 min Scan# 332
Delta R.T. 0.233 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion:101 Resp: 11120

Ion	Ratio	Lower	Upper
101	100		
103	68.3	45.1	83.9
105	11.2	7.5	13.9

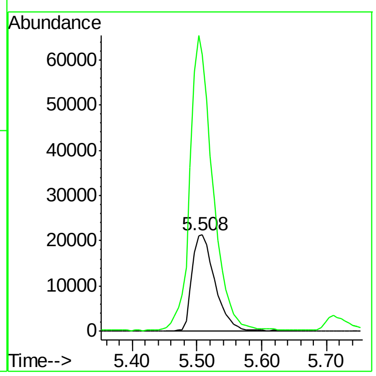


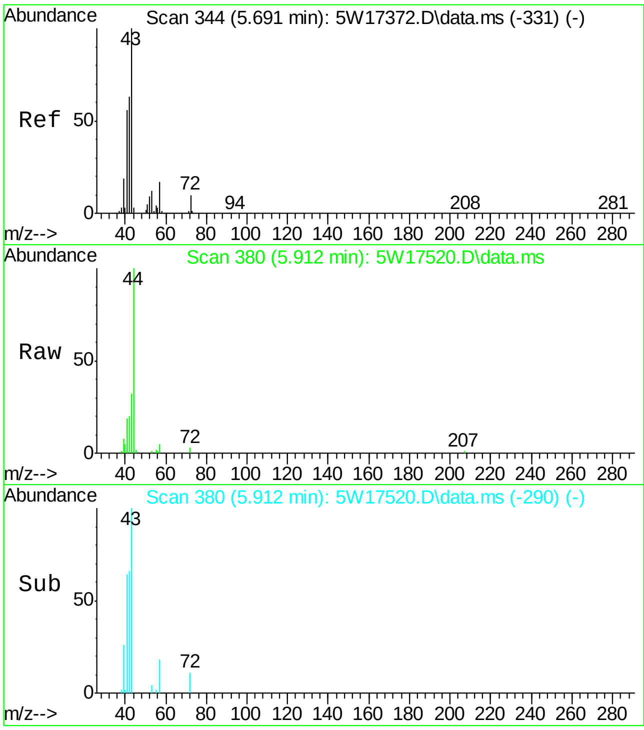


#21
Acetone
Concen: 8.69 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 58 Resp: 52093

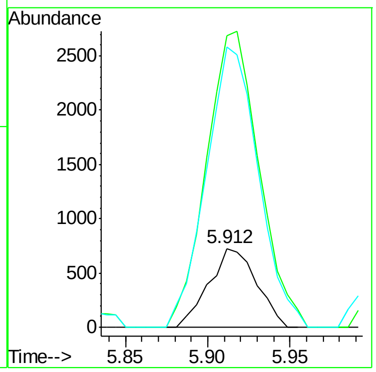
Ion	Ratio	Lower	Upper
58	100		
43	288.1	227.9	423.3

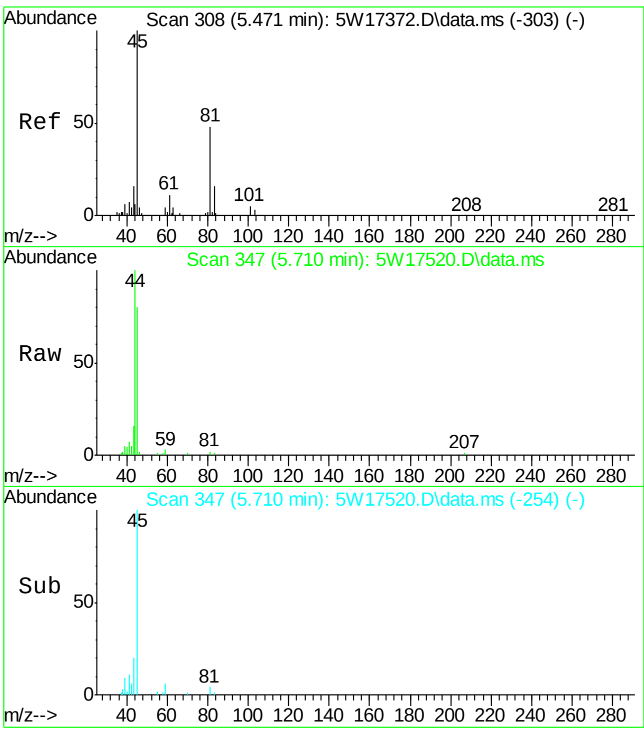




#22
Pentane
Concen: 0.49 ppb(v)
RT: 5.912 min Scan# 380
Delta R.T. 0.220 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

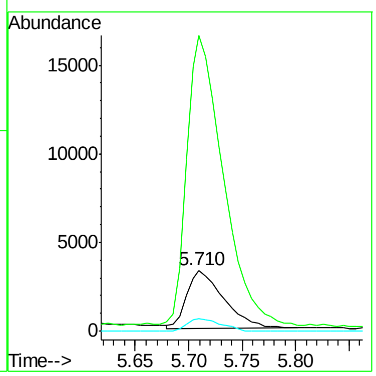
Tgt Ion: 57	Resp:	1458	
Ion	Ratio	Lower	Upper
57	100		
42	370.3	258.3	479.7
41	355.2	233.4	433.5

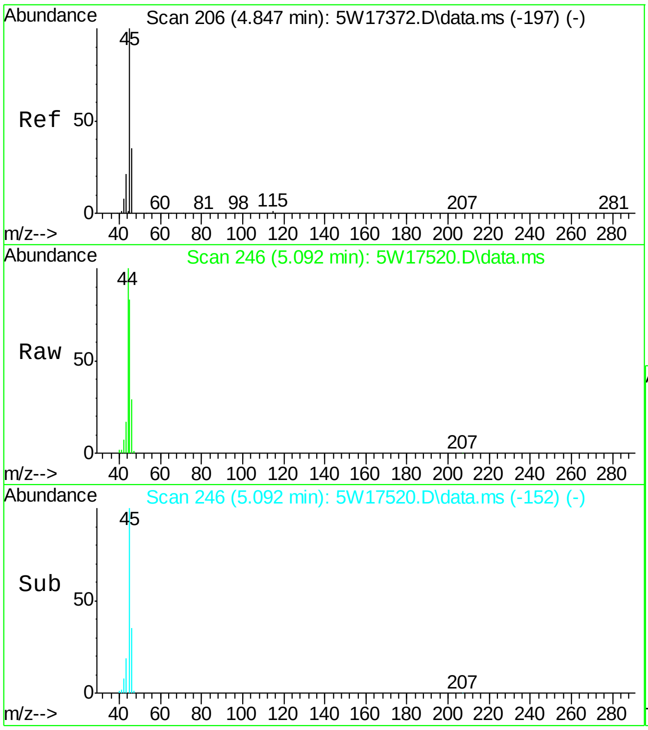




#25
Isopropyl Alcohol
Concen: 1.70 ppb(v)
RT: 5.710 min Scan# 347
Delta R.T. 0.239 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 43	Resp:	7930	
Ion	Ratio	Lower	Upper
43	100		
45	486.0	409.4	760.2
59	20.9	16.8	31.2

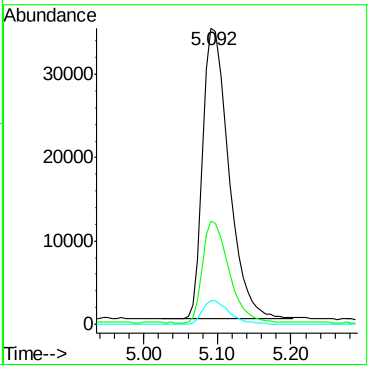


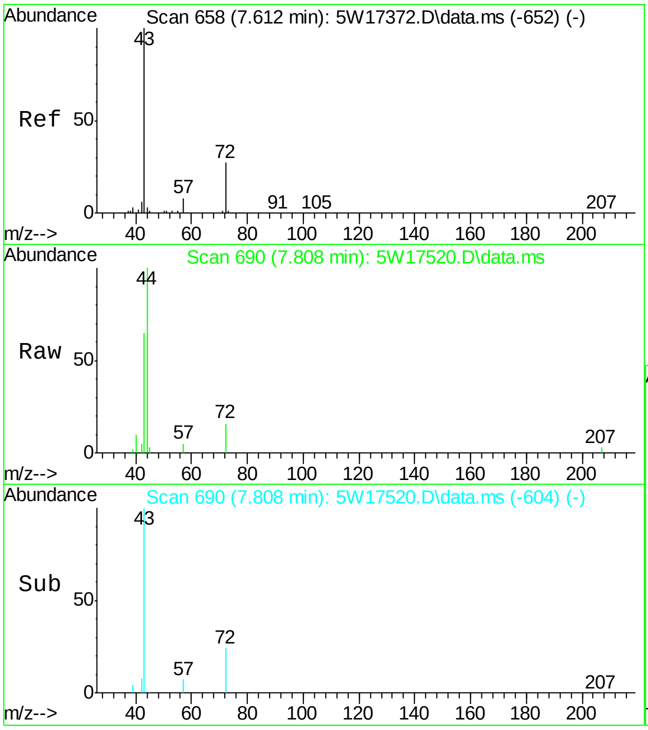


#30
Ethanol
Concen: 16.55 ppb(v)
RT: 5.092 min Scan# 246
Delta R.T. 0.245 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 45 Resp: 84282

Ion	Ratio	Lower	Upper
45	100		
46	34.9	24.6	45.8
42	8.1	6.5	12.1

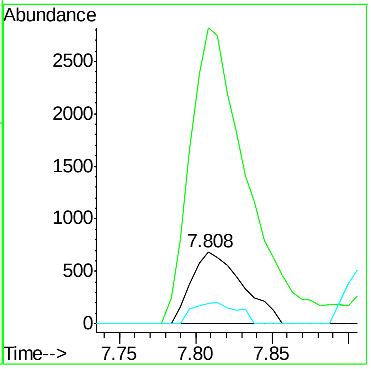


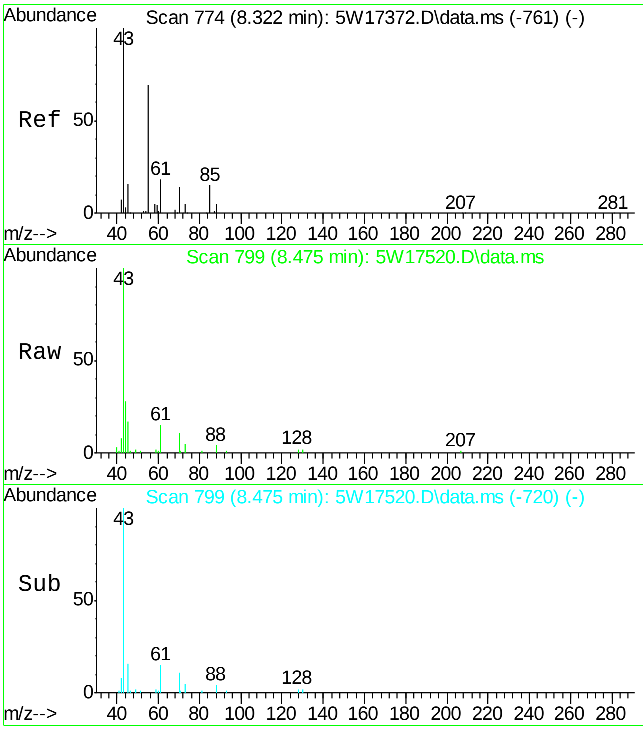


#38
2-Butanone
Concen: 0.27 ppb(v)
RT: 7.808 min Scan# 690
Delta R.T. 0.196 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 72 Resp: 1595

Ion	Ratio	Lower	Upper
72	100		
43	412.7	262.9	488.3
57	29.0	21.3	39.6

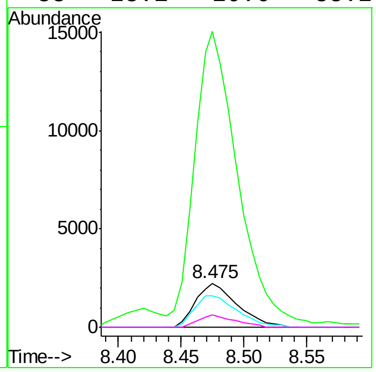


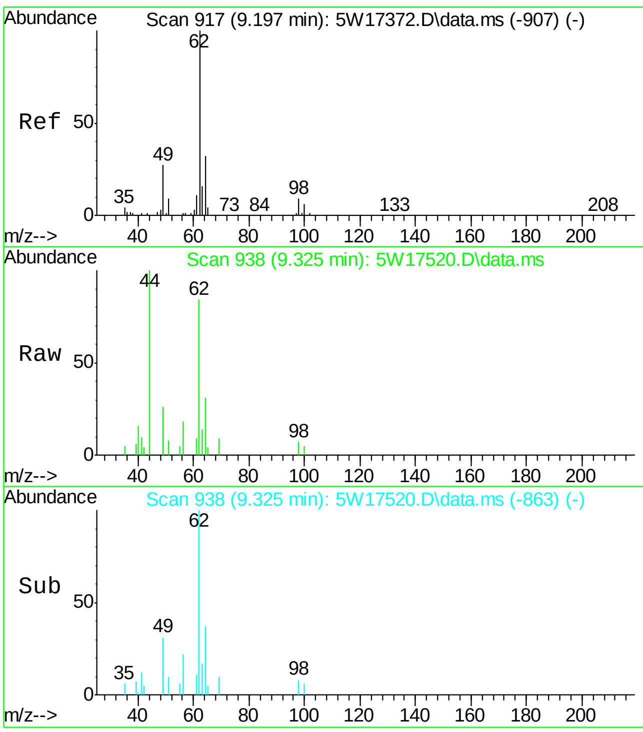


#42
Ethyl Acetate
Concen: 1.27 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 61 Resp: 5168

Ion	Ratio	Lower	Upper
61	100		
43	673.0	466.1	865.7
70	72.1	56.3	104.5
88	28.1	20.6	38.2

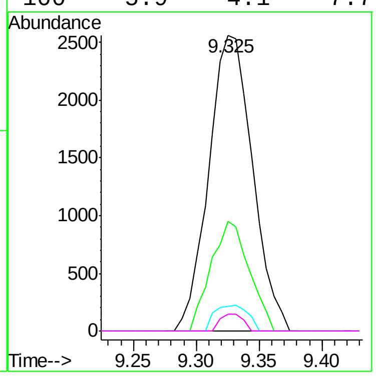


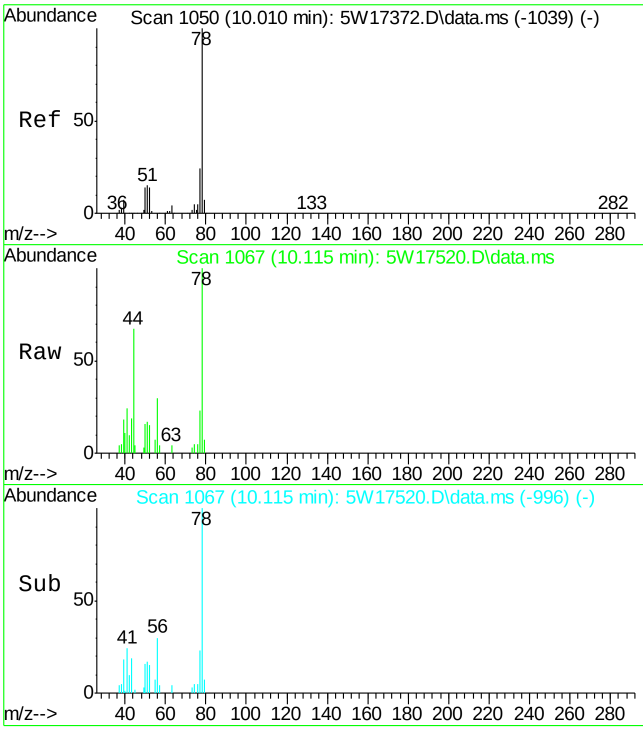


#48
1,2-Dichloroethane
Concen: 0.34 ppb(v)
RT: 9.325 min Scan# 938
Delta R.T. 0.129 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 62 Resp: 6183

Ion	Ratio	Lower	Upper
62	100		
64	37.0	22.6	42.0
98	8.3	6.4	11.8
100	5.9	4.1	7.7

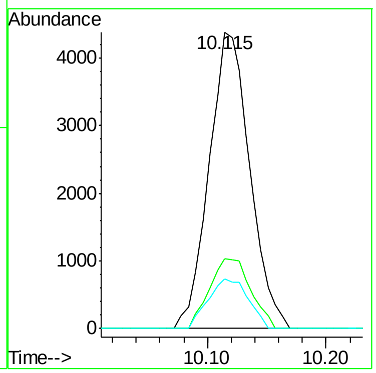


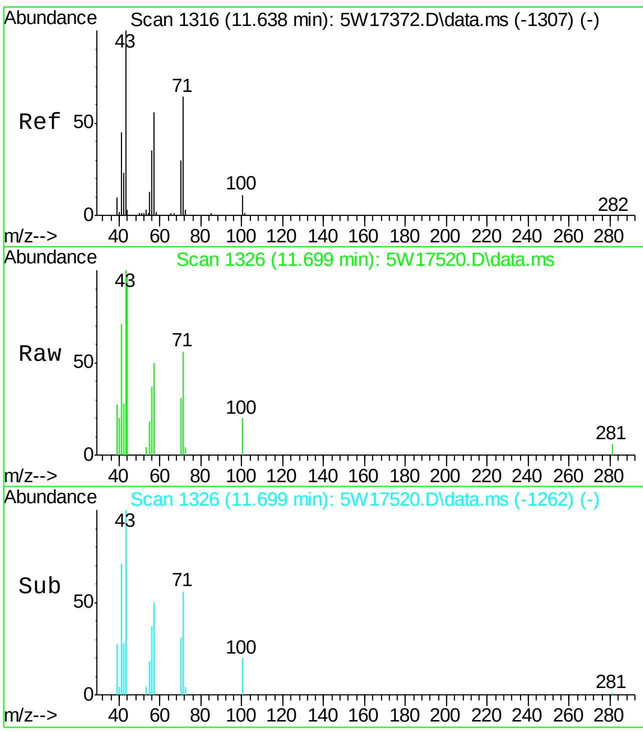


#49
Benzene
Concen: 0.25 ppb(v)
RT: 10.115 min Scan# 1067
Delta R.T. 0.104 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 78 Resp: 10471

Ion	Ratio	Lower	Upper
78	100		
77	23.5	16.5	30.7
51	16.9	10.5	19.5

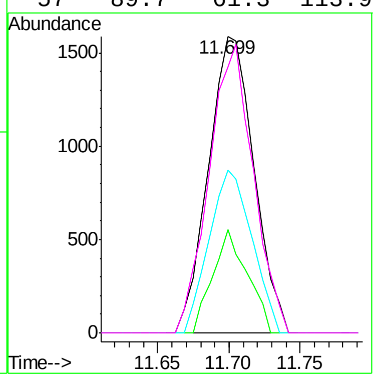


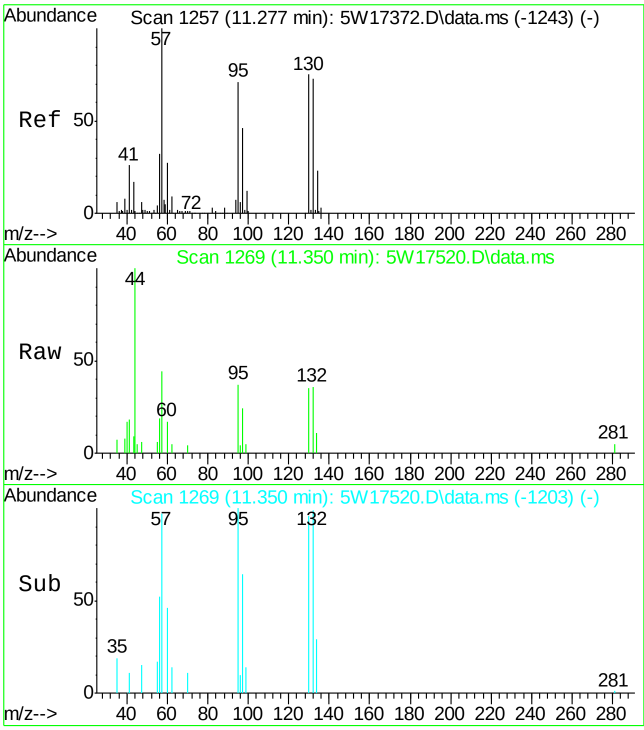


#55
Heptane
Concen: 0.26 ppb(v)
RT: 11.699 min Scan# 1326
Delta R.T. 0.061 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 71 Resp: 3533

Ion	Ratio	Lower	Upper
71	100		
100	34.9	19.6	36.4
70	55.1	34.0	63.2
57	89.7	61.3	113.9

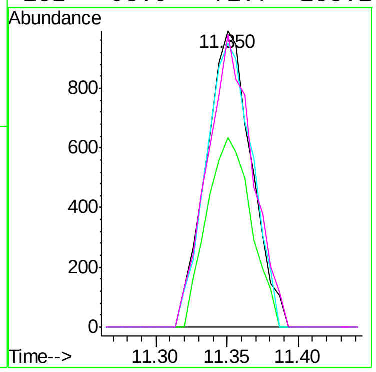


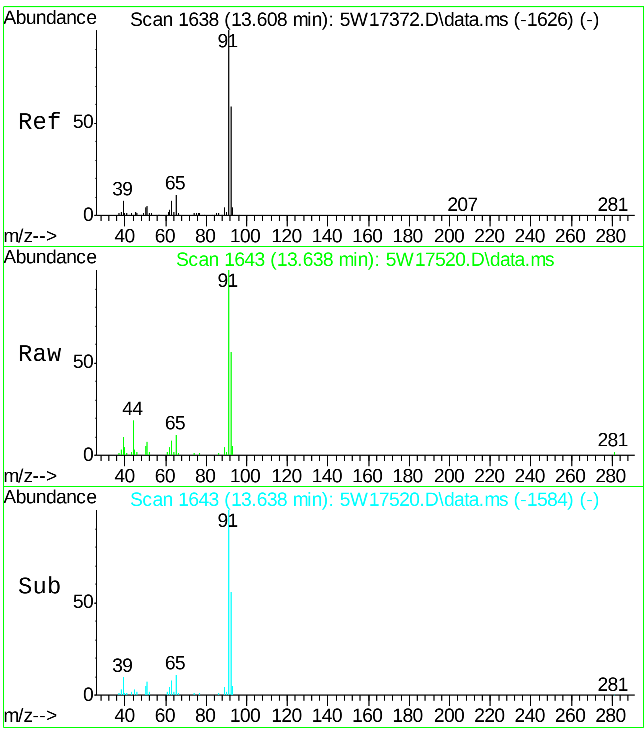


#56
Trichloroethene
Concen: 0.10 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.074 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 95 Resp: 2223

Ion	Ratio	Lower	Upper
95	100		
97	64.2	45.4	84.4
130	95.8	74.1	137.5
132	98.9	71.7	133.1

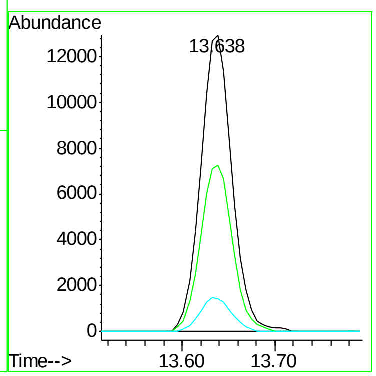


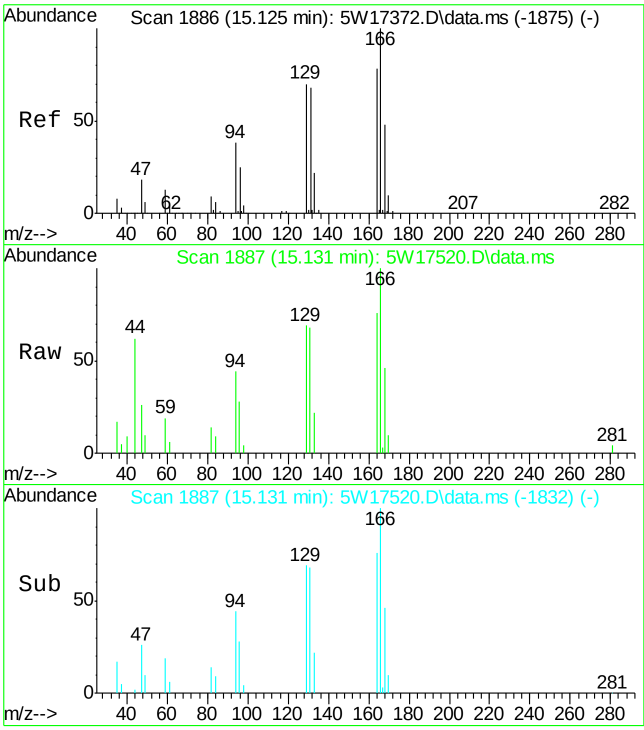


#66
Toluene
Concen: 0.57 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 91 Resp: 30655

Ion	Ratio	Lower	Upper
91	100		
92	56.3	41.2	76.6
65	11.1	7.3	13.7

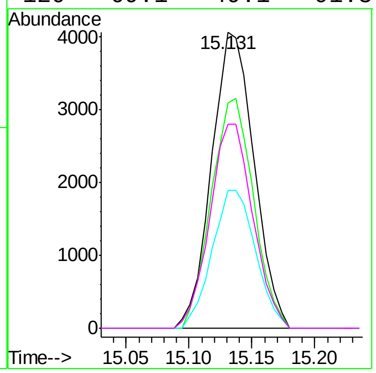


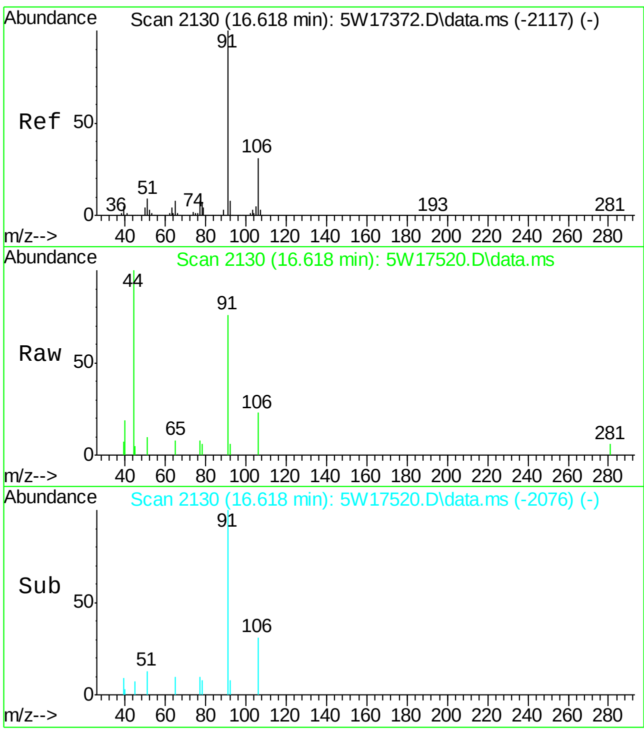


#72
Tetrachloroethene
Concen: 0.31 ppb(v)
RT: 15.131 min Scan# 1887
Delta R.T. 0.006 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion:166 Resp: 9484

Ion	Ratio	Lower	Upper
166	100		
164	76.2	54.6	101.4
168	46.5	33.5	62.3
129	69.1	49.1	91.3

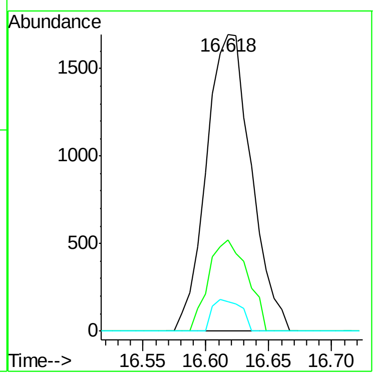


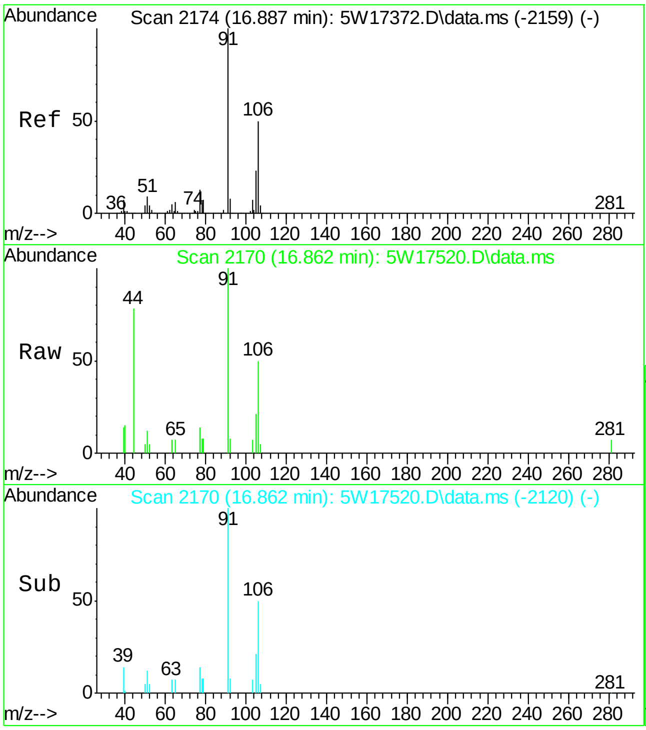


#78
Ethylbenzene
Concen: 0.06 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17520.D
Acq: 6 Apr 2016 2:38 am

Tgt Ion: 91 Resp: 4186

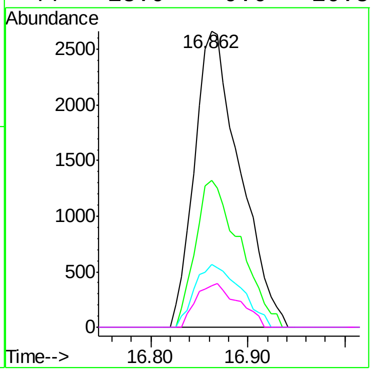
Ion	Ratio	Lower	Upper
91	100		
106	30.7	22.0	40.8
77	9.9	5.9	10.9






```
#79
m,p-Xylene
Concen:     0.16 ppb(v)
RT:  16.862 min   Scan# 2170
Delta R.T.   -0.024 min
Lab File:    5W17520.D
Acq:  6 Apr 2016   2:38 am

Tgt Ion: 91 Resp:     8655
Ion   Ratio   Lower   Upper
 91   100
106    49.7    35.3    65.5
105    21.2    16.2    30.0
 77    13.9     9.0    16.8
```



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17521.D
Acq On : 6 Apr 2016 3:24 am
Operator : THOMASH
Sample : JC17438-2
Misc : MS107,v5w698,400,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 07 10:08:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.408	130	160502	10.00	ppb(v	0.16
53) 1,4-Difluorobenzene	10.537	114	586923	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	290968	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.408	130	160502	10.00	ppb(v	0.16
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	392962	9.86	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.60%			
Target Compounds						Qvalue
6) Dichlorodifluoromethane	4.180	85	19946	0.54	ppb(v	100
8) Chloromethane	4.315	50	7772	0.68	ppb(v	99
20) Trichlorofluoromethane	5.618	101	11594	0.30	ppb(v	99
21) Acetone	5.508	58	69951	11.21	ppb(v	77
22) Pentane	5.912	57	1835	0.59	ppb(v	86
25) Isopropyl Alcohol	5.704	43	85471	17.65	ppb(v	86
30) Ethanol	5.098	45	547227	103.23	ppb(v	99
38) 2-Butanone	7.802	72	3923	0.64	ppb(v	90
39) Hexane	8.414	57	4394	0.20	ppb(v#	61
40) cis-1,2-Dichloroethene	8.236	61	8659	0.48	ppb(v	94
42) Ethyl Acetate	8.475	61	8704	2.05	ppb(v	91
48) 1,2-Dichloroethane	9.331	62	6157	0.33	ppb(v#	98
49) Benzene	10.121	78	12070	0.27	ppb(v	96
55) Heptane	11.705	71	4125	0.30	ppb(v	96
56) Trichloroethene	11.350	95	425427	19.01	ppb(v	96
66) Toluene	13.638	91	31994	0.57	ppb(v	97
72) Tetrachloroethene	15.137	166	22113	0.69	ppb(v	99
78) Ethylbenzene	16.618	91	11061	0.15	ppb(v	99
79) m,p-Xylene	16.862	91	14461	0.25	ppb(v	96
82) o-Xylene	17.560	91	6217	0.10	ppb(v	97
89) n-Propylbenzene	19.242	120	2200	0.10	ppb(v	98
95) 1,2,4-Trimethylbenzene	20.172	105	9869	0.14	ppb(v#	57
102) n-Butylbenzene	21.334	134	4489	0.25	ppb(v	87
105) Naphthalene	23.255	128	10027	0.16	ppb(v#	77

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17521.D
Acq On    :  6 Apr 2016   3:24 am
Operator  : THOMASH
Sample    : JC17438-2
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 07 10:08:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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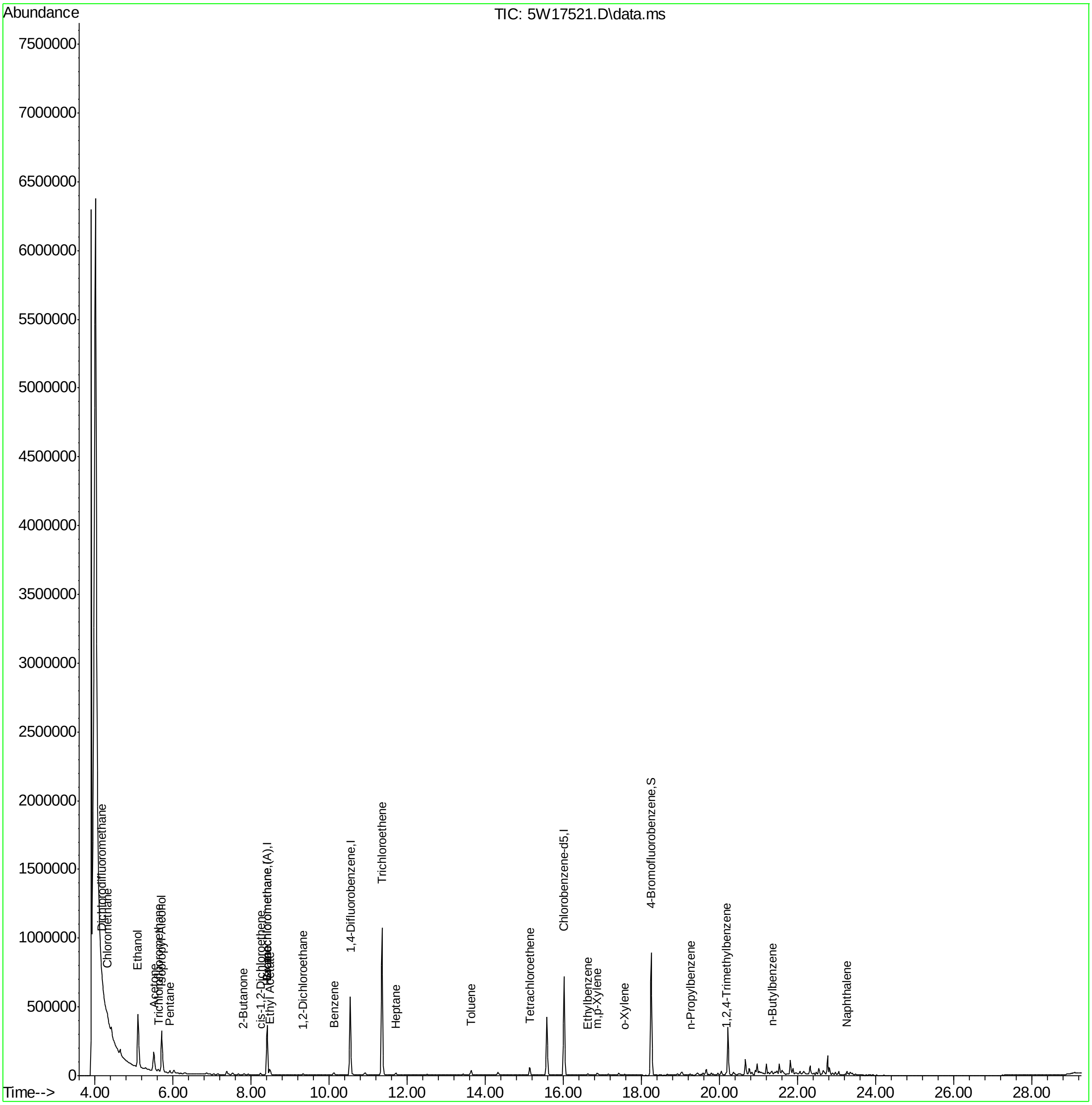
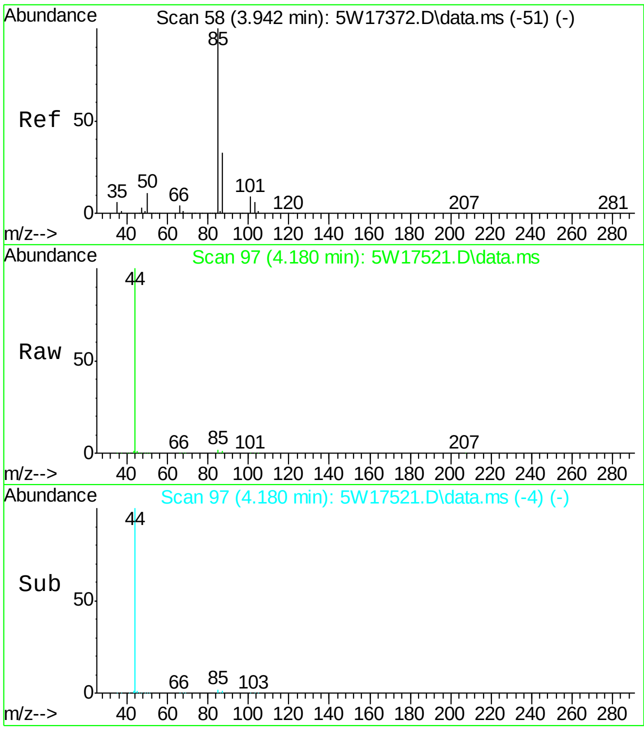
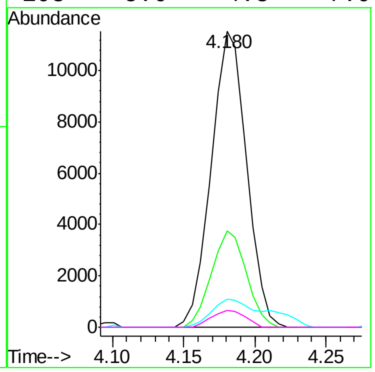


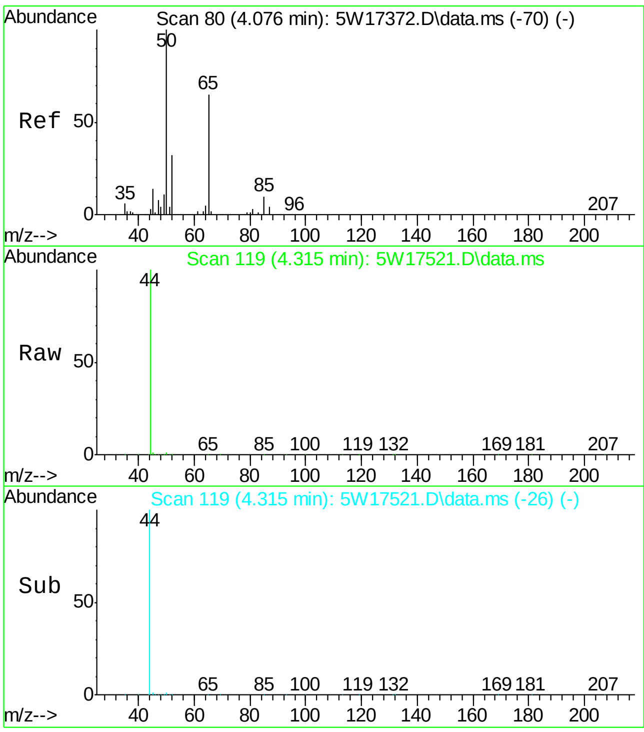


#6
Dichlorodifluoromethane
Concen: 0.54 ppb(v)
RT: 4.180 min Scan# 97
Delta R.T. 0.239 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 85 Resp: 19946

Ion	Ratio	Lower	Upper
85	100		
87	32.6	22.7	42.3
101	9.5	6.6	12.2
103	5.6	4.3	7.9

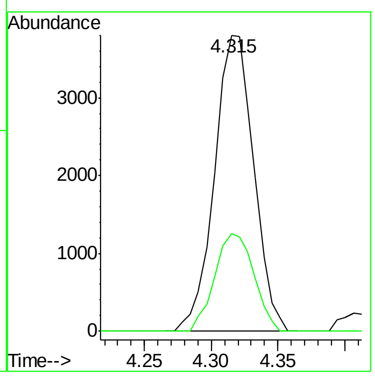


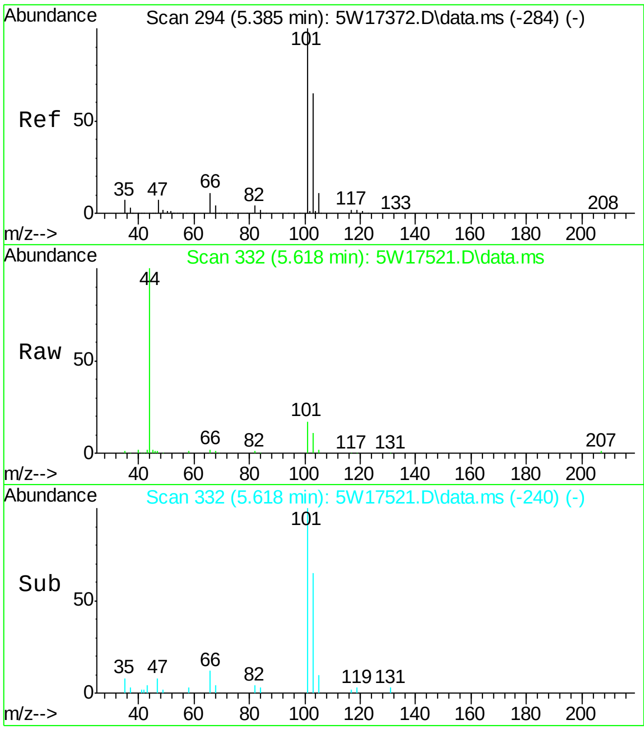


#8
Chloromethane
Concen: 0.68 ppb(v)
RT: 4.315 min Scan# 119
Delta R.T. 0.239 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 50 Resp: 7772

Ion	Ratio	Lower	Upper
50	100		
52	33.1	22.7	42.1

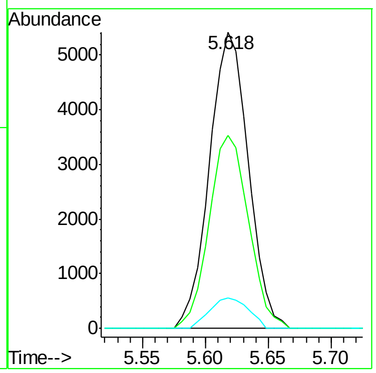


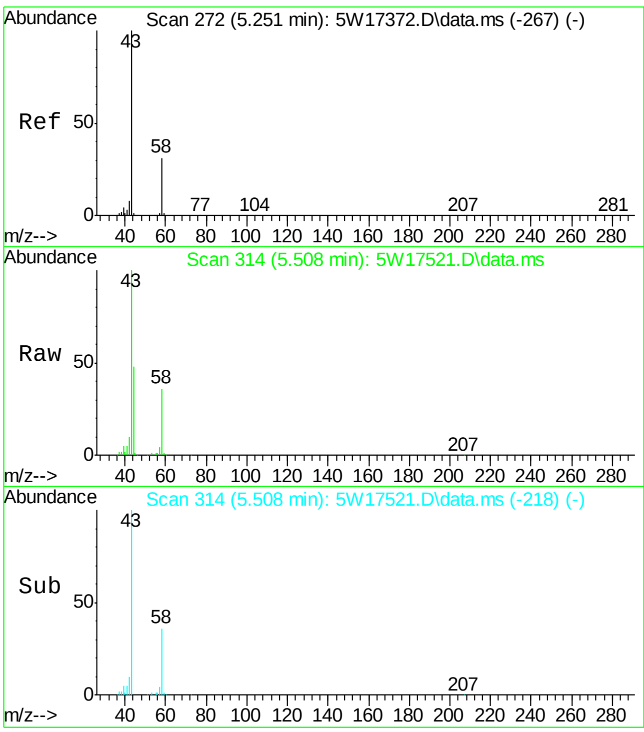


#20
Trichlorofluoromethane
Concen: 0.30 ppb(v)
RT: 5.618 min Scan# 332
Delta R.T. 0.233 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion:101 Resp: 11594

Ion	Ratio	Lower	Upper
101	100		
103	65.1	45.1	83.9
105	10.2	7.5	13.9

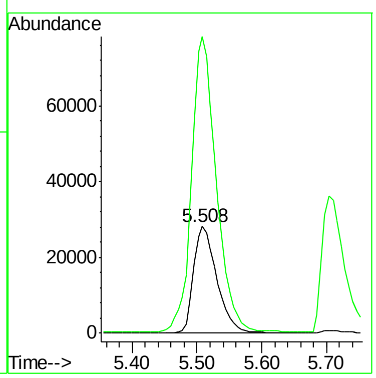


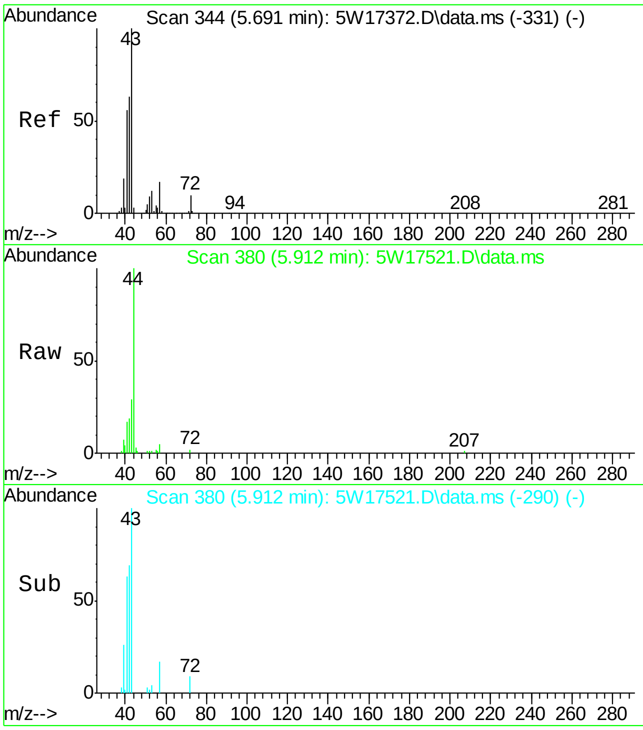


#21
Acetone
Concen: 11.21 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 58 Resp: 69951

Ion	Ratio	Lower	Upper
58	100		
43	278.4	227.9	423.3

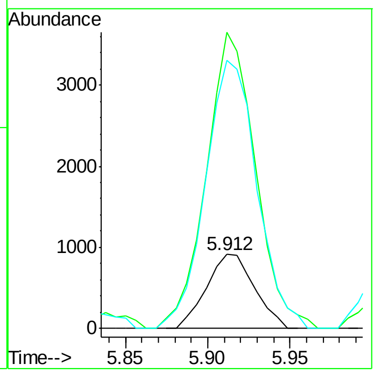


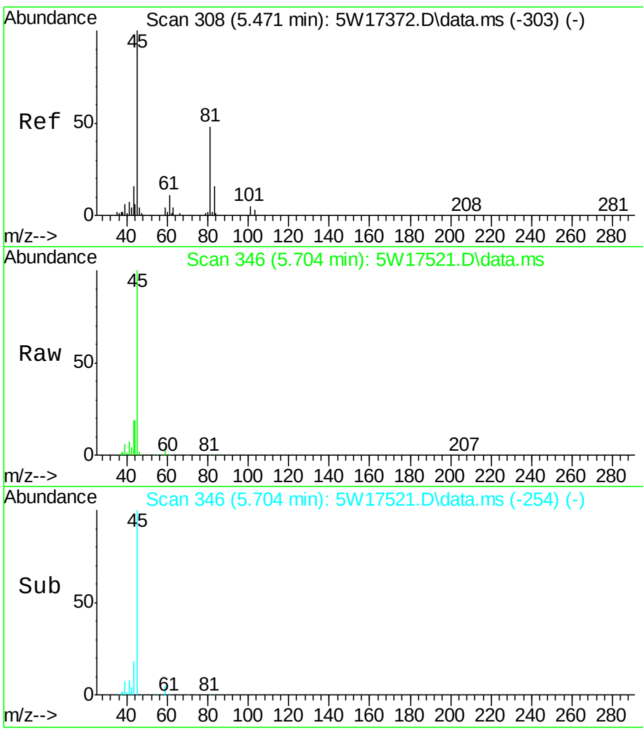


#22
Pentane
Concen: 0.59 ppb(v)
RT: 5.912 min Scan# 380
Delta R.T. 0.220 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 57 Resp: 1835

Ion	Ratio	Lower	Upper
57	100		
42	400.3	258.3	479.7
41	362.4	233.4	433.5

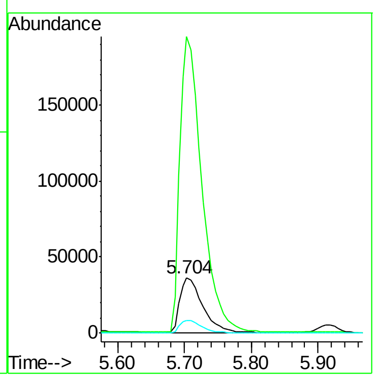


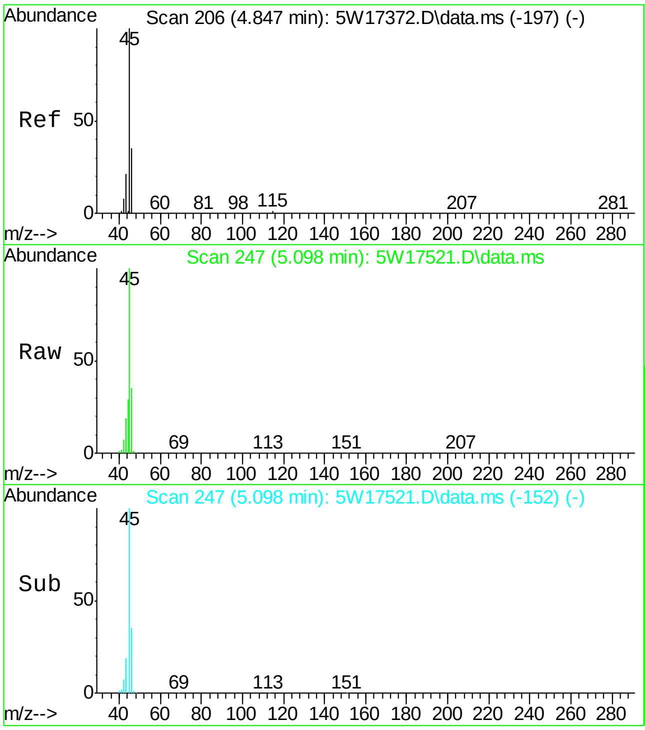


#25
Isopropyl Alcohol
Concen: 17.65 ppb(v)
RT: 5.704 min Scan# 346
Delta R.T. 0.233 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 43 Resp: 85471

Ion	Ratio	Lower	Upper
43	100		
45	540.4	409.4	760.2
59	23.1	16.8	31.2

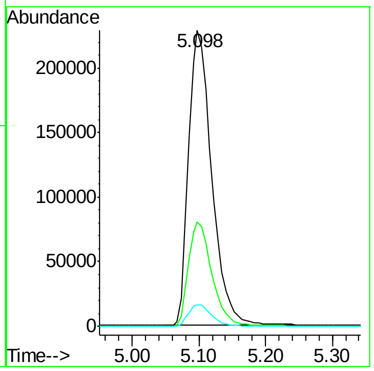


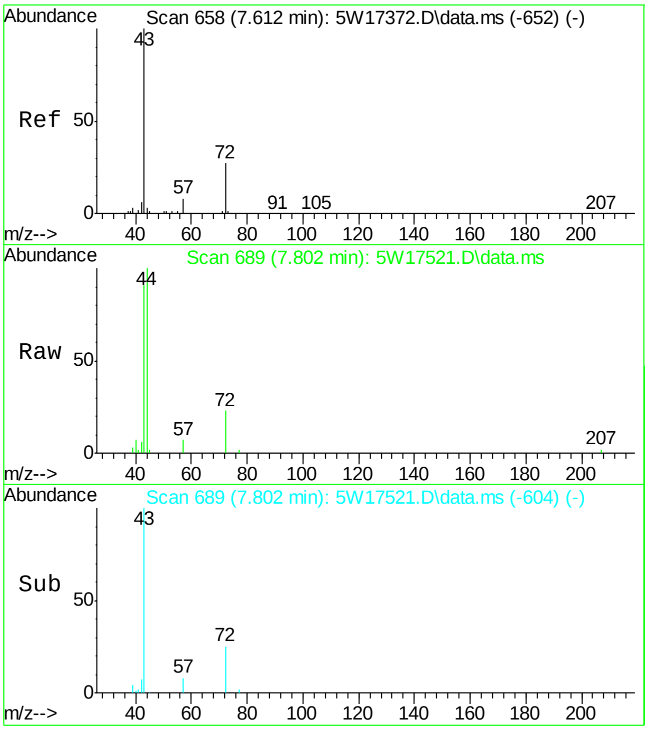


#30
Ethanol
Concen: 103.23 ppb(v)
RT: 5.098 min Scan# 247
Delta R.T. 0.251 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 45 Resp: 547227

Ion	Ratio	Lower	Upper
45	100		
46	35.1	24.6	45.8
42	7.4	6.5	12.1

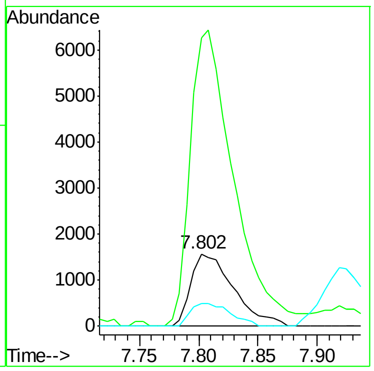


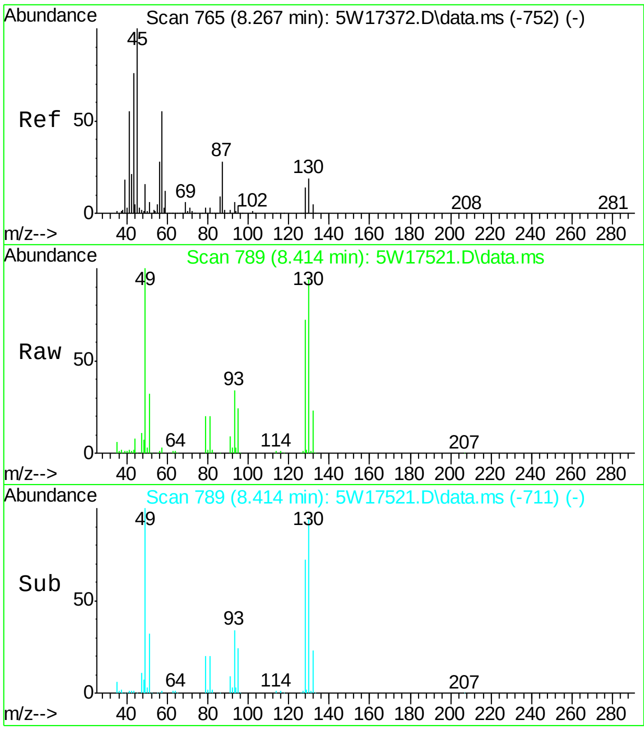


#38
2-Butanone
Concen: 0.64 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 72 Resp: 3923

Ion	Ratio	Lower	Upper
72	100		
43	401.3	262.9	488.3
57	30.6	21.3	39.6

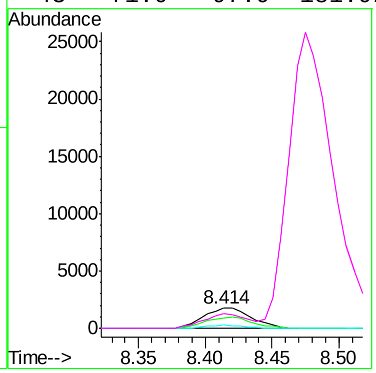


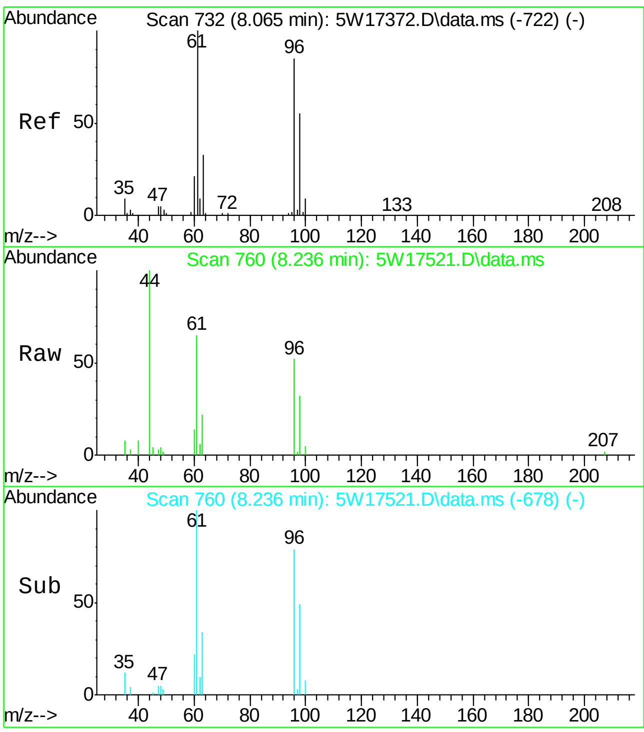


#39
Hexane
Concen: 0.20 ppb(v)
RT: 8.414 min   Scan# 789
Delta R.T.   0.147 min
Lab File: 5W17521.D
Acq: 6 Apr 2016   3:24 am

Tgt Ion: 57 Resp: 4394

Ion	Ratio	Lower	Upper
57	100		
56	53.5	36.5	67.9
86	15.6	11.1	20.7
43	71.0	97.9	181.9#

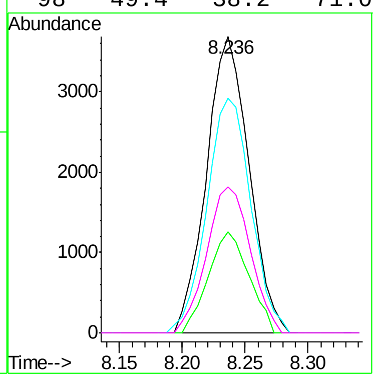


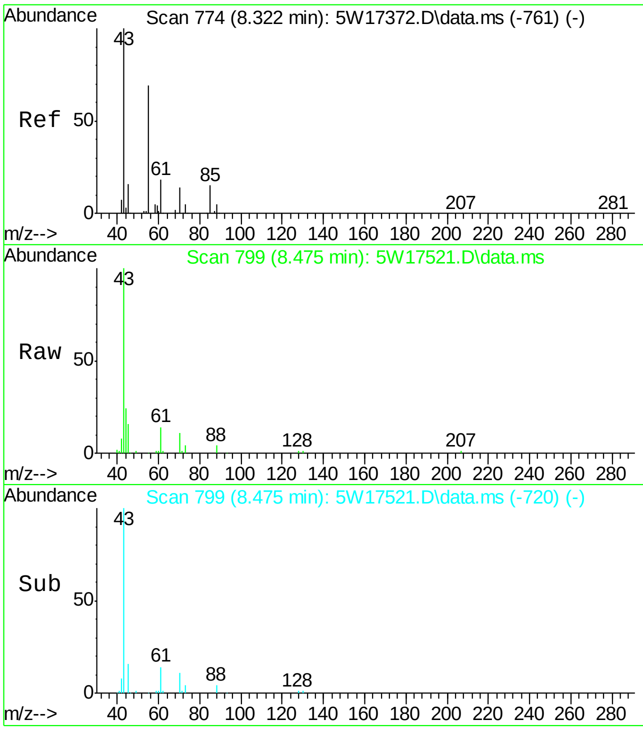


#40
cis-1,2-Dichloroethene
Concen: 0.48 ppb(v)
RT: 8.236 min   Scan# 760
Delta R.T.   0.171 min
Lab File: 5W17521.D
Acq: 6 Apr 2016   3:24 am

Tgt Ion: 61 Resp: 8659

Ion	Ratio	Lower	Upper
61	100		
63	33.9	23.0	42.8
96	79.1	59.3	110.1
98	49.4	38.2	71.0

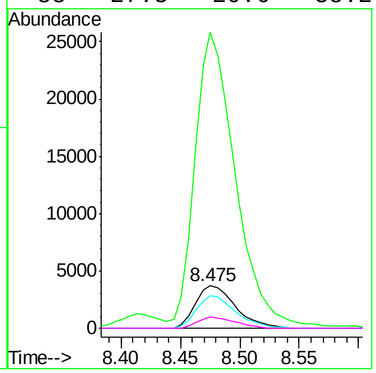


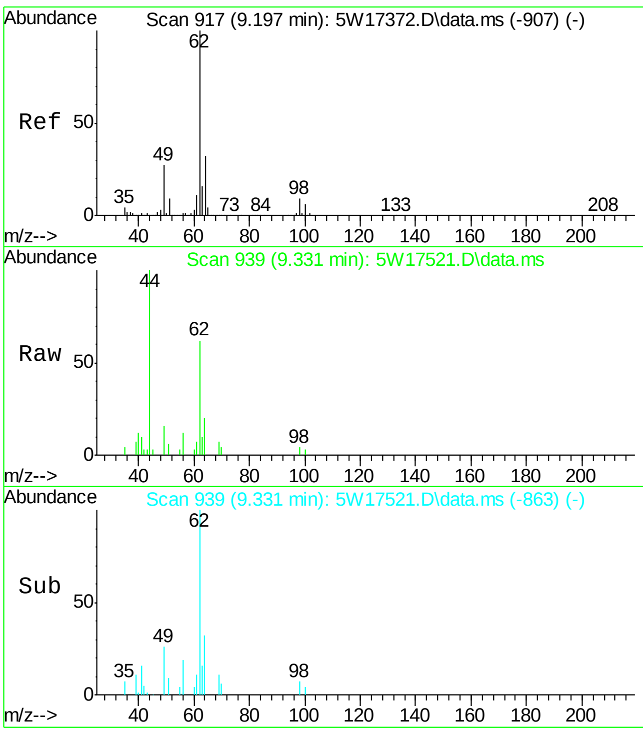


#42
Ethyl Acetate
Concen: 2.05 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 61 Resp: 8704

Ion	Ratio	Lower	Upper
61	100		
43	700.8	466.1	865.7
70	77.7	56.3	104.5
88	27.3	20.6	38.2

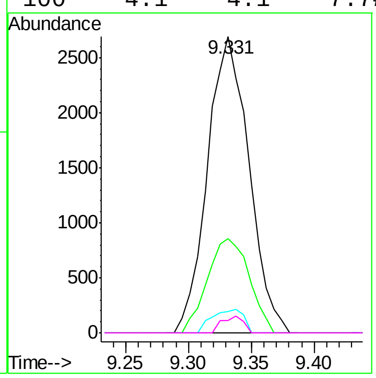


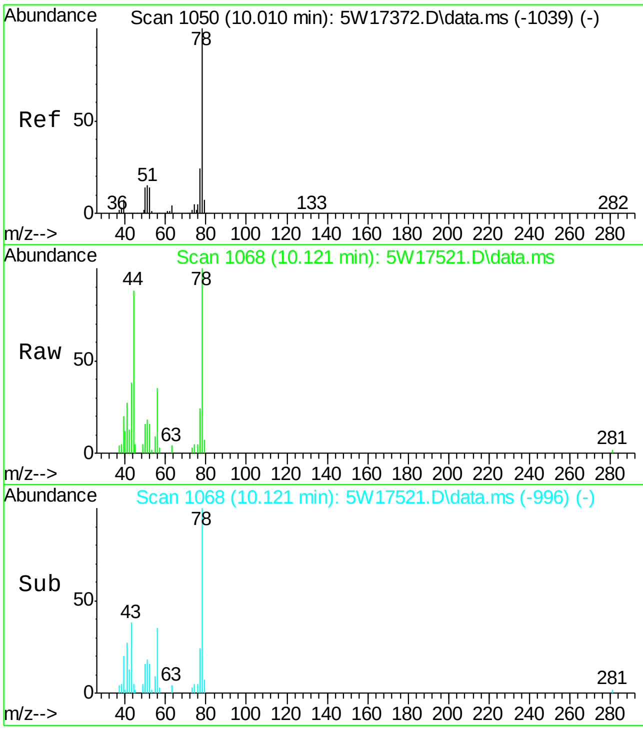


#48
1,2-Dichloroethane
Concen: 0.33 ppb(v)
RT: 9.331 min Scan# 939
Delta R.T. 0.135 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 62 Resp: 6157

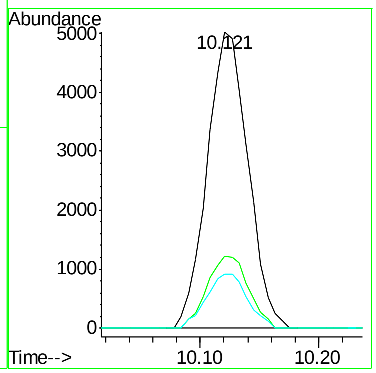
Ion	Ratio	Lower	Upper
62	100		
64	31.8	22.6	42.0
98	7.1	6.4	11.8
100	4.1	4.1	7.7#

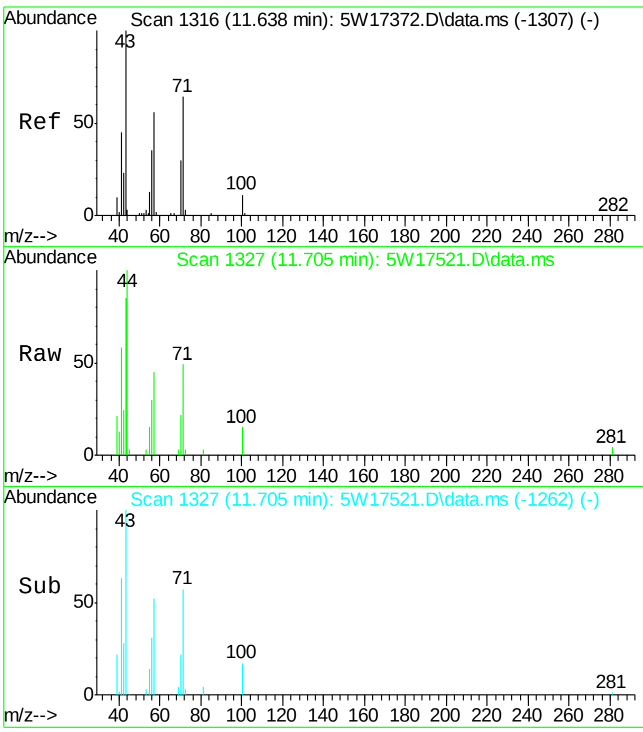





```
#49
Benzene
Concen:     0.27 ppb(v)
RT:   10.121 min   Scan# 1068
Delta R.T.   0.110 min
Lab File:    5W17521.D
Acq:  6 Apr 2016    3:24 am

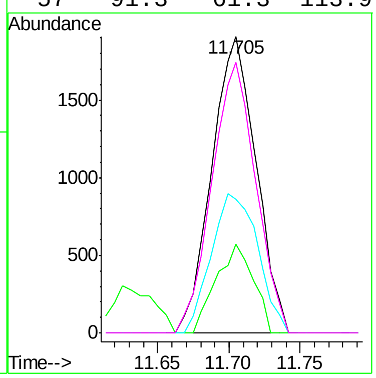
Tgt Ion: 78 Resp:    12070
Ion   Ratio   Lower   Upper
 78   100
 77    24.3    16.5    30.7
 51    18.4    10.5    19.5
```

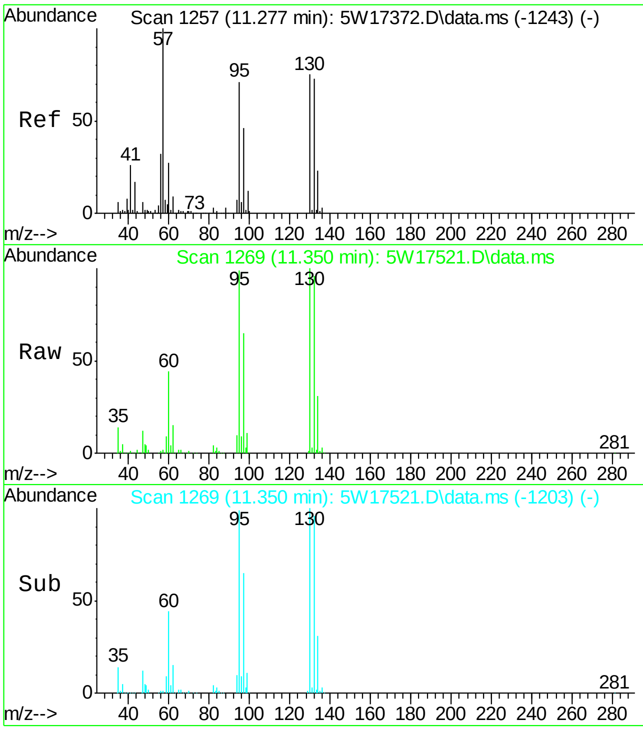





```
#55
Heptane
Concen:     0.30 ppb(v)
RT:   11.705 min   Scan# 1327
Delta R.T.   0.067 min
Lab File:    5W17521.D
Acq:  6 Apr 2016    3:24 am

Tgt Ion: 71 Resp:     4125
Ion   Ratio   Lower   Upper
 71   100
100    30.0    19.6    36.4
 70    45.0    34.0    63.2
 57    91.3    61.3   113.9
```

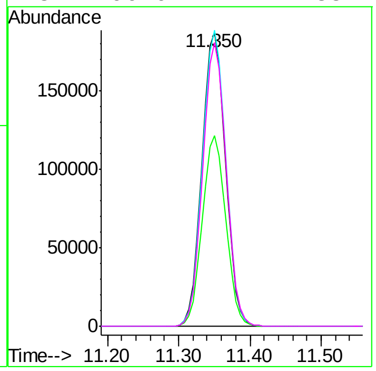


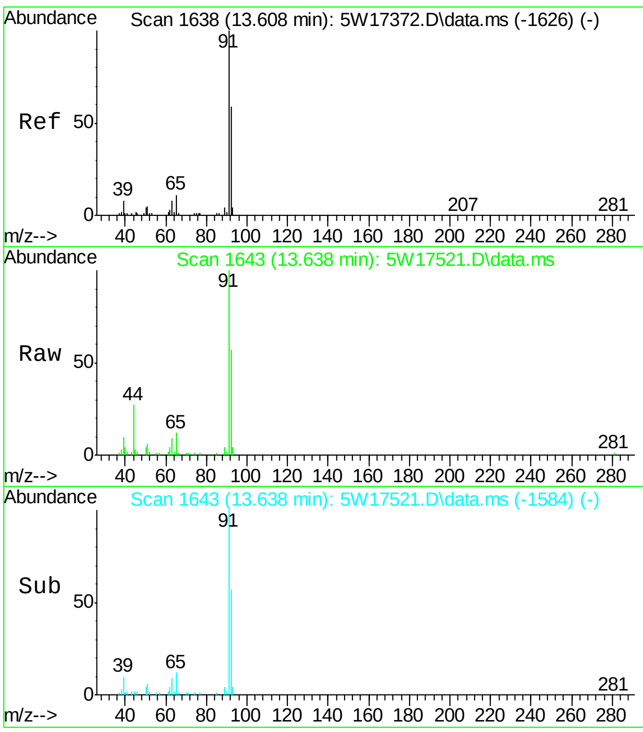


#56
Trichloroethene
Concen: 19.01 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.074 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 95 Resp: 425427

Ion	Ratio	Lower	Upper
95	100		
97	65.1	45.4	84.4
130	100.8	74.1	137.5
132	96.6	71.7	133.1

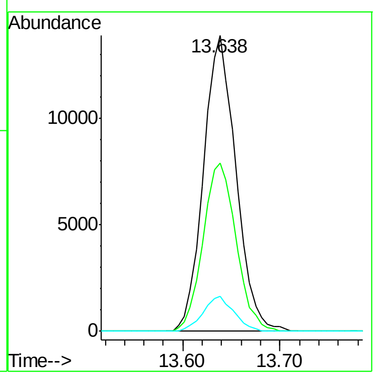


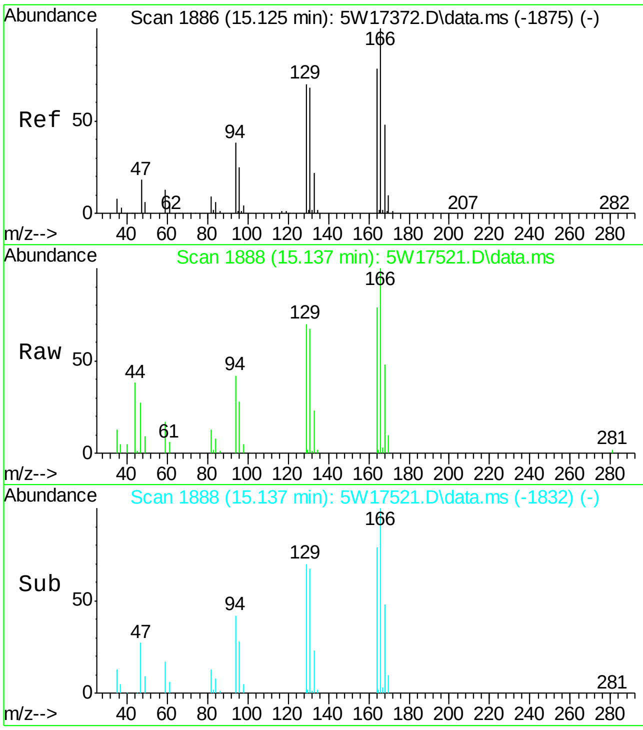


#66
Toluene
Concen: 0.57 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 91 Resp: 31994

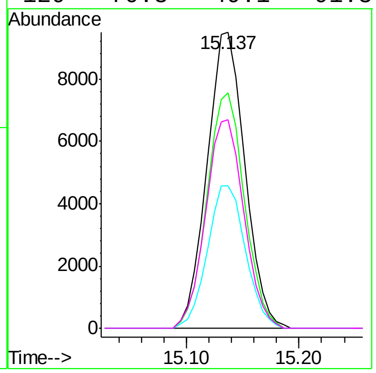
Ion	Ratio	Lower	Upper
91	100		
92	56.8	41.2	76.6
65	11.7	7.3	13.7

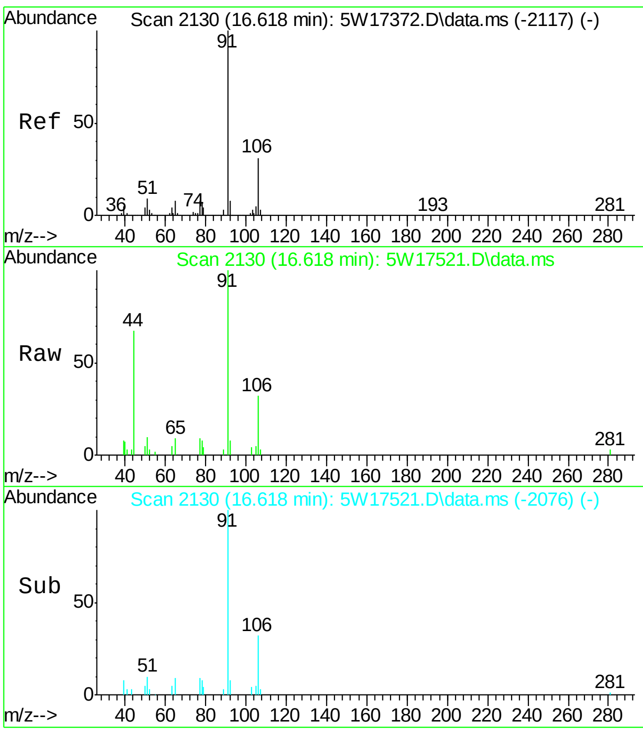





```
#72
Tetrachloroethene
Concen:     0.69 ppb(v)
RT:   15.137 min   Scan# 1888
Delta R.T.   0.012 min
Lab File:    5W17521.D
Acq:  6 Apr 2016   3:24 am

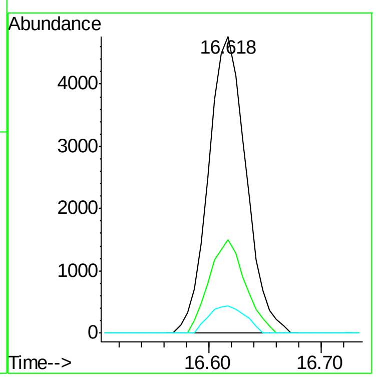
Tgt Ion:166 Resp:    22113
Ion  Ratio   Lower   Upper
166  100
164    79.4    54.6   101.4
168    48.3    33.5    62.3
129    70.3    49.1    91.3
```

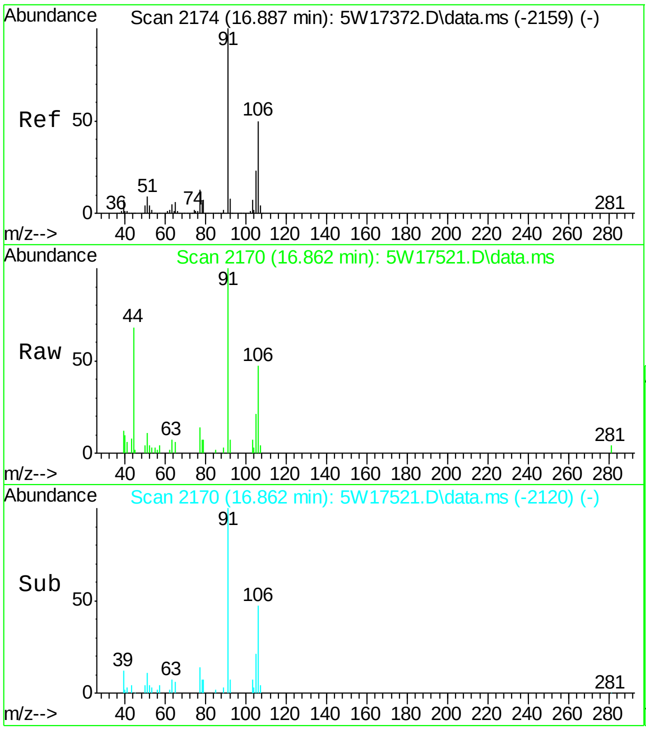





```
#78
Ethylbenzene
Concen:     0.15 ppb(v)
RT:   16.618 min   Scan# 2130
Delta R.T.   0.000 min
Lab File:    5W17521.D
Acq:  6 Apr 2016   3:24 am

Tgt Ion: 91 Resp:    11061
Ion  Ratio   Lower   Upper
 91  100
106    31.6    22.0    40.8
 77     9.2     5.9    10.9
```

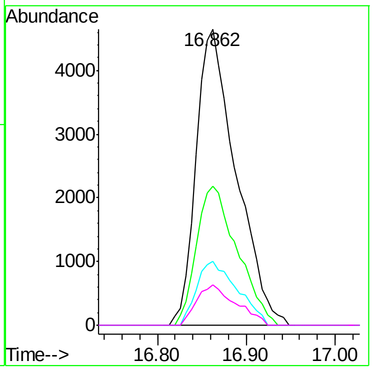


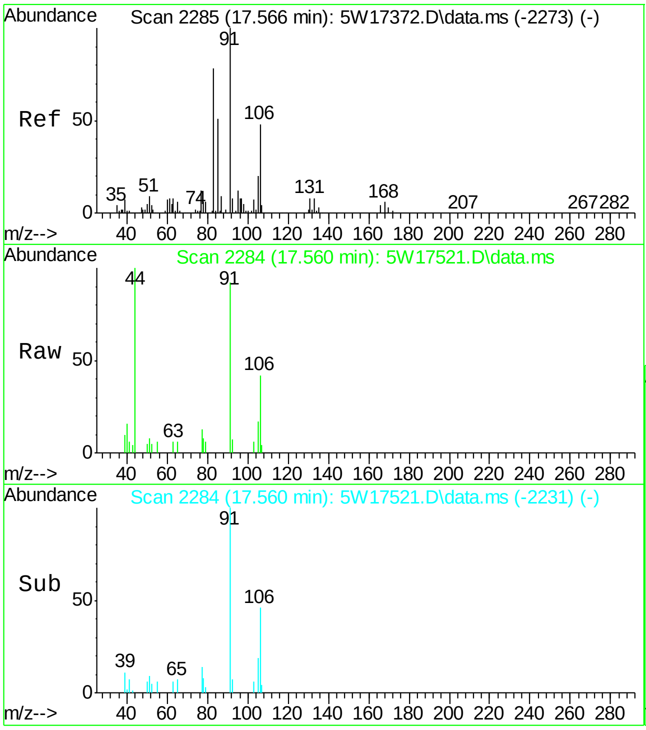


#79
m,p-Xylene
Concen: 0.25 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 91 Resp: 14461

Ion	Ratio	Lower	Upper
91	100		
106	47.0	35.3	65.5
105	21.5	16.2	30.0
77	13.6	9.0	16.8

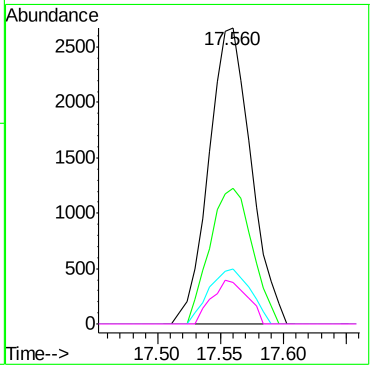


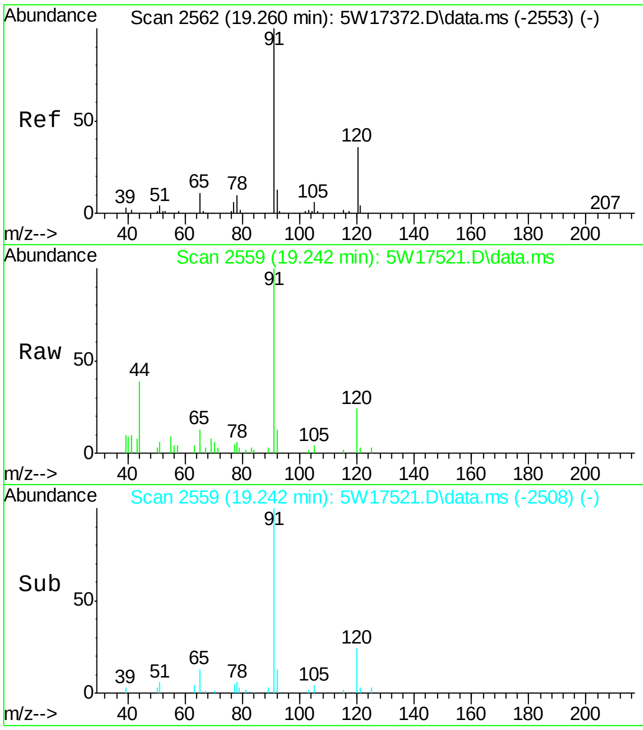


#82
o-Xylene
Concen: 0.10 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion: 91 Resp: 6217

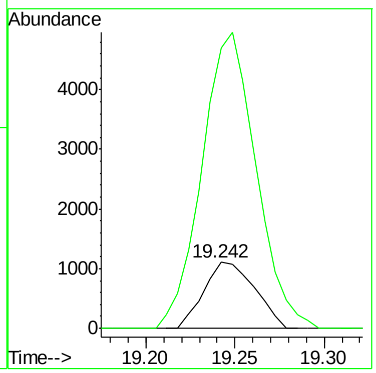
Ion	Ratio	Lower	Upper
91	100		
106	45.7	33.5	62.3
105	18.6	13.7	25.5
77	14.2	8.4	15.6

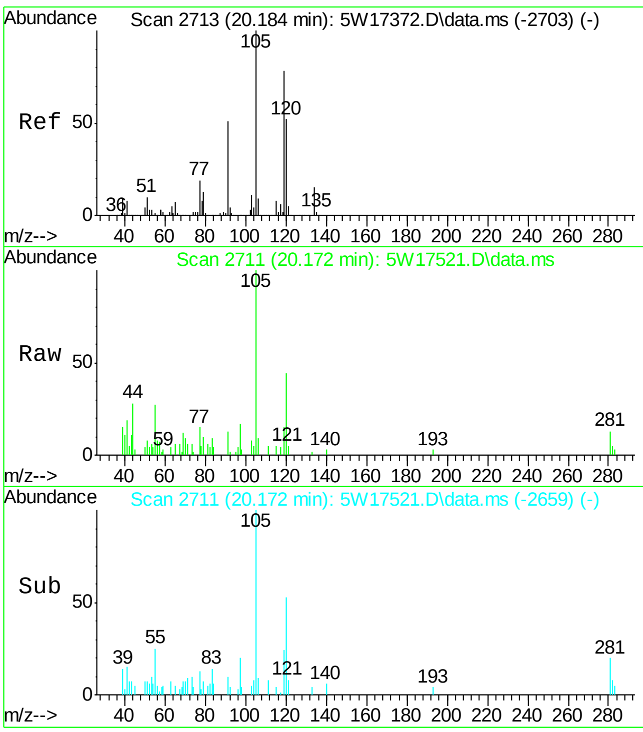




#89
n-Propylbenzene
Concen: 0.10 ppb(v)
RT: 19.242 min Scan# 2559
Delta R.T. -0.018 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

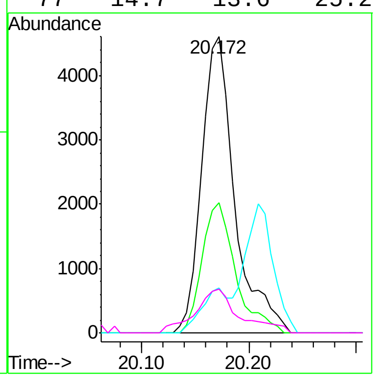
Tgt Ion:120	Resp:		2200
Ion	Ratio	Lower	Upper
120	100		
91	424.6	300.7	558.5

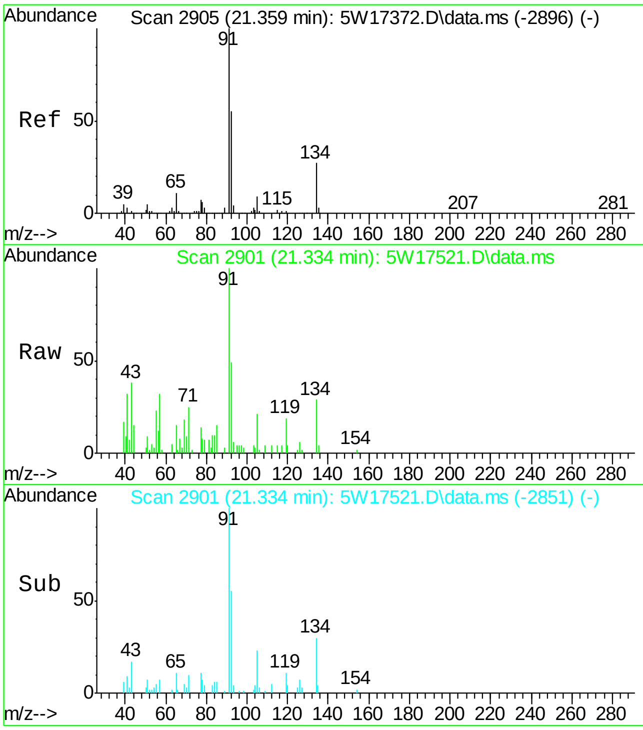




#95
1,2,4-Trimethylbenzene
Concen: 0.14 ppb(v)
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

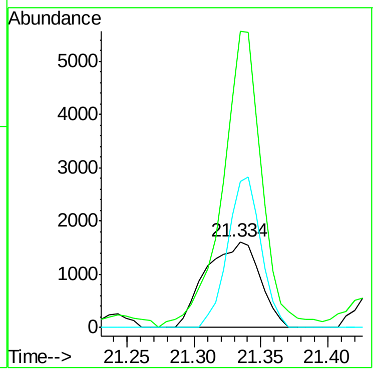
Tgt Ion:105	Resp:		9869
Ion	Ratio	Lower	Upper
105	100		
120	43.9	36.6	68.0
119	15.2	54.4	101.0#
77	14.7	13.6	25.2

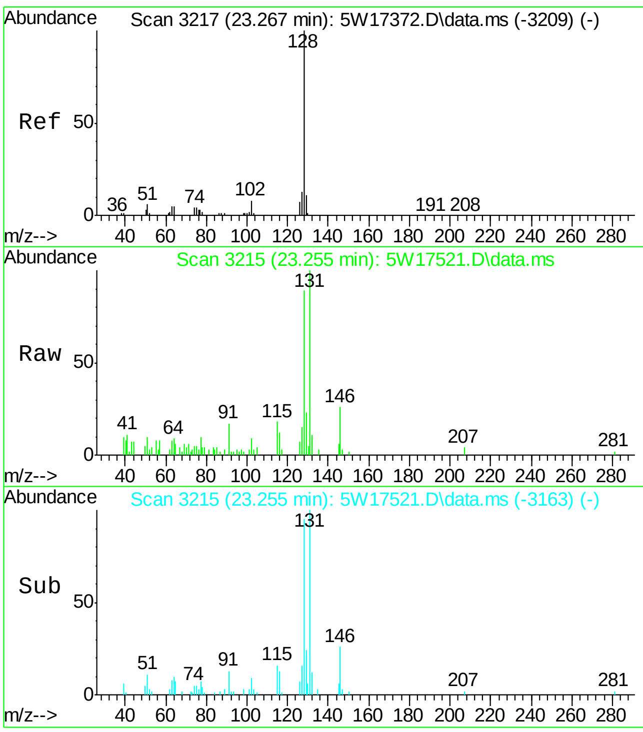




#102
n-Butylbenzene
Concen: 0.25 ppb(v)
RT: 21.334 min Scan# 2901
Delta R.T. -0.024 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

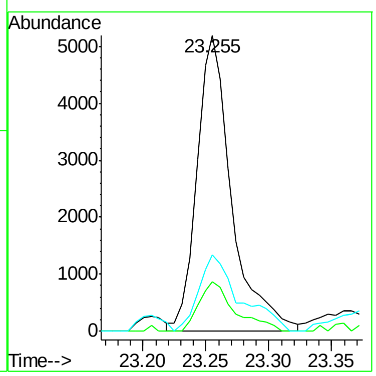
Tgt Ion:134	Resp:		4489
Ion	Ratio	Lower	Upper
134	100		
91	345.8	256.7	476.7
92	170.4	141.5	262.9





#105
Naphthalene
Concen: 0.16 ppb(v)
RT: 23.255 min Scan# 3215
Delta R.T. -0.012 min
Lab File: 5W17521.D
Acq: 6 Apr 2016 3:24 am

Tgt Ion:128	Resp:		10027
Ion	Ratio	Lower	Upper
128	100		
127	16.6	9.0	16.8
129	25.7	7.7	14.3#



7.1.2
7

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 14:25

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17522.D
Acq On    :  6 Apr 2016   4:10 am
Operator  : THOMASH
Sample    : JC17438-3
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 10:11:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.408	130	151082	10.00 ppb(v	0.16
53) 1,4-Difluorobenzene	10.537	114	556987	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	273932	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.408	130	151117	10.00 ppb(v	0.16
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	371800	9.91 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.10%		
Target Compounds					Qvalue
4) Chlorodifluoromethane	4.095	67	4027	1.08 ppb(v	91
6) Dichlorodifluoromethane	4.180	85	20654	0.60 ppb(v	99
8) Chloromethane	4.315	50	7856	0.73 ppb(v	98
12) n-Butane	4.645	58	2624m	1.35 ppb(v	
20) Trichlorofluoromethane	5.612	101	12682	0.35 ppb(v	99
21) Acetone	5.508	58	42805	7.29 ppb(v	65
22) Pentane	5.912	57	5234	1.79 ppb(v	83
25) Isopropyl Alcohol	5.716	43	5230	1.15 ppb(v	65
30) Ethanol	5.092	45	352480	70.64 ppb(v	99
34) tert-Butyl Alcohol	6.260	59	6260	0.23 ppb(v#	86
38) 2-Butanone	7.814	72	1396	0.24 ppb(v	88
39) Hexane	8.414	57	3106	0.15 ppb(v#	59
42) Ethyl Acetate	8.475	61	6554	1.64 ppb(v	84
44) Chloroform	8.542	83	6326	0.21 ppb(v#	96
49) Benzene	10.121	78	8698	0.21 ppb(v	96
55) Heptane	11.705	71	1420	0.11 ppb(v#	85
66) Toluene	13.638	91	14327	0.27 ppb(v	97
72) Tetrachloroethene	15.131	166	11580	0.38 ppb(v	98
74) Octane	14.966	43	4458	0.16 ppb(v	90
79) m,p-Xylene	16.862	91	7112	0.13 ppb(v	94
81) Nonane	17.927	43	5750	0.20 ppb(v	92
95) 1,2,4-Trimethylbenzene	20.166	105	8857	0.14 ppb(v#	56

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17522.D
Acq On    :  6 Apr 2016   4:10 am
Operator  : THOMASH
Sample    : JC17438-3
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 10:11:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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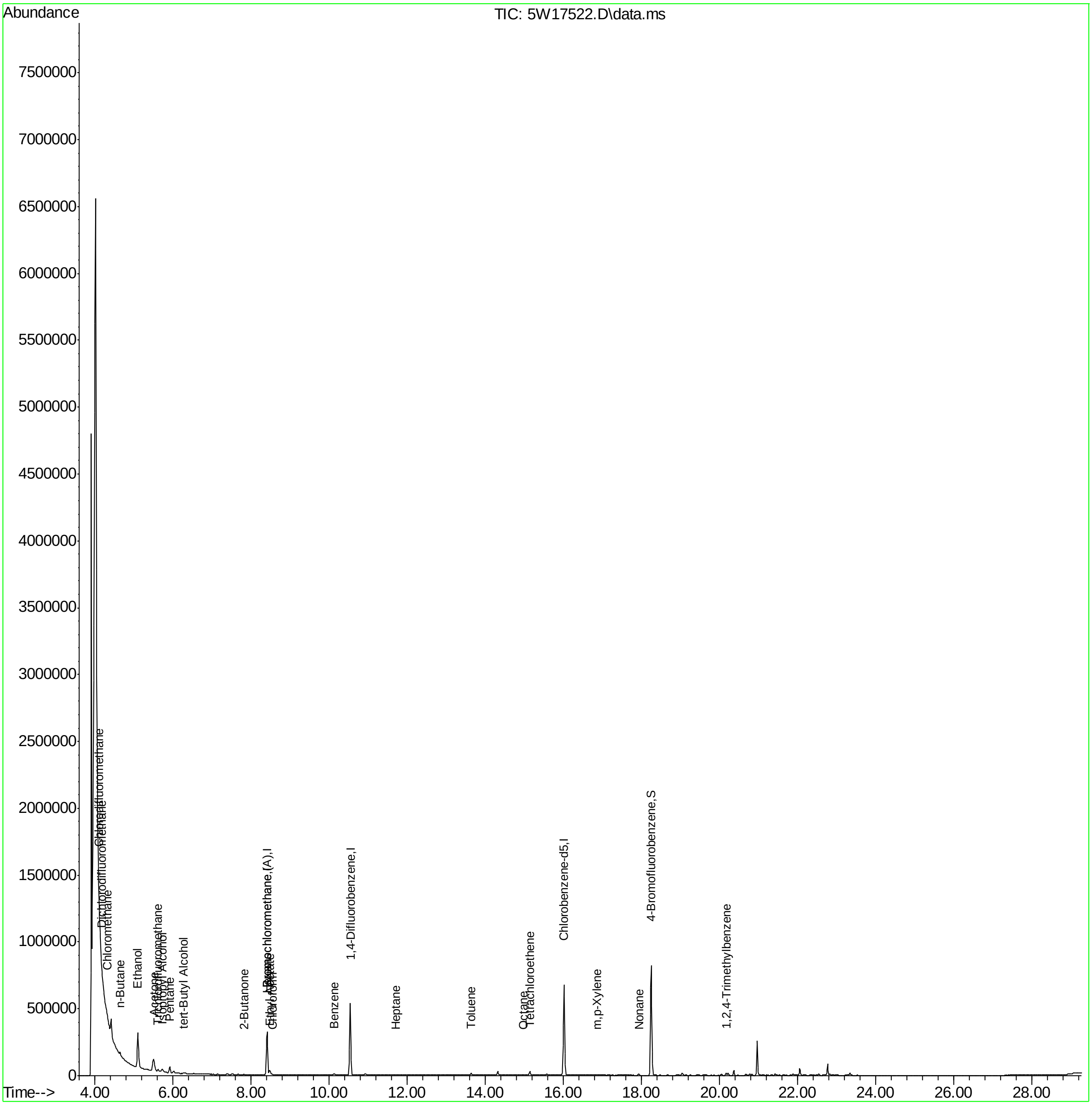
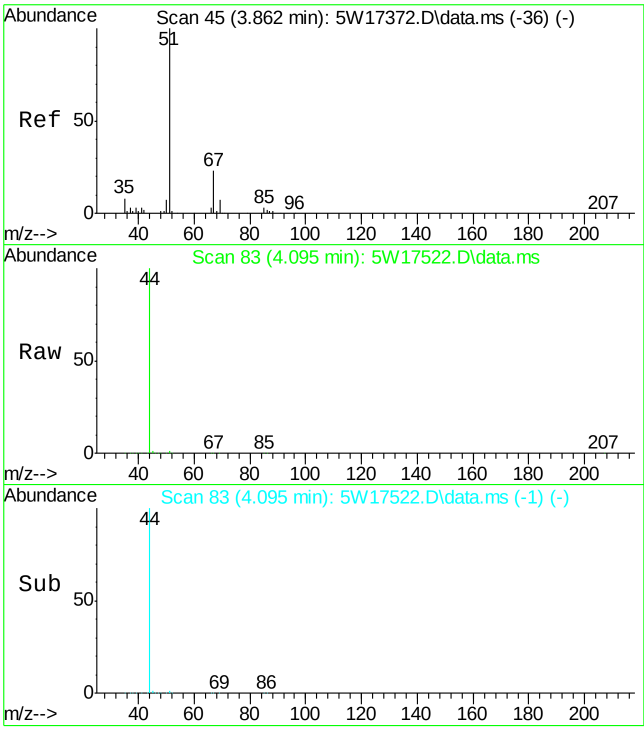
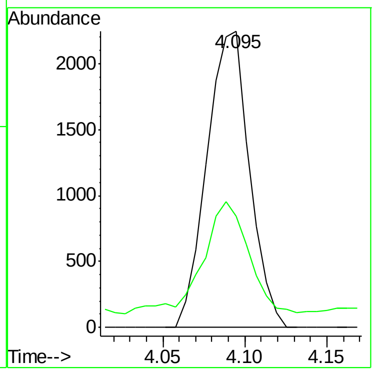


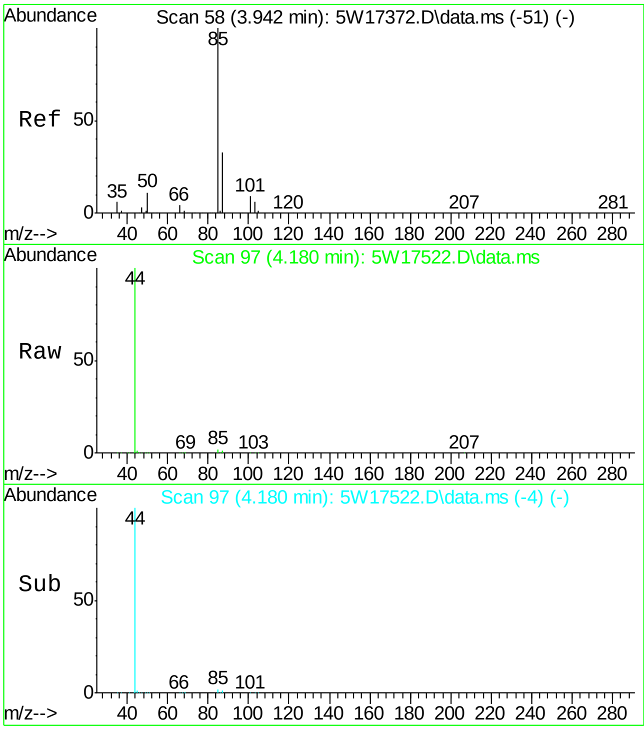


#4
Chlorodifluoromethane
Concen: 1.08 ppb(v)
RT: 4.095 min Scan# 83
Delta R.T. 0.233 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 67 Resp: 4027

Ion	Ratio	Lower	Upper
67	100		
69	37.5	22.7	42.1

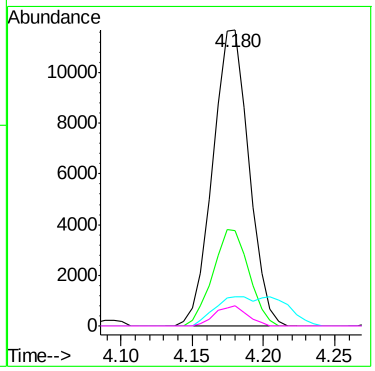


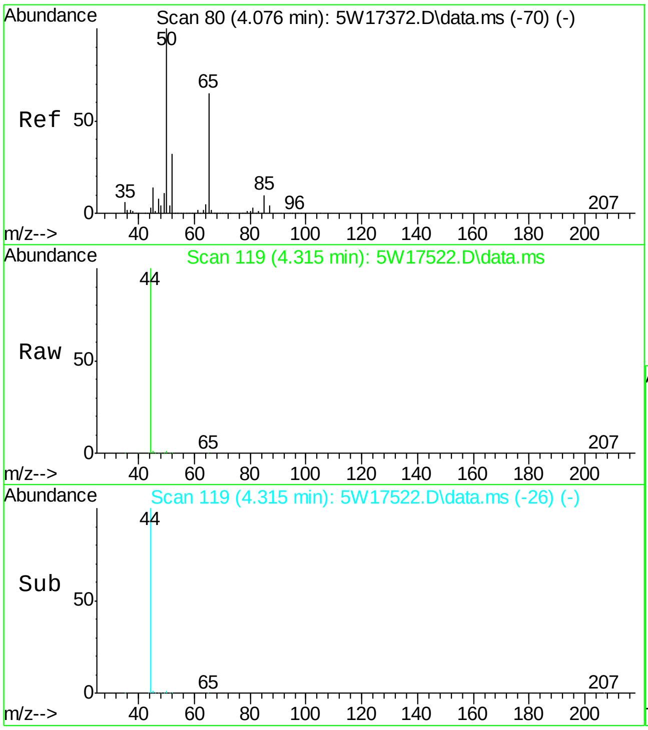


#6
Dichlorodifluoromethane
Concen: 0.60 ppb(v)
RT: 4.180 min Scan# 97
Delta R.T. 0.239 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 85 Resp: 20654

Ion	Ratio	Lower	Upper
85	100		
87	32.4	22.7	42.3
101	10.0	6.6	12.2
103	6.9	4.3	7.9

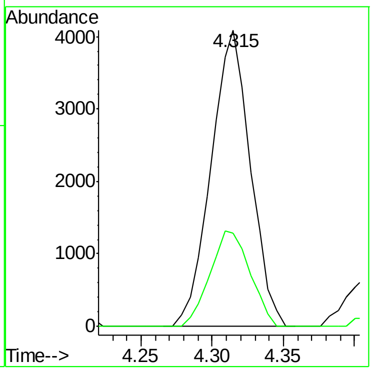


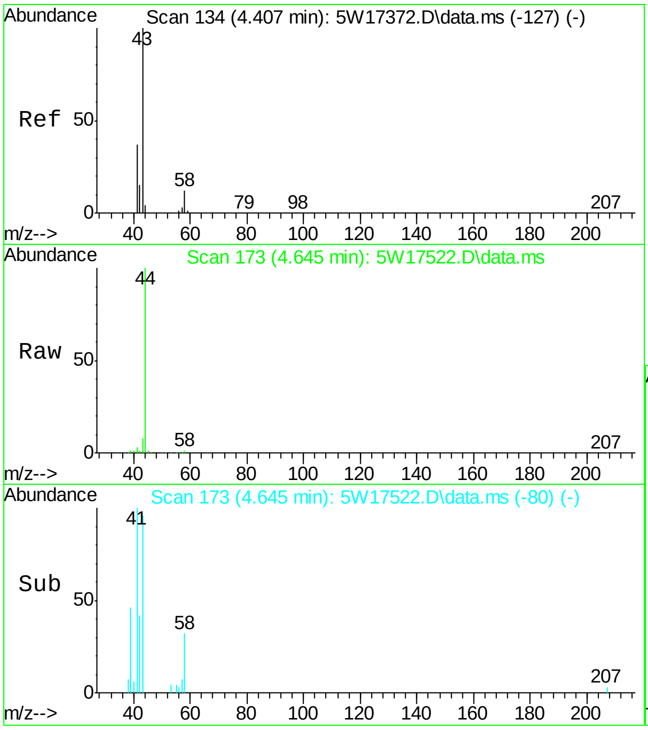


#8
Chloromethane
Concen: 0.73 ppb(v)
RT: 4.315 min Scan# 119
Delta R.T. 0.239 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 50 Resp: 7856

Ion	Ratio	Lower	Upper
50	100		
52	31.4	22.7	42.1

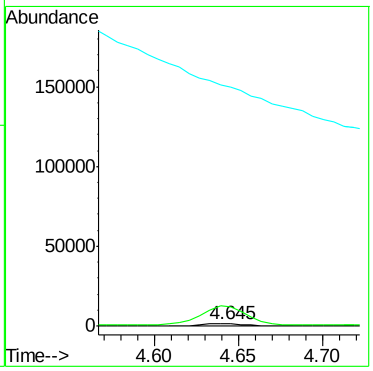


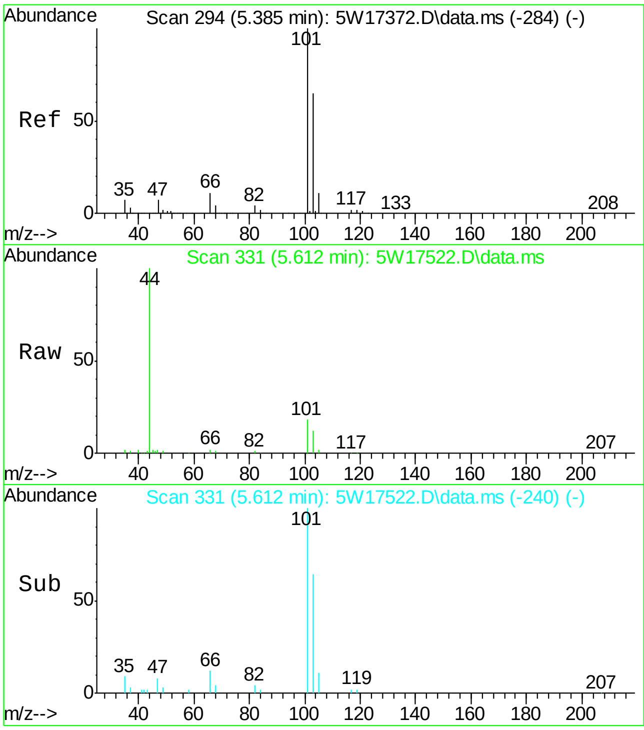


#12
n-Butane
Concen: 1.35 ppb(v) m
RT: 4.645 min Scan# 173
Delta R.T. 0.239 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 58 Resp: 2624

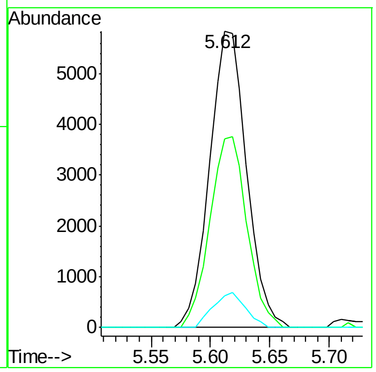
Ion	Ratio	Lower	Upper
58	100		
43	882.9	576.3	1070.3
44	10893.0	34.4	64.0#

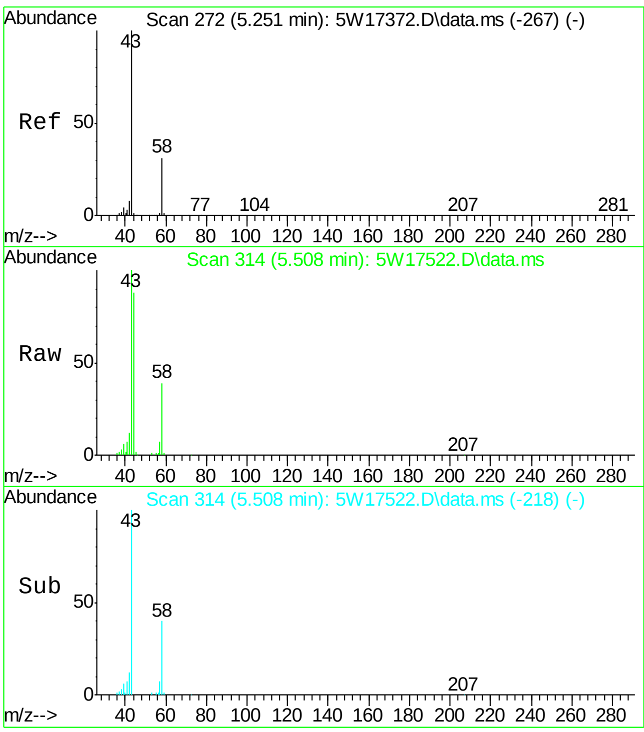





```
#20
Trichlorofluoromethane
Concen:     0.35 ppb(v)
RT:    5.612 min   Scan# 331
Delta R.T.  0.227 min
Lab File:   5W17522.D
Acq:  6 Apr 2016   4:10 am

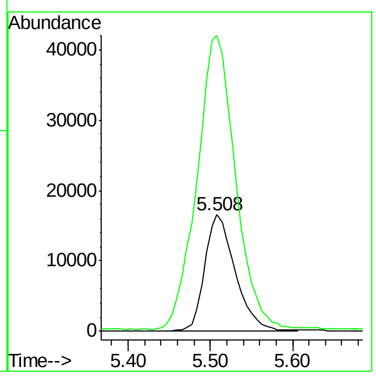
Tgt Ion:101 Resp:    12682
Ion  Ratio  Lower   Upper
101  100
103   63.8   45.1   83.9
105   10.5    7.5   13.9
```

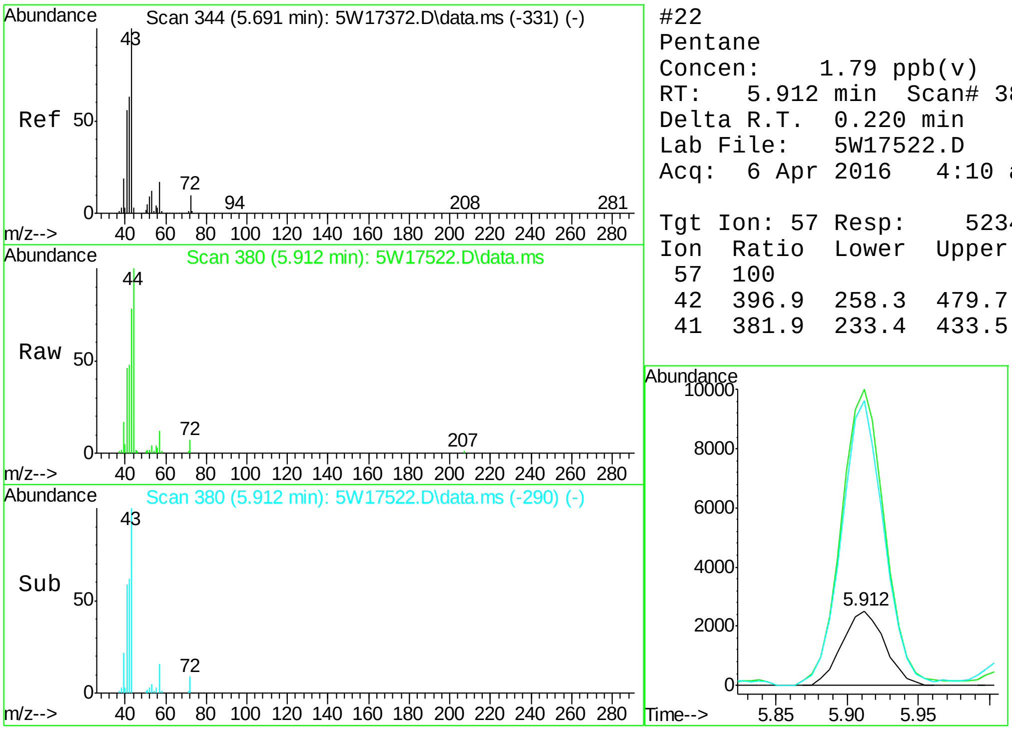





```
#21
Acetone
Concen:     7.29 ppb(v)
RT:    5.508 min   Scan# 314
Delta R.T.  0.257 min
Lab File:   5W17522.D
Acq:  6 Apr 2016   4:10 am

Tgt Ion: 58 Resp:    42805
Ion  Ratio  Lower   Upper
 58  100
 43  253.9  227.9   423.3
```

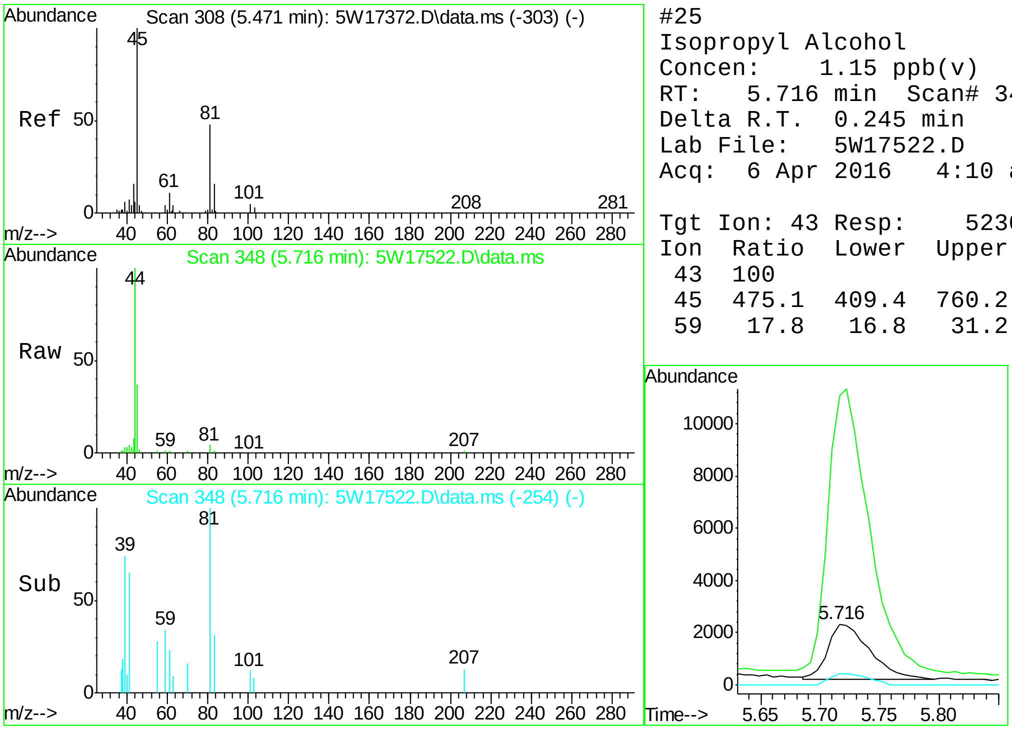




#22
Pentane
Concen: 1.79 ppb(v)
RT: 5.912 min Scan# 380
Delta R.T. 0.220 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 57 Resp: 5234

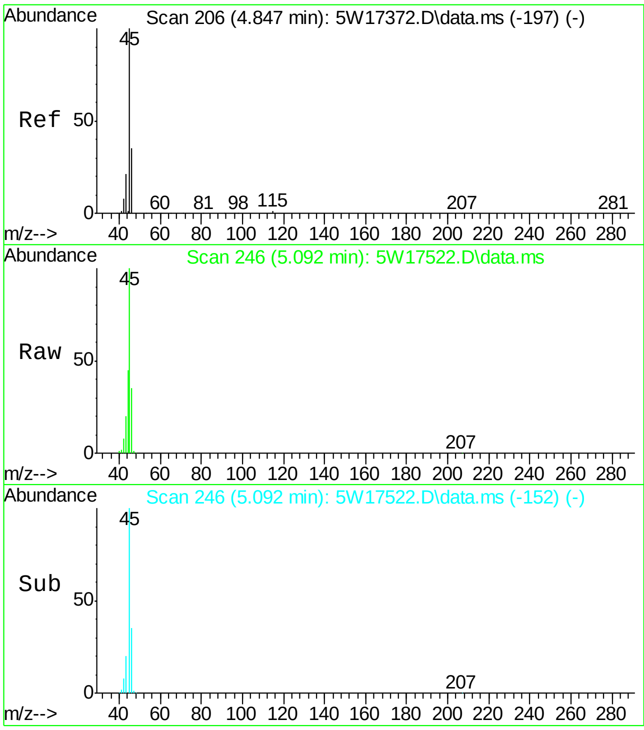
Ion	Ratio	Lower	Upper
57	100		
42	396.9	258.3	479.7
41	381.9	233.4	433.5



#25
Isopropyl Alcohol
Concen: 1.15 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 43 Resp: 5230

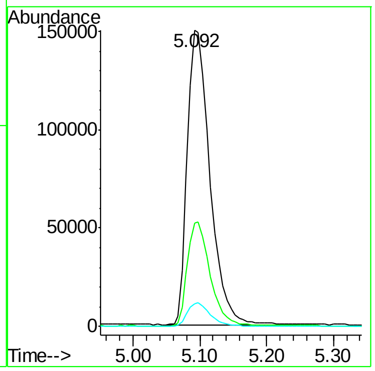
Ion	Ratio	Lower	Upper
43	100		
45	475.1	409.4	760.2
59	17.8	16.8	31.2

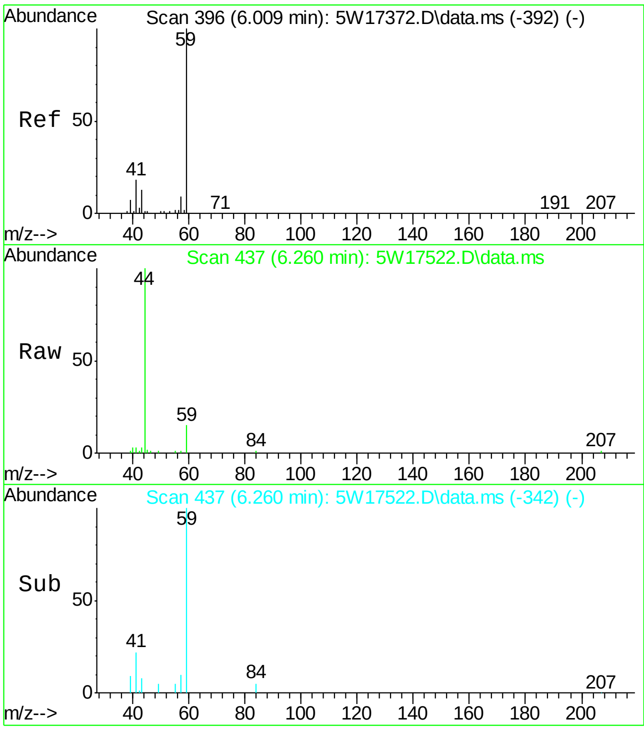


#30
Ethanol
Concen: 70.64 ppb(v)
RT: 5.092 min Scan# 246
Delta R.T. 0.245 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 45 Resp: 352480

Ion	Ratio	Lower	Upper
45	100		
46	34.9	24.6	45.8
42	7.7	6.5	12.1

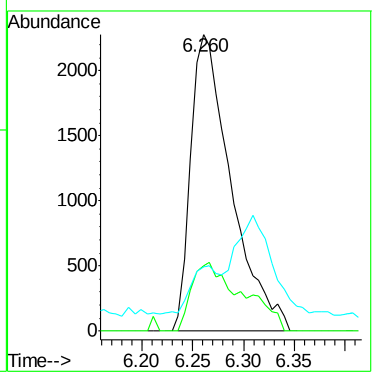


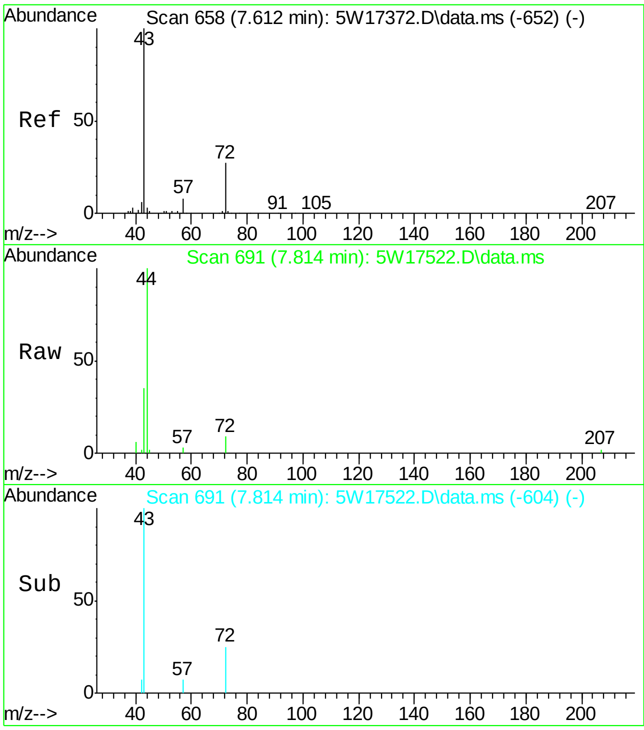


#34
tert-Butyl Alcohol
Concen: 0.23 ppb(v)
RT: 6.260 min Scan# 437
Delta R.T. 0.251 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 59 Resp: 6260

Ion	Ratio	Lower	Upper
59	100		
41	21.8	12.6	23.4
43	21.8	9.6	17.8#

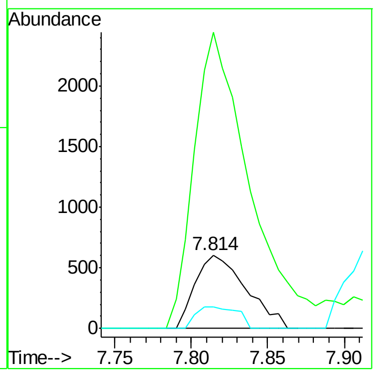


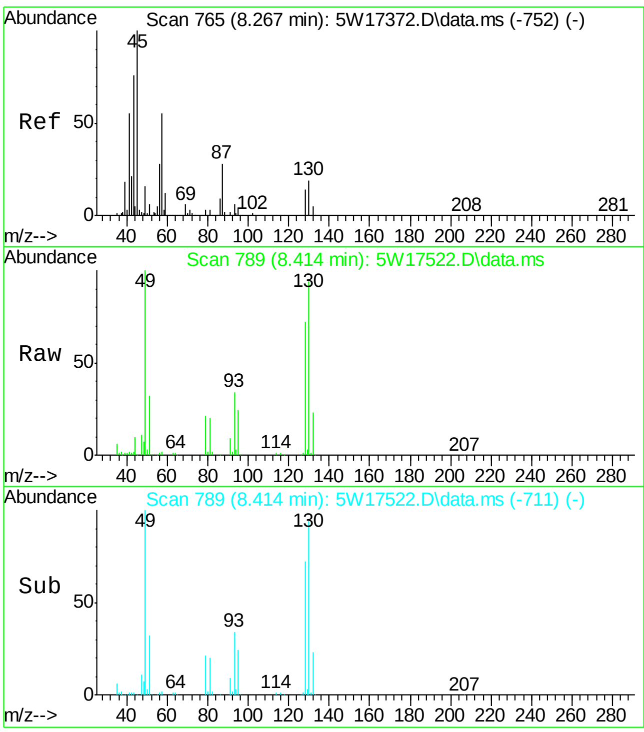


#38
2-Butanone
Concen: 0.24 ppb(v)
RT: 7.814 min Scan# 691
Delta R.T. 0.202 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 72 Resp: 1396

Ion	Ratio	Lower	Upper
72	100		
43	405.1	262.9	488.3
57	29.0	21.3	39.6

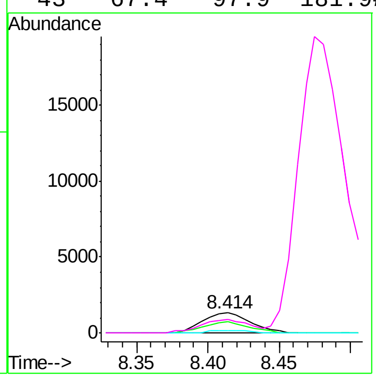


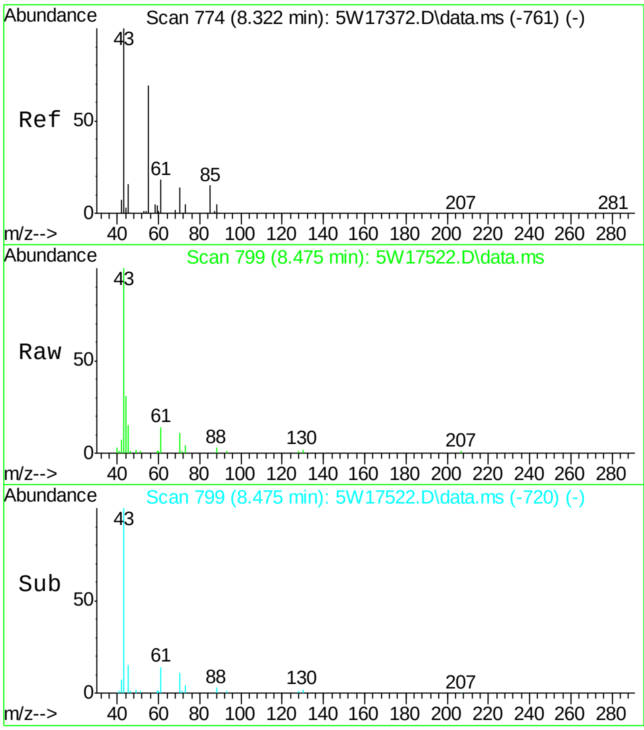


#39
Hexane
Concen: 0.15 ppb(v)
RT: 8.414 min Scan# 789
Delta R.T. 0.147 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 57 Resp: 3106

Ion	Ratio	Lower	Upper
57	100		
56	54.0	36.5	67.9
86	12.7	11.1	20.7
43	67.4	97.9	181.9#

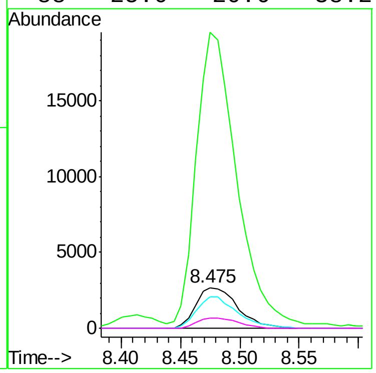


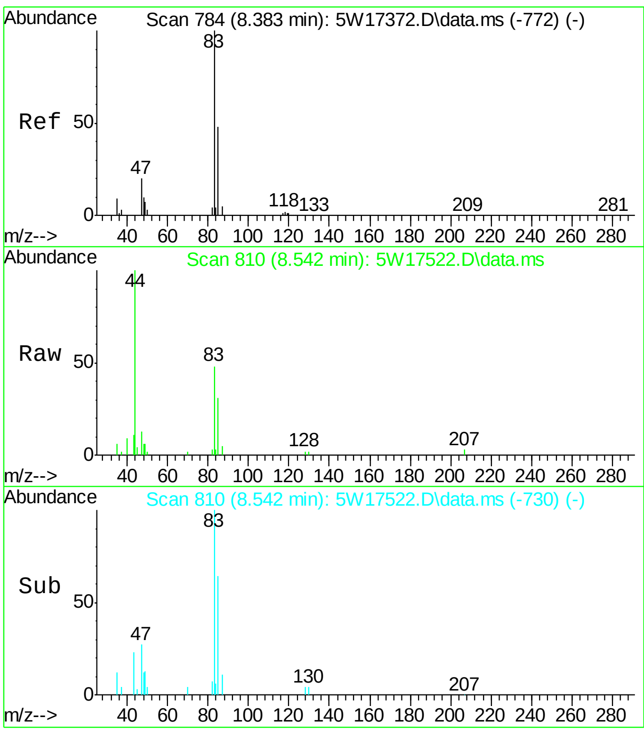


#42
Ethyl Acetate
Concen: 1.64 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 61 Resp: 6554

Ion	Ratio	Lower	Upper
61	100		
43	727.3	466.1	865.7
70	77.8	56.3	104.5
88	25.0	20.6	38.2

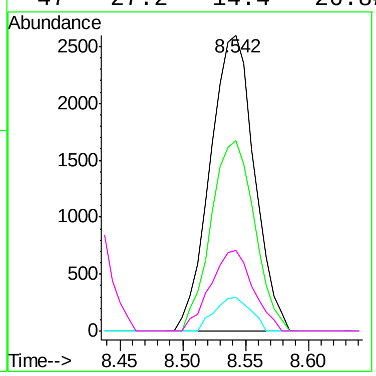


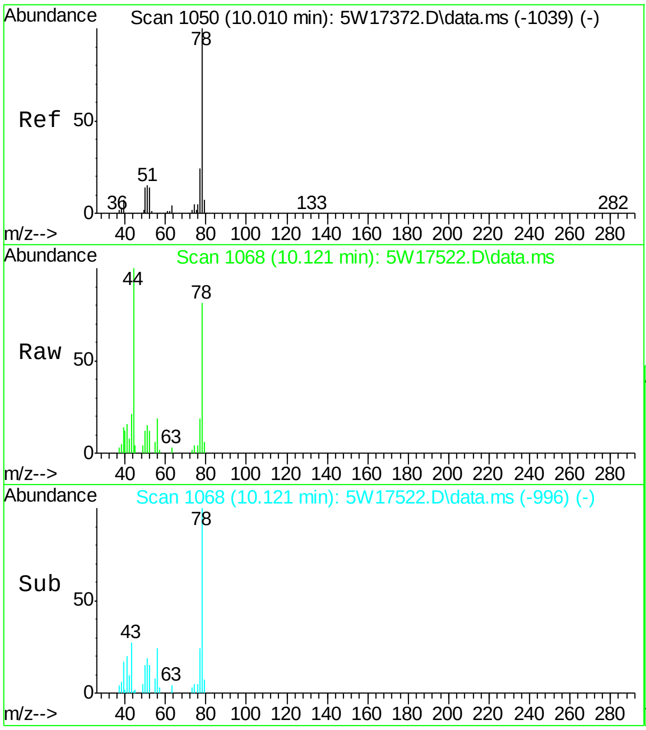


#44
Chloroform
Concen: 0.21 ppb(v)
RT: 8.542 min Scan# 810
Delta R.T. 0.159 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 83 Resp: 6326

Ion	Ratio	Lower	Upper
83	100		
85	64.4	45.4	84.2
87	11.4	7.3	13.5
47	27.2	14.4	26.8#

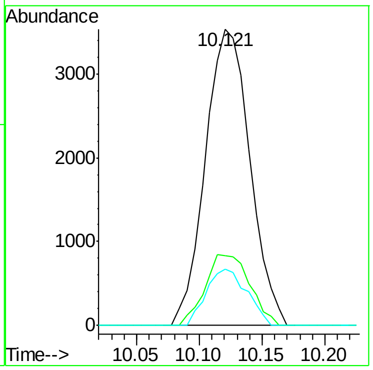


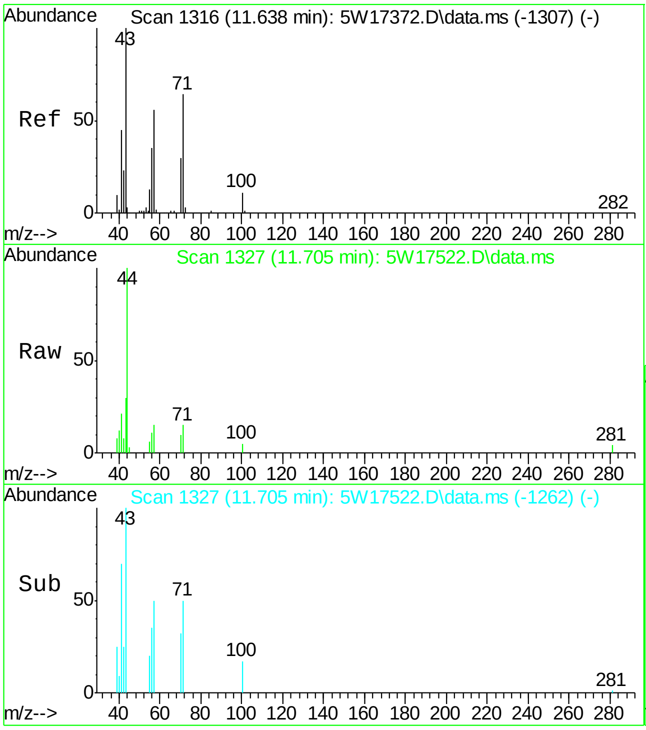


#49
Benzene
Concen: 0.21 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 78 Resp: 8698

Ion	Ratio	Lower	Upper
78	100		
77	23.5	16.5	30.7
51	19.1	10.5	19.5

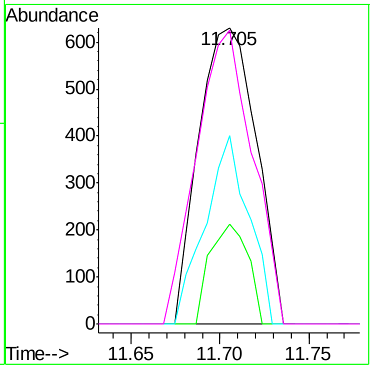


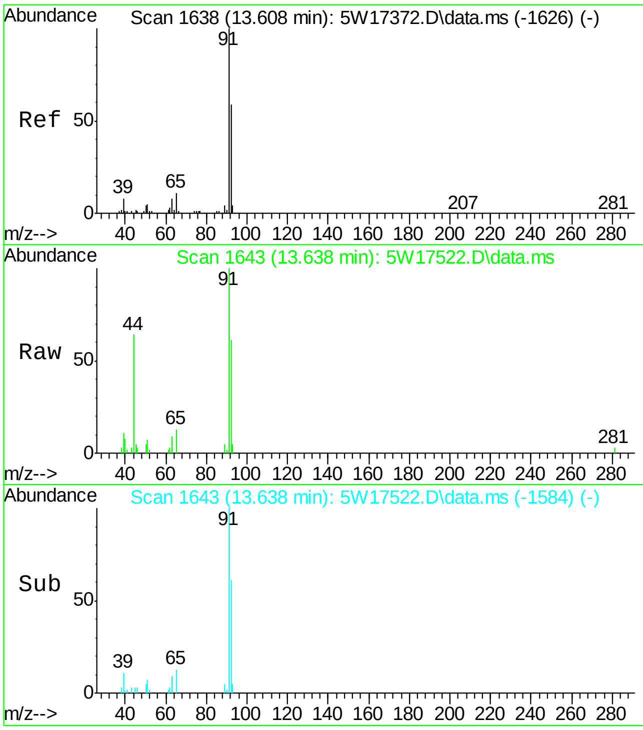


#55
Heptane
Concen: 0.11 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 71 Resp: 1420

Ion	Ratio	Lower	Upper
71	100		
100	33.8	19.6	36.4
70	63.7	34.0	63.2#
57	99.2	61.3	113.9

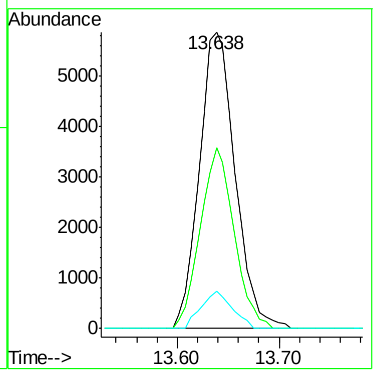


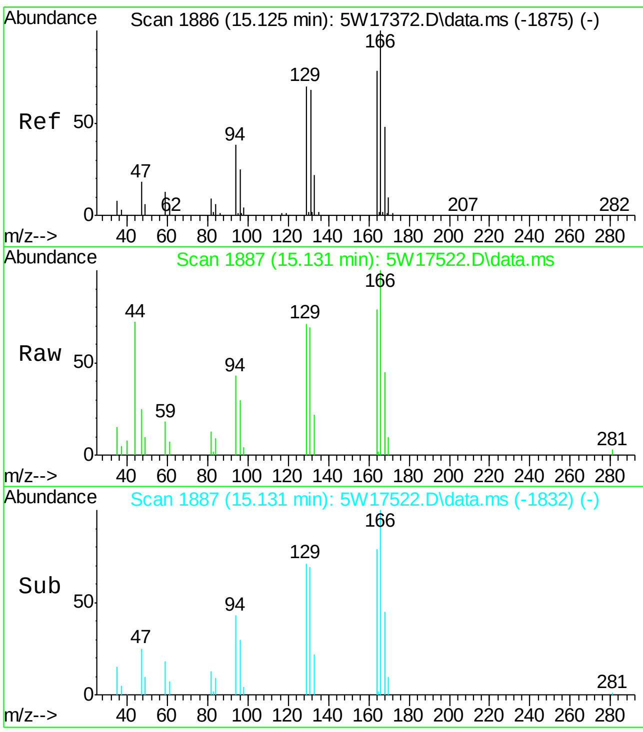


#66
Toluene
Concen: 0.27 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 91 Resp: 14327

Ion	Ratio	Lower	Upper
91	100		
92	61.1	41.2	76.6
65	12.5	7.3	13.7

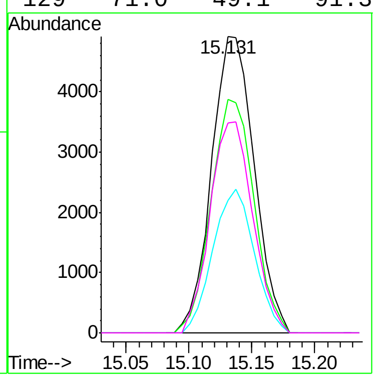


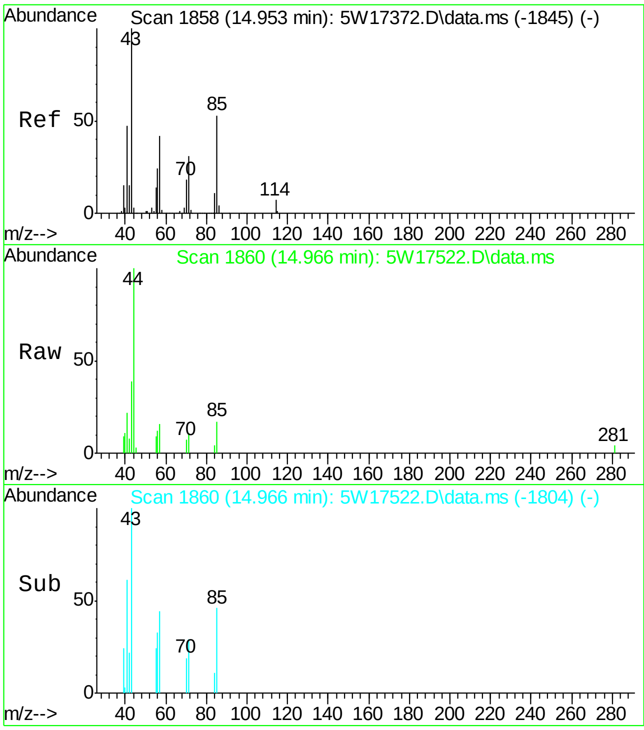


#72
Tetrachloroethene
Concen: 0.38 ppb(v)
RT: 15.131 min Scan# 1887
Delta R.T. 0.006 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion:166 Resp: 11580

Ion	Ratio	Lower	Upper
166	100		
164	78.9	54.6	101.4
168	44.6	33.5	62.3
129	71.0	49.1	91.3

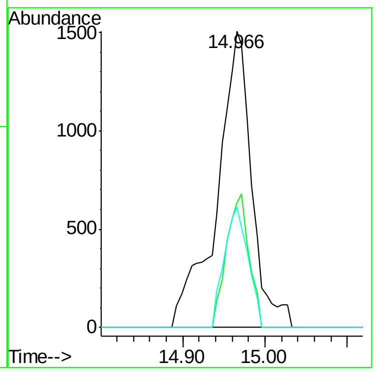


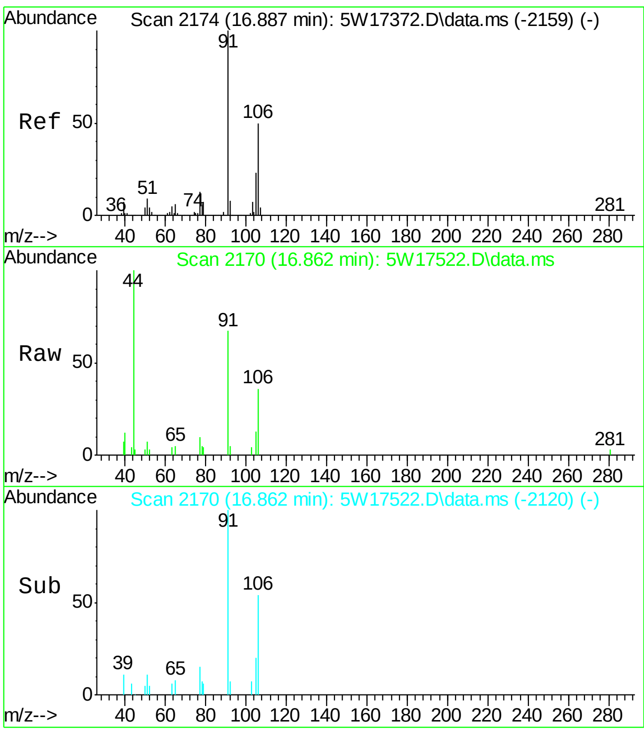


#74
Octane
Concen: 0.16 ppb(v)
RT: 14.966 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 43 Resp: 4458

Ion	Ratio	Lower	Upper
43	100		
85	42.1	37.1	68.9
57	40.6	29.6	55.0

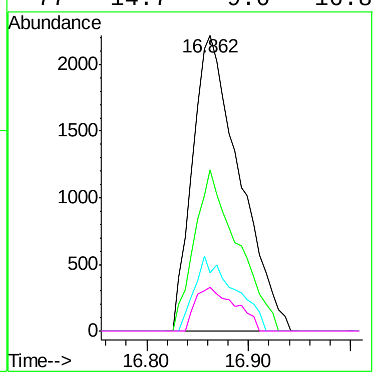


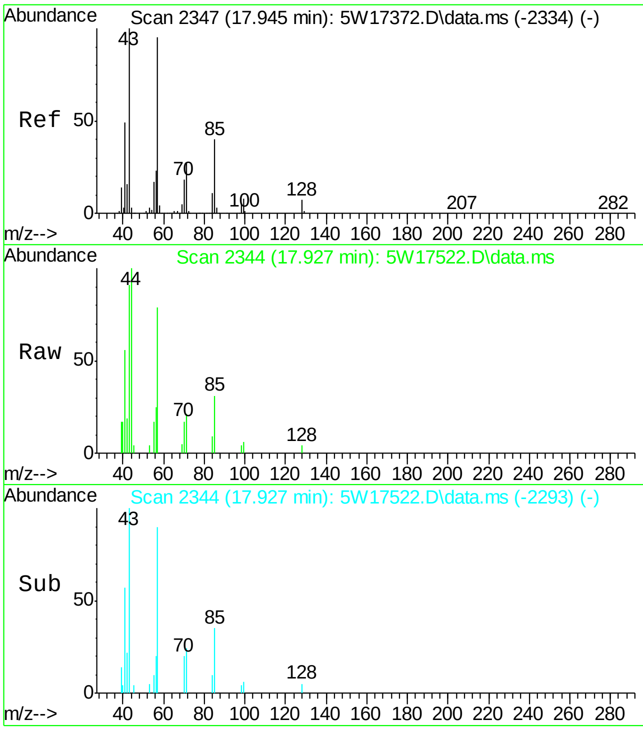


#79
m,p-Xylene
Concen: 0.13 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 91 Resp: 7112

Ion	Ratio	Lower	Upper
91	100		
106	54.4	35.3	65.5
105	19.9	16.2	30.0
77	14.7	9.0	16.8

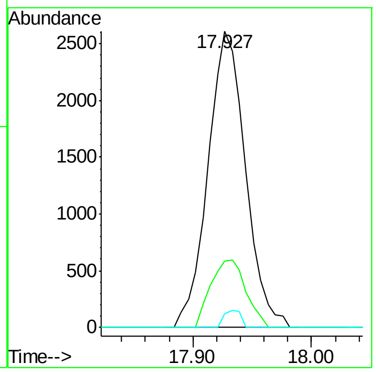


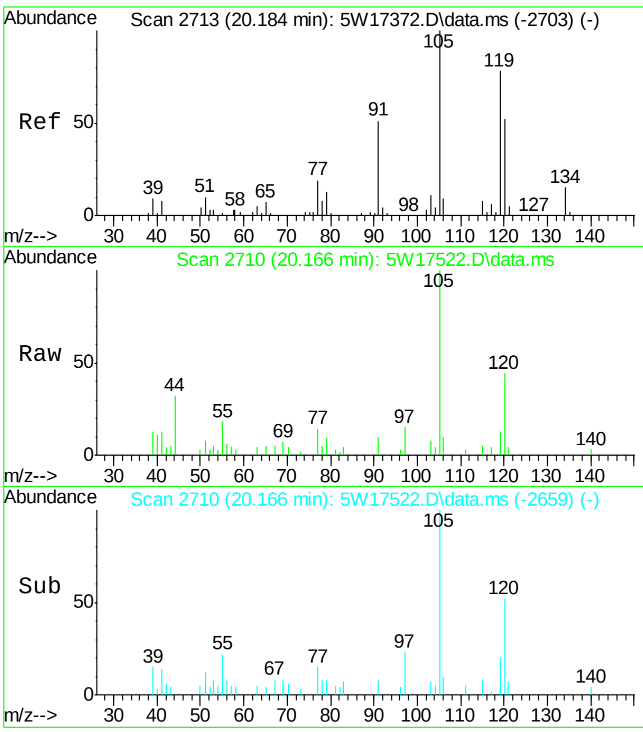


#81
Nonane
Concen: 0.20 ppb(v)
RT: 17.927 min Scan# 2344
Delta R.T. -0.018 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion: 43 Resp: 5750

Ion	Ratio	Lower	Upper
43	100		
71	22.6	18.9	35.1
128	4.7	4.6	8.6

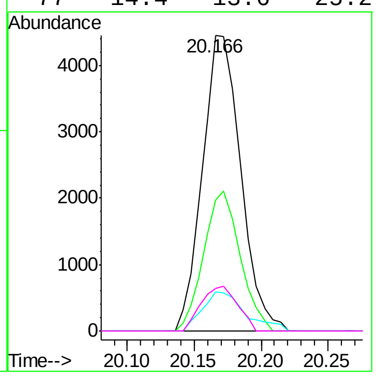




#95
1,2,4-Trimethylbenzene
Concen: 0.14 ppb(v)
RT: 20.166 min Scan# 2710
Delta R.T. -0.018 min
Lab File: 5W17522.D
Acq: 6 Apr 2016 4:10 am

Tgt Ion:105 Resp: 8857

Ion	Ratio	Lower	Upper
105	100		
120	44.2	36.6	68.0
119	13.2	54.4	101.0#
77	14.4	13.6	25.2



Manual Integration Approval Summary

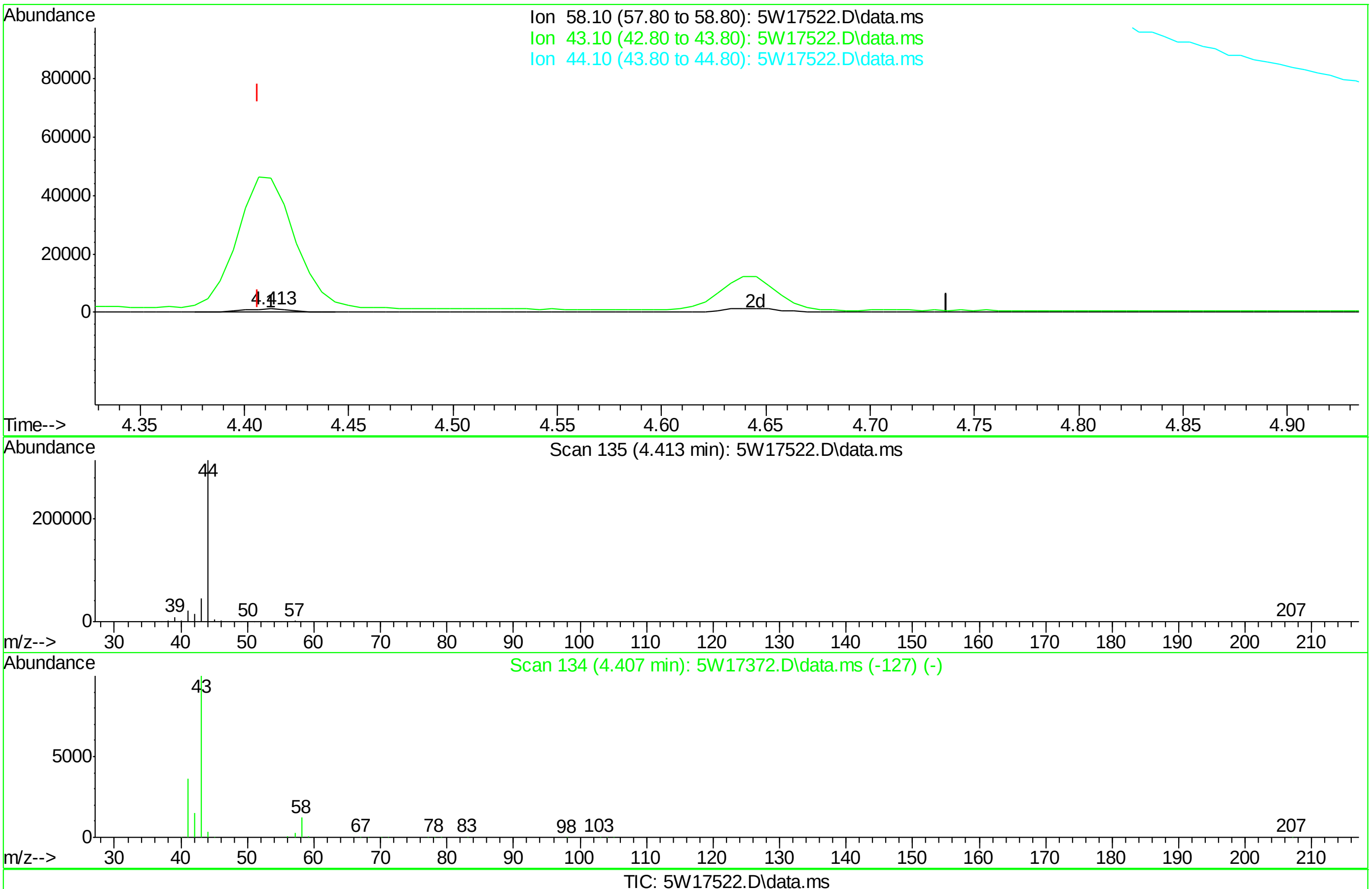
Sample Number:	JC17438-3	**Method:**	TO-15
Lab FileID:	5W17522.D	**Analyst approved:**	04/07/16 11:15 Dana Tryon
Injection Time:	04/06/16 04:10	**Supervisor approved:**	04/07/16 14:25 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17522.D
Acq On    :  6 Apr 2016   4:10 am
Operator  : THOMASH
Sample    : JC17438-3
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 06 07:40:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(12) n-Butane

4.413min (+0.006) 0.97ppb(v)

response 1889

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4175.05#
44.10	49.20	28371.79#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 14:27

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17523.D
Acq On    :  6 Apr 2016   4:58 am
Operator  : THOMASH
Sample    : JC17438-4
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 07 10:14:13 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

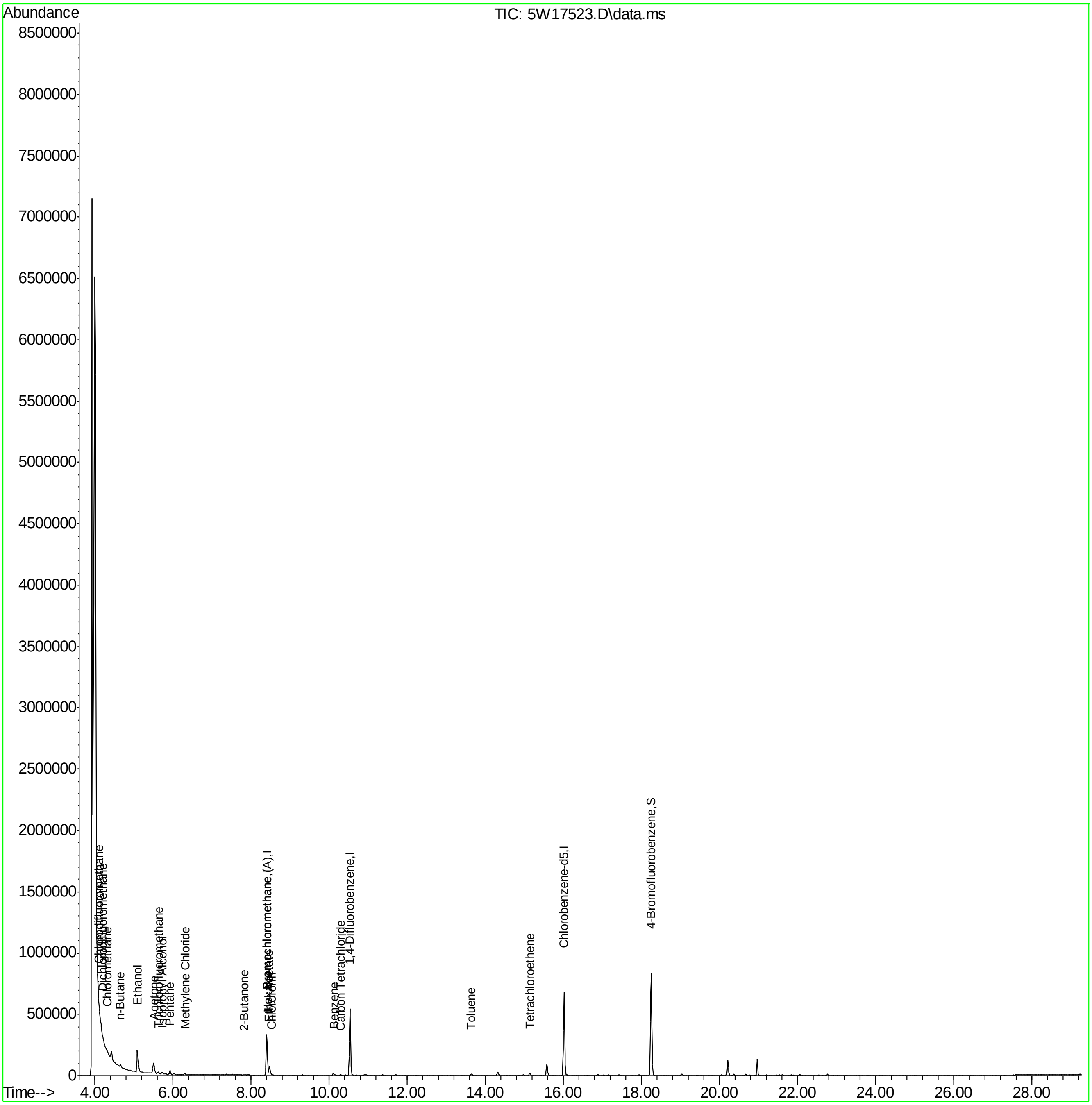

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.402	130	151071	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.531	114	557205	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	275064	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.402	130	151193	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	371629	9.87 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.70%		
Target Compounds					Qvalue
4) Chlorodifluoromethane	4.107	67	4894	1.32 ppb(v	96
6) Dichlorodifluoromethane	4.193	85	19620	0.57 ppb(v	97
8) Chloromethane	4.321	50	7463	0.70 ppb(v	100
12) n-Butane	4.651	58	2307m	1.19 ppb(v	
20) Trichlorofluoromethane	5.624	101	12706	0.35 ppb(v	99
21) Acetone	5.508	58	36078	6.14 ppb(v	78
22) Pentane	5.918	57	3755	1.29 ppb(v	88
25) Isopropyl Alcohol	5.716	43	4375	0.96 ppb(v	59
28) Methylene Chloride	6.303	84	5658	0.44 ppb(v	90
30) Ethanol	5.086	45	259408	51.99 ppb(v	99
38) 2-Butanone	7.808	72	1538	0.27 ppb(v	83
39) Hexane	8.420	57	7598	0.37 ppb(v#	57
42) Ethyl Acetate	8.463	61	14321	3.59 ppb(v	89
44) Chloroform	8.530	83	4735	0.15 ppb(v	96
49) Benzene	10.115	78	7064	0.17 ppb(v	95
50) Carbon Tetrachloride	10.286	117	2508	0.08 ppb(v	93
66) Toluene	13.638	91	13243	0.25 ppb(v	98
72) Tetrachloroethene	15.137	166	7641	0.25 ppb(v	99

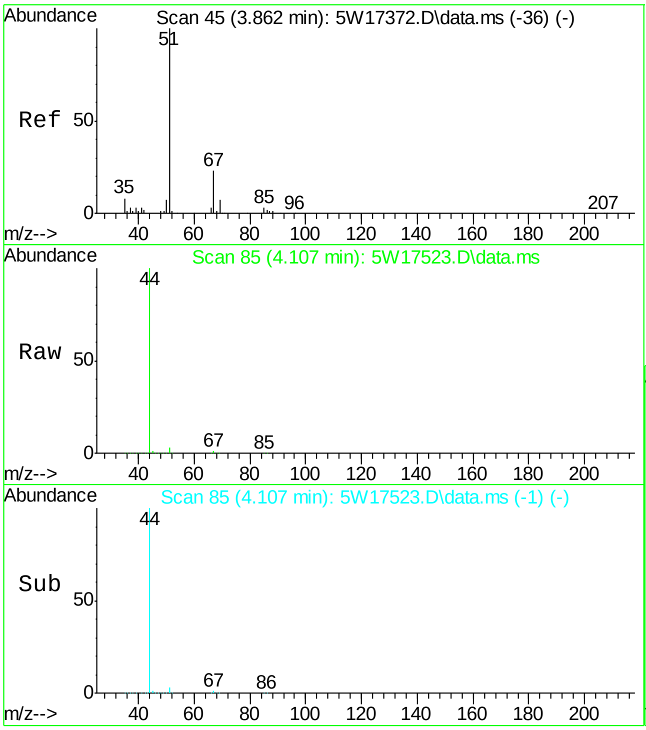
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17523.D
Acq On    :  6 Apr 2016   4:58 am
Operator  : THOMASH
Sample    : JC17438-4
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 07 10:14:13 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

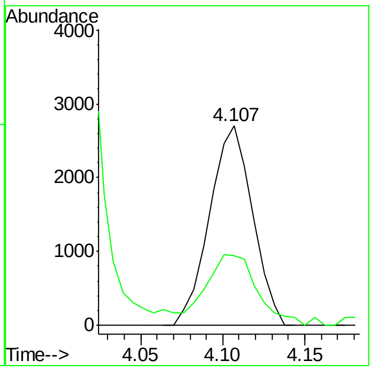


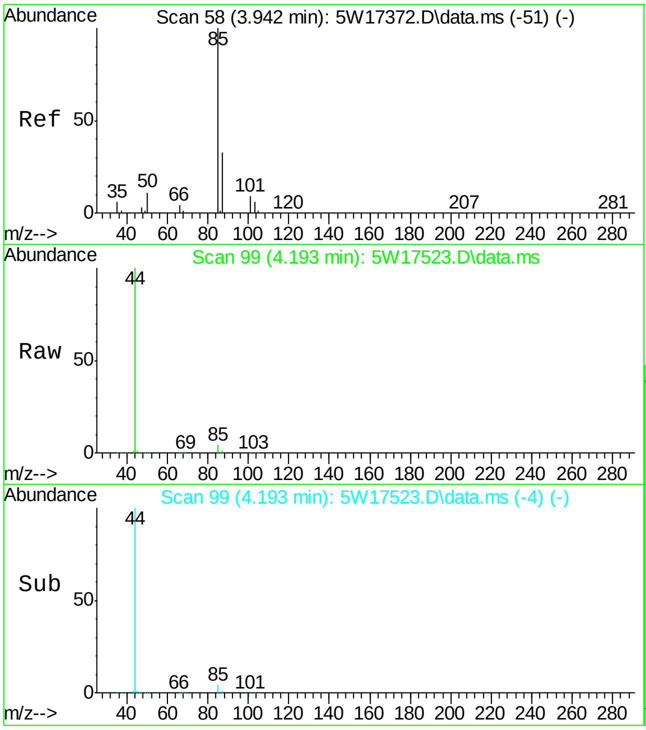


#4
Chlorodifluoromethane
Concen: 1.32 ppb(v)
RT: 4.107 min Scan# 85
Delta R.T. 0.245 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 67 Resp: 4894

Ion	Ratio	Lower	Upper
67	100		
69	34.7	22.7	42.1

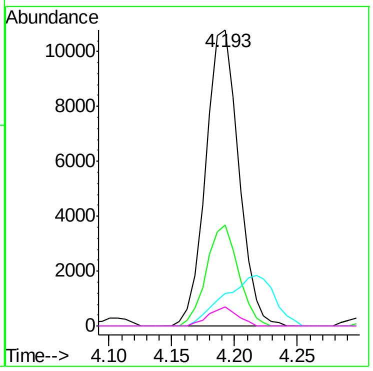


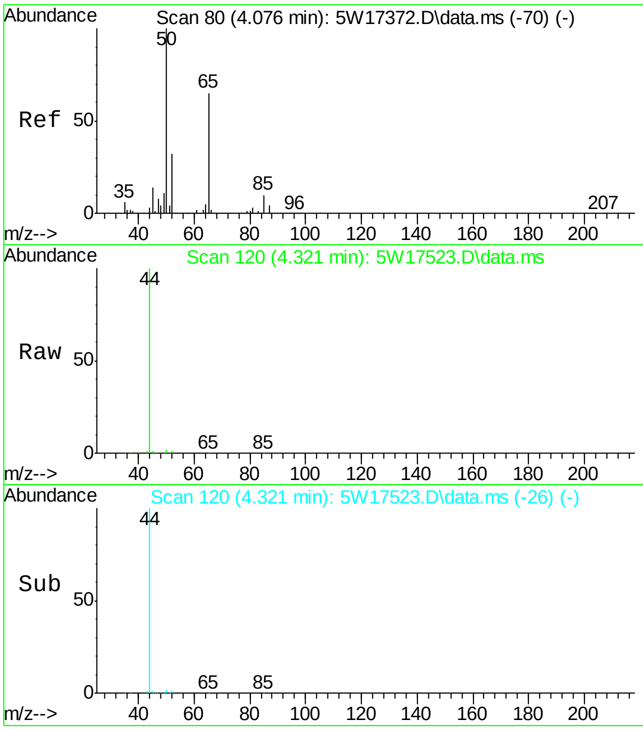


#6
Dichlorodifluoromethane
Concen: 0.57 ppb(v)
RT: 4.193 min Scan# 99
Delta R.T. 0.251 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 85 Resp: 19620

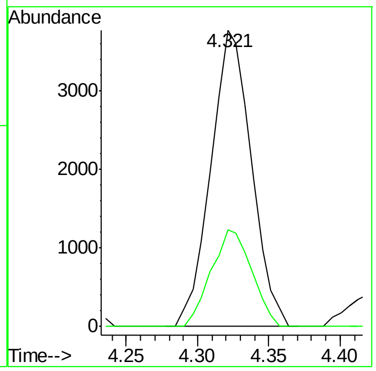
Ion	Ratio	Lower	Upper
85	100		
87	34.0	22.7	42.3
101	11.0	6.6	12.2
103	6.4	4.3	7.9

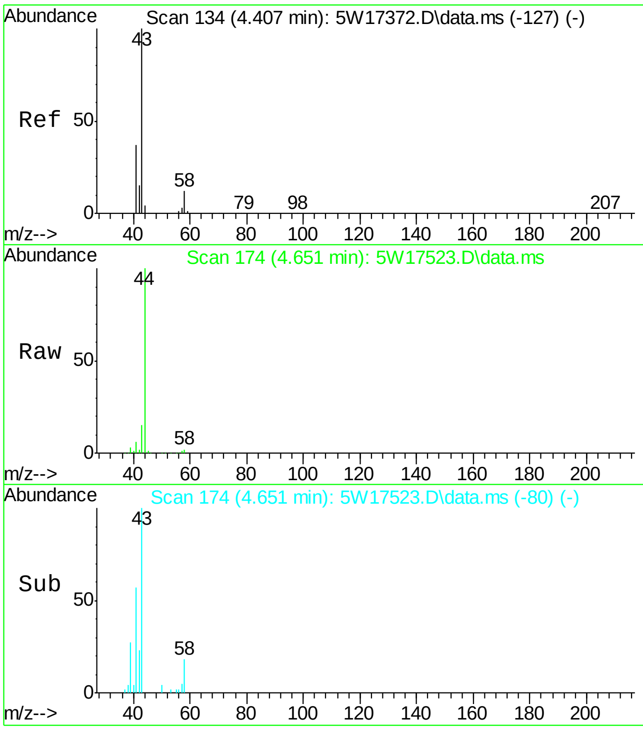





```
#8
Chloromethane
Concen:     0.70 ppb(v)
RT:     4.321 min   Scan# 120
Delta R.T.   0.245 min
Lab File:    5W17523.D
Acq:  6 Apr 2016    4:58 am

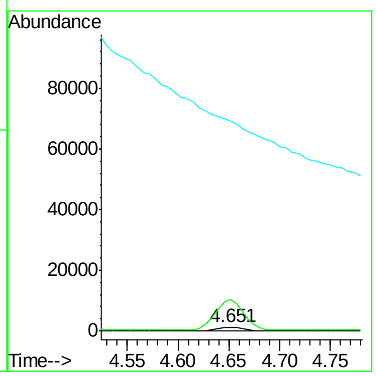
Tgt Ion: 50 Resp:     7463
Ion  Ratio   Lower   Upper
 50  100
 52    32.7    22.7    42.1
```

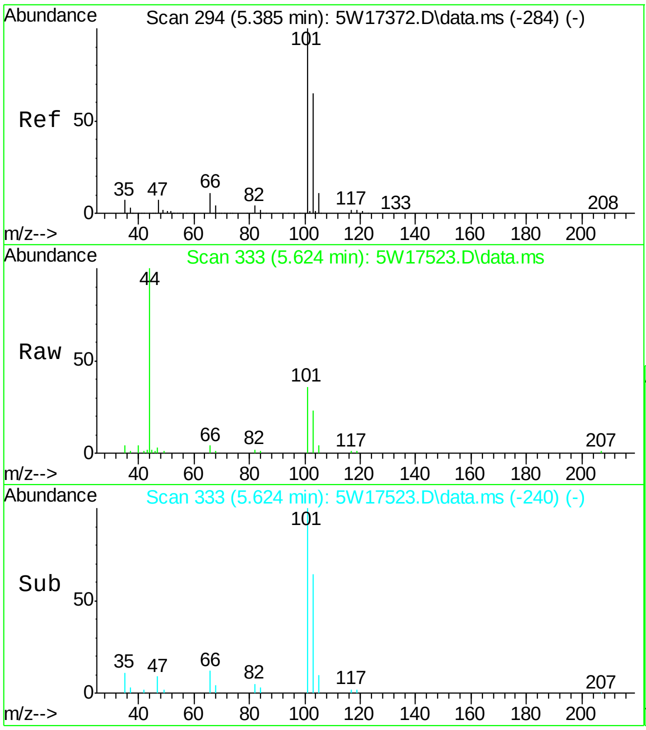





```
#12
n-Butane
Concen:     1.19 ppb(v) m
RT:     4.651 min   Scan# 174
Delta R.T.   0.245 min
Lab File:    5W17523.D
Acq:  6 Apr 2016    4:58 am

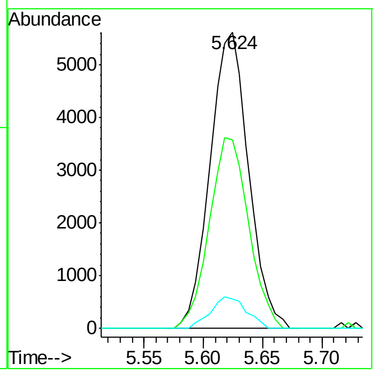
Tgt Ion: 58 Resp:     2307
Ion  Ratio   Lower   Upper
 58  100
 43  844.3   576.3   1070.3
 44  5629.9    34.4    64.0#
```

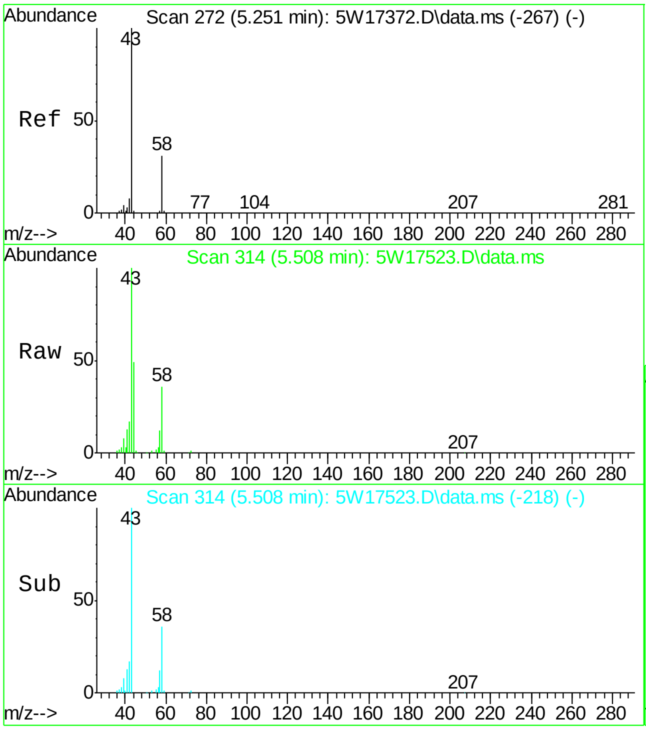





```
#20
Trichlorofluoromethane
Concen:     0.35 ppb(v)
RT:    5.624 min   Scan# 333
Delta R.T.   0.239 min
Lab File:    5W17523.D
Acq:  6 Apr 2016    4:58 am

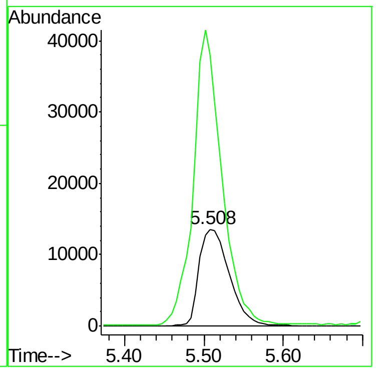
Tgt Ion:101 Resp:    12706
Ion  Ratio   Lower   Upper
101  100
103   63.6    45.1    83.9
105   10.0     7.5    13.9
```

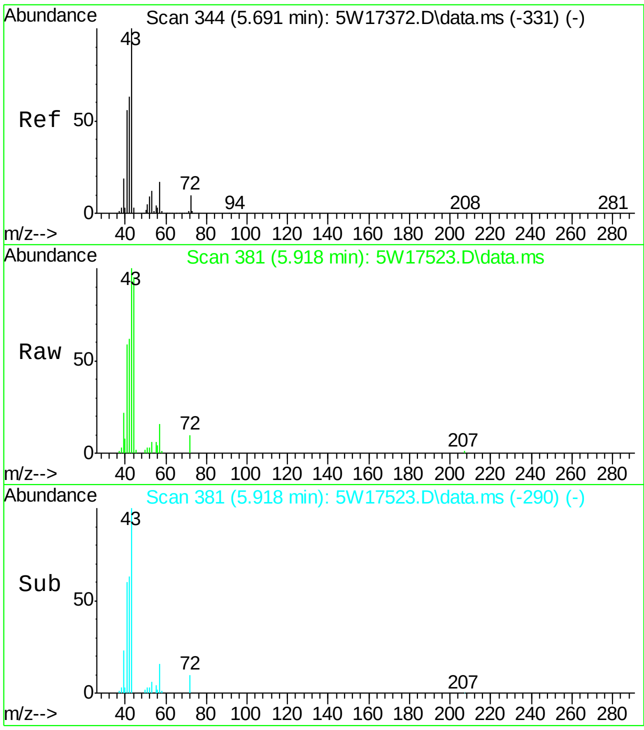





```
#21
Acetone
Concen:     6.14 ppb(v)
RT:    5.508 min   Scan# 314
Delta R.T.   0.257 min
Lab File:    5W17523.D
Acq:  6 Apr 2016    4:58 am

Tgt Ion: 58 Resp:    36078
Ion  Ratio   Lower   Upper
 58  100
 43  279.6   227.9   423.3
```

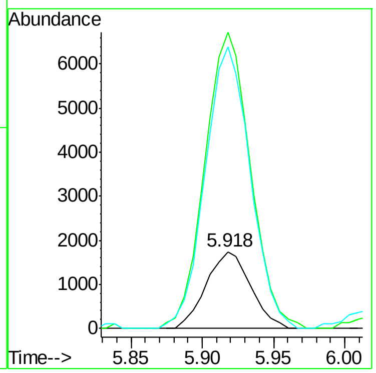


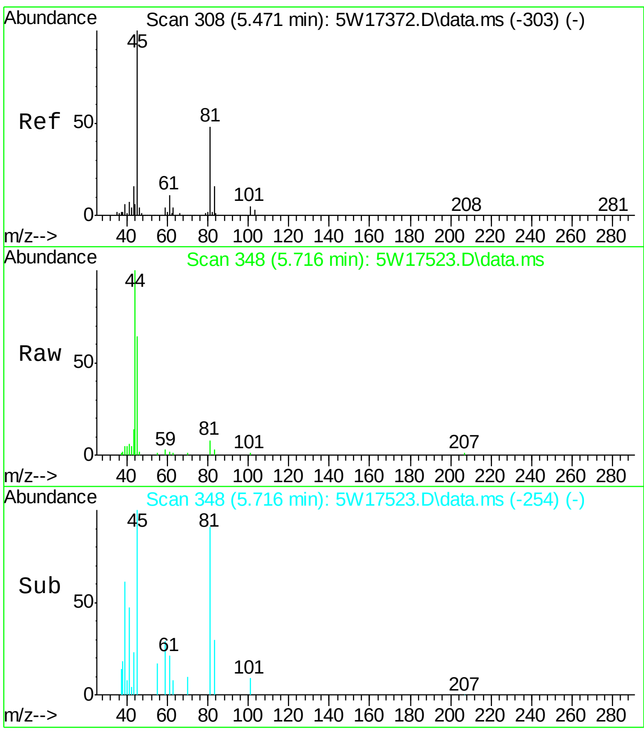


#22
Pentane
Concen: 1.29 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 57 Resp: 3755

Ion	Ratio	Lower	Upper
57	100		
42	387.2	258.3	479.7
41	368.7	233.4	433.5

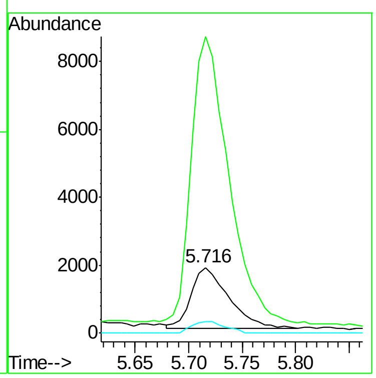


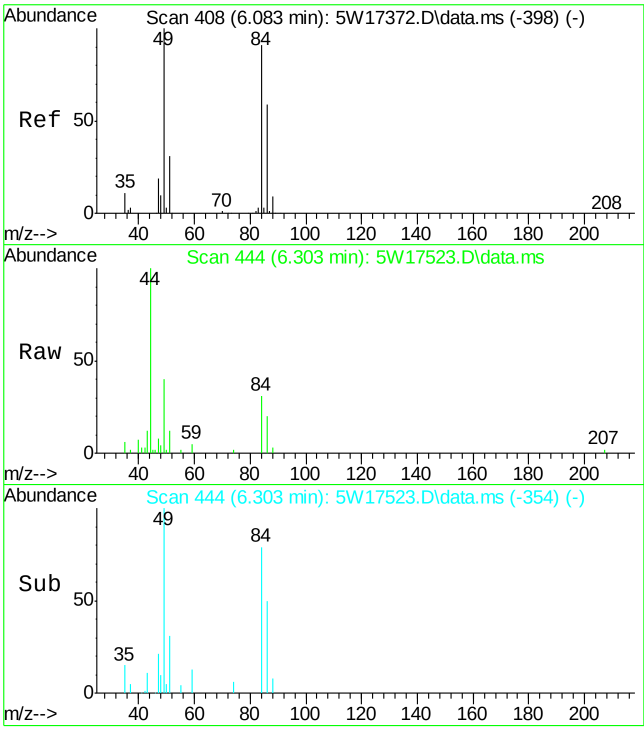


#25
Isopropyl Alcohol
Concen: 0.96 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 43 Resp: 4375

Ion	Ratio	Lower	Upper
43	100		
45	454.4	409.4	760.2
59	18.1	16.8	31.2

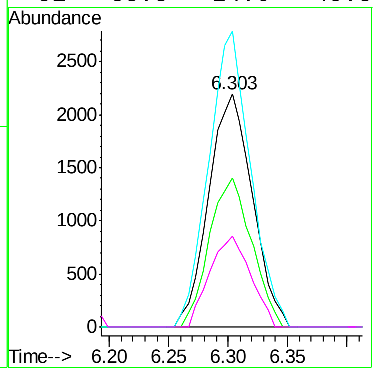


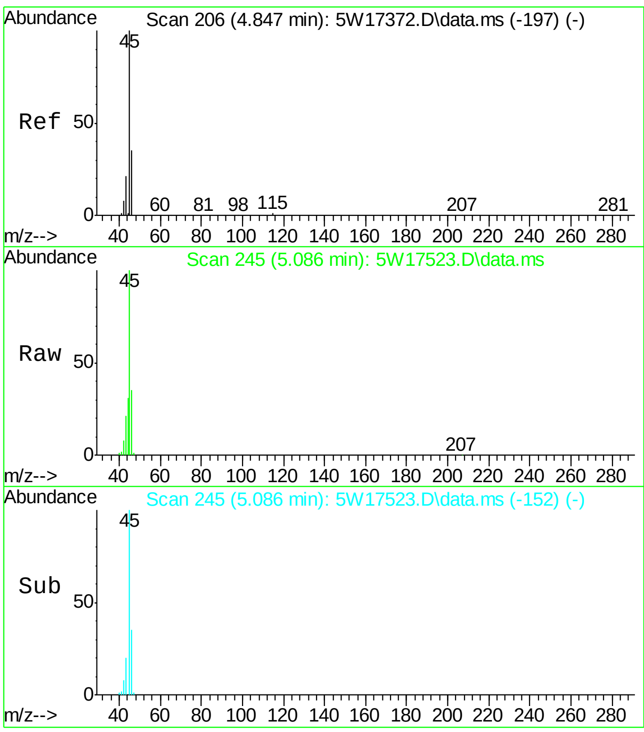


#28
Methylene Chloride
Concen: 0.44 ppb(v)
RT: 6.303 min Scan# 444
Delta R.T. 0.220 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 84 Resp: 5658

Ion	Ratio	Lower	Upper
84	100		
86	64.0	45.8	85.0
49	127.0	77.6	144.2
51	38.8	24.6	45.8

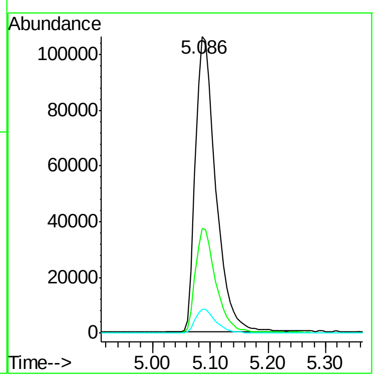


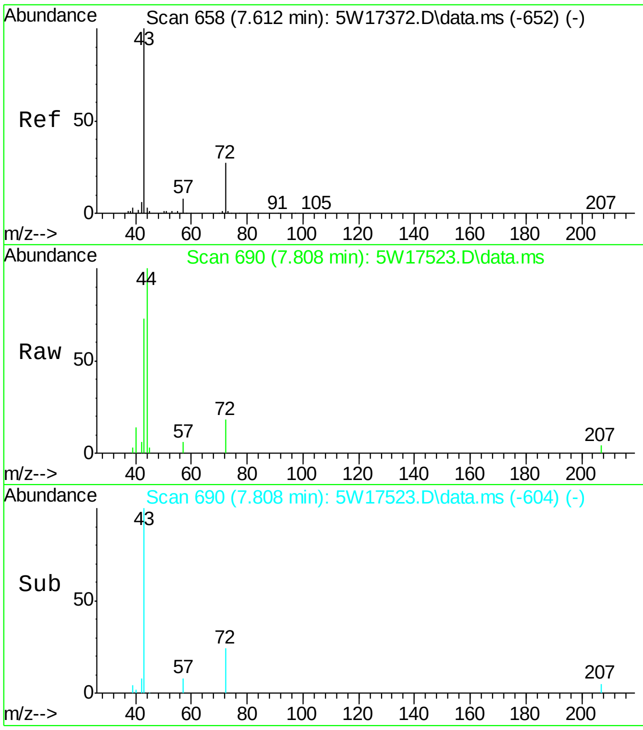


#30
Ethanol
Concen: 51.99 ppb(v)
RT: 5.086 min Scan# 245
Delta R.T. 0.239 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 45 Resp: 259408

Ion	Ratio	Lower	Upper
45	100		
46	35.2	24.6	45.8
42	8.0	6.5	12.1

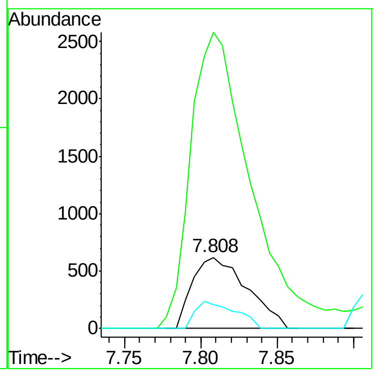


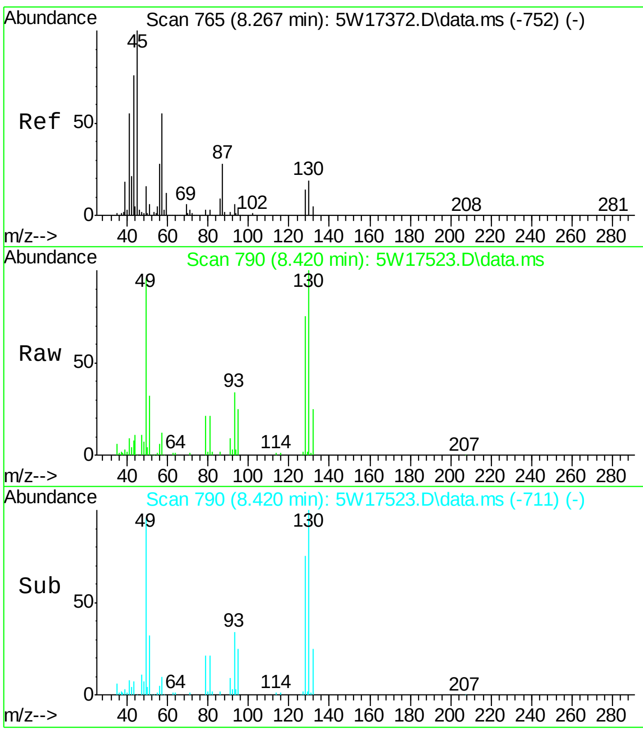


#38
2-Butanone
Concen: 0.27 ppb(v)
RT: 7.808 min Scan# 690
Delta R.T. 0.196 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 72 Resp: 1538

Ion	Ratio	Lower	Upper
72	100		
43	416.3	262.9	488.3
57	33.2	21.3	39.6

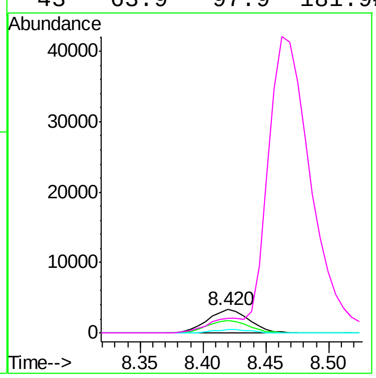


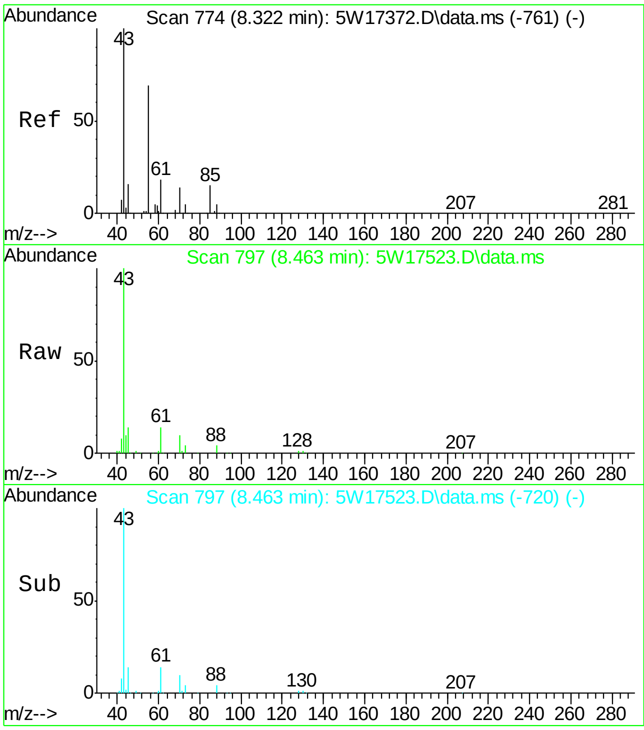


#39
Hexane
Concen: 0.37 ppb(v)
RT: 8.420 min Scan# 790
Delta R.T. 0.153 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 57 Resp: 7598

Ion	Ratio	Lower	Upper
57	100		
56	53.7	36.5	67.9
86	13.6	11.1	20.7
43	63.9	97.9	181.9#

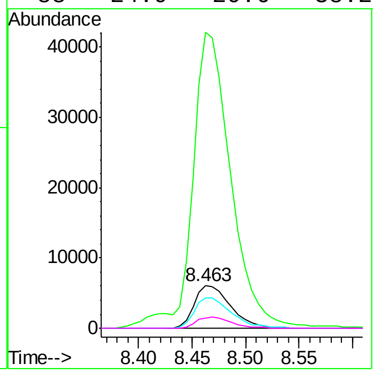


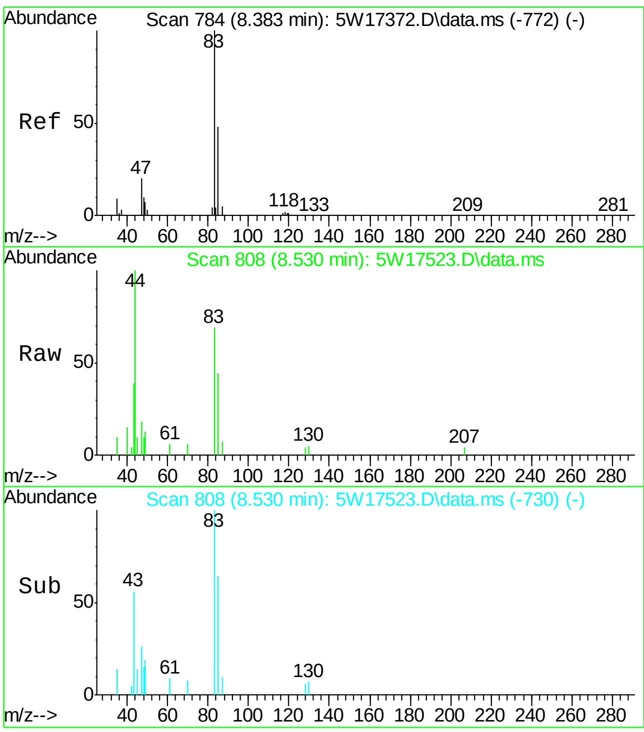


#42
Ethyl Acetate
Concen: 3.59 ppb(v)
RT: 8.463 min Scan# 797
Delta R.T. 0.141 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 61 Resp: 14321

Ion	Ratio	Lower	Upper
61	100		
43	702.2	466.1	865.7
70	72.7	56.3	104.5
88	24.9	20.6	38.2

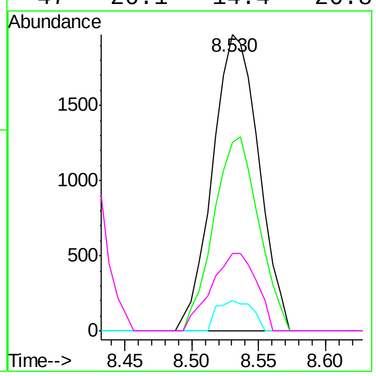


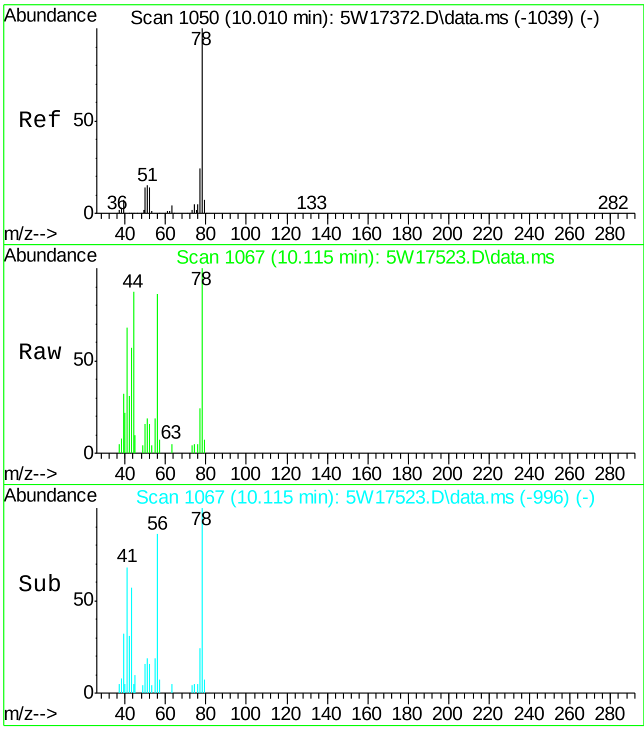


#44
Chloroform
Concen: 0.15 ppb(v)
RT: 8.530 min Scan# 808
Delta R.T. 0.147 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 83 Resp: 4735

Ion	Ratio	Lower	Upper
83	100		
85	63.6	45.4	84.2
87	10.2	7.3	13.5
47	26.1	14.4	26.8

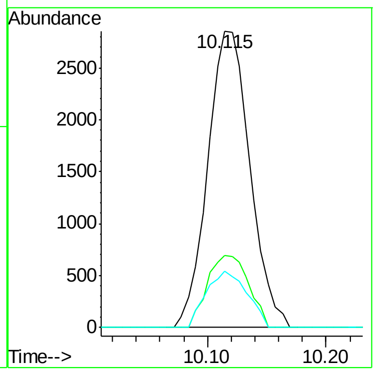


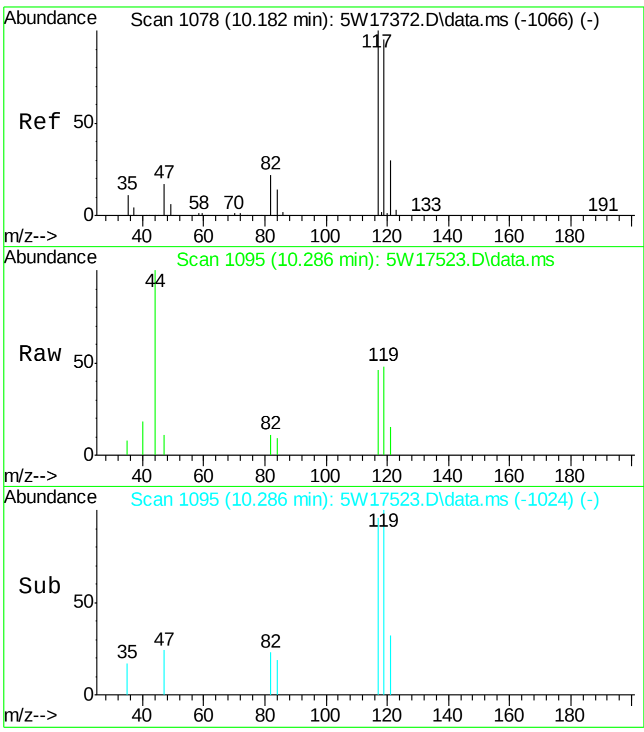


#49
Benzene
Concen: 0.17 ppb(v)
RT: 10.115 min Scan# 1067
Delta R.T. 0.104 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 78 Resp: 7064

Ion	Ratio	Lower	Upper
78	100		
77	24.3	16.5	30.7
51	19.0	10.5	19.5

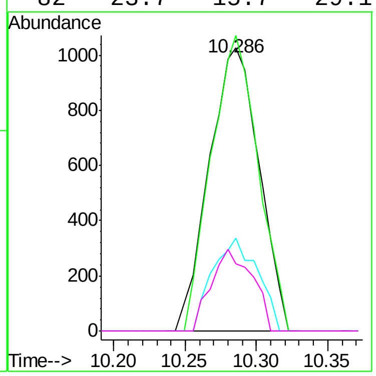


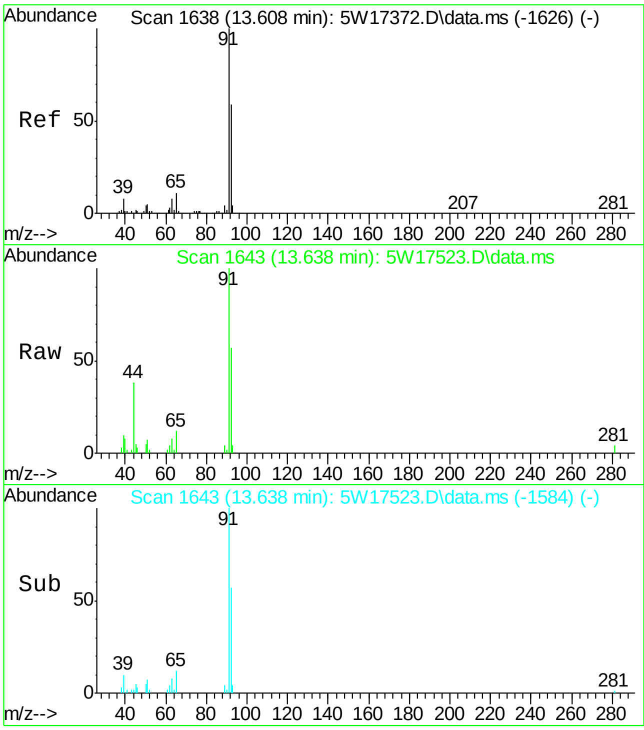


#50
Carbon Tetrachloride
Concen: 0.08 ppb(v)
RT: 10.286 min Scan# 1095
Delta R.T. 0.104 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion:117 Resp: 2508

Ion	Ratio	Lower	Upper
117	100		
119	104.4	66.7	123.9
121	32.9	21.3	39.5
82	23.7	15.7	29.1

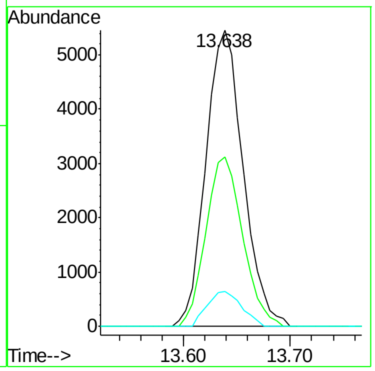


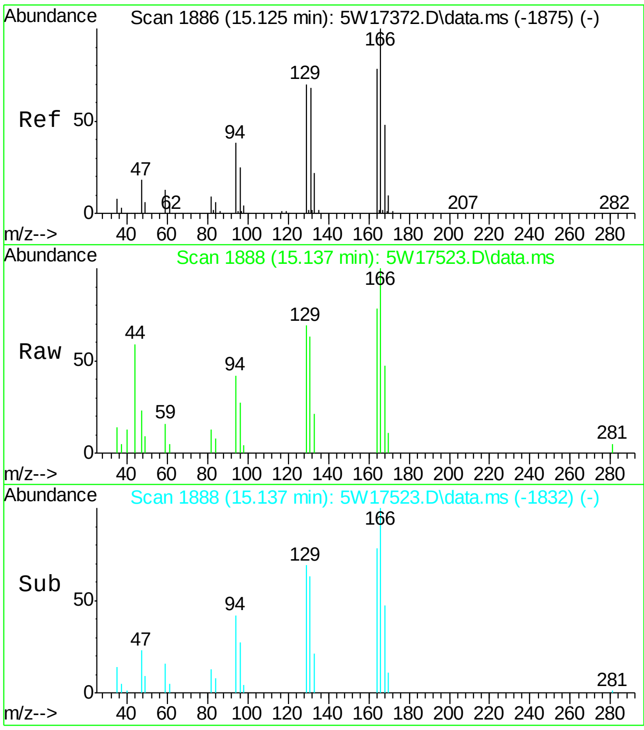


#66
Toluene
Concen: 0.25 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion: 91 Resp: 13243

Ion	Ratio	Lower	Upper
91	100		
92	57.3	41.2	76.6
65	11.8	7.3	13.7

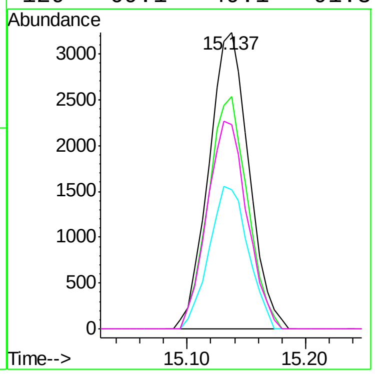




#72
Tetrachloroethene
Concen: 0.25 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17523.D
Acq: 6 Apr 2016 4:58 am

Tgt Ion:166 Resp: 7641

Ion	Ratio	Lower	Upper
166	100		
164	78.3	54.6	101.4
168	47.0	33.5	62.3
129	69.1	49.1	91.3



Manual Integration Approval Summary

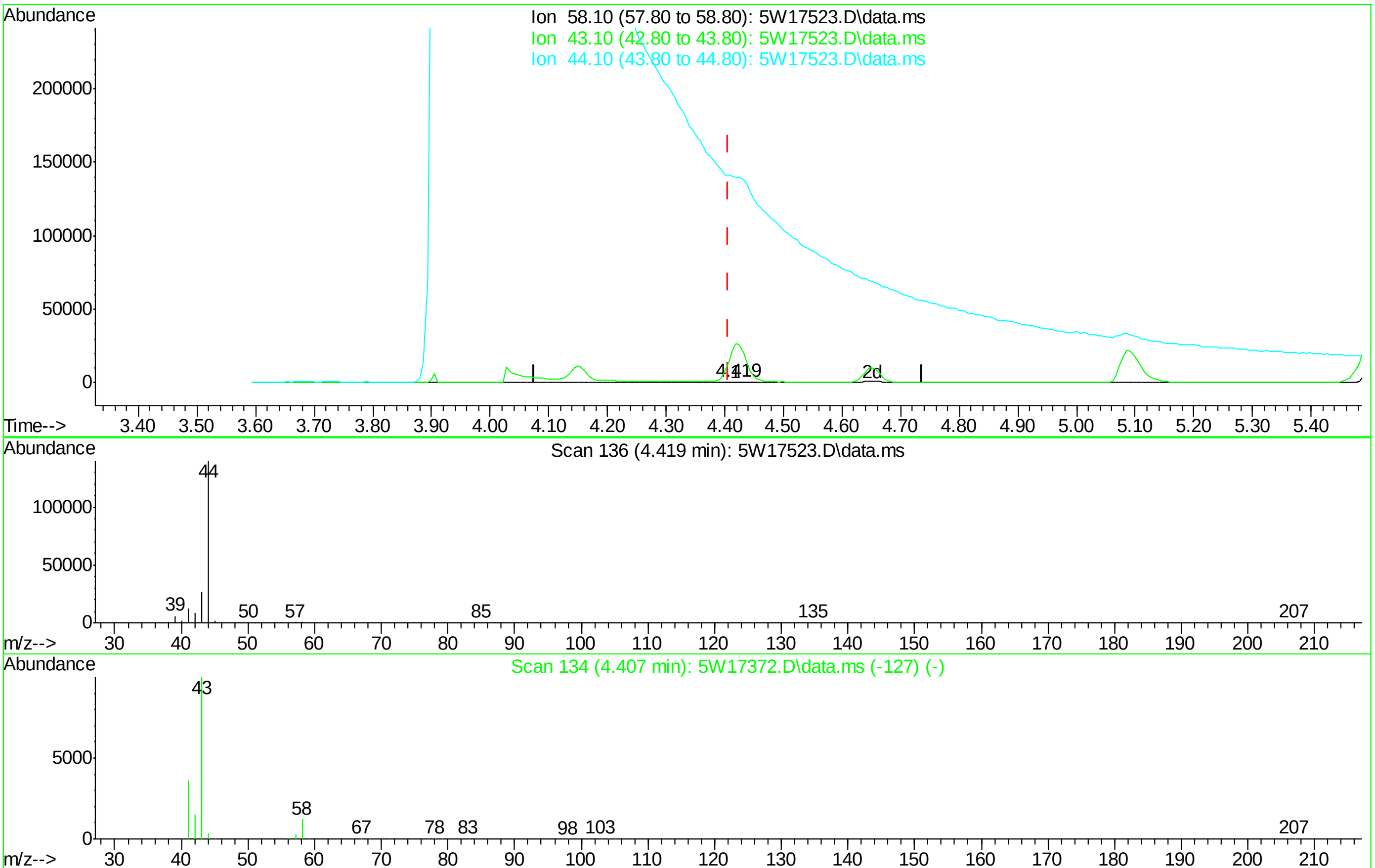
Sample Number:	JC17438-4	**Method:**	TO-15	
Lab FileID:	5W17523.D	**Analyst approved:**	04/07/16 11:15	Dana Tryon
Injection Time:	04/06/16 04:58	**Supervisor approved:**	04/07/16 14:27	Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17523.D
Acq On    :  6 Apr 2016   4:58 am
Operator  : THOMASH
Sample    : JC17438-4
Misc      : MS107,v5w698,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 06 07:40:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17523.D\data.ms

(12) n-Butane

4.419min (+0.012) 0.52ppb(v)

response 1009

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4846.46#
44.10	49.20	25367.70#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 14:29

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17536.D
Acq On    :  6 Apr 2016   5:44 pm
Operator  : THOMASH
Sample    : JC17438-5
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 07 11:08:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

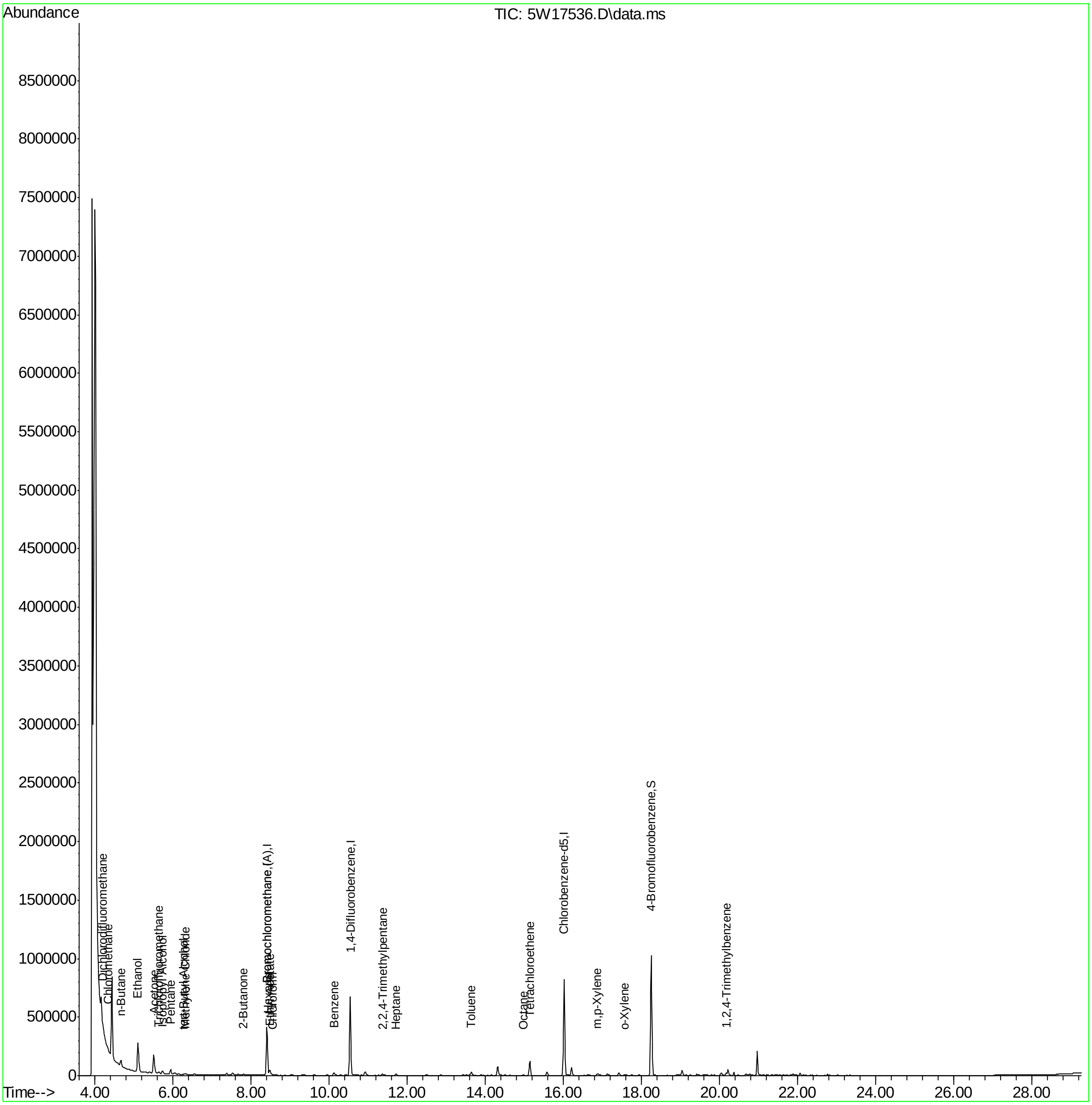

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.402	130	195830	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.537	114	736733	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	346521	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.402	130	196091	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	481373	10.14 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery =	101.40%	
Target Compounds					Qvalue
6) Dichlorodifluoromethane	4.199	85	25736	0.58 ppb(v	99
8) Chloromethane	4.333	50	10024	0.72 ppb(v	99
12) n-Butane	4.664	58	6280m	2.49 ppb(v	
20) Trichlorofluoromethane	5.630	101	18120	0.38 ppb(v	99
21) Acetone	5.514	58	64460	8.47 ppb(v	78
22) Pentane	5.936	57	6263	1.66 ppb(v	98
25) Isopropyl Alcohol	5.722	43	6658	1.13 ppb(v	66
28) Methylene Chloride	6.315	84	2858	0.17 ppb(v	97
30) Ethanol	5.098	45	361091	55.83 ppb(v	98
34) tert-Butyl Alcohol	6.273	59	4716	0.13 ppb(v#	76
38) 2-Butanone	7.802	72	5528	0.74 ppb(v	95
39) Hexane	8.426	57	6915	0.26 ppb(v#	59
42) Ethyl Acetate	8.475	61	9439	1.83 ppb(v	93
44) Chloroform	8.536	83	5903	0.15 ppb(v	96
49) Benzene	10.121	78	18048	0.33 ppb(v	99
54) 2,2,4-Trimethylpentane	11.369	57	10557	0.13 ppb(v	87
55) Heptane	11.705	71	2514	0.14 ppb(v	94
66) Toluene	13.638	91	29846	0.42 ppb(v	99
72) Tetrachloroethene	15.137	166	52343	1.30 ppb(v	99
74) Octane	14.972	43	5498	0.15 ppb(v	92
79) m,p-Xylene	16.862	91	17150	0.25 ppb(v	98
82) o-Xylene	17.560	91	7017	0.10 ppb(v	98
95) 1,2,4-Trimethylbenzene	20.172	105	15246	0.19 ppb(v#	56

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

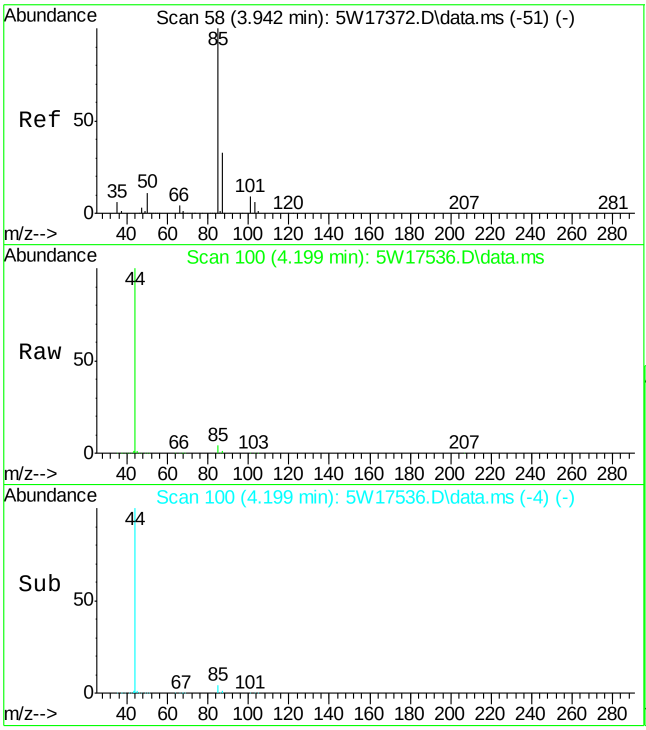
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17536.D
Acq On    :  6 Apr 2016   5:44 pm
Operator  : THOMASH
Sample    : JC17438-5
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 07 11:08:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



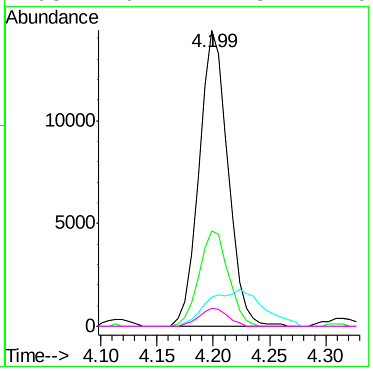
m5w693.M Thu Apr 07 11:08:31 2016 GCMS5W Page: 2

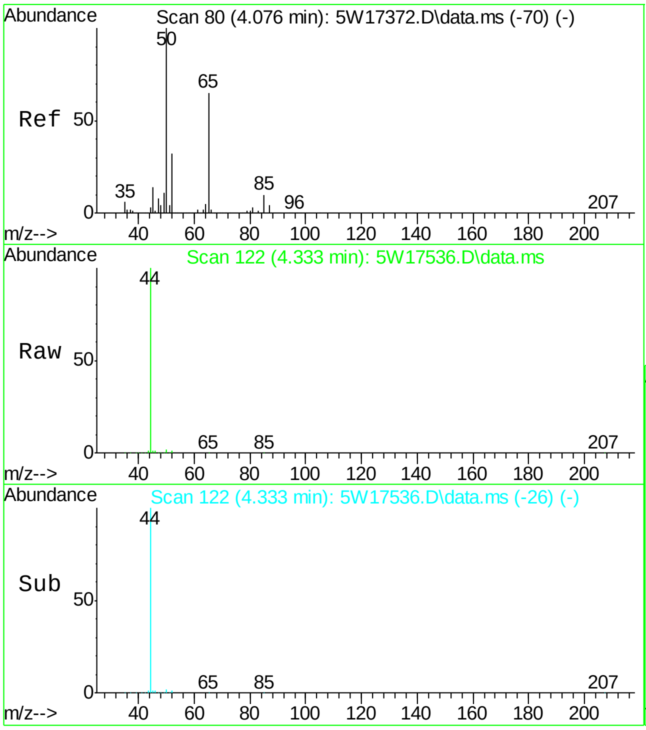


#6
Dichlorodifluoromethane
Concen: 0.58 ppb(v)
RT: 4.199 min Scan# 100
Delta R.T. 0.257 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 85 Resp: 25736

Ion	Ratio	Lower	Upper
85	100		
87	32.2	22.7	42.3
101	10.0	6.6	12.2
103	6.1	4.3	7.9

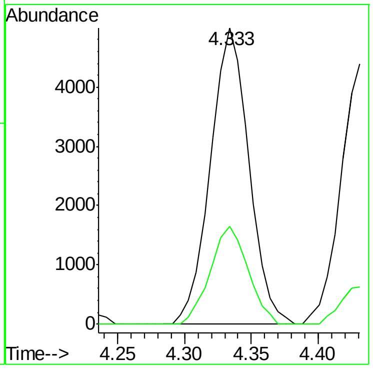


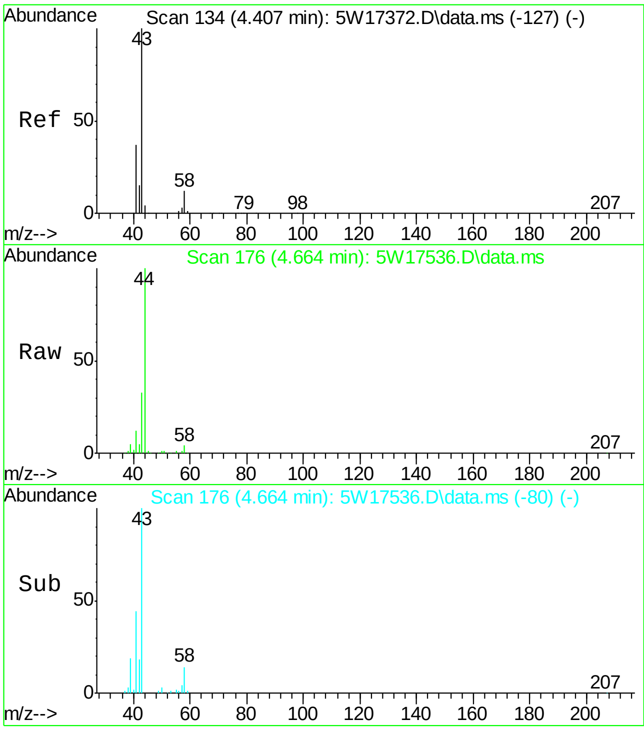


#8
Chloromethane
Concen: 0.72 ppb(v)
RT: 4.333 min Scan# 122
Delta R.T. 0.257 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 50 Resp: 10024

Ion	Ratio	Lower	Upper
50	100		
52	32.9	22.7	42.1

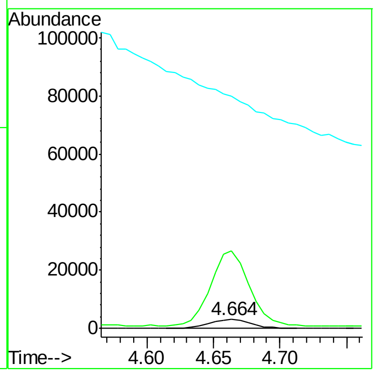


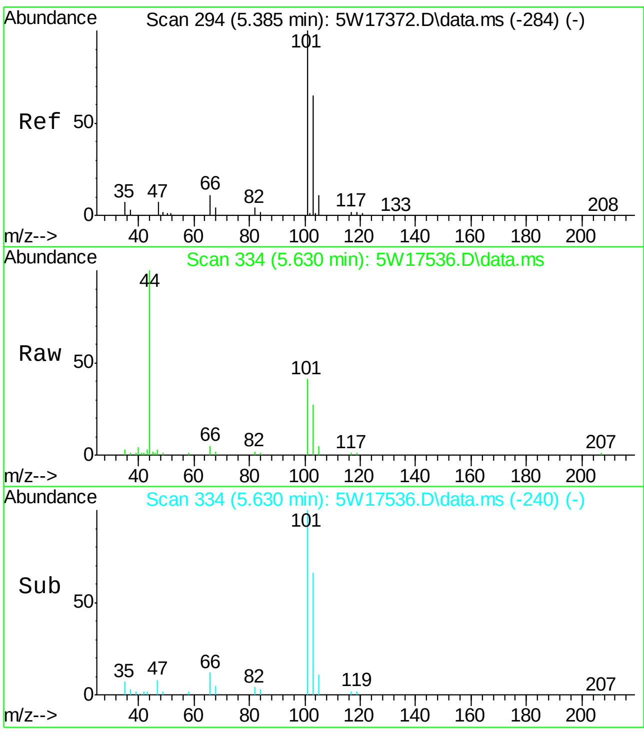


#12
n-Butane
Concen: 2.49 ppb(v) m
RT: 4.664 min Scan# 176
Delta R.T. 0.257 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 58 Resp: 6280

Ion	Ratio	Lower	Upper
58	100		
43	878.6	576.3	1070.3
44	2628.0	34.4	64.0#

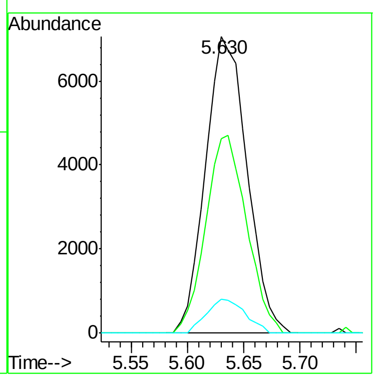


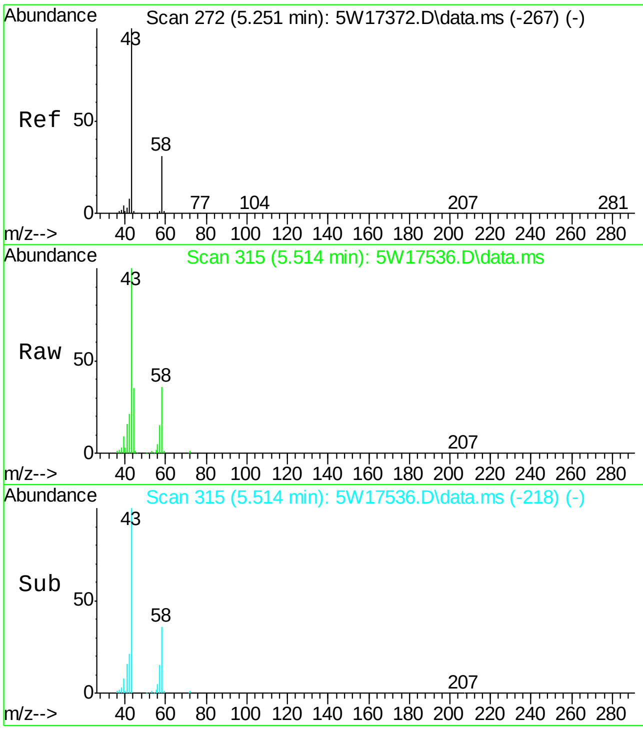


#20
Trichlorofluoromethane
Concen: 0.38 ppb(v)
RT: 5.630 min Scan# 334
Delta R.T. 0.245 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion:101 Resp: 18120

Ion	Ratio	Lower	Upper
101	100		
103	65.6	45.1	83.9
105	11.4	7.5	13.9

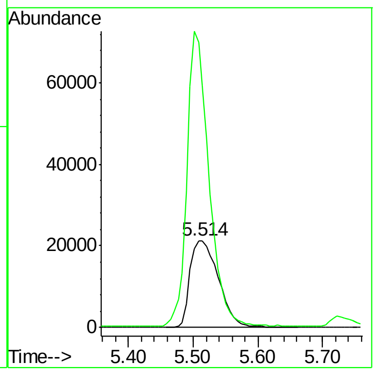


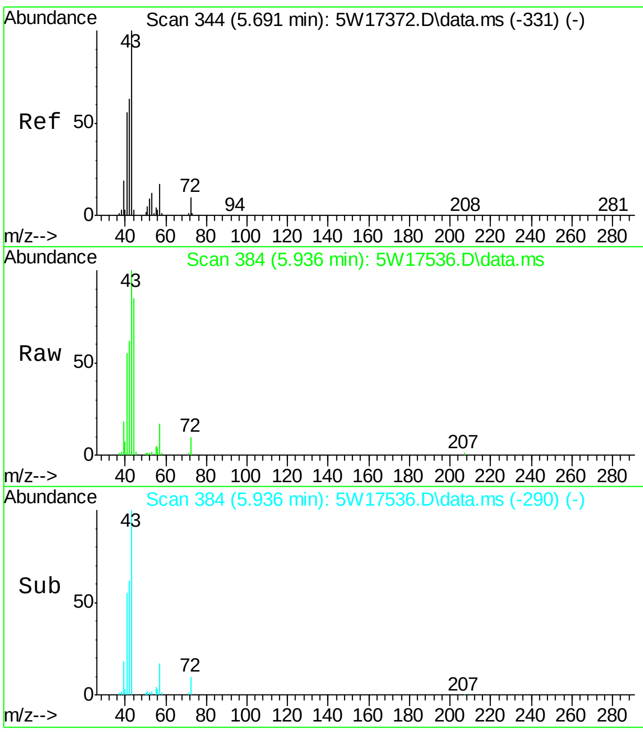


#21
Acetone
Concen: 8.47 ppb(v)
RT: 5.514 min Scan# 315
Delta R.T. 0.263 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 58 Resp: 64460

Ion	Ratio	Lower	Upper
58	100		
43	280.0	227.9	423.3

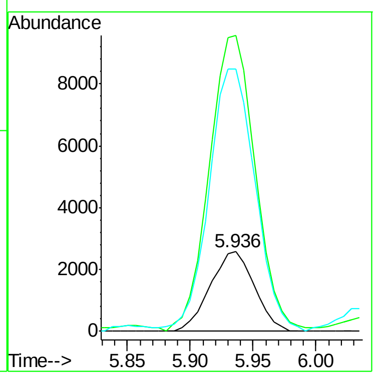


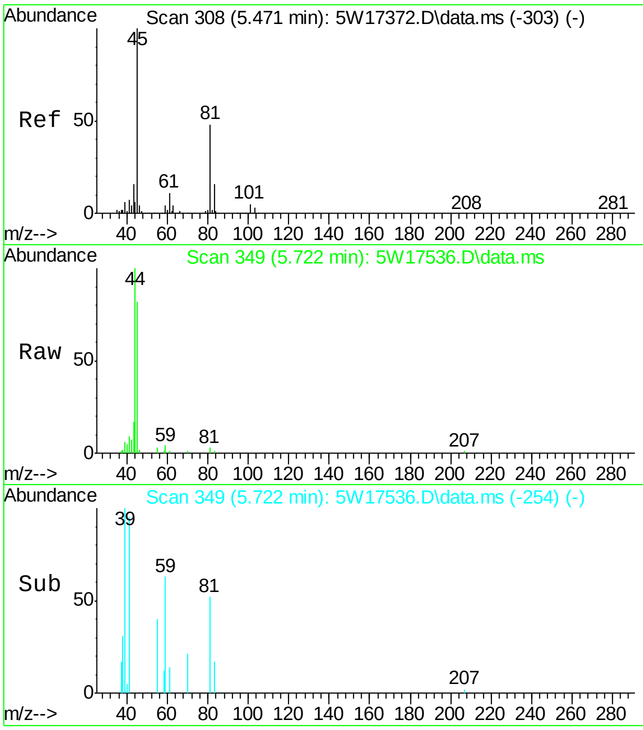


#22
Pentane
Concen: 1.66 ppb(v)
RT: 5.936 min Scan# 384
Delta R.T. 0.245 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 57 Resp: 6263

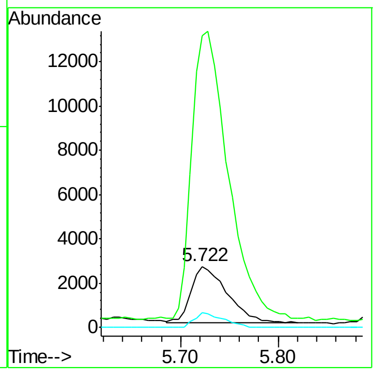
Ion	Ratio	Lower	Upper
57	100		
42	372.1	258.3	479.7
41	330.0	233.4	433.5

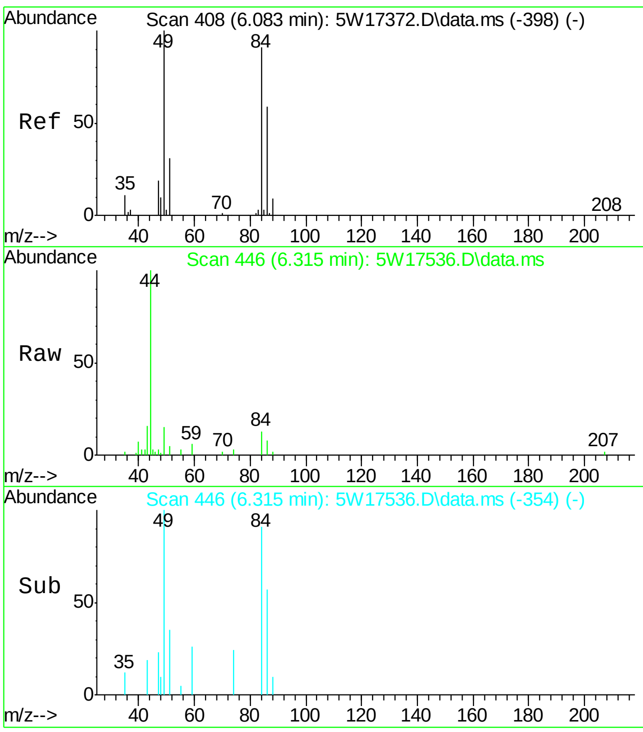





```
#25
Isopropyl Alcohol
Concen:     1.13 ppb(v)
RT:    5.722 min   Scan# 349
Delta R.T.   0.251 min
Lab File:    5W17536.D
Acq:  6 Apr 2016    5:44 pm

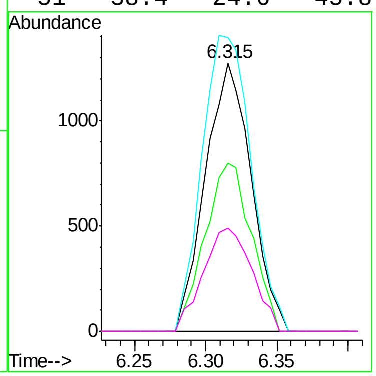
Tgt Ion: 43 Resp:     6658
Ion   Ratio   Lower   Upper
 43   100
 45   477.9   409.4   760.2
 59    23.5    16.8    31.2
```

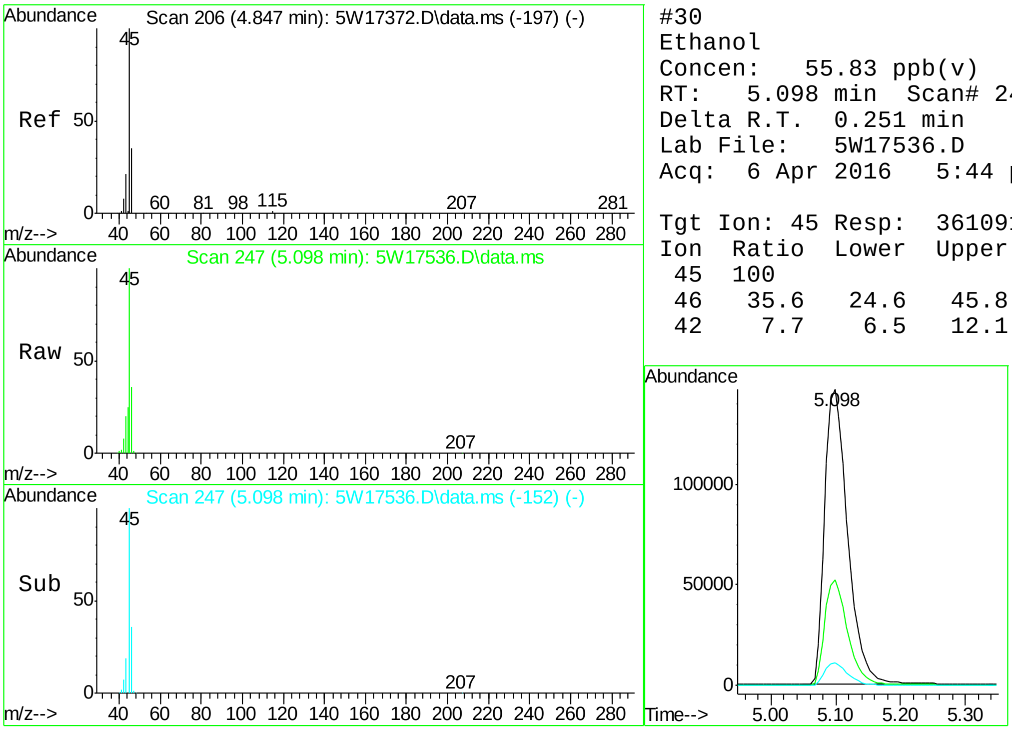





```
#28
Methylene Chloride
Concen:     0.17 ppb(v)
RT:    6.315 min   Scan# 446
Delta R.T.   0.233 min
Lab File:    5W17536.D
Acq:  6 Apr 2016    5:44 pm

Tgt Ion: 84 Resp:     2858
Ion   Ratio   Lower   Upper
 84   100
 86    62.7    45.8    85.0
 49   109.4    77.6   144.2
 51    38.4    24.6    45.8
```

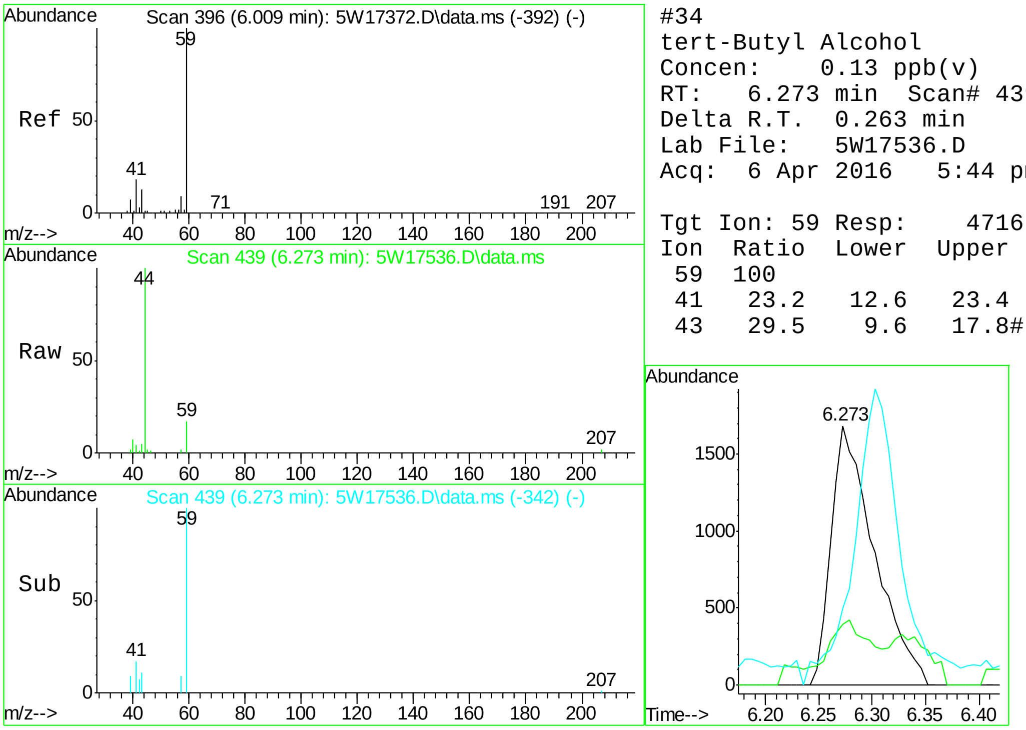




#30
Ethanol
Concen: 55.83 ppb(v)
RT: 5.098 min Scan# 247
Delta R.T. 0.251 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 45 Resp: 361091

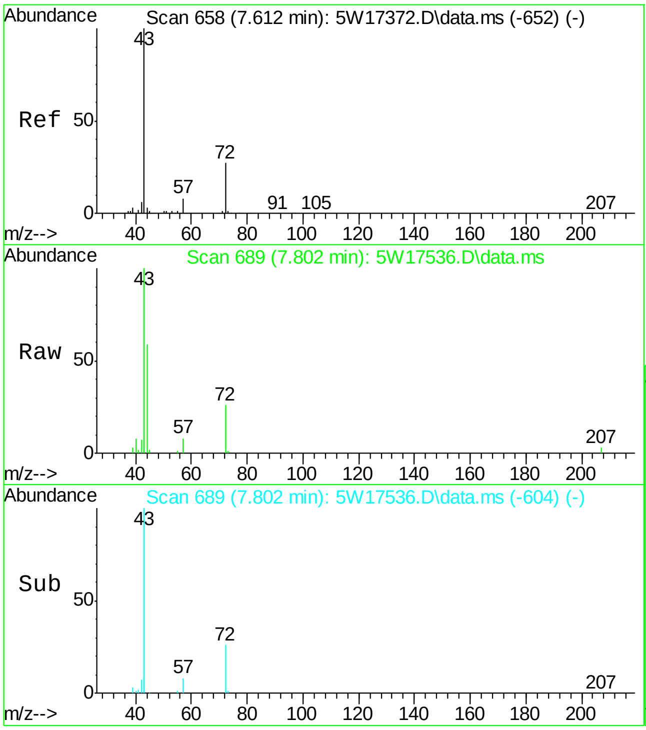
Ion	Ratio	Lower	Upper
45	100		
46	35.6	24.6	45.8
42	7.7	6.5	12.1



#34
tert-Butyl Alcohol
Concen: 0.13 ppb(v)
RT: 6.273 min Scan# 439
Delta R.T. 0.263 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 59 Resp: 4716

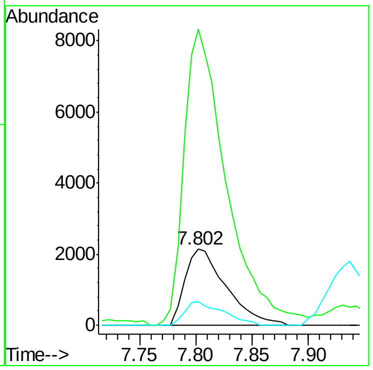
Ion	Ratio	Lower	Upper
59	100		
41	23.2	12.6	23.4
43	29.5	9.6	17.8#

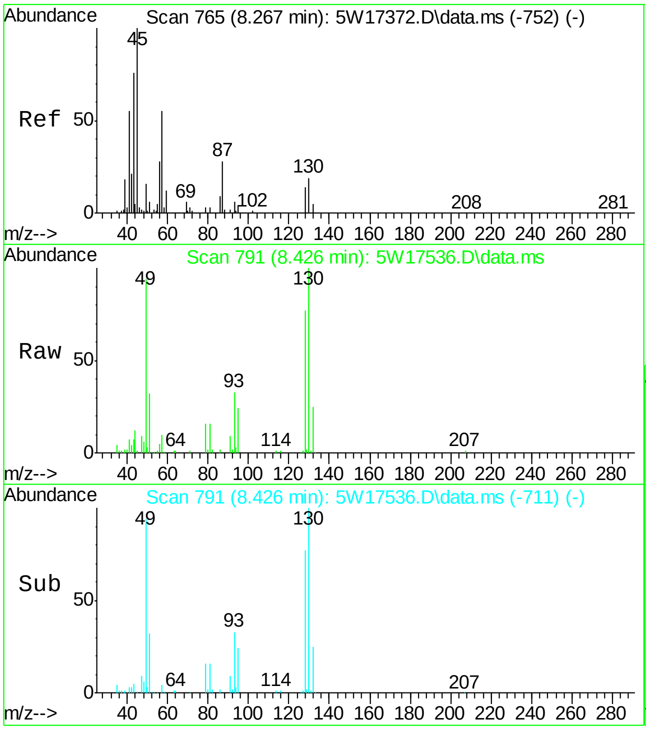


#38
2-Butanone
Concen: 0.74 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 72 Resp: 5528

Ion	Ratio	Lower	Upper
72	100		
43	388.0	262.9	488.3
57	30.9	21.3	39.6

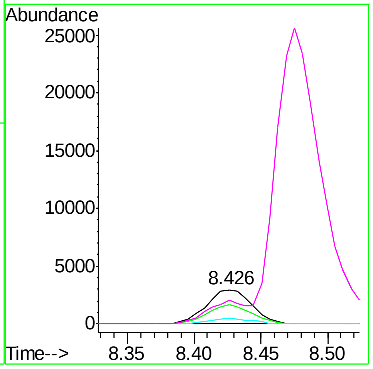


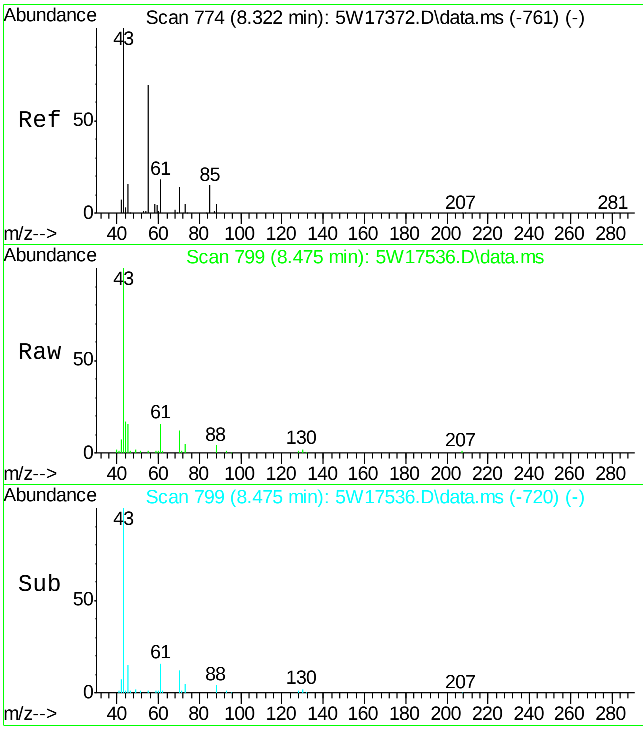


#39
Hexane
Concen: 0.26 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.159 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 57 Resp: 6915

Ion	Ratio	Lower	Upper
57	100		
56	55.4	36.5	67.9
86	16.3	11.1	20.7
43	68.7	97.9	181.9#

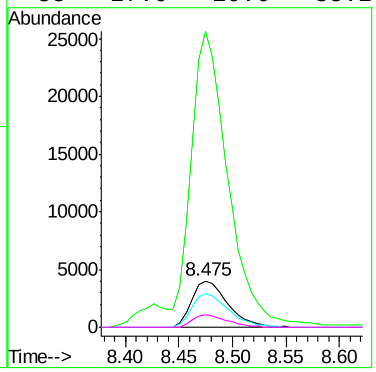


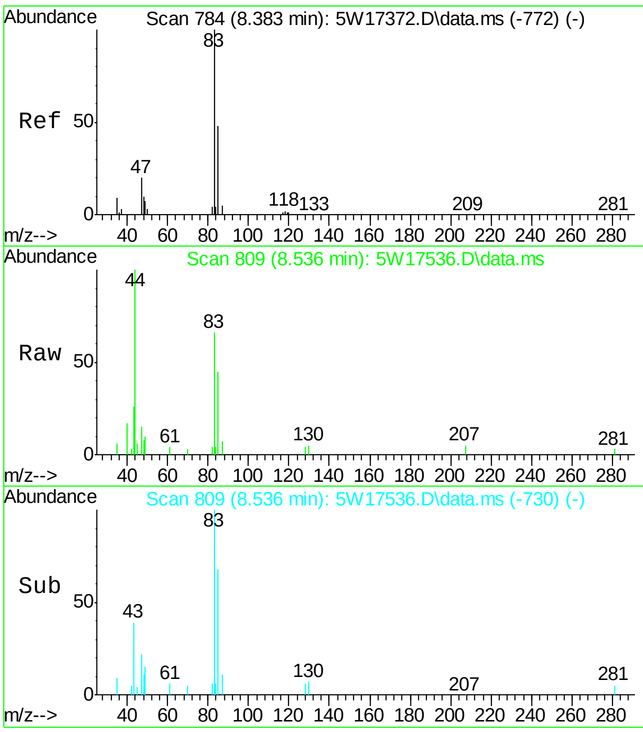


#42
Ethyl Acetate
Concen: 1.83 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 61 Resp: 9439

Ion	Ratio	Lower	Upper
61	100		
43	640.3	466.1	865.7
70	73.8	56.3	104.5
88	27.0	20.6	38.2

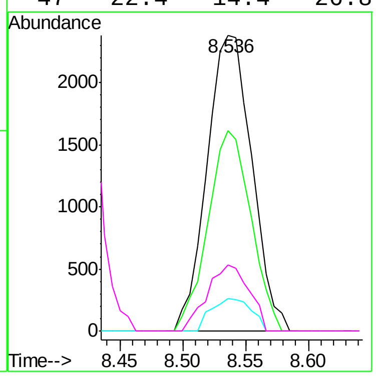




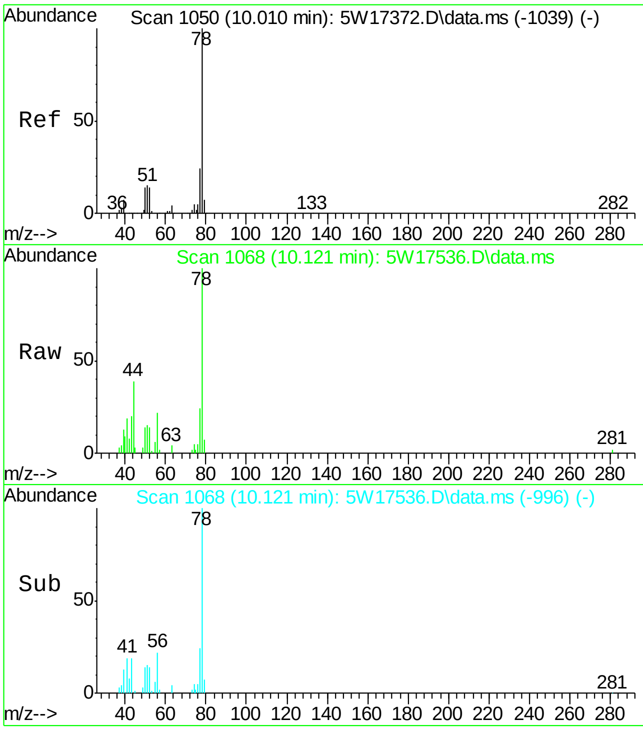
#44
Chloroform
Concen: 0.15 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 83 Resp: 5903

Ion	Ratio	Lower	Upper
83	100		
85	67.8	45.4	84.2
87	11.2	7.3	13.5
47	22.4	14.4	26.8



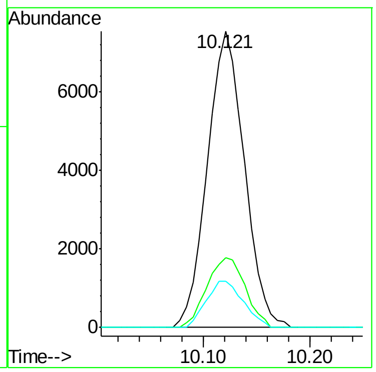
7.1.5
7

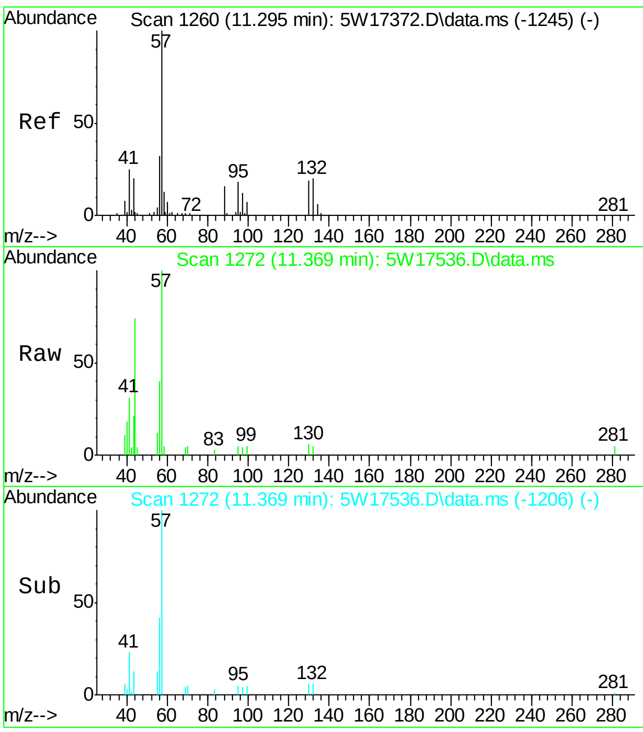


#49
Benzene
Concen: 0.33 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 78 Resp: 18048

Ion	Ratio	Lower	Upper
78	100		
77	23.7	16.5	30.7
51	15.5	10.5	19.5

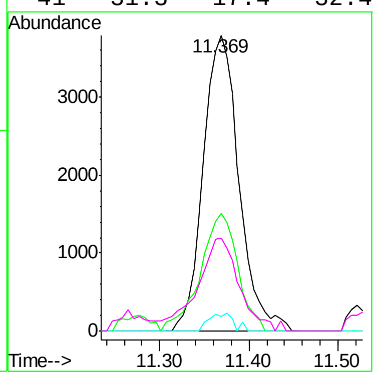


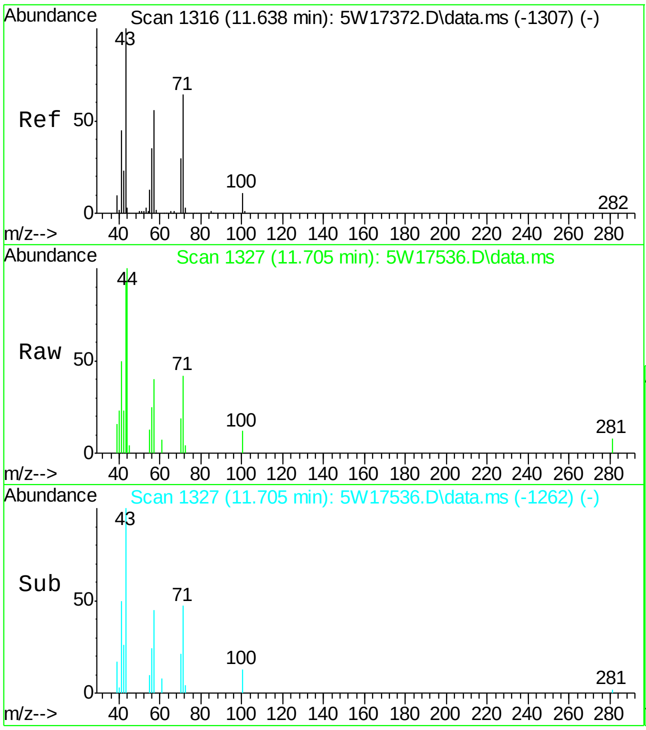


#54
2,2,4-Trimethylpentane
Concen: 0.13 ppb(v)
RT: 11.369 min Scan# 1272
Delta R.T. 0.074 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 57 Resp: 10557

Ion	Ratio	Lower	Upper
57	100		
56	39.8	22.4	41.6
99	4.9	4.9	9.1
41	31.3	17.4	32.4

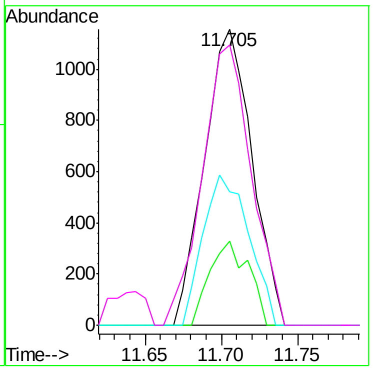


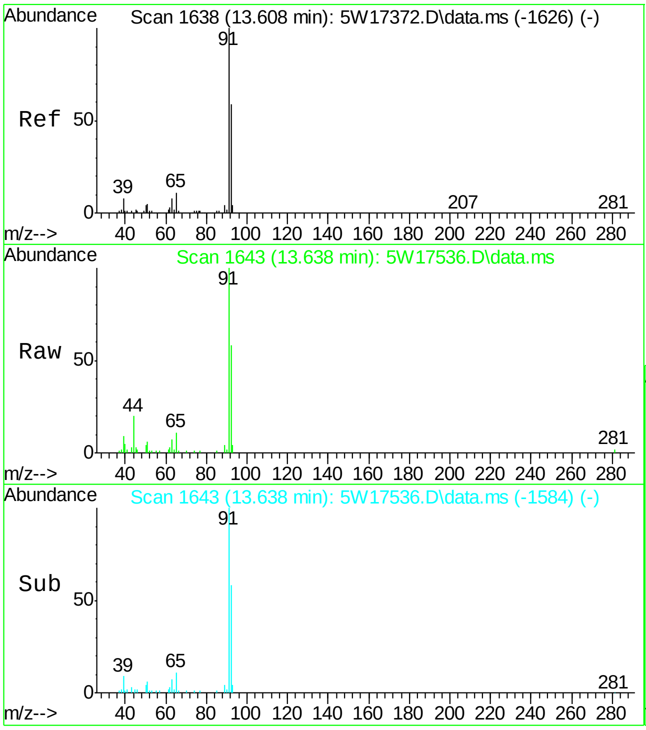


#55
Heptane
Concen: 0.14 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 71 Resp: 2514

Ion	Ratio	Lower	Upper
71	100		
100	28.4	19.6	36.4
70	45.2	34.0	63.2
57	94.9	61.3	113.9

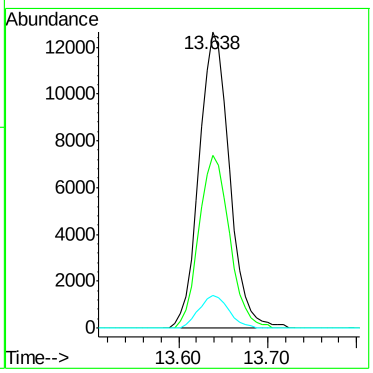


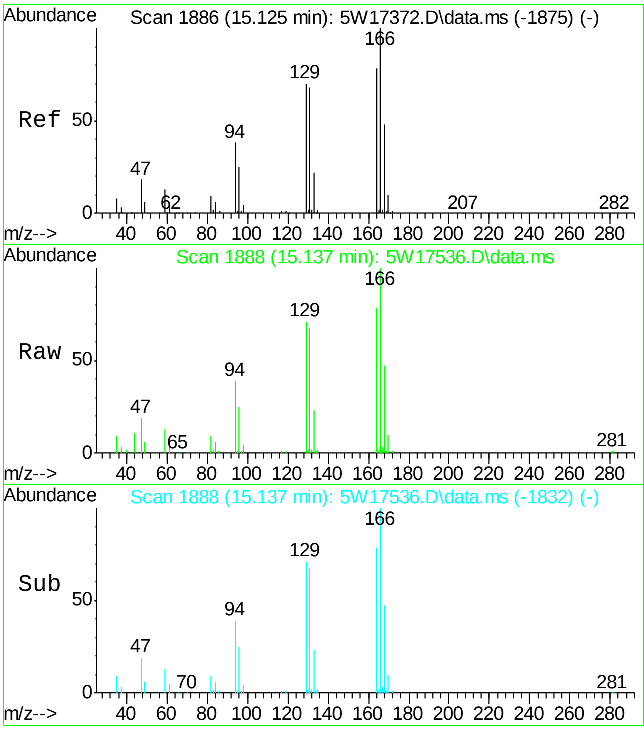


#66
Toluene
Concen: 0.42 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 91 Resp: 29846

Ion	Ratio	Lower	Upper
91	100		
92	58.2	41.2	76.6
65	11.0	7.3	13.7

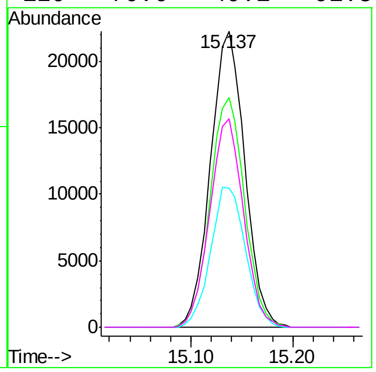


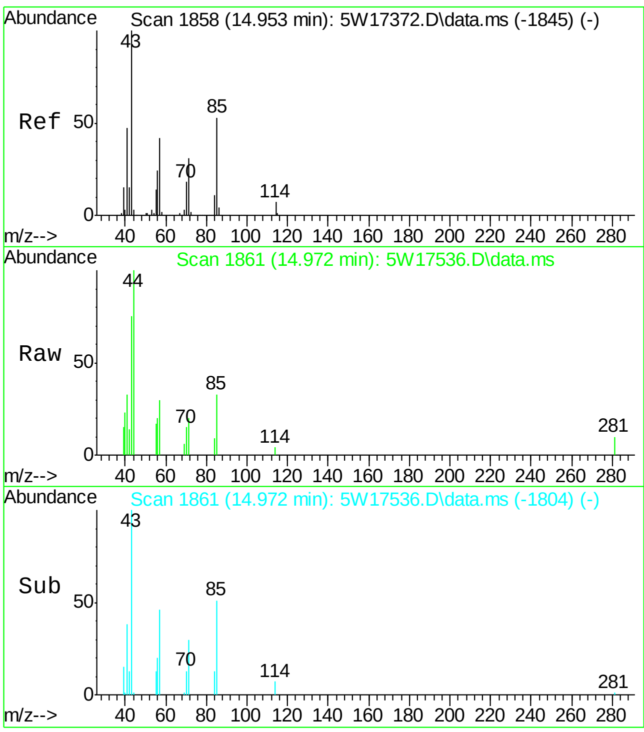


#72
Tetrachloroethene
Concen: 1.30 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion:166 Resp: 52343

Ion	Ratio	Lower	Upper
166	100		
164	77.7	54.6	101.4
168	46.9	33.5	62.3
129	70.6	49.1	91.3

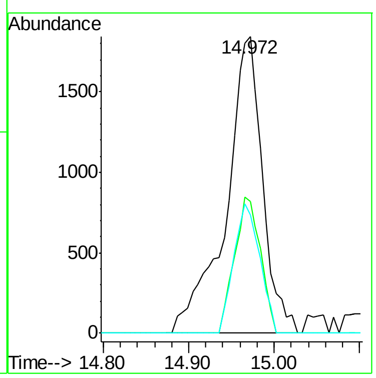


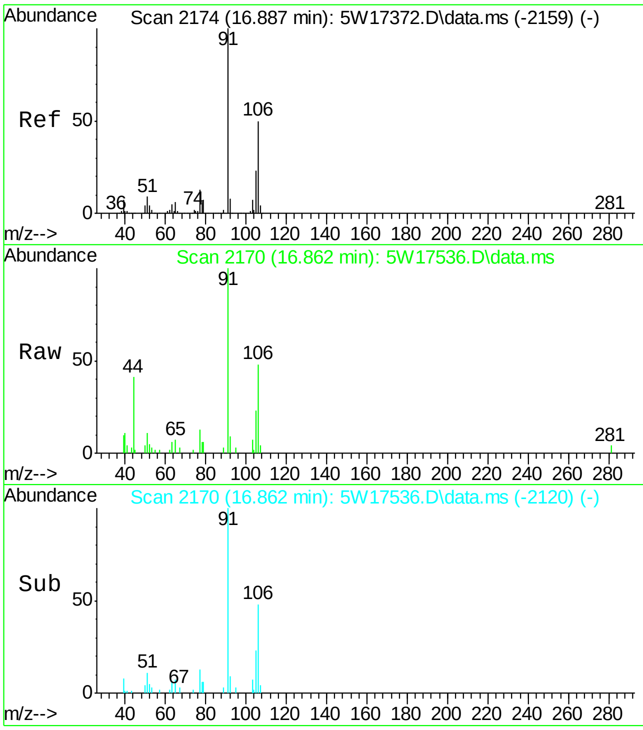


#74
Octane
Concen: 0.15 ppb(v)
RT: 14.972 min Scan# 1861
Delta R.T. 0.019 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 43 Resp: 5498

Ion	Ratio	Lower	Upper
43	100		
85	44.4	37.1	68.9
57	39.8	29.6	55.0

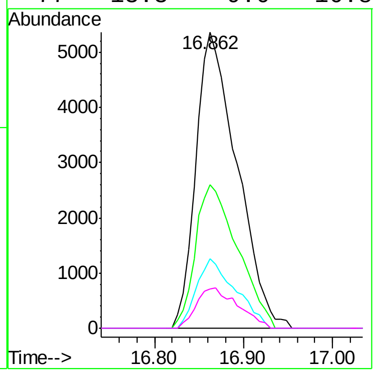


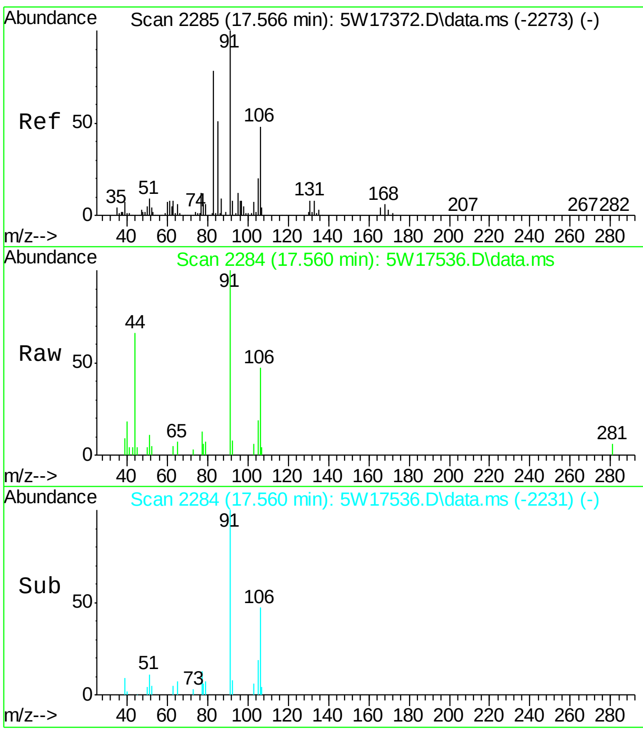


#79
m,p-Xylene
Concen: 0.25 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 91 Resp: 17150

Ion	Ratio	Lower	Upper
91	100		
106	48.5	35.3	65.5
105	23.4	16.2	30.0
77	13.3	9.0	16.8

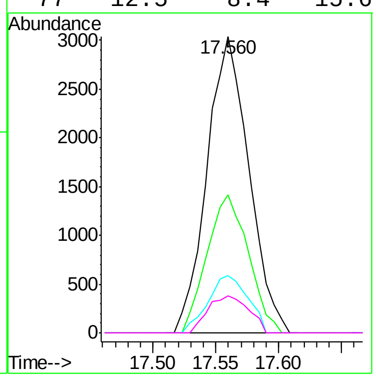


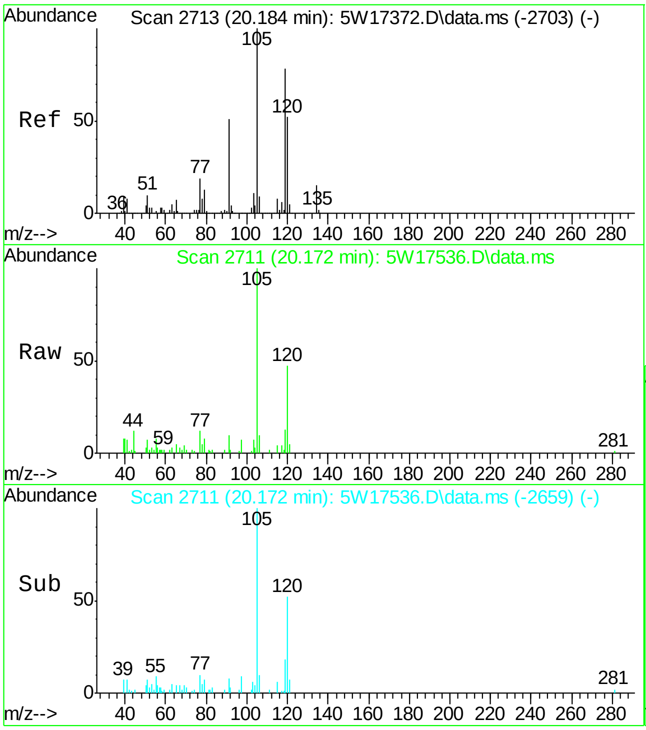


#82
o-Xylene
Concen: 0.10 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion: 91 Resp: 7017

Ion	Ratio	Lower	Upper
91	100		
106	46.5	33.5	62.3
105	19.4	13.7	25.5
77	12.5	8.4	15.6

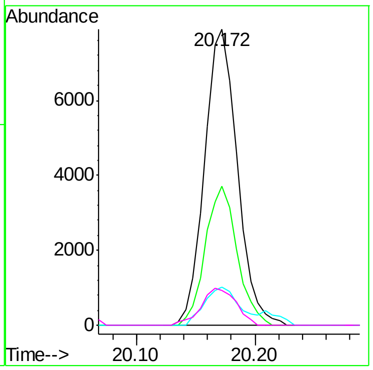




#95
1,2,4-Trimethylbenzene
Concen: 0.19 ppb(v)
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17536.D
Acq: 6 Apr 2016 5:44 pm

Tgt Ion:105 Resp: 15246

Ion	Ratio	Lower	Upper
105	100		
120	47.0	36.6	68.0
119	12.9	54.4	101.0#
77	11.6	13.6	25.2#



Manual Integration Approval Summary

Sample Number:	JC17438-5	**Method:**	TO-15	
Lab FileID:	5W17536.D	**Analyst approved:**	04/07/16 12:38	Dana Tryon
Injection Time:	04/06/16 17:44	**Supervisor approved:**	04/07/16 14:29	Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.66	Missed peak

Quantitation Report (Qedit)

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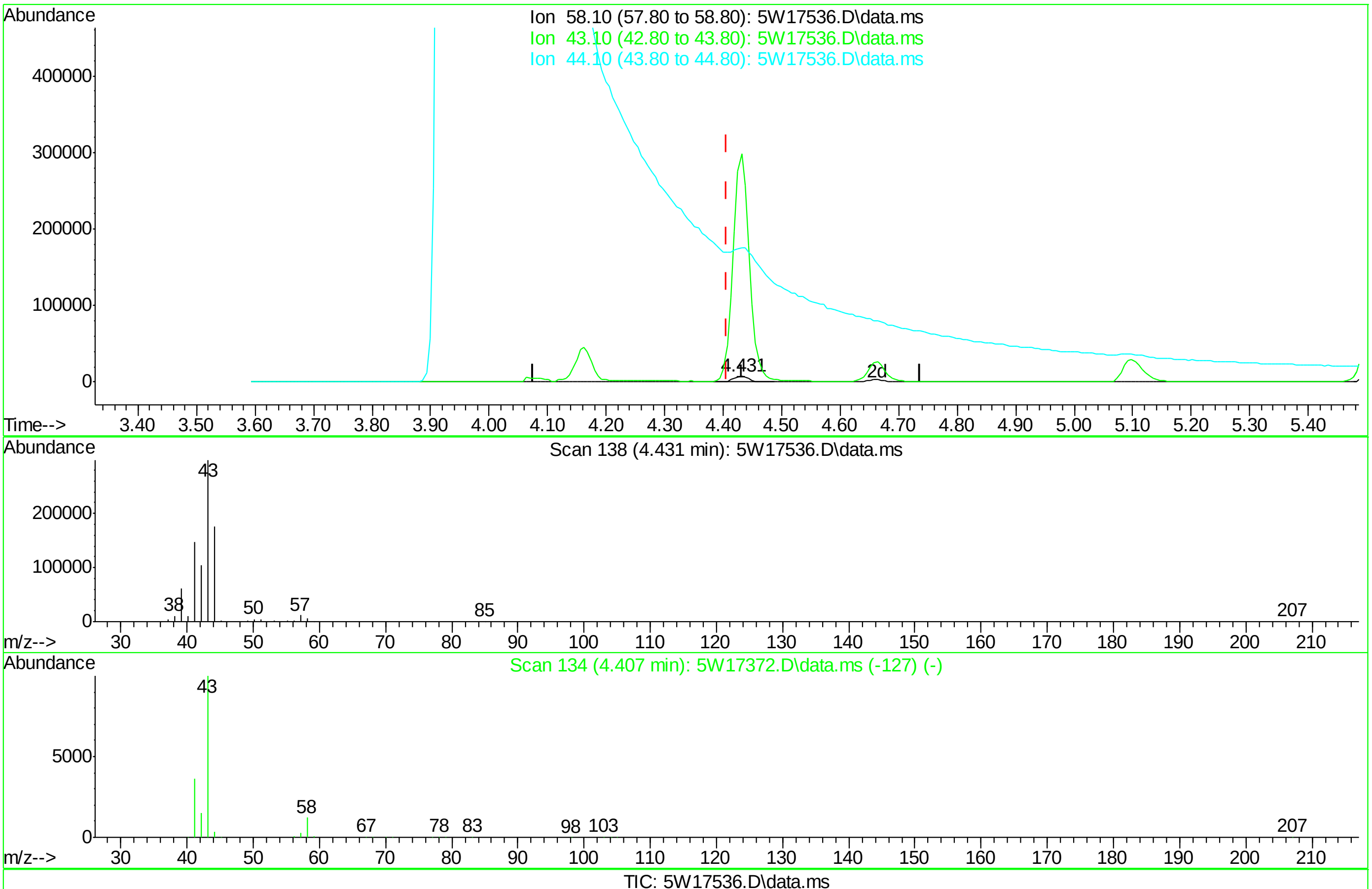
Data Path : C:\msdchem\1\DATA\
Data File : 5W17536.D
Acq On    :  6 Apr 2016   5:44 pm
Operator  : THOMASH
Sample    : JC17438-5
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 07 07:10:45 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(12) n-Butane

4.431min (+0.025) 5.55ppb(v)

response 13994

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4184.17#
44.10	49.20	2464.23#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 15:11

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17537.D
Acq On    :  6 Apr 2016   6:30 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 11:17:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.402	130	204287	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.537	114	762218	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	360631	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.402	130	204287	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	499567	10.12	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery =	101.20%		
Target Compounds						Qvalue
8) Chloromethane	4.321	50	9604	0.66	ppb(v	99
12) n-Butane	4.651	58	3644m	1.38	ppb(v	
20) Trichlorofluoromethane	5.624	101	21587	0.44	ppb(v	99
21) Acetone	5.508	58	82770	10.43	ppb(v	89
22) Pentane	5.918	57	5656	1.43	ppb(v	98
25) Isopropyl Alcohol	5.716	43	198156	32.16	ppb(v	90
26) 1,1-Dichloroethene	6.181	61	19976	0.74	ppb(v	97
27) Freon 113	6.530	101	6331	0.16	ppb(v	98
30) Ethanol	5.104	45	1163766	172.48	ppb(v	99
33) trans-1,2-Dichloroethene	7.172	61	2300	0.10	ppb(v	91
38) 2-Butanone	7.808	72	10207	1.31	ppb(v	94
39) Hexane	8.426	57	34785	1.27	ppb(v#	57
40) cis-1,2-Dichloroethene	8.230	61	371046	16.03	ppb(v	99
42) Ethyl Acetate	8.487	61	9472m	1.76	ppb(v	
44) Chloroform	8.536	83	63087	1.52	ppb(v	98
45) 2,4-Dimethylpentane	9.374	57	11173	0.36	ppb(v	93
47) 1,1,1-Trichloroethane	9.601	97	74707	1.72	ppb(v	99
49) Benzene	10.121	78	19587	0.35	ppb(v	95
51) Cyclohexane	10.414	56	20028	0.77	ppb(v	97
52) 2,3-Dimethylpentane	10.696	71	10892	0.90	ppb(v	98
55) Heptane	11.711	71	24535	1.35	ppb(v	98
56) Trichloroethene	11.375	95	9113033	313.60	ppb(v	96
60) Methyl Methacrylate	11.632	69	8464	0.41	ppb(v	98
66) Toluene	13.644	91	47324	0.65	ppb(v	98
67) 1,1,2-Trichloroethane	13.296	97	8602	0.33	ppb(v	99
72) Tetrachloroethene	15.137	166	760155	18.31	ppb(v	99
74) Octane	14.972	43	22129	0.57	ppb(v	95
78) Ethylbenzene	16.618	91	30847	0.33	ppb(v	98
79) m,p-Xylene	16.862	91	65716	0.92	ppb(v	98
82) o-Xylene	17.560	91	44574	0.60	ppb(v	99
86) Isopropylbenzene	18.459	105	49017	0.47	ppb(v	99
89) n-Propylbenzene	19.248	120	4059	0.15	ppb(v	90
91) 4-Ethyltoluene	19.468	105	38970	0.40	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	73884	0.86	ppb(v	98
93) alpha-Methylstyrene	19.823	118	26216	0.62	ppb(v	99
95) 1,2,4-Trimethylbenzene	20.166	105	157867	1.86	ppb(v#	56
96) 1,3-Dichlorobenzene	20.362	146	9607	0.16	ppb(v	95
105) Naphthalene	23.255	128	10123	0.13	ppb(v	97

```
                          Quantitation Report    (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17537.D
Acq On    :  6 Apr 2016   6:30 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 11:17:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

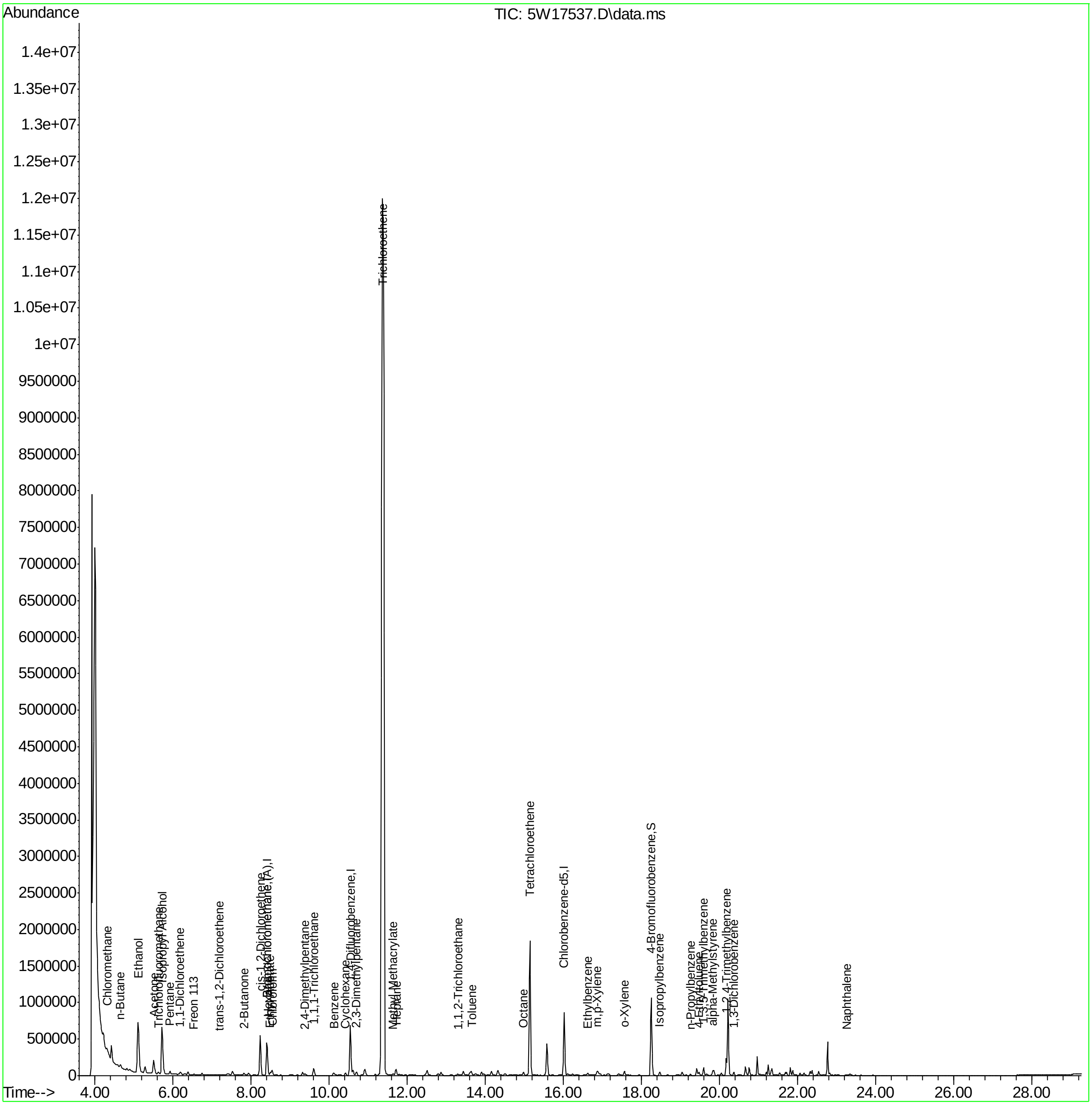
        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------

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

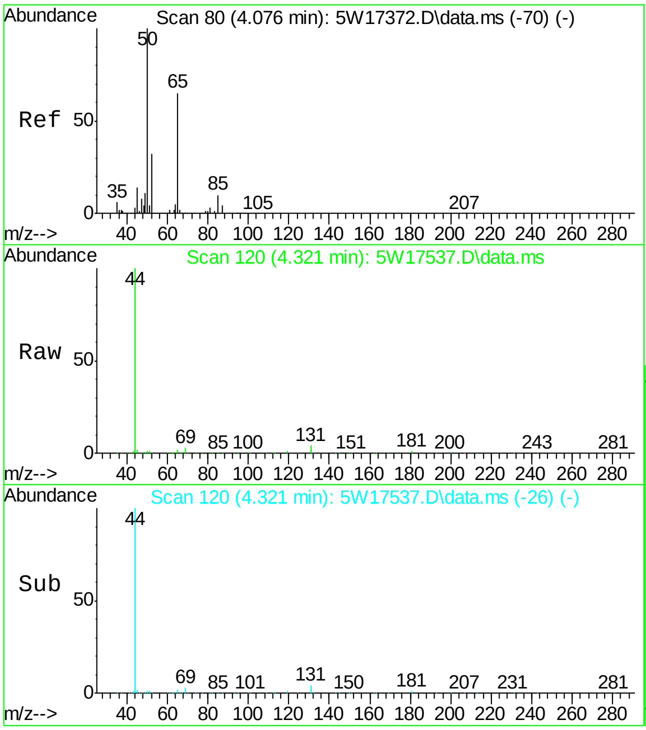
Quantitation Report   (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17537.D
Acq On    :  6 Apr 2016   6:30 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 11:17:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

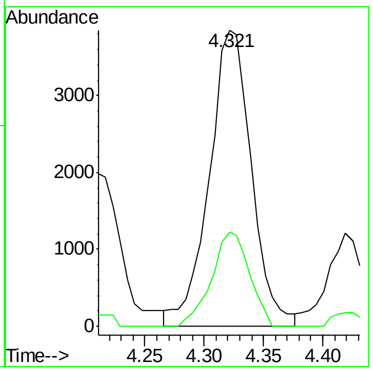


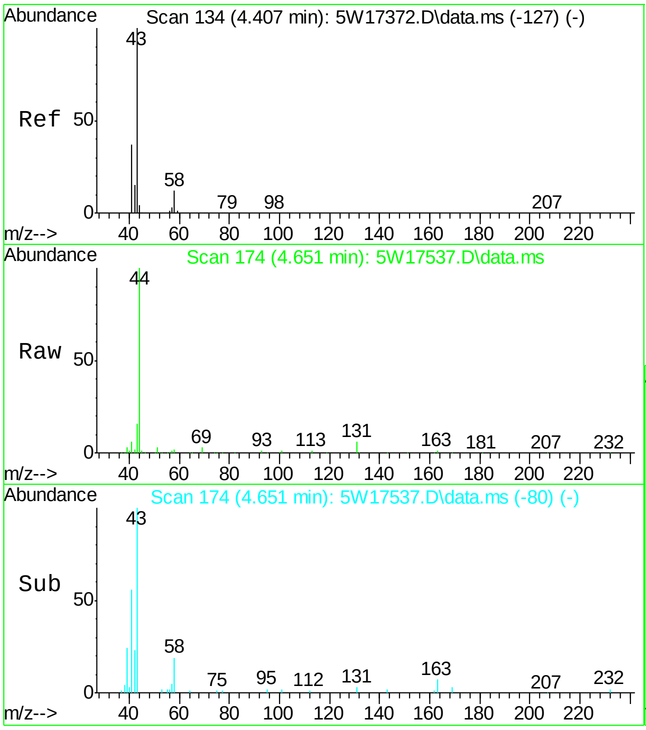
m5w693.M Thu Apr 07 11:17:51 2016 GCMS5W   Page: 3



#8
Chloromethane
Concen: 0.66 ppb(v)
RT: 4.321 min Scan# 120
Delta R.T. 0.245 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

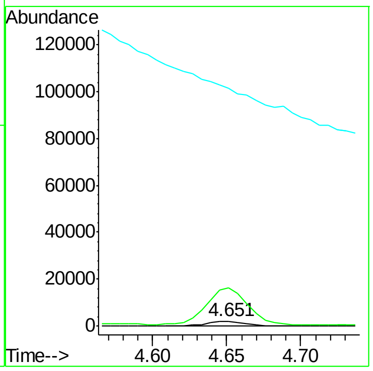
Tgt Ion: 50	Resp:		9604
Ion	Ratio	Lower	Upper
50	100		
52	31.8	22.7	42.1

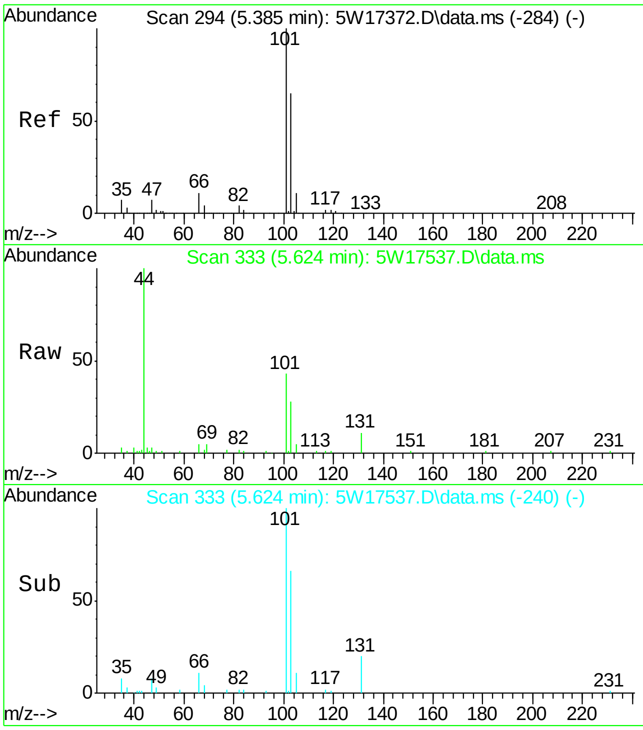




#12
n-Butane
Concen: 1.38 ppb(v) m
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

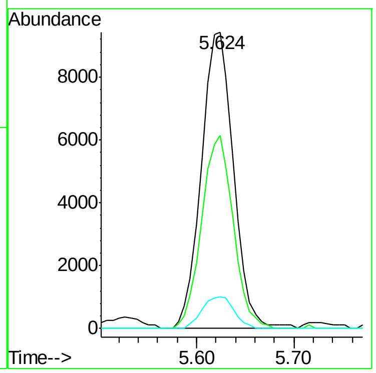
Tgt Ion: 58	Resp:		3644
Ion	Ratio	Lower	Upper
58	100		
43	813.6	576.3	1070.3
44	5058.4	34.4	64.0#

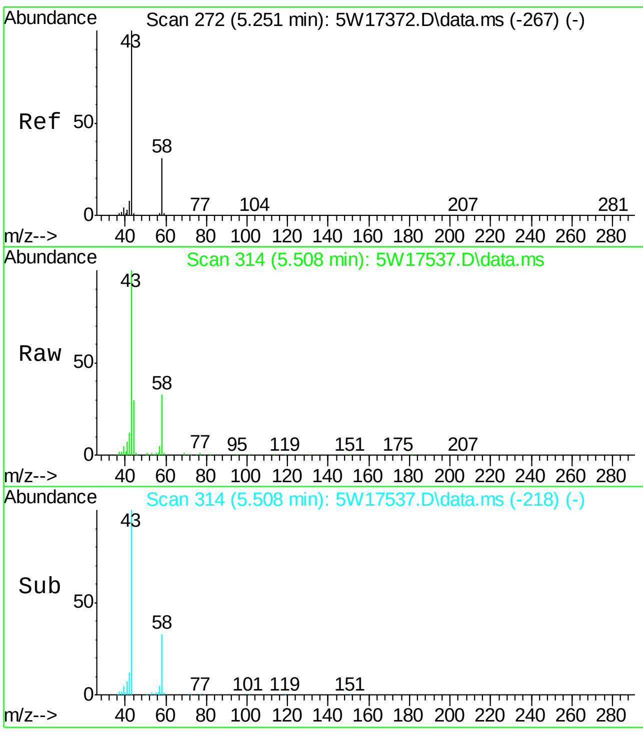




#20
Trichlorofluoromethane
Concen: 0.44 ppb(v)
RT: 5.624 min Scan# 333
Delta R.T. 0.239 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

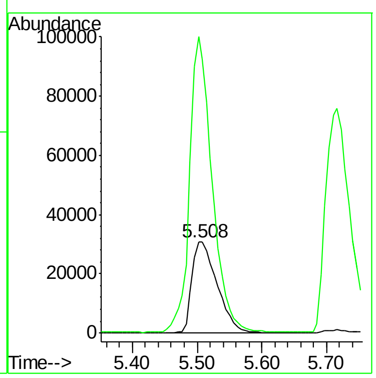
Tgt Ion:101	Resp:	21587	
Ion	Ratio	Lower	Upper
101	100		
103	65.2	45.1	83.9
105	10.5	7.5	13.9

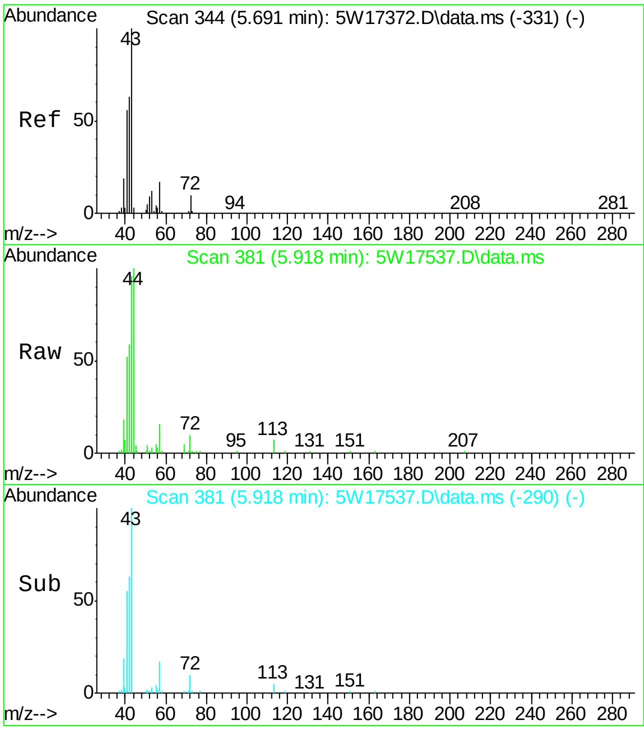




#21
Acetone
Concen: 10.43 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 58	Resp:	82770	
Ion	Ratio	Lower	Upper
58	100		
43	302.4	227.9	423.3

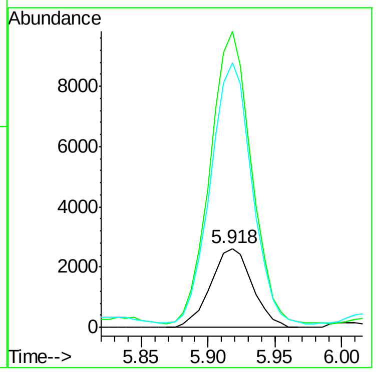


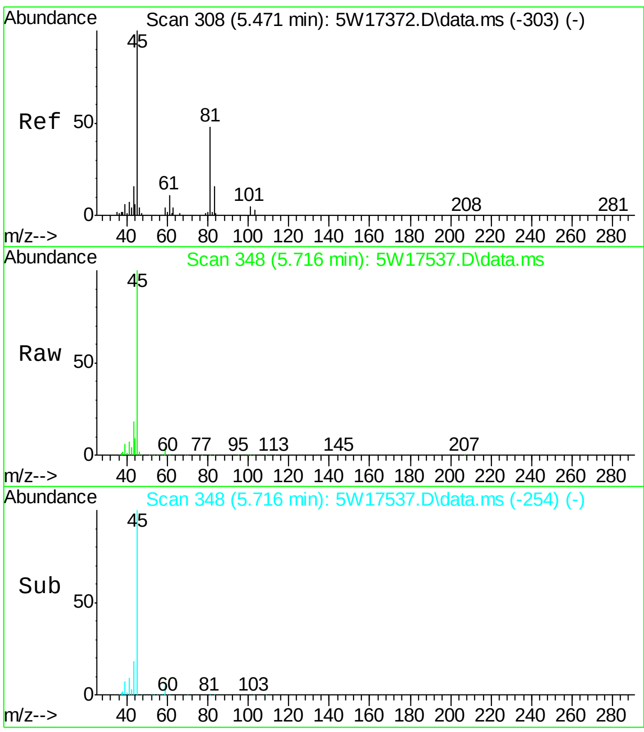


#22
Pentane
Concen: 1.43 ppb(v)
RT: 5.918 min   Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

Tgt Ion: 57 Resp: 5656

Ion	Ratio	Lower	Upper
57	100		
42	376.5	258.3	479.7
41	336.2	233.4	433.5

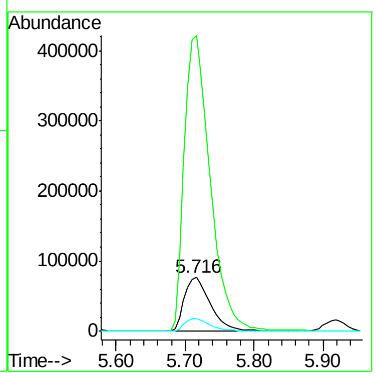


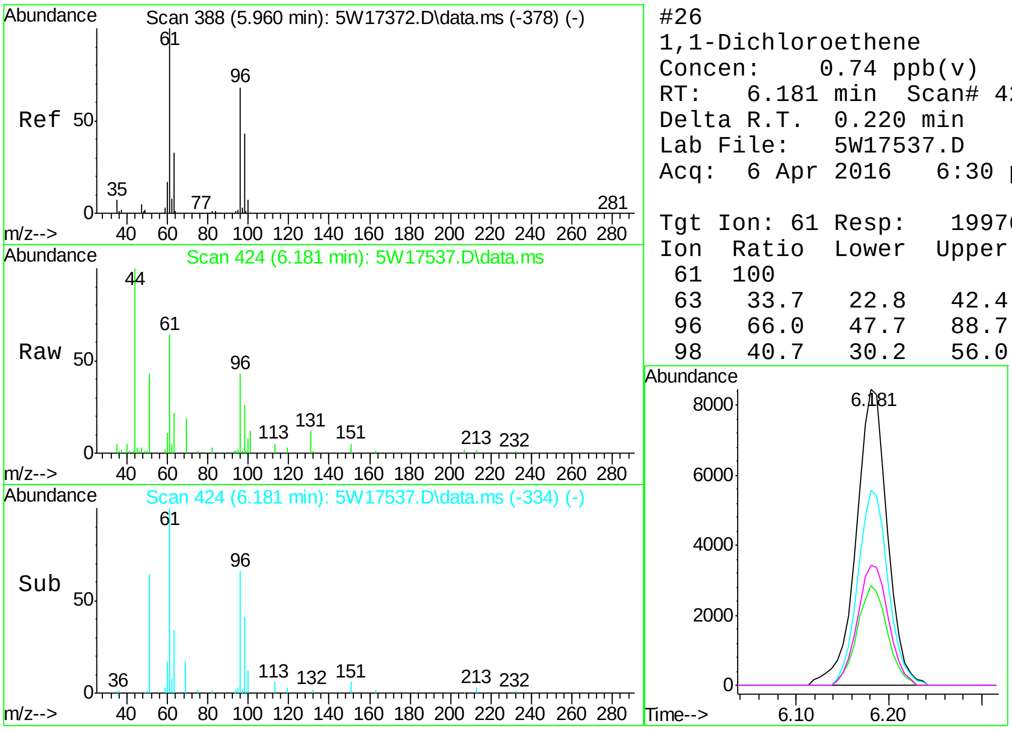


#25
Isopropyl Alcohol
Concen: 32.16 ppb(v)
RT: 5.716 min   Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

Tgt Ion: 43 Resp: 198156

Ion	Ratio	Lower	Upper
43	100		
45	554.5	409.4	760.2
59	24.2	16.8	31.2

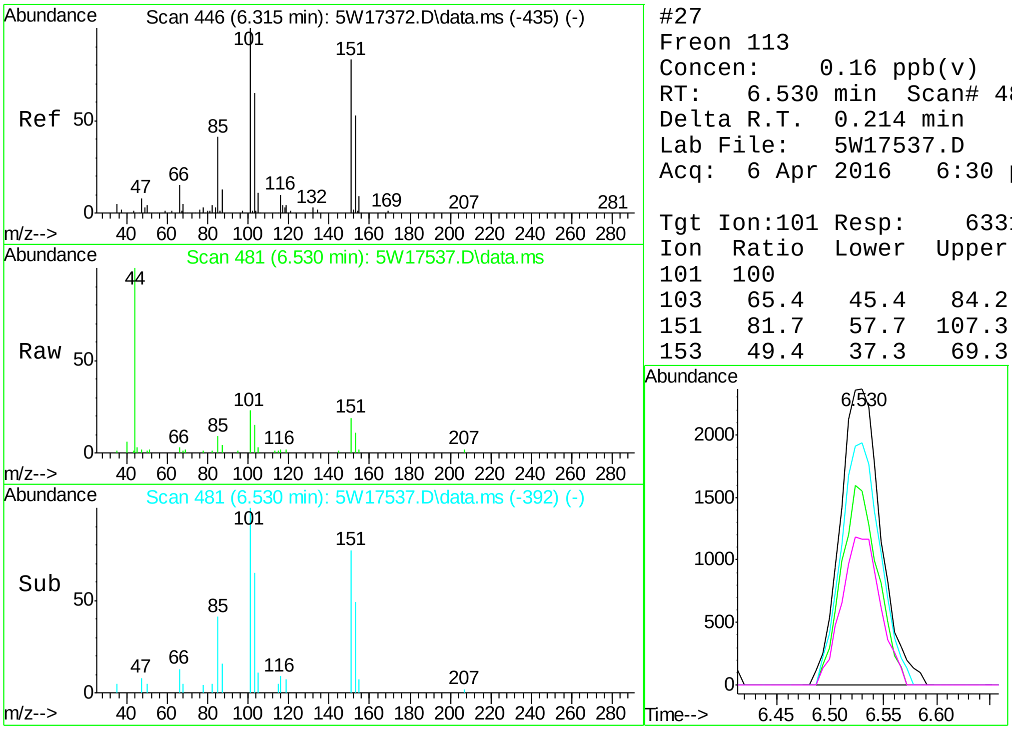




#26
1,1-Dichloroethene
Concen: 0.74 ppb(v)
RT: 6.181 min Scan# 424
Delta R.T. 0.220 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 61 Resp: 19976

Ion	Ratio	Lower	Upper
61	100		
63	33.7	22.8	42.4
96	66.0	47.7	88.7
98	40.7	30.2	56.0

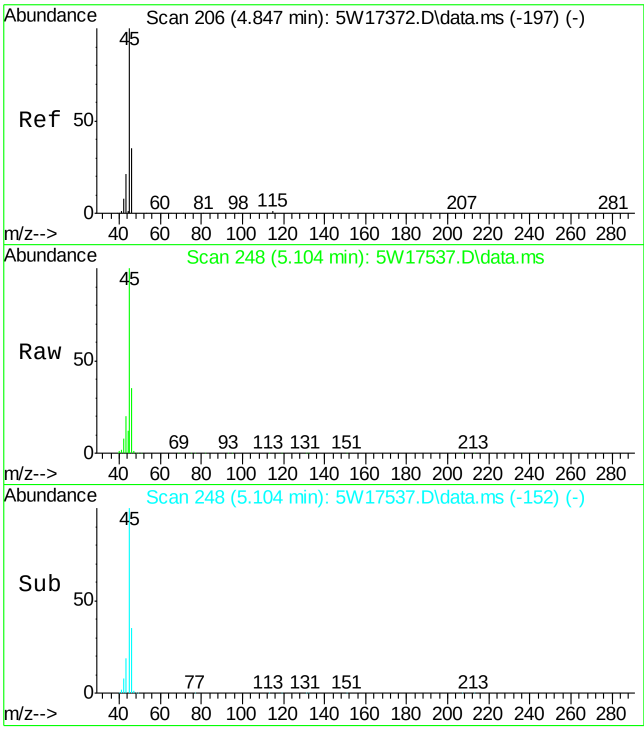


#27
Freon 113
Concen: 0.16 ppb(v)
RT: 6.530 min Scan# 481
Delta R.T. 0.214 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion:101 Resp: 6331

Ion	Ratio	Lower	Upper
101	100		
103	65.4	45.4	84.2
151	81.7	57.7	107.3
153	49.4	37.3	69.3

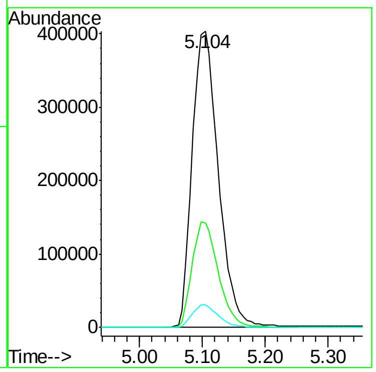
7.1.6
7

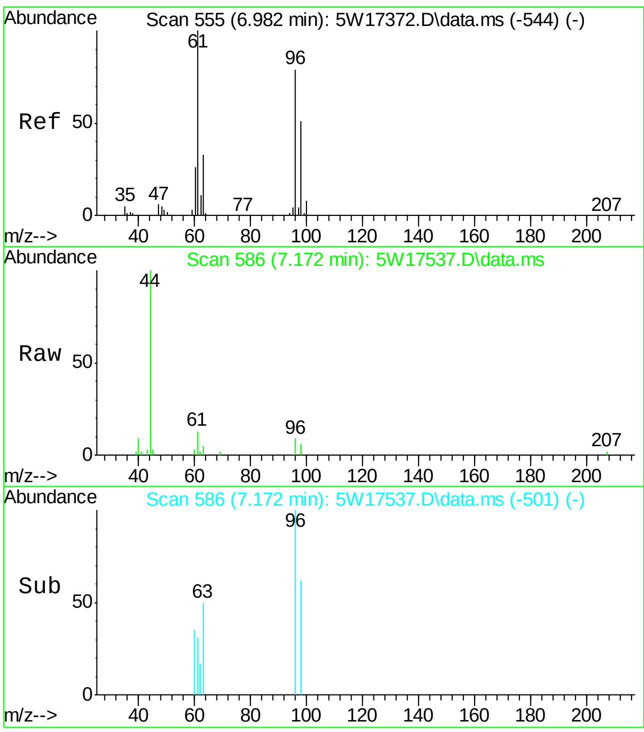


#30
Ethanol
Concen: 172.48 ppb(v)
RT: 5.104 min Scan# 248
Delta R.T. 0.257 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 45 Resp: 1163766

Ion	Ratio	Lower	Upper
45	100		
46	35.2	24.6	45.8
42	7.5	6.5	12.1

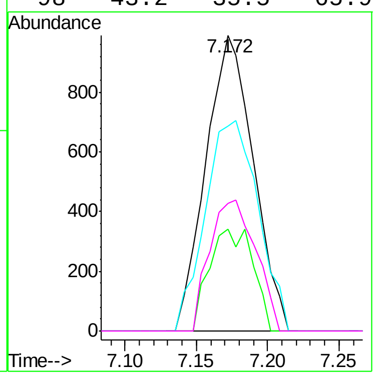


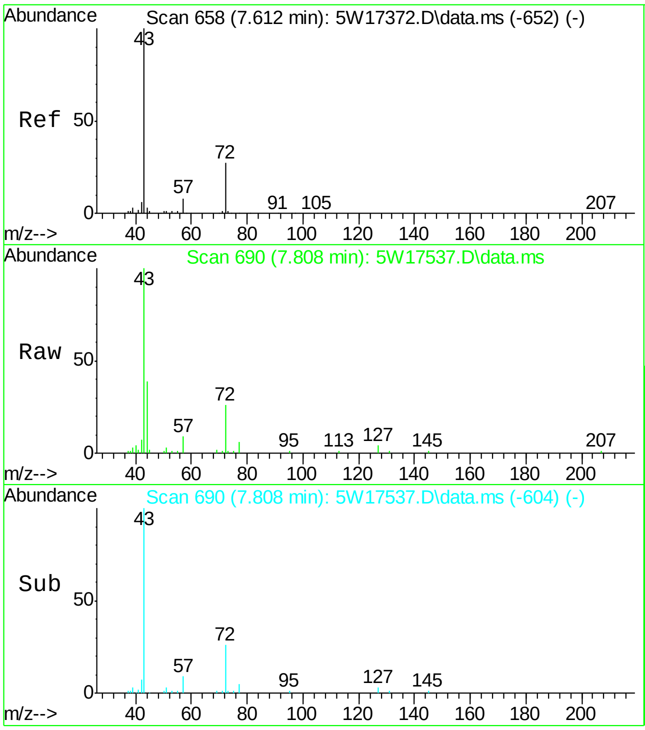


#33
trans-1,2-Dichloroethene
Concen: 0.10 ppb(v)
RT: 7.172 min Scan# 586
Delta R.T. 0.190 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 61 Resp: 2300

Ion	Ratio	Lower	Upper
61	100		
63	34.3	22.7	42.3
96	69.3	55.1	102.3
98	43.2	35.5	65.9

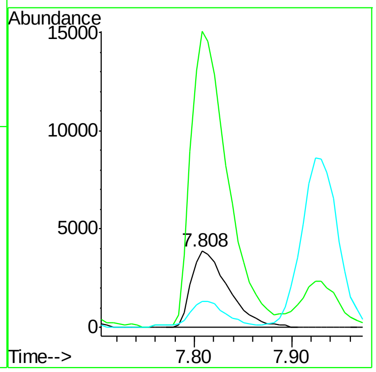


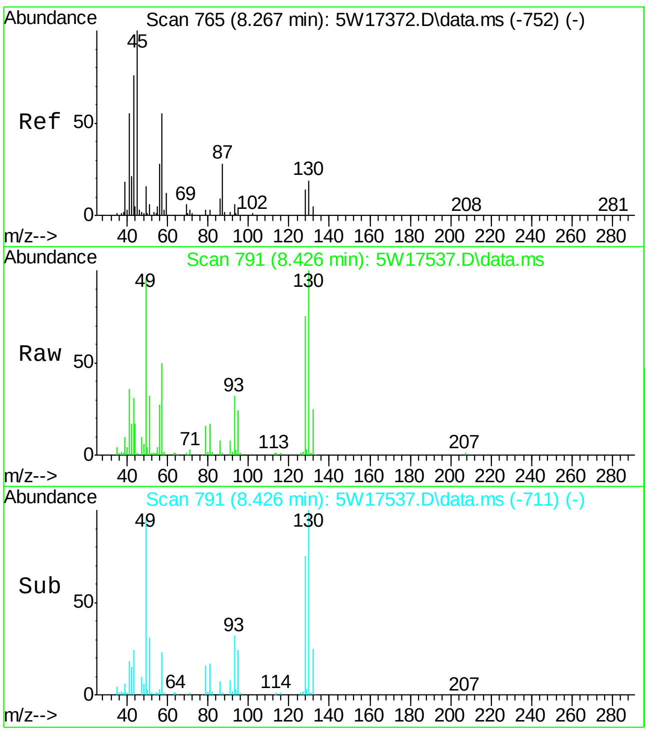


#38
2-Butanone
Concen: 1.31 ppb(v)
RT: 7.808 min   Scan# 690
Delta R.T.   0.196 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

Tgt Ion: 72 Resp: 10207

Ion	Ratio	Lower	Upper
72	100		
43	390.4	262.9	488.3
57	33.8	21.3	39.6

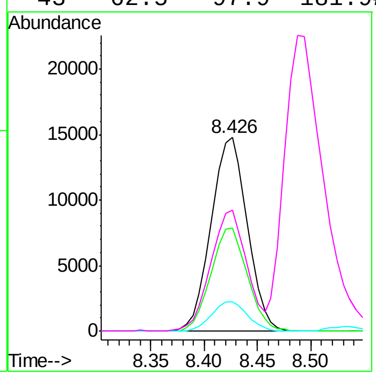


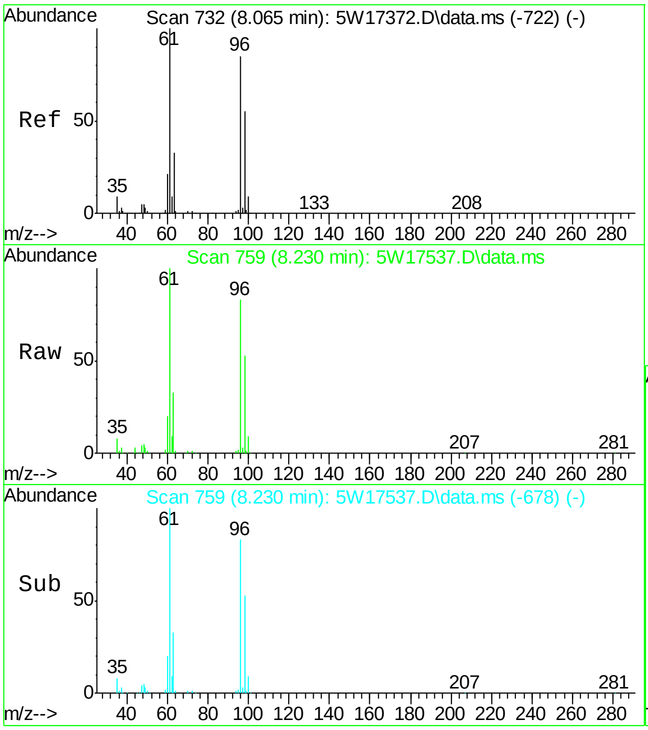


#39
Hexane
Concen: 1.27 ppb(v)
RT: 8.426 min   Scan# 791
Delta R.T.   0.159 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

Tgt Ion: 57 Resp: 34785

Ion	Ratio	Lower	Upper
57	100		
56	53.6	36.5	67.9
86	15.0	11.1	20.7
43	62.5	97.9	181.9#

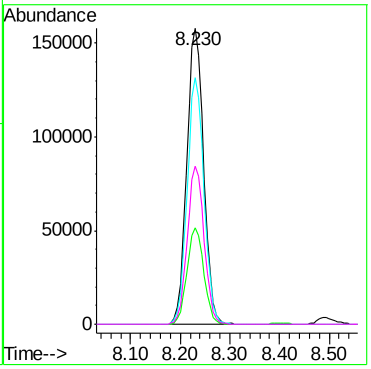


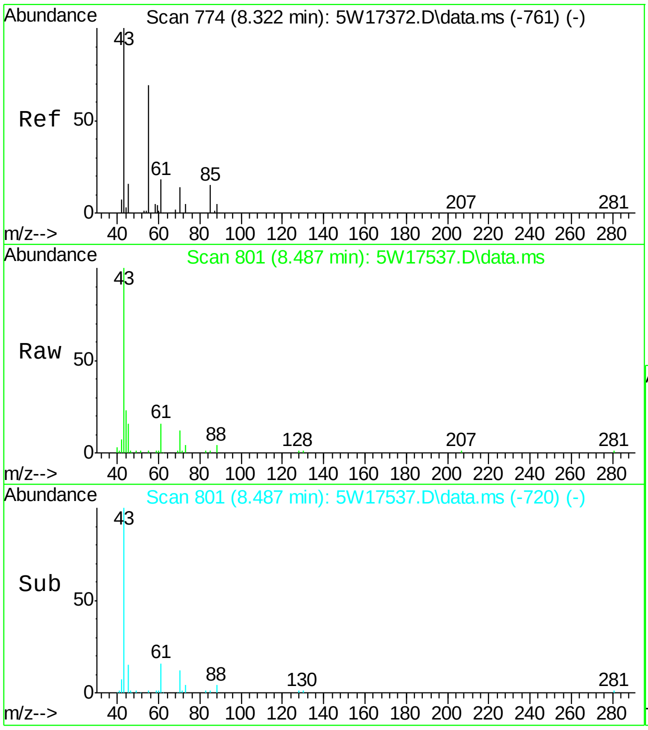


#40
cis-1,2-Dichloroethene
Concen: 16.03 ppb(v)
RT: 8.230 min Scan# 759
Delta R.T. 0.165 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 61 Resp: 371046

Ion	Ratio	Lower	Upper
61	100		
63	32.6	23.0	42.8
96	83.3	59.3	110.1
98	53.4	38.2	71.0

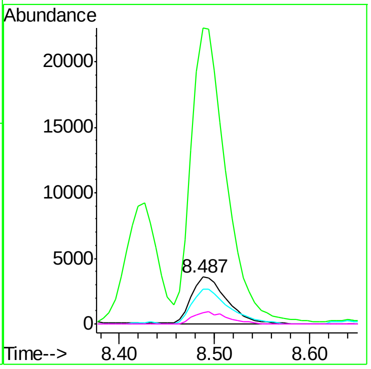


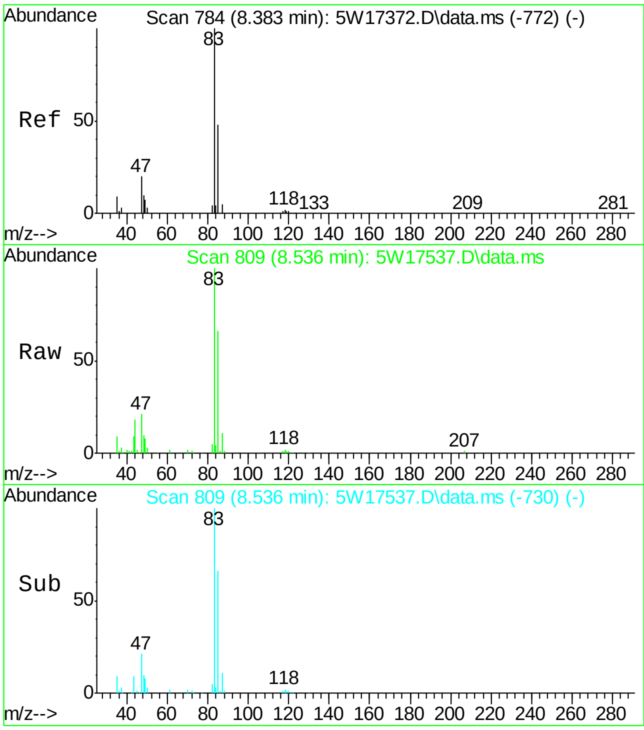


#42
Ethyl Acetate
Concen: 1.76 ppb(v) m
RT: 8.487 min Scan# 801
Delta R.T. 0.165 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 61 Resp: 9472

Ion	Ratio	Lower	Upper
61	100		
43	628.4	466.1	865.7
70	73.7	56.3	104.5
88	24.7	20.6	38.2

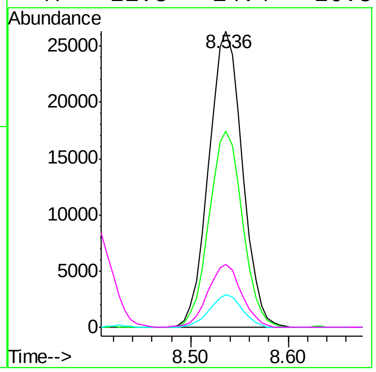


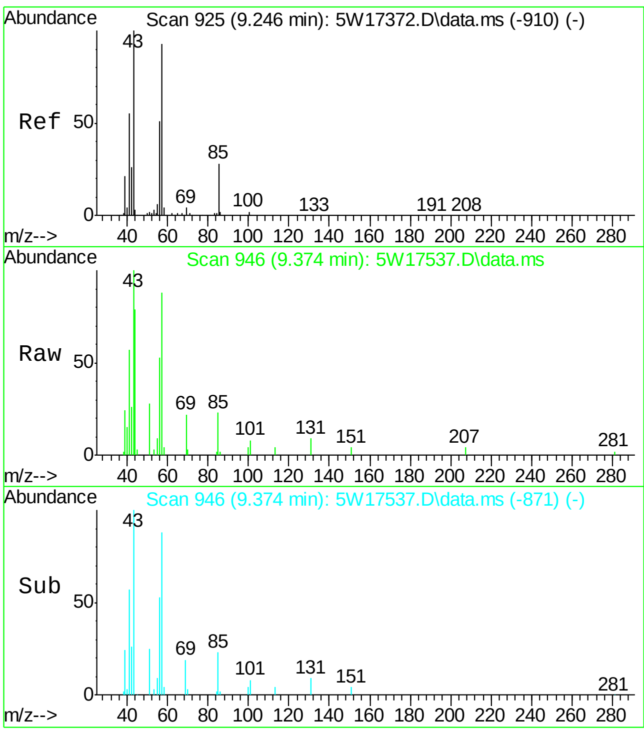


#44
Chloroform
Concen: 1.52 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 83 Resp: 63087

Ion	Ratio	Lower	Upper
83	100		
85	66.2	45.4	84.2
87	10.9	7.3	13.5
47	21.3	14.4	26.8

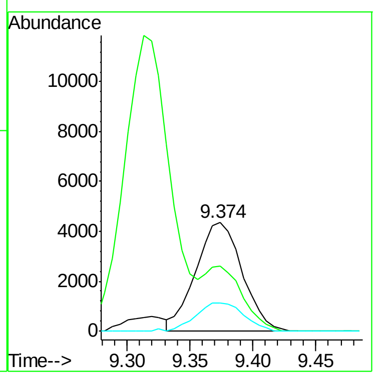


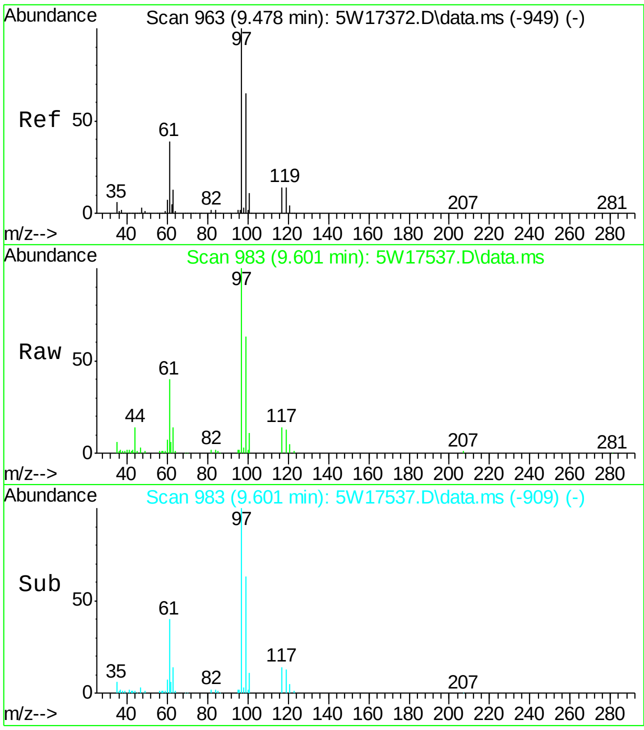


#45
2,4-Dimethylpentane
Concen: 0.36 ppb(v)
RT: 9.374 min Scan# 946
Delta R.T. 0.129 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 57 Resp: 11173

Ion	Ratio	Lower	Upper
57	100		
56	59.9	38.9	72.2
85	25.7	21.0	39.0

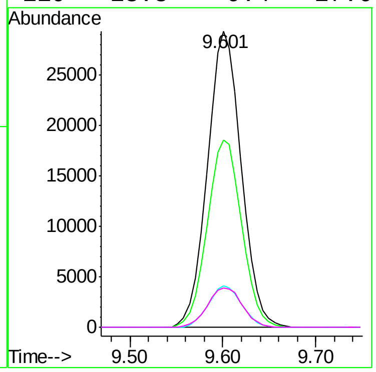


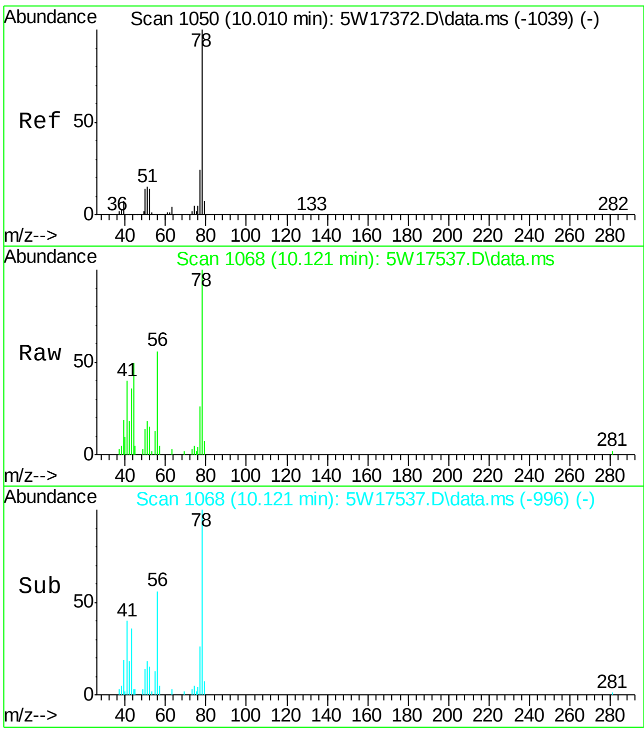


#47
1,1,1-Trichloroethane
Concen: 1.72 ppb(v)
RT: 9.601 min Scan# 983
Delta R.T. 0.122 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 97 Resp: 74707

Ion	Ratio	Lower	Upper
97	100		
99	63.4	45.3	84.1
117	14.1	10.0	18.6
119	13.3	9.4	17.6

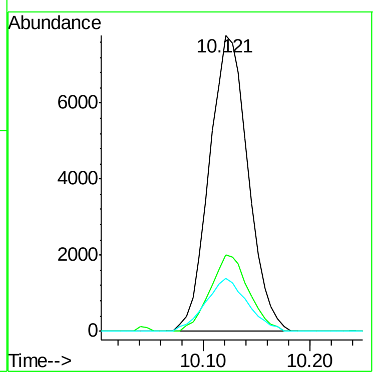


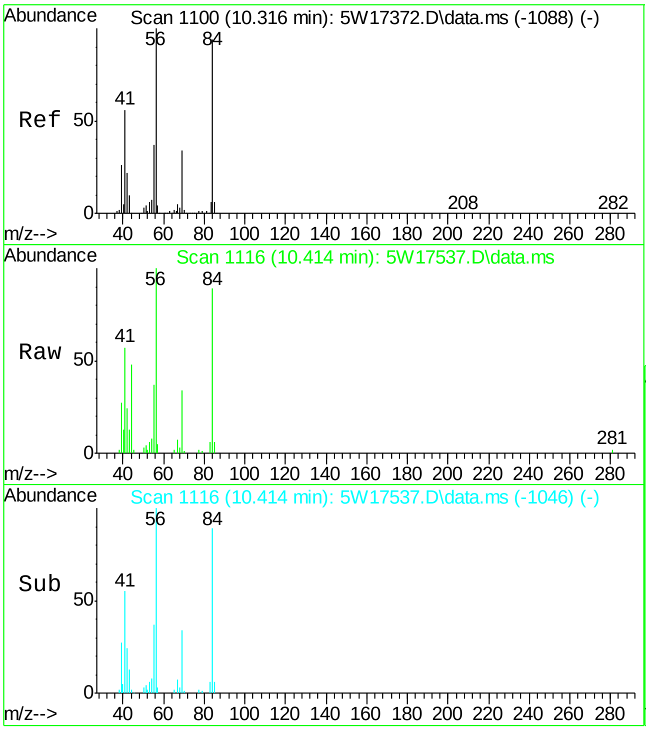


#49
Benzene
Concen: 0.35 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 78 Resp: 19587

Ion	Ratio	Lower	Upper
78	100		
77	25.7	16.5	30.7
51	17.7	10.5	19.5

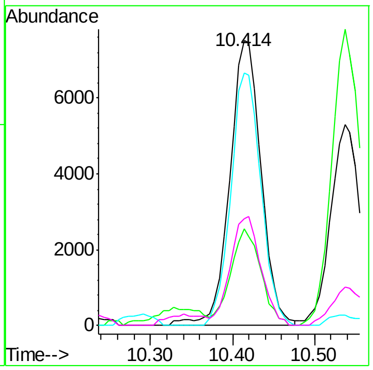


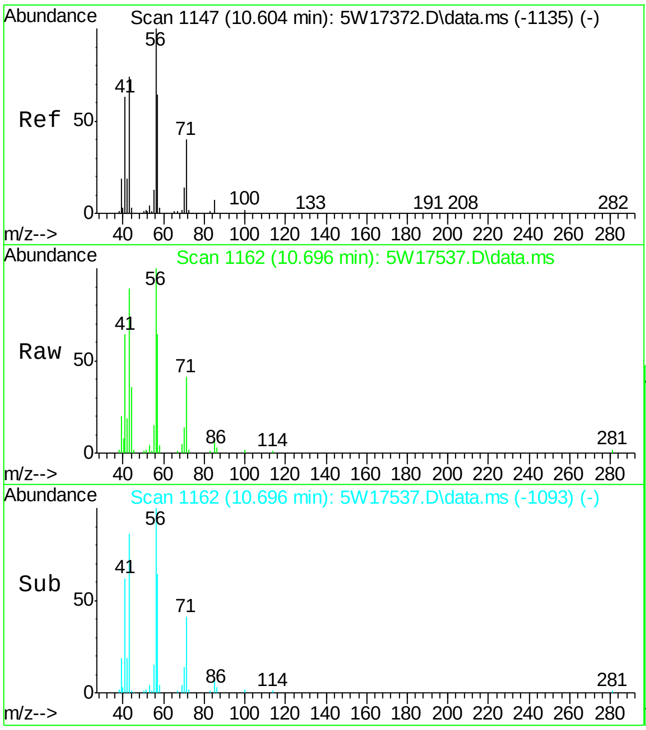


#51
Cyclohexane
Concen: 0.77 ppb(v)
RT: 10.414 min Scan# 1116
Delta R.T. 0.098 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 56 Resp: 20028

Ion	Ratio	Lower	Upper
56	100		
69	33.8	23.7	44.1
84	88.7	65.6	121.8
55	37.3	26.4	49.0

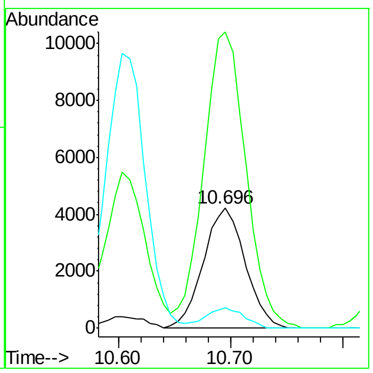


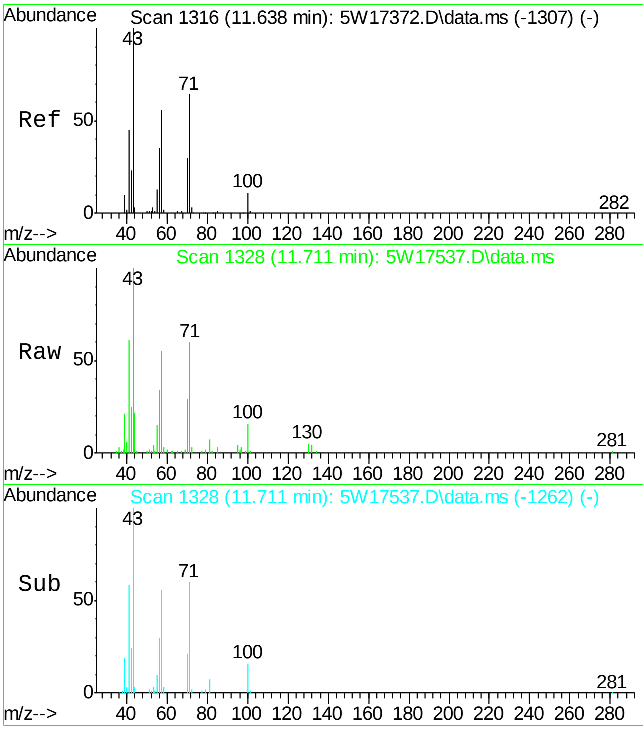


#52
2,3-Dimethylpentane
Concen: 0.90 ppb(v)
RT: 10.696 min Scan# 1162
Delta R.T. 0.092 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 71 Resp: 10892

Ion	Ratio	Lower	Upper
71	100		
56	246.7	175.3	325.5
85	16.7	12.0	22.2

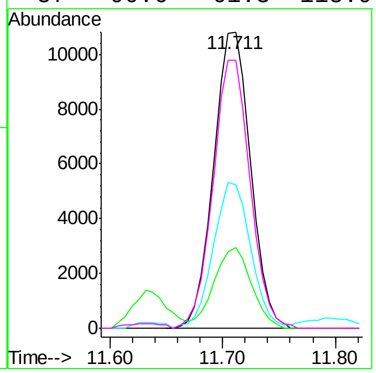


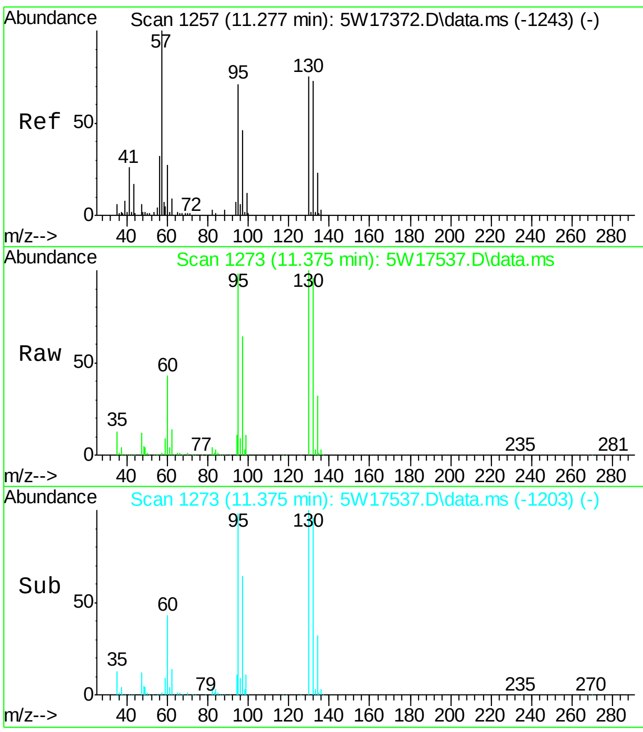


#55
Heptane
Concen: 1.35 ppb(v)
RT: 11.711 min Scan# 1328
Delta R.T. 0.074 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 71 Resp: 24535

Ion	Ratio	Lower	Upper
71	100		
100	27.2	19.6	36.4
70	48.4	34.0	63.2
57	90.6	61.3	113.9

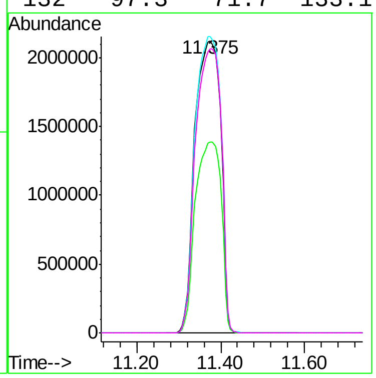


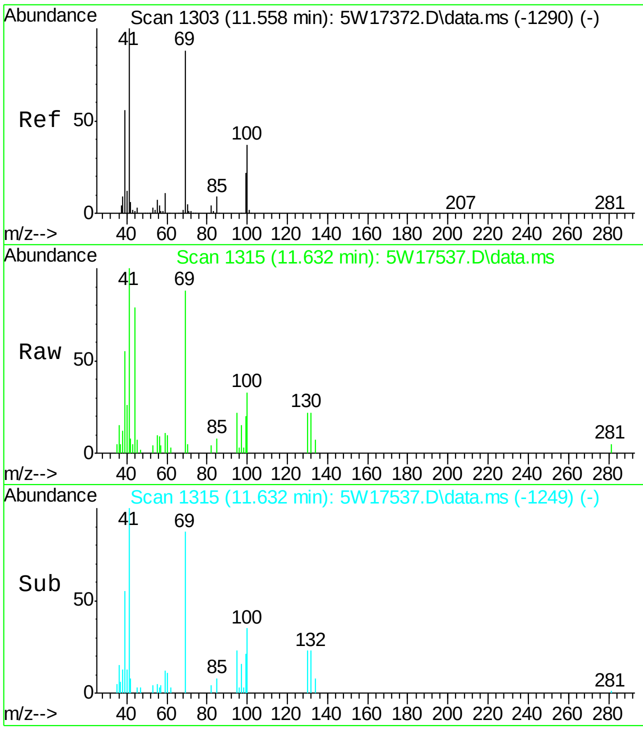


#56
Trichloroethene
Concen: 313.60 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.098 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 95 Resp: 9113033

Ion	Ratio	Lower	Upper
95	100		
97	65.4	45.4	84.4
130	101.6	74.1	137.5
132	97.3	71.7	133.1

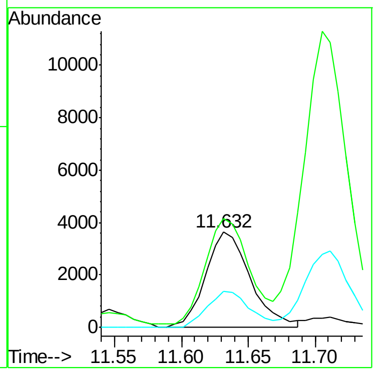


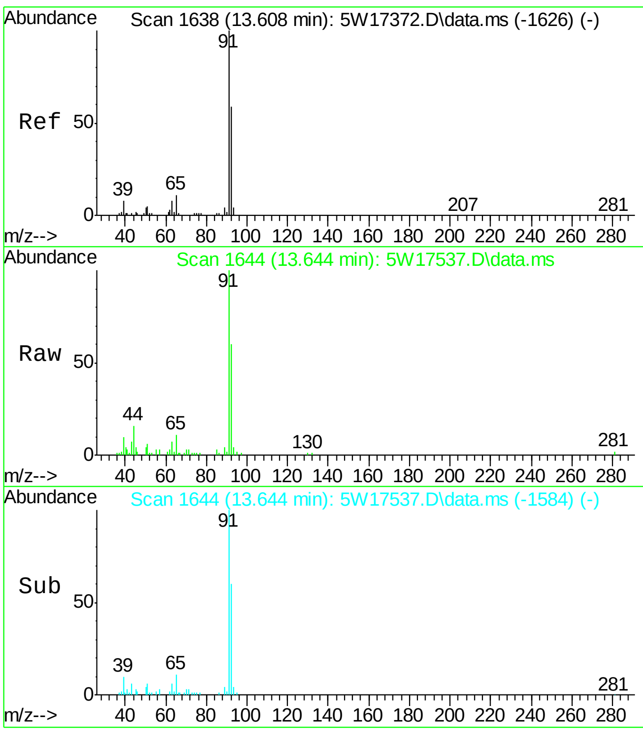


#60
Methyl Methacrylate
Concen: 0.41 ppb(v)
RT: 11.632 min Scan# 1315
Delta R.T. 0.074 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 69 Resp: 8464

Ion	Ratio	Lower	Upper
69	100		
41	114.1	79.4	147.4
100	37.8	29.2	54.2

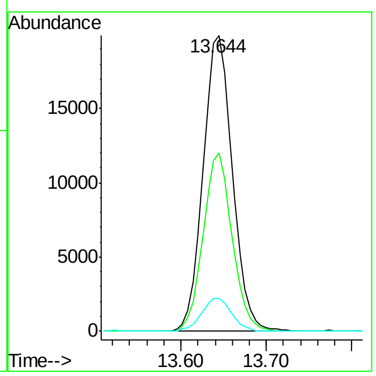




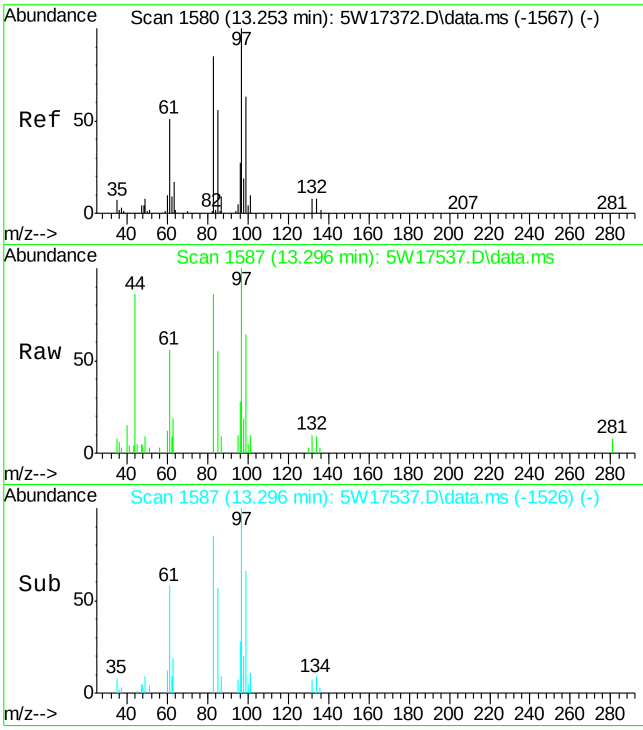
#66
Toluene
Concen: 0.65 ppb(v)
RT: 13.644 min Scan# 1644
Delta R.T. 0.037 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 91 Resp: 47324

Ion	Ratio	Lower	Upper
91	100		
92	60.3	41.2	76.6
65	11.1	7.3	13.7



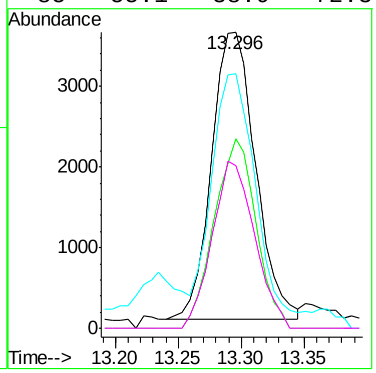
7.1.6
7

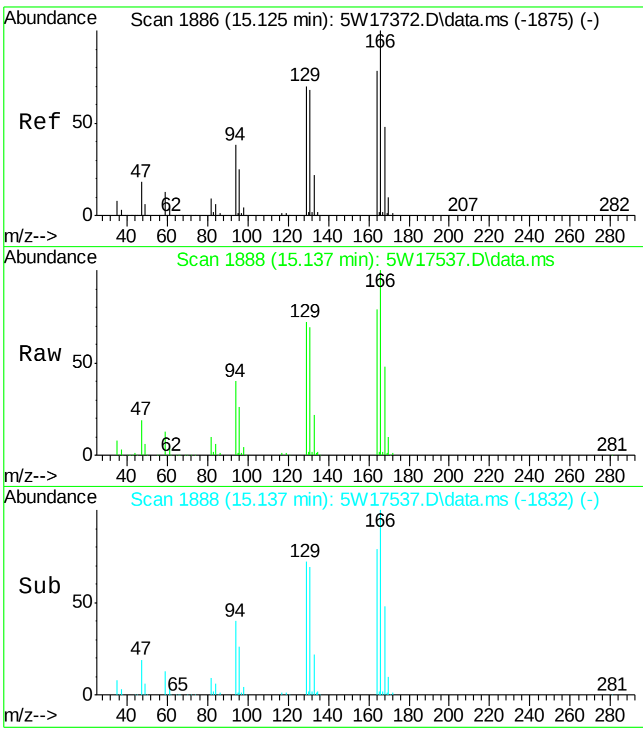


#67
1,1,2-Trichloroethane
Concen: 0.33 ppb(v)
RT: 13.296 min Scan# 1587
Delta R.T. 0.043 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 97 Resp: 8602

Ion	Ratio	Lower	Upper
97	100		
99	63.9	44.3	82.3
83	86.0	59.3	110.1
85	55.1	38.9	72.3

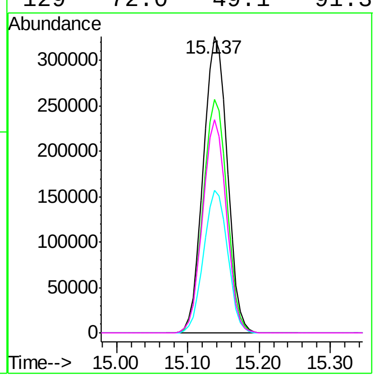


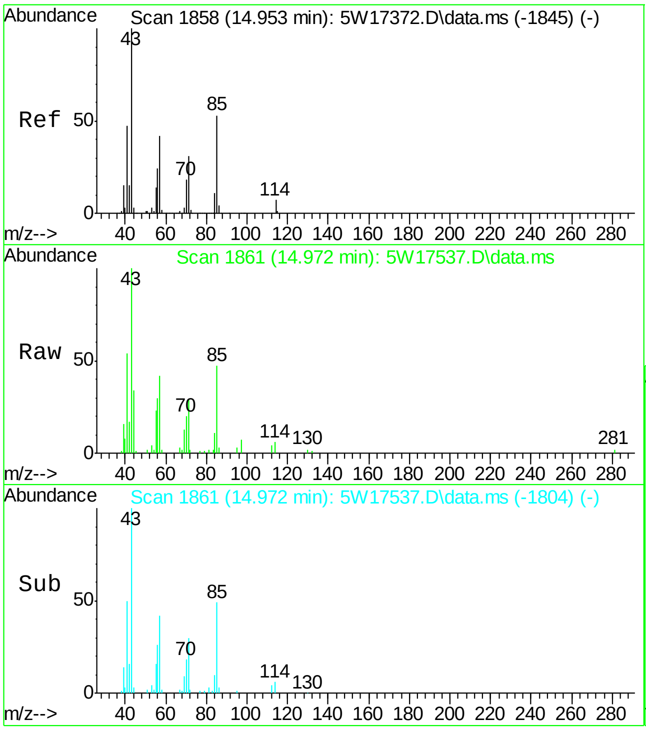


#72
Tetrachloroethene
Concen: 18.31 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion:166 Resp: 760155

Ion	Ratio	Lower	Upper
166	100		
164	78.8	54.6	101.4
168	48.3	33.5	62.3
129	72.0	49.1	91.3

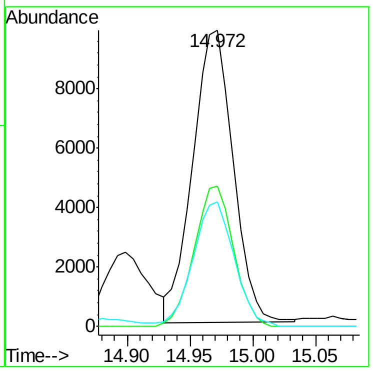


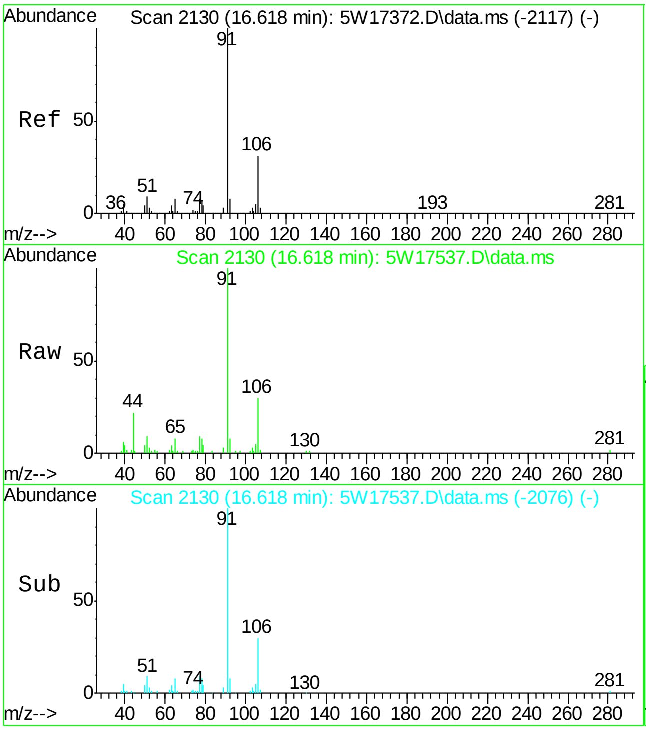


#74
Octane
Concen: 0.57 ppb(v)
RT: 14.972 min Scan# 1861
Delta R.T. 0.018 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 43 Resp: 22129

Ion	Ratio	Lower	Upper
43	100		
85	47.5	37.1	68.9
57	41.9	29.6	55.0

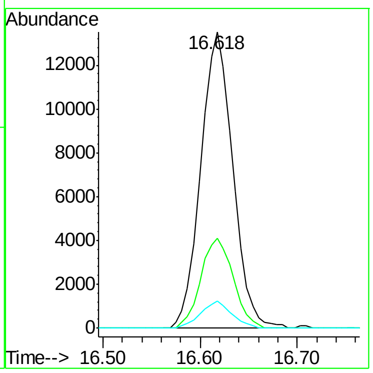




#78
Ethylbenzene
Concen: 0.33 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

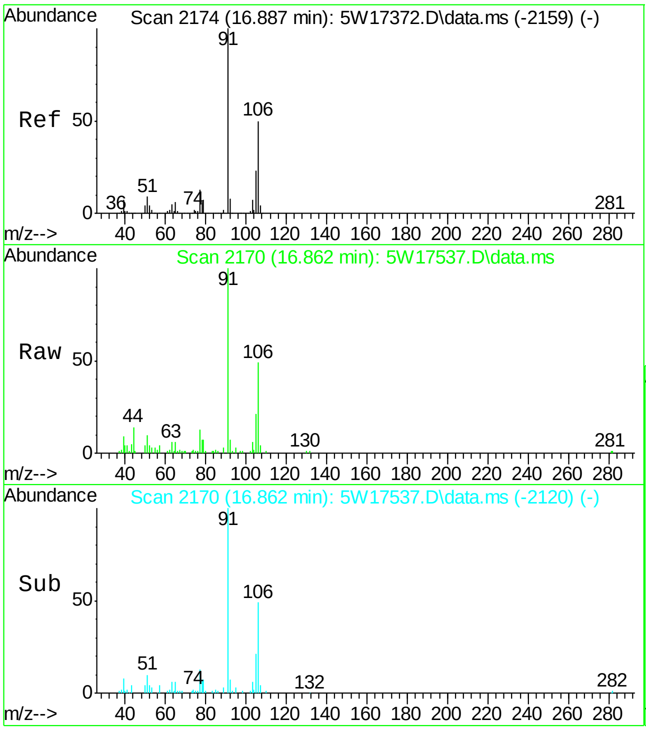
Tgt Ion: 91 Resp: 30847

Ion	Ratio	Lower	Upper
91	100		
106	30.4	22.0	40.8
77	9.0	5.9	10.9



7.1.6

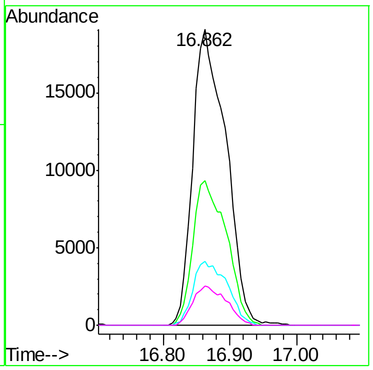
7

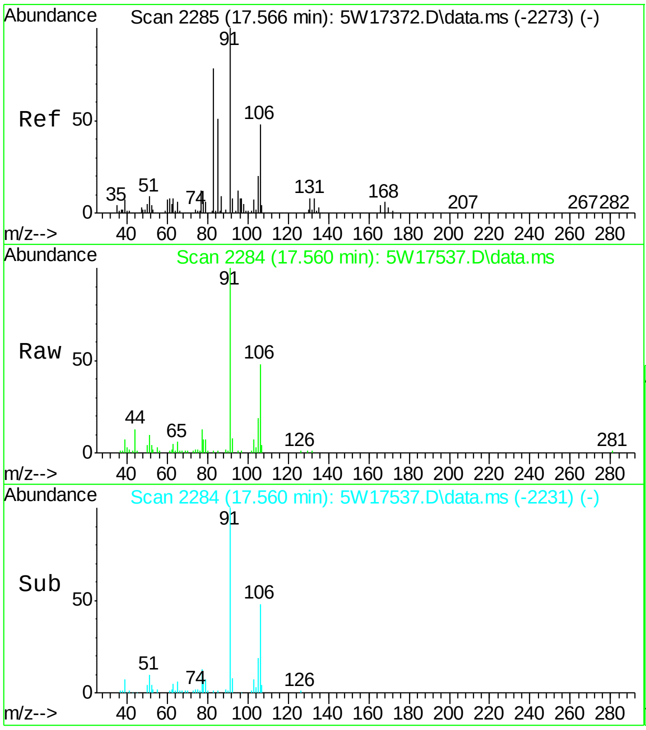


#79
m,p-Xylene
Concen: 0.92 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion: 91 Resp: 65716

Ion	Ratio	Lower	Upper
91	100		
106	48.9	35.3	65.5
105	21.5	16.2	30.0
77	13.2	9.0	16.8

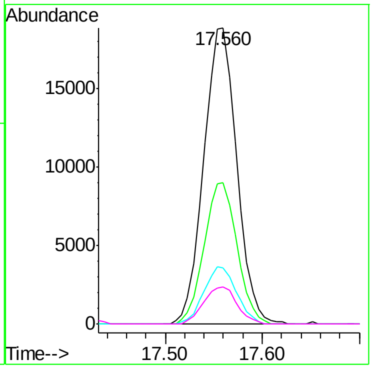




#82
o-Xylene
Concen: 0.60 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

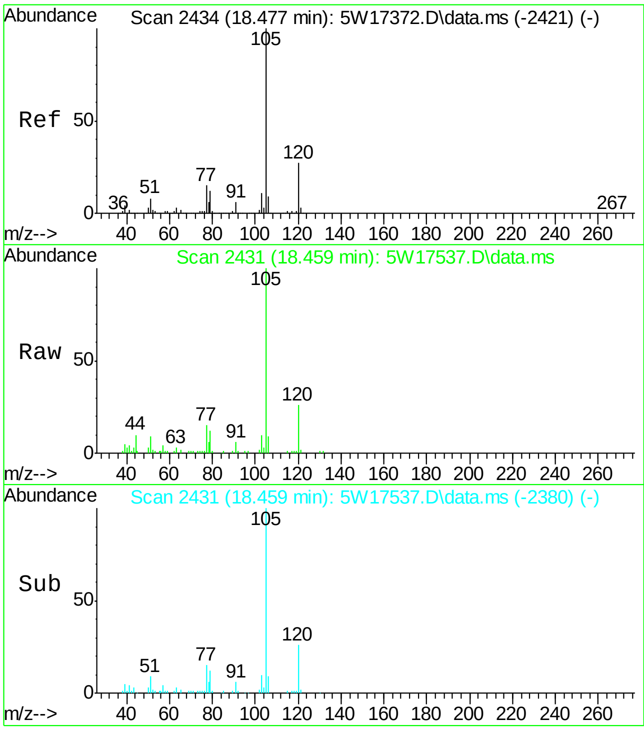
Tgt Ion: 91 Resp: 44574

Ion	Ratio	Lower	Upper
91	100		
106	47.9	33.5	62.3
105	19.1	13.7	25.5
77	12.7	8.4	15.6



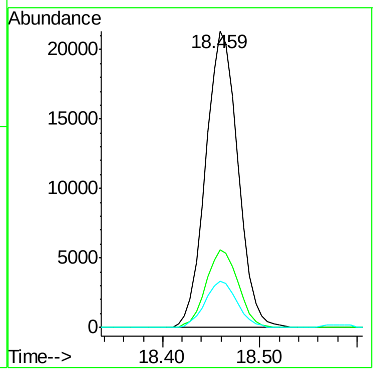
7.1.6

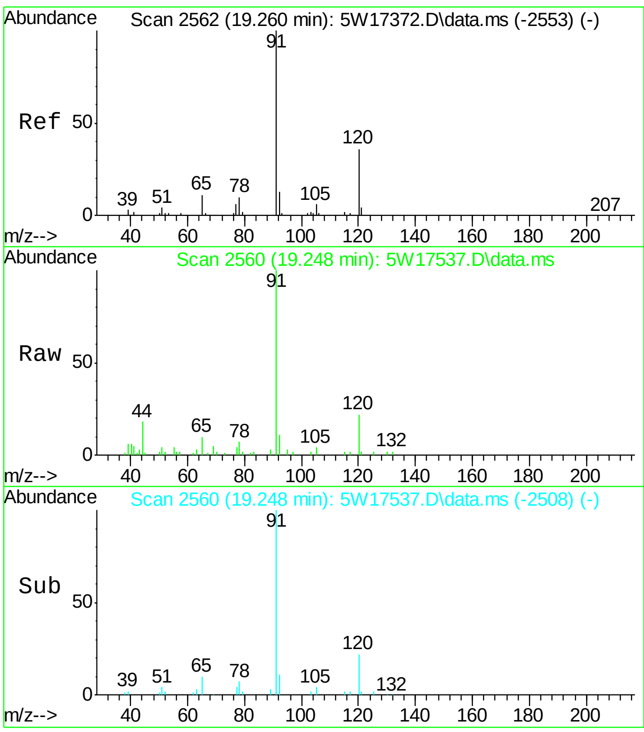
7



#86
Isopropylbenzene
Concen: 0.47 ppb(v)
RT: 18.459 min Scan# 2431
Delta R.T. -0.018 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

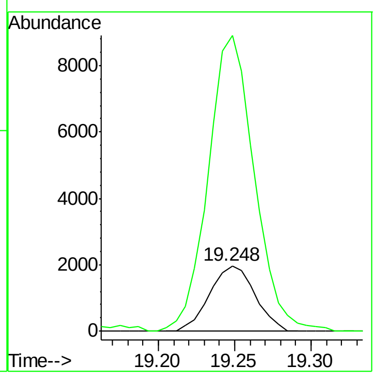
Tgt Ion:105	Resp:	49017	
Ion	Ratio	Lower	Upper
105	100		
120	26.2	18.6	34.6
77	15.5	10.4	19.2

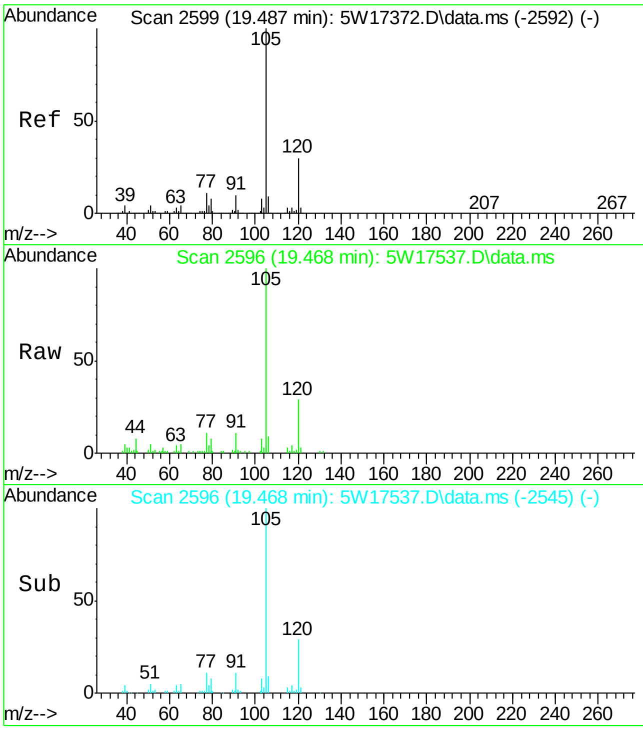




#89
n-Propylbenzene
Concen: 0.15 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

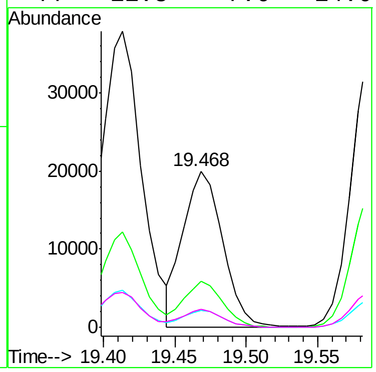
Tgt Ion:120	Resp:	4059	
Ion	Ratio	Lower	Upper
120	100		
91	454.6	300.7	558.5

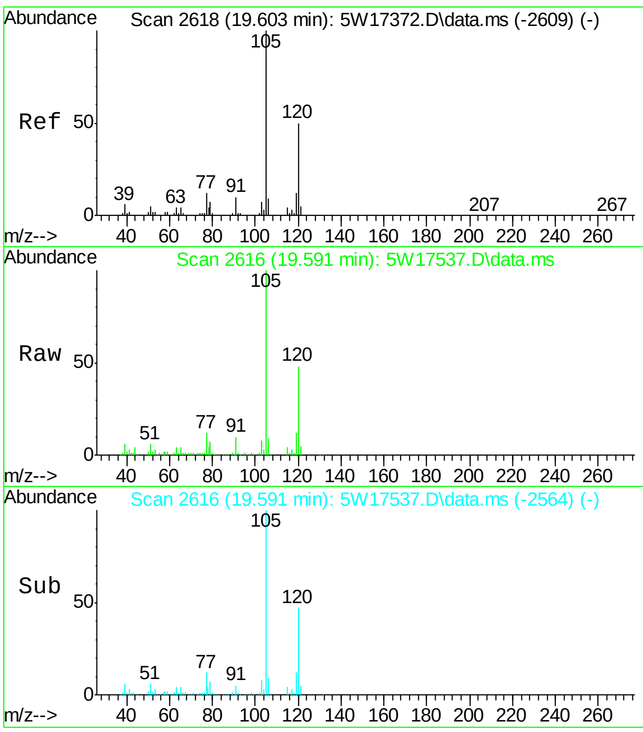




#91
4-Ethyltoluene
Concen: 0.40 ppb(v)
RT: 19.468 min   Scan# 2596
Delta R.T.   -0.018 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

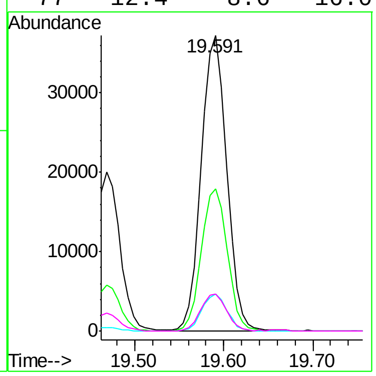
Tgt Ion:105	Resp:		38970
Ion	Ratio	Lower	Upper
105	100		
120	29.3	20.9	38.9
91	10.7	7.3	13.7
77	11.3	7.6	14.0

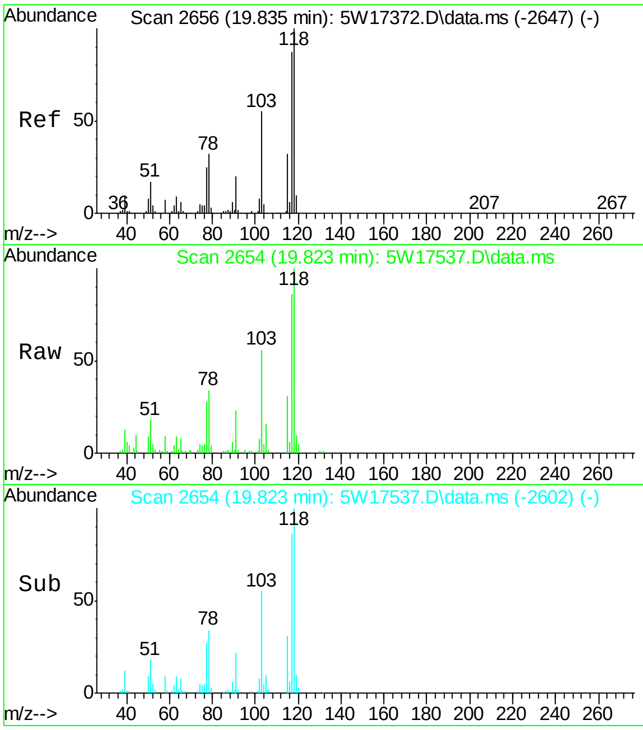




#92
1,3,5-Trimethylbenzene
Concen: 0.86 ppb(v)
RT: 19.591 min   Scan# 2616
Delta R.T.   -0.012 min
Lab File: 5W17537.D
Acq: 6 Apr 2016   6:30 pm

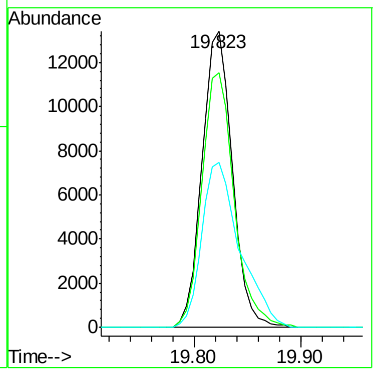
Tgt Ion:105	Resp:		73884
Ion	Ratio	Lower	Upper
105	100		
120	48.1	34.9	64.7
119	12.5	8.8	16.3
77	12.4	8.6	16.0

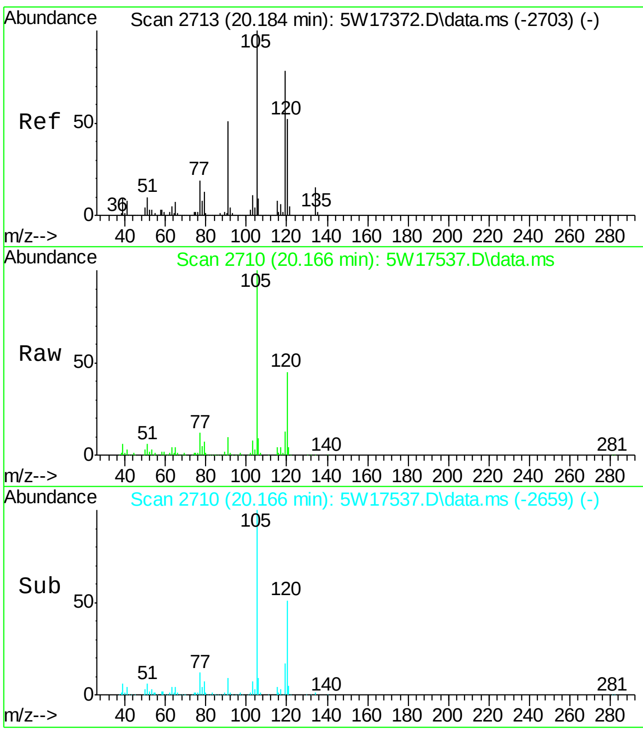





```
#93
alpha-Methylstyrene
Concen:     0.62 ppb(v)
RT:  19.823 min   Scan# 2654
Delta R.T.   -0.012 min
Lab File:    5W17537.D
Acq:  6 Apr 2016    6:30 pm

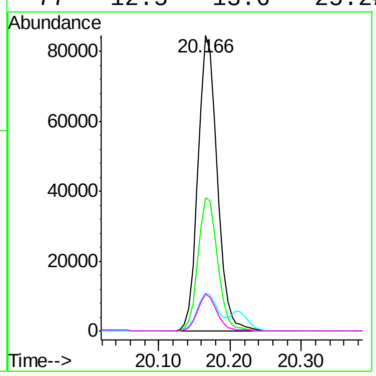
Tgt Ion:118 Resp:    26216
Ion   Ratio   Lower   Upper
118   100
117   85.9    60.8   113.0
103   55.7    38.7    71.9
```

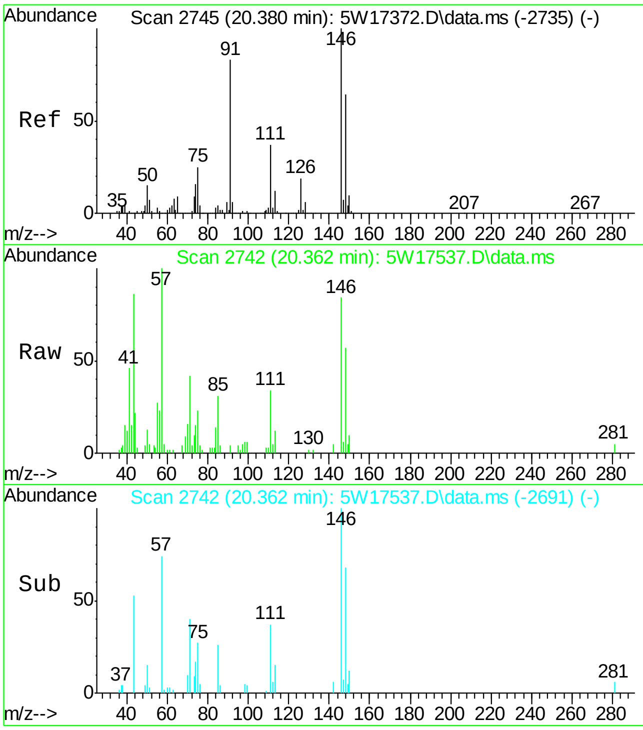





```
#95
1,2,4-Trimethylbenzene
Concen:     1.86 ppb(v)
RT:  20.166 min   Scan# 2710
Delta R.T.   -0.018 min
Lab File:    5W17537.D
Acq:  6 Apr 2016    6:30 pm

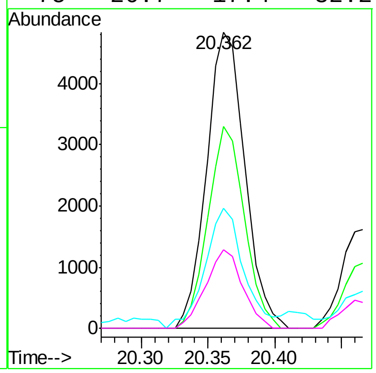
Tgt Ion:105 Resp:   157867
Ion   Ratio   Lower   Upper
105   100
120   45.2    36.6    68.0
119   13.0    54.4   101.0#
 77   12.5    13.6    25.2#
```

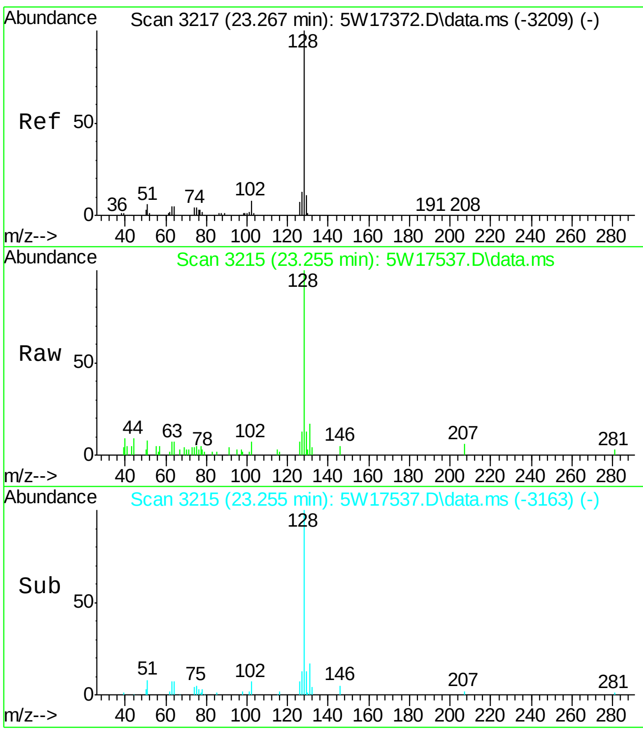




#96
1,3-Dichlorobenzene
Concen: 0.16 ppb(v)
RT: 20.362 min Scan# 2742
Delta R.T. -0.018 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

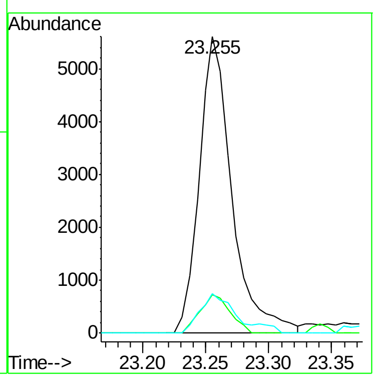
Tgt Ion:146	Resp:		9607
Ion	Ratio	Lower	Upper
146	100		
148	68.1	45.1	83.7
111	40.4	25.8	48.0
75	26.7	17.4	32.2





#105
Naphthalene
Concen: 0.13 ppb(v)
RT: 23.255 min Scan# 3215
Delta R.T. -0.012 min
Lab File: 5W17537.D
Acq: 6 Apr 2016 6:30 pm

Tgt Ion:128	Resp:		10123
Ion	Ratio	Lower	Upper
128	100		
127	12.7	9.0	16.8
129	13.4	7.7	14.3



Manual Integration Approval Summary

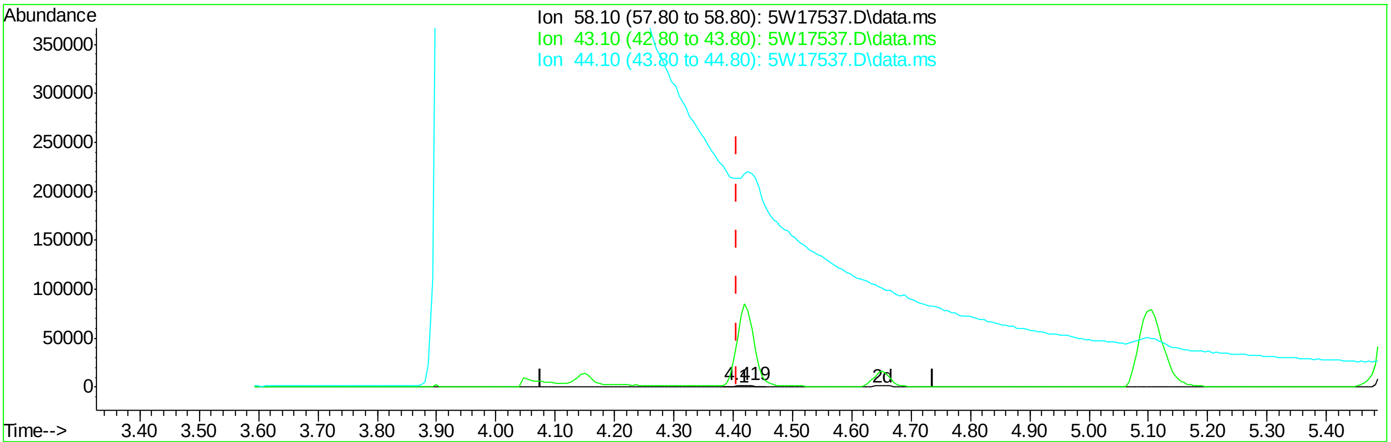
Sample Number:	JC17438-6	**Method:**	TO-15	
Lab FileID:	5W17537.D	**Analyst approved:**	04/07/16 12:38	Dana Tryon
Injection Time:	04/06/16 18:30	**Supervisor approved:**	04/08/16 15:11	Kanya Veerawat

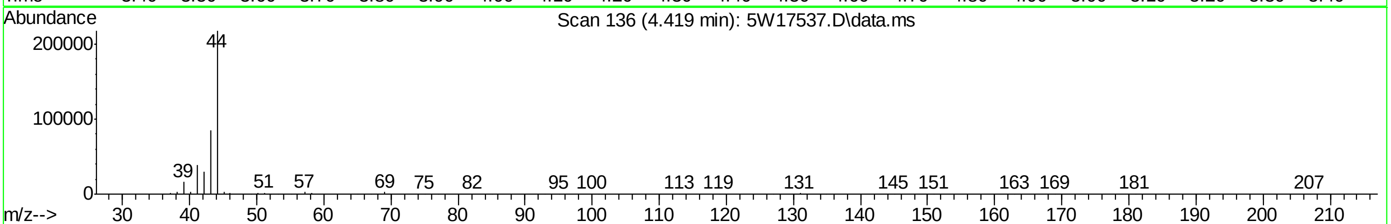
Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
n-Butane	106-97-8		4.65	Missed peak
Ethyl Acetate	141-78-6		8.49	Missed peak

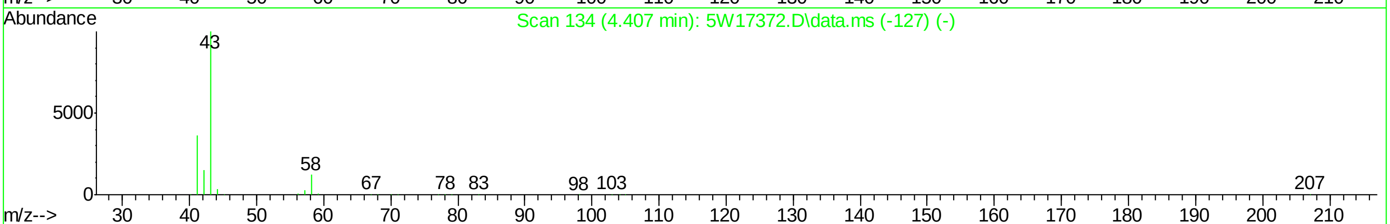
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17537.D
Acq On    :  6 Apr 2016   6:30 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 07:10:48 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17537.D\data.ms

(12) n-Butane

4.419min (+0.012) 1.27ppb(v)

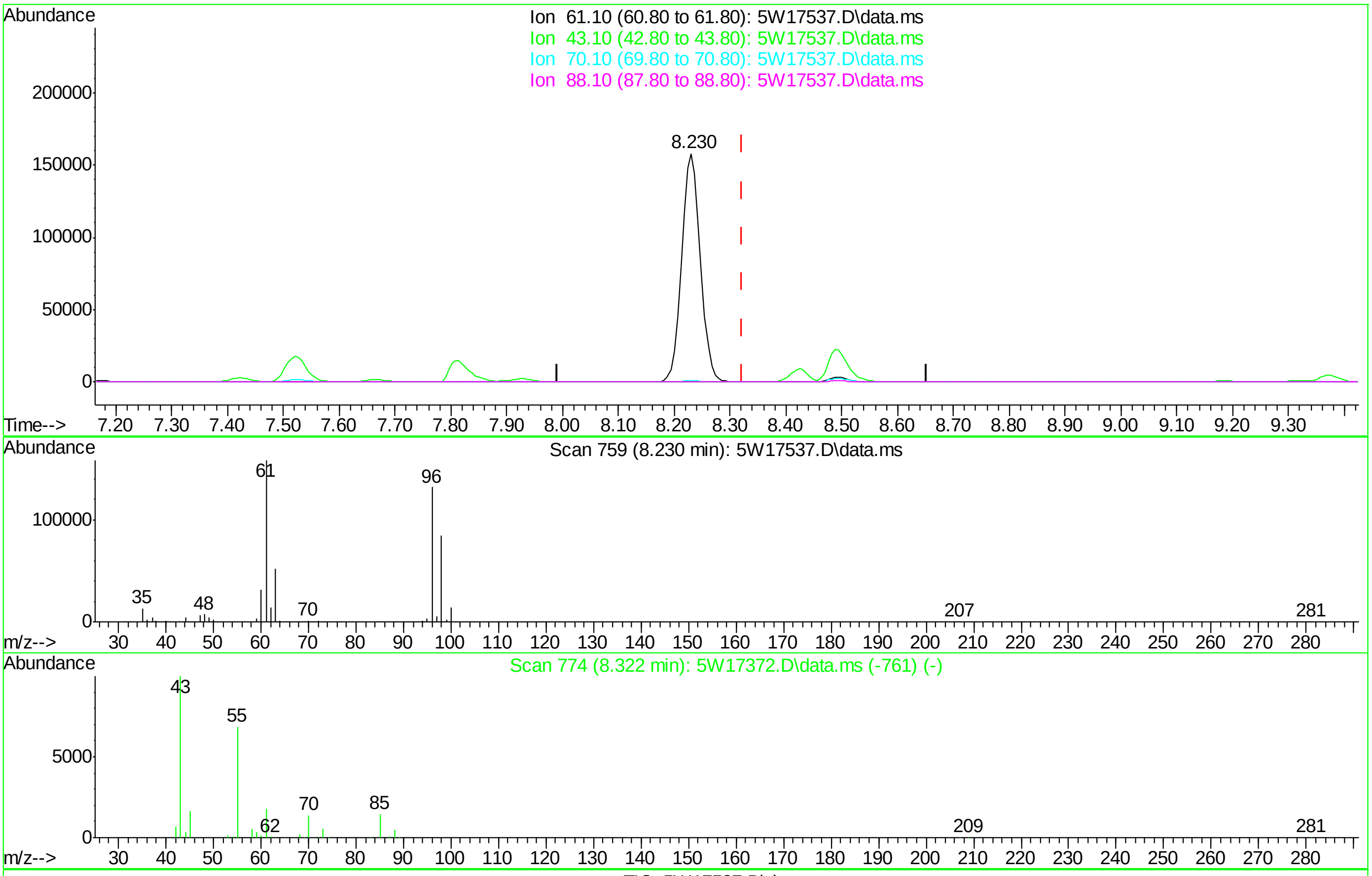
response 3352

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4358.79#
44.10	49.20	11169.66#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17537.D
Acq On    :  6 Apr 2016   6:30 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 07 07:10:48 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(42) Ethyl Acetate

8.230min (-0.092) 68.81ppb(v)

response 371046

Ion	Exp%	Act%
61.10	100	100
43.10	665.90	0.07#
70.10	80.40	0.88#
88.10	29.40	0.00#

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17557.D
Acq On    :  7 Apr 2016   1:02 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS514,v5w700,20,,,,1
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Apr 08 13:39:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                     R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane            8.389  130    195397    10.00 ppb(v    0.14
  53) 1,4-Difluorobenzene          10.530  114    735685    10.00 ppb(v    0.09
  76) Chlorobenzene-d5             16.012   82    350742    10.00 ppb(v    0.00
 107) Bromochloromethane (A)        8.389  130    196674    10.00 ppb(v    0.14

 System Monitoring Compounds
  90) 4-Bromofluorobenzene         18.245   95    467430     9.73 ppb(v  -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery    =   97.30%

 Target Compounds                                                   Qvalue
  21) Acetone                       5.514   58      3551     0.47 ppb(v     81
  25) Isopropyl Alcohol             5.703   43      9933     1.69 ppb(v     69
  30) Ethanol                       5.086   45     49982     7.74 ppb(v     99
  40) cis-1,2-Dichloroethene        8.224   61     13956     0.63 ppb(v     96
  56) Trichloroethene              11.344   95    773448    27.58 ppb(v     96
  72) Tetrachloroethene            15.131  166     28823     0.72 ppb(v     97
 --------------------------------------------------------------------------

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

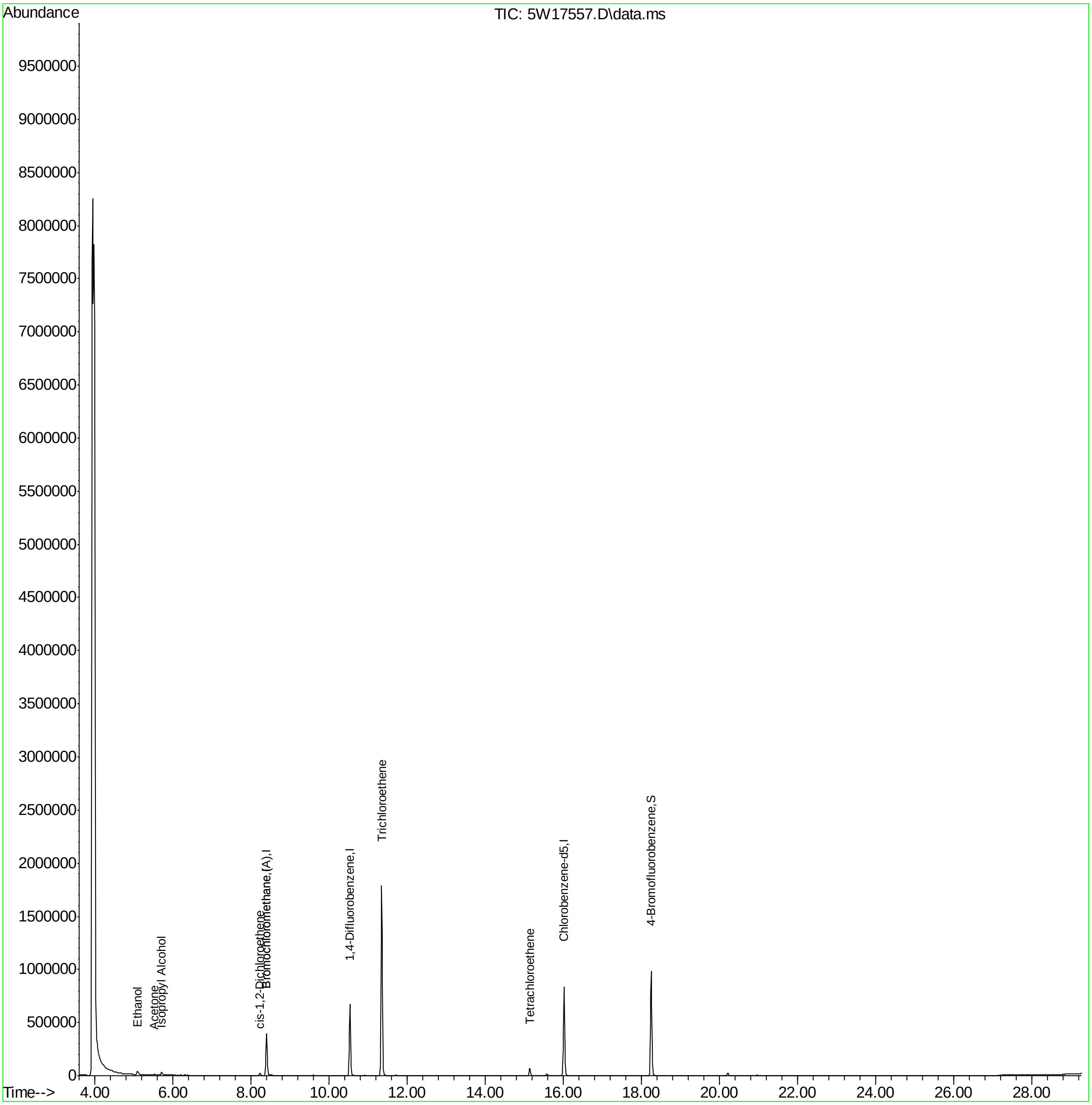
7.1.7

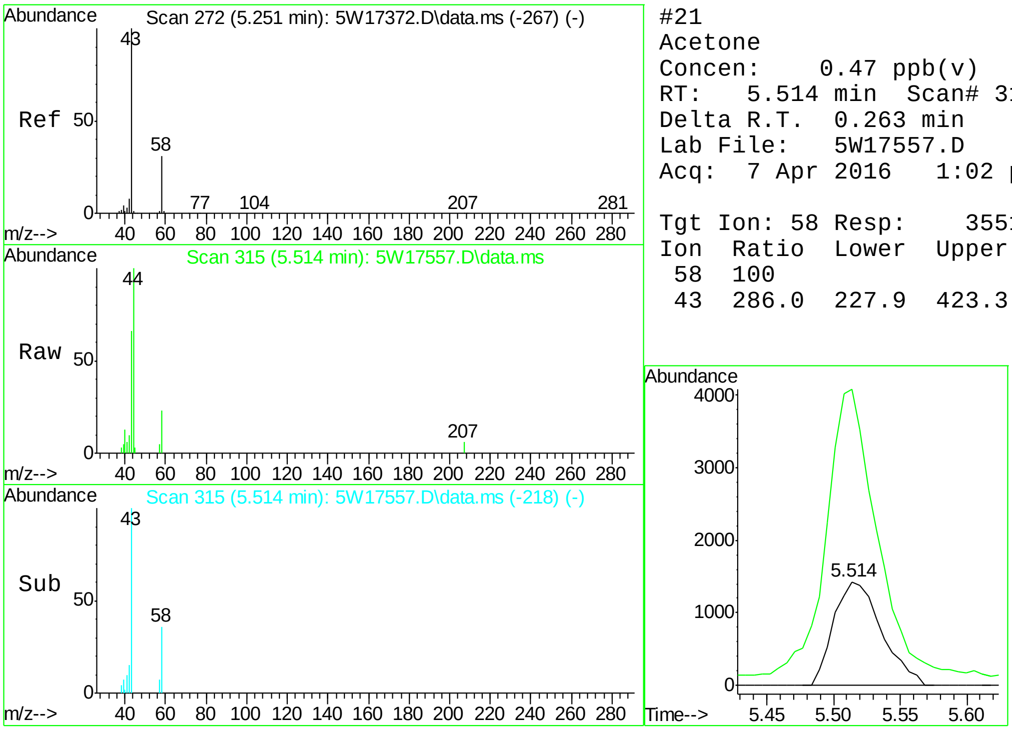
7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17557.D
Acq On    :  7 Apr 2016   1:02 pm
Operator  : THOMASH
Sample    : JC17438-6
Misc      : MS514,v5w700,20,,,,1
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Apr 08 13:39:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

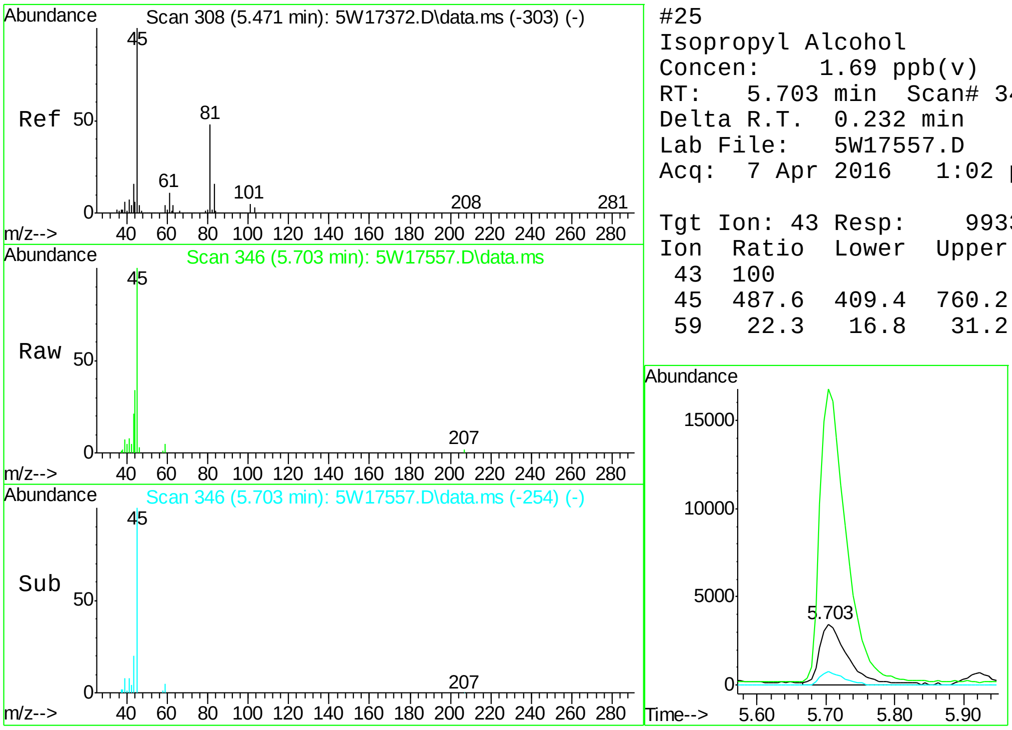




#21
Acetone
Concen: 0.47 ppb(v)
RT: 5.514 min Scan# 315
Delta R.T. 0.263 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion: 58 Resp: 3551

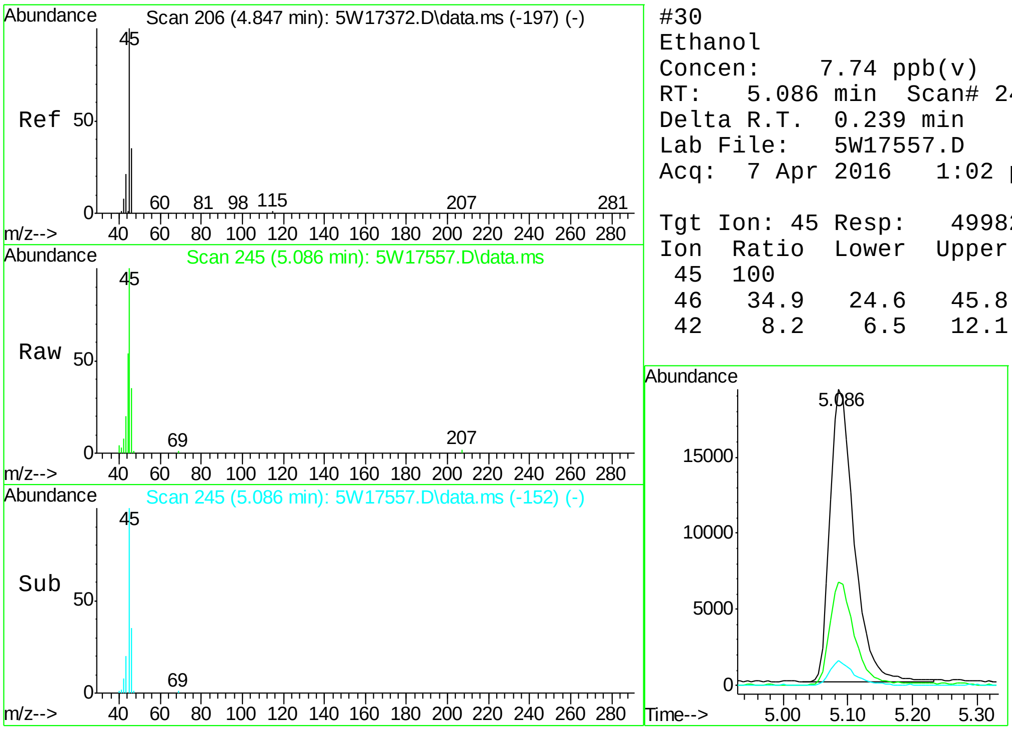
Ion	Ratio	Lower	Upper
58	100		
43	286.0	227.9	423.3



#25
Isopropyl Alcohol
Concen: 1.69 ppb(v)
RT: 5.703 min Scan# 346
Delta R.T. 0.232 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion: 43 Resp: 9933

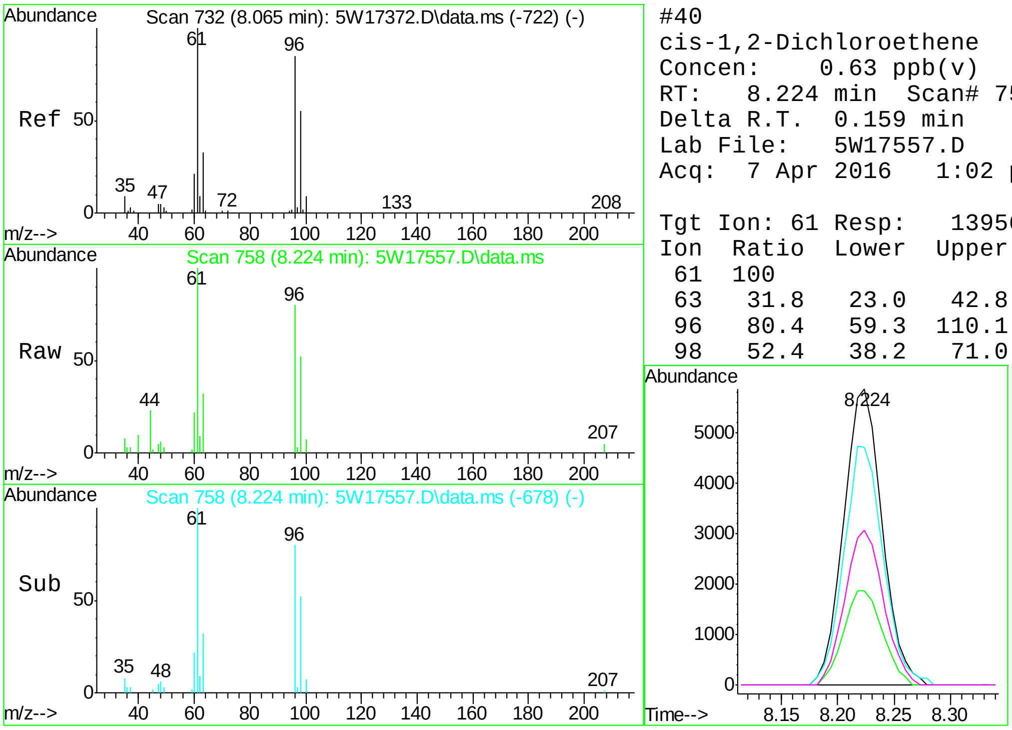
Ion	Ratio	Lower	Upper
43	100		
45	487.6	409.4	760.2
59	22.3	16.8	31.2



#30
Ethanol
Concen: 7.74 ppb(v)
RT: 5.086 min Scan# 245
Delta R.T. 0.239 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion: 45 Resp: 49982

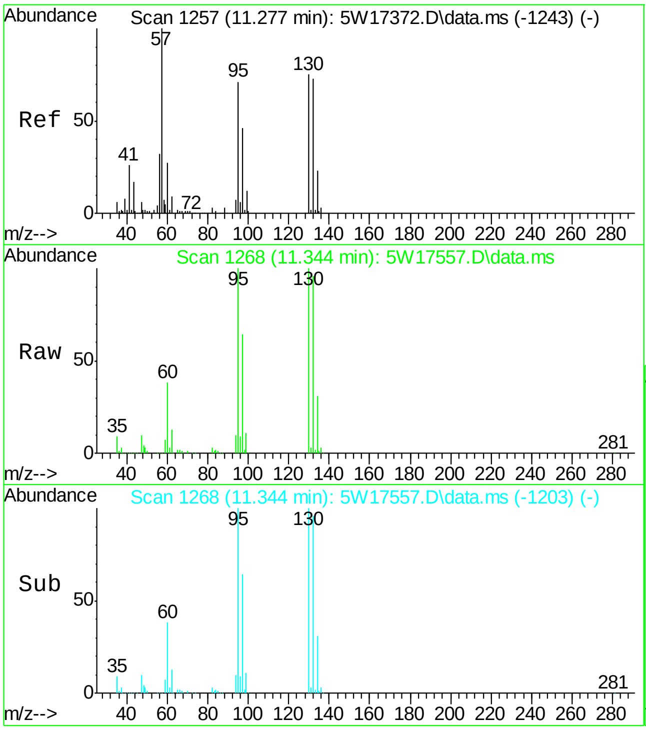
Ion	Ratio	Lower	Upper
45	100		
46	34.9	24.6	45.8
42	8.2	6.5	12.1



#40
cis-1,2-Dichloroethene
Concen: 0.63 ppb(v)
RT: 8.224 min Scan# 758
Delta R.T. 0.159 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion: 61 Resp: 13956

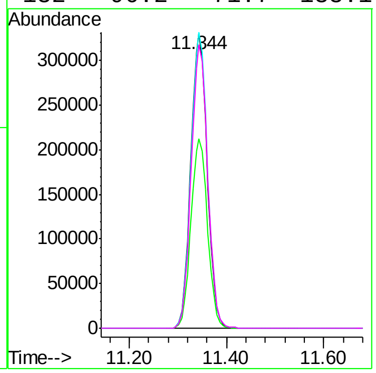
Ion	Ratio	Lower	Upper
61	100		
63	31.8	23.0	42.8
96	80.4	59.3	110.1
98	52.4	38.2	71.0

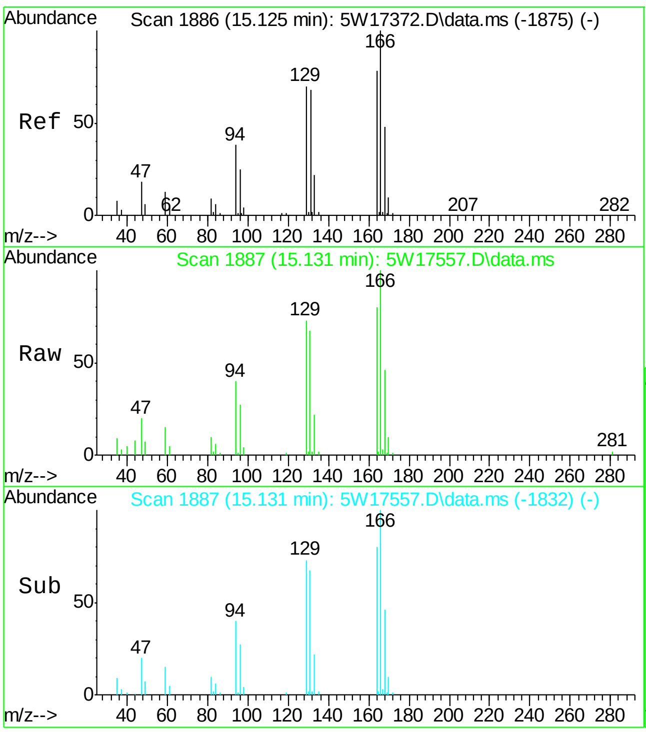


#56
Trichloroethene
Concen: 27.58 ppb(v)
RT: 11.344 min Scan# 1268
Delta R.T. 0.067 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion: 95 Resp: 773448

Ion	Ratio	Lower	Upper
95	100		
97	64.3	45.4	84.4
130	100.5	74.1	137.5
132	96.2	71.7	133.1

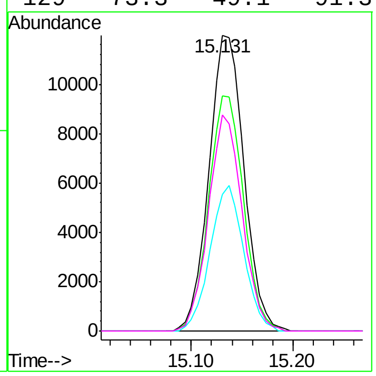




#72
Tetrachloroethene
Concen: 0.72 ppb(v)
RT: 15.131 min Scan# 1887
Delta R.T. 0.006 min
Lab File: 5W17557.D
Acq: 7 Apr 2016 1:02 pm

Tgt Ion:166 Resp: 28823

Ion	Ratio	Lower	Upper
166	100		
164	79.5	54.6	101.4
168	46.1	33.5	62.3
129	73.3	49.1	91.3



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 15:53

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17558.D
Acq On    :  7 Apr 2016   1:50 pm
Operator  : THOMASH
Sample    : JC17438-7
Misc      : MS514,v5w700,400,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Apr 08 13:42:12 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

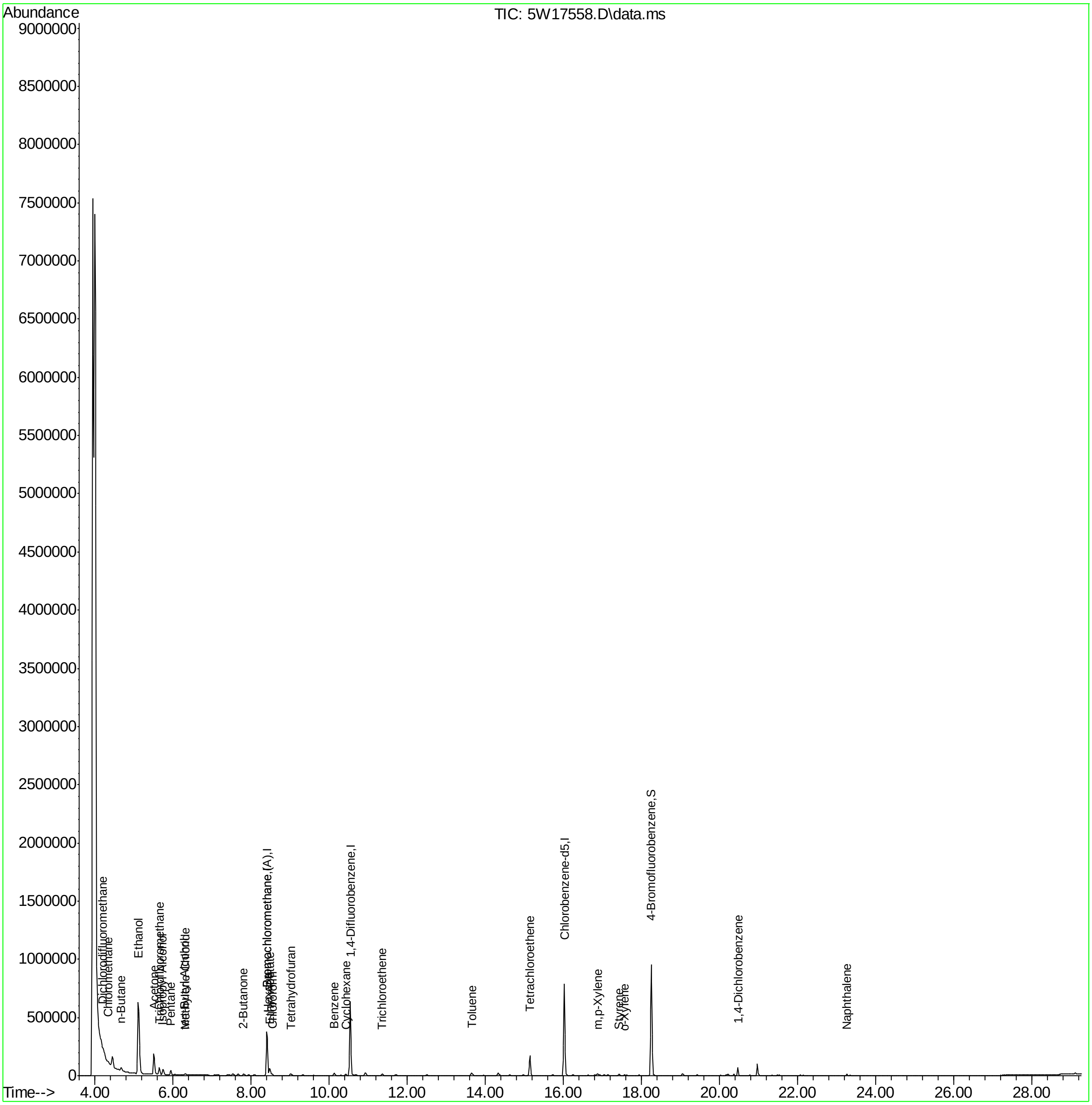
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.401	130	179289	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.536	114	679019	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.018	82	331564	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.401	130	179655	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	454692	10.01 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.10%		
Target Compounds					Qvalue
6) Dichlorodifluoromethane	4.205	85	45249	1.11 ppb(v	98
8) Chloromethane	4.339	50	9693	0.76 ppb(v	96
12) n-Butane	4.670	58	3959m	1.71 ppb(v	
20) Trichlorofluoromethane	5.648	101	60297	1.40 ppb(v	99
21) Acetone	5.508	58	62849	9.02 ppb(v	84
22) Pentane	5.942	57	4832	1.40 ppb(v	96
25) Isopropyl Alcohol	5.734	43	13724	2.54 ppb(v	68
28) Methylene Chloride	6.321	84	3991	0.26 ppb(v	99
30) Ethanol	5.110	45	1075290	181.59 ppb(v	98
34) tert-Butyl Alcohol	6.285	59	6648	0.20 ppb(v#	57
38) 2-Butanone	7.802	72	6198	0.91 ppb(v	93
39) Hexane	8.426	57	6103	0.25 ppb(v#	57
42) Ethyl Acetate	8.475	61	12951	2.74 ppb(v	97
44) Chloroform	8.536	83	12755	0.35 ppb(v	96
46) Tetrahydrofuran	9.013	72	4095	0.61 ppb(v#	75
49) Benzene	10.127	78	13648	0.28 ppb(v	97
51) Cyclohexane	10.420	56	5930	0.26 ppb(v	96
56) Trichloroethene	11.356	95	4595	0.18 ppb(v	96
66) Toluene	13.644	91	25231	0.39 ppb(v	98
72) Tetrachloroethene	15.137	166	71360	1.93 ppb(v	99
79) m,p-Xylene	16.868	91	18109	0.28 ppb(v	97
80) Styrene	17.413	104	8441	0.17 ppb(v	96
82) o-Xylene	17.560	91	7056	0.10 ppb(v	97
98) 1,4-Dichlorobenzene	20.465	146	36502	0.63 ppb(v	98
105) Naphthalene	23.261	128	12131	0.17 ppb(v	97

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

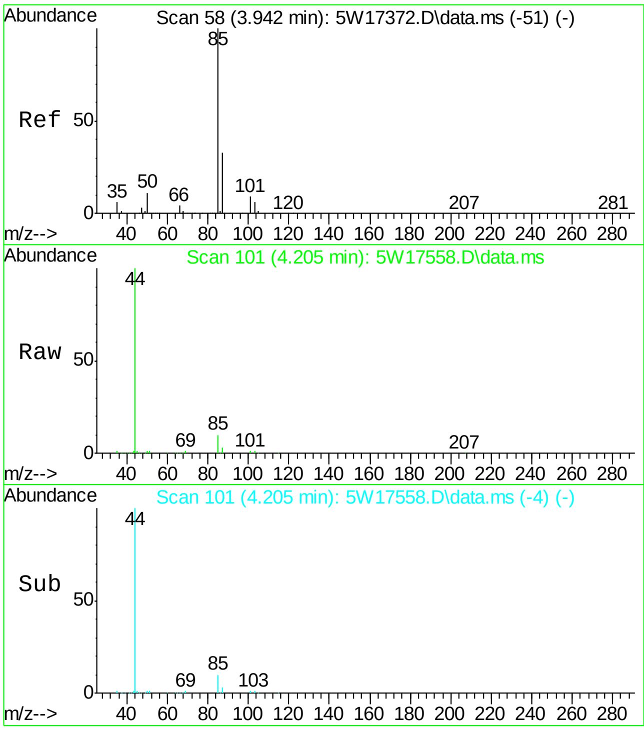
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17558.D
Acq On    :  7 Apr 2016   1:50 pm
Operator  : THOMASH
Sample    : JC17438-7
Misc      : MS514,v5w700,400,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Apr 08 13:42:12 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



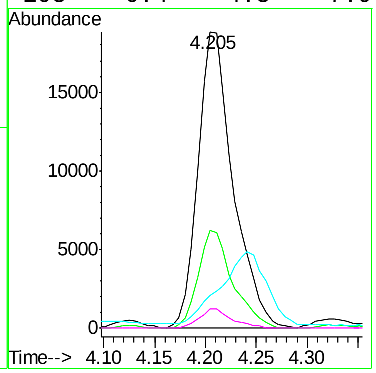
m5w693.M Fri Apr 08 13:42:17 2016 GCMS5W Page: 2

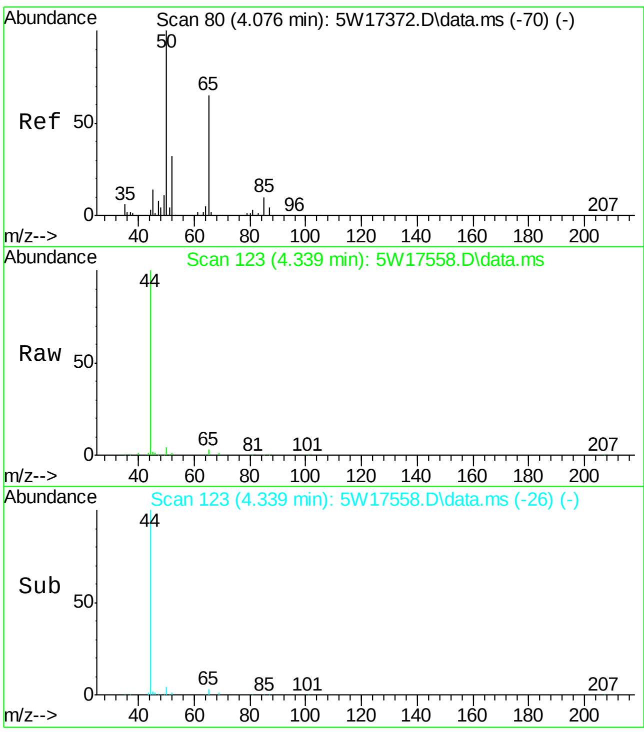


#6
Dichlorodifluoromethane
Concen: 1.11 ppb(v)
RT: 4.205 min Scan# 101
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 85 Resp: 45249

Ion	Ratio	Lower	Upper
85	100		
87	33.0	22.7	42.3
101	11.2	6.6	12.2
103	6.4	4.3	7.9

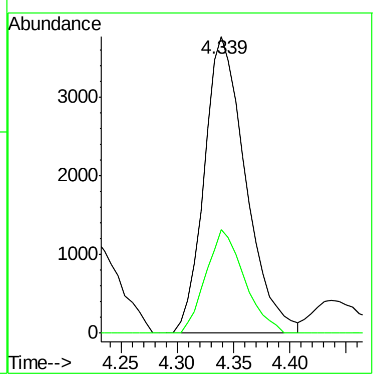


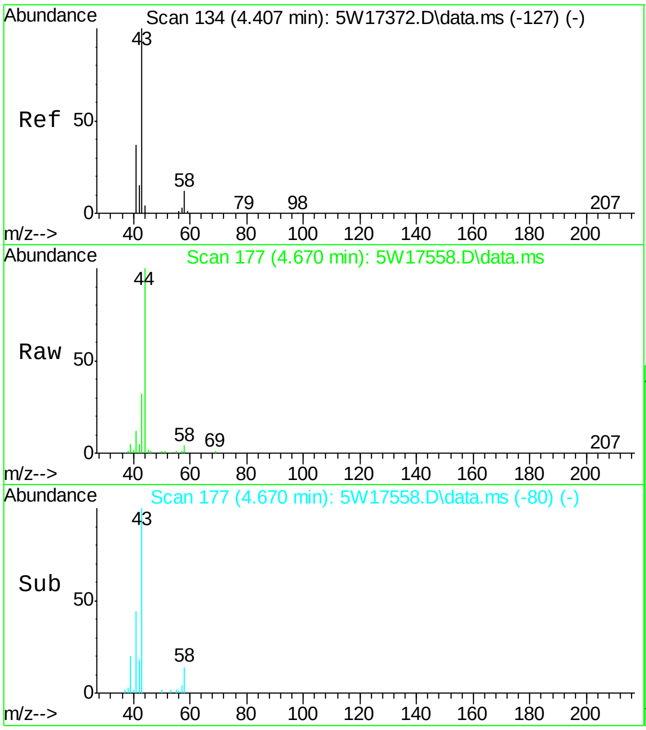


#8
Chloromethane
Concen: 0.76 ppb(v)
RT: 4.339 min Scan# 123
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 50 Resp: 9693

Ion	Ratio	Lower	Upper
50	100		
52	34.8	22.7	42.1

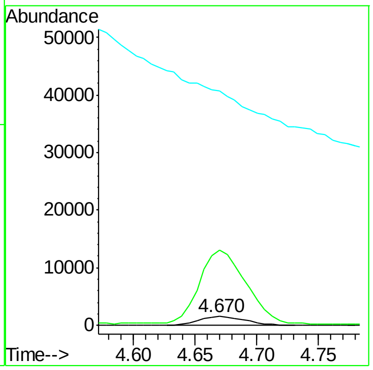


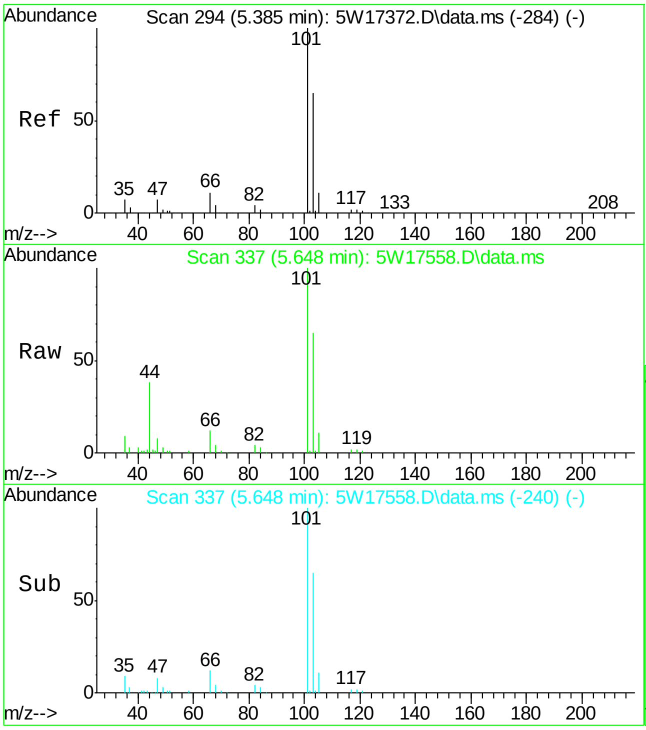


#12
n-Butane
Concen: 1.71 ppb(v) m
RT: 4.670 min Scan# 177
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 58 Resp: 3959

Ion	Ratio	Lower	Upper
58	100		
43	840.9	576.3	1070.3
44	2629.7	34.4	64.0#

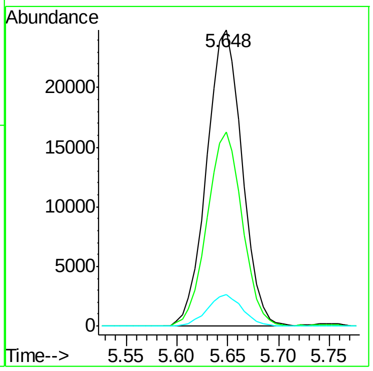




#20
Trichlorofluoromethane
Concen: 1.40 ppb(v)
RT: 5.648 min Scan# 337
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

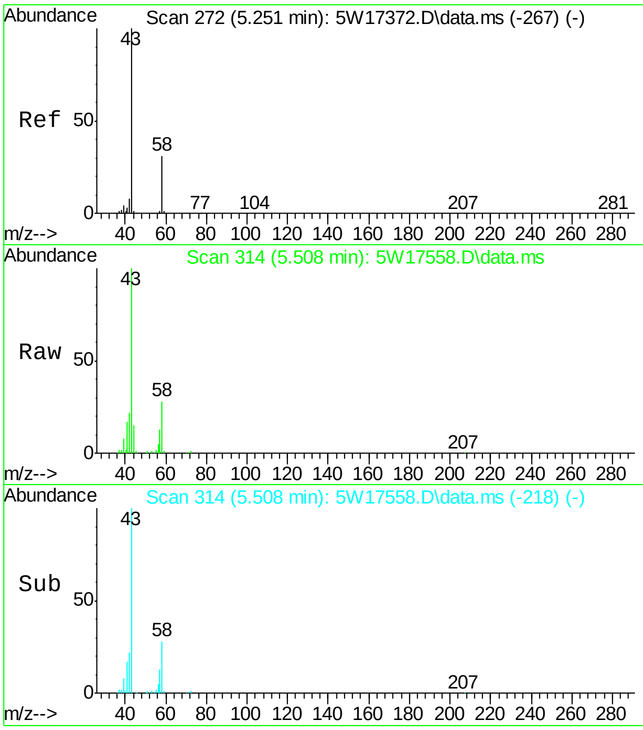
Tgt Ion:101 Resp: 60297

Ion	Ratio	Lower	Upper
101	100		
103	65.5	45.1	83.9
105	10.7	7.5	13.9



7.1.8

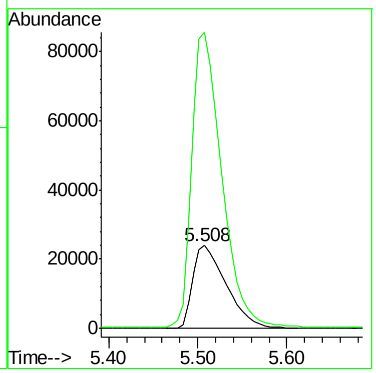
7

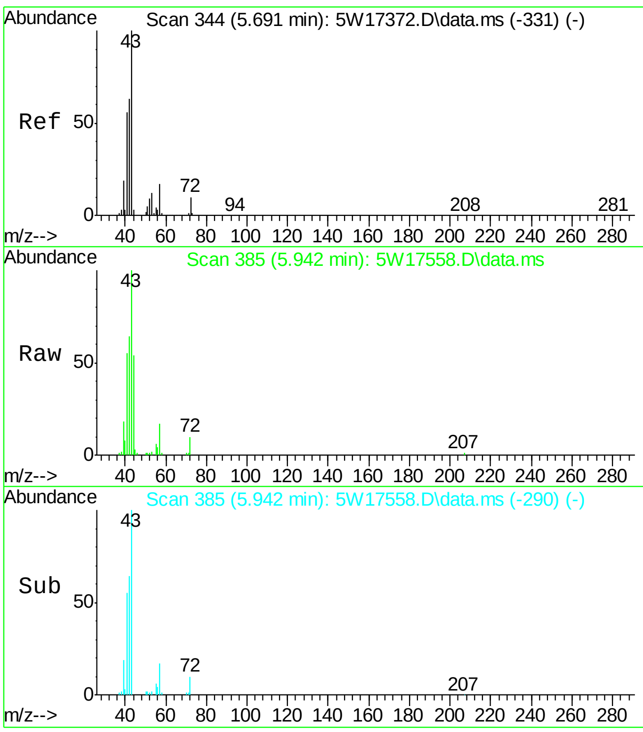


#21
Acetone
Concen: 9.02 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 58 Resp: 62849

Ion	Ratio	Lower	Upper
58	100		
43	358.4	227.9	423.3

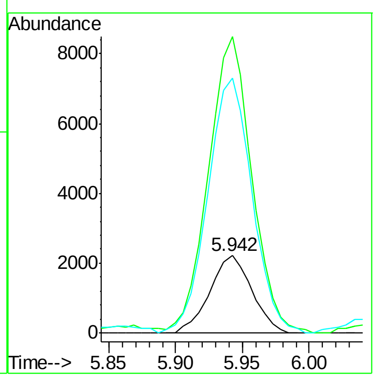


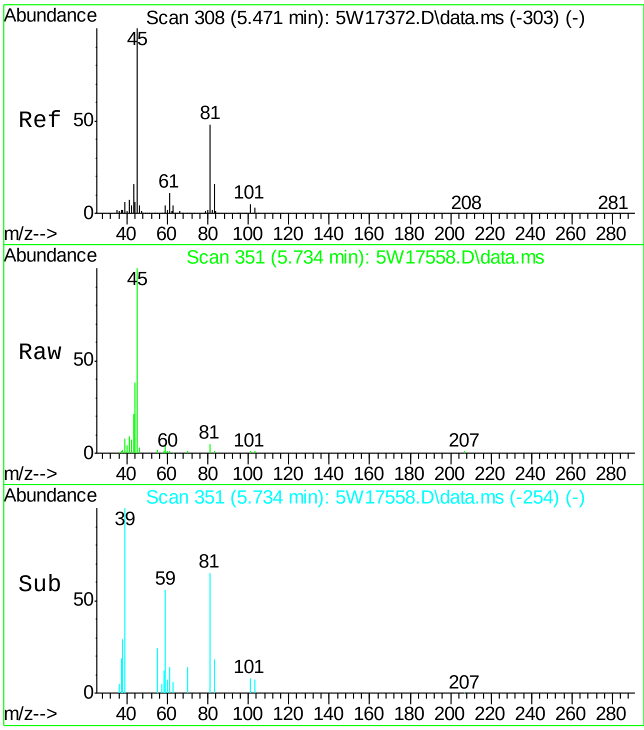


#22
Pentane
Concen: 1.40 ppb(v)
RT: 5.942 min Scan# 385
Delta R.T. 0.251 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 57 Resp: 4832

Ion	Ratio	Lower	Upper
57	100		
42	384.9	258.3	479.7
41	330.4	233.4	433.5

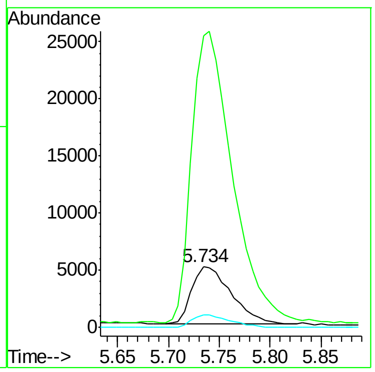


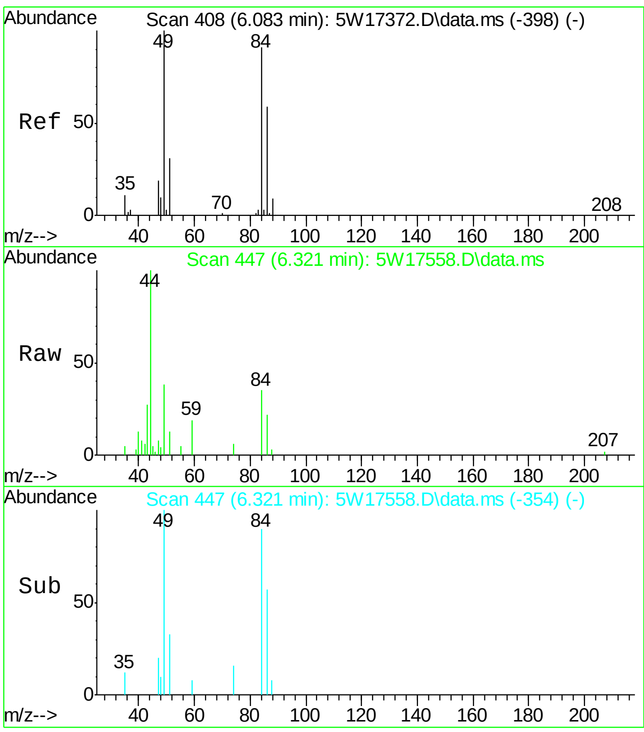


#25
Isopropyl Alcohol
Concen: 2.54 ppb(v)
RT: 5.734 min Scan# 351
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 43 Resp: 13724

Ion	Ratio	Lower	Upper
43	100		
45	484.3	409.4	760.2
59	21.0	16.8	31.2

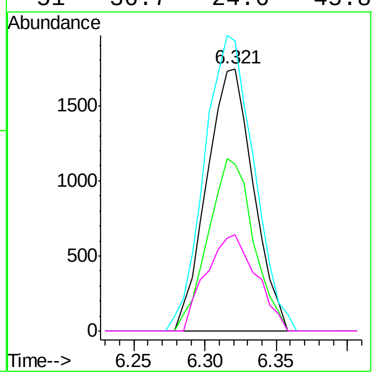


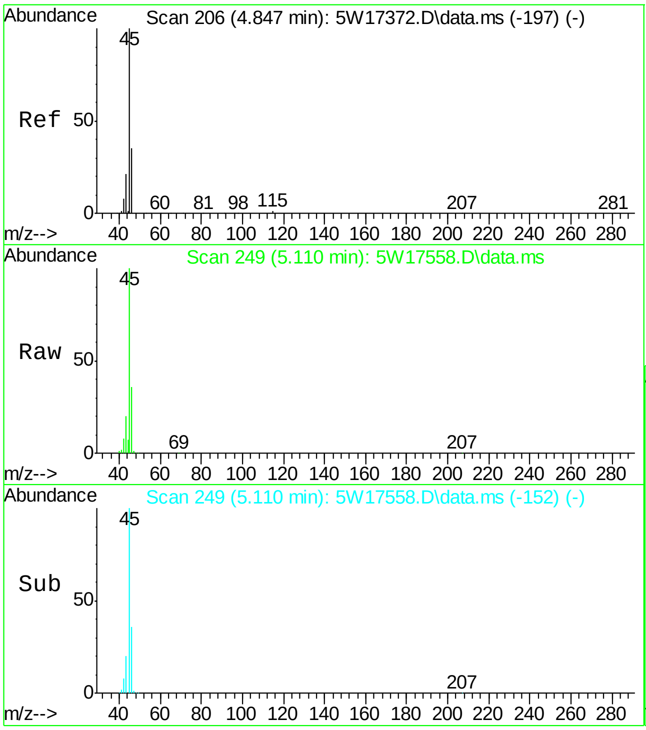


#28
Methylene Chloride
Concen: 0.26 ppb(v)
RT: 6.321 min Scan# 447
Delta R.T. 0.239 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 84 Resp: 3991

Ion	Ratio	Lower	Upper
84	100		
86	63.4	45.8	85.0
49	110.6	77.6	144.2
51	36.7	24.6	45.8

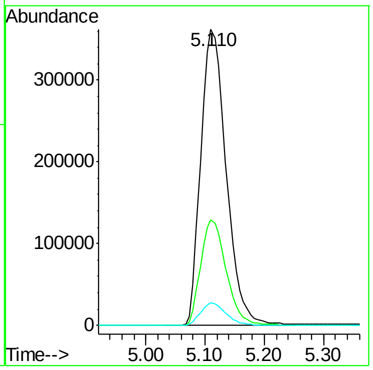


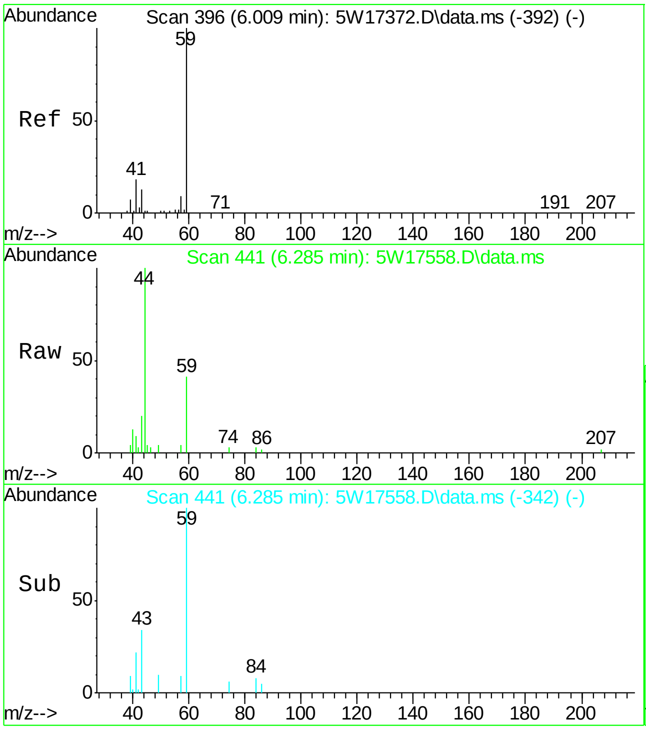


#30
Ethanol
Concen: 181.59 ppb(v)
RT: 5.110 min Scan# 249
Delta R.T. 0.263 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 45 Resp: 1075290

Ion	Ratio	Lower	Upper
45	100		
46	35.8	24.6	45.8
42	7.6	6.5	12.1

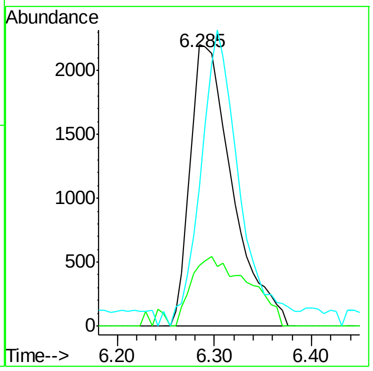




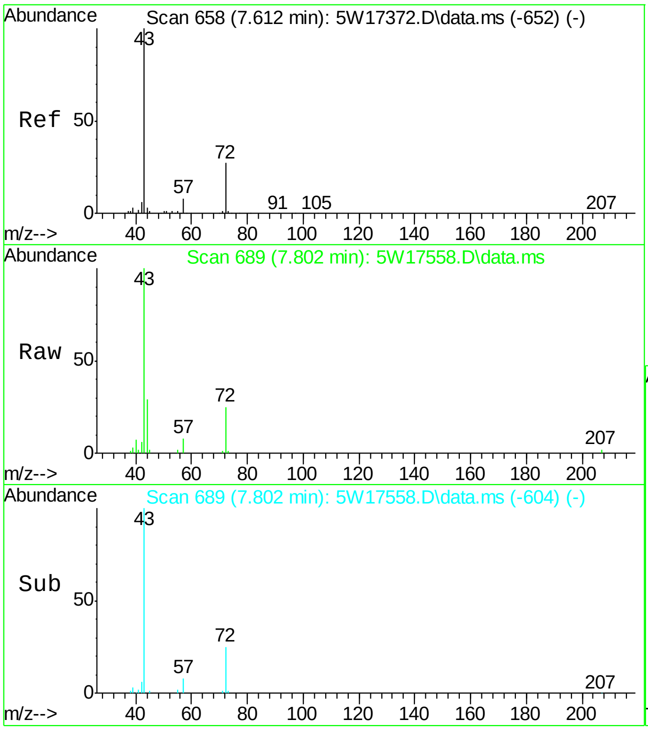
#34
tert-Butyl Alcohol
Concen: 0.20 ppb(v)
RT: 6.285 min Scan# 441
Delta R.T. 0.275 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 59 Resp: 6648

Ion	Ratio	Lower	Upper
59	100		
41	21.7	12.6	23.4
43	49.5	9.6	17.8#



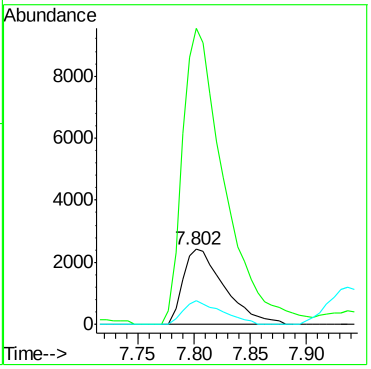
7.1.8
7

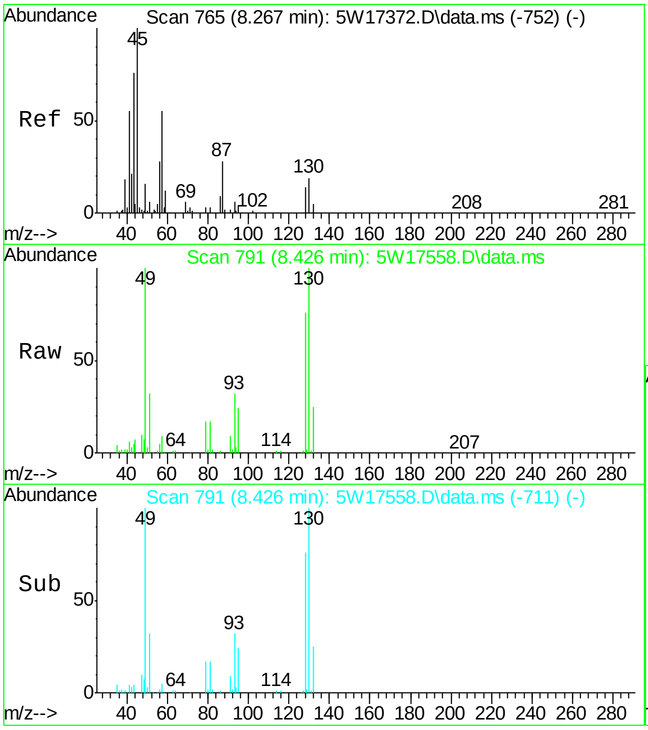


#38
2-Butanone
Concen: 0.91 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 72 Resp: 6198

Ion	Ratio	Lower	Upper
72	100		
43	393.8	262.9	488.3
57	31.1	21.3	39.6

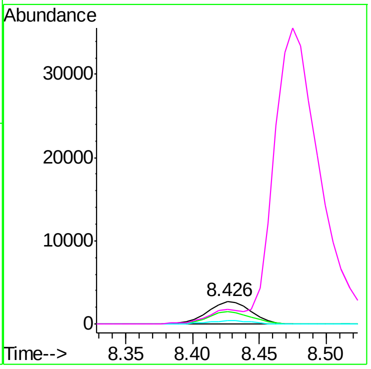


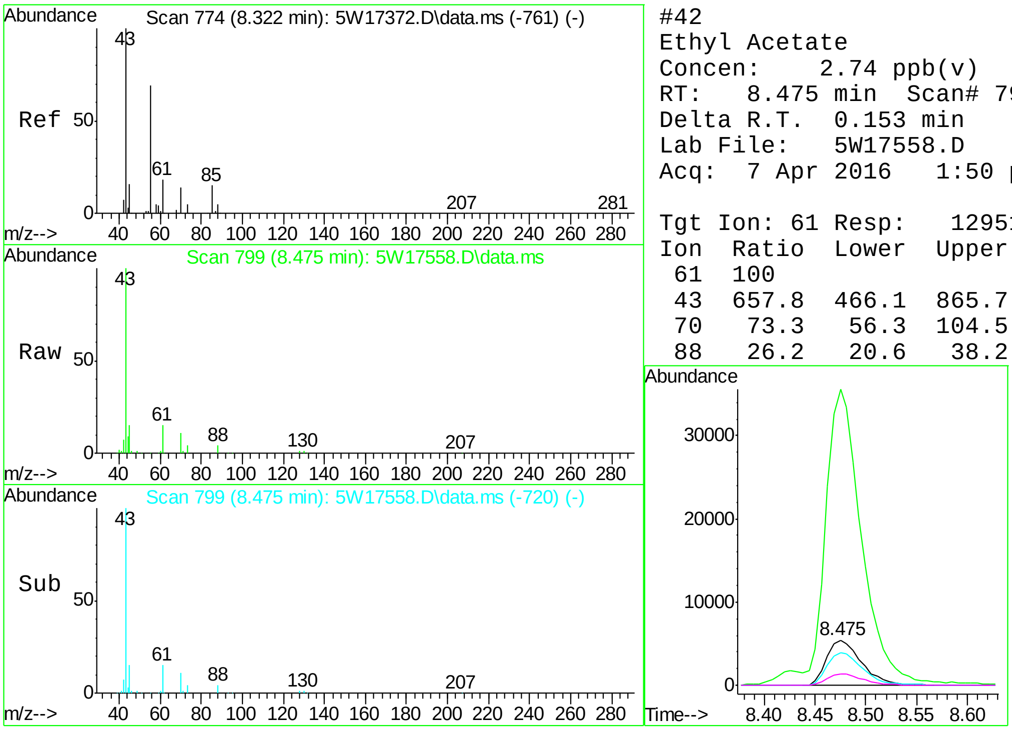


#39
Hexane
Concen: 0.25 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.159 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 57 Resp: 6103

Ion	Ratio	Lower	Upper
57	100		
56	52.8	36.5	67.9
86	15.1	11.1	20.7
43	63.4	97.9	181.9#

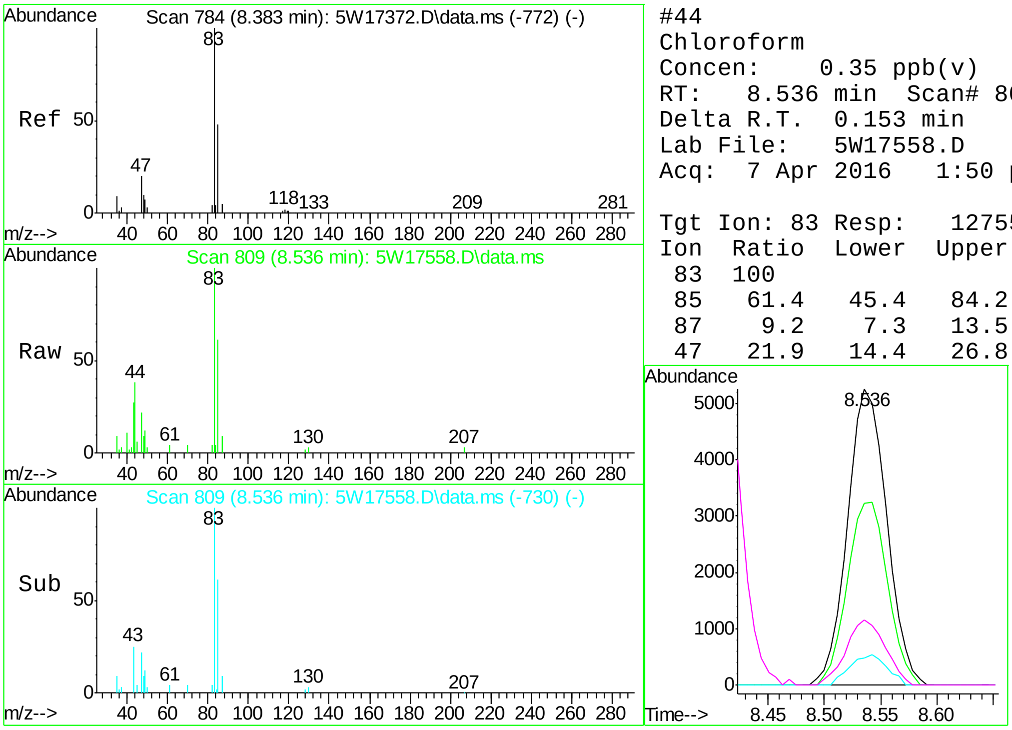




#42
Ethyl Acetate
Concen: 2.74 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 61 Resp: 12951

Ion	Ratio	Lower	Upper
61	100		
43	657.8	466.1	865.7
70	73.3	56.3	104.5
88	26.2	20.6	38.2

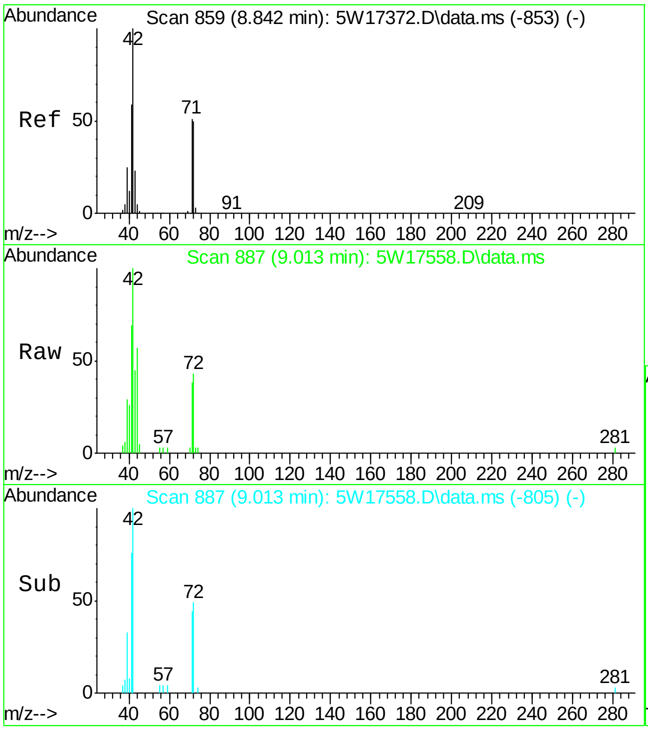


#44
Chloroform
Concen: 0.35 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 83 Resp: 12755

Ion	Ratio	Lower	Upper
83	100		
85	61.4	45.4	84.2
87	9.2	7.3	13.5
47	21.9	14.4	26.8

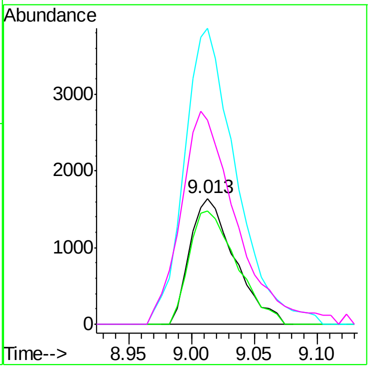
7.1.8
7

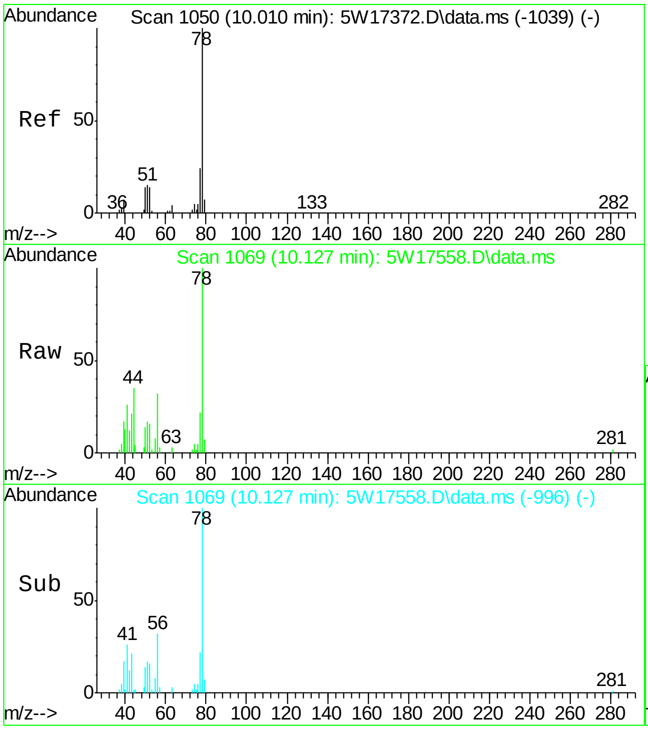


#46
Tetrahydrofuran
Concen: 0.61 ppb(v)
RT: 9.013 min Scan# 887
Delta R.T. 0.171 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 72 Resp: 4095

Ion	Ratio	Lower	Upper
72	100		
71	90.0	70.7	131.3
42	234.5	139.4	259.0
41	162.2	82.7	153.7#

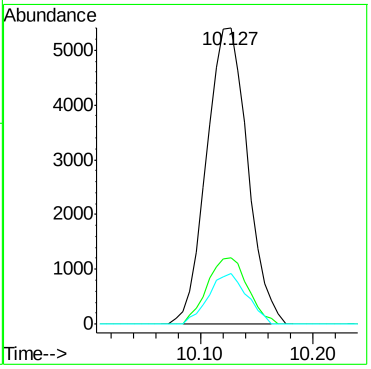


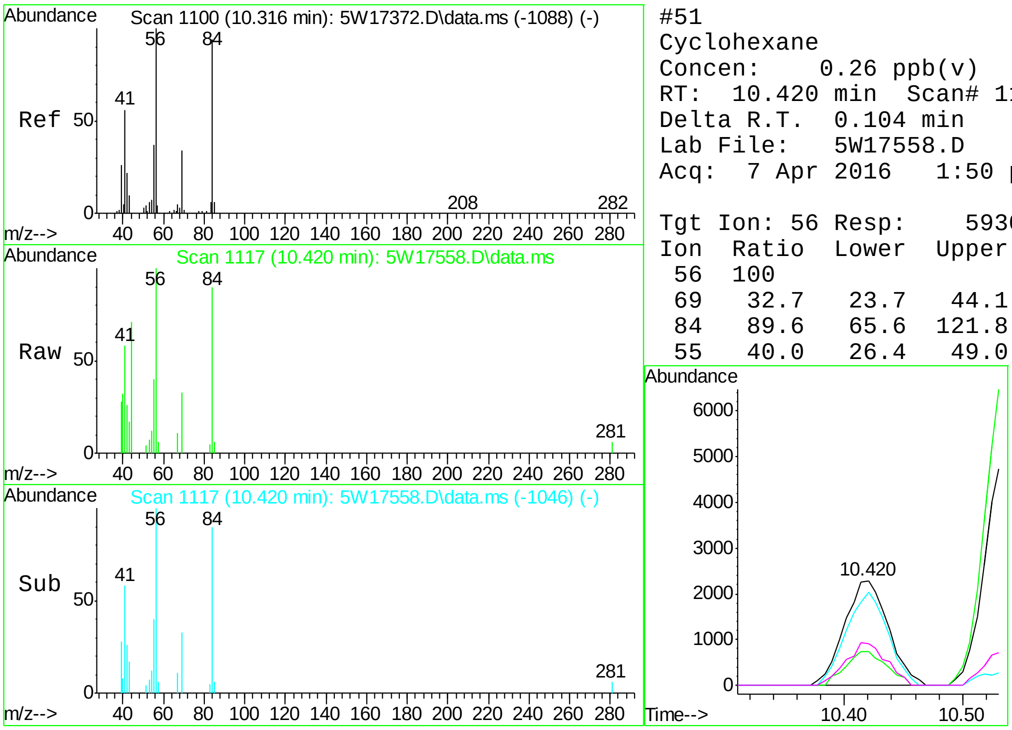


#49
Benzene
Concen: 0.28 ppb(v)
RT: 10.127 min Scan# 1069
Delta R.T. 0.116 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 78 Resp: 13648

Ion	Ratio	Lower	Upper
78	100		
77	22.4	16.5	30.7
51	17.1	10.5	19.5

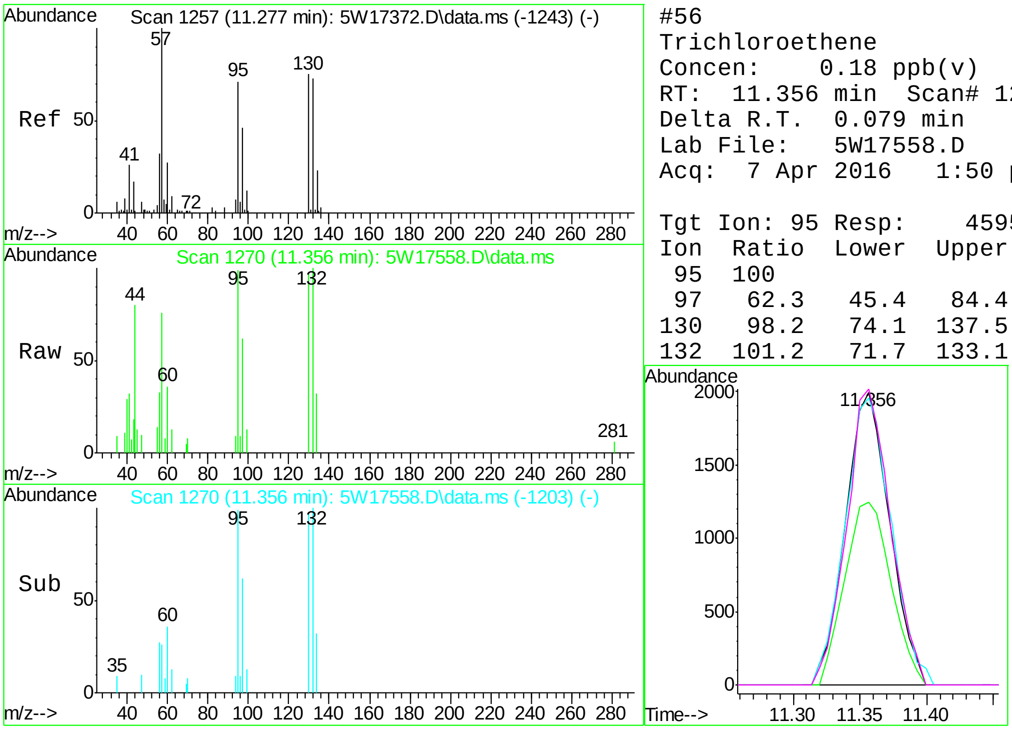




#51
Cyclohexane
Concen: 0.26 ppb(v)
RT: 10.420 min Scan# 1117
Delta R.T. 0.104 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 56 Resp: 5930

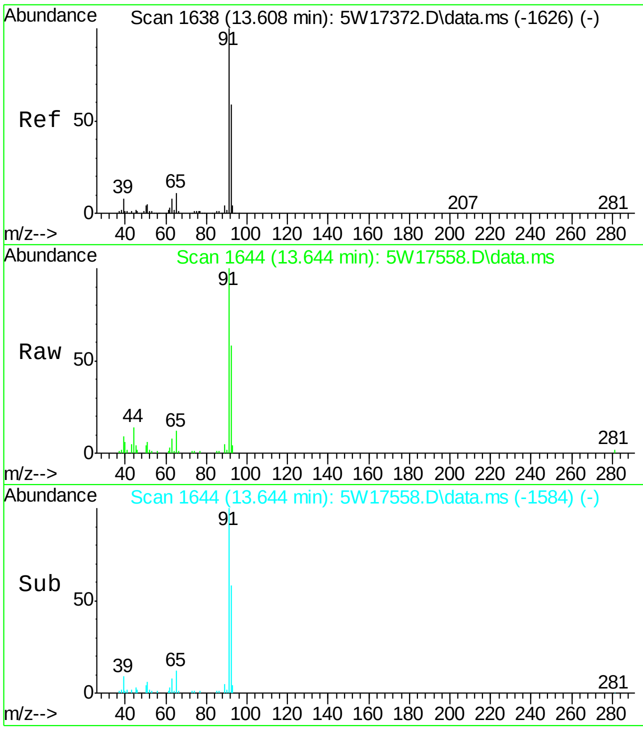
Ion	Ratio	Lower	Upper
56	100		
69	32.7	23.7	44.1
84	89.6	65.6	121.8
55	40.0	26.4	49.0



#56
Trichloroethene
Concen: 0.18 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.079 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 95 Resp: 4595

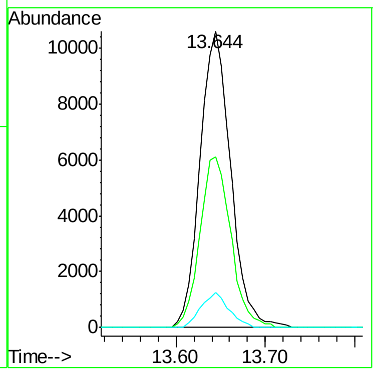
Ion	Ratio	Lower	Upper
95	100		
97	62.3	45.4	84.4
130	98.2	74.1	137.5
132	101.2	71.7	133.1

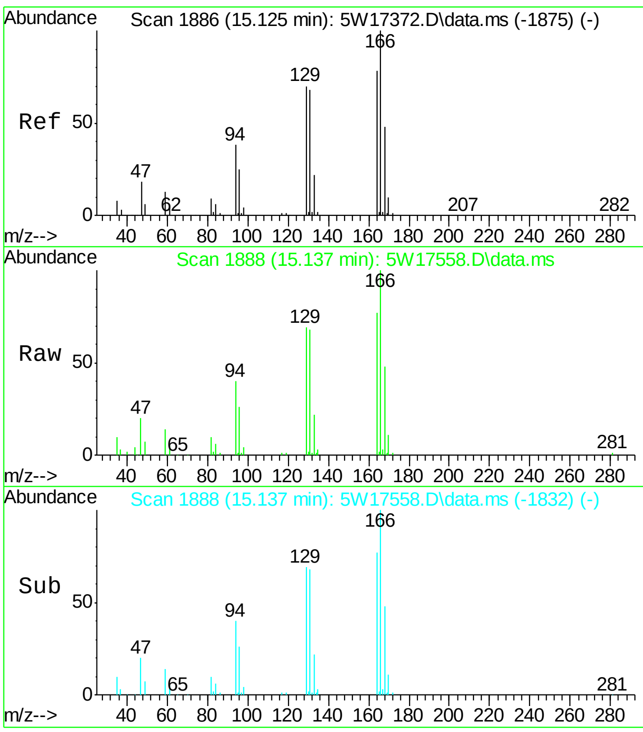


#66
Toluene
Concen: 0.39 ppb(v)
RT: 13.644 min Scan# 1644
Delta R.T. 0.037 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 91 Resp: 25231

Ion	Ratio	Lower	Upper
91	100		
92	57.7	41.2	76.6
65	11.8	7.3	13.7

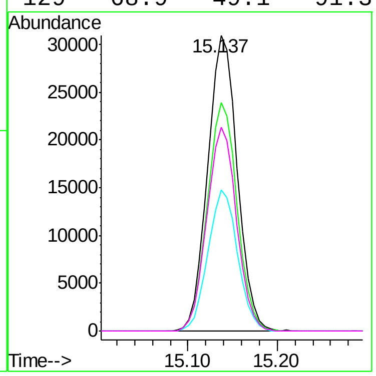


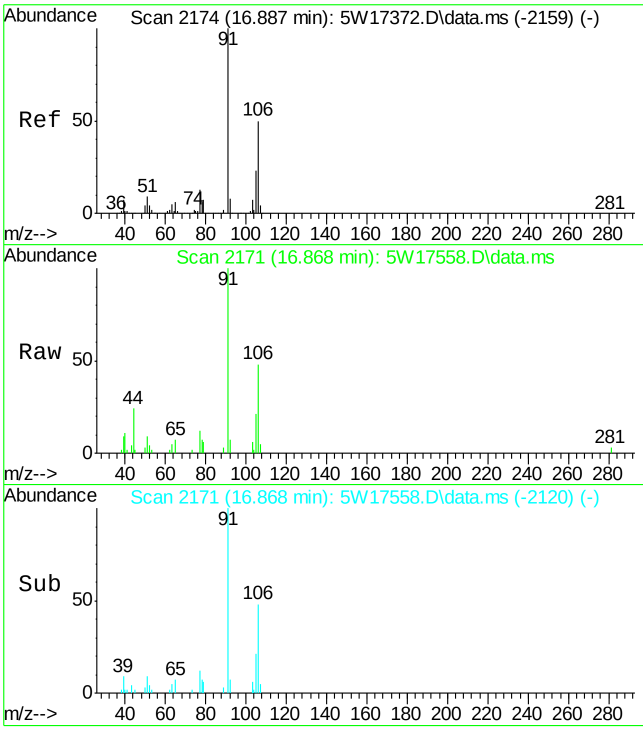


#72
Tetrachloroethene
Concen: 1.93 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion:166 Resp: 71360

Ion	Ratio	Lower	Upper
166	100		
164	77.2	54.6	101.4
168	47.6	33.5	62.3
129	68.9	49.1	91.3

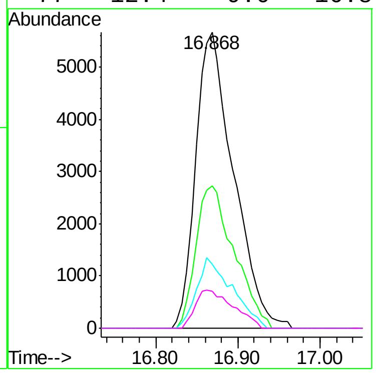


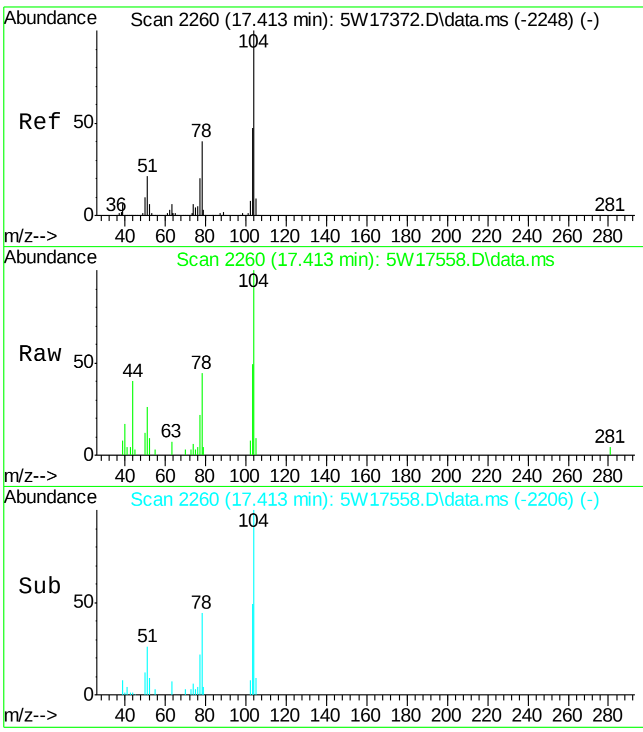


#79
m,p-Xylene
Concen: 0.28 ppb(v)
RT: 16.868 min Scan# 2171
Delta R.T. -0.018 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 91 Resp: 18109

Ion	Ratio	Lower	Upper
91	100		
106	48.0	35.3	65.5
105	21.4	16.2	30.0
77	12.4	9.0	16.8

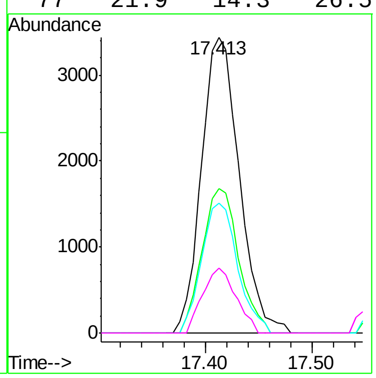


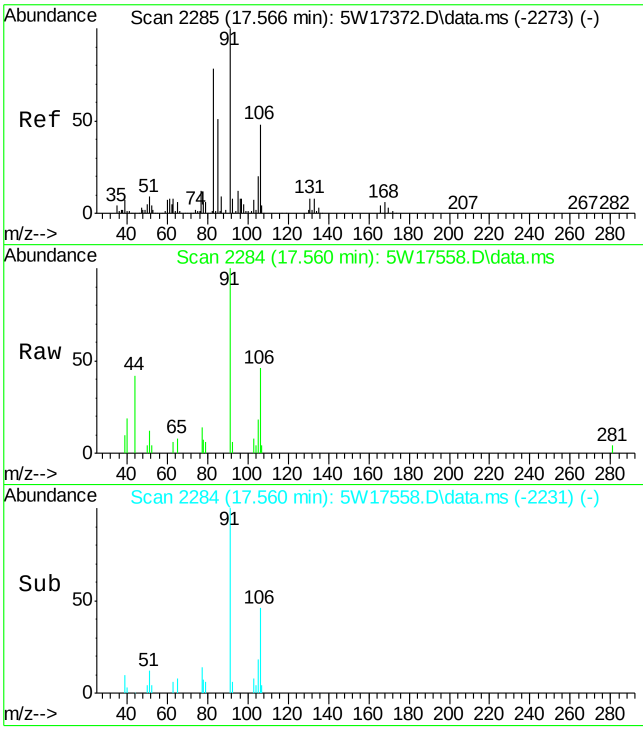


#80
Styrene
Concen: 0.17 ppb(v)
RT: 17.413 min Scan# 2260
Delta R.T. -0.000 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion:104 Resp: 8441

Ion	Ratio	Lower	Upper
104	100		
103	48.9	33.2	61.6
78	44.1	28.2	52.4
77	21.9	14.3	26.5

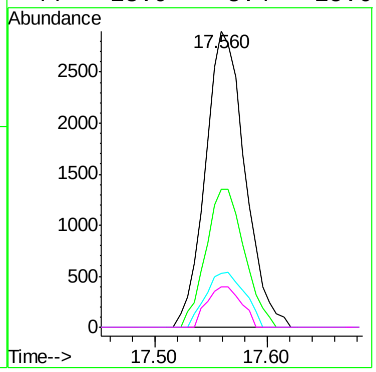


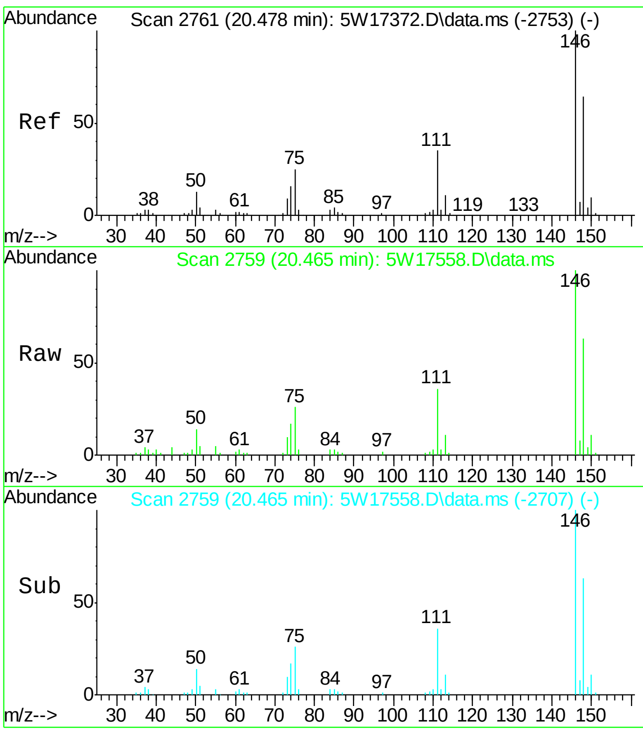


#82
o-Xylene
Concen: 0.10 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion: 91 Resp: 7056

Ion	Ratio	Lower	Upper
91	100		
106	46.5	33.5	62.3
105	18.1	13.7	25.5
77	13.9	8.4	15.6

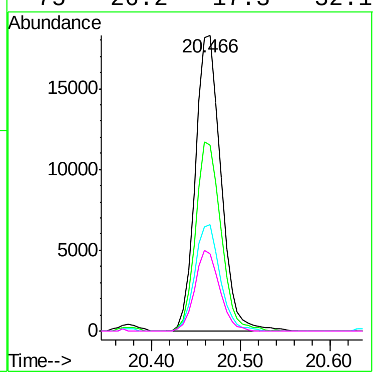


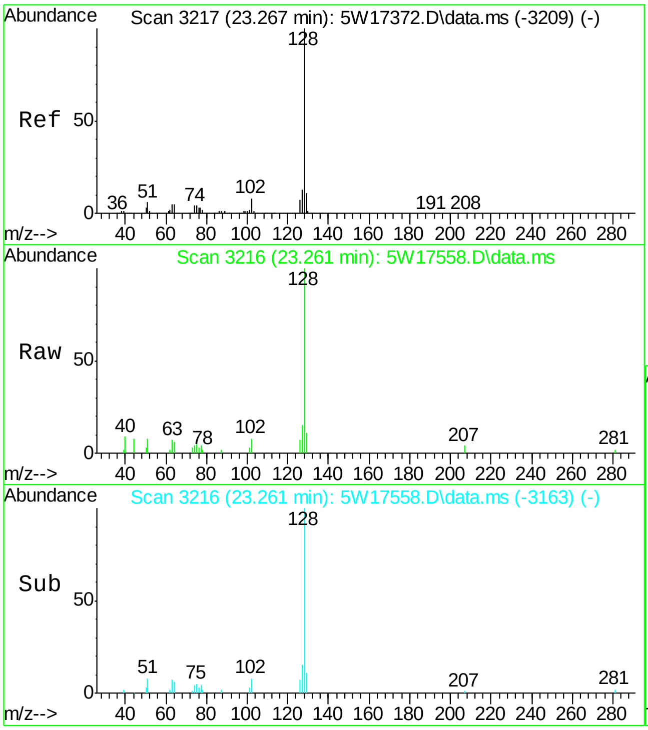


#98
1,4-Dichlorobenzene
Concen: 0.63 ppb(v)
RT: 20.465 min Scan# 2759
Delta R.T. -0.012 min
Lab File: 5W17558.D
Acq: 7 Apr 2016 1:50 pm

Tgt Ion:146 Resp: 36502

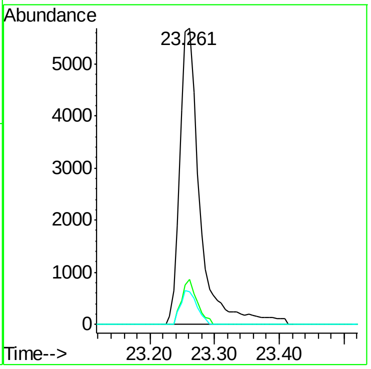
Ion	Ratio	Lower	Upper
146	100		
148	62.8	44.8	83.2
111	36.0	24.7	45.9
75	26.2	17.3	32.1






```
#105
Naphthalene
Concen:     0.17 ppb(v)
RT:  23.261 min   Scan# 3216
Delta R.T.   -0.006 min
Lab File:    5W17558.D
Acq:  7 Apr 2016   1:50 pm

Tgt Ion:128 Resp:    12131
Ion  Ratio   Lower   Upper
128  100
127    15.4    9.0    16.8
129    11.1    7.7    14.3
```



Manual Integration Approval Summary

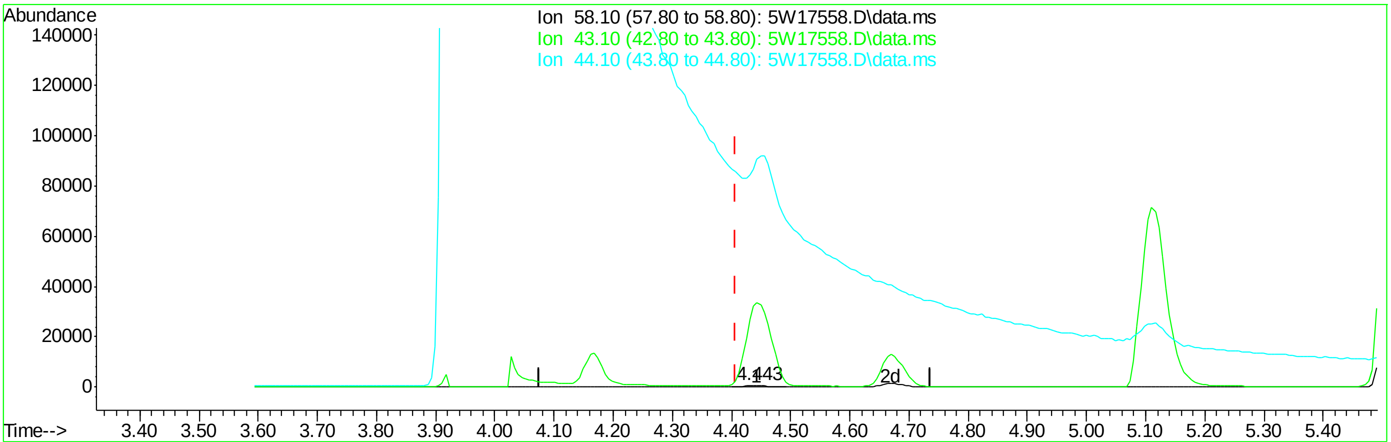
Sample Number:	JC17438-7	**Method:**	TO-15
Lab FileID:	5W17558.D	**Analyst approved:**	04/08/16 14:58 Dana Tryon
Injection Time:	04/07/16 13:50	**Supervisor approved:**	04/08/16 15:53 Kanya Veerawat

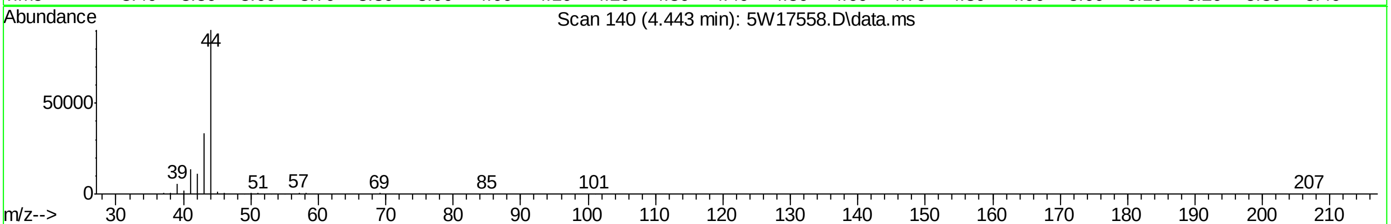
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.67	Missed peak

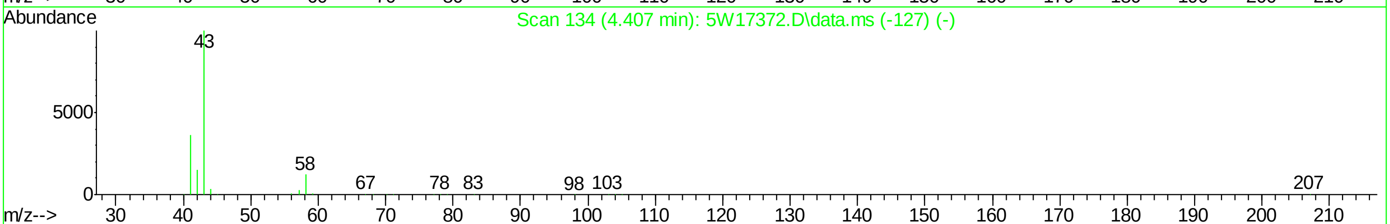
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17558.D
Acq On    :  7 Apr 2016   1:50 pm
Operator  : THOMASH
Sample    : JC17438-7
Misc      : MS514,v5w700,400,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Apr 08 09:16:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17558.D\data.ms

(12) n-Butane

4.443min (+0.037) 0.74ppb(v)

response 1712

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	5291.14#
44.10	49.20	14305.06#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 15:28

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17539.D
Acq On    :  6 Apr 2016   8:04 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:24:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.401	130	206692	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.537	114	764678	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	363784	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.401	130	206692	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	497857	9.99 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.90%		
Target Compounds					Qvalue
8) Chloromethane	4.321	50	13125	0.90 ppb(v	100
12) n-Butane	4.651	58	9316m	3.50 ppb(v	
20) Trichlorofluoromethane	5.624	101	72293	1.45 ppb(v	98
21) Acetone	5.508	58	151126	18.81 ppb(v	95
22) Pentane	5.918	57	14862	3.72 ppb(v	95
25) Isopropyl Alcohol	5.716	43	125658	20.16 ppb(v	89
26) 1,1-Dichloroethene	6.175	61	5000m	0.18 ppb(v	
28) Methylene Chloride	6.309	84	4464	0.26 ppb(v	97
29) Carbon Disulfide	6.566	76	26090	0.52 ppb(v	100
30) Ethanol	5.104	45	1728083	253.14 ppb(v	98
38) 2-Butanone	7.802	72	7433	0.94 ppb(v	96
39) Hexane	8.426	57	204154	7.36 ppb(v#	56
40) cis-1,2-Dichloroethene	8.236	61	90465	3.86 ppb(v	98
42) Ethyl Acetate	8.469	61	66561	12.20 ppb(v	90
44) Chloroform	8.536	83	441913	10.49 ppb(v	99
45) 2,4-Dimethylpentane	9.374	57	74745	2.37 ppb(v	96
46) Tetrahydrofuran	9.019	72	1481	0.19 ppb(v#	70
47) 1,1,1-Trichloroethane	9.601	97	13189	0.30 ppb(v	98
49) Benzene	10.121	78	27800	0.49 ppb(v	98
51) Cyclohexane	10.414	56	141810	5.37 ppb(v	94
52) 2,3-Dimethylpentane	10.696	71	70576	5.78 ppb(v	95
54) 2,2,4-Trimethylpentane	11.375	57	929222	10.92 ppb(v#	86
55) Heptane	11.705	71	151104	8.29 ppb(v	98
56) Trichloroethene	11.350	95	3550689	121.80 ppb(v	94
66) Toluene	13.638	91	33902	0.46 ppb(v	97
72) Tetrachloroethene	15.137	166	225314	5.41 ppb(v	100
74) Octane	14.966	43	116504	2.97 ppb(v	96
78) Ethylbenzene	16.611	91	125081	1.31 ppb(v	100
79) m,p-Xylene	16.868	91	34512	0.48 ppb(v	98
80) Styrene	17.407	104	14682	0.27 ppb(v	99
81) Nonane	17.933	43	11522	0.29 ppb(v	98
82) o-Xylene	17.560	91	10197	0.14 ppb(v	96
86) Isopropylbenzene	18.459	105	30145	0.28 ppb(v	98
89) n-Propylbenzene	19.248	120	19756	0.72 ppb(v	94
91) 4-Ethyltoluene	19.468	105	10504	0.11 ppb(v	97
95) 1,2,4-Trimethylbenzene	20.172	105	15003	0.18 ppb(v#	60
102) n-Butylbenzene	21.334	134	5688	0.25 ppb(v	79
105) Naphthalene	23.255	128	7743	0.10 ppb(v#	90

```
                              Quantitation Report    (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17539.D
Acq On    :  6 Apr 2016   8:04 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:24:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 -------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17539.D
Acq On    :  6 Apr 2016   8:04 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:24:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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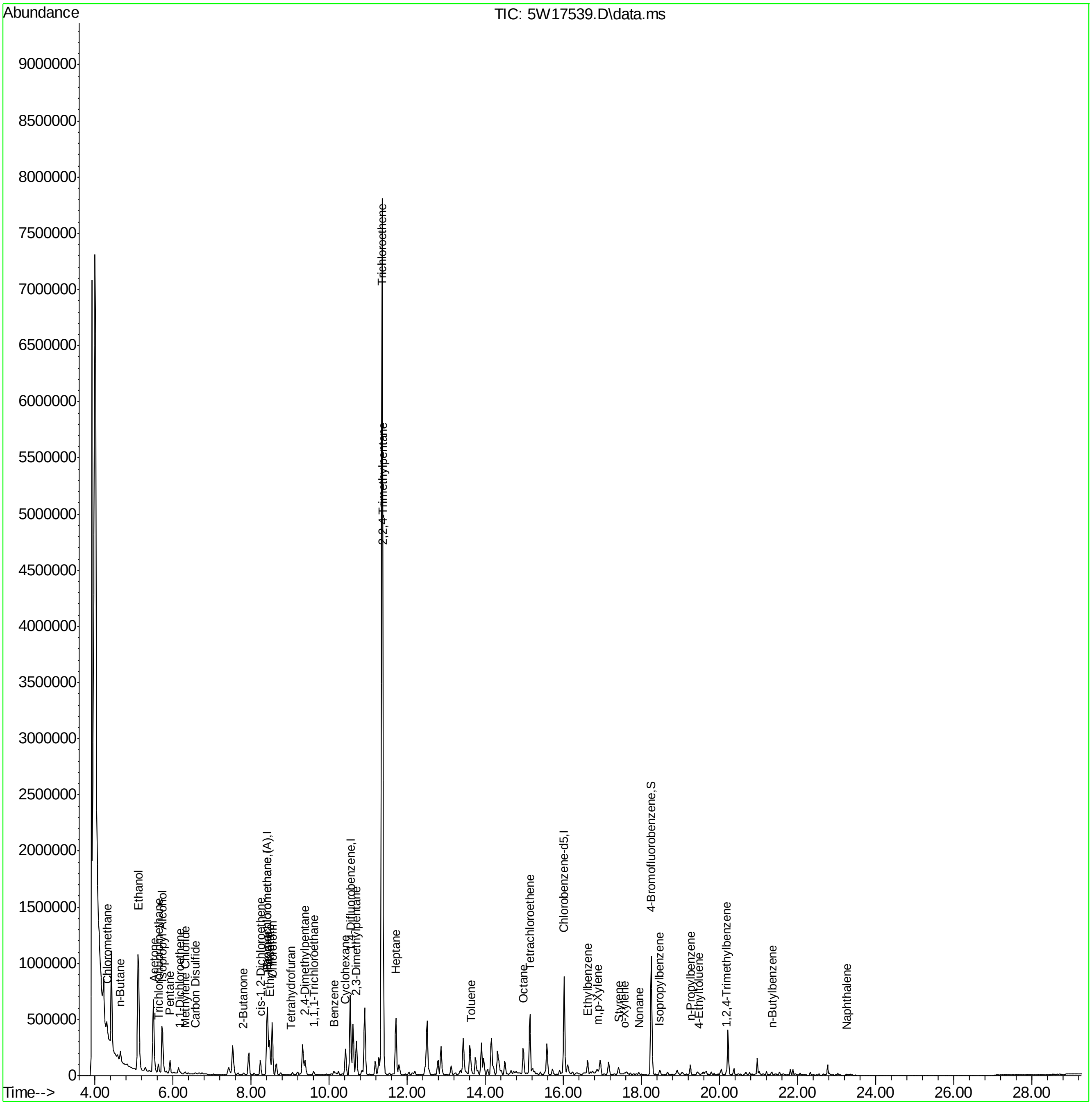
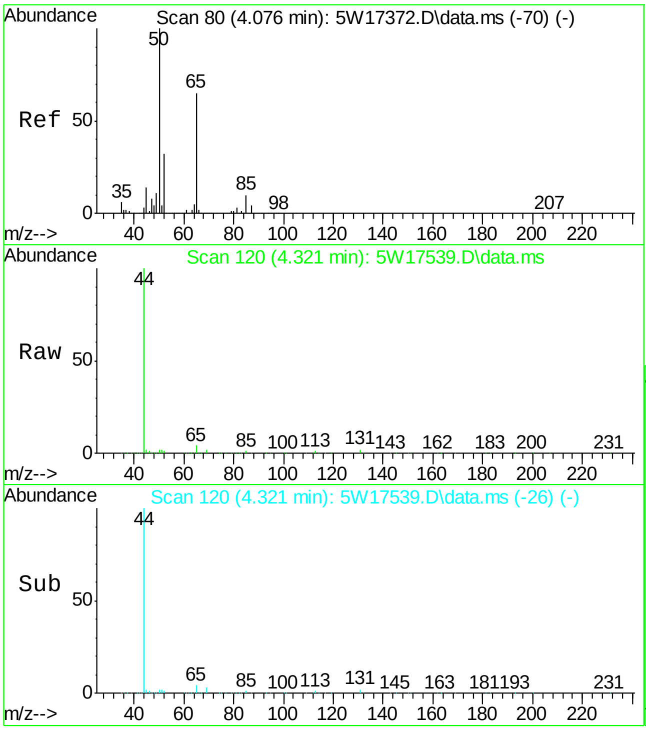


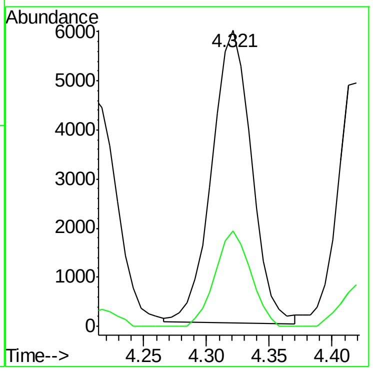

```
m5w693.M Thu Apr 07 11:24:59 2016 GCMS5W                                Page: 3
```

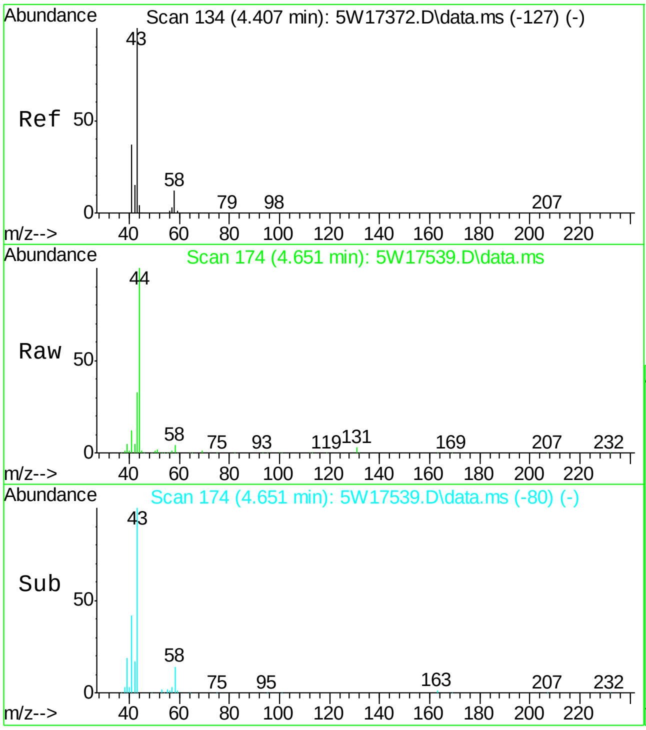


#8
Chloromethane
Concen: 0.90 ppb(v)
RT: 4.321 min Scan# 120
Delta R.T. 0.245 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 50 Resp: 13125

Ion	Ratio	Lower	Upper
50	100		
52	32.4	22.7	42.1

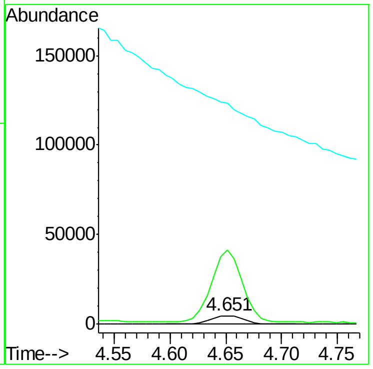




#12
n-Butane
Concen: 3.50 ppb(v) m
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

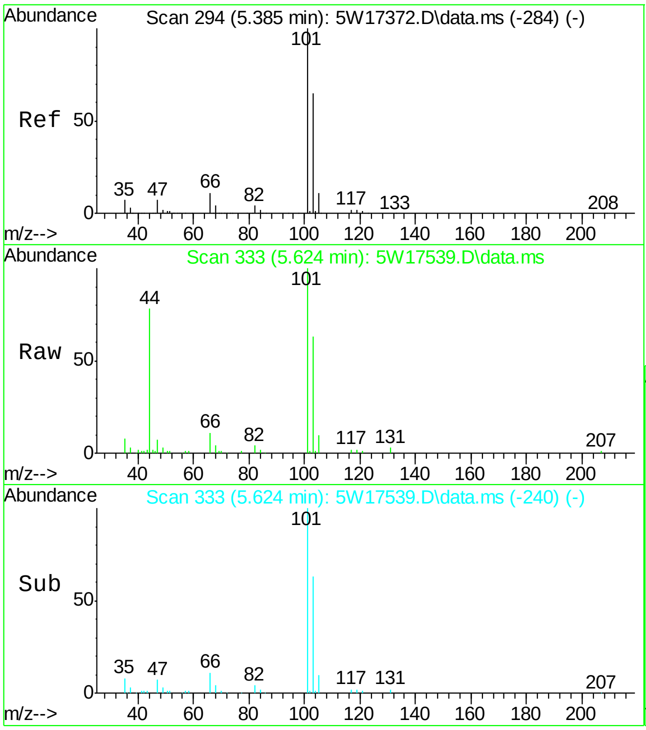
Tgt Ion: 58 Resp: 9316

Ion	Ratio	Lower	Upper
58	100		
43	866.6	576.3	1070.3
44	2595.0	34.4	64.0#



7.1.9

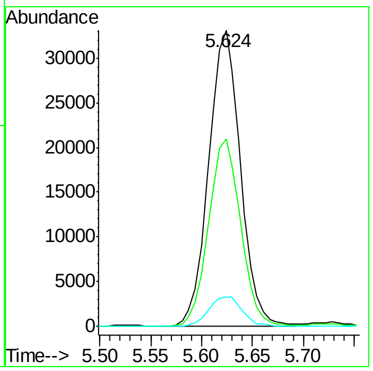
7

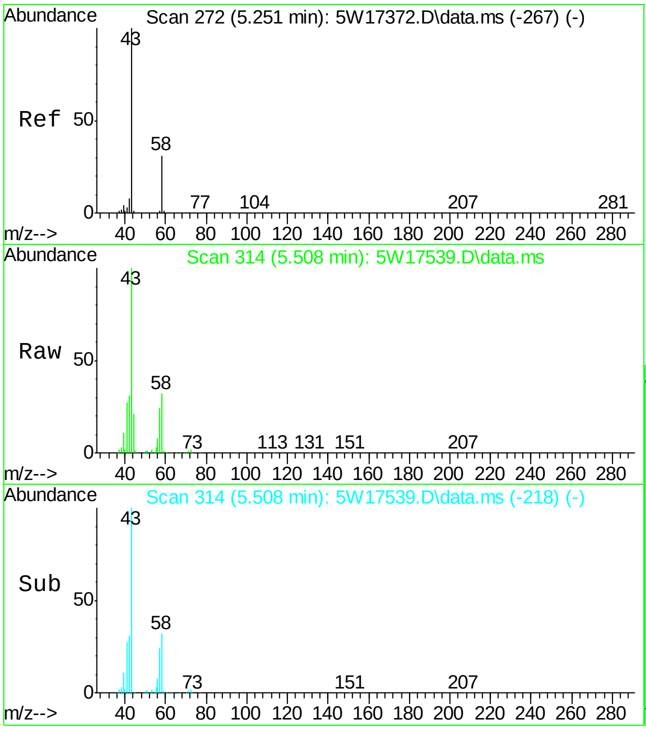


#20
Trichlorofluoromethane
Concen: 1.45 ppb(v)
RT: 5.624 min Scan# 333
Delta R.T. 0.239 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:101 Resp: 72293

Ion	Ratio	Lower	Upper
101	100		
103	63.4	45.1	83.9
105	9.9	7.5	13.9

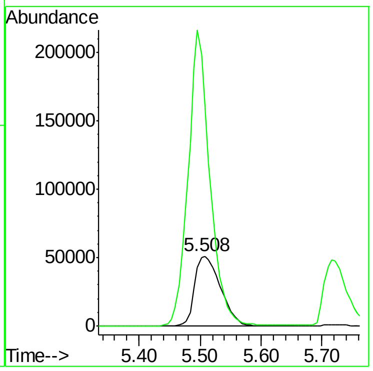


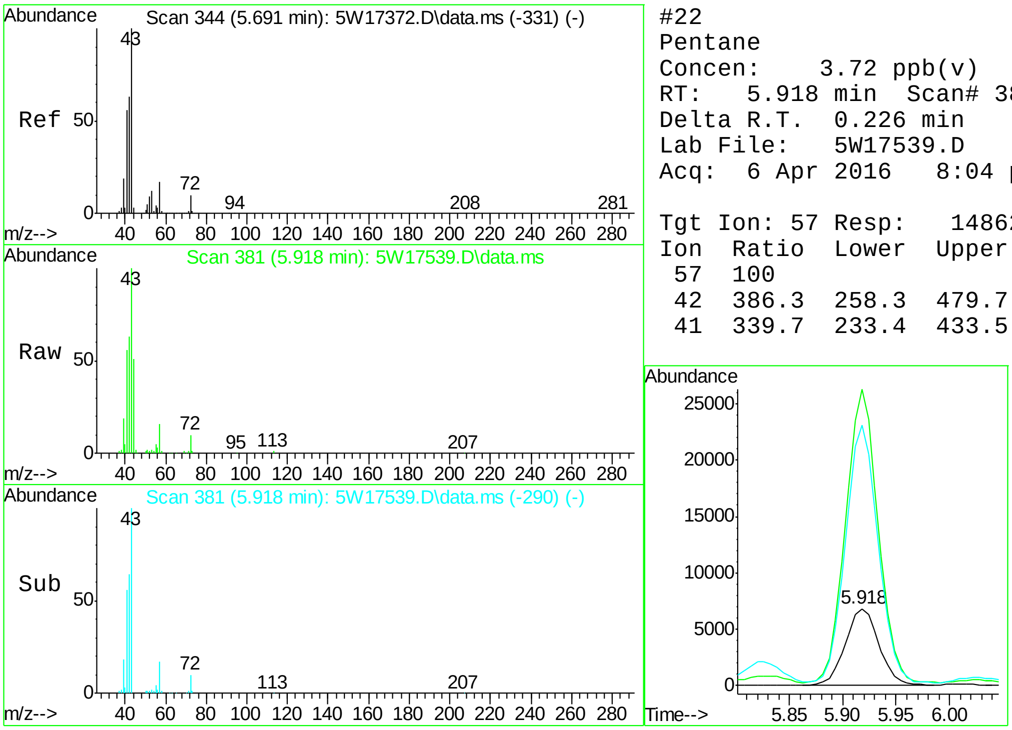


#21
Acetone
Concen: 18.81 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 58 Resp: 151126

Ion	Ratio	Lower	Upper
58	100		
43	314.7	227.9	423.3

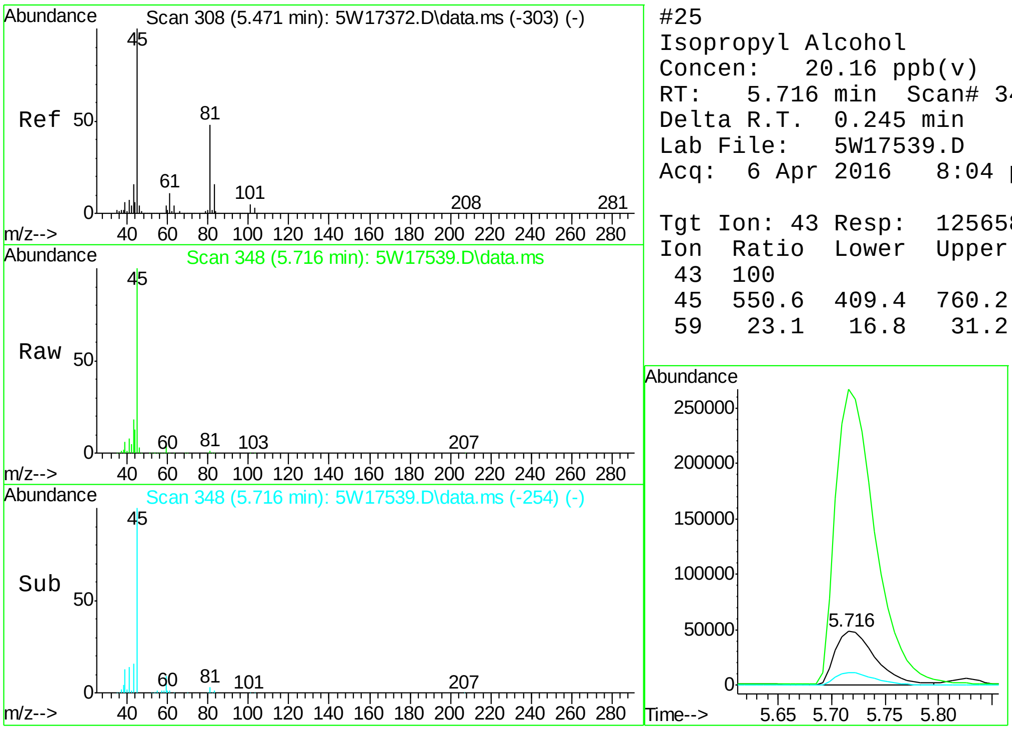




#22
Pentane
Concen: 3.72 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 57 Resp: 14862

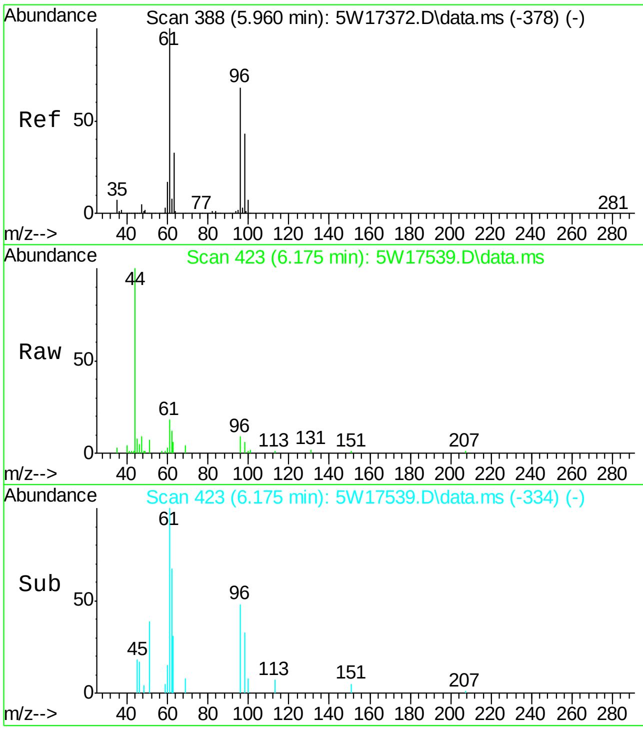
Ion	Ratio	Lower	Upper
57	100		
42	386.3	258.3	479.7
41	339.7	233.4	433.5



#25
Isopropyl Alcohol
Concen: 20.16 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 43 Resp: 125658

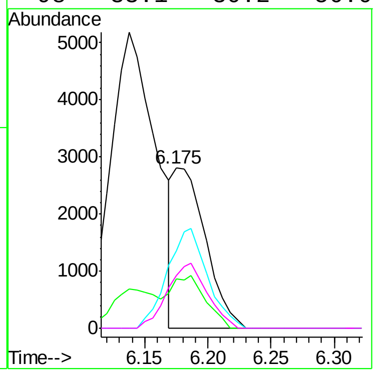
Ion	Ratio	Lower	Upper
43	100		
45	550.6	409.4	760.2
59	23.1	16.8	31.2

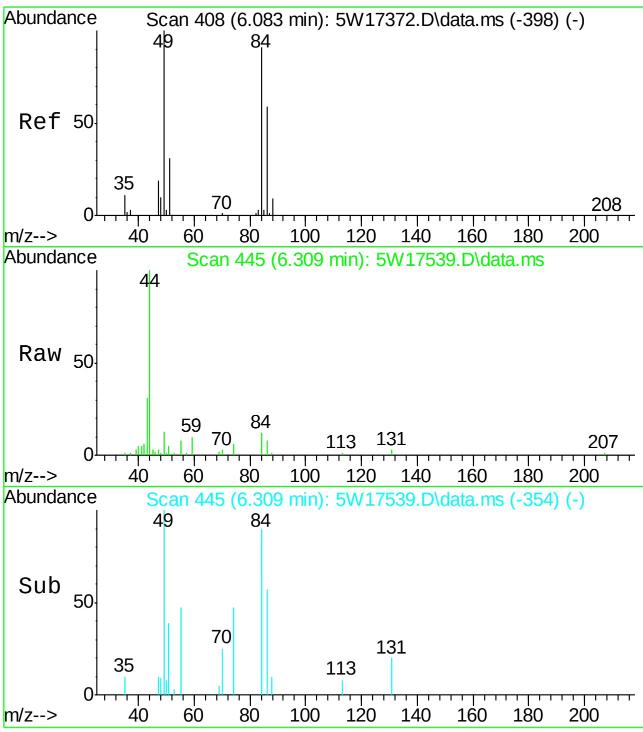


#26
1,1-Dichloroethene
Concen: 0.18 ppb(v) m
RT: 6.175 min Scan# 423
Delta R.T. 0.214 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 61 Resp: 5000

Ion	Ratio	Lower	Upper
61	100		
63	31.1	22.8	42.4
96	48.4	47.7	88.7
98	33.1	30.2	56.0

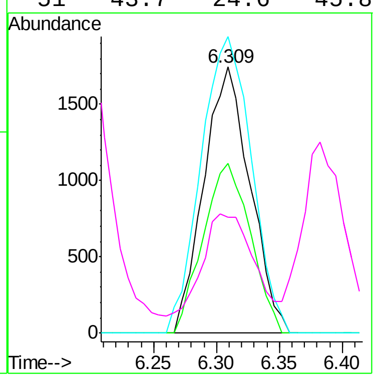


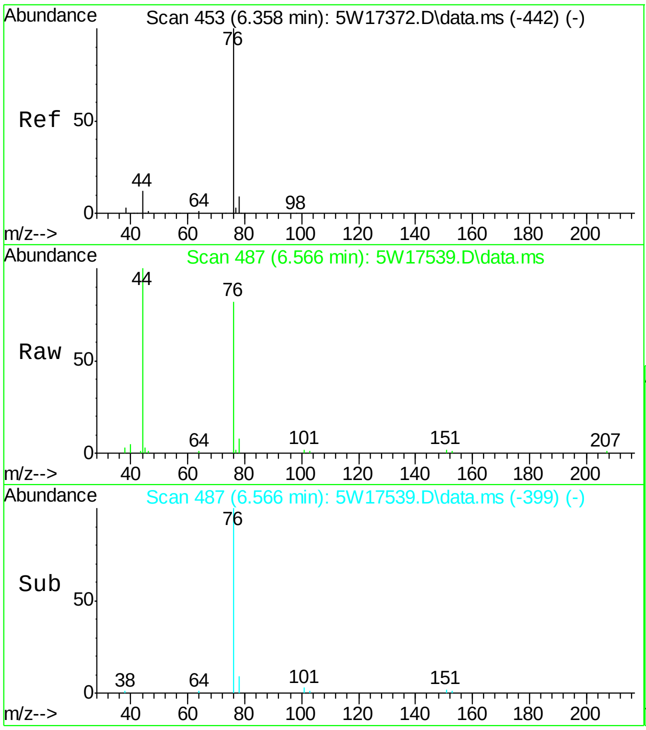


#28
Methylene Chloride
Concen: 0.26 ppb(v)
RT: 6.309 min Scan# 445
Delta R.T. 0.226 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 84 Resp: 4464

Ion	Ratio	Lower	Upper
84	100		
86	64.0	45.8	85.0
49	111.4	77.6	144.2
51	43.7	24.6	45.8

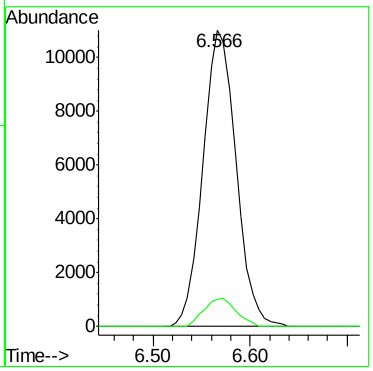


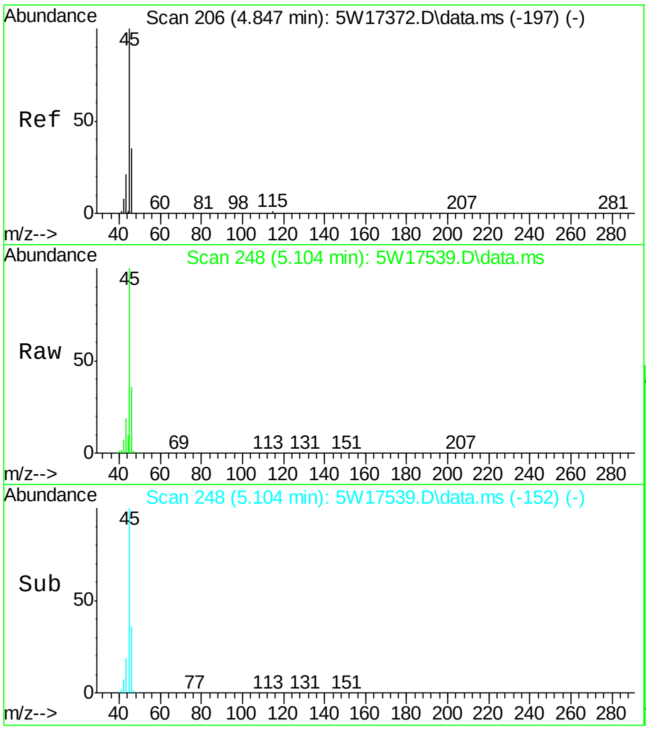


#29
Carbon Disulfide
Concen: 0.52 ppb(v)
RT: 6.566 min Scan# 487
Delta R.T. 0.208 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 76 Resp: 26090

Ion	Ratio	Lower	Upper
76	100		
78	9.2	6.5	12.1

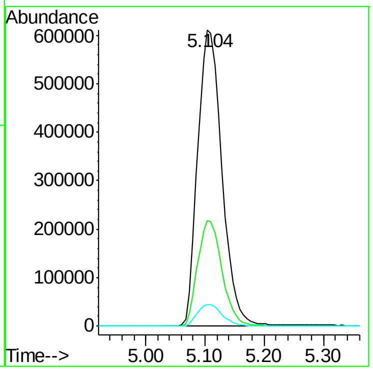


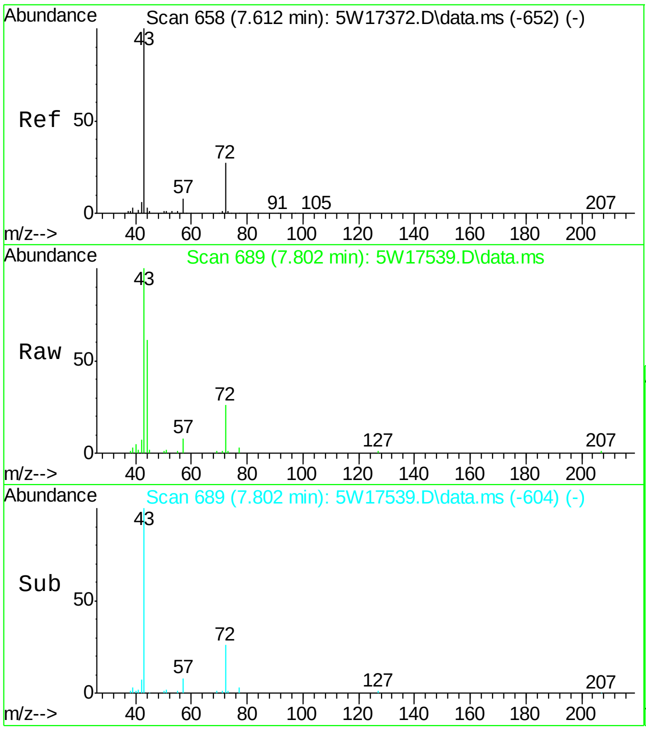


#30
Ethanol
Concen: 253.14 ppb(v)
RT: 5.104 min Scan# 248
Delta R.T. 0.257 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 45 Resp: 1728083

Ion	Ratio	Lower	Upper
45	100		
46	35.5	24.6	45.8
42	7.3	6.5	12.1

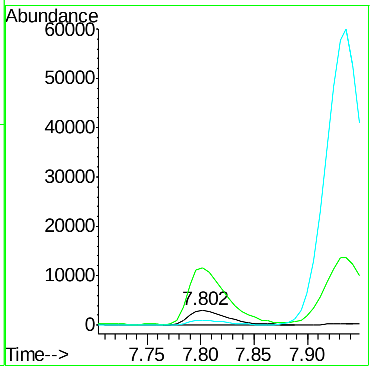


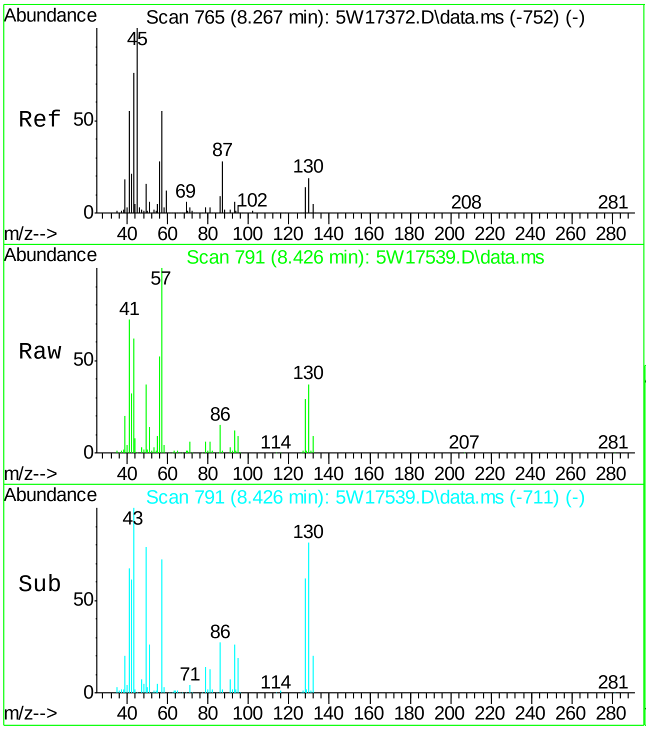


#38
2-Butanone
Concen: 0.94 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 72 Resp: 7433

Ion	Ratio	Lower	Upper
72	100		
43	386.1	262.9	488.3
57	29.7	21.3	39.6

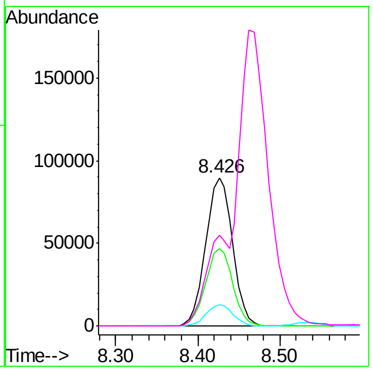


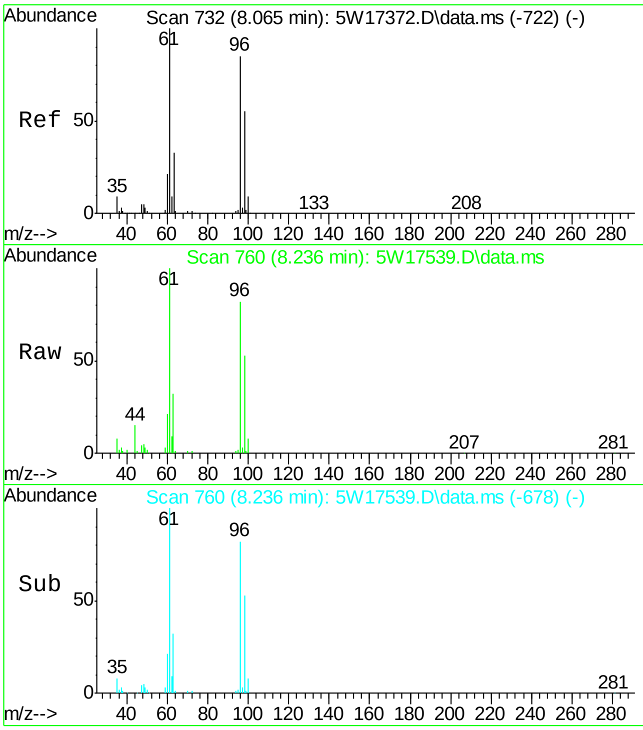


#39
Hexane
Concen: 7.36 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.159 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 57 Resp: 204154

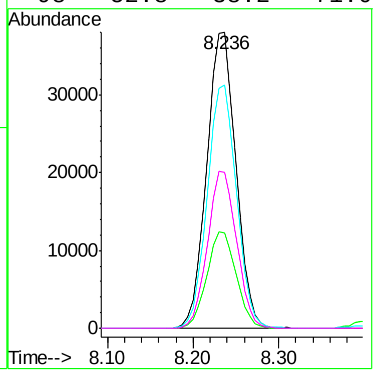
Ion	Ratio	Lower	Upper
57	100		
56	52.5	36.5	67.9
86	14.6	11.1	20.7
43	61.6	97.9	181.9#

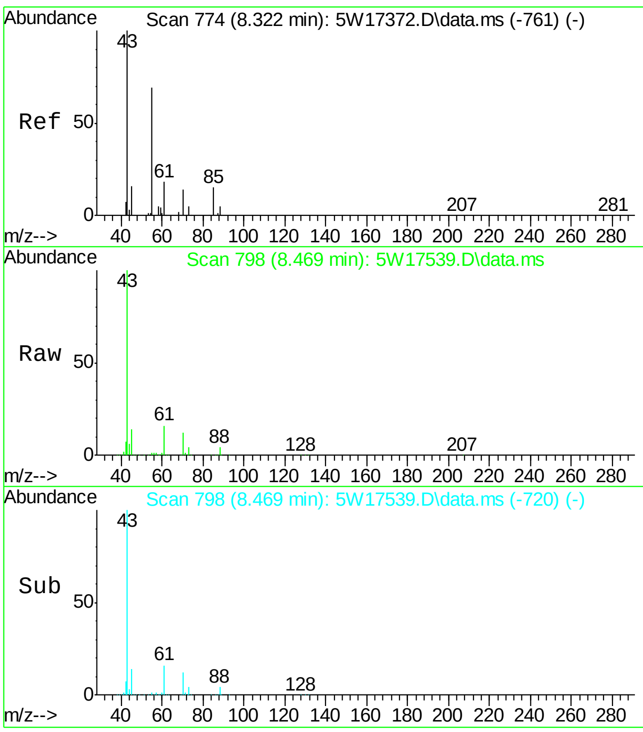





```
#40
cis-1,2-Dichloroethene
Concen:     3.86 ppb(v)
RT:    8.236 min   Scan# 760
Delta R.T.   0.171 min
Lab File:    5W17539.D
Acq:  6 Apr 2016    8:04 pm

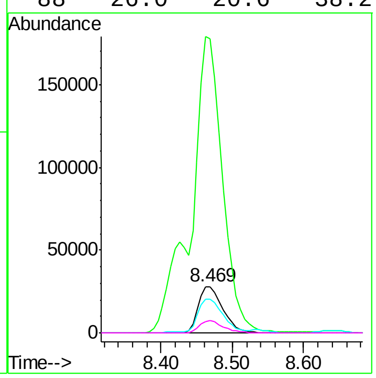
Tgt Ion: 61 Resp:    90465
Ion   Ratio   Lower   Upper
 61   100
 63    32.2    23.0    42.8
 96    82.1    59.3   110.1
 98    52.8    38.2    71.0
```





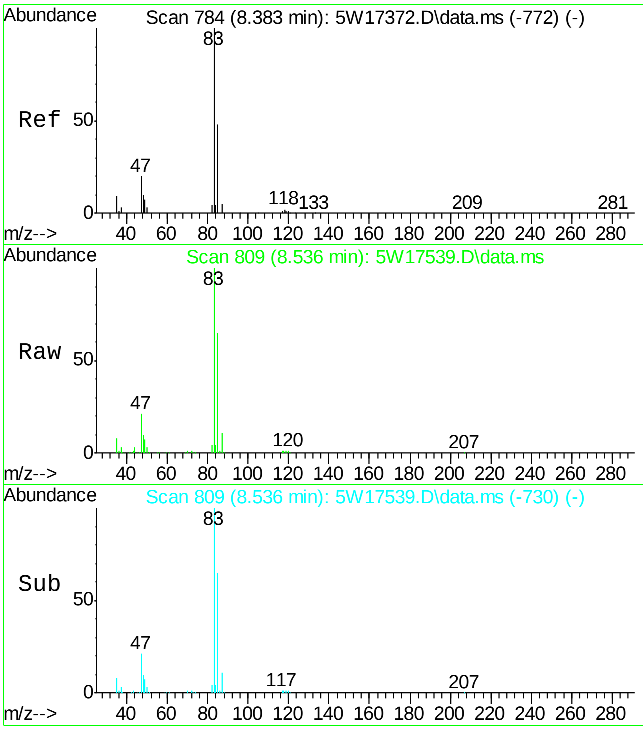

```
#42
Ethyl Acetate
Concen:    12.20 ppb(v)
RT:    8.469 min   Scan# 798
Delta R.T.   0.147 min
Lab File:    5W17539.D
Acq:  6 Apr 2016    8:04 pm

Tgt Ion: 61 Resp:    66561
Ion   Ratio   Lower   Upper
 61   100
 43   630.3   466.1   865.7
 70    72.5    56.3   104.5
 88    26.0    20.6    38.2
```



7.1.9

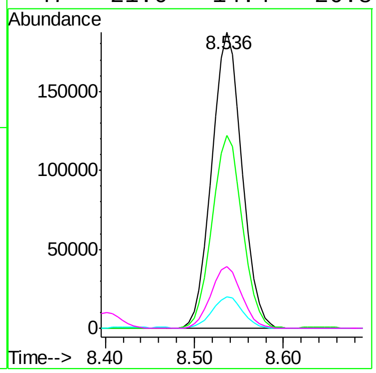
7

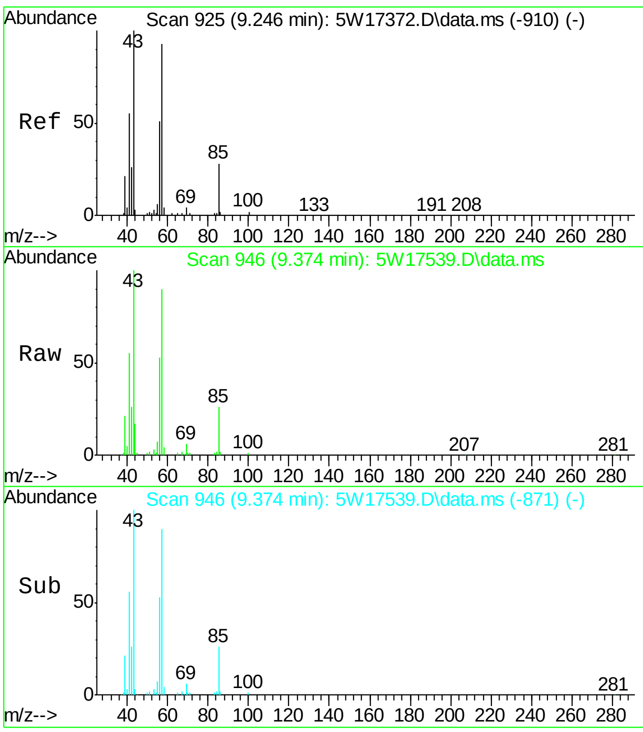


#44
Chloroform
Concen: 10.49 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 83 Resp: 441913

Ion	Ratio	Lower	Upper
83	100		
85	65.2	45.4	84.2
87	10.6	7.3	13.5
47	21.0	14.4	26.8

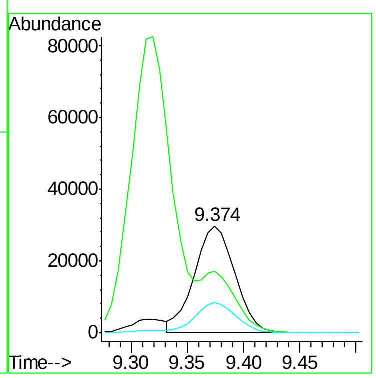


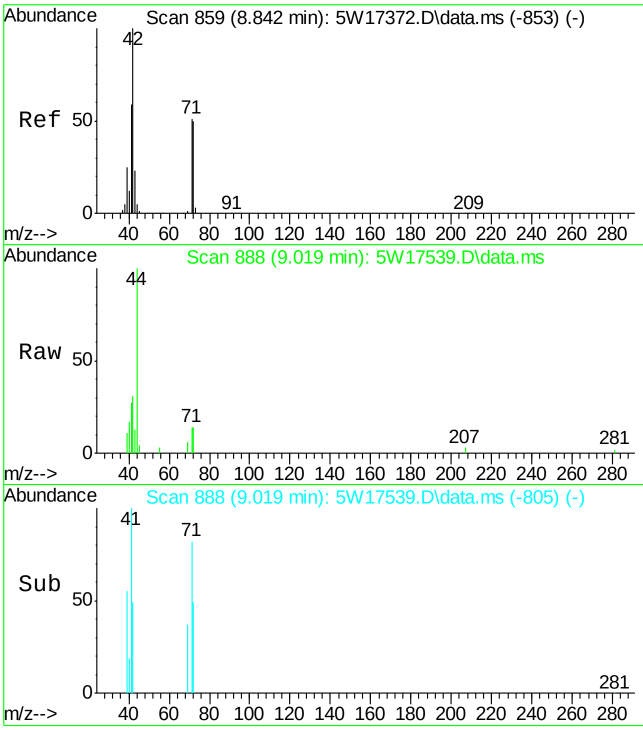


#45
2,4-Dimethylpentane
Concen: 2.37 ppb(v)
RT: 9.374 min Scan# 946
Delta R.T. 0.129 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 57 Resp: 74745

Ion	Ratio	Lower	Upper
57	100		
56	58.3	38.9	72.2
85	28.4	21.0	39.0

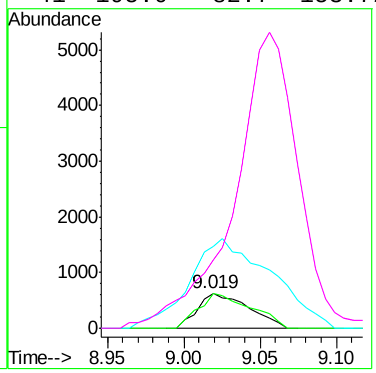


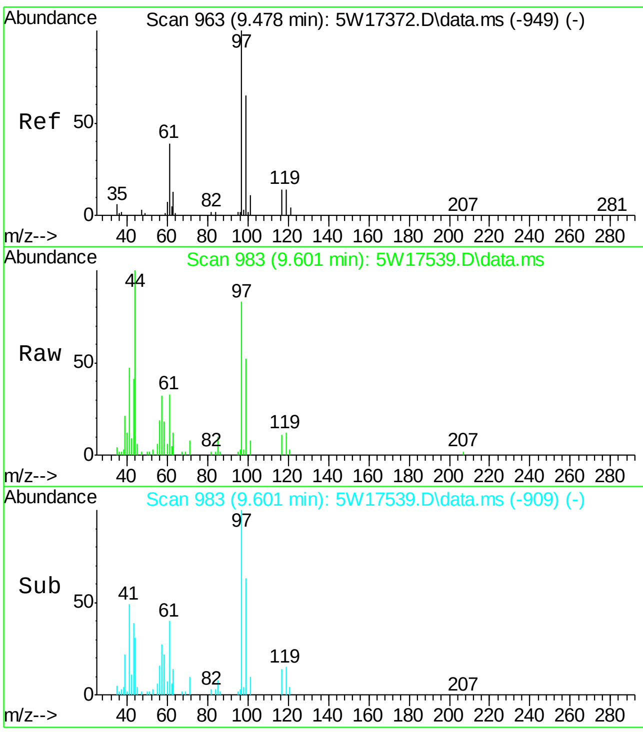


#46
Tetrahydrofuran
Concen: 0.19 ppb(v)
RT: 9.019 min Scan# 888
Delta R.T. 0.177 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 72 Resp: 1481

Ion	Ratio	Lower	Upper
72	100		
71	99.7	70.7	131.3
42	230.3	139.4	259.0
41	195.0	82.7	153.7#

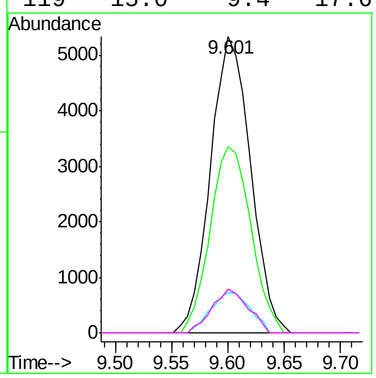


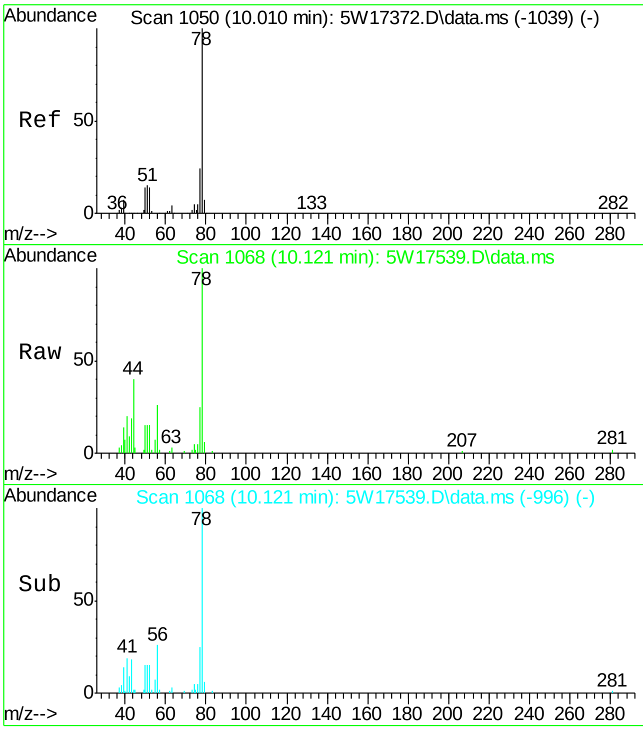


#47
1,1,1-Trichloroethane
Concen: 0.30 ppb(v)
RT: 9.601 min Scan# 983
Delta R.T. 0.122 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 97 Resp: 13189

Ion	Ratio	Lower	Upper
97	100		
99	62.9	45.3	84.1
117	13.6	10.0	18.6
119	15.0	9.4	17.6

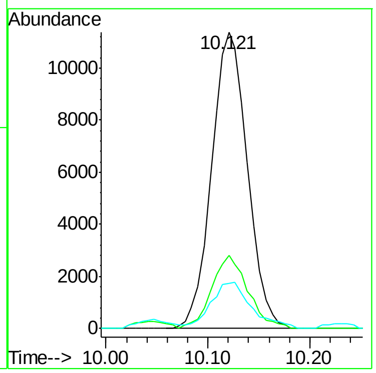


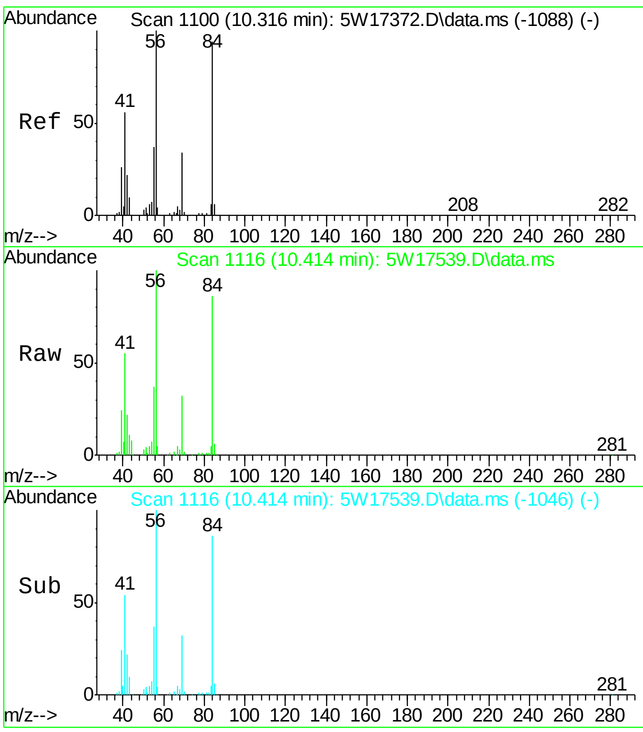


#49
Benzene
Concen: 0.49 ppb(v)
RT: 10.121 min   Scan# 1068
Delta R.T.   0.110 min
Lab File: 5W17539.D
Acq: 6 Apr 2016   8:04 pm

Tgt Ion: 78 Resp: 27800

Ion	Ratio	Lower	Upper
78	100		
77	24.8	16.5	30.7
51	15.1	10.5	19.5

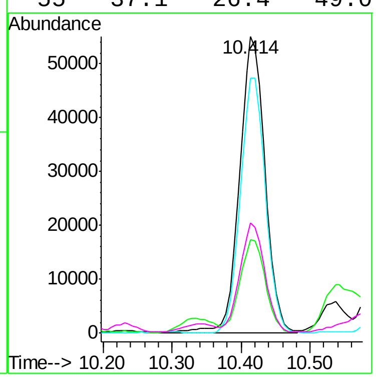


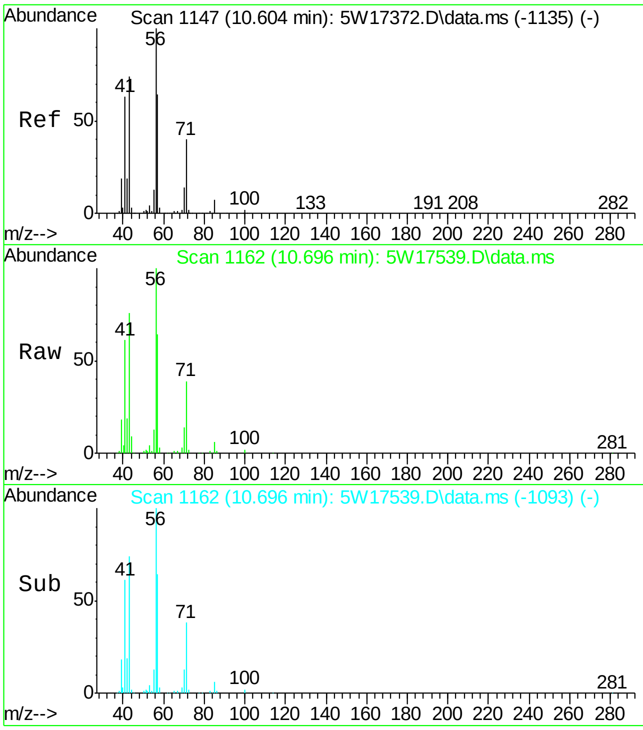


#51
Cyclohexane
Concen: 5.37 ppb(v)
RT: 10.414 min   Scan# 1116
Delta R.T.   0.098 min
Lab File: 5W17539.D
Acq: 6 Apr 2016   8:04 pm

Tgt Ion: 56 Resp: 141810

Ion	Ratio	Lower	Upper
56	100		
69	31.5	23.7	44.1
84	86.1	65.6	121.8
55	37.1	26.4	49.0

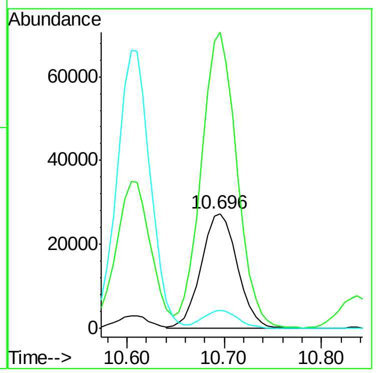


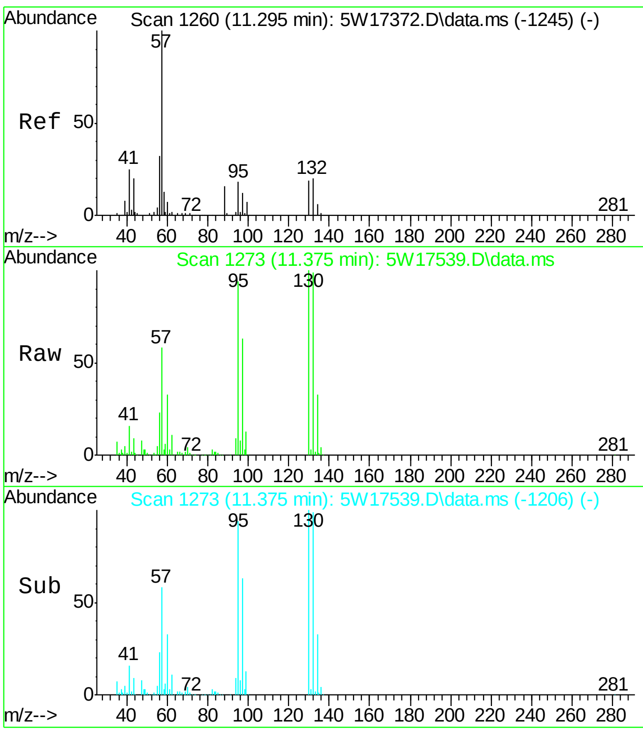


#52
2,3-Dimethylpentane
Concen: 5.78 ppb(v)
RT: 10.696 min Scan# 1162
Delta R.T. 0.092 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 71 Resp: 70576

Ion	Ratio	Lower	Upper
71	100		
56	258.6	175.3	325.5
85	15.9	12.0	22.2

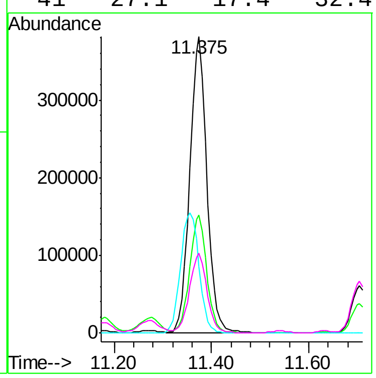


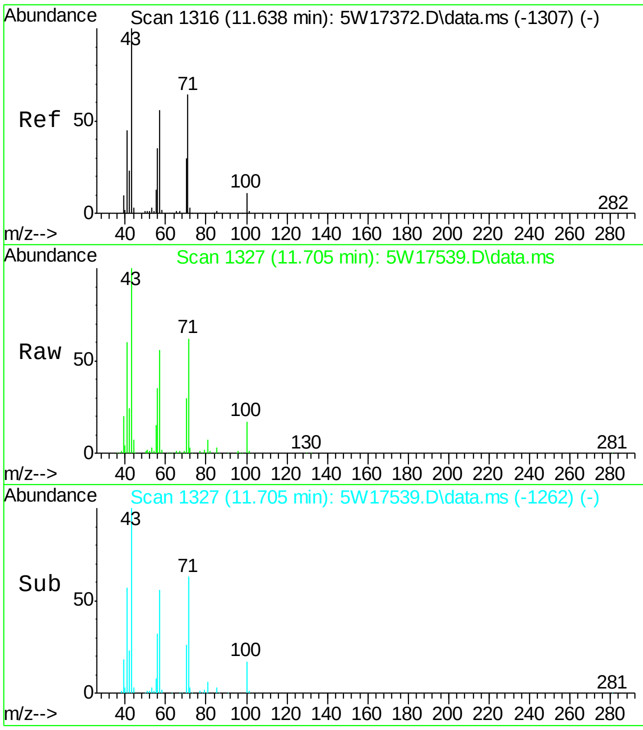


#54
2,2,4-Trimethylpentane
Concen: 10.92 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.080 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 57 Resp: 929222

Ion	Ratio	Lower	Upper
57	100		
56	39.9	22.4	41.6
99	22.4	4.9	9.1#
41	27.1	17.4	32.4

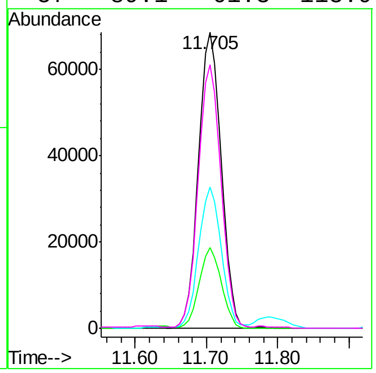


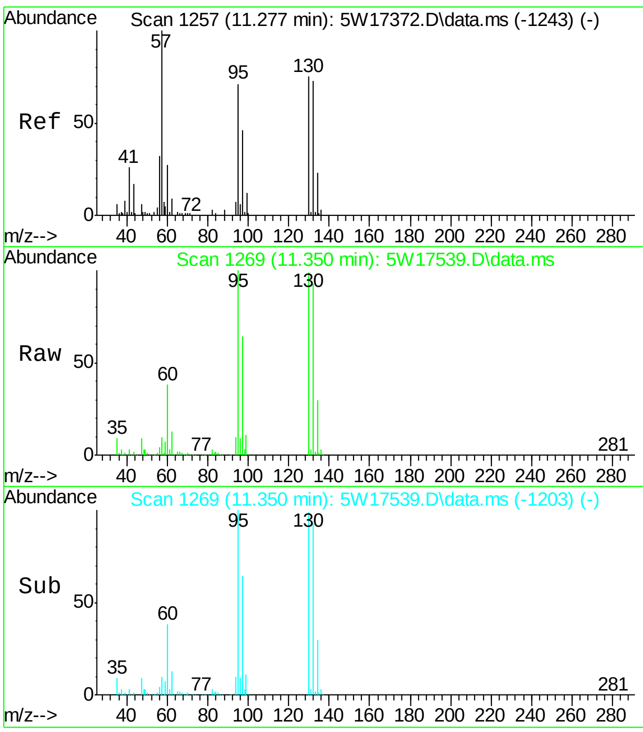


#55
Heptane
Concen: 8.29 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 71 Resp: 151104

Ion	Ratio	Lower	Upper
71	100		
100	27.1	19.6	36.4
70	47.6	34.0	63.2
57	89.1	61.3	113.9

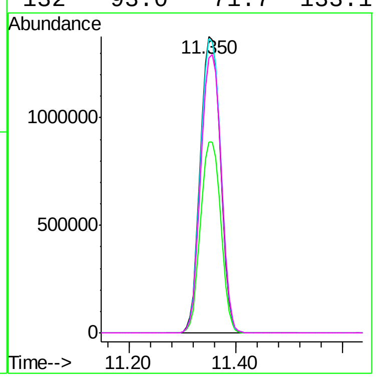


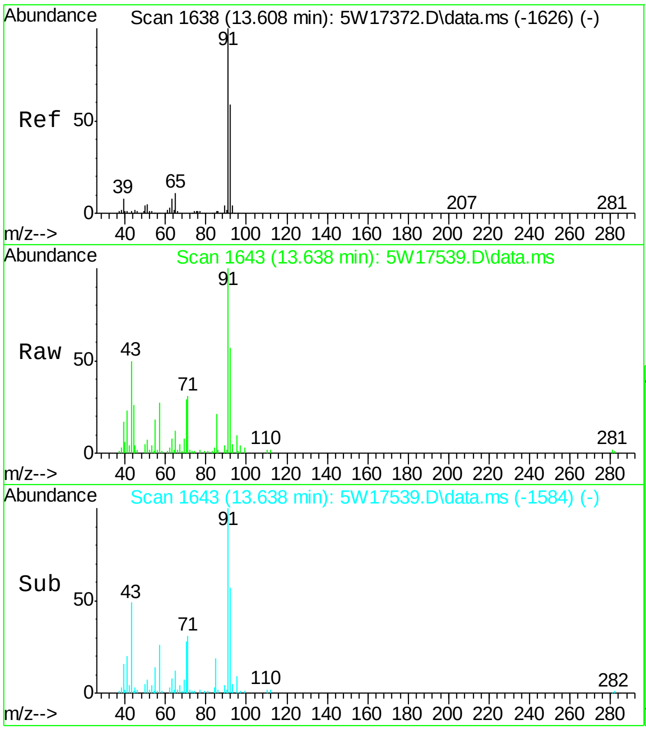


#56
Trichloroethene
Concen: 121.80 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.073 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 95 Resp: 3550689

Ion	Ratio	Lower	Upper
95	100		
97	64.5	45.4	84.4
130	99.1	74.1	137.5
132	93.0	71.7	133.1

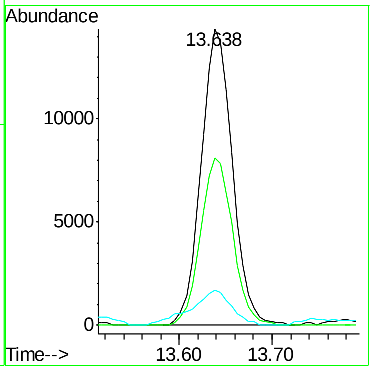


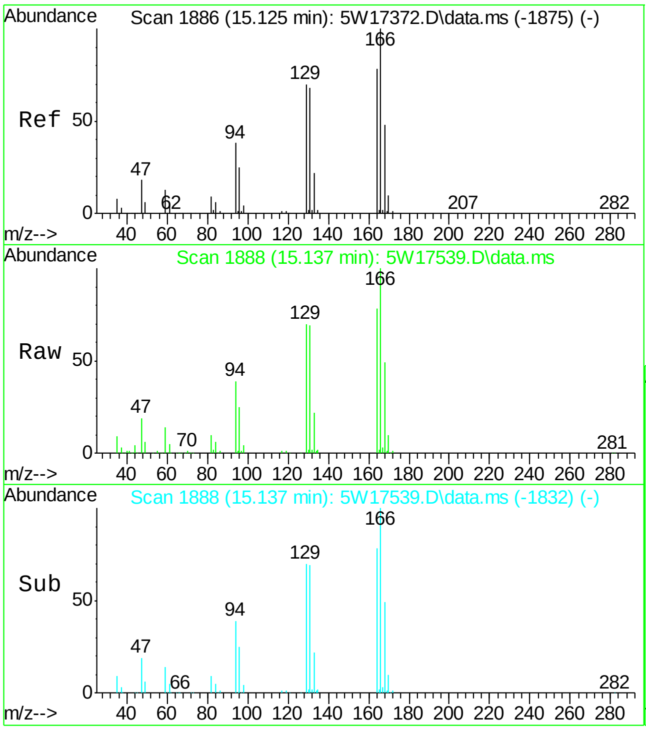


#66
Toluene
Concen: 0.46 ppb(v)
RT: 13.638 min   Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17539.D
Acq: 6 Apr 2016   8:04 pm

Tgt Ion: 91 Resp: 33902

Ion	Ratio	Lower	Upper
91	100		
92	56.5	41.2	76.6
65	11.7	7.3	13.7

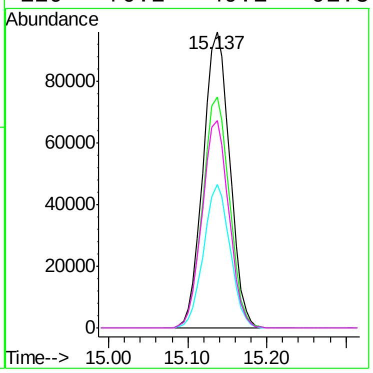


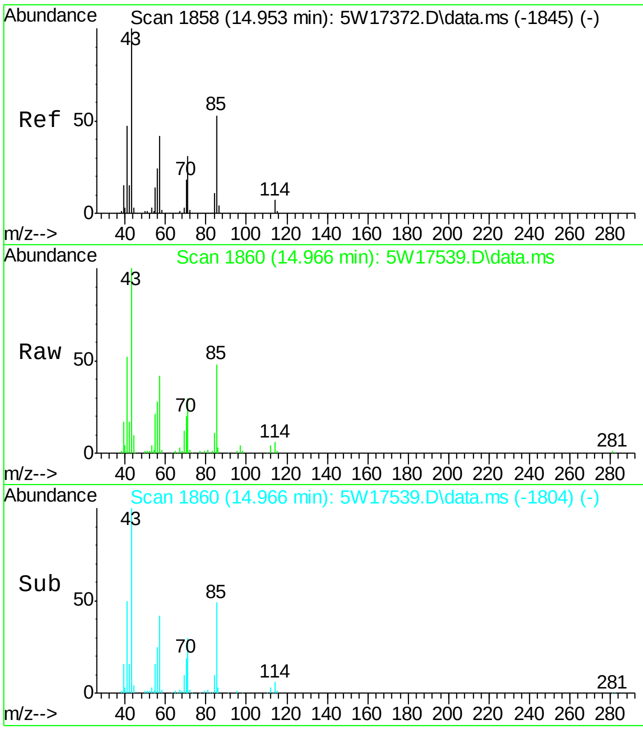


#72
Tetrachloroethene
Concen: 5.41 ppb(v)
RT: 15.137 min   Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016   8:04 pm

Tgt Ion:166 Resp: 225314

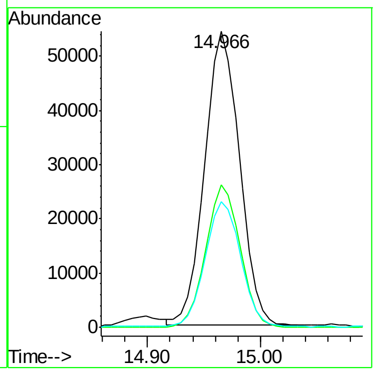
Ion	Ratio	Lower	Upper
166	100		
164	78.2	54.6	101.4
168	48.6	33.5	62.3
129	70.2	49.1	91.3

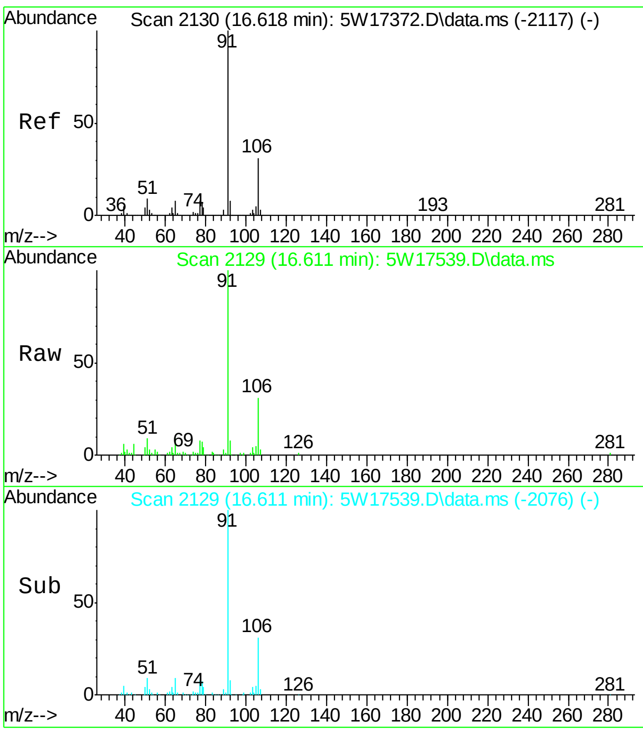




#74
Octane
Concen: 2.97 ppb(v)
RT: 14.966 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

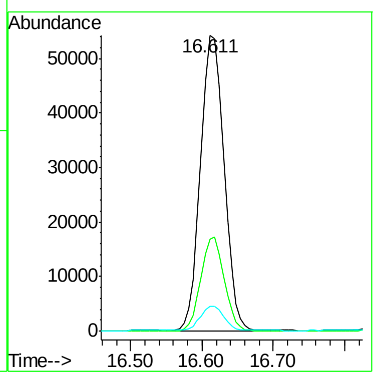
Tgt Ion: 43	Resp:	116504	
Ion	Ratio	Lower	Upper
43	100		
85	48.1	37.1	68.9
57	42.4	29.6	55.0

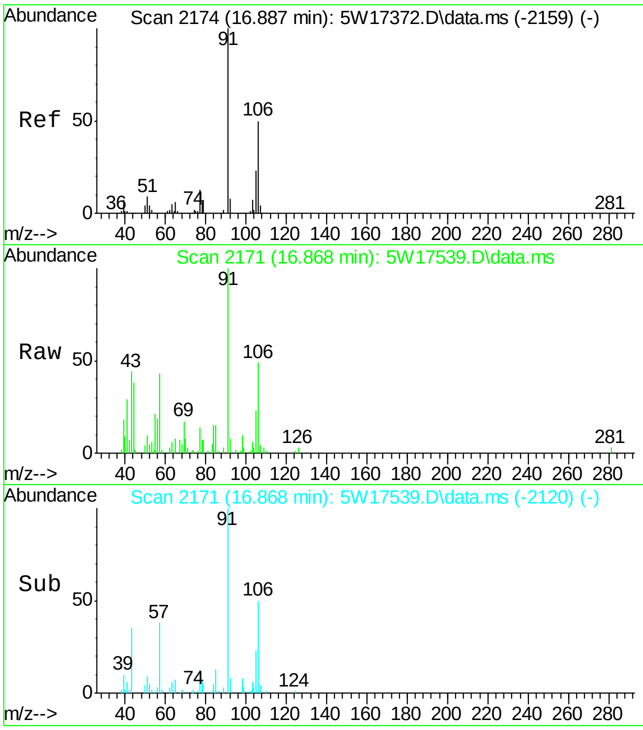




#78
Ethylbenzene
Concen: 1.31 ppb(v)
RT: 16.611 min Scan# 2129
Delta R.T. -0.006 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 91	Resp:	125081	
Ion	Ratio	Lower	Upper
91	100		
106	31.2	22.0	40.8
77	8.4	5.9	10.9

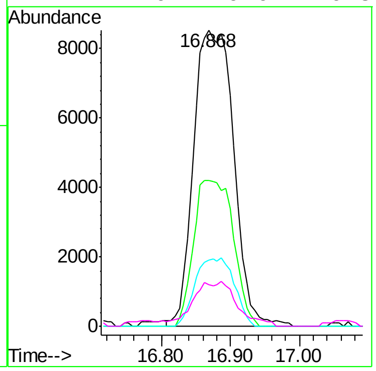


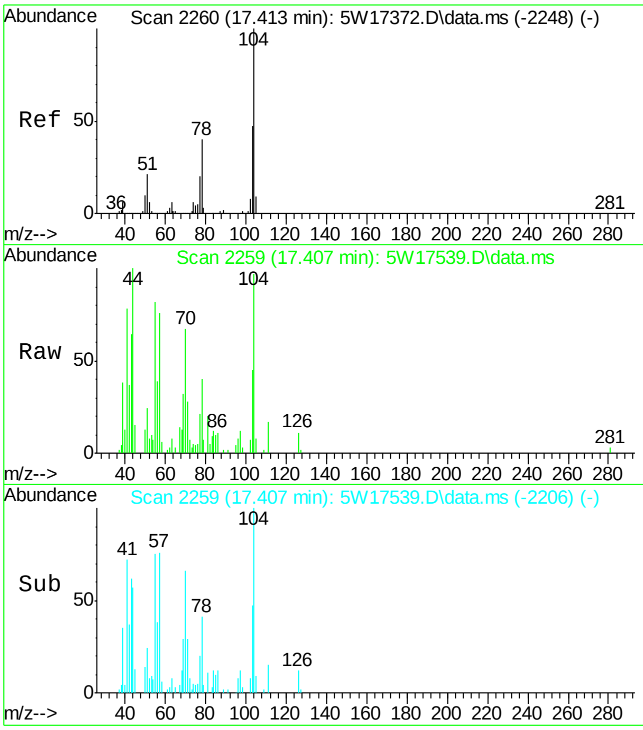


#79
m,p-Xylene
Concen: 0.48 ppb(v)
RT: 16.868 min Scan# 2171
Delta R.T. -0.018 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 91 Resp: 34512

Ion	Ratio	Lower	Upper
91	100		
106	49.1	35.3	65.5
105	22.6	16.2	30.0
77	14.0	9.0	16.8

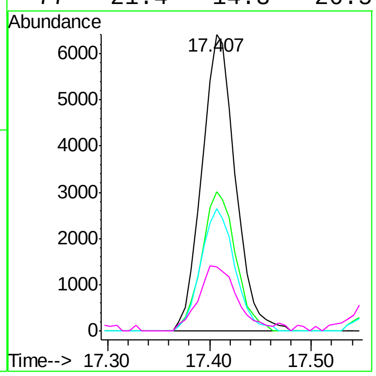


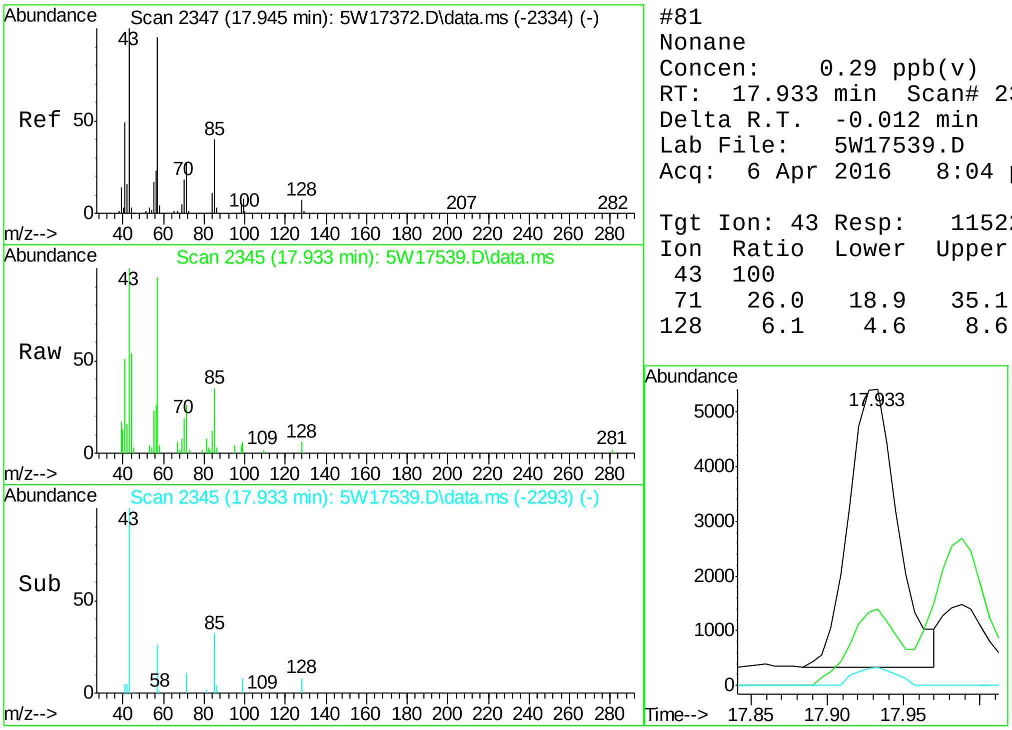


#80
Styrene
Concen: 0.27 ppb(v)
RT: 17.407 min Scan# 2259
Delta R.T. -0.006 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:104 Resp: 14682

Ion	Ratio	Lower	Upper
104	100		
103	47.0	33.2	61.6
78	41.3	28.2	52.4
77	21.4	14.3	26.5

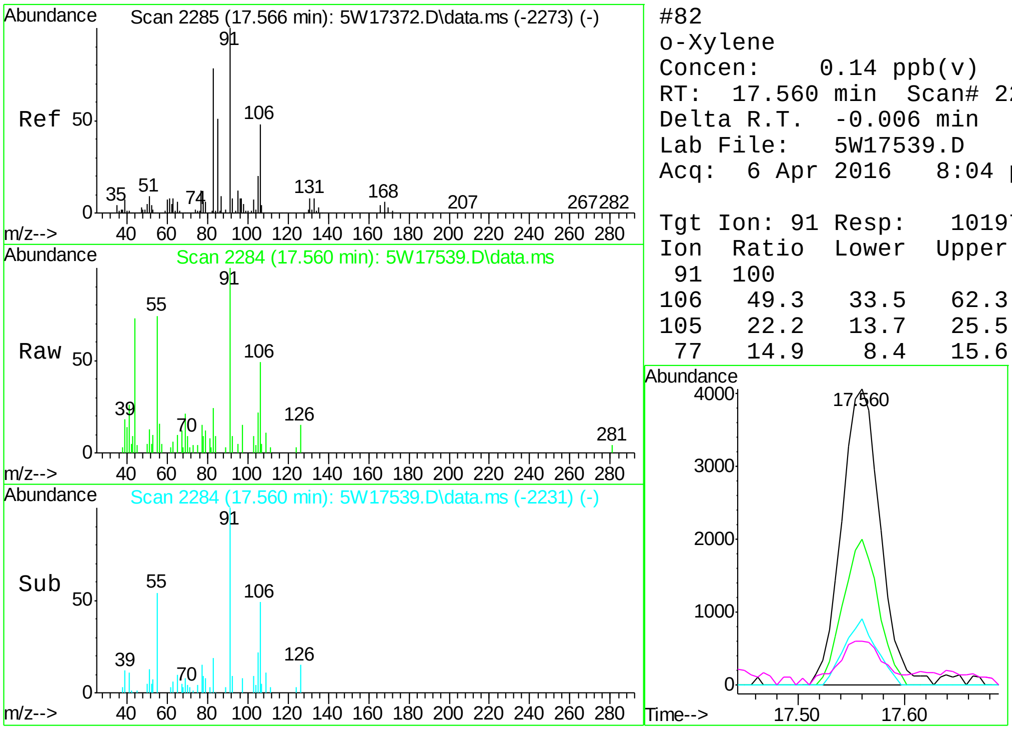




#81
Nonane
Concen: 0.29 ppb(v)
RT: 17.933 min Scan# 2345
Delta R.T. -0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 43 Resp: 11522

Ion	Ratio	Lower	Upper
43	100		
71	26.0	18.9	35.1
128	6.1	4.6	8.6

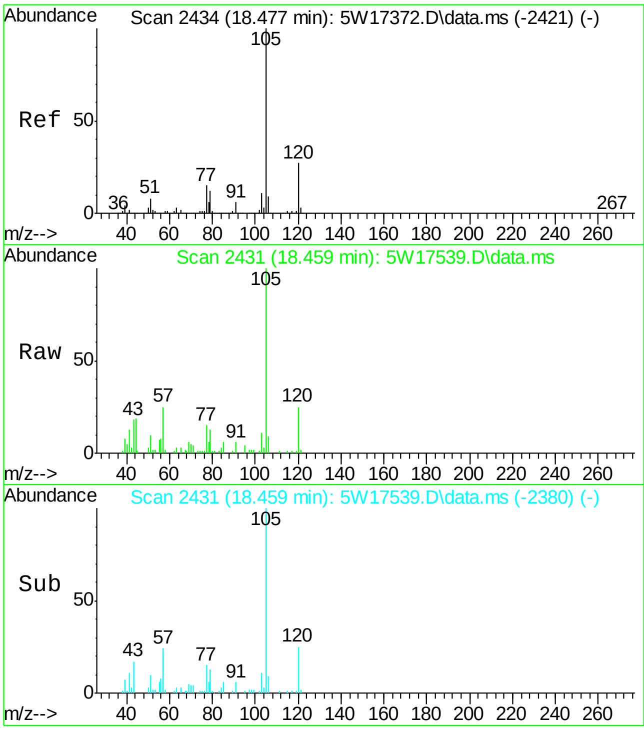


#82
o-Xylene
Concen: 0.14 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion: 91 Resp: 10197

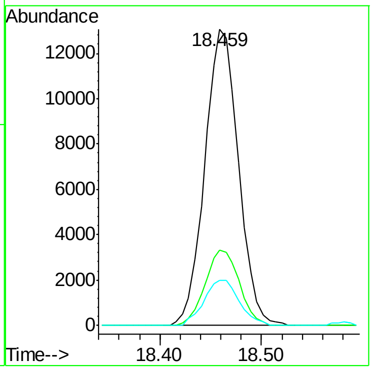
Ion	Ratio	Lower	Upper
91	100		
106	49.3	33.5	62.3
105	22.2	13.7	25.5
77	14.9	8.4	15.6

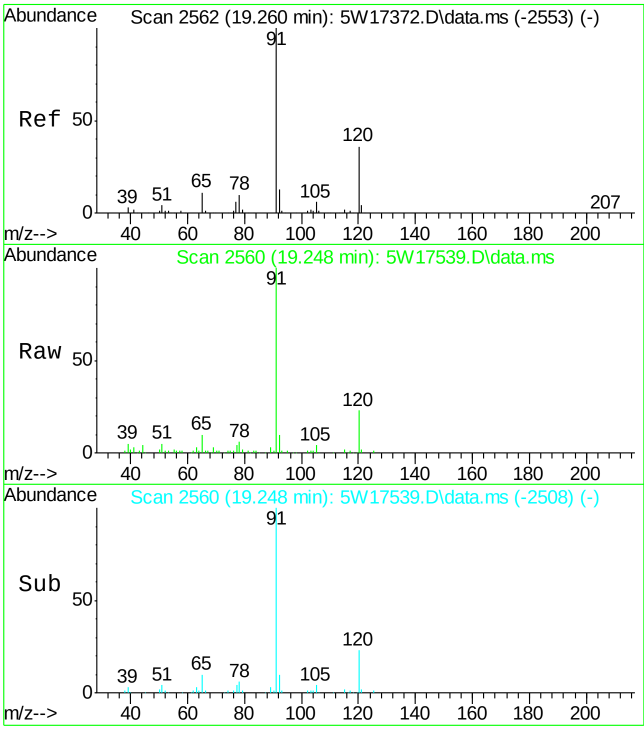
7.1.9
7



#86
Isopropylbenzene
Concen: 0.28 ppb(v)
RT: 18.459 min Scan# 2431
Delta R.T. -0.018 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

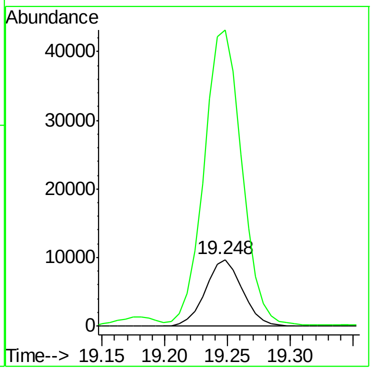
Tgt Ion:105	Resp:	30145	
Ion	Ratio	Lower	Upper
105	100		
120	25.3	18.6	34.6
77	15.1	10.4	19.2



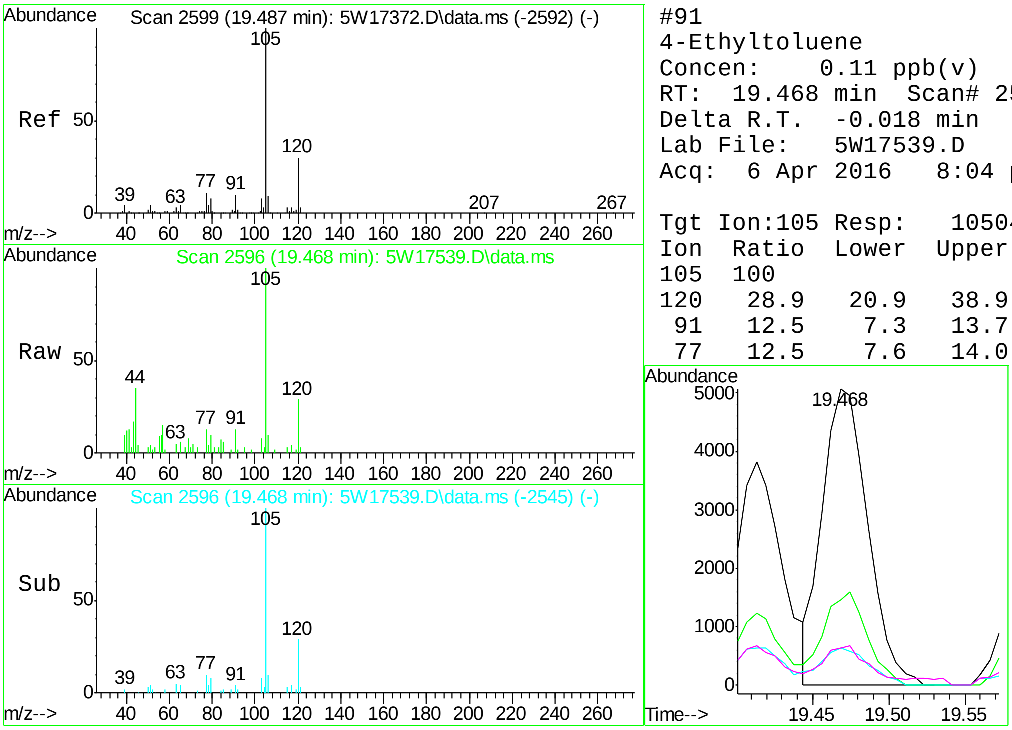


#89
n-Propylbenzene
Concen: 0.72 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:120	Resp:	19756	
Ion	Ratio	Lower	Upper
120	100		
91	444.2	300.7	558.5



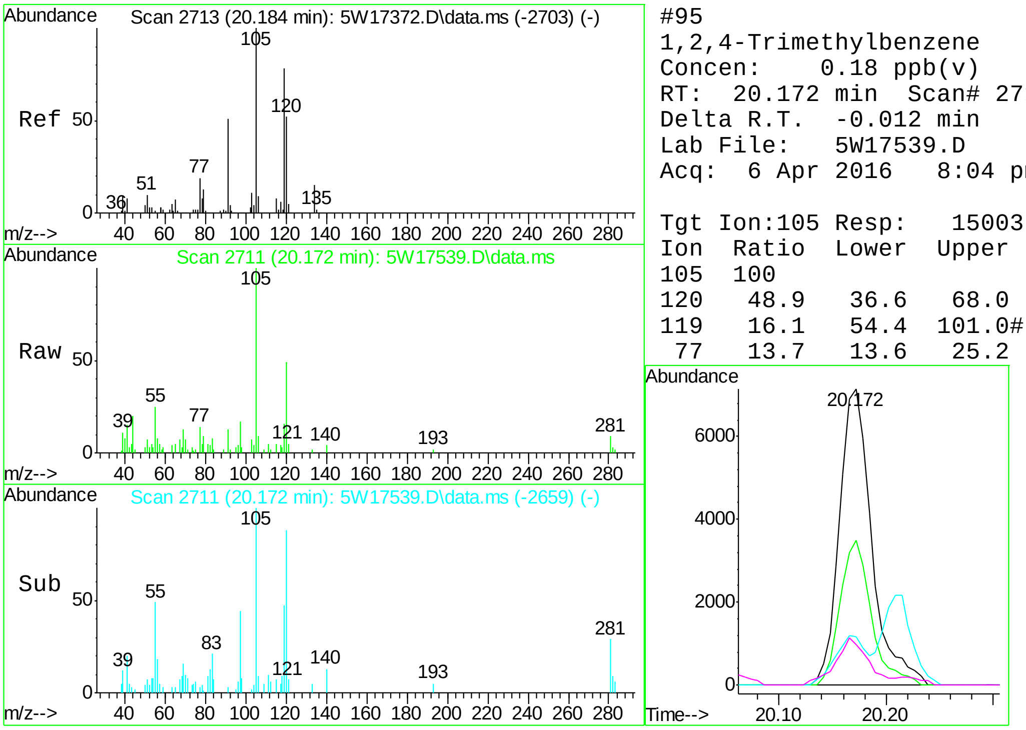
7.1.9
7



#91
4-Ethyltoluene
Concen: 0.11 ppb(v)
RT: 19.468 min Scan# 2596
Delta R.T. -0.018 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:105 Resp: 10504

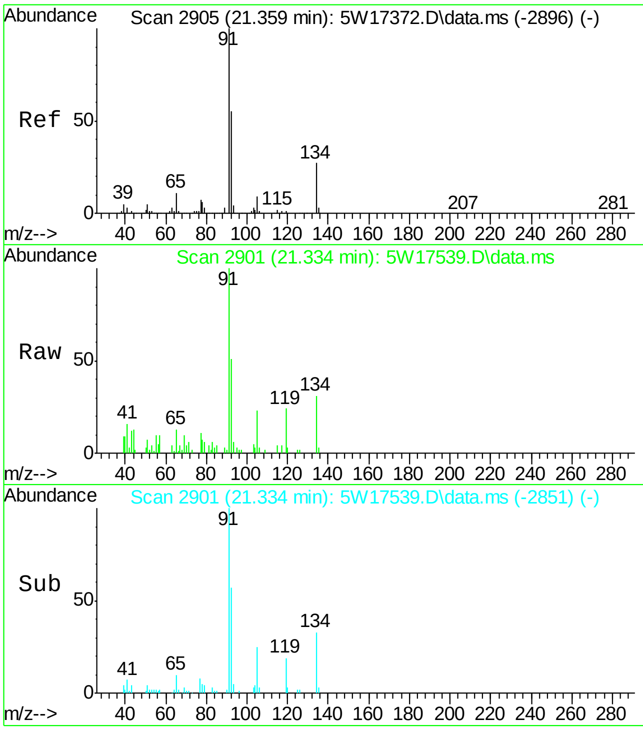
Ion	Ratio	Lower	Upper
105	100		
120	28.9	20.9	38.9
91	12.5	7.3	13.7
77	12.5	7.6	14.0



#95
1,2,4-Trimethylbenzene
Concen: 0.18 ppb(v)
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:105 Resp: 15003

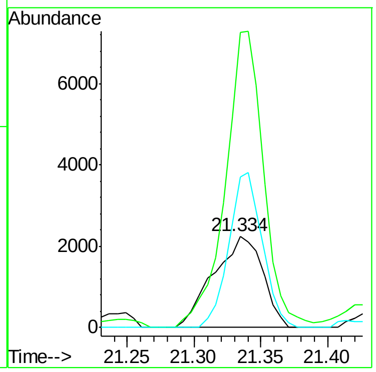
Ion	Ratio	Lower	Upper
105	100		
120	48.9	36.6	68.0
119	16.1	54.4	101.0#
77	13.7	13.6	25.2

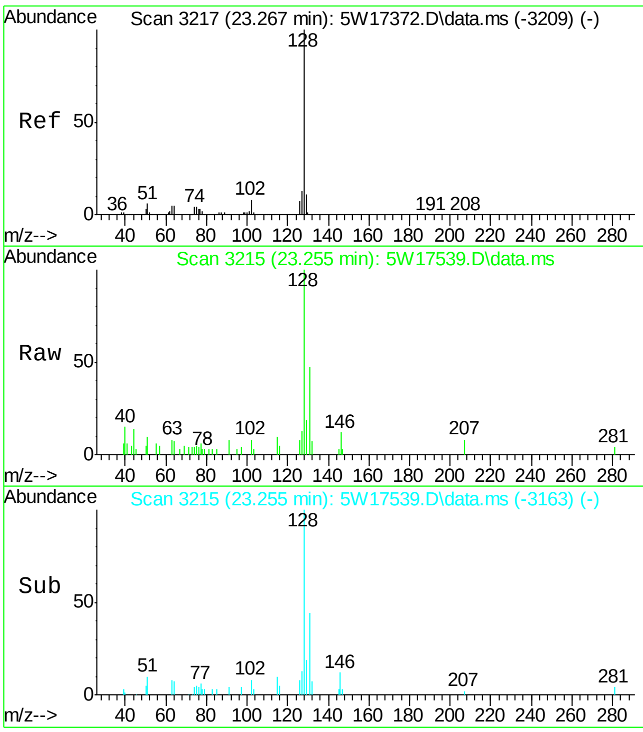


#102
n-Butylbenzene
Concen: 0.25 ppb(v)
RT: 21.334 min Scan# 2901
Delta R.T. -0.024 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:134 Resp: 5688

Ion	Ratio	Lower	Upper
134	100		
91	323.1	256.7	476.7
92	165.2	141.5	262.9

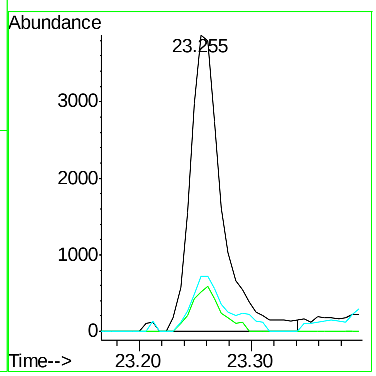




#105
Naphthalene
Concen: 0.10 ppb(v)
RT: 23.255 min Scan# 3215
Delta R.T. -0.012 min
Lab File: 5W17539.D
Acq: 6 Apr 2016 8:04 pm

Tgt Ion:128 Resp: 7743

Ion	Ratio	Lower	Upper
128	100		
127	13.3	9.0	16.8
129	18.7	7.7	14.3#



Manual Integration Approval Summary

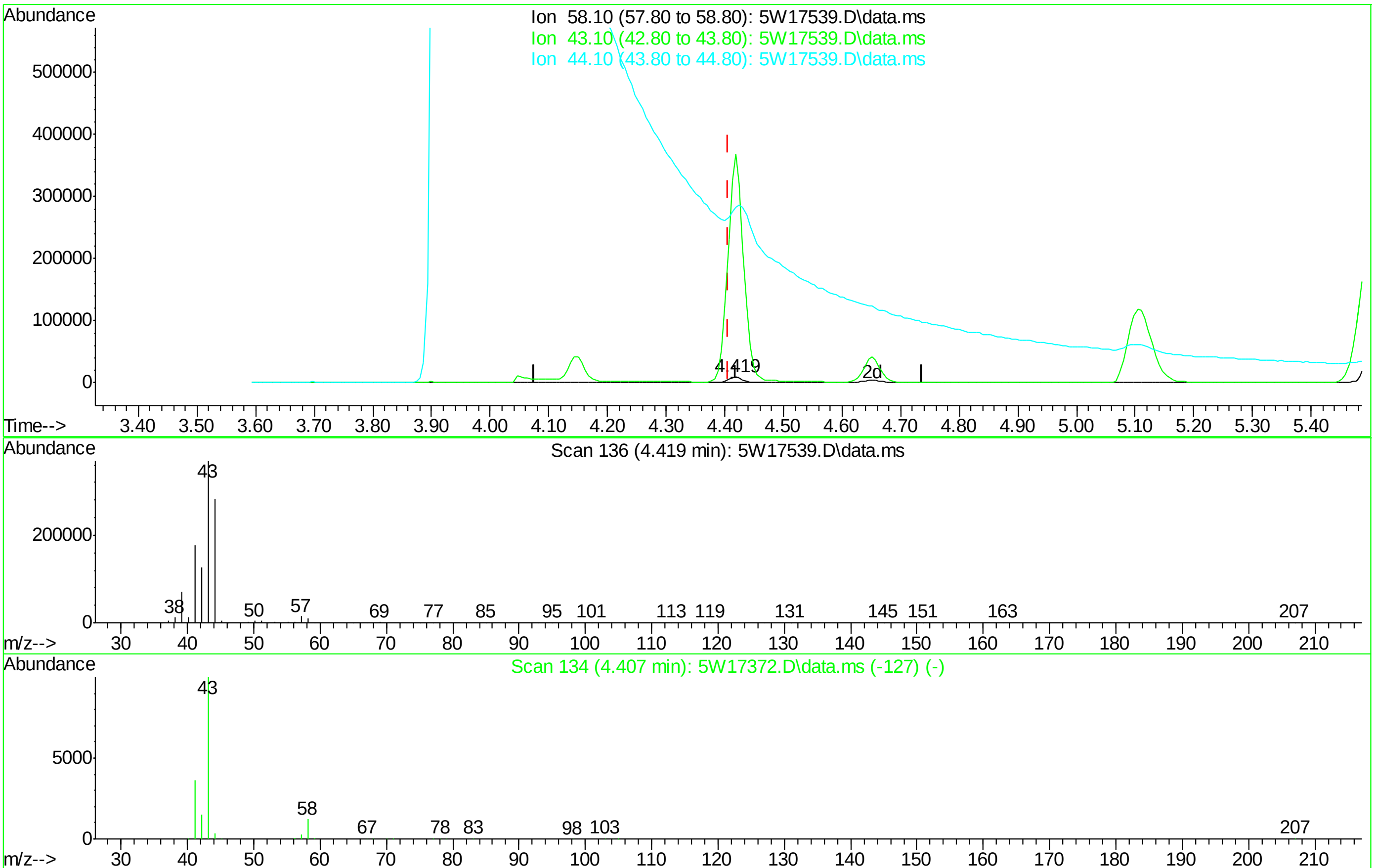
Sample Number:	JC17438-8	**Method:**	TO-15	
Lab FileID:	5W17539.D	**Analyst approved:**	04/07/16 12:38	Dana Tryon
Injection Time:	04/06/16 20:04	**Supervisor approved:**	04/08/16 15:28	Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak
1,1-Dichloroethylene	75-35-4		6.17	Overlapping peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17539.D
Acq On    :  6 Apr 2016   8:04 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 07:10:54 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17539.D\data.ms

(12) n-Butane

4.419min (+0.012) 6.10ppb(v)

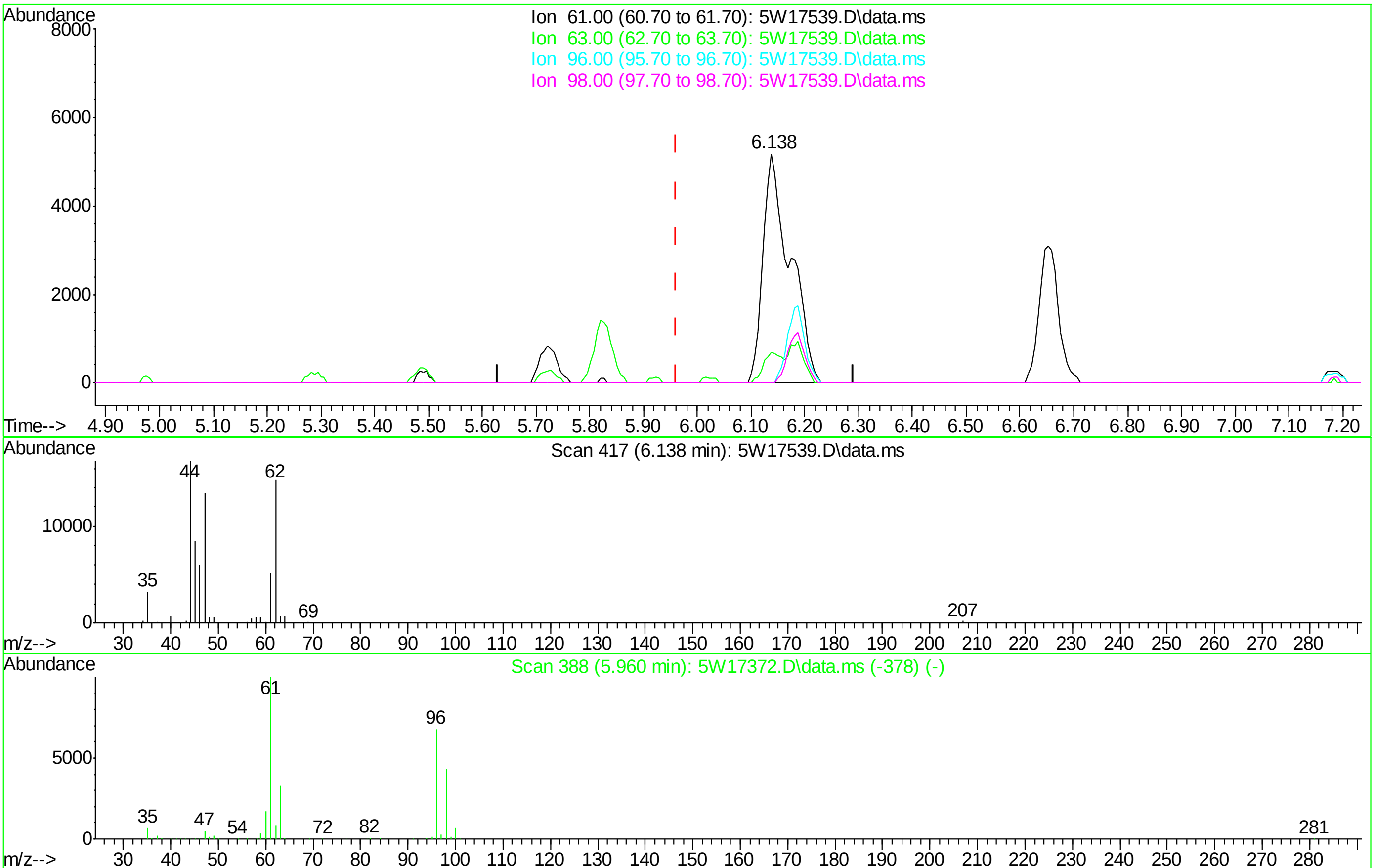
response 16242

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4105.59#
44.10	49.20	3142.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17539.D
Acq On    :  6 Apr 2016   8:04 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 07:10:54 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17539.D\data.ms

(26) 1,1-Dichloroethene

6.138min (+0.177) 0.65ppb(v)

response 17915

Ion	Exp%	Act%
61.00	100	100
63.00	32.60	13.27#
96.00	68.20	0.00#
98.00	43.10	0.00#

5W17539.D edits: 1,1-Dichloroethene

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17559.D
Acq On    :  7 Apr 2016   2:30 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS514,v5w700,40,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Apr 08 14:58:07 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

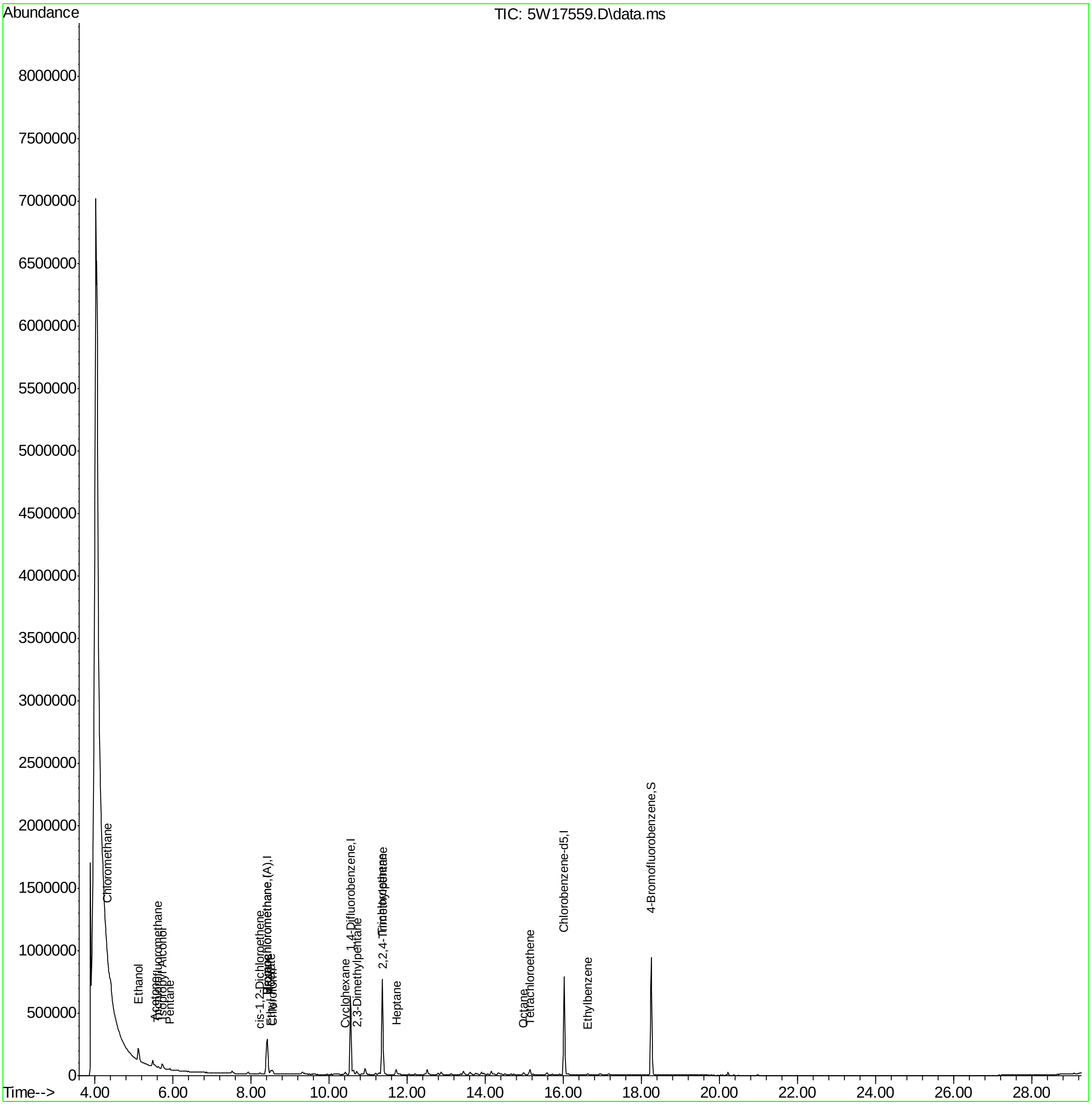
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.408	130	184317	10.00 ppb(v	0.16
53) 1,4-Difluorobenzene	10.543	114	674724	10.00 ppb(v	0.10
76) Chlorobenzene-d5	16.012	82	328737	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.408	130	184833	10.00 ppb(v	0.16
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	441879	9.82 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.20%		
Target Compounds					Qvalue
8) Chloromethane	4.303	50	1268	0.10 ppb(v	84
20) Trichlorofluoromethane	5.612	101	6208	0.14 ppb(v	98
21) Acetone	5.526	58	12830	1.79 ppb(v#	47
22) Pentane	5.912	57	1151	0.32 ppb(v	89
25) Isopropyl Alcohol	5.722	43	11181	2.01 ppb(v	68
30) Ethanol	5.110	45	146478	24.06 ppb(v	98
39) Hexane	8.408	57	16180	0.65 ppb(v#	57
40) cis-1,2-Dichloroethene	8.218	61	7185	0.34 ppb(v	97
42) Ethyl Acetate	8.499	61	4969	1.02 ppb(v	87
44) Chloroform	8.542	83	36536	0.97 ppb(v	99
51) Cyclohexane	10.414	56	10467	0.44 ppb(v	93
52) 2,3-Dimethylpentane	10.702	71	5487	0.50 ppb(v	98
54) 2,2,4-Trimethylpentane	11.375	57	77840	1.04 ppb(v#	79
55) Heptane	11.711	71	10909	0.68 ppb(v	93
56) Trichloroethene	11.356	95	310591	12.07 ppb(v	94
72) Tetrachloroethene	15.137	166	18214	0.50 ppb(v	98
74) Octane	14.966	43	8790	0.25 ppb(v	92
78) Ethylbenzene	16.624	91	8542	0.10 ppb(v	96

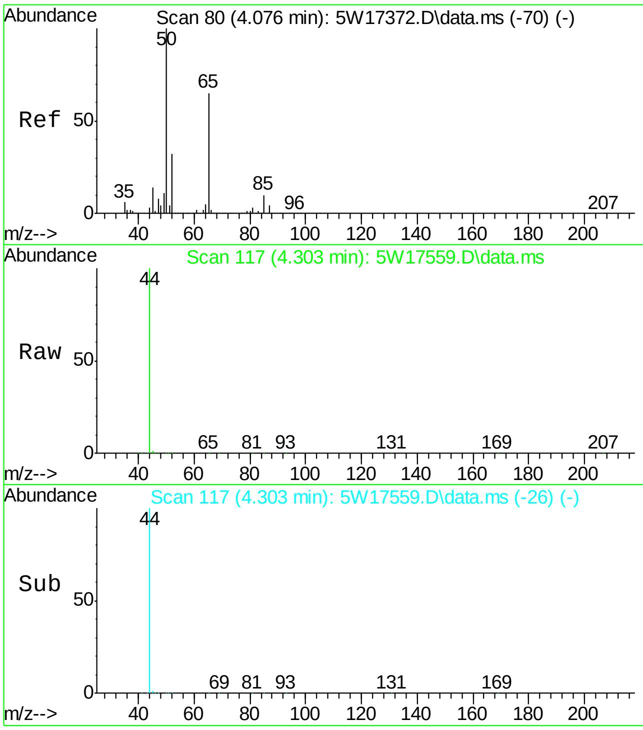
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17559.D
Acq On    :  7 Apr 2016   2:30 pm
Operator  : THOMASH
Sample    : JC17438-8
Misc      : MS514,v5w700,40,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Apr 08 14:58:07 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

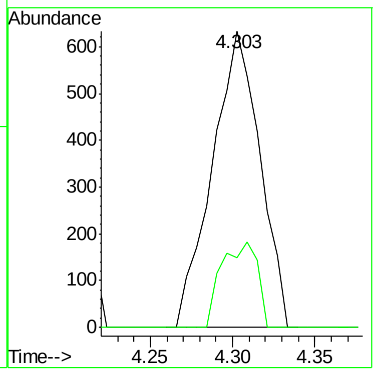


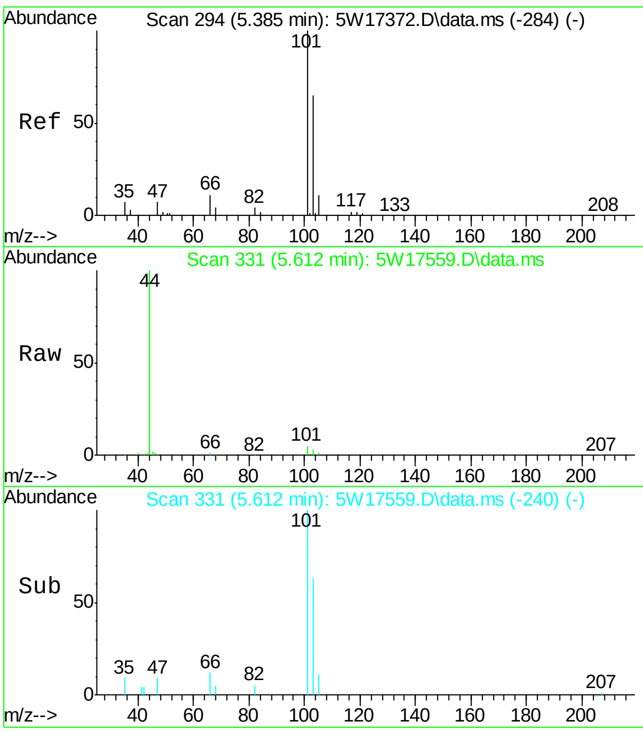


#8
Chloromethane
Concen: 0.10 ppb(v)
RT: 4.303 min   Scan# 117
Delta R.T.   0.226 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

Tgt Ion: 50 Resp: 1268

Ion	Ratio	Lower	Upper
50	100		
52	23.7	22.7	42.1

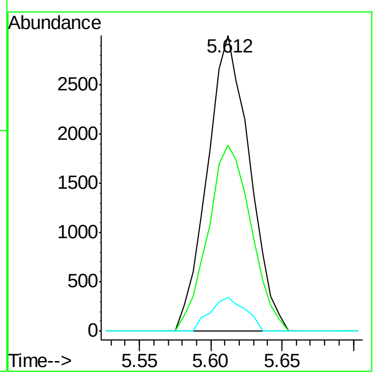


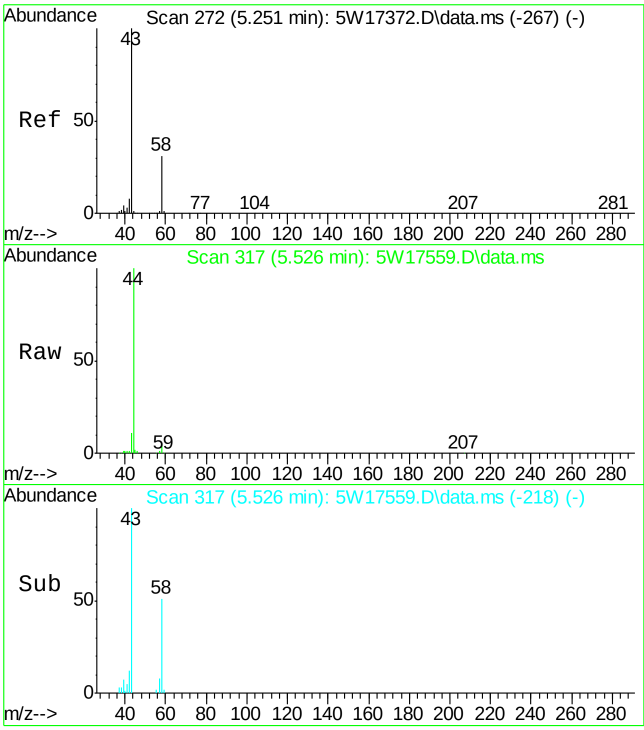


#20
Trichlorofluoromethane
Concen: 0.14 ppb(v)
RT: 5.612 min   Scan# 331
Delta R.T.   0.226 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

Tgt Ion:101 Resp: 6208

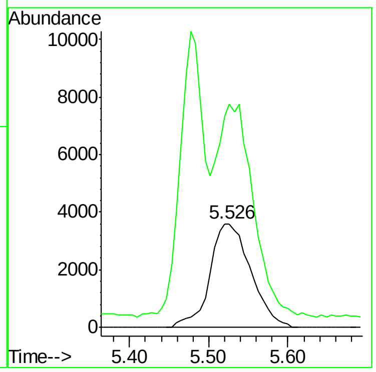
Ion	Ratio	Lower	Upper
101	100		
103	62.9	45.1	83.9
105	11.3	7.5	13.9

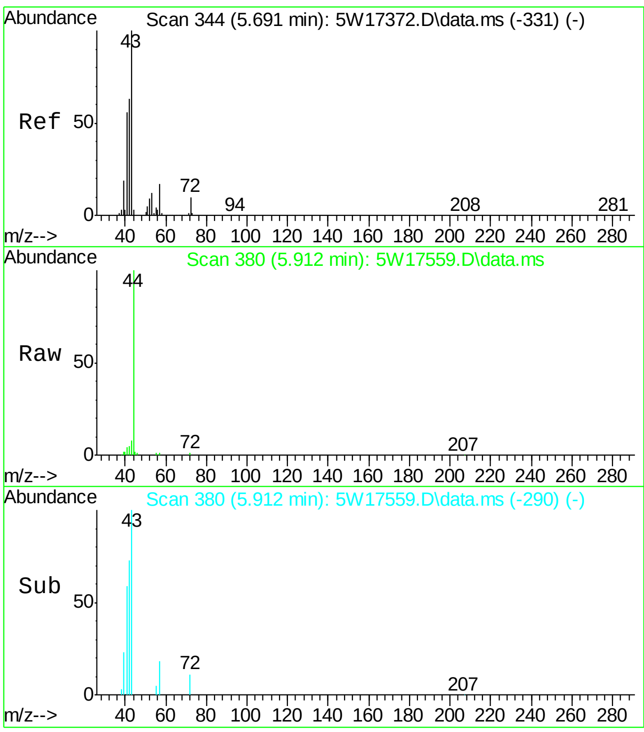




#21
Acetone
Concen: 1.79 ppb(v)
RT: 5.526 min   Scan# 317
Delta R.T.   0.275 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

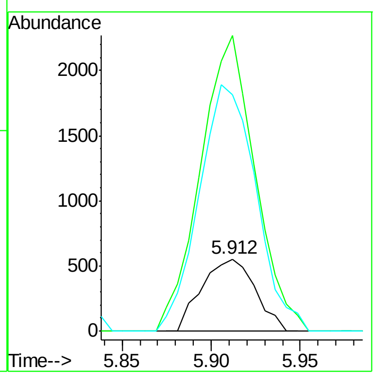
Tgt Ion: 58	Resp:	12830	
Ion	Ratio	Lower	Upper
58	100		
43	215.8	227.9	423.3#

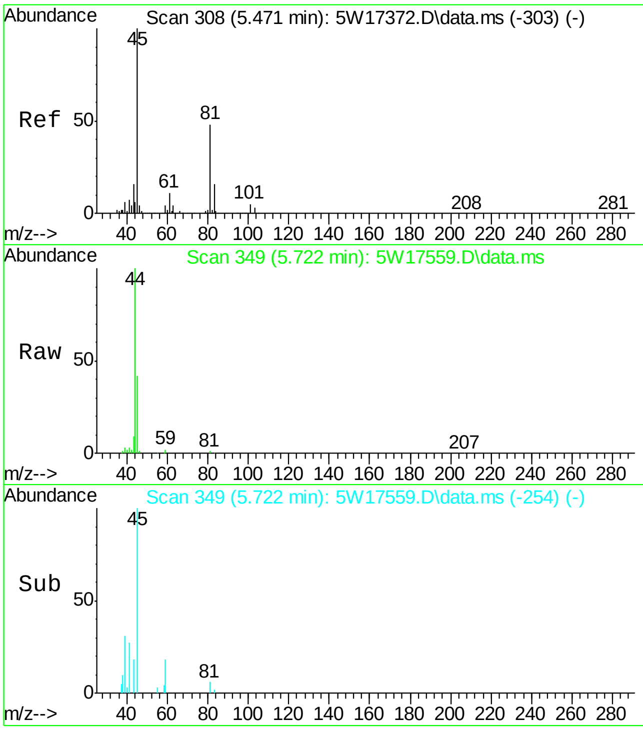




#22
Pentane
Concen: 0.32 ppb(v)
RT: 5.912 min   Scan# 380
Delta R.T.   0.220 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

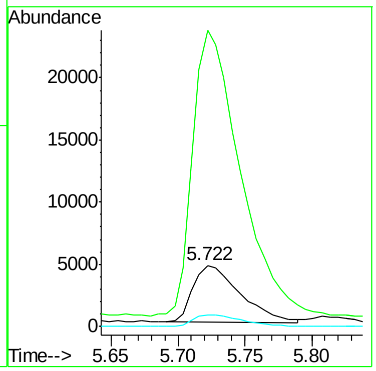
Tgt Ion: 57	Resp:	1151	
Ion	Ratio	Lower	Upper
57	100		
42	410.3	258.3	479.7
41	327.5	233.4	433.5

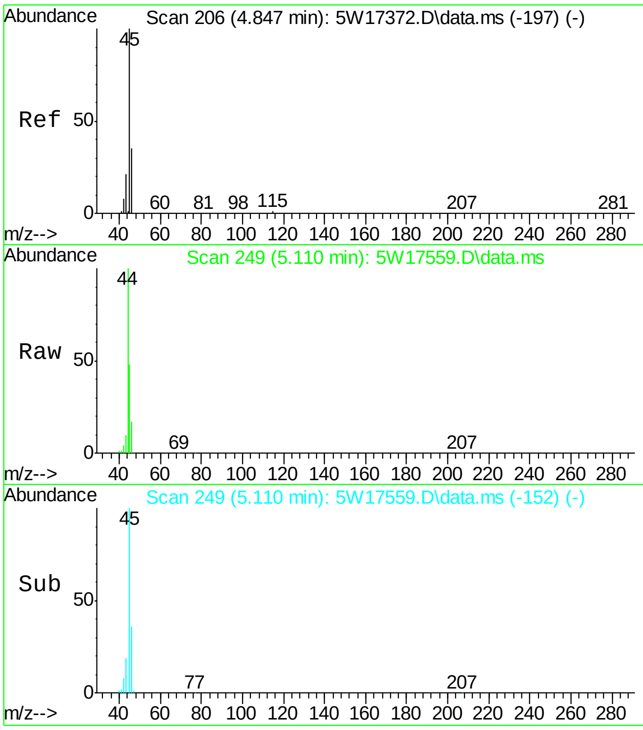




#25
Isopropyl Alcohol
Concen: 2.01 ppb(v)
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

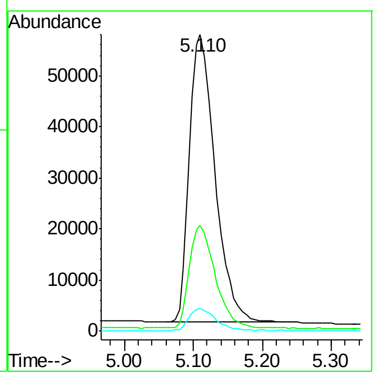
Tgt Ion: 43	Resp:		11181
Ion	Ratio	Lower	Upper
43	100		
45	483.6	409.4	760.2
59	18.8	16.8	31.2

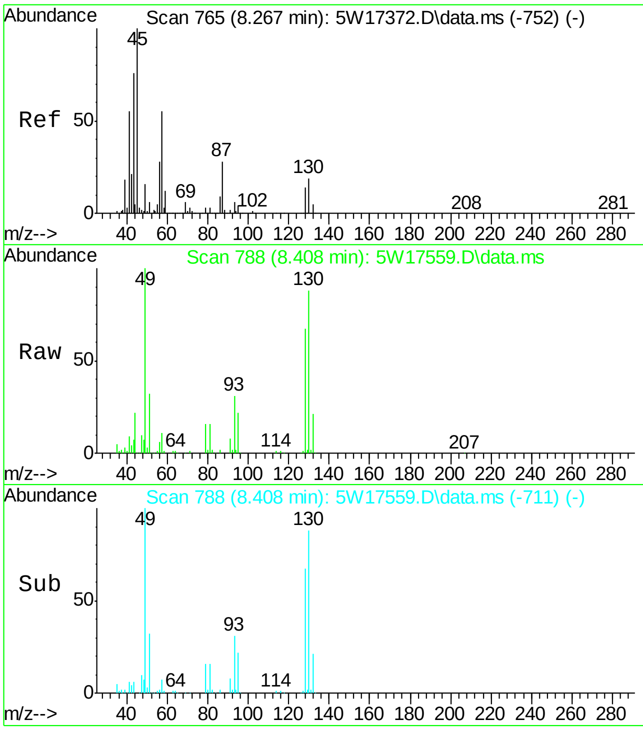




#30
Ethanol
Concen: 24.06 ppb(v)
RT: 5.110 min Scan# 249
Delta R.T. 0.263 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

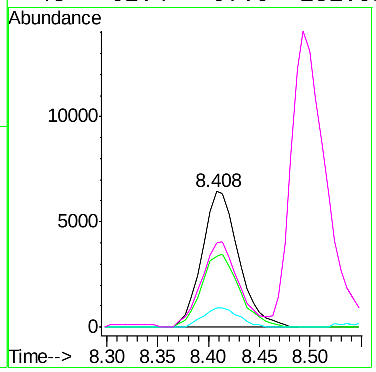
Tgt Ion: 45	Resp:		146478
Ion	Ratio	Lower	Upper
45	100		
46	35.6	24.6	45.8
42	7.5	6.5	12.1

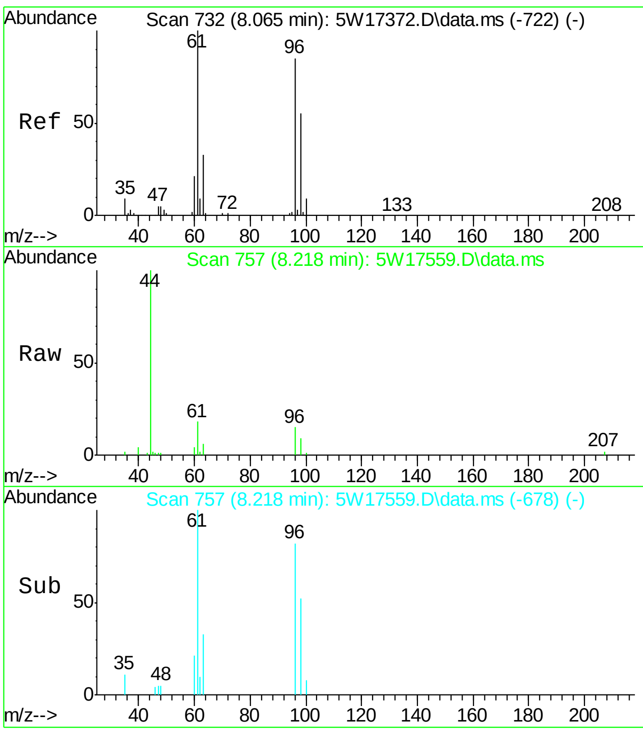




#39
Hexane
Concen: 0.65 ppb(v)
RT: 8.408 min Scan# 788
Delta R.T. 0.141 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

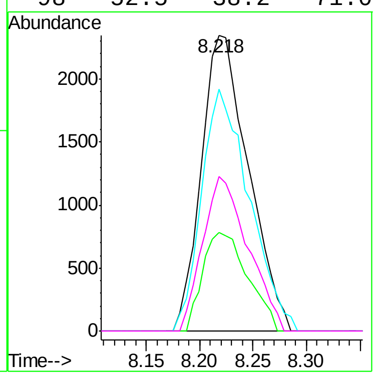
Tgt Ion: 57	Resp:	16180	
Ion	Ratio	Lower	Upper
57	100		
56	52.0	36.5	67.9
86	14.2	11.1	20.7
43	62.4	97.9	181.9#

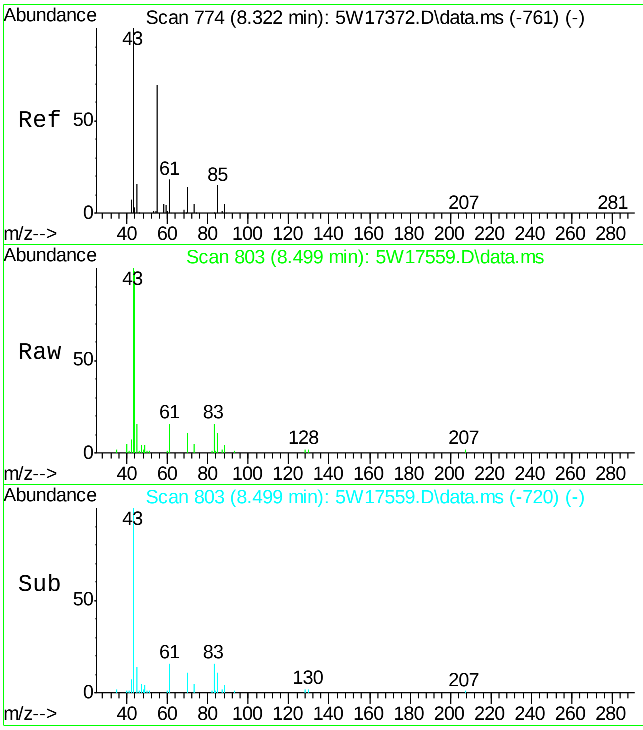




#40
cis-1,2-Dichloroethene
Concen: 0.34 ppb(v)
RT: 8.218 min Scan# 757
Delta R.T. 0.153 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 61	Resp:	7185	
Ion	Ratio	Lower	Upper
61	100		
63	33.4	23.0	42.8
96	81.9	59.3	110.1
98	52.5	38.2	71.0

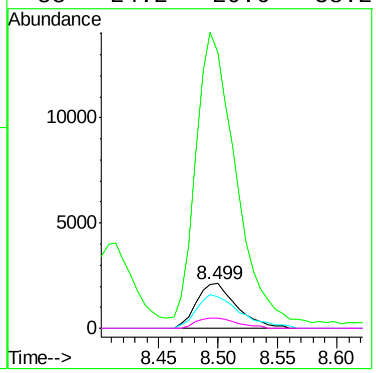


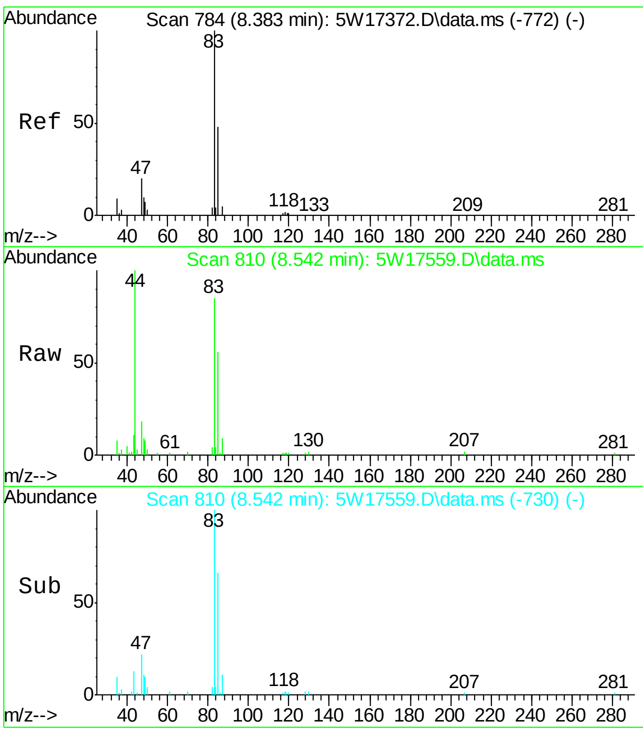


#42
Ethyl Acetate
Concen: 1.02 ppb(v)
RT: 8.499 min Scan# 803
Delta R.T. 0.178 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 61 Resp: 4969

Ion	Ratio	Lower	Upper
61	100		
43	620.6	466.1	865.7
70	70.5	56.3	104.5
88	24.2	20.6	38.2

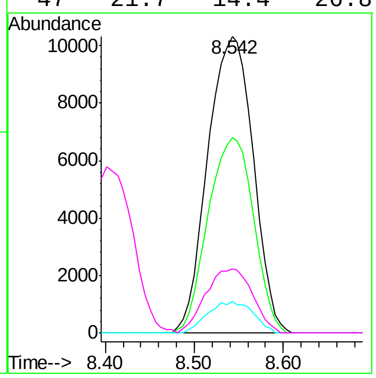


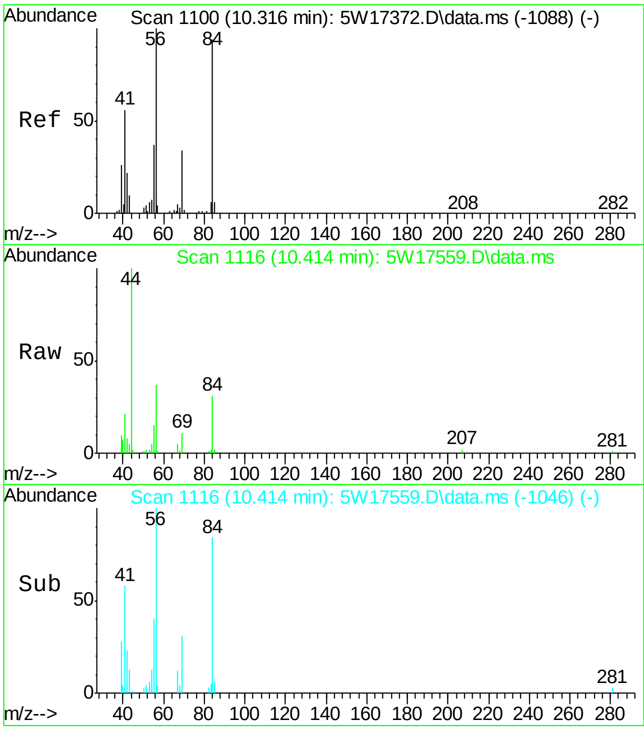


#44
Chloroform
Concen: 0.97 ppb(v)
RT: 8.542 min Scan# 810
Delta R.T. 0.159 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 83 Resp: 36536

Ion	Ratio	Lower	Upper
83	100		
85	65.9	45.4	84.2
87	10.5	7.3	13.5
47	21.7	14.4	26.8

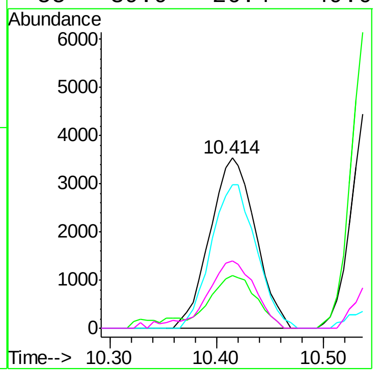


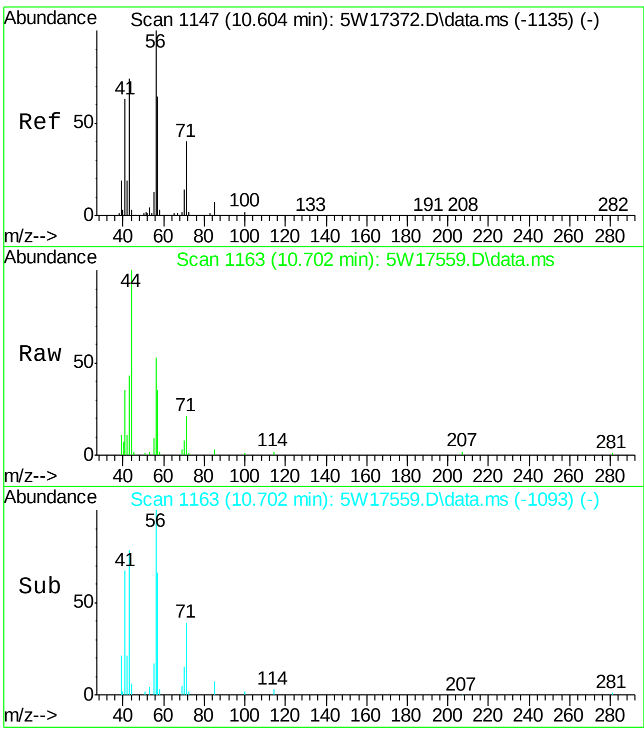


#51
Cyclohexane
Concen: 0.44 ppb(v)
RT: 10.414 min Scan# 1116
Delta R.T. 0.098 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 56 Resp: 10467

Ion	Ratio	Lower	Upper
56	100		
69	31.3	23.7	44.1
84	84.3	65.6	121.8
55	39.9	26.4	49.0

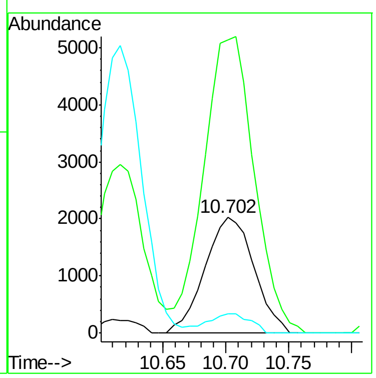


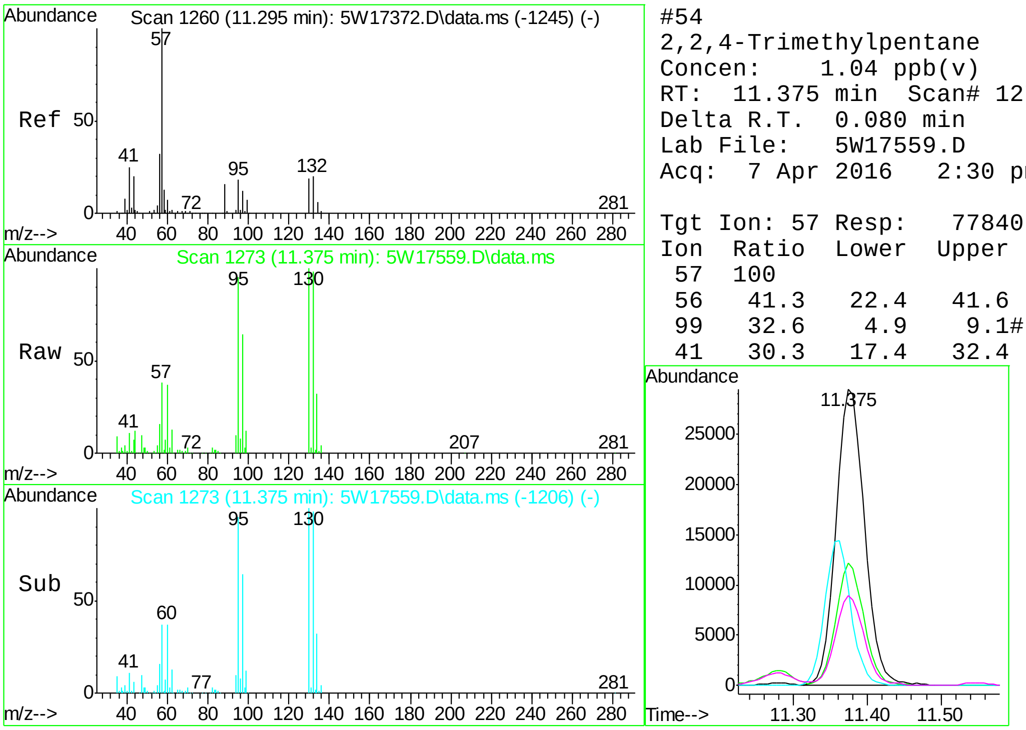


#52
2,3-Dimethylpentane
Concen: 0.50 ppb(v)
RT: 10.702 min Scan# 1163
Delta R.T. 0.098 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 71 Resp: 5487

Ion	Ratio	Lower	Upper
71	100		
56	253.2	175.3	325.5
85	16.5	12.0	22.2

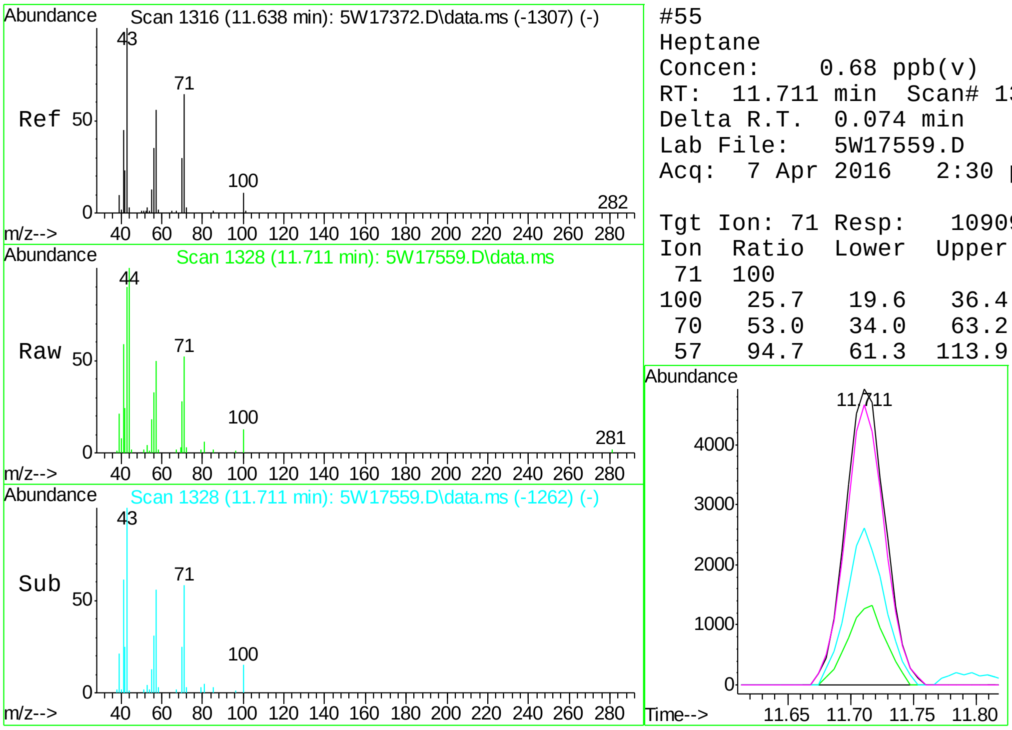




#54
2,2,4-Trimethylpentane
Concen: 1.04 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.080 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 57 Resp: 77840

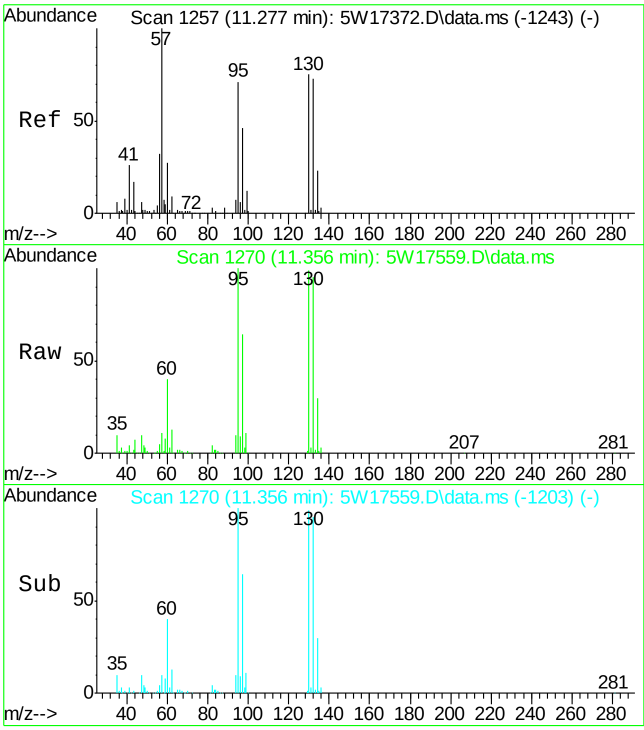
Ion	Ratio	Lower	Upper
57	100		
56	41.3	22.4	41.6
99	32.6	4.9	9.1#
41	30.3	17.4	32.4



#55
Heptane
Concen: 0.68 ppb(v)
RT: 11.711 min Scan# 1328
Delta R.T. 0.074 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 71 Resp: 10909

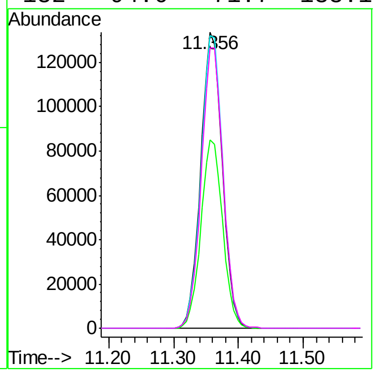
Ion	Ratio	Lower	Upper
71	100		
100	25.7	19.6	36.4
70	53.0	34.0	63.2
57	94.7	61.3	113.9

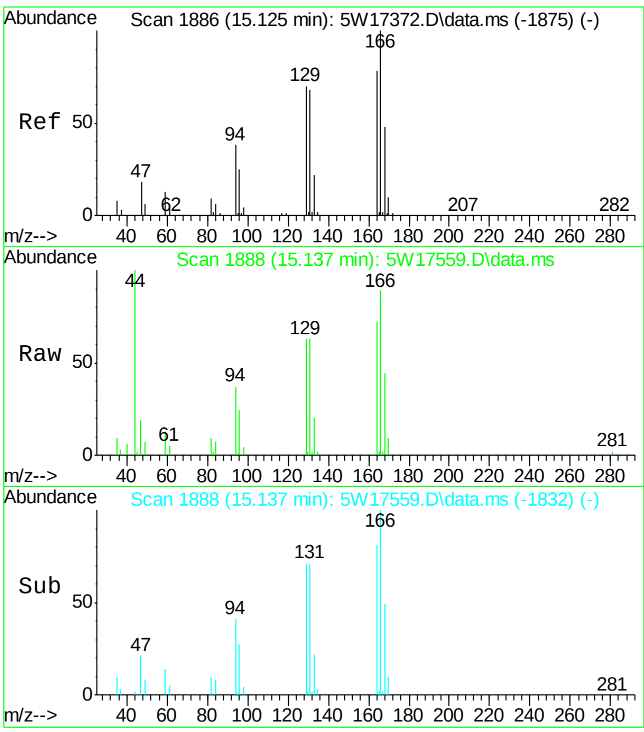


#56
Trichloroethene
Concen: 12.07 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.080 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion: 95 Resp: 310591

Ion	Ratio	Lower	Upper
95	100		
97	63.8	45.4	84.4
130	98.7	74.1	137.5
132	94.6	71.7	133.1

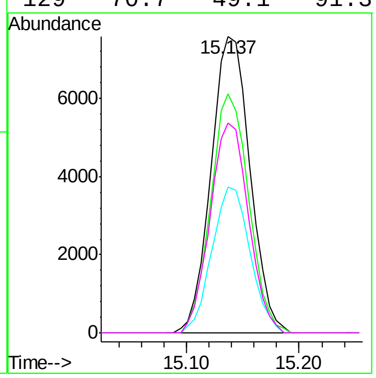


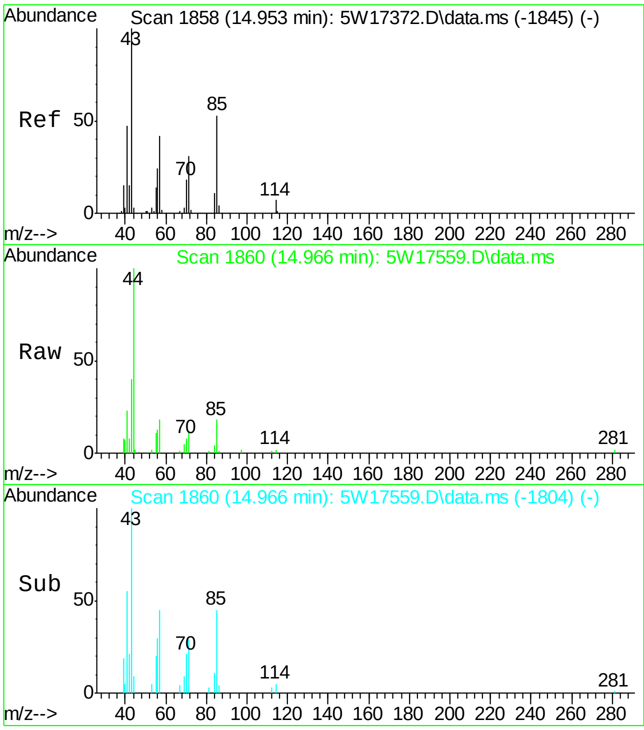


#72
Tetrachloroethene
Concen: 0.50 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17559.D
Acq: 7 Apr 2016 2:30 pm

Tgt Ion:166 Resp: 18214

Ion	Ratio	Lower	Upper
166	100		
164	80.6	54.6	101.4
168	49.2	33.5	62.3
129	70.7	49.1	91.3

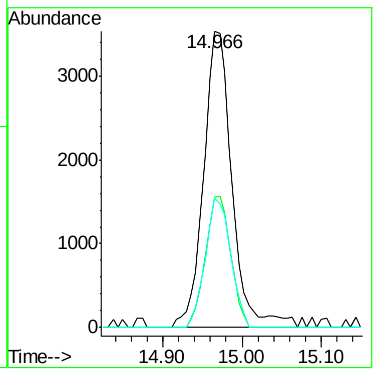


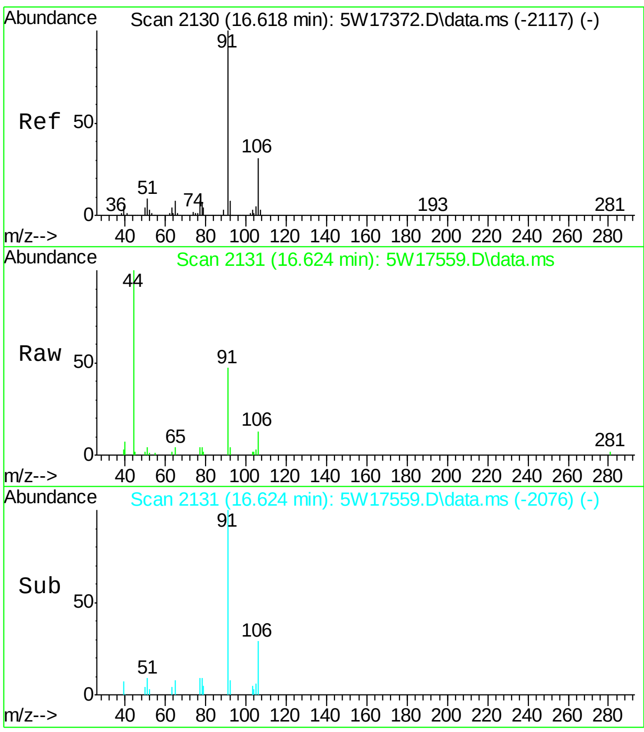


#74
Octane
Concen: 0.25 ppb(v)
RT: 14.966 min   Scan# 1860
Delta R.T.   0.012 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

Tgt Ion: 43 Resp: 8790

Ion	Ratio	Lower	Upper
43	100		
85	43.9	37.1	68.9
57	43.8	29.6	55.0

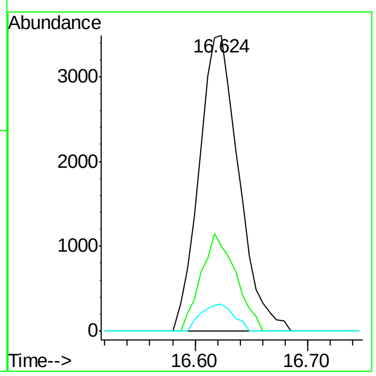




#78
Ethylbenzene
Concen: 0.10 ppb(v)
RT: 16.624 min   Scan# 2131
Delta R.T.   0.006 min
Lab File: 5W17559.D
Acq: 7 Apr 2016   2:30 pm

Tgt Ion: 91 Resp: 8542

Ion	Ratio	Lower	Upper
91	100		
106	28.7	22.0	40.8
77	9.0	5.9	10.9



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 16:25

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17542.D
Acq On    :  6 Apr 2016  10:22 pm
Operator  : THOMASH
Sample    : JC17438-9
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Apr 08 10:21:49 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.407	130	201811	10.00 ppb(v	0.16
53) 1,4-Difluorobenzene	10.536	114	751939	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	365246	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.407	130	201852	10.00 ppb(v	0.16
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	497250	9.94 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.40%		
Target Compounds					Qvalue
4) Chlorodifluoromethane	4.095	67	16798	3.38 ppb(v#	82
6) Dichlorodifluoromethane	4.180	85	36481	0.79 ppb(v	98
8) Chloromethane	4.315	50	12482	0.87 ppb(v	100
12) n-Butane	4.651	58	11688m	4.50 ppb(v	
20) Trichlorofluoromethane	5.624	101	54584	1.12 ppb(v	100
21) Acetone	5.514	58	207521	26.46 ppb(v	55
22) Pentane	5.918	57	13475	3.46 ppb(v	98
25) Isopropyl Alcohol	5.722	43	14965m	2.46 ppb(v	
28) Methylene Chloride	6.321	84	3251	0.19 ppb(v	95
29) Carbon Disulfide	6.566	76	16920	0.34 ppb(v	99
30) Ethanol	5.098	45	848932	127.36 ppb(v	98
38) 2-Butanone	7.802	72	8364	1.09 ppb(v	92
39) Hexane	8.420	57	8790	0.32 ppb(v#	58
42) Ethyl Acetate	8.469	61	48264	9.06 ppb(v	95
44) Chloroform	8.542	83	85530	2.08 ppb(v	99
46) Tetrahydrofuran	9.019	72	2049	0.27 ppb(v	82
49) Benzene	10.127	78	21326	0.38 ppb(v	98
54) 2,2,4-Trimethylpentane	11.375	57	5986	0.07 ppb(v	87
55) Heptane	11.705	71	5122	0.29 ppb(v	95
56) Trichloroethene	11.356	95	1382	0.05 ppb(v	91
66) Toluene	13.638	91	24908	0.35 ppb(v	99
69) 2-Hexanone	14.036	58	2588	0.12 ppb(v	84
72) Tetrachloroethene	15.137	166	79777	1.95 ppb(v	99
74) Octane	14.966	43	11746	0.30 ppb(v	95
78) Ethylbenzene	16.617	91	6600	0.07 ppb(v	98
79) m,p-Xylene	16.862	91	12658	0.17 ppb(v	99
80) Styrene	17.407	104	16004	0.29 ppb(v	98
81) Nonane	17.933	43	6249	0.16 ppb(v	94
95) 1,2,4-Trimethylbenzene	20.172	105	9597	0.11 ppb(v#	59
100) p-Isopropyltoluene	20.771	134	4096	0.16 ppb(v	98

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17542.D
Acq On    :  6 Apr 2016  10:22 pm
Operator  : THOMASH
Sample    : JC17438-9
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Apr 08 10:21:49 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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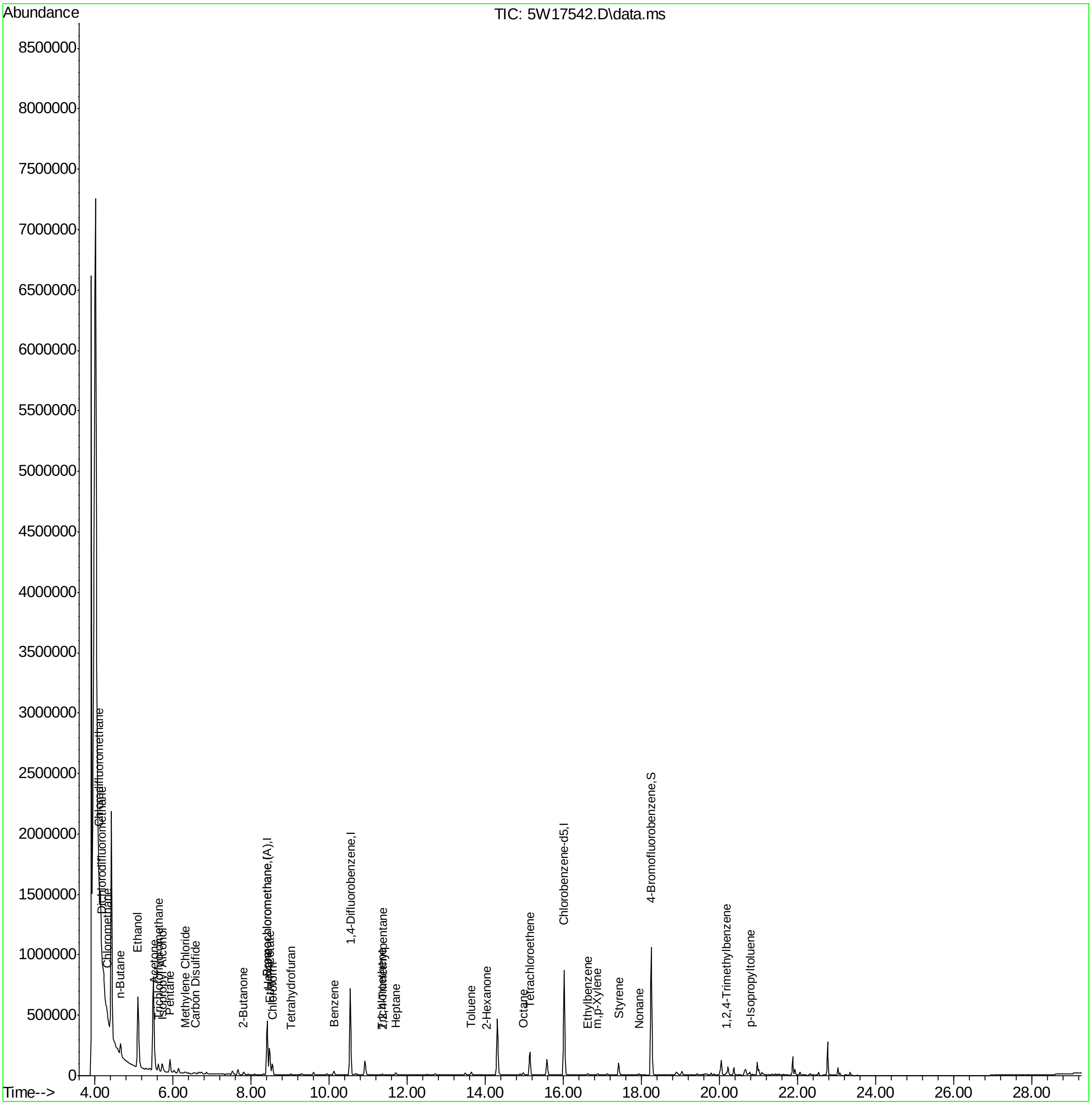
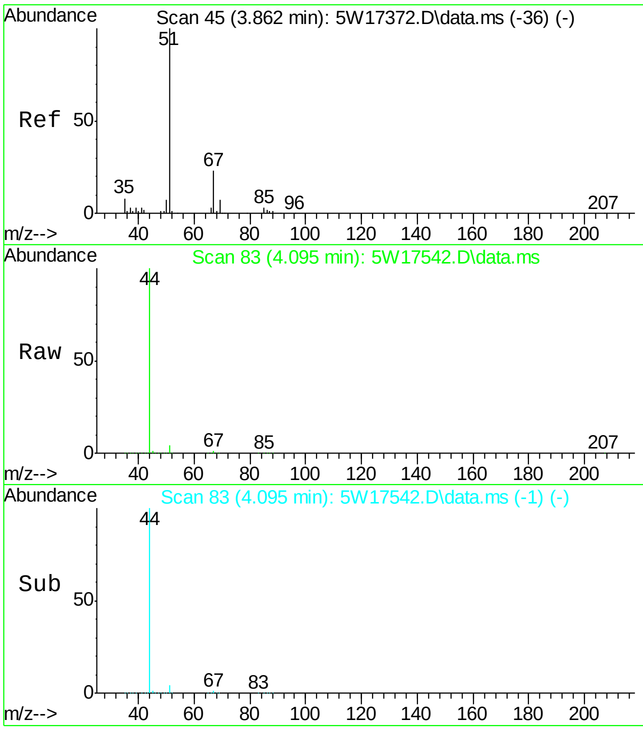


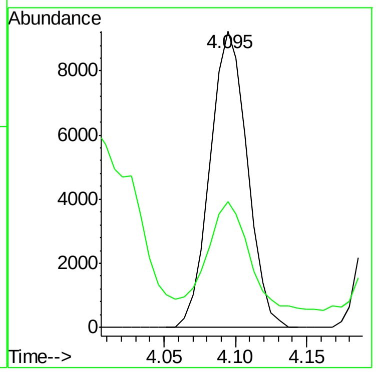
m5w693.M Fri Apr 08 10:21:58 2016 GCMS5W Page: 2

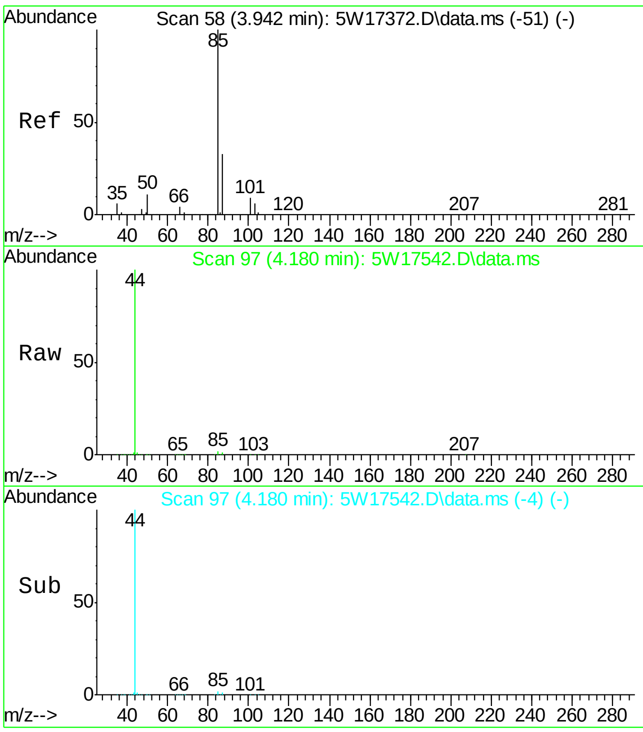


#4
Chlorodifluoromethane
Concen: 3.38 ppb(v)
RT: 4.095 min Scan# 83
Delta R.T. 0.232 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 67 Resp: 16798

Ion	Ratio	Lower	Upper
67	100		
69	42.6	22.7	42.1#

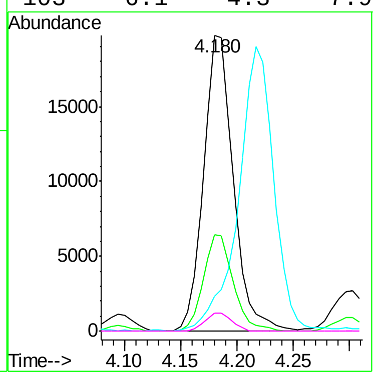


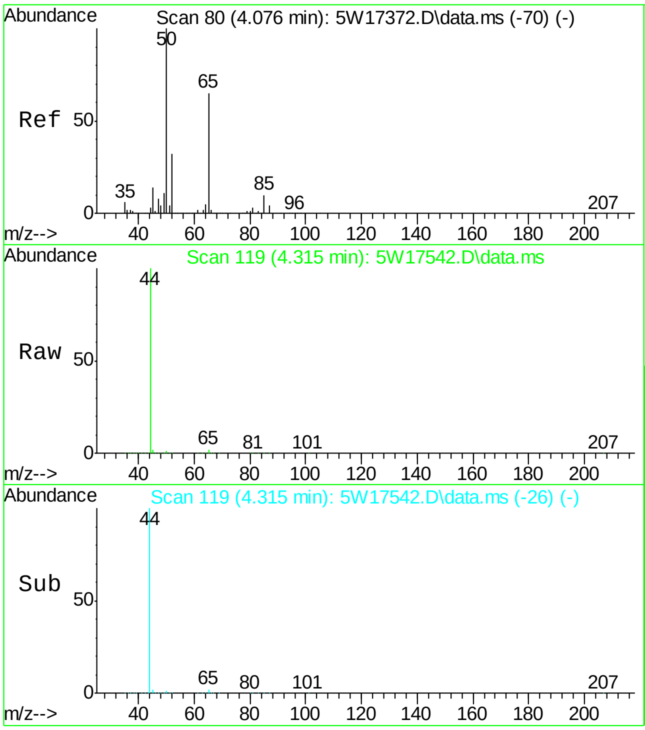


#6
Dichlorodifluoromethane
Concen: 0.79 ppb(v)
RT: 4.180 min Scan# 97
Delta R.T. 0.239 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 85 Resp: 36481

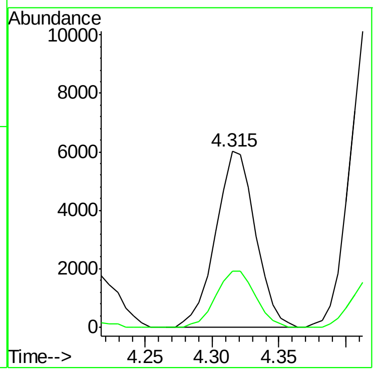
Ion	Ratio	Lower	Upper
85	100		
87	32.8	22.7	42.3
101	11.6	6.6	12.2
103	6.1	4.3	7.9

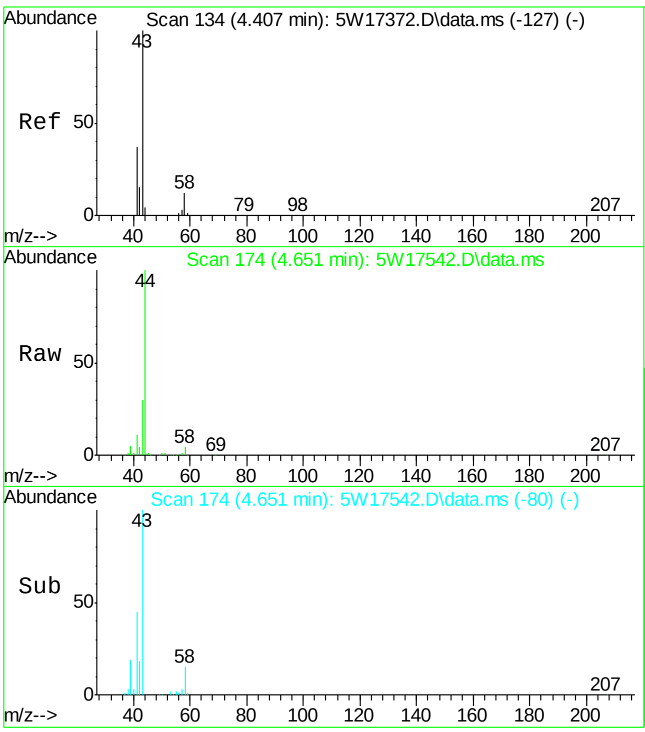




#8
Chloromethane
Concen: 0.87 ppb(v)
RT: 4.315 min Scan# 119
Delta R.T. 0.239 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

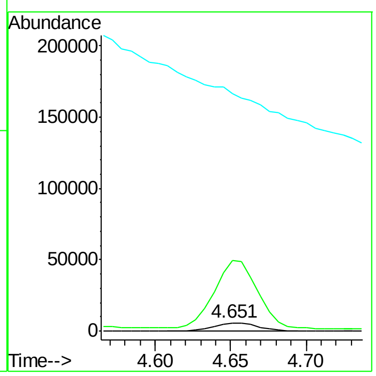
Tgt Ion: 50	Resp:	12482	
Ion	Ratio	Lower	Upper
50	100		
52	32.2	22.7	42.1

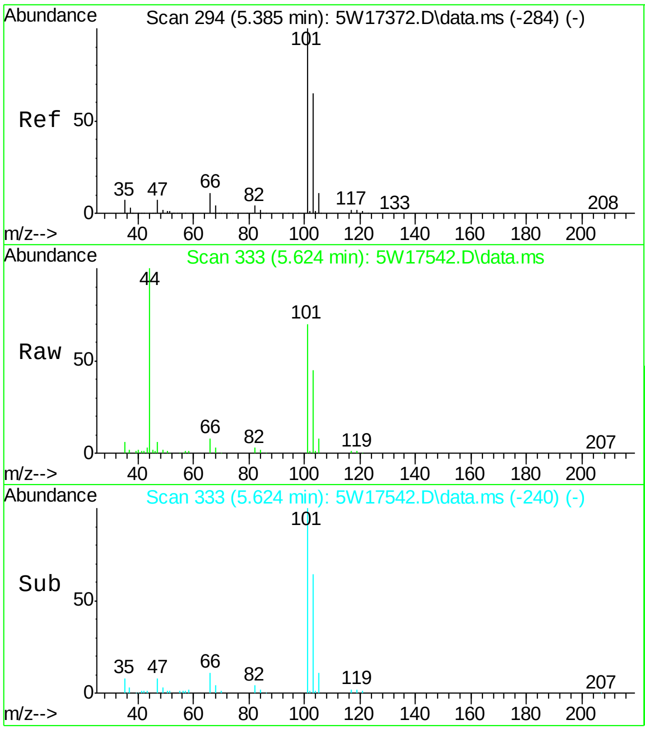




#12
n-Butane
Concen: 4.50 ppb(v) m
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

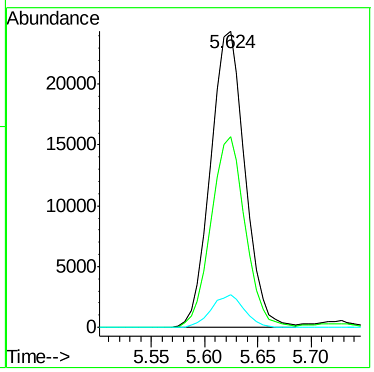
Tgt Ion: 58	Resp:	11688	
Ion	Ratio	Lower	Upper
58	100		
43	834.3	576.3	1070.3
44	2820.8	34.4	64.0#

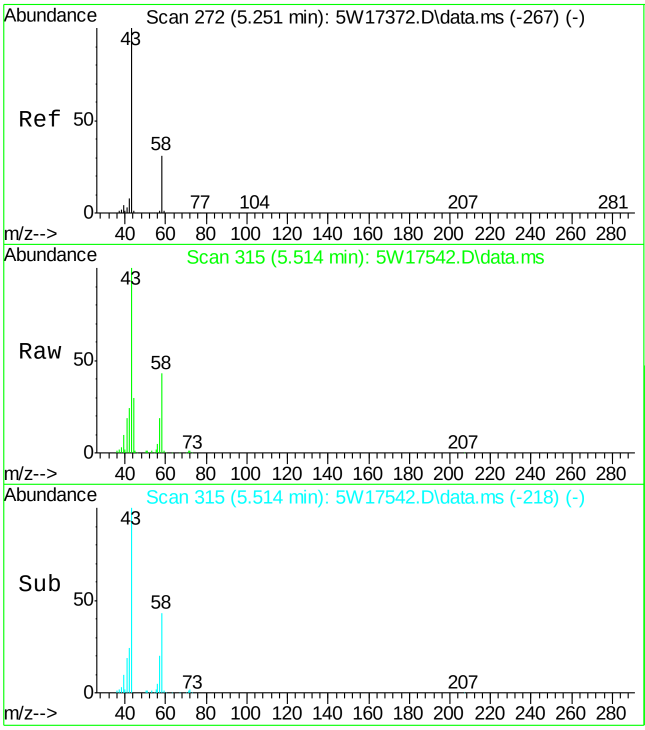




#20
Trichlorofluoromethane
Concen: 1.12 ppb(v)
RT: 5.624 min Scan# 333
Delta R.T. 0.239 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

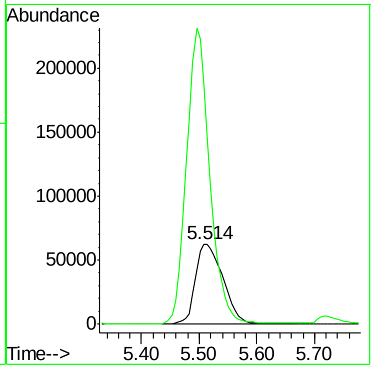
Tgt Ion:101	Resp:	54584	
Ion	Ratio	Lower	Upper
101	100		
103	64.4	45.1	83.9
105	11.1	7.5	13.9

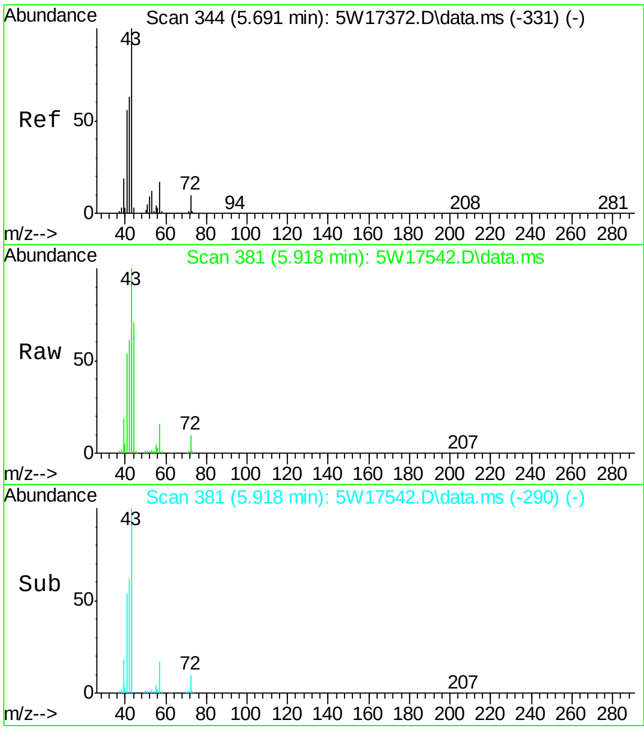




#21
Acetone
Concen: 26.46 ppb(v)
RT: 5.514 min Scan# 315
Delta R.T. 0.263 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 58	Resp:	207521	
Ion	Ratio	Lower	Upper
58	100		
43	233.4	227.9	423.3

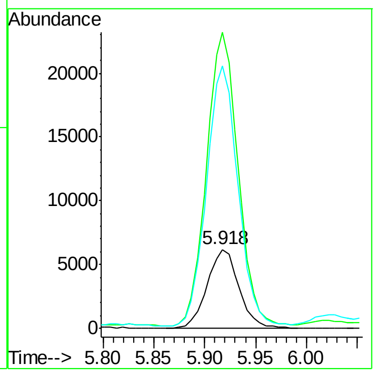


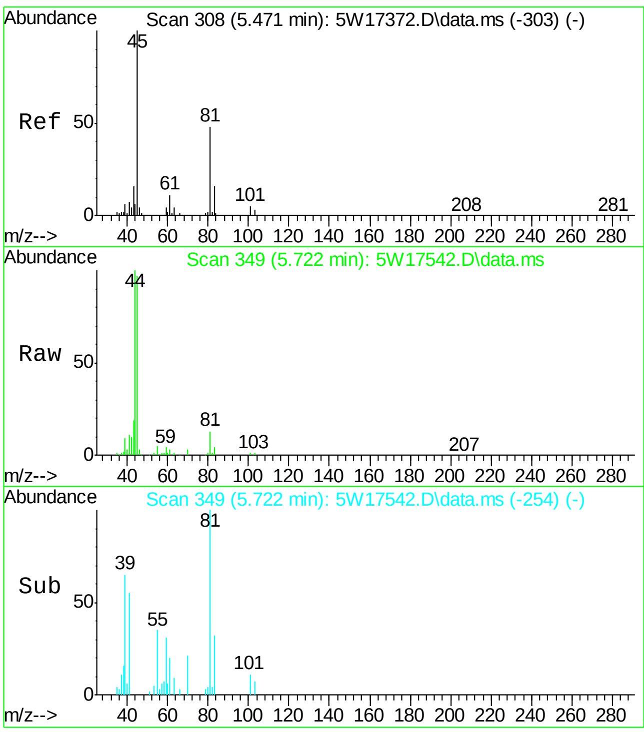


#22
Pentane
Concen: 3.46 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 57 Resp: 13475

Ion	Ratio	Lower	Upper
57	100		
42	376.3	258.3	479.7
41	333.5	233.4	433.5

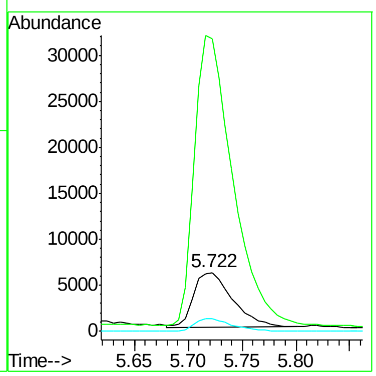


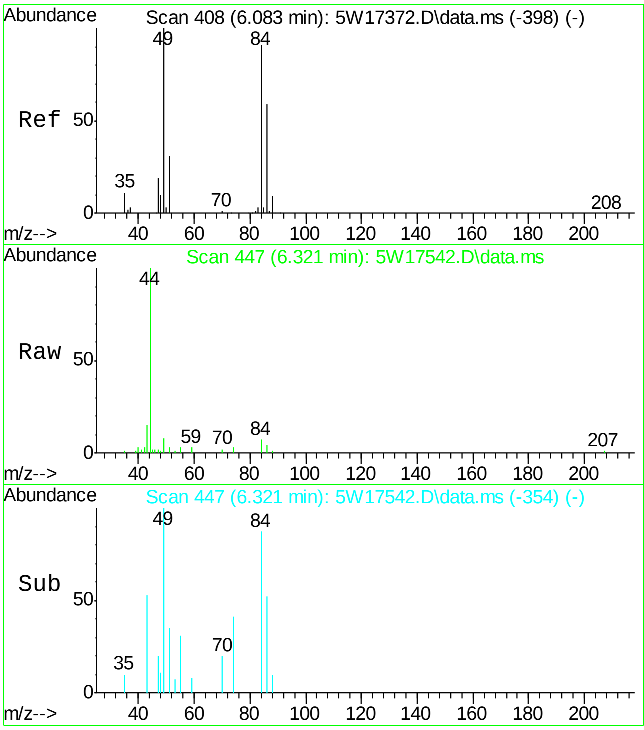


#25
Isopropyl Alcohol
Concen: 2.46 ppb(v) m
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 43 Resp: 14965

Ion	Ratio	Lower	Upper
43	100		
45	500.7	409.4	760.2
59	21.5	16.8	31.2

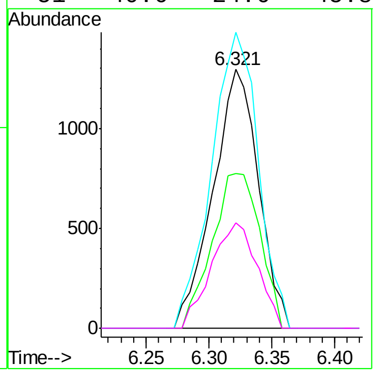


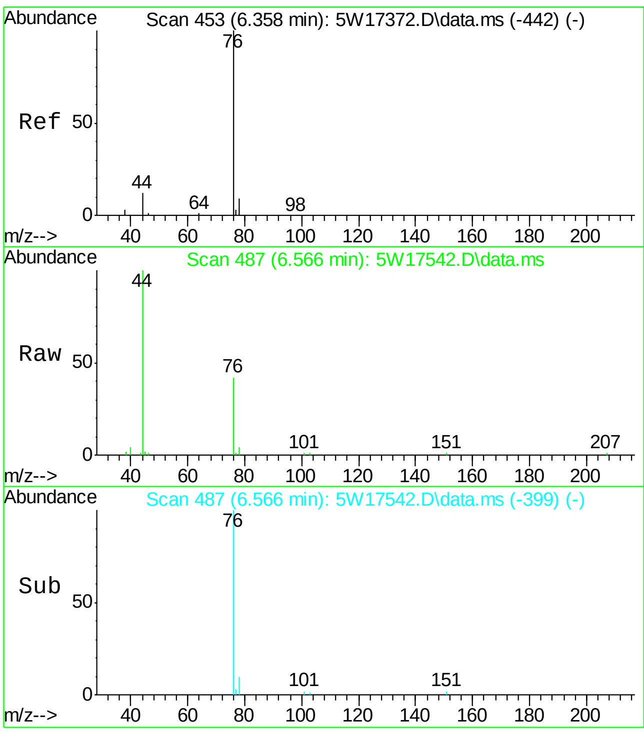


#28
Methylene Chloride
Concen: 0.19 ppb(v)
RT: 6.321 min Scan# 447
Delta R.T. 0.239 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 84 Resp: 3251

Ion	Ratio	Lower	Upper
84	100		
86	59.8	45.8	85.0
49	114.4	77.6	144.2
51	40.6	24.6	45.8

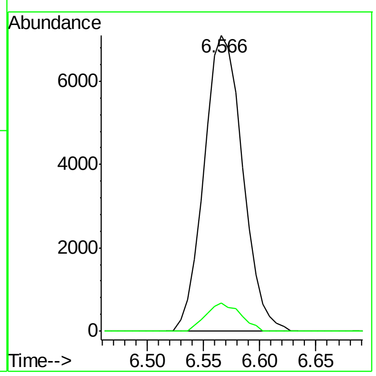


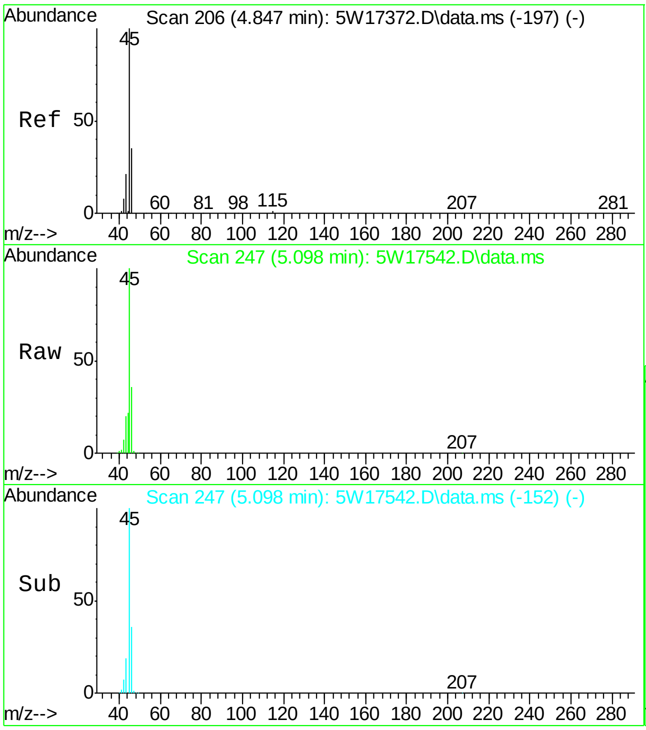


#29
Carbon Disulfide
Concen: 0.34 ppb(v)
RT: 6.566 min Scan# 487
Delta R.T. 0.208 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 76 Resp: 16920

Ion	Ratio	Lower	Upper
76	100		
78	9.7	6.5	12.1

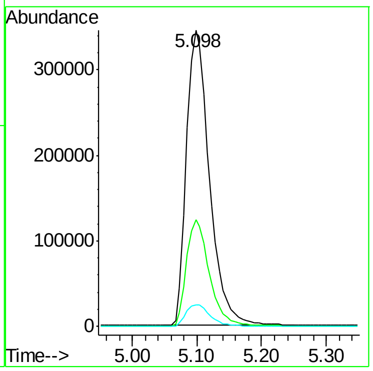


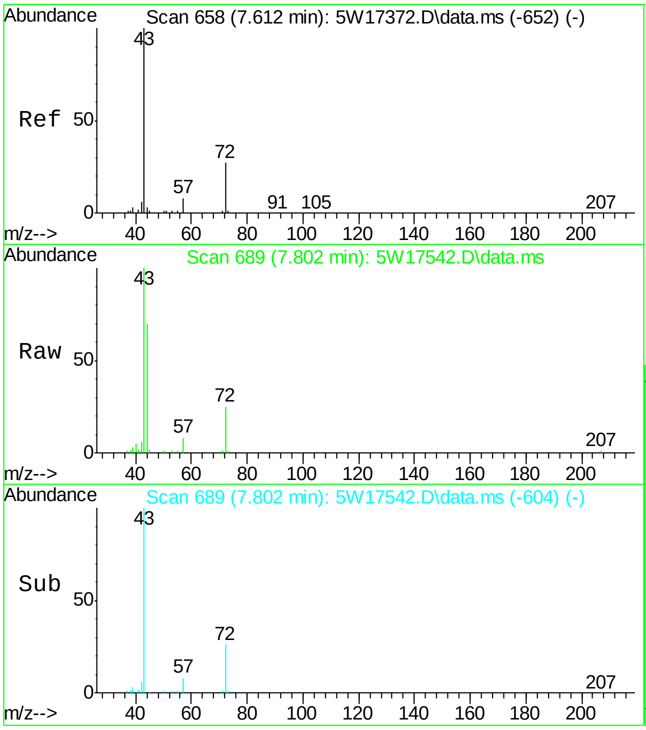


#30
Ethanol
Concen: 127.36 ppb(v)
RT: 5.098 min Scan# 247
Delta R.T. 0.251 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 45 Resp: 848932

Ion	Ratio	Lower	Upper
45	100		
46	35.9	24.6	45.8
42	7.4	6.5	12.1

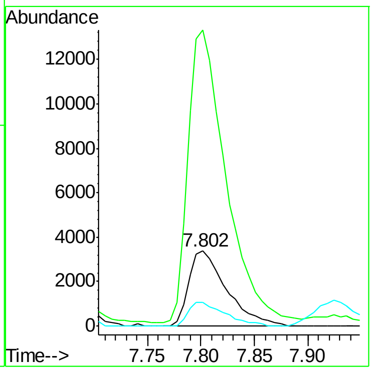


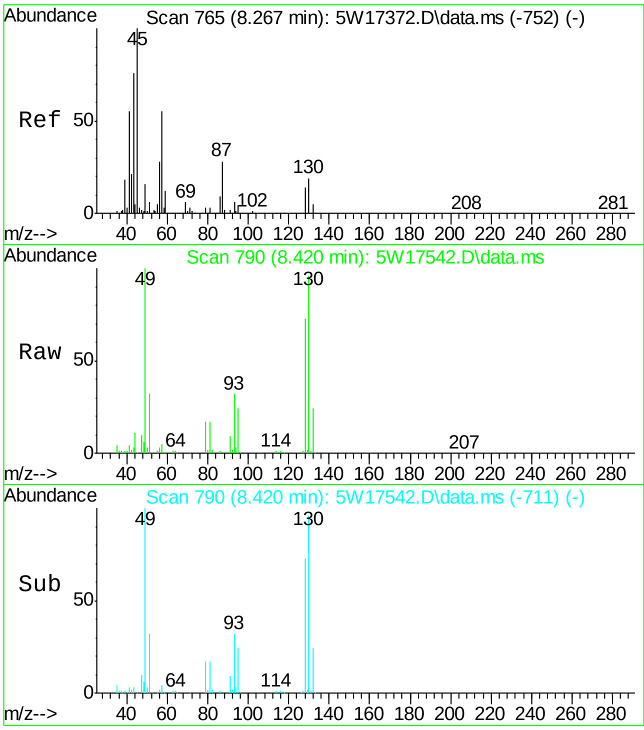


#38
2-Butanone
Concen: 1.09 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 72 Resp: 8364

Ion	Ratio	Lower	Upper
72	100		
43	394.7	262.9	488.3
57	32.0	21.3	39.6

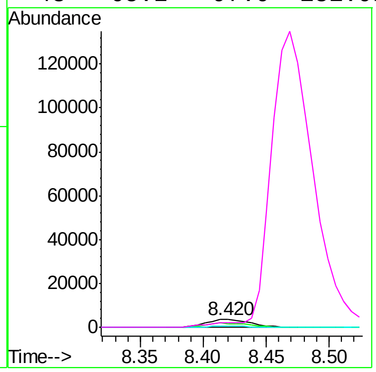


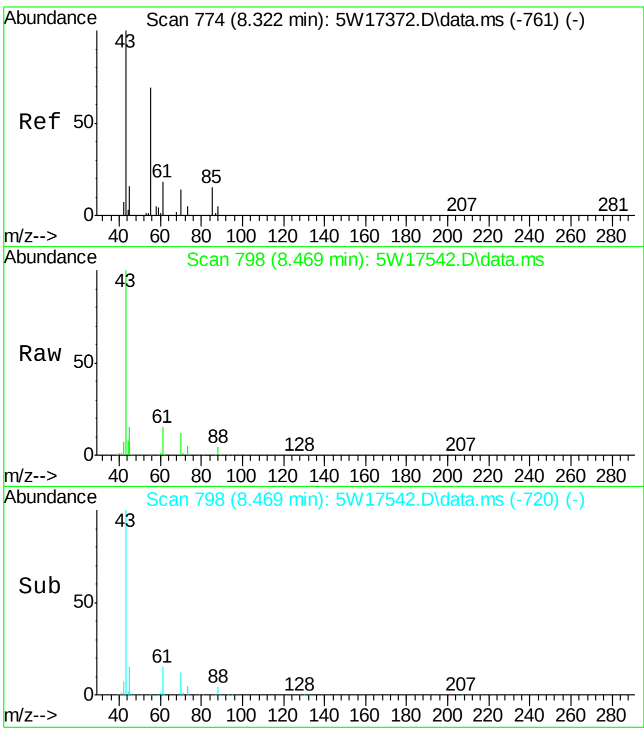


#39
Hexane
Concen: 0.32 ppb(v)
RT: 8.420 min Scan# 790
Delta R.T. 0.153 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 57 Resp: 8790

Ion	Ratio	Lower	Upper
57	100		
56	53.5	36.5	67.9
86	14.8	11.1	20.7
43	65.2	97.9	181.9#

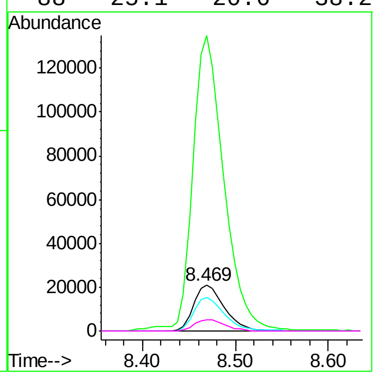


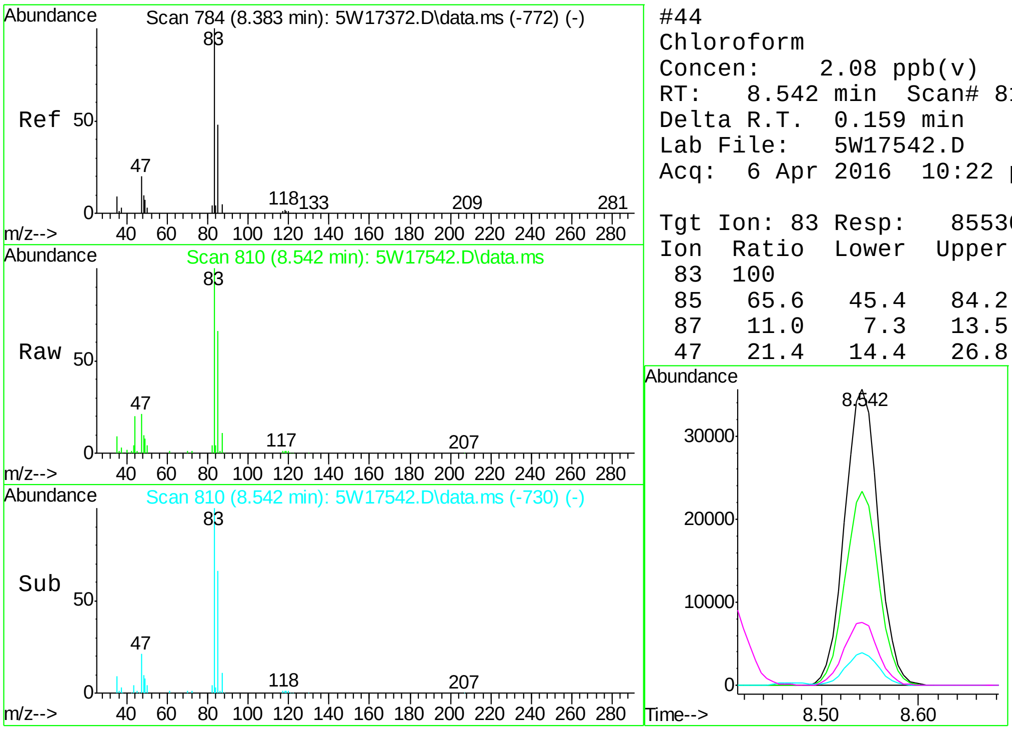


#42
Ethyl Acetate
Concen: 9.06 ppb(v)
RT: 8.469 min Scan# 798
Delta R.T. 0.147 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 61 Resp: 48264

Ion	Ratio	Lower	Upper
61	100		
43	648.4	466.1	865.7
70	74.6	56.3	104.5
88	25.1	20.6	38.2

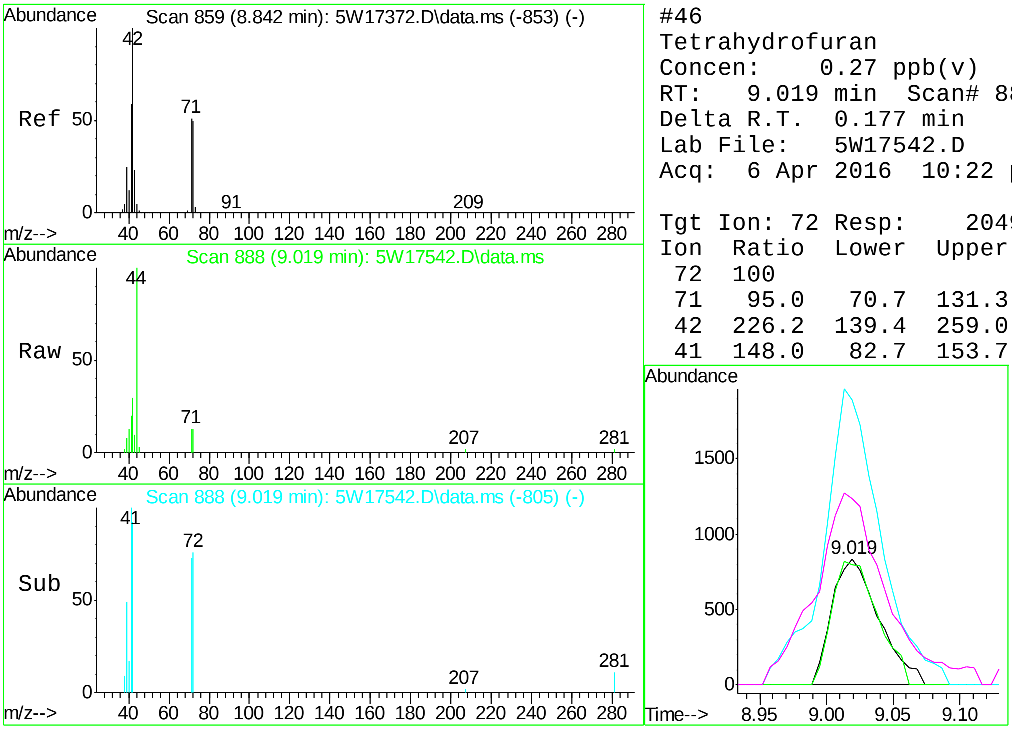




#44
Chloroform
Concen: 2.08 ppb(v)
RT: 8.542 min Scan# 810
Delta R.T. 0.159 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 83 Resp: 85530

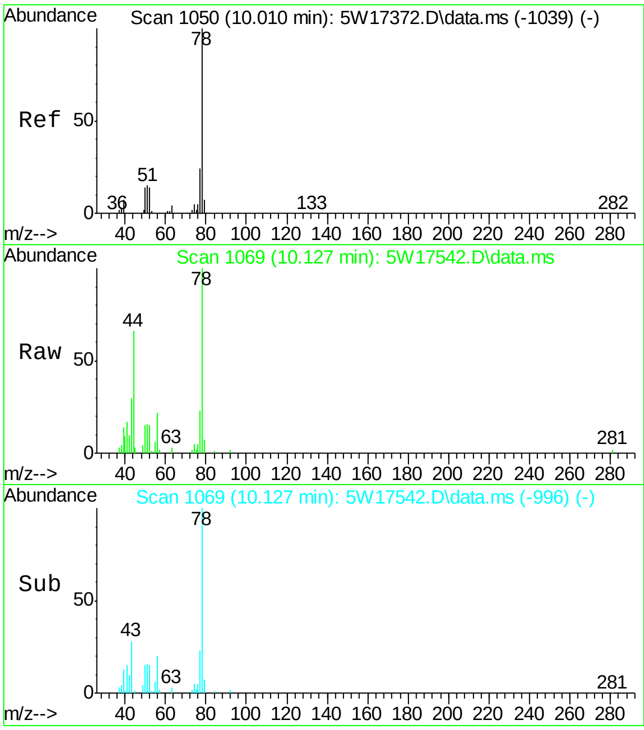
Ion	Ratio	Lower	Upper
83	100		
85	65.6	45.4	84.2
87	11.0	7.3	13.5
47	21.4	14.4	26.8



#46
Tetrahydrofuran
Concen: 0.27 ppb(v)
RT: 9.019 min Scan# 888
Delta R.T. 0.177 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 72 Resp: 2049

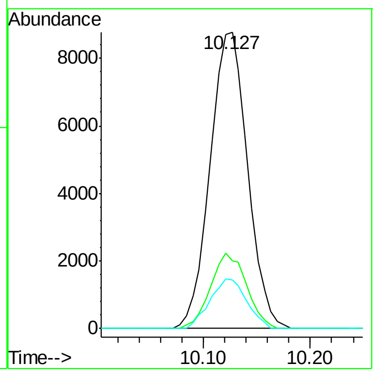
Ion	Ratio	Lower	Upper
72	100		
71	95.0	70.7	131.3
42	226.2	139.4	259.0
41	148.0	82.7	153.7

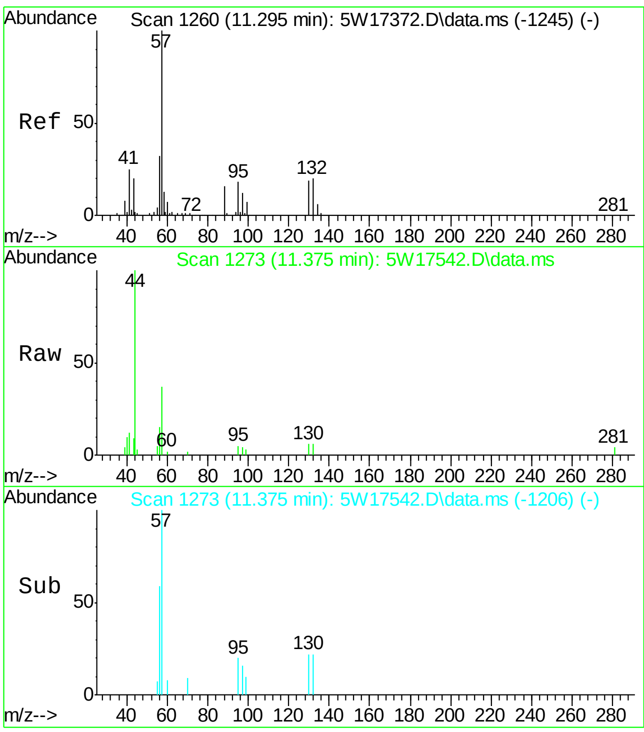


#49
Benzene
Concen: 0.38 ppb(v)
RT: 10.127 min Scan# 1069
Delta R.T. 0.116 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 78 Resp: 21326

Ion	Ratio	Lower	Upper
78	100		
77	22.8	16.5	30.7
51	16.1	10.5	19.5

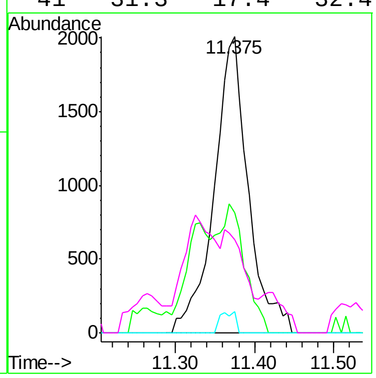


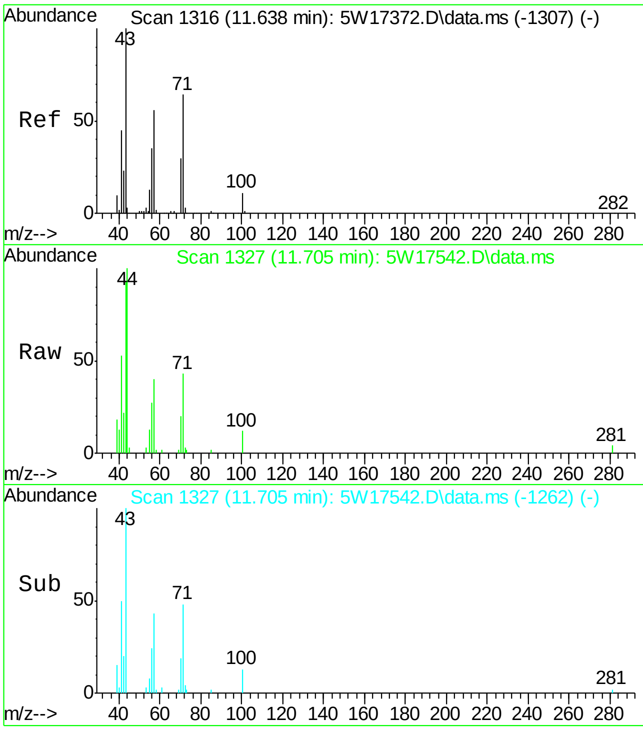


#54
2,2,4-Trimethylpentane
Concen: 0.07 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.079 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 57 Resp: 5986

Ion	Ratio	Lower	Upper
57	100		
56	40.6	22.4	41.6
99	7.1	4.9	9.1
41	31.3	17.4	32.4

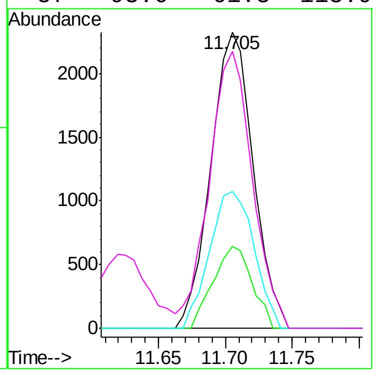


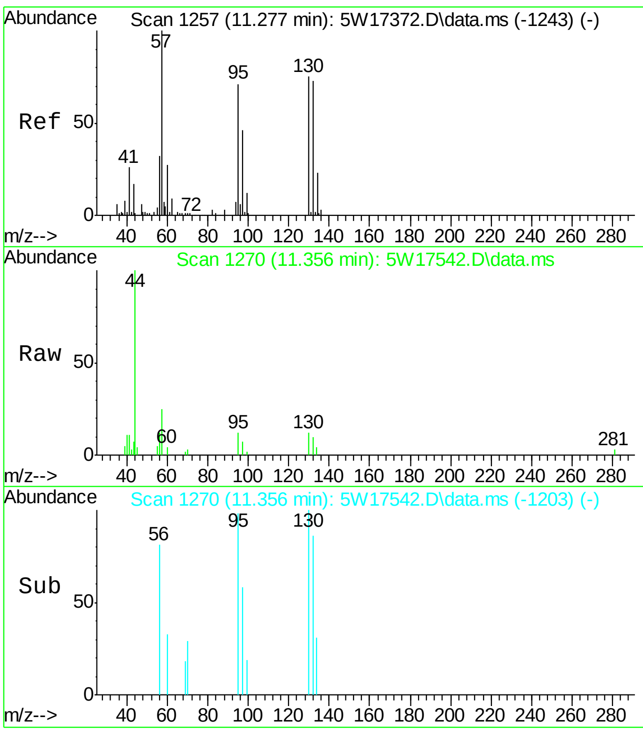


#55
Heptane
Concen: 0.29 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 71 Resp: 5122

Ion	Ratio	Lower	Upper
71	100		
100	27.8	19.6	36.4
70	46.1	34.0	63.2
57	93.6	61.3	113.9

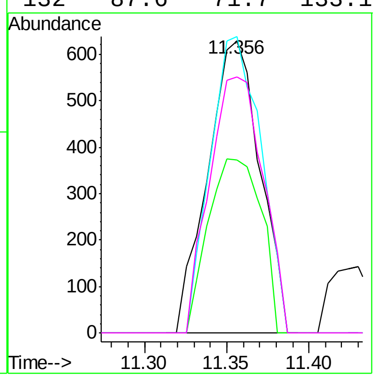


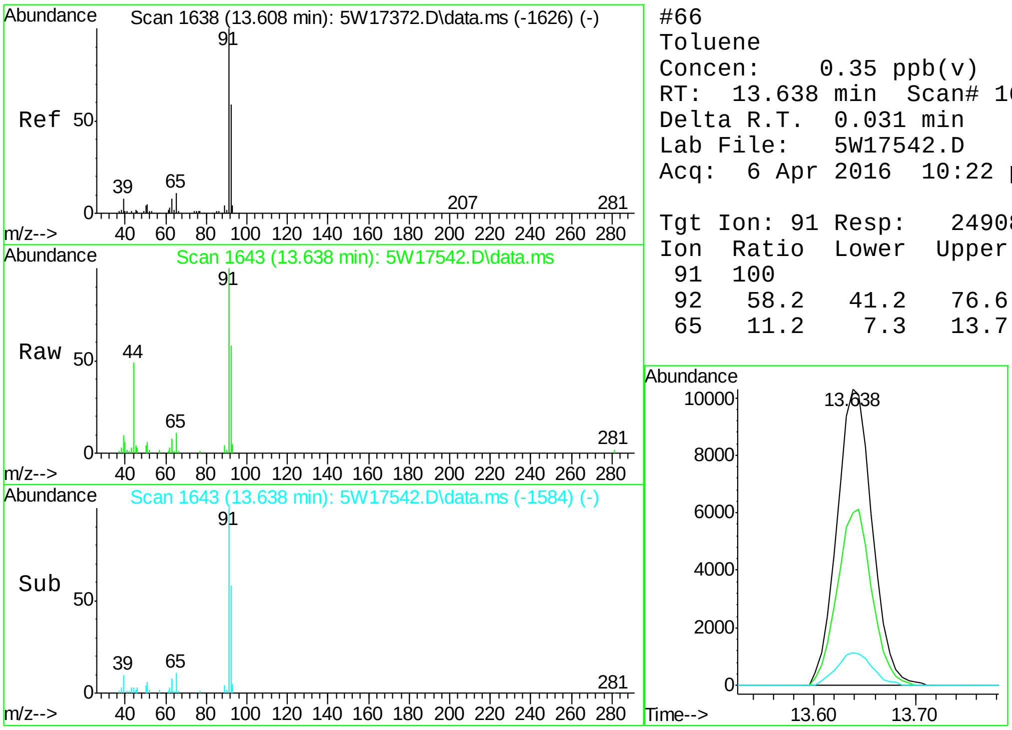


#56
Trichloroethene
Concen: 0.05 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.079 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 95 Resp: 1382

Ion	Ratio	Lower	Upper
95	100		
97	59.4	45.4	84.4
130	101.6	74.1	137.5
132	87.6	71.7	133.1

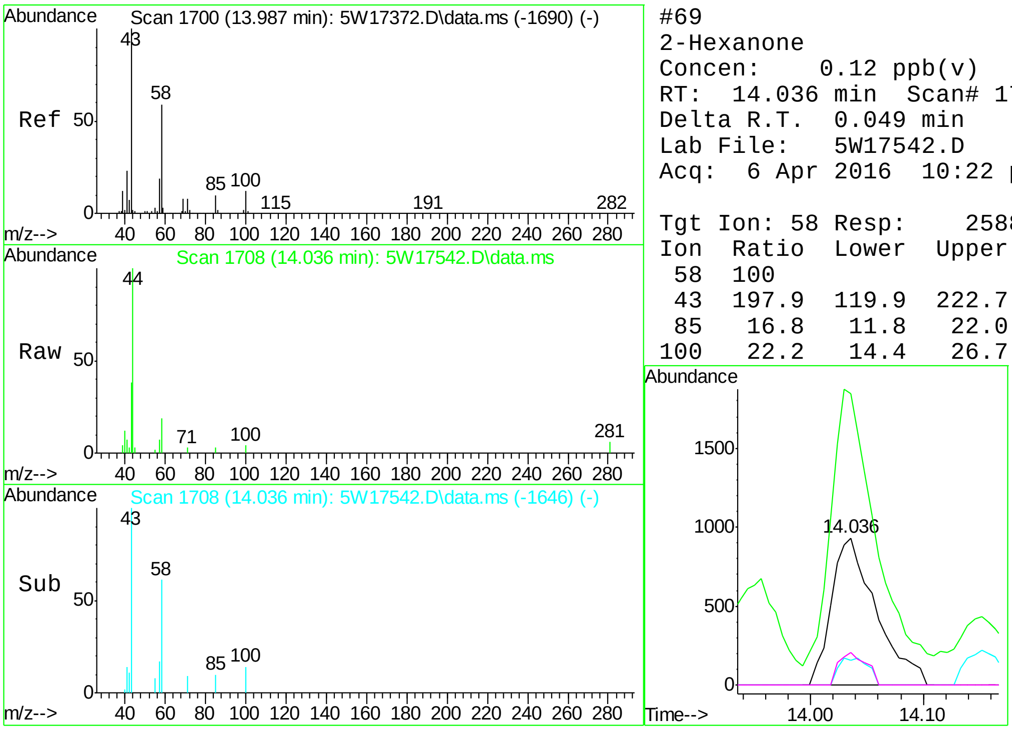




#66
Toluene
Concen: 0.35 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 91 Resp: 24908

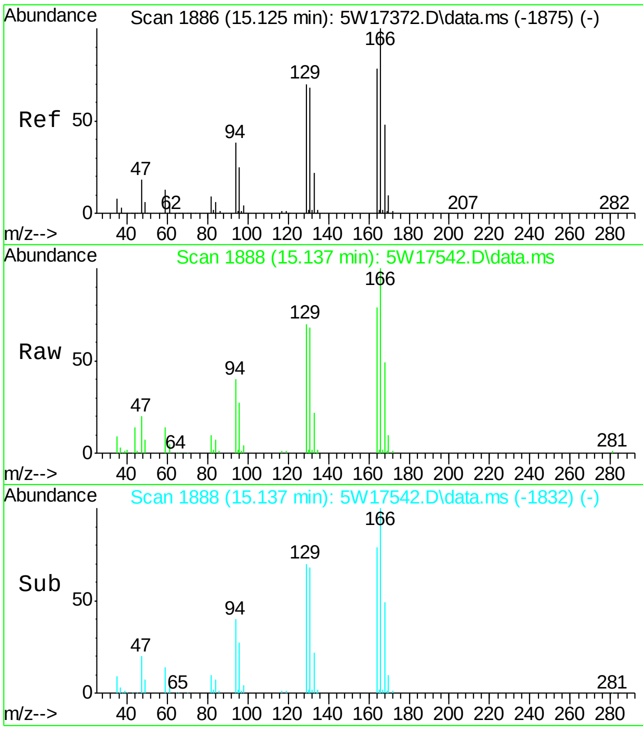
Ion	Ratio	Lower	Upper
91	100		
92	58.2	41.2	76.6
65	11.2	7.3	13.7



#69
2-Hexanone
Concen: 0.12 ppb(v)
RT: 14.036 min Scan# 1708
Delta R.T. 0.049 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 58 Resp: 2588

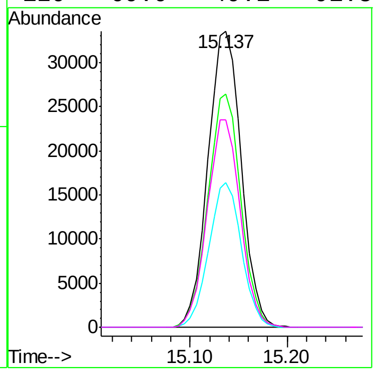
Ion	Ratio	Lower	Upper
58	100		
43	197.9	119.9	222.7
85	16.8	11.8	22.0
100	22.2	14.4	26.7

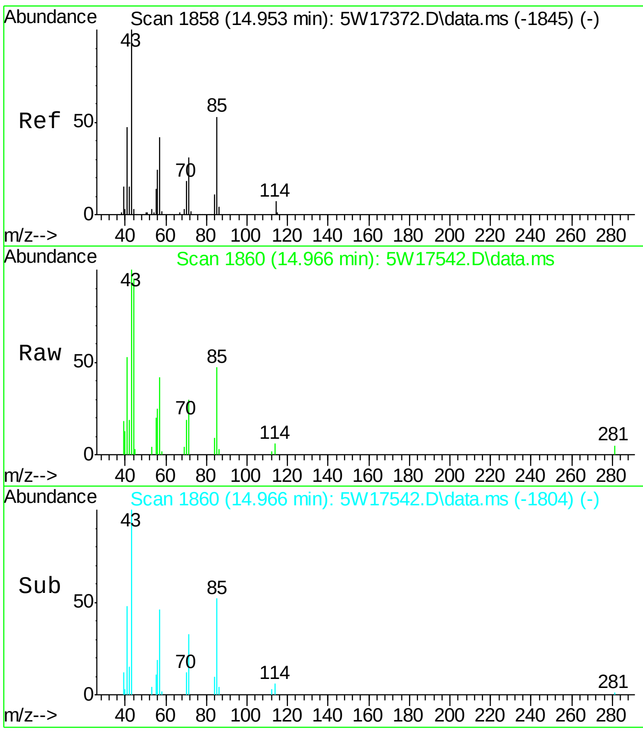


#72
Tetrachloroethene
Concen: 1.95 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion:166 Resp: 79777

Ion	Ratio	Lower	Upper
166	100		
164	79.0	54.6	101.4
168	48.7	33.5	62.3
129	69.9	49.1	91.3

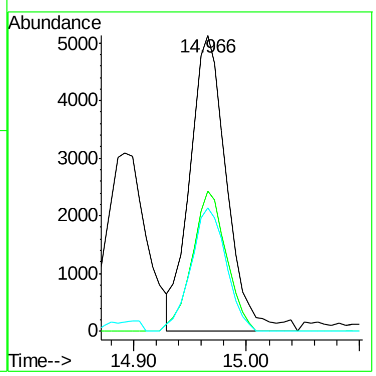


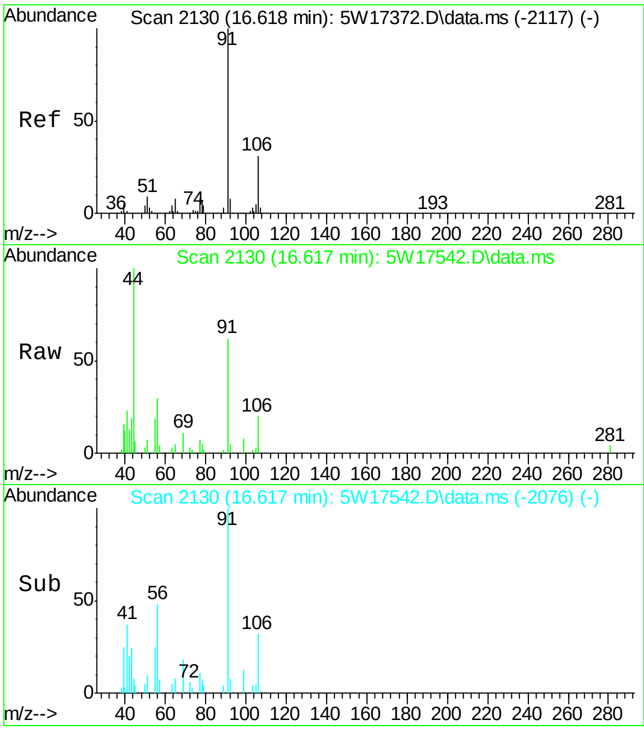


#74
Octane
Concen: 0.30 ppb(v)
RT: 14.966 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 43 Resp: 11746

Ion	Ratio	Lower	Upper
43	100		
85	47.3	37.1	68.9
57	41.6	29.6	55.0

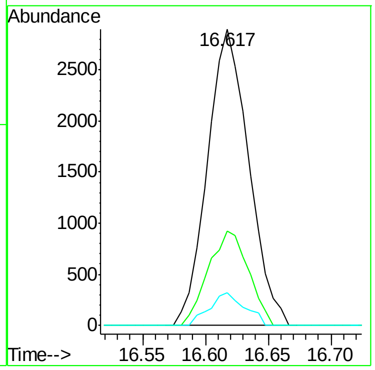


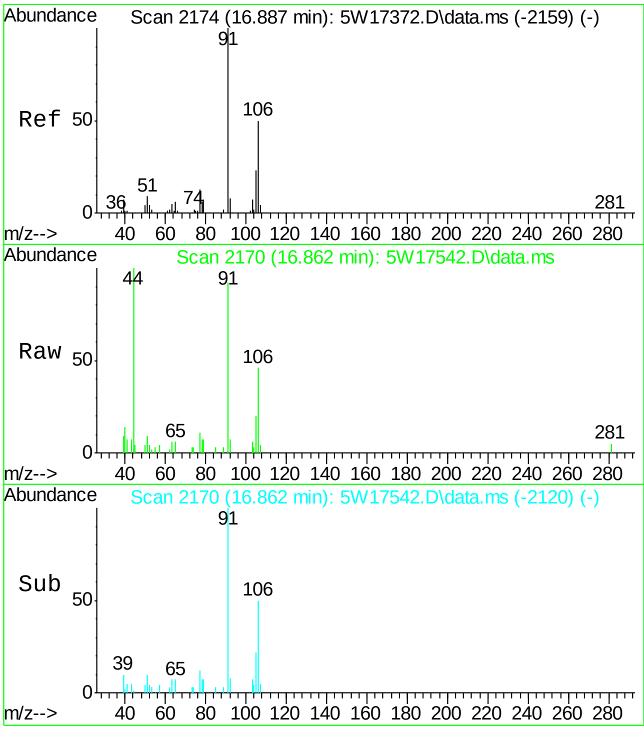


#78
Ethylbenzene
Concen: 0.07 ppb(v)
RT: 16.617 min Scan# 2130
Delta R.T. -0.000 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 91 Resp: 6600

Ion	Ratio	Lower	Upper
91	100		
106	32.0	22.0	40.8
77	10.9	5.9	10.9

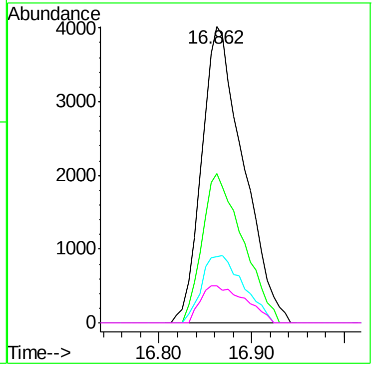


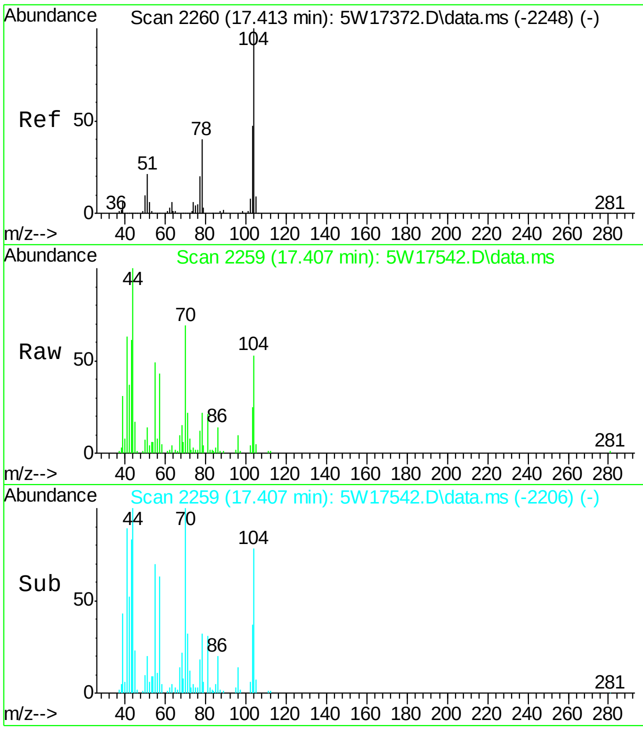


#79
m,p-Xylene
Concen: 0.17 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.025 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 91 Resp: 12658

Ion	Ratio	Lower	Upper
91	100		
106	50.5	35.3	65.5
105	22.2	16.2	30.0
77	12.5	9.0	16.8

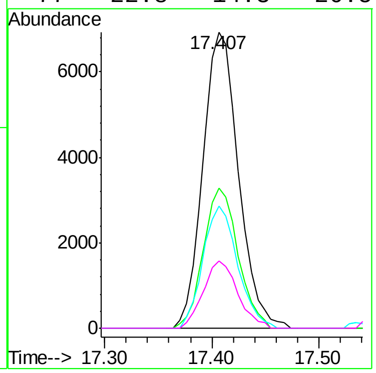


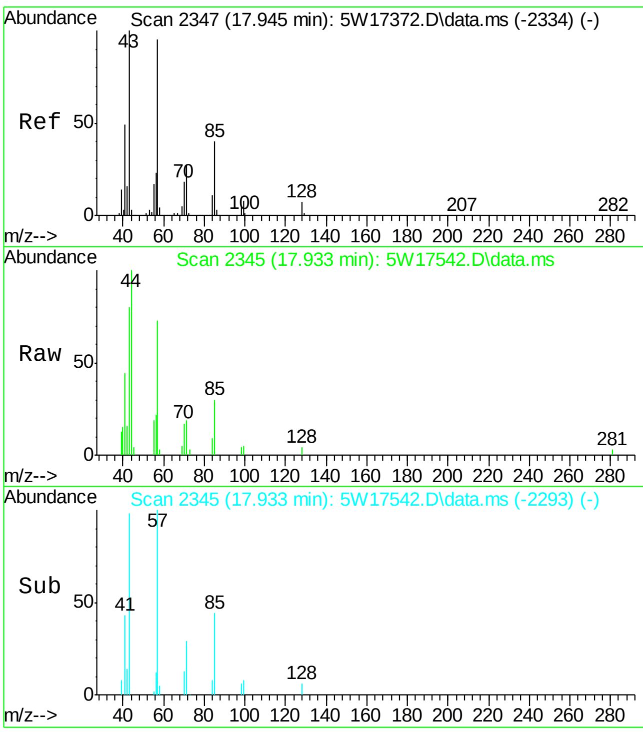


#80
Styrene
Concen: 0.29 ppb(v)
RT: 17.407 min Scan# 2259
Delta R.T. -0.006 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion:104 Resp: 16004

Ion	Ratio	Lower	Upper
104	100		
103	47.5	33.2	61.6
78	41.5	28.2	52.4
77	22.8	14.3	26.5

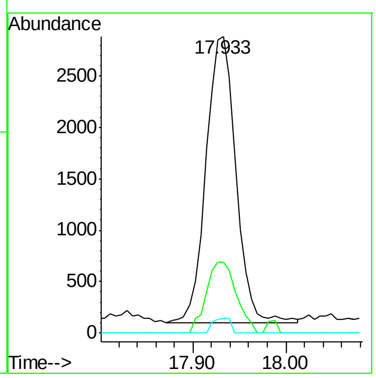


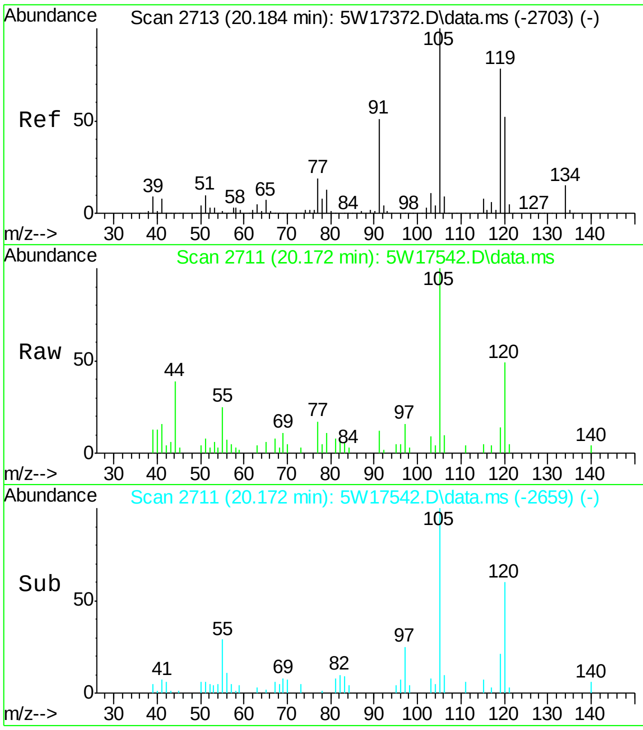


#81
Nonane
Concen: 0.16 ppb(v)
RT: 17.933 min Scan# 2345
Delta R.T. -0.012 min
Lab File: 5W17542.D
Acq: 6 Apr 2016 10:22 pm

Tgt Ion: 43 Resp: 6249

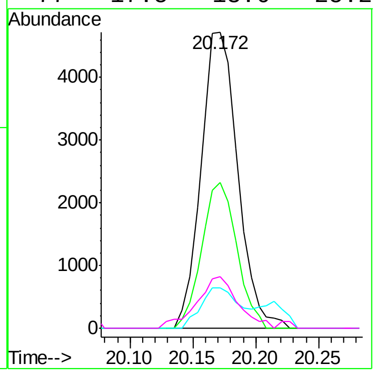
Ion	Ratio	Lower	Upper
43	100		
71	23.9	18.9	35.1
128	5.1	4.6	8.6

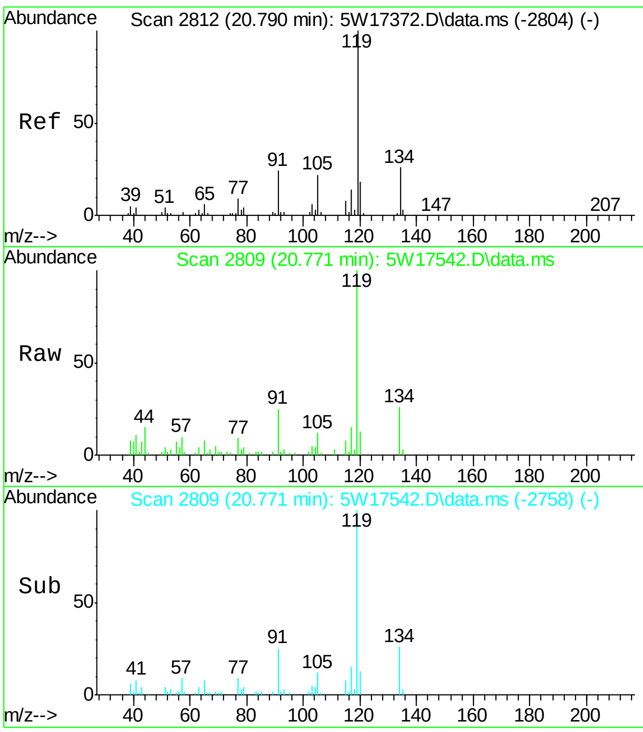





```
#95
1,2,4-Trimethylbenzene
Concen:    0.11 ppb(v)
RT:  20.172 min   Scan# 2711
Delta R.T.   -0.012 min
Lab File:    5W17542.D
Acq:  6 Apr 2016   10:22 pm

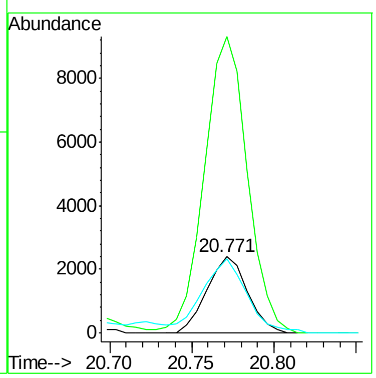
Tgt Ion:105 Resp:     9597
Ion  Ratio   Lower   Upper
105  100
120    49.1    36.6    68.0
119    13.6    54.4   101.0#
 77    17.5    13.6    25.2
```






```
#100
p-Isopropyltoluene
Concen:    0.16 ppb(v)
RT:  20.771 min   Scan# 2809
Delta R.T.   -0.018 min
Lab File:    5W17542.D
Acq:  6 Apr 2016   10:22 pm

Tgt Ion:134 Resp:     4096
Ion  Ratio   Lower   Upper
134  100
119   389.7   275.2   511.0
 91    97.2    65.3   121.3
```



Manual Integration Approval Summary

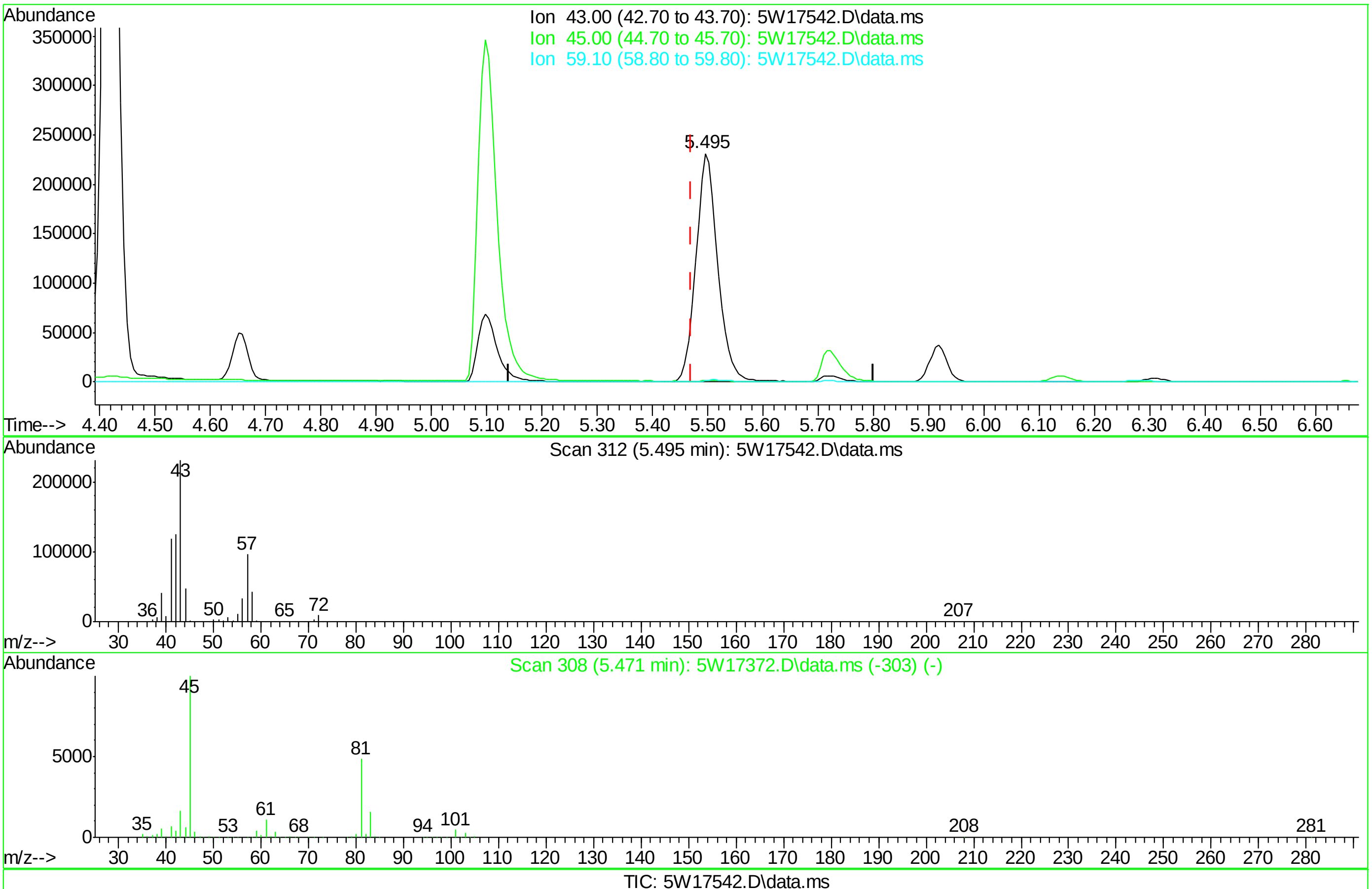
Sample Number:	JC17438-9	**Method:**	TO-15
Lab FileID:	5W17542.D	**Analyst approved:**	04/08/16 11:59 Dana Tryon
Injection Time:	04/06/16 22:22	**Supervisor approved:**	04/08/16 16:25 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak
Isopropyl Alcohol	67-63-0		5.72	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17542.D
Acq On    :  6 Apr 2016  10:22 pm
Operator  : THOMASH
Sample    : JC17438-9
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Apr 07 07:11:02 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



(25) Isopropyl Alcohol

5.495min (+0.024) 105.36ppb(v)

response 641342

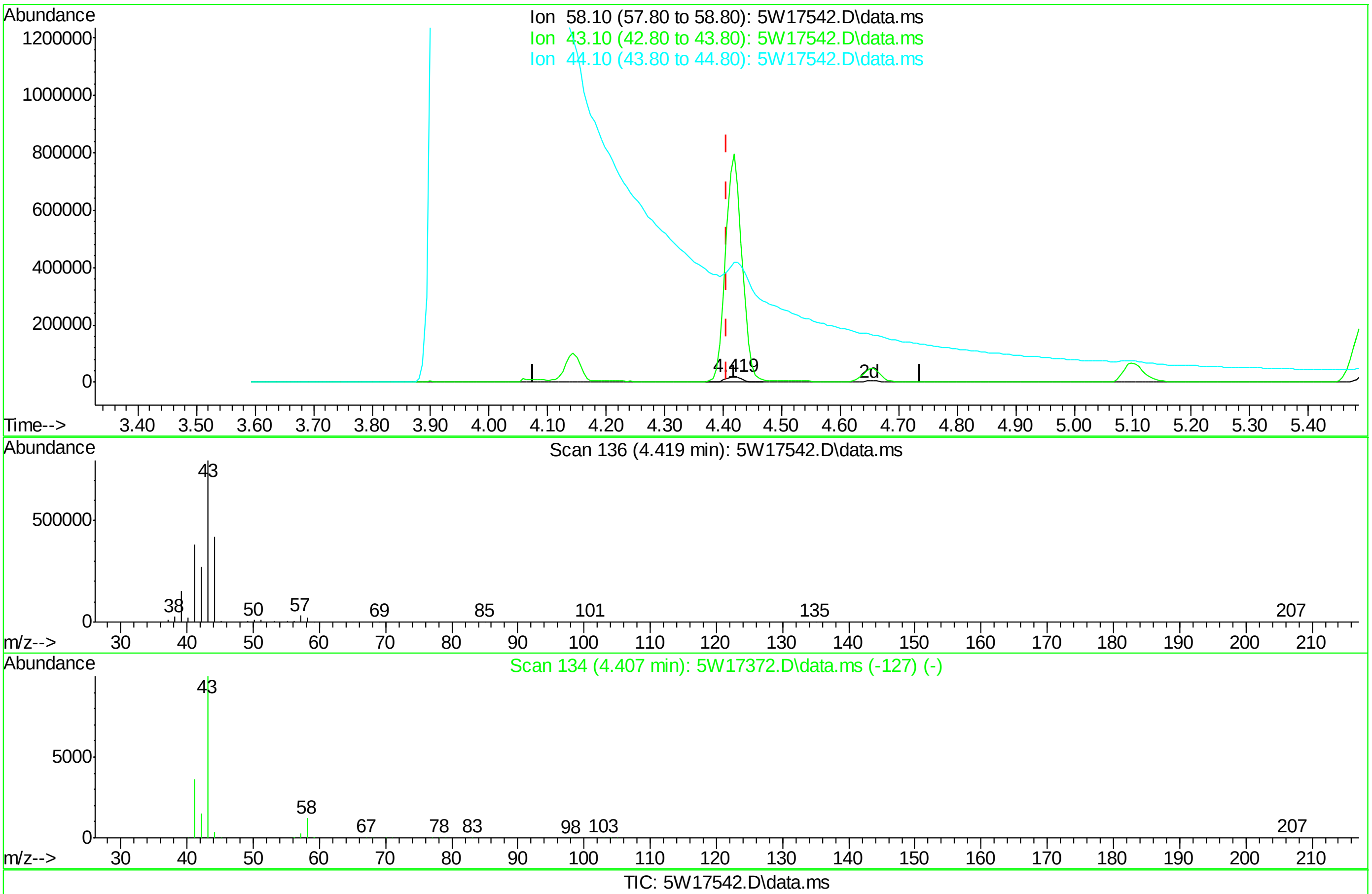
Ion	Exp%	Act%
43.00	100	100
45.00	584.80	0.50#
59.10	24.00	0.58#
0.00	0.00	0.00

5W17542.D edits: Isopropyl Alcohol

Quantitation Report (Qedit)

```
Data Path : C:\acslims\
Data File : 5W17542.D
Acq On    :  6 Apr 2016  10:22 pm
Operator  : THOMASH
Sample    : JC17438-9
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 13   Sample Multiplier: 1

Quant Time: Apr 08 15:01:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



(12) n-Butane

4.419min (+0.012) 14.56ppb(v)

response 37865

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	3981.77#
44.10	49.20	2089.53#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17543.D
Acq On    :  6 Apr 2016  11:04 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS107,v5w699,100,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 08 15:38:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.407	130	178033	10.00	ppb(v	0.16
53) 1,4-Difluorobenzene	10.536	114	646027	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	337333	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.407	130	178033	10.00	ppb(v	0.16
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	457947	9.91	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.10%			
Target Compounds						Qvalue
6) Dichlorodifluoromethane	4.180	85	5570	0.14	ppb(v	98
8) Chloromethane	4.315	50	2548	0.20	ppb(v	98
10) Vinyl Chloride	4.492	62	33483	2.46	ppb(v	98
21) Acetone	5.526	58	9657	1.40	ppb(v	98
22) Pentane	5.911	57	1178	0.34	ppb(v	94
25) Isopropyl Alcohol	5.710	43	28102	5.23	ppb(v	85
26) 1,1-Dichloroethene	6.181	61	3361	0.14	ppb(v	96
30) Ethanol	5.098	45	212786	36.19	ppb(v	99
33) trans-1,2-Dichloroethene	7.166	61	19981	0.97	ppb(v	95
38) 2-Butanone	7.814	72	1437	0.21	ppb(v	87
39) Hexane	8.426	57	45384	1.90	ppb(v#	58
40) cis-1,2-Dichloroethene	8.236	61	3029768	150.16	ppb(v	99
43) Methyl Acrylate	8.426	55	4965	0.19	ppb(v#	39
44) Chloroform	8.542	83	7012	0.19	ppb(v	97
45) 2,4-Dimethylpentane	9.380	57	16812	0.62	ppb(v	94
47) 1,1,1-Trichloroethane	9.607	97	10796	0.29	ppb(v	93
49) Benzene	10.120	78	18176	0.37	ppb(v	100
51) Cyclohexane	10.420	56	32522	1.43	ppb(v	92
52) 2,3-Dimethylpentane	10.695	71	15653	1.49	ppb(v	95
54) 2,2,4-Trimethylpentane	11.375	57	218360	3.04	ppb(v#	59
55) Heptane	11.705	71	32842	2.13	ppb(v	96
56) Trichloroethene	11.356	95	3668998	148.97	ppb(v	94
64) 4-Methyl-2-pentanone	12.482	58	4606	0.36	ppb(v	74
66) Toluene	13.650	91	6378	0.10	ppb(v	89
72) Tetrachloroethene	15.161	166	7038774	200.06	ppb(v	95
74) Octane	14.978	43	25975	0.78	ppb(v	93
78) Ethylbenzene	16.617	91	28032	0.32	ppb(v	99
79) m,p-Xylene	16.874	91	6508	0.10	ppb(v	96
89) n-Propylbenzene	19.248	120	4411	0.17	ppb(v	93

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

Quantitation Report (QT Reviewed)

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Data File : 5W17543.D
Acq On    :  6 Apr 2016  11:04 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS107,v5w699,100,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 08 15:38:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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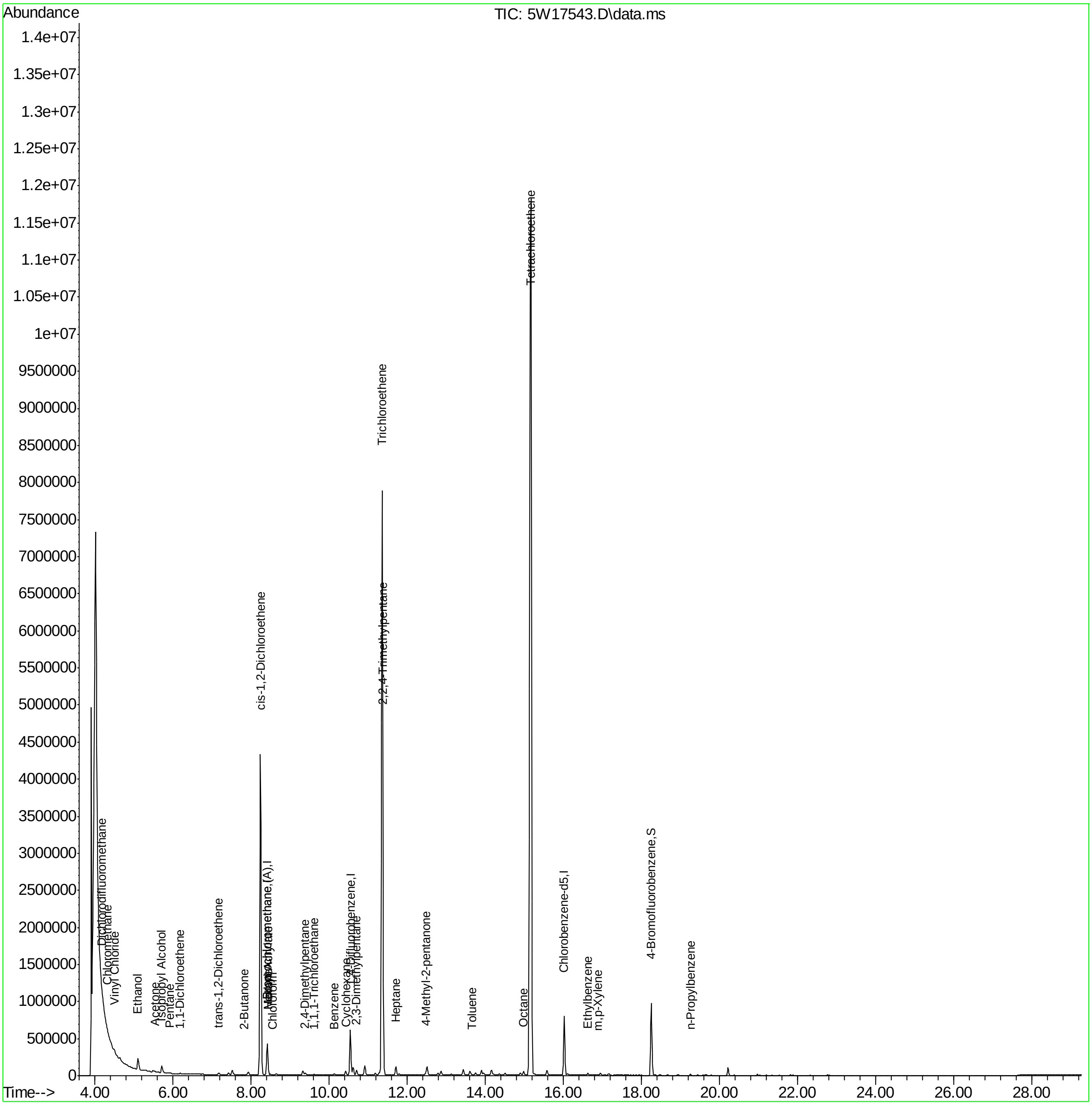
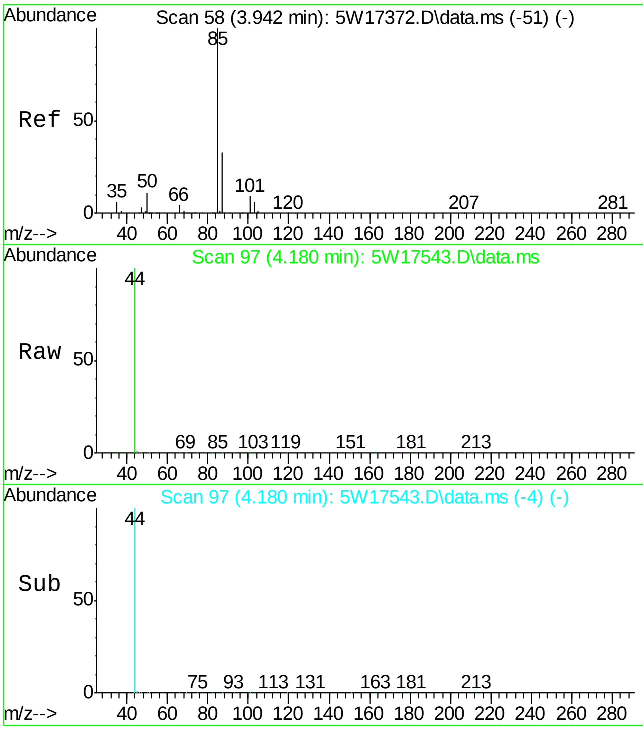


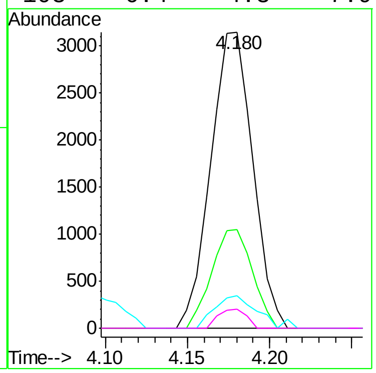
m5w693.M Fri Apr 08 15:39:03 2016 GCMS5W Page: 2

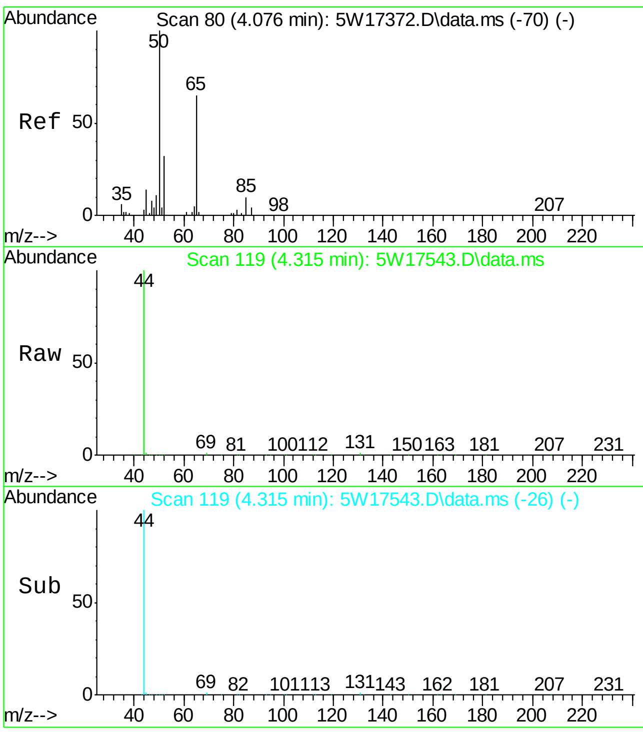


#6
Dichlorodifluoromethane
Concen: 0.14 ppb(v)
RT: 4.180 min Scan# 97
Delta R.T. 0.239 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 85 Resp: 5570

Ion	Ratio	Lower	Upper
85	100		
87	33.5	22.7	42.3
101	10.9	6.6	12.2
103	6.4	4.3	7.9

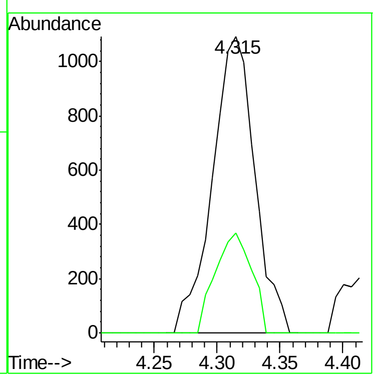


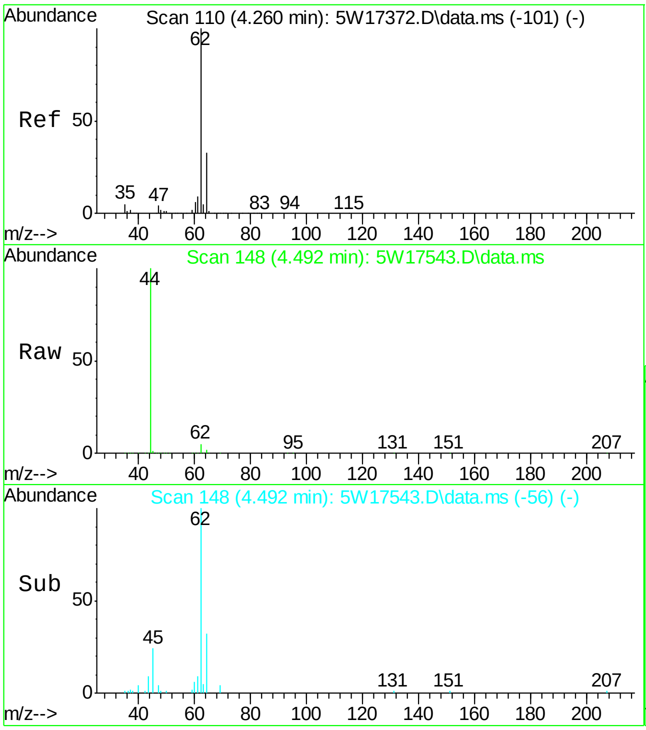


#8
Chloromethane
Concen: 0.20 ppb(v)
RT: 4.315 min Scan# 119
Delta R.T. 0.239 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 50 Resp: 2548

Ion	Ratio	Lower	Upper
50	100		
52	33.6	22.7	42.1

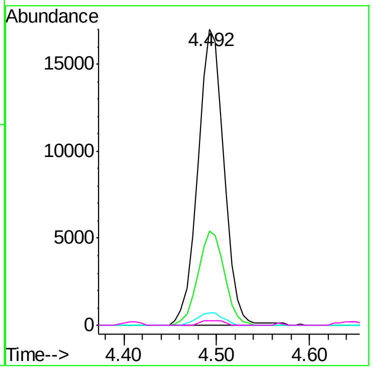


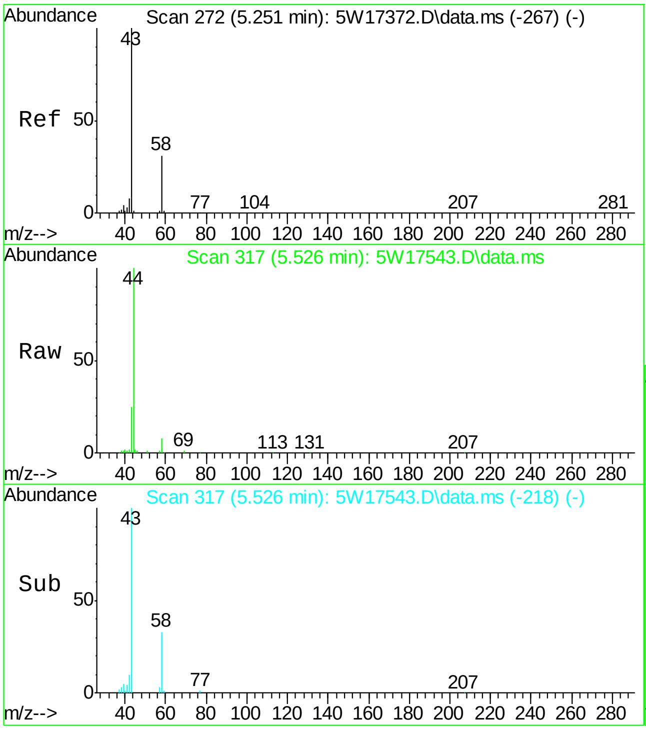


#10
Vinyl Chloride
Concen: 2.46 ppb(v)
RT: 4.492 min Scan# 148
Delta R.T. 0.232 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 62 Resp: 33483

Ion	Ratio	Lower	Upper
62	100		
64	31.8	23.0	42.8
35	4.3	3.2	6.0
37	1.6	1.3	2.3

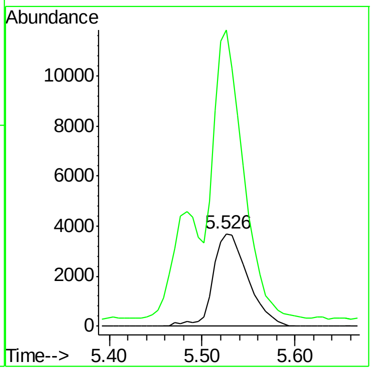


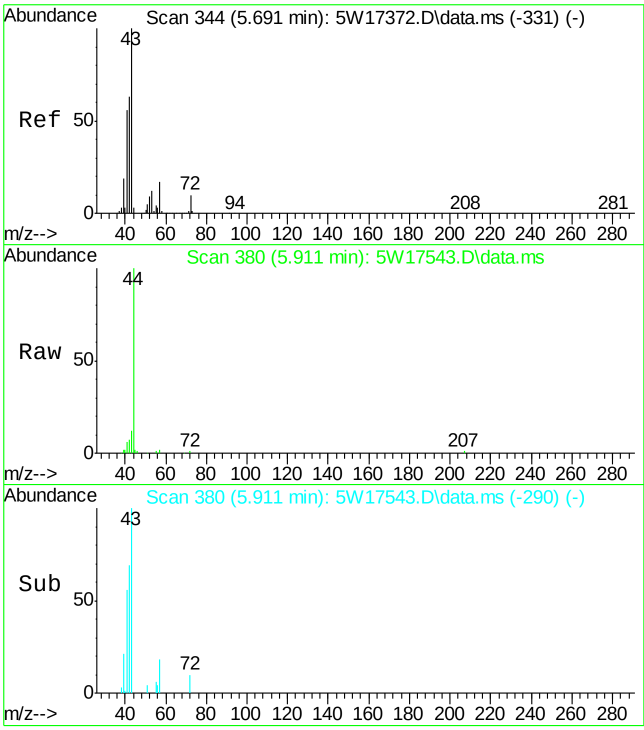


#21
Acetone
Concen: 1.40 ppb(v)
RT: 5.526 min Scan# 317
Delta R.T. 0.275 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 58 Resp: 9657

Ion	Ratio	Lower	Upper
58	100		
43	321.4	227.9	423.3

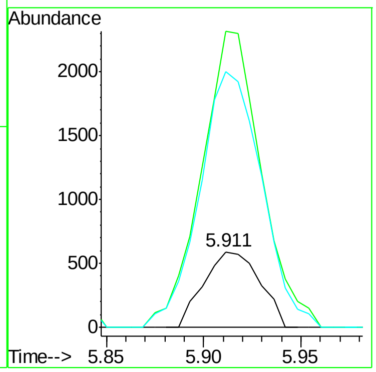


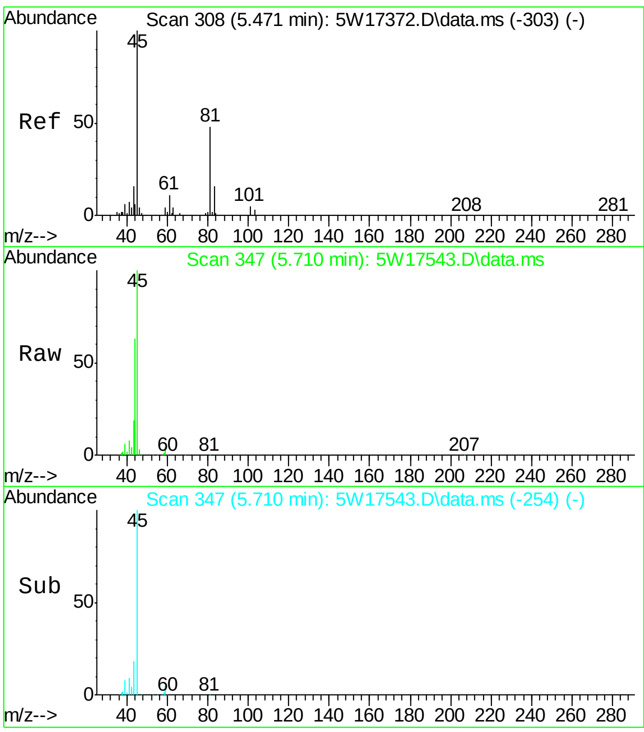


#22
Pentane
Concen: 0.34 ppb(v)
RT: 5.911 min Scan# 380
Delta R.T. 0.220 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 57 Resp: 1178

Ion	Ratio	Lower	Upper
57	100		
42	391.4	258.3	479.7
41	337.7	233.4	433.5

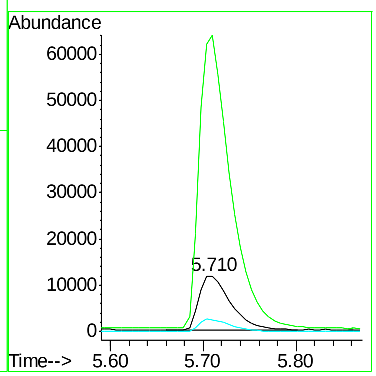


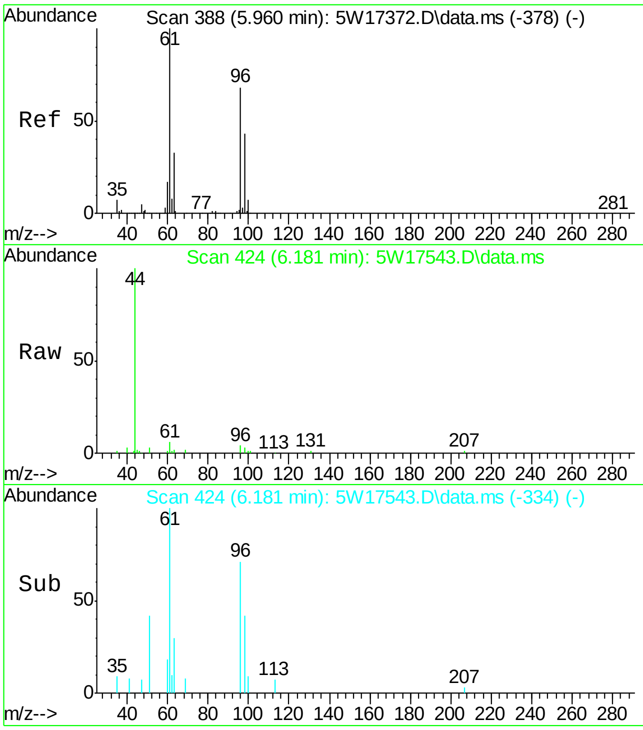


#25
Isopropyl Alcohol
Concen: 5.23 ppb(v)
RT: 5.710 min Scan# 347
Delta R.T. 0.239 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 43 Resp: 28102

Ion	Ratio	Lower	Upper
43	100		
45	537.2	409.4	760.2
59	21.3	16.8	31.2

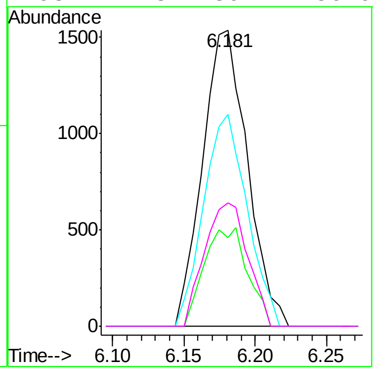


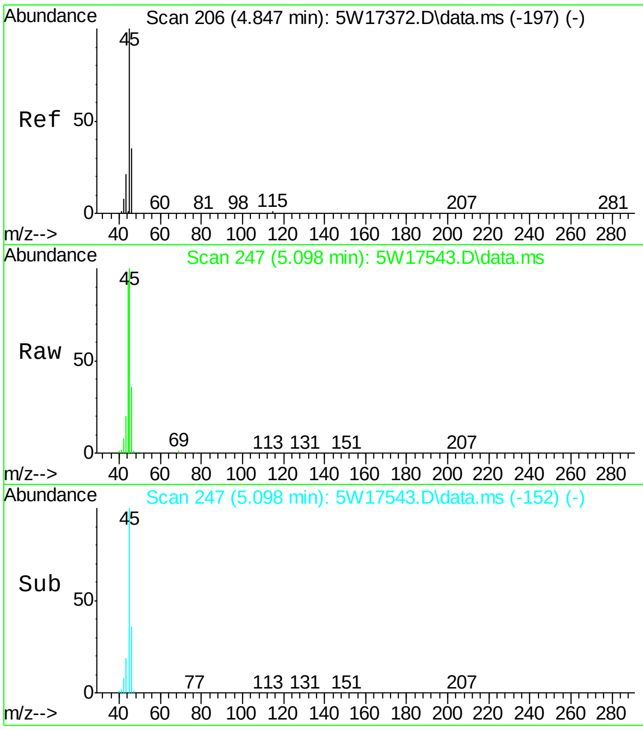


#26
1,1-Dichloroethene
Concen: 0.14 ppb(v)
RT: 6.181 min Scan# 424
Delta R.T. 0.220 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 61 Resp: 3361

Ion	Ratio	Lower	Upper
61	100		
63	29.8	22.8	42.4
96	71.4	47.7	88.7
98	41.8	30.2	56.0

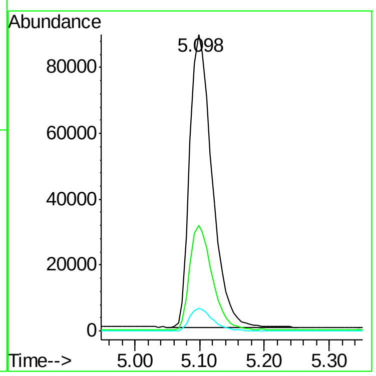


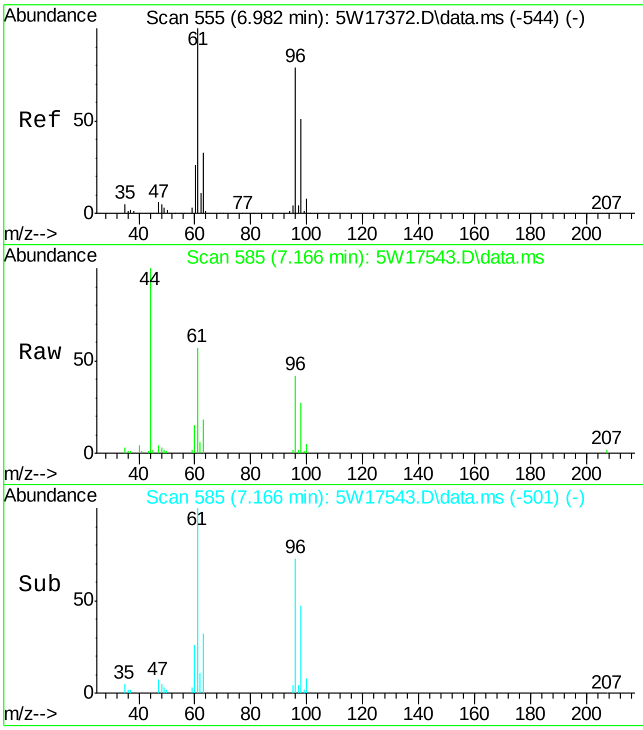


#30
Ethanol
Concen: 36.19 ppb(v)
RT: 5.098 min Scan# 247
Delta R.T. 0.251 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 45 Resp: 212786

Ion	Ratio	Lower	Upper
45	100		
46	35.6	24.6	45.8
42	7.7	6.5	12.1

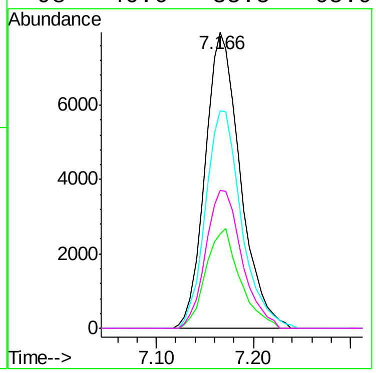


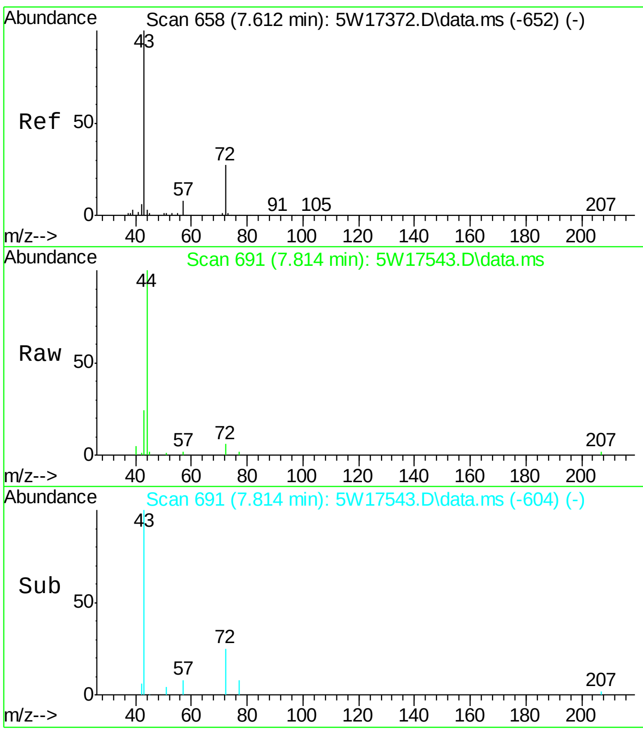


#33
trans-1,2-Dichloroethene
Concen: 0.97 ppb(v)
RT: 7.166 min Scan# 585
Delta R.T. 0.183 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 61 Resp: 19981

Ion	Ratio	Lower	Upper
61	100		
63	31.9	22.7	42.3
96	73.5	55.1	102.3
98	46.6	35.5	65.9

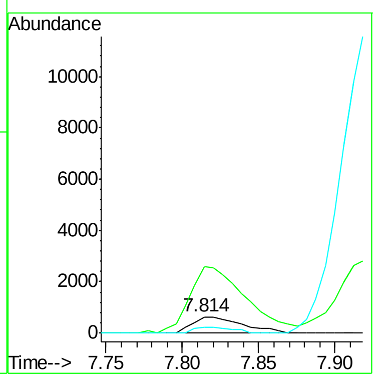




#38
2-Butanone
Concen: 0.21 ppb(v)
RT: 7.814 min Scan# 691
Delta R.T. 0.202 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

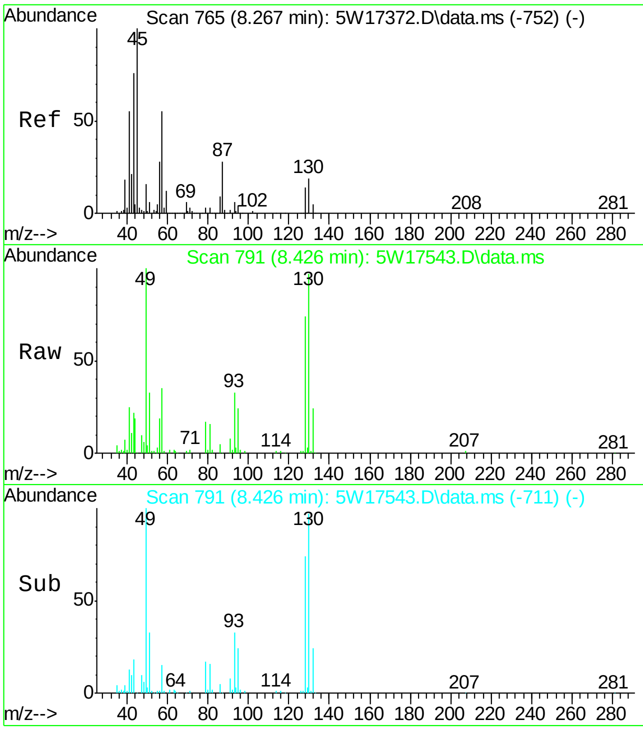
Tgt Ion: 72 Resp: 1437

Ion	Ratio	Lower	Upper
72	100		
43	406.0	262.9	488.3
57	33.0	21.3	39.6



7.1.12

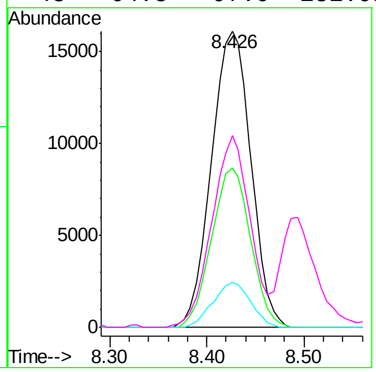
7

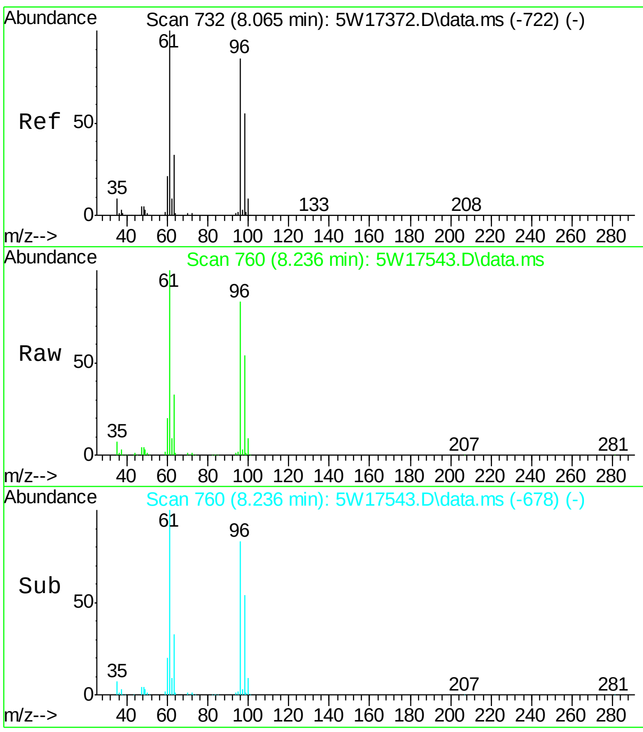


#39
Hexane
Concen: 1.90 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.159 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 57 Resp: 45384

Ion	Ratio	Lower	Upper
57	100		
56	53.6	36.5	67.9
86	15.1	11.1	20.7
43	64.8	97.9	181.9#

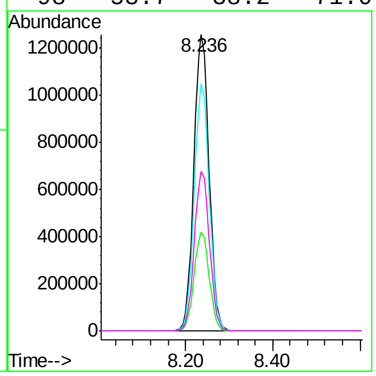


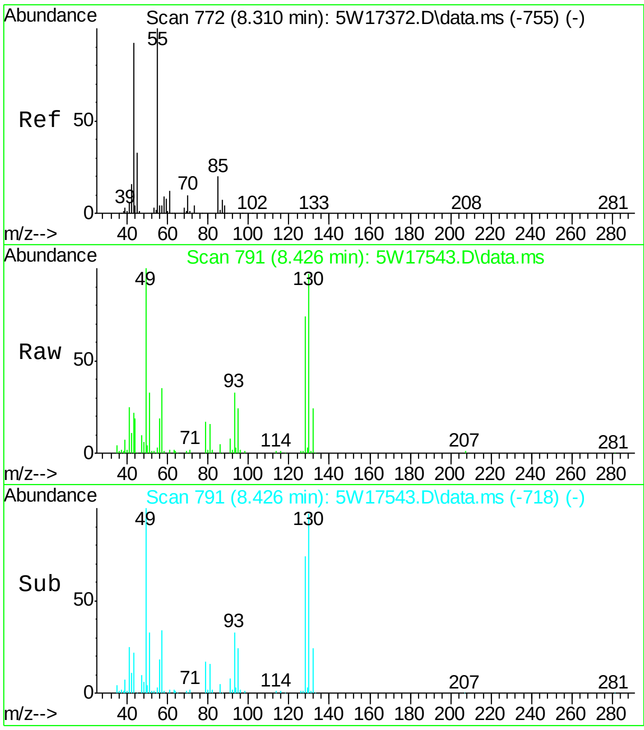


#40
cis-1,2-Dichloroethene
Concen: 150.16 ppb(v)
RT: 8.236 min Scan# 760
Delta R.T. 0.171 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 61 Resp: 3029768

Ion	Ratio	Lower	Upper
61	100		
63	33.4	23.0	42.8
96	83.3	59.3	110.1
98	53.7	38.2	71.0

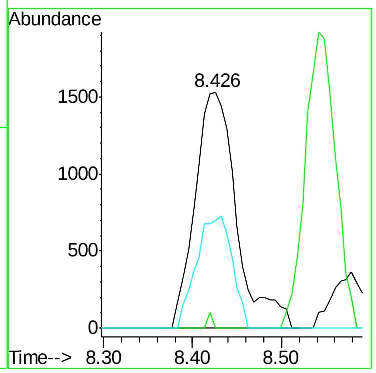


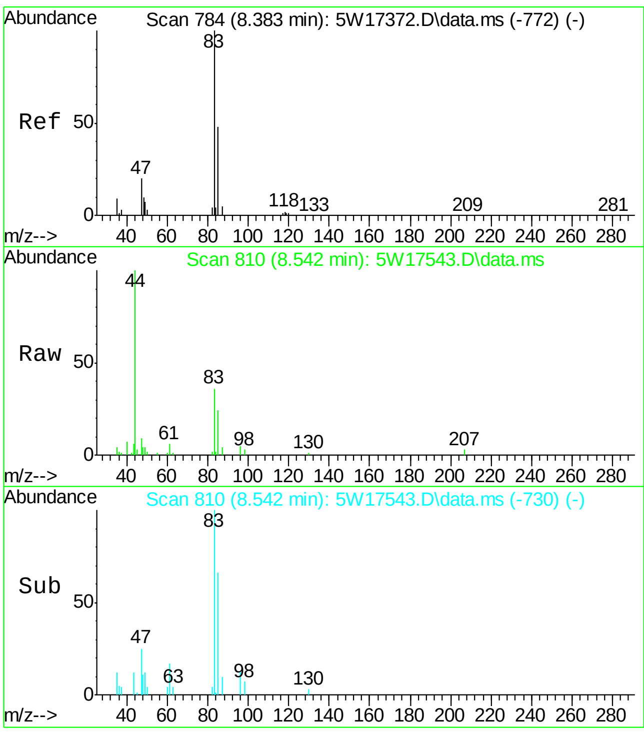


#43
Methyl Acrylate
Concen: 0.19 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.116 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 55 Resp: 4965

Ion	Ratio	Lower	Upper
55	100		
85	0.0	14.3	26.5#
58	45.4	6.4	12.0#

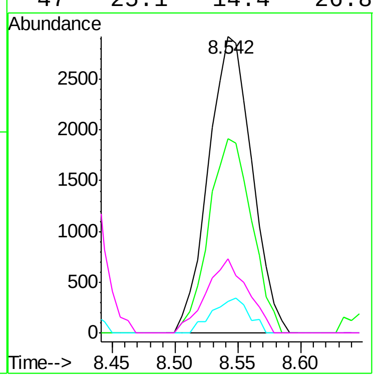


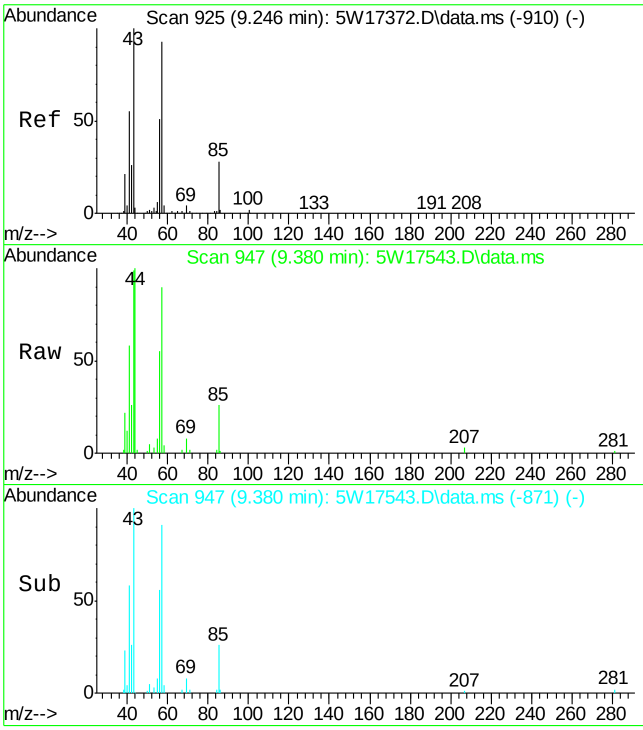


#44
Chloroform
Concen: 0.19 ppb(v)
RT: 8.542 min Scan# 810
Delta R.T. 0.159 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 83 Resp: 7012

Ion	Ratio	Lower	Upper
83	100		
85	65.7	45.4	84.2
87	10.5	7.3	13.5
47	25.1	14.4	26.8

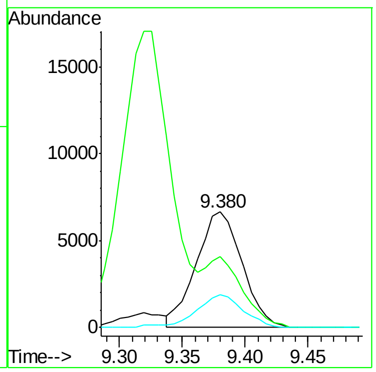


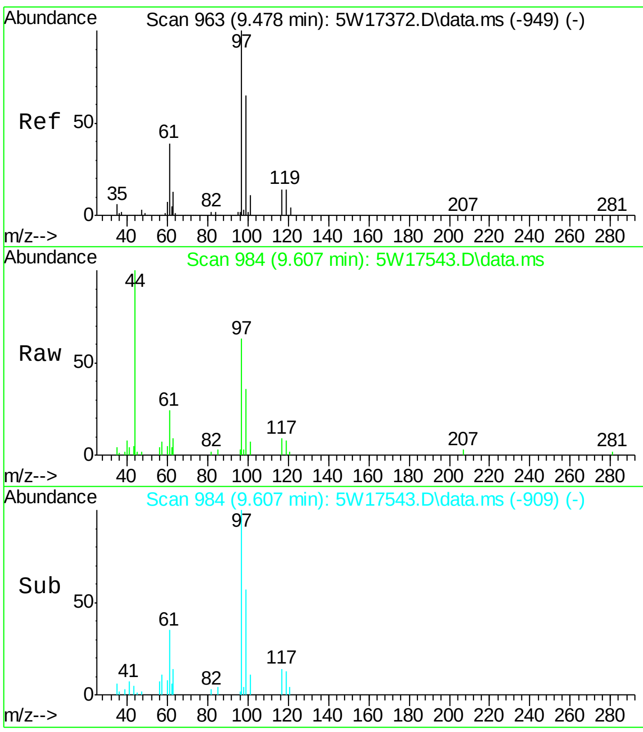


#45
2,4-Dimethylpentane
Concen: 0.62 ppb(v)
RT: 9.380 min Scan# 947
Delta R.T. 0.135 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 57 Resp: 16812

Ion	Ratio	Lower	Upper
57	100		
56	61.2	38.9	72.2
85	28.7	21.0	39.0

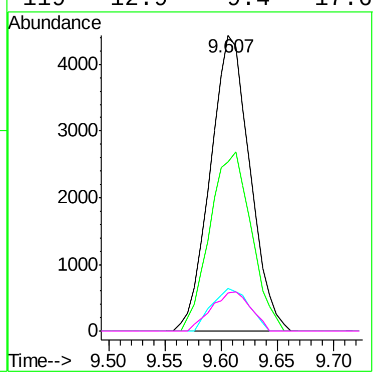


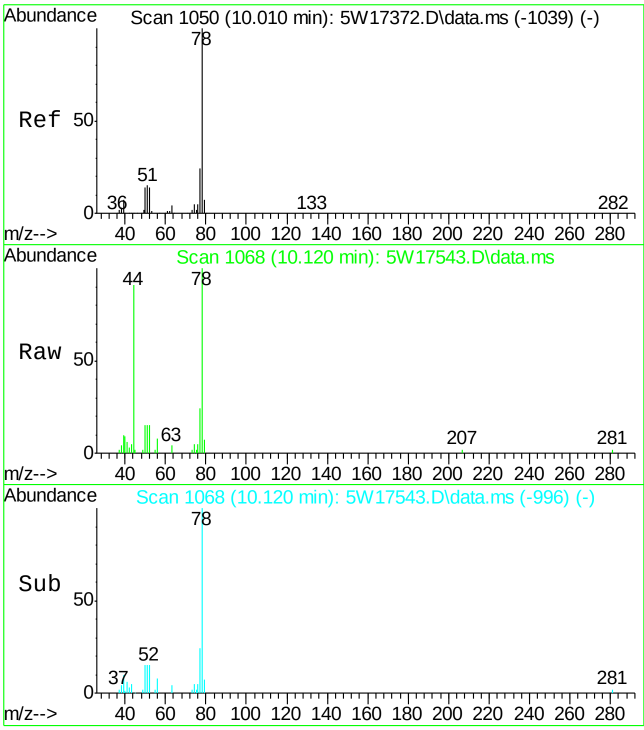


#47
1,1,1-Trichloroethane
Concen: 0.29 ppb(v)
RT: 9.607 min Scan# 984
Delta R.T. 0.128 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 97 Resp: 10796

Ion	Ratio	Lower	Upper
97	100		
99	57.1	45.3	84.1
117	14.4	10.0	18.6
119	12.9	9.4	17.6

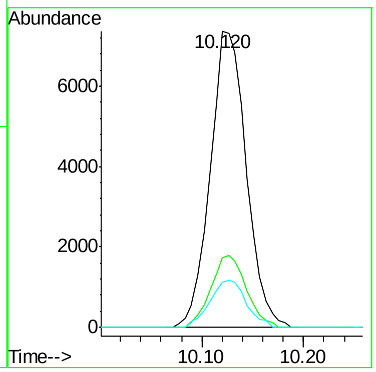


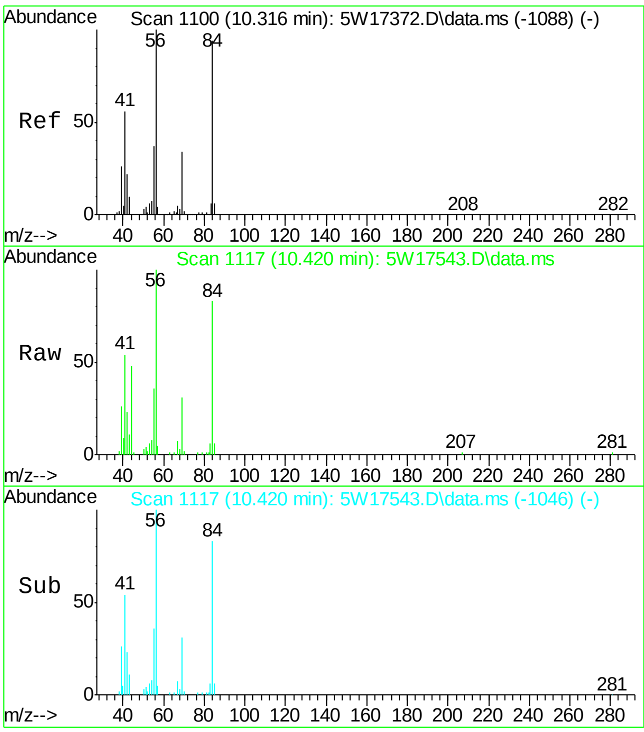


#49
Benzene
Concen: 0.37 ppb(v)
RT: 10.120 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 78 Resp: 18176

Ion	Ratio	Lower	Upper
78	100		
77	23.6	16.5	30.7
51	15.2	10.5	19.5

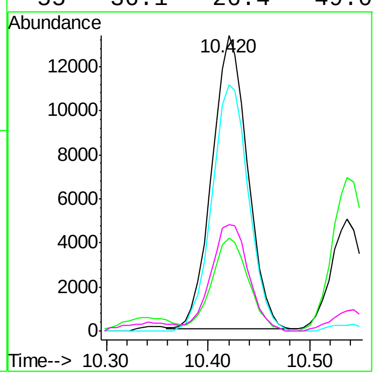


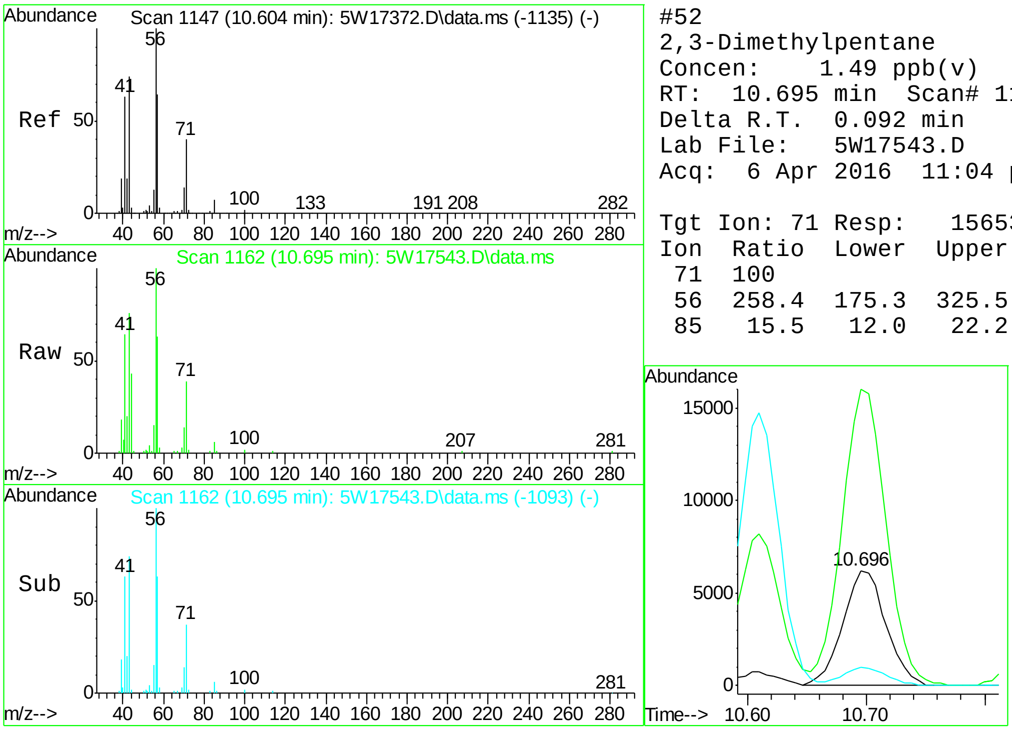


#51
Cyclohexane
Concen: 1.43 ppb(v)
RT: 10.420 min Scan# 1117
Delta R.T. 0.104 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 56 Resp: 32522

Ion	Ratio	Lower	Upper
56	100		
69	31.4	23.7	44.1
84	83.2	65.6	121.8
55	36.1	26.4	49.0

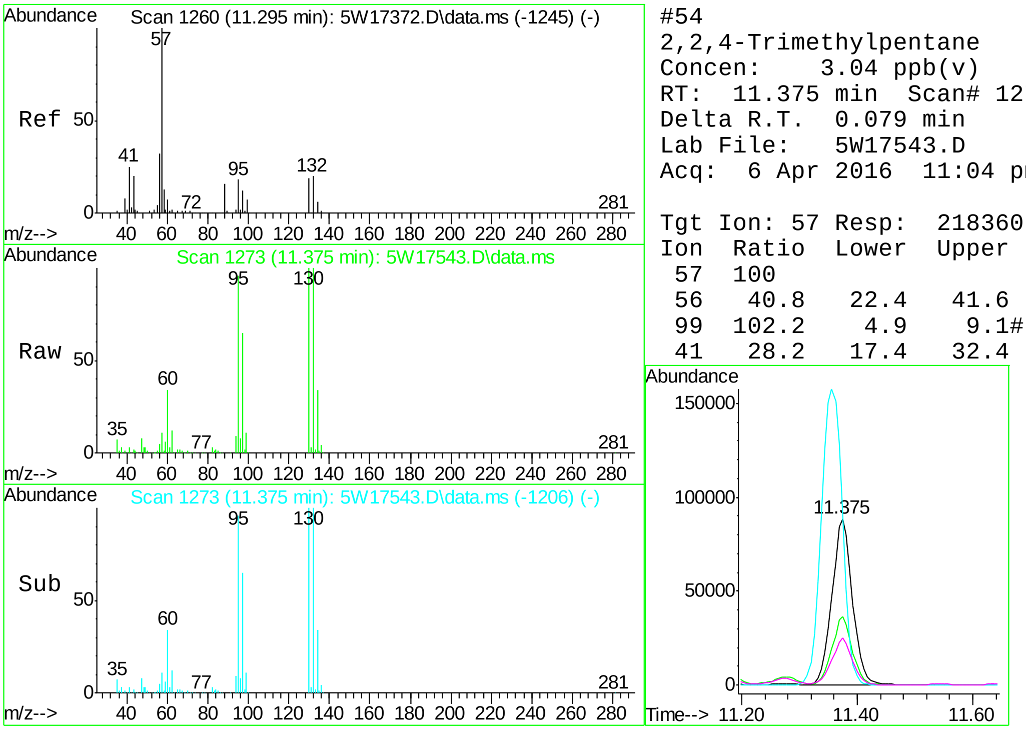




#52
2,3-Dimethylpentane
Concen: 1.49 ppb(v)
RT: 10.695 min Scan# 1162
Delta R.T. 0.092 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 71 Resp: 15653

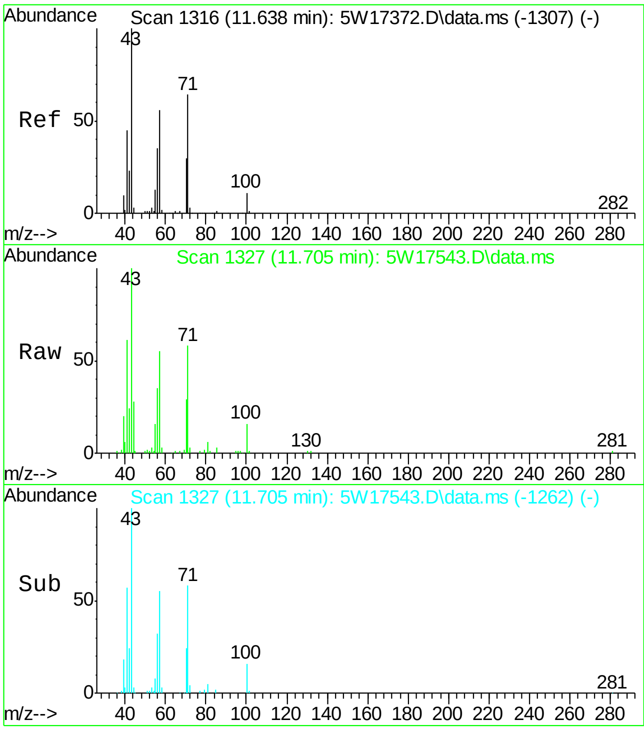
Ion	Ratio	Lower	Upper
71	100		
56	258.4	175.3	325.5
85	15.5	12.0	22.2



#54
2,2,4-Trimethylpentane
Concen: 3.04 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.079 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 57 Resp: 218360

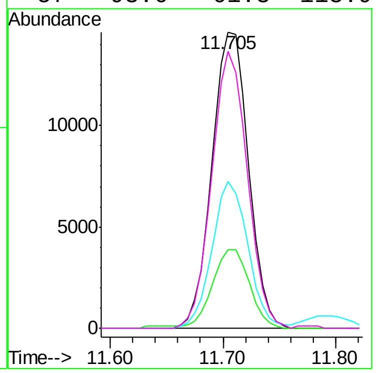
Ion	Ratio	Lower	Upper
57	100		
56	40.8	22.4	41.6
99	102.2	4.9	9.1#
41	28.2	17.4	32.4

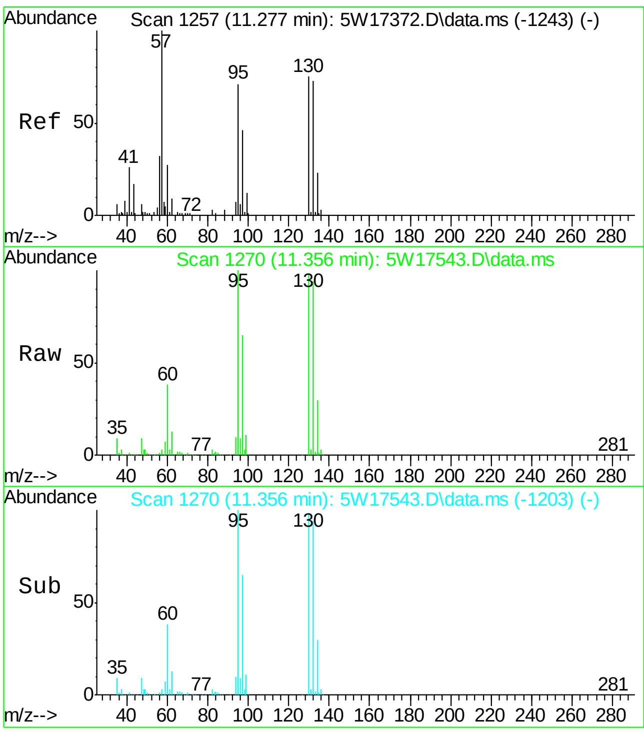


#55
Heptane
Concen: 2.13 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 71 Resp: 32842

Ion	Ratio	Lower	Upper
71	100		
100	26.7	19.6	36.4
70	49.5	34.0	63.2
57	93.6	61.3	113.9

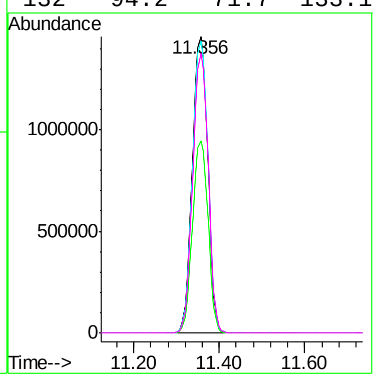


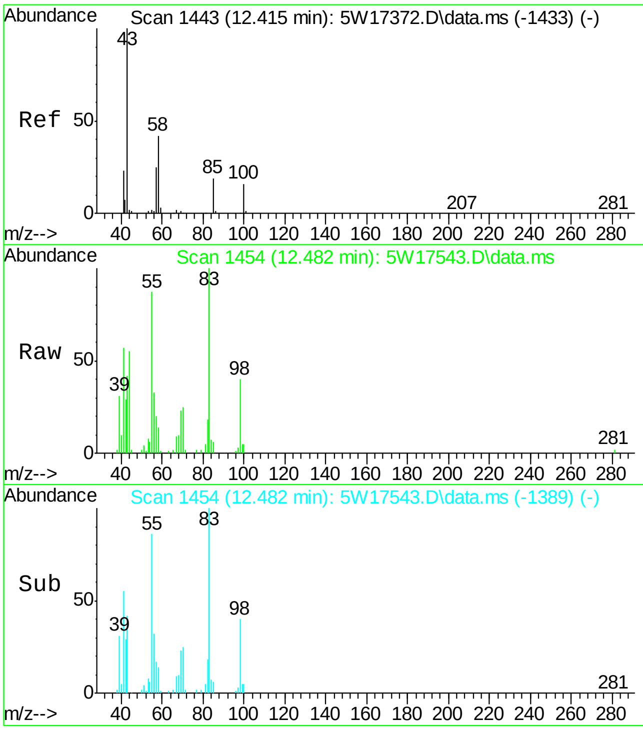


#56
Trichloroethene
Concen: 148.97 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.079 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 95 Resp: 3668998

Ion	Ratio	Lower	Upper
95	100		
97	64.8	45.4	84.4
130	98.4	74.1	137.5
132	94.2	71.7	133.1

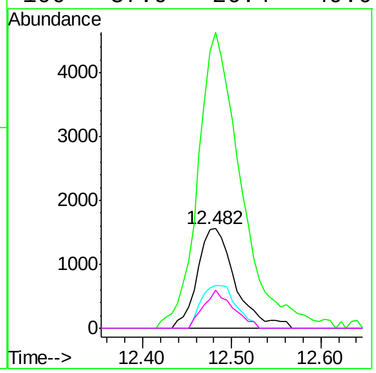


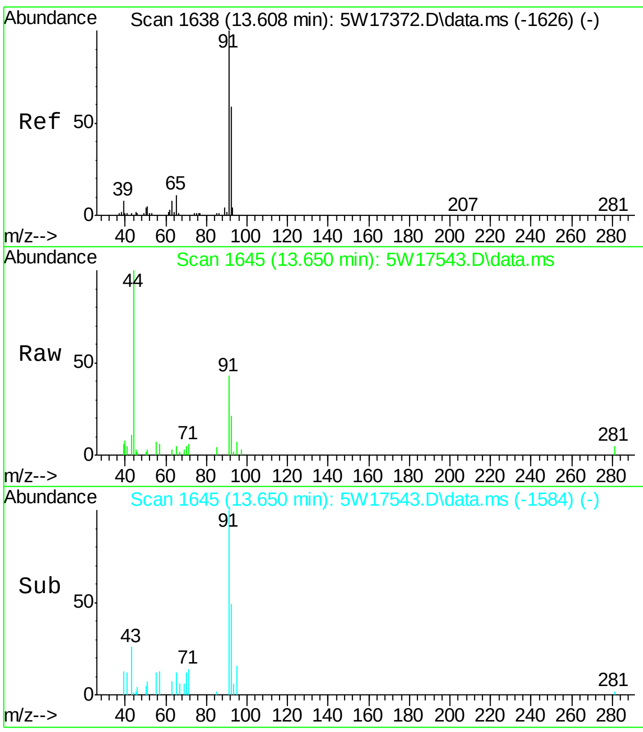


#64
4-Methyl-2-pentanone
Concen: 0.36 ppb(v)
RT: 12.482 min Scan# 1454
Delta R.T. 0.067 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 58 Resp: 4606

Ion	Ratio	Lower	Upper
58	100		
43	297.4	168.0	312.0
85	42.5	33.6	62.4
100	37.9	26.4	49.0

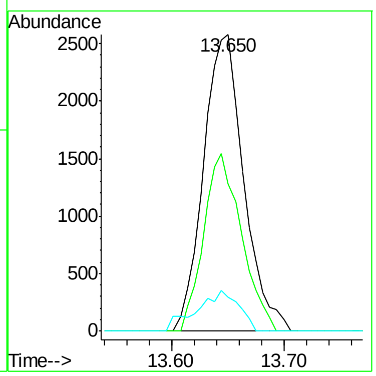


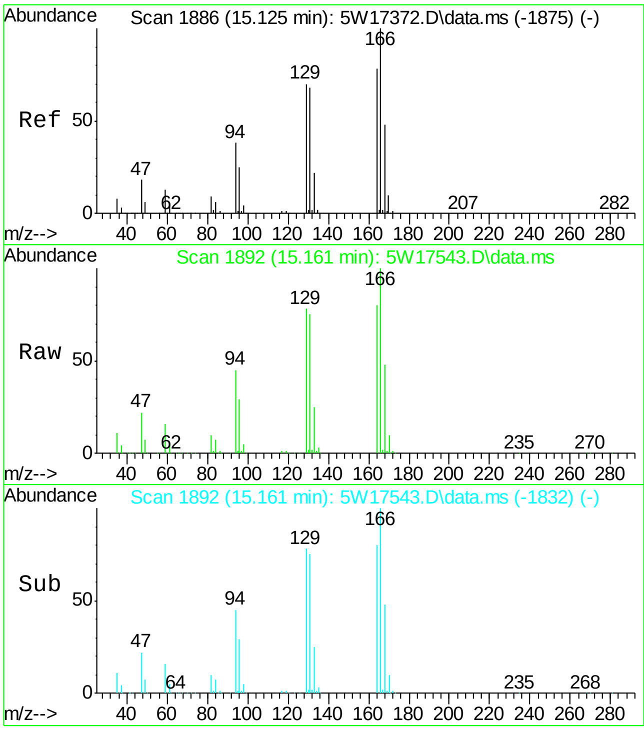


#66
Toluene
Concen: 0.10 ppb(v)
RT: 13.650 min Scan# 1645
Delta R.T. 0.043 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 91 Resp: 6378

Ion	Ratio	Lower	Upper
91	100		
92	49.5	41.2	76.6
65	11.5	7.3	13.7

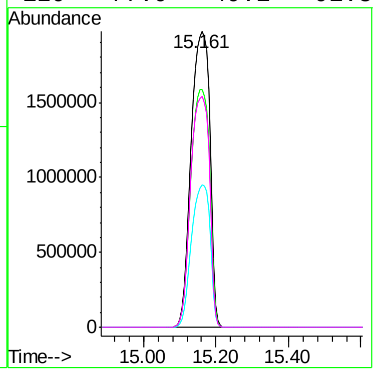


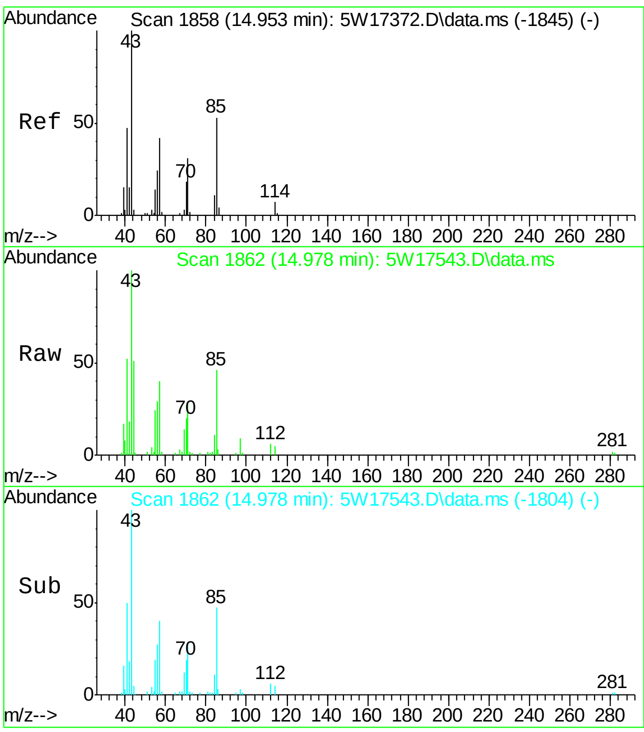


#72
Tetrachloroethene
Concen: 200.06 ppb(v)
RT: 15.161 min Scan# 1892
Delta R.T. 0.037 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion:166 Resp: 7038774

Ion	Ratio	Lower	Upper
166	100		
164	80.3	54.6	101.4
168	48.2	33.5	62.3
129	77.9	49.1	91.3

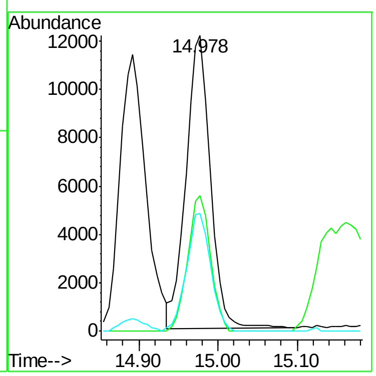


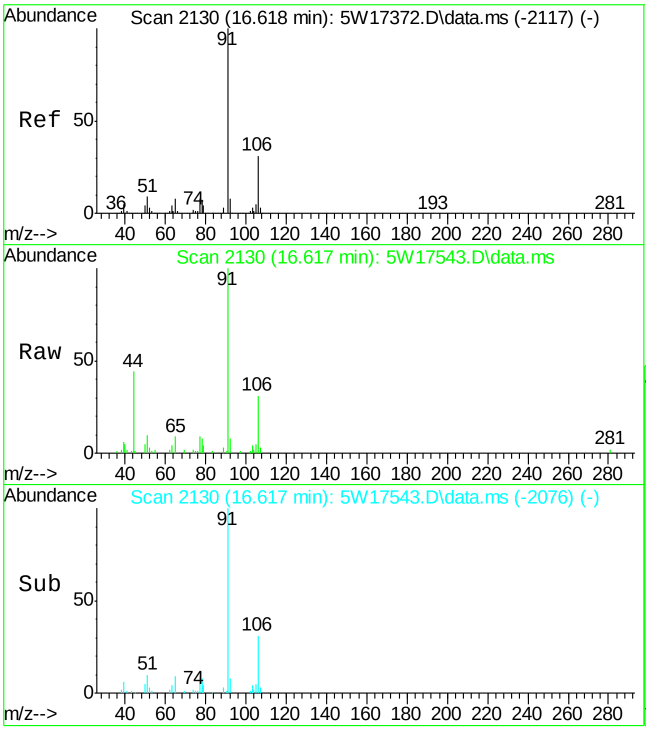


#74
Octane
Concen: 0.78 ppb(v)
RT: 14.978 min Scan# 1862
Delta R.T. 0.024 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion: 43 Resp: 25975

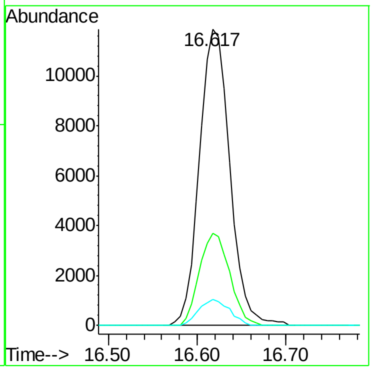
Ion	Ratio	Lower	Upper
43	100		
85	46.0	37.1	68.9
57	39.8	29.6	55.0

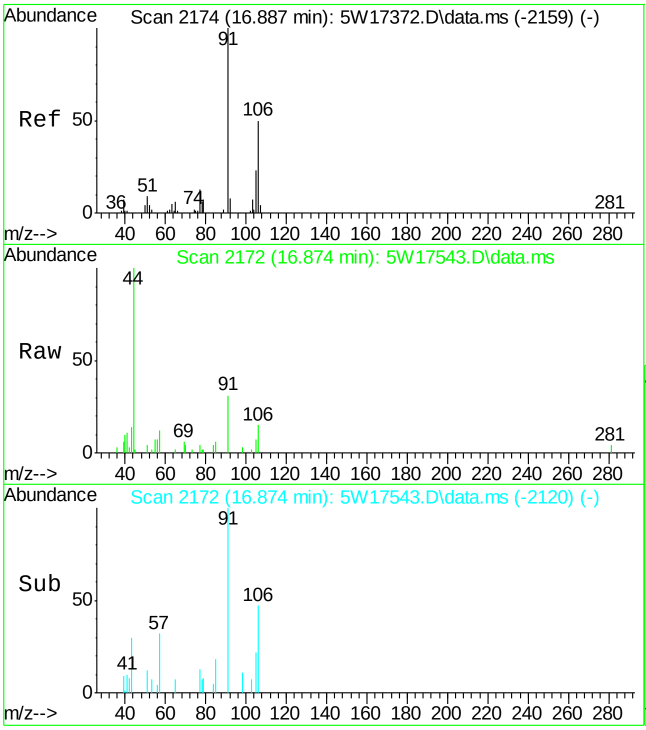




#78
Ethylbenzene
Concen: 0.32 ppb(v)
RT: 16.617 min Scan# 2130
Delta R.T. -0.000 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

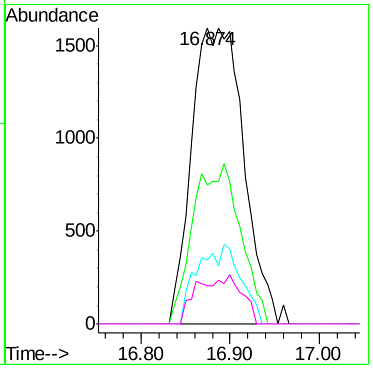
Tgt Ion: 91	Resp:	28032	
Ion	Ratio	Lower	Upper
91	100		
106	31.1	22.0	40.8
77	8.7	5.9	10.9

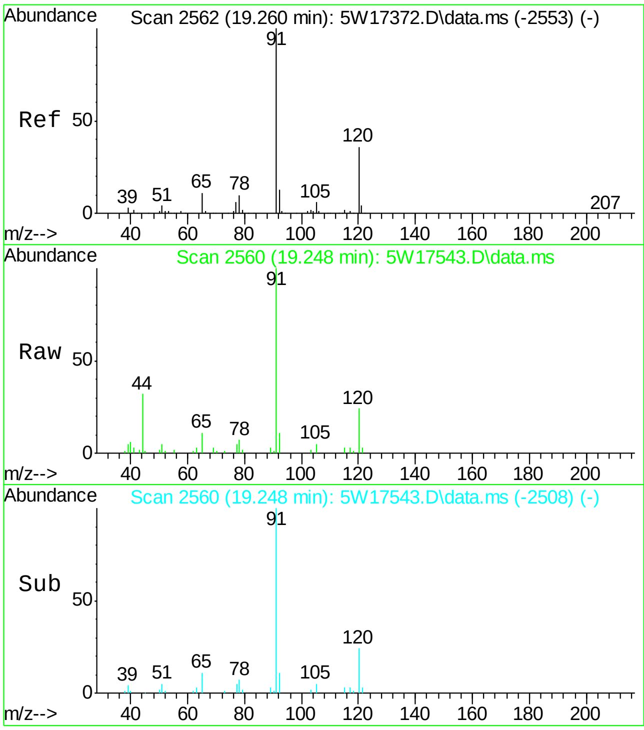




#79
m,p-Xylene
Concen: 0.10 ppb(v)
RT: 16.874 min Scan# 2172
Delta R.T. -0.012 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

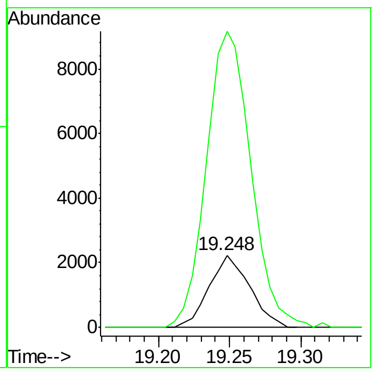
Tgt Ion: 91	Resp:	6508	
Ion	Ratio	Lower	Upper
91	100		
106	46.9	35.3	65.5
105	21.6	16.2	30.0
77	12.9	9.0	16.8





#89
n-Propylbenzene
Concen: 0.17 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17543.D
Acq: 6 Apr 2016 11:04 pm

Tgt Ion:120	Resp:	4411	
Ion	Ratio	Lower	Upper
120	100		
91	412.0	300.7	558.5



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17560.D
Acq On    :  7 Apr 2016   3:12 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS107,v5w700,40,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 08 13:47:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

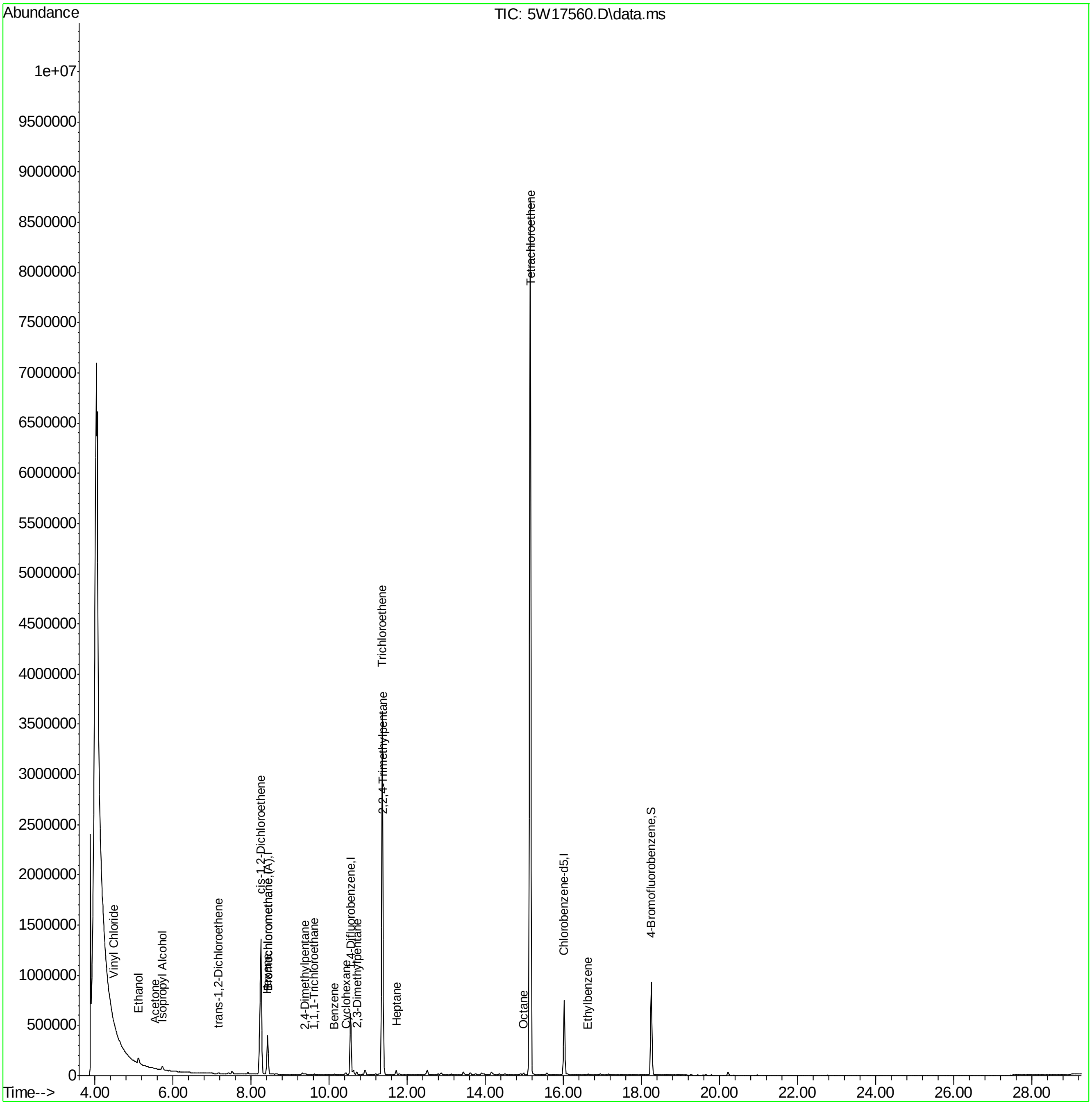
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.420	130	180184	10.00	ppb(v	0.17
53) 1,4-Difluorobenzene	10.543	114	651088	10.00	ppb(v	0.10
76) Chlorobenzene-d5	16.012	82	314995	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.420	130	180519	10.00	ppb(v	0.17
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	429998	9.97	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.70%			
Target Compounds						Qvalue
10) Vinyl Chloride	4.486	62	12935	0.94	ppb(v	98
21) Acetone	5.538	58	3694	0.53	ppb(v	98
25) Isopropyl Alcohol	5.722	43	12302	2.26	ppb(v	67
30) Ethanol	5.110	45	85038	14.29	ppb(v	98
33) trans-1,2-Dichloroethene	7.166	61	7707	0.37	ppb(v	95
39) Hexane	8.414	57	16967	0.70	ppb(v#	57
40) cis-1,2-Dichloroethene	8.248	61	1179279	57.75	ppb(v	98
45) 2,4-Dimethylpentane	9.374	57	6255	0.23	ppb(v	89
47) 1,1,1-Trichloroethane	9.613	97	4151	0.11	ppb(v	96
49) Benzene	10.133	78	6848	0.14	ppb(v	96
51) Cyclohexane	10.426	56	11715	0.51	ppb(v	96
52) 2,3-Dimethylpentane	10.708	71	5881	0.55	ppb(v	94
54) 2,2,4-Trimethylpentane	11.375	57	89442	1.23	ppb(v#	49
55) Heptane	11.717	71	11519	0.74	ppb(v	98
56) Trichloroethene	11.356	95	1546704	62.31	ppb(v	94
72) Tetrachloroethene	15.149	166	3879157	109.40	ppb(v	95
74) Octane	14.972	43	9721	0.29	ppb(v	93
78) Ethylbenzene	16.618	91	9468	0.11	ppb(v	95

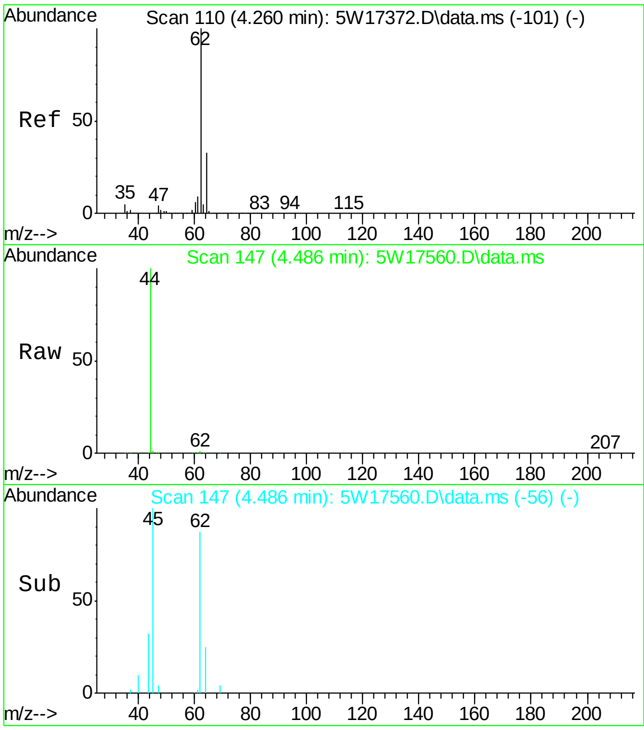
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17560.D
Acq On    :  7 Apr 2016   3:12 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS107,v5w700,40,,,,1
ALS Vial  : 8   Sample Multiplier: 1

Quant Time: Apr 08 13:47:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

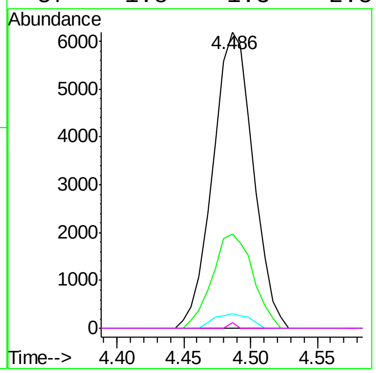


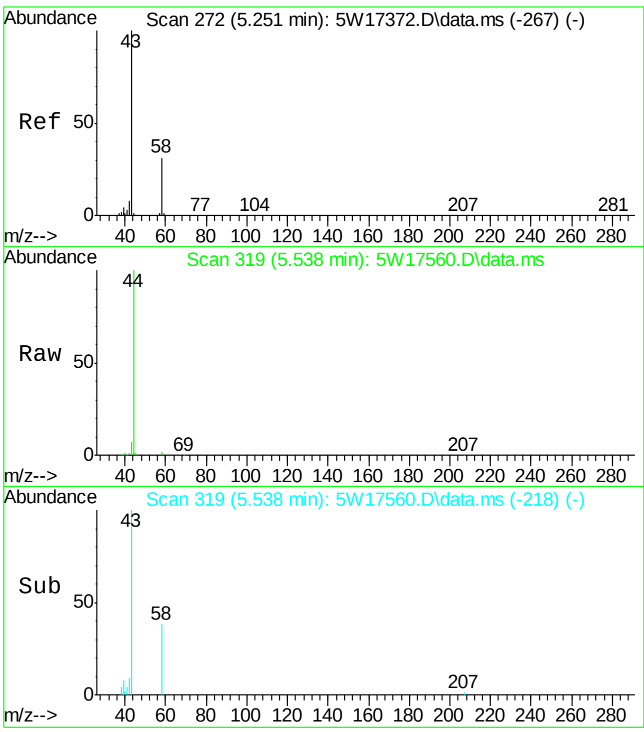


#10
Vinyl Chloride
Concen: 0.94 ppb(v)
RT: 4.486 min Scan# 147
Delta R.T. 0.226 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 62 Resp: 12935

Ion	Ratio	Lower	Upper
62	100		
64	31.9	23.0	42.8
35	4.9	3.2	6.0
37	1.8	1.3	2.3

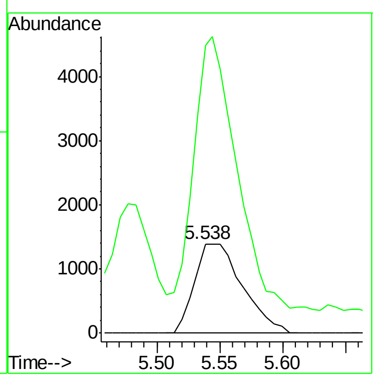


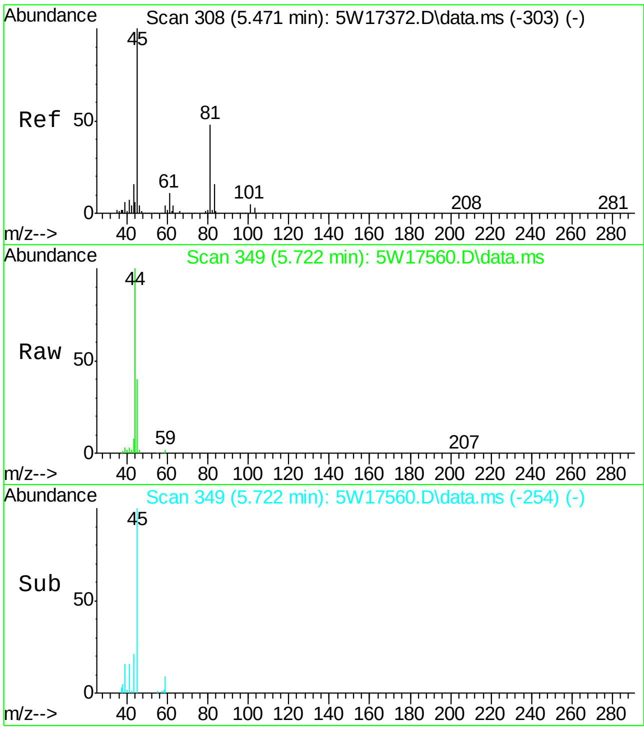


#21
Acetone
Concen: 0.53 ppb(v)
RT: 5.538 min Scan# 319
Delta R.T. 0.288 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 58 Resp: 3694

Ion	Ratio	Lower	Upper
58	100		
43	321.3	227.9	423.3

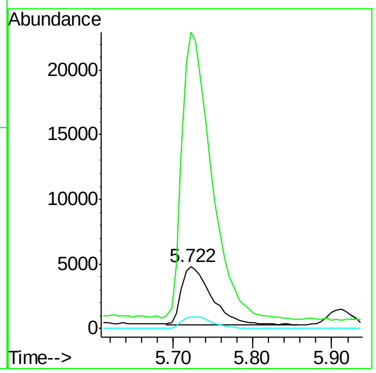


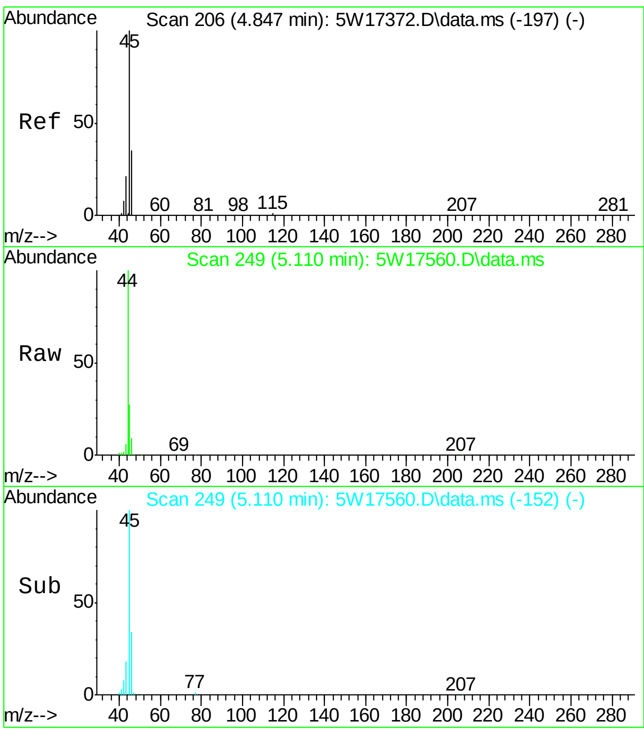


#25
Isopropyl Alcohol
Concen: 2.26 ppb(v)
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 43 Resp: 12302

Ion	Ratio	Lower	Upper
43	100		
45	479.8	409.4	760.2
59	18.0	16.8	31.2

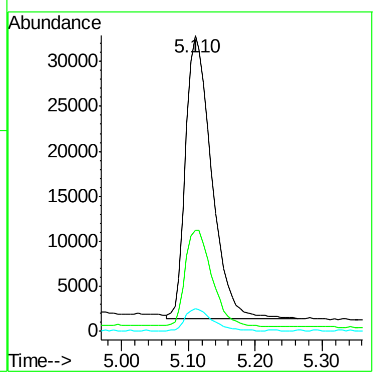


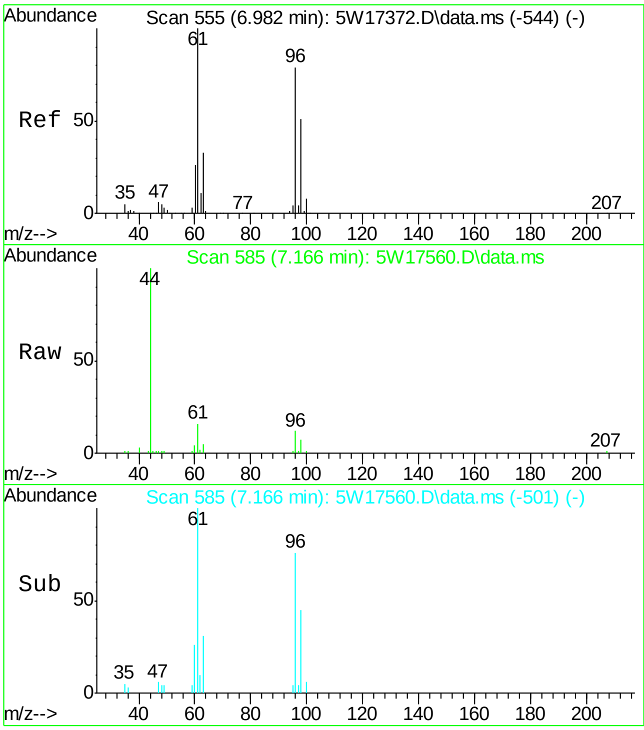


#30
Ethanol
Concen: 14.29 ppb(v)
RT: 5.110 min Scan# 249
Delta R.T. 0.263 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 45 Resp: 85038

Ion	Ratio	Lower	Upper
45	100		
46	34.2	24.6	45.8
42	7.4	6.5	12.1

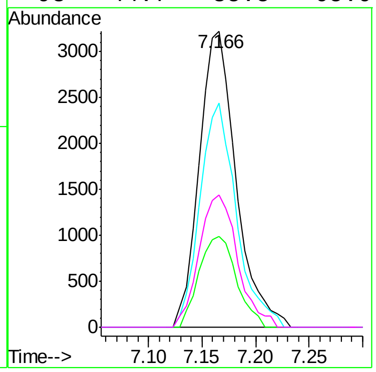


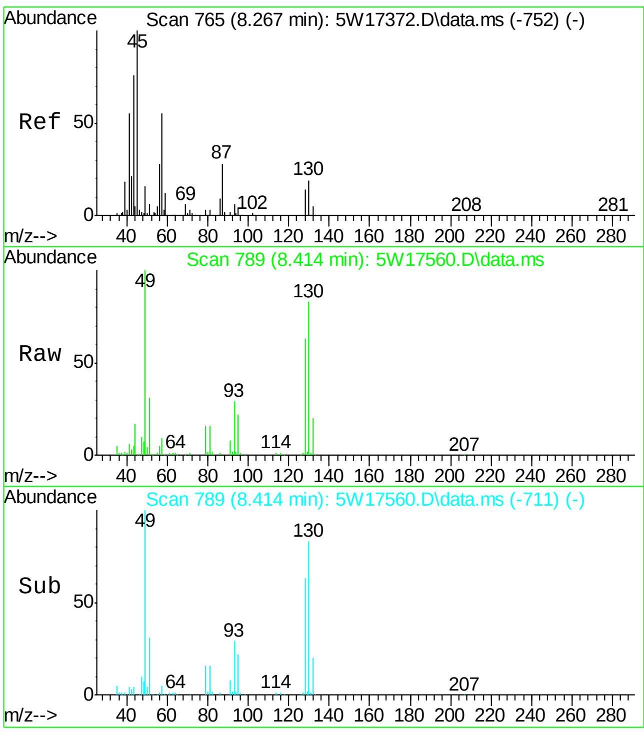


#33
trans-1,2-Dichloroethene
Concen: 0.37 ppb(v)
RT: 7.166 min Scan# 585
Delta R.T. 0.184 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 61 Resp: 7707

Ion	Ratio	Lower	Upper
61	100		
63	30.5	22.7	42.3
96	75.6	55.1	102.3
98	44.7	35.5	65.9

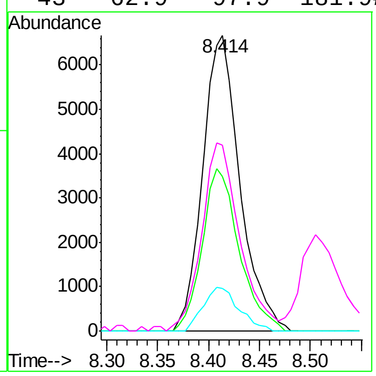


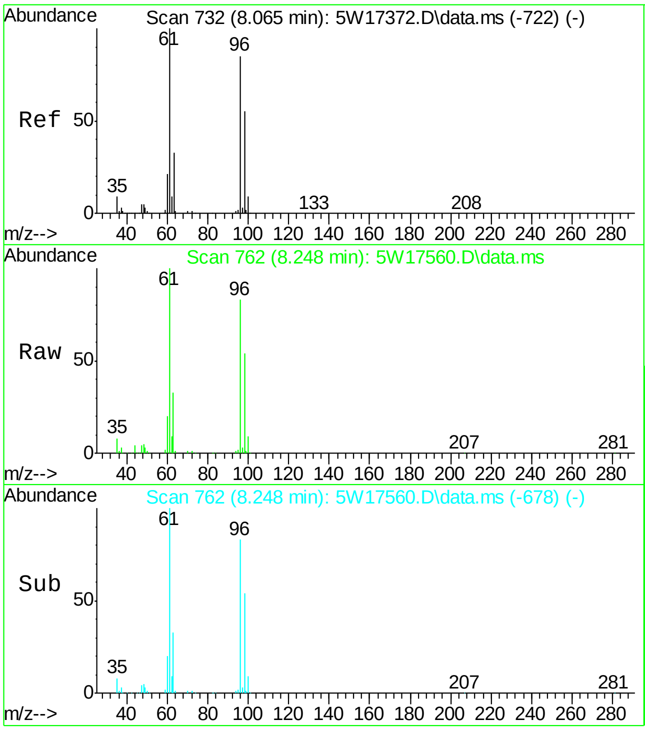


#39
Hexane
Concen: 0.70 ppb(v)
RT: 8.414 min Scan# 789
Delta R.T. 0.147 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 57 Resp: 16967

Ion	Ratio	Lower	Upper
57	100		
56	52.4	36.5	67.9
86	14.5	11.1	20.7
43	62.9	97.9	181.9#

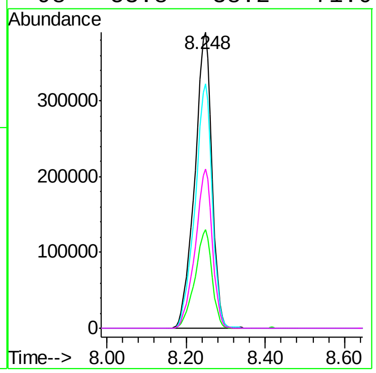


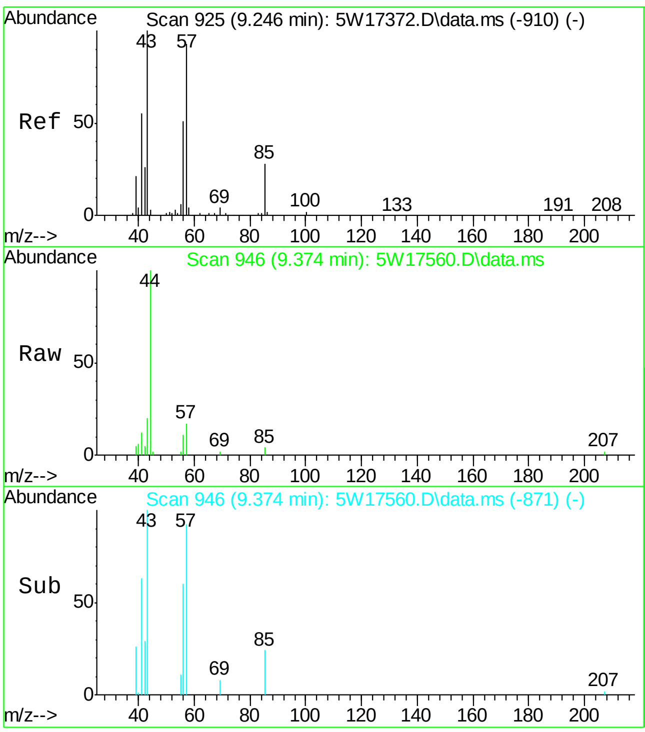


#40
cis-1,2-Dichloroethene
Concen: 57.75 ppb(v)
RT: 8.248 min Scan# 762
Delta R.T. 0.184 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 61 Resp: 1179279

Ion	Ratio	Lower	Upper
61	100		
63	33.3	23.0	42.8
96	82.7	59.3	110.1
98	53.8	38.2	71.0

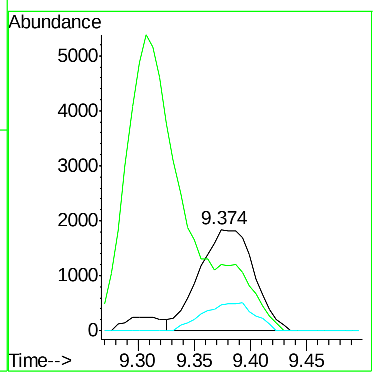


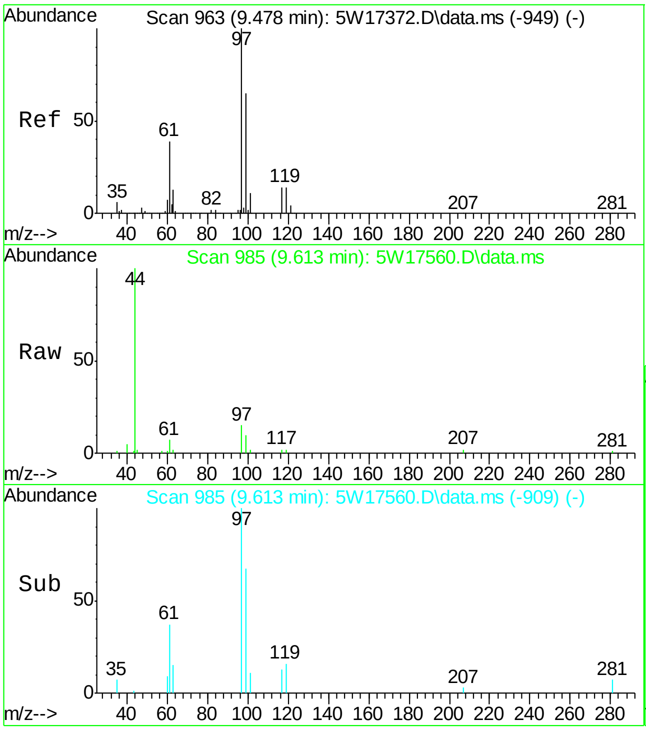


#45
2,4-Dimethylpentane
Concen: 0.23 ppb(v)
RT: 9.374 min Scan# 946
Delta R.T. 0.128 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 57 Resp: 6255

Ion	Ratio	Lower	Upper
57	100		
56	65.1	38.9	72.2
85	25.9	21.0	39.0

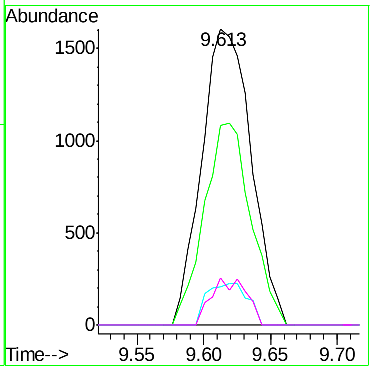


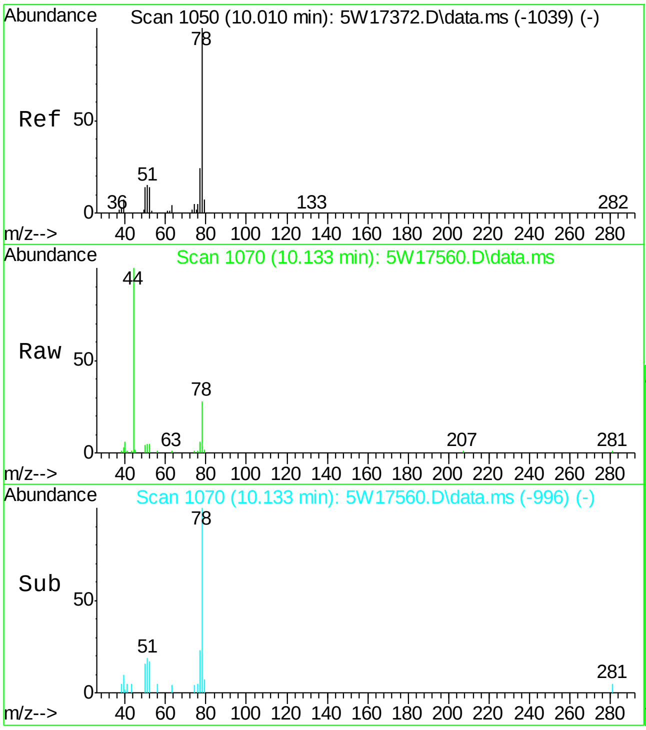


#47
1,1,1-Trichloroethane
Concen: 0.11 ppb(v)
RT: 9.613 min Scan# 985
Delta R.T. 0.135 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 97 Resp: 4151

Ion	Ratio	Lower	Upper
97	100		
99	67.4	45.3	84.1
117	13.1	10.0	18.6
119	16.1	9.4	17.6

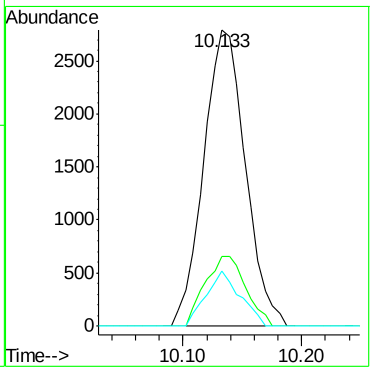


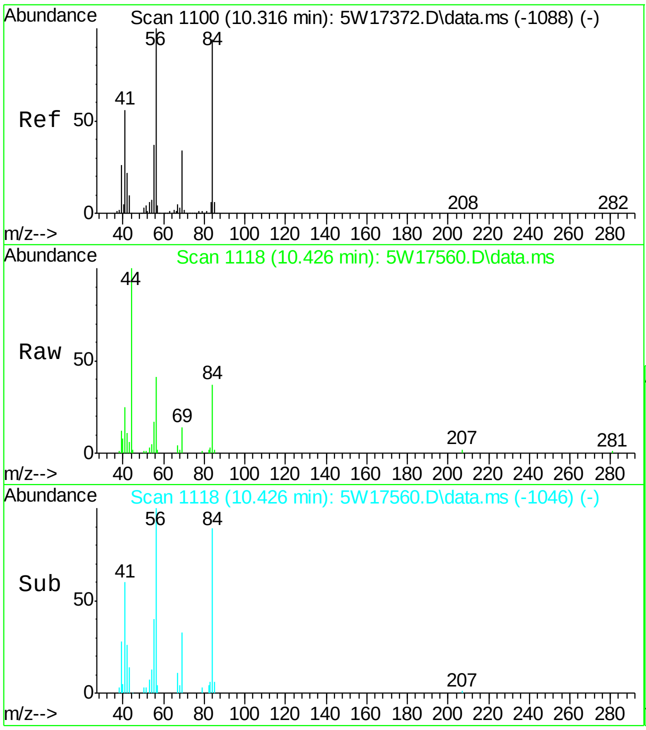


#49
Benzene
Concen: 0.14 ppb(v)
RT: 10.133 min Scan# 1070
Delta R.T. 0.122 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 78 Resp: 6848

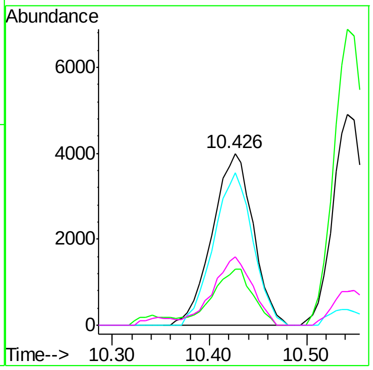
Ion	Ratio	Lower	Upper
78	100		
77	23.4	16.5	30.7
51	18.8	10.5	19.5

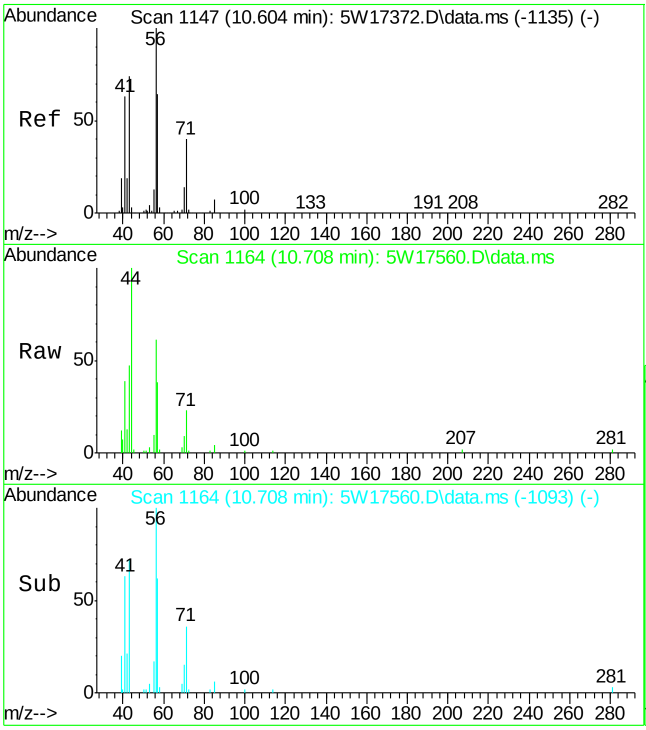




#51
Cyclohexane
Concen: 0.51 ppb(v)
RT: 10.426 min Scan# 1118
Delta R.T. 0.110 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

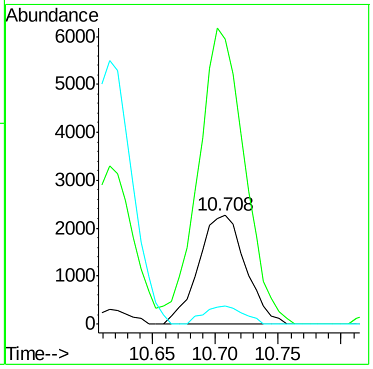
Tgt Ion: 56	Resp:	11715	
Ion	Ratio	Lower	Upper
56	100		
69	32.9	23.7	44.1
84	88.7	65.6	121.8
55	40.1	26.4	49.0

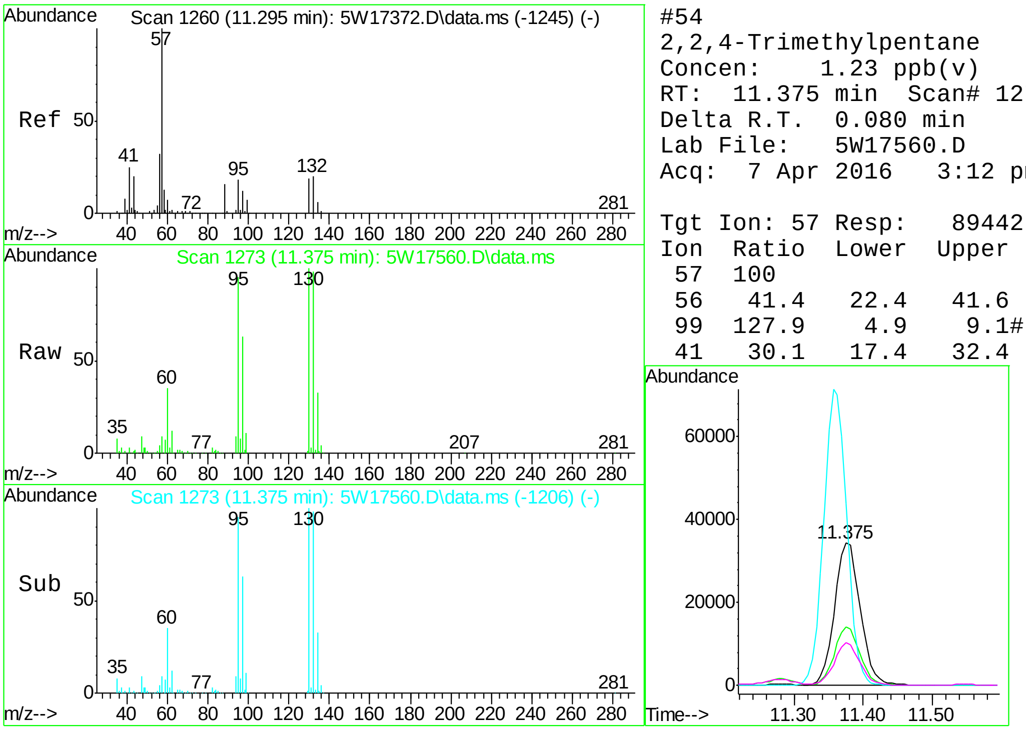




#52
2,3-Dimethylpentane
Concen: 0.55 ppb(v)
RT: 10.708 min Scan# 1164
Delta R.T. 0.104 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 71	Resp:	5881	
Ion	Ratio	Lower	Upper
71	100		
56	262.0	175.3	325.5
85	16.5	12.0	22.2

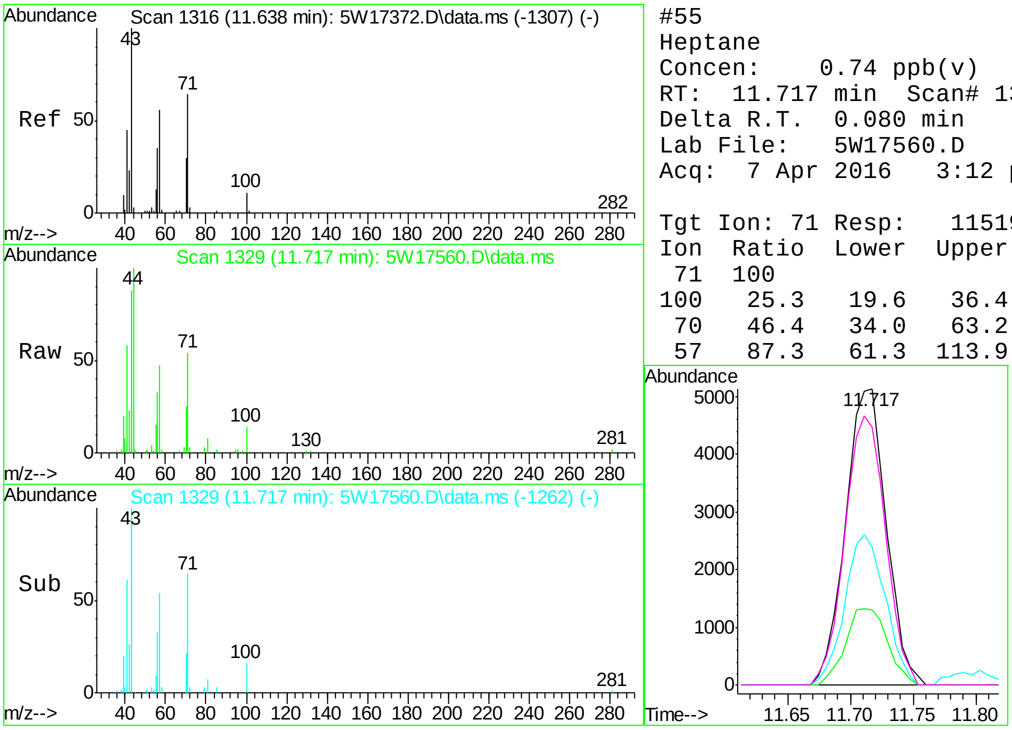




#54
2,2,4-Trimethylpentane
Concen: 1.23 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.080 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 57 Resp: 89442

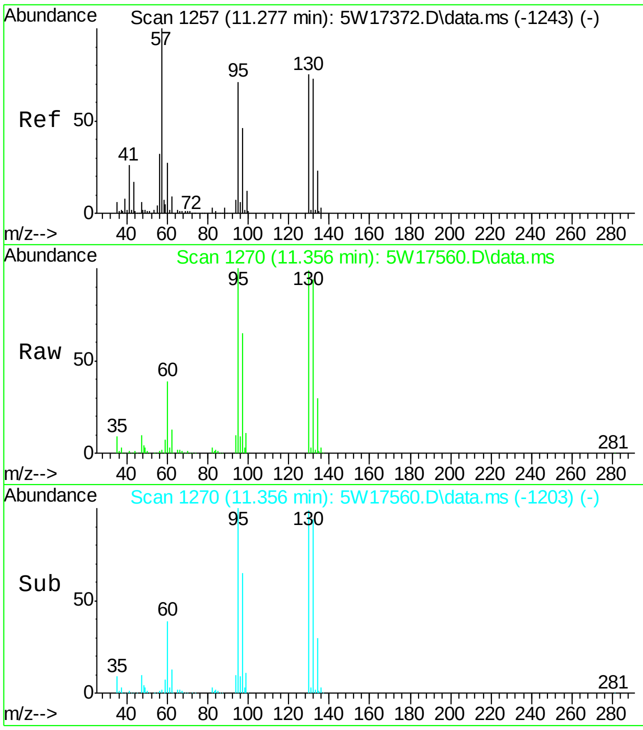
Ion	Ratio	Lower	Upper
57	100		
56	41.4	22.4	41.6
99	127.9	4.9	9.1#
41	30.1	17.4	32.4



#55
Heptane
Concen: 0.74 ppb(v)
RT: 11.717 min Scan# 1329
Delta R.T. 0.080 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 71 Resp: 11519

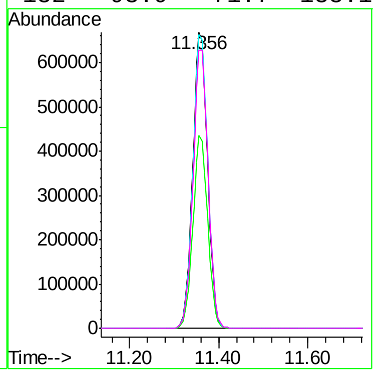
Ion	Ratio	Lower	Upper
71	100		
100	25.3	19.6	36.4
70	46.4	34.0	63.2
57	87.3	61.3	113.9

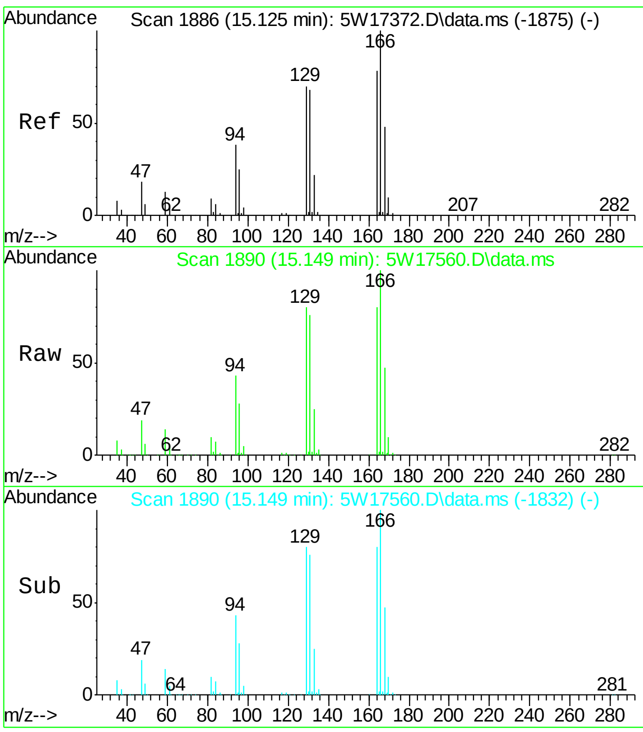


#56
Trichloroethene
Concen: 62.31 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.080 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 95 Resp: 1546704

Ion	Ratio	Lower	Upper
95	100		
97	65.1	45.4	84.4
130	99.1	74.1	137.5
132	93.9	71.7	133.1

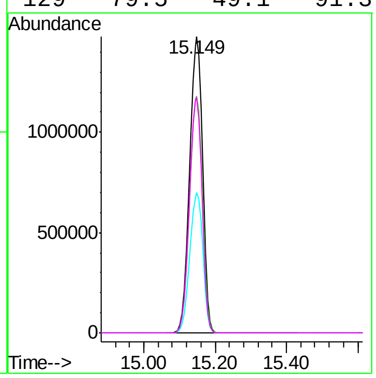


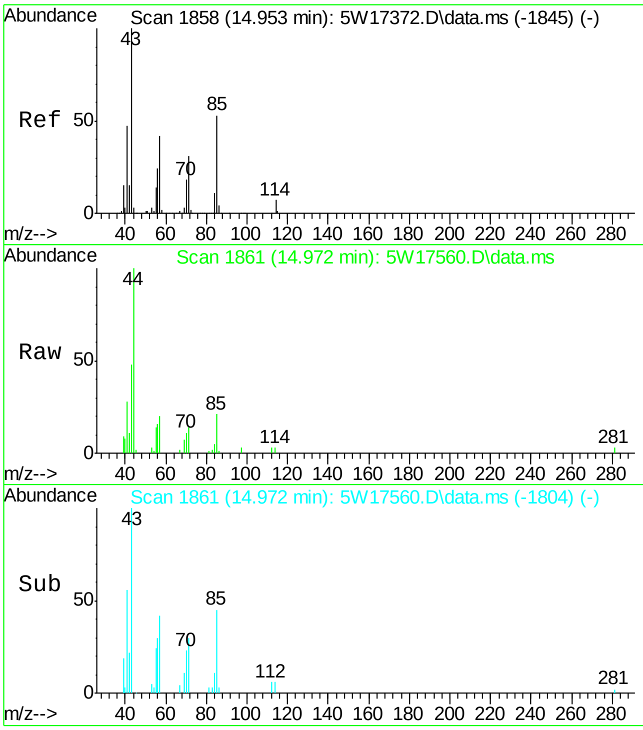


#72
Tetrachloroethene
Concen: 109.40 ppb(v)
RT: 15.149 min Scan# 1890
Delta R.T. 0.024 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion:166 Resp: 3879157

Ion	Ratio	Lower	Upper
166	100		
164	80.0	54.6	101.4
168	47.5	33.5	62.3
129	79.5	49.1	91.3

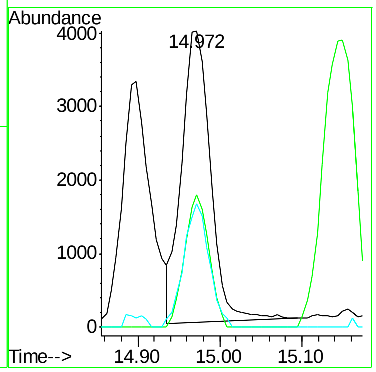


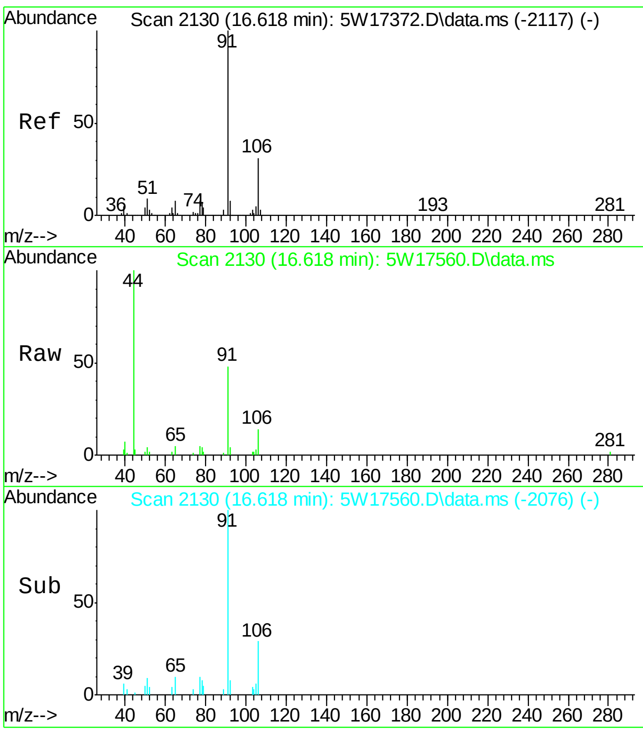


#74
Octane
Concen: 0.29 ppb(v)
RT: 14.972 min Scan# 1861
Delta R.T. 0.018 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 43 Resp: 9721

Ion	Ratio	Lower	Upper
43	100		
85	44.6	37.1	68.9
57	41.7	29.6	55.0

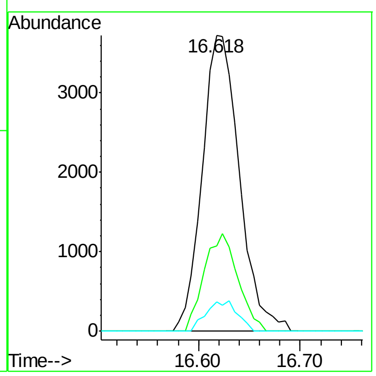




#78
Ethylbenzene
Concen: 0.11 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17560.D
Acq: 7 Apr 2016 3:12 pm

Tgt Ion: 91 Resp: 9468

Ion	Ratio	Lower	Upper
91	100		
106	28.8	22.0	40.8
77	10.0	5.9	10.9



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17589.D
Acq On    :  8 Apr 2016   1:54 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS676,v5w701,15,,,,2.07
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Apr 08 14:55:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

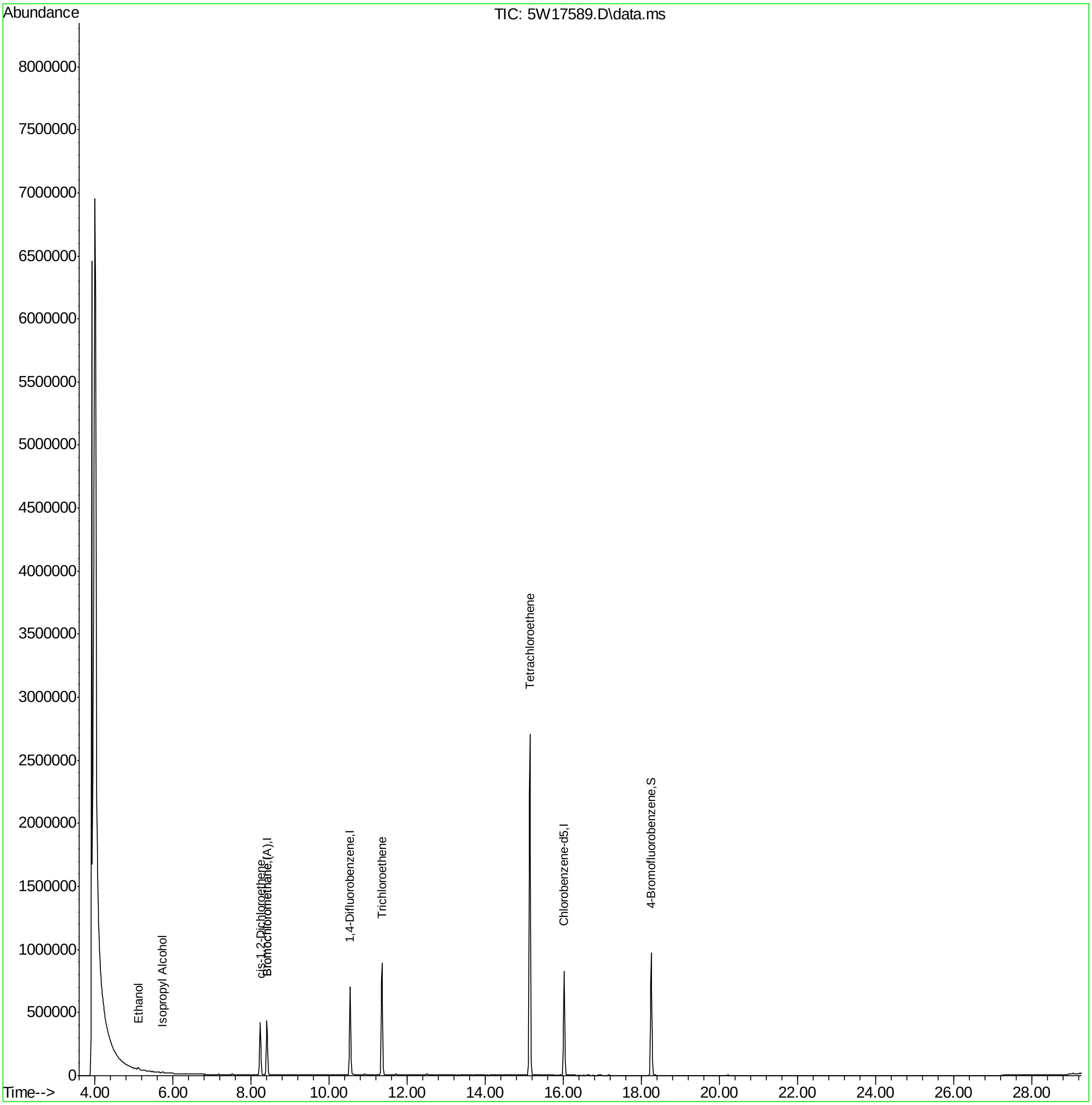
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.401	130	201402	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	743827	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	345216	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.401	130	202062	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	451638	9.55	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.50%			
Target Compounds						Qvalue
25) Isopropyl Alcohol	5.722	43	3309	0.54	ppb(v	53
30) Ethanol	5.104	45	21440	3.22	ppb(v	98
40) cis-1,2-Dichloroethene	8.230	61	290113	12.71	ppb(v	99
56) Trichloroethene	11.350	95	377933	13.33	ppb(v	97
72) Tetrachloroethene	15.137	166	1123316	27.73	ppb(v	98

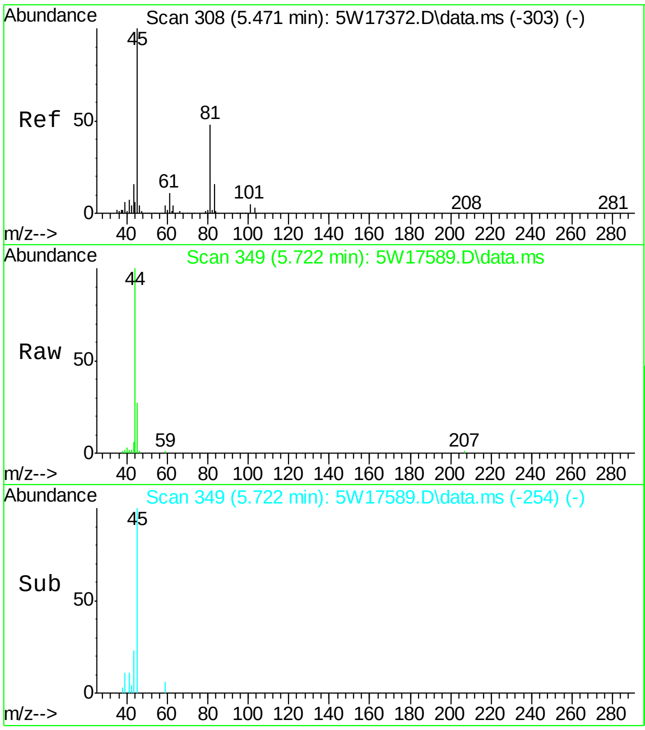
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17589.D
Acq On    :  8 Apr 2016   1:54 pm
Operator  : THOMASH
Sample    : JC17438-10
Misc      : MS676,v5w701,15,,,,2.07
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Apr 08 14:55:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

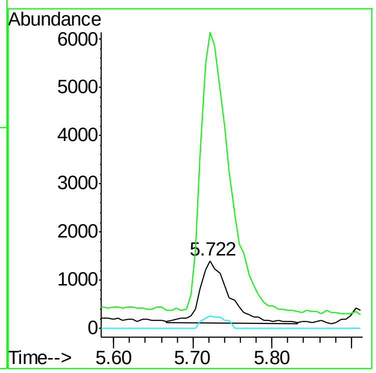


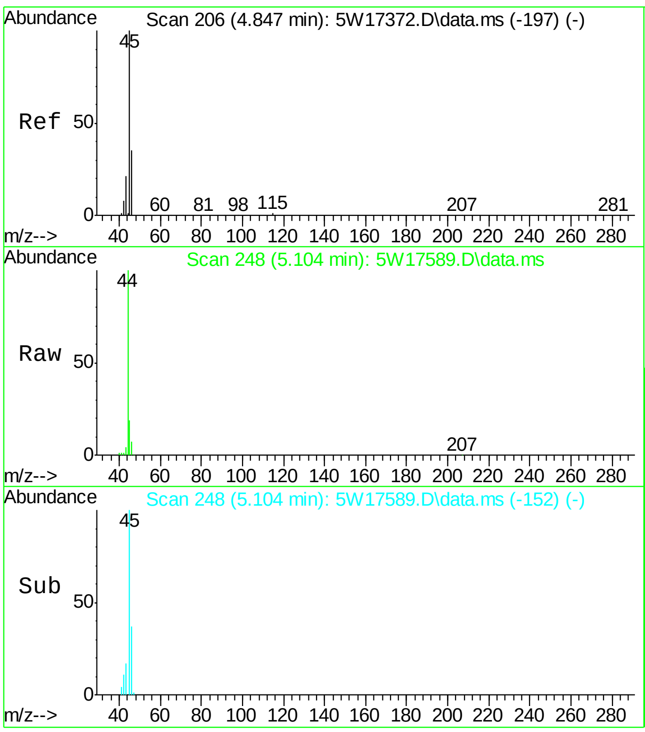


#25
Isopropyl Alcohol
Concen: 0.54 ppb(v)
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17589.D
Acq: 8 Apr 2016 1:54 pm

Tgt Ion: 43 Resp: 3309

Ion	Ratio	Lower	Upper
43	100		
45	436.2	409.4	760.2
59	17.8	16.8	31.2

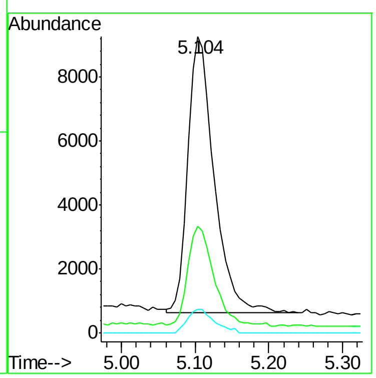


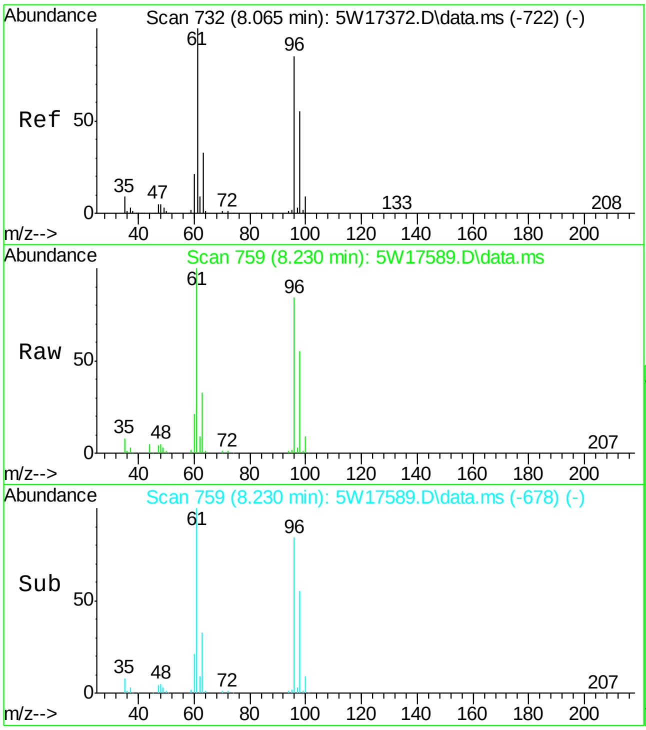


#30
Ethanol
Concen: 3.22 ppb(v)
RT: 5.104 min Scan# 248
Delta R.T. 0.257 min
Lab File: 5W17589.D
Acq: 8 Apr 2016 1:54 pm

Tgt Ion: 45 Resp: 21440

Ion	Ratio	Lower	Upper
45	100		
46	36.0	24.6	45.8
42	7.9	6.5	12.1

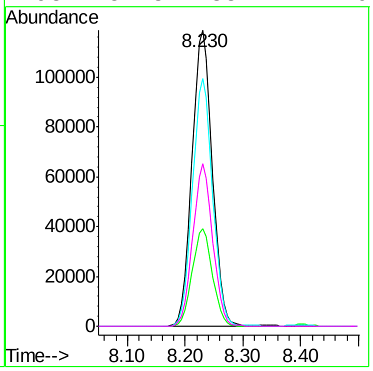


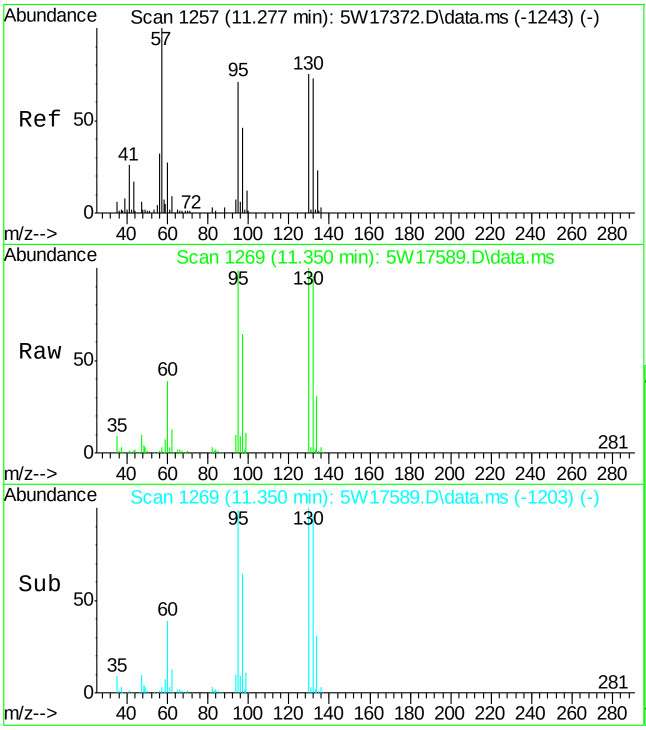


#40
cis-1,2-Dichloroethene
Concen: 12.71 ppb(v)
RT: 8.230 min Scan# 759
Delta R.T. 0.165 min
Lab File: 5W17589.D
Acq: 8 Apr 2016 1:54 pm

Tgt Ion: 61 Resp: 290113

Ion	Ratio	Lower	Upper
61	100		
63	33.1	23.0	42.8
96	83.9	59.3	110.1
98	54.8	38.2	71.0

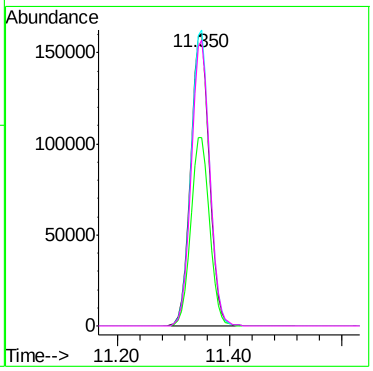


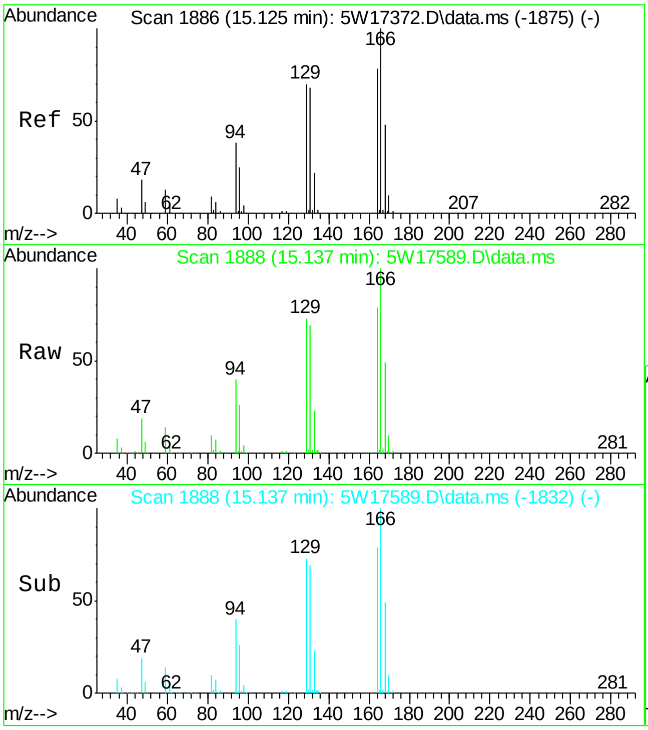


#56
Trichloroethene
Concen: 13.33 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.073 min
Lab File: 5W17589.D
Acq: 8 Apr 2016 1:54 pm

Tgt Ion: 95 Resp: 377933

Ion	Ratio	Lower	Upper
95	100		
97	64.7	45.4	84.4
130	101.3	74.1	137.5
132	97.7	71.7	133.1

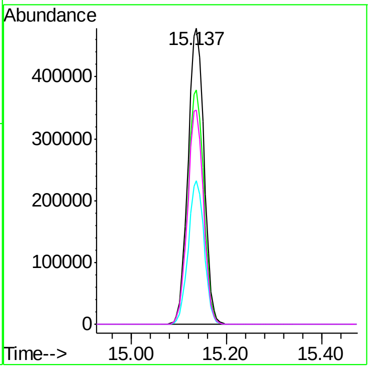




#72
Tetrachloroethene
Concen: 27.73 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17589.D
Acq: 8 Apr 2016 1:54 pm

Tgt Ion:166 Resp: 1123316

Ion	Ratio	Lower	Upper
166	100		
164	79.3	54.6	101.4
168	48.6	33.5	62.3
129	72.5	49.1	91.3



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 16:02

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17544.D
Acq On    :  6 Apr 2016  11:52 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 08 10:28:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.414	130	195033	10.00 ppb(v	0.17
53) 1,4-Difluorobenzene	10.543	114	717134	10.00 ppb(v	0.10
76) Chlorobenzene-d5	16.018	82	348808	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.414	130	195033	10.00 ppb(v	0.17
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	494738	10.36 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery =	103.60%	
Target Compounds					Qvalue
6) Dichlorodifluoromethane	4.168	85	30005	0.67 ppb(v	98
8) Chloromethane	4.303	50	6541	0.47 ppb(v	94
12) n-Butane	4.645	58	7664m	3.05 ppb(v	
20) Trichlorofluoromethane	5.618	101	20686	0.44 ppb(v	100
21) Acetone	5.520	58	67756	8.94 ppb(v	95
22) Pentane	5.912	57	7924	2.10 ppb(v	97
25) Isopropyl Alcohol	5.710	43	474877	80.72 ppb(v	92
26) 1,1-Dichloroethene	6.175	61	10112	0.39 ppb(v	97
27) Freon 113	6.517	101	4002	0.10 ppb(v	94
28) Methylene Chloride	6.285	84	3084	0.19 ppb(v#	89
30) Ethanol	5.110	45	1838285	285.38 ppb(v	98
33) trans-1,2-Dichloroethene	7.166	61	4883	0.22 ppb(v	95
38) 2-Butanone	7.802	72	13745	1.85 ppb(v	93
39) Hexane	8.438	57	199426	7.62 ppb(v#	56
40) cis-1,2-Dichloroethene	8.242	61	244814	11.08 ppb(v	98
42) Ethyl Acetate	8.487	61	13235	2.57 ppb(v	88
44) Chloroform	8.548	83	1861223	46.84 ppb(v	98
45) 2,4-Dimethylpentane	9.386	57	122560	4.11 ppb(v	98
46) Tetrahydrofuran	9.026	72	1227	0.17 ppb(v#	69
47) 1,1,1-Trichloroethane	9.613	97	20365	0.49 ppb(v	98
49) Benzene	10.133	78	23518	0.44 ppb(v	98
50) Carbon Tetrachloride	10.292	117	4113	0.10 ppb(v	98
51) Cyclohexane	10.427	56	130038	5.22 ppb(v	95
52) 2,3-Dimethylpentane	10.702	71	100964	8.77 ppb(v	98
54) 2,2,4-Trimethylpentane	11.381	57	1578420	19.77 ppb(v#	90
55) Heptane	11.711	71	165845	9.71 ppb(v	98
56) Trichloroethene	11.363	95	4916387	179.82 ppb(v	96
60) Methyl Methacrylate	11.632	69	15678	0.81 ppb(v	92
64) 4-Methyl-2-pentanone	12.476	58	6685	0.47 ppb(v#	61
66) Toluene	13.644	91	44006	0.64 ppb(v	98
72) Tetrachloroethene	15.168	166	7471195	191.29 ppb(v	95
74) Octane	14.978	43	142020	3.86 ppb(v	96
78) Ethylbenzene	16.618	91	126975	1.39 ppb(v	99
79) m,p-Xylene	16.868	91	40497	0.59 ppb(v	98
81) Nonane	17.933	43	14336	0.38 ppb(v	95
82) o-Xylene	17.560	91	14576	0.20 ppb(v#	97
86) Isopropylbenzene	18.465	105	33255	0.33 ppb(v	99
89) n-Propylbenzene	19.248	120	20057	0.76 ppb(v	87
91) 4-Ethyltoluene	19.468	105	11784	0.12 ppb(v	98

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17544.D
Acq On    :  6 Apr 2016  11:52 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 08 10:28:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

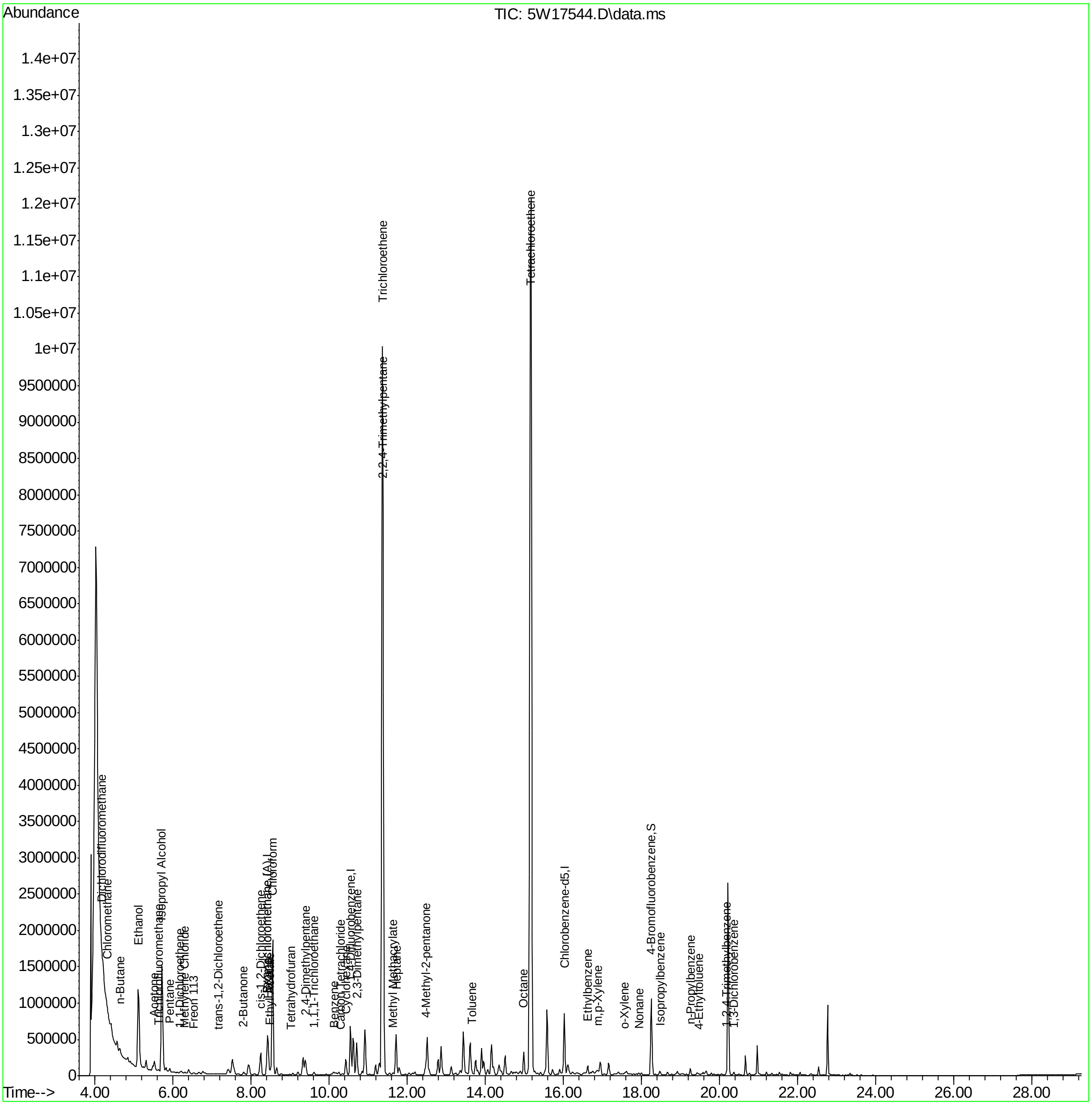
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	1,2,4-Trimethylbenzene	20.172	105	22316m	0.27	ppb(v	
96)	1,3-Dichlorobenzene	20.362	146	9623	0.16	ppb(v	99

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

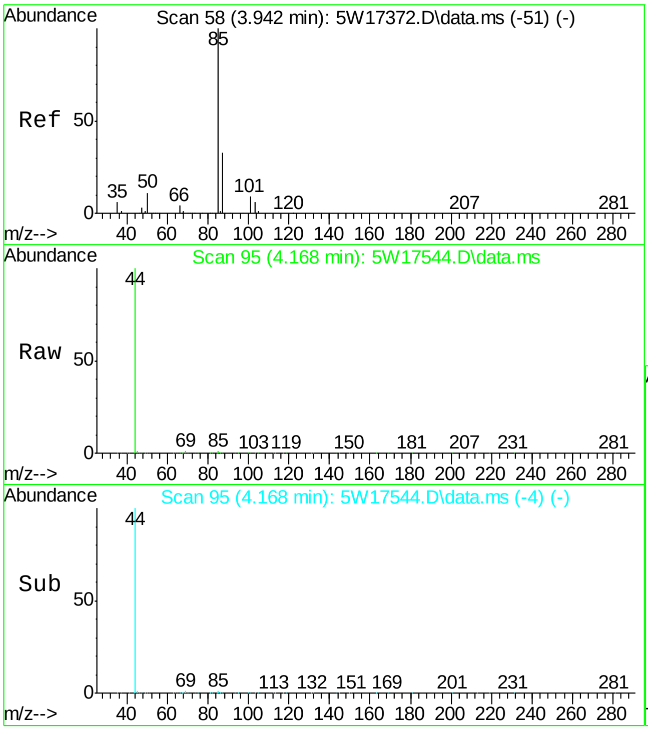
Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17544.D
Acq On    :  6 Apr 2016  11:52 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 08 10:28:52 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



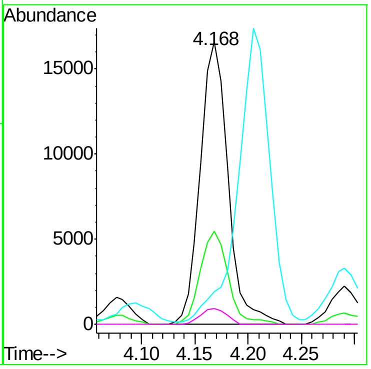

```
m5w693.M Fri Apr 08 10:28:57 2016 GCMS5W                    Page: 3
```

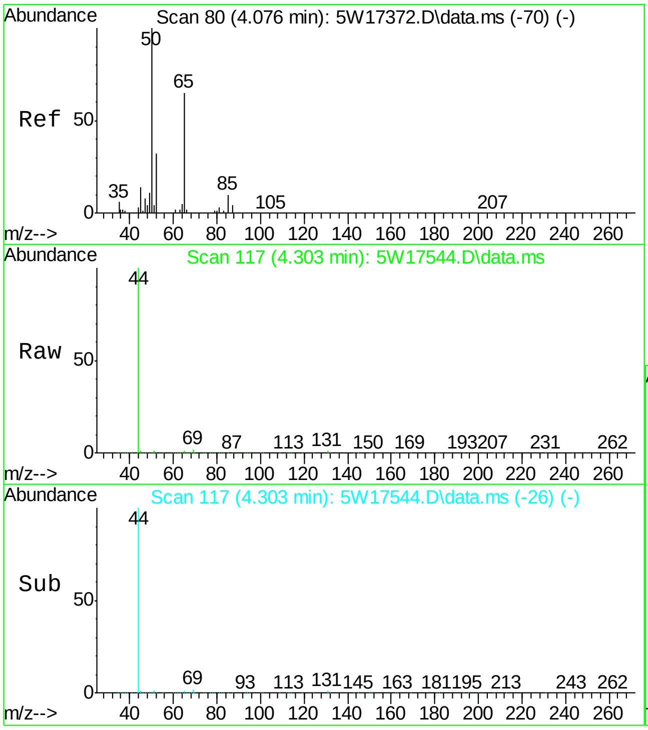


#6
Dichlorodifluoromethane
Concen: 0.67 ppb(v)
RT: 4.168 min Scan# 95
Delta R.T. 0.226 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 85 Resp: 30005

Ion	Ratio	Lower	Upper
85	100		
87	32.9	22.7	42.3
101	11.5	6.6	12.2
103	5.7	4.3	7.9

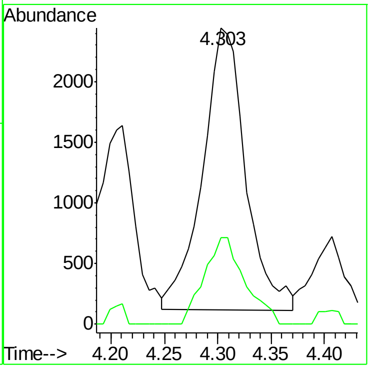


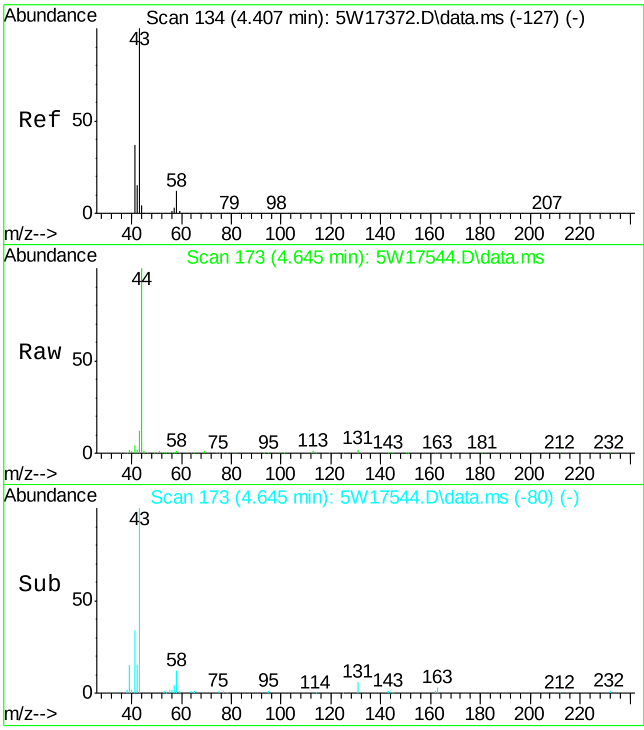


#8
Chloromethane
Concen: 0.47 ppb(v)
RT: 4.303 min Scan# 117
Delta R.T. 0.226 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 50 Resp: 6541

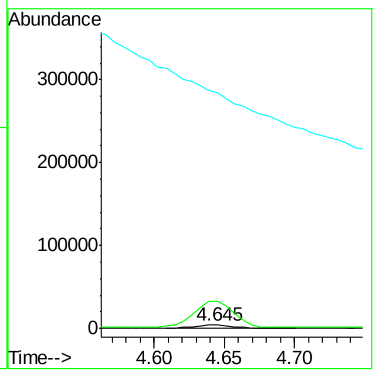
Ion	Ratio	Lower	Upper
50	100		
52	29.1	22.7	42.1

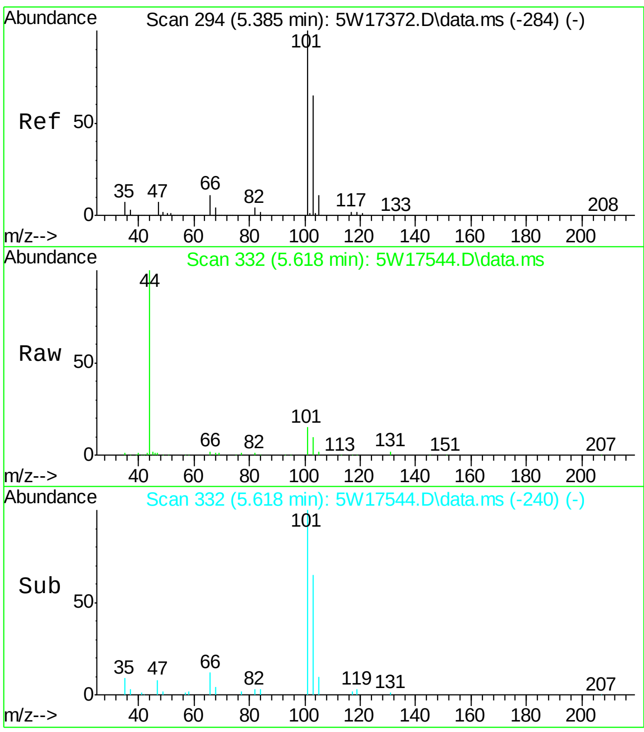





```
#12
n-Butane
Concen:    3.05 ppb(v) m
RT:    4.645 min   Scan# 173
Delta R.T.  0.239 min
Lab File:   5W17544.D
Acq:  6 Apr 2016  11:52 pm

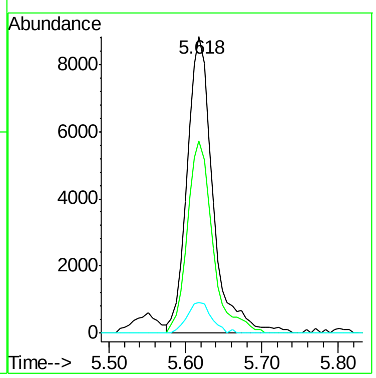
Tgt Ion: 58 Resp:    7664
Ion  Ratio  Lower  Upper
 58  100
 43  807.0  576.3  1070.3
 44  6911.2   34.4   64.0#
```

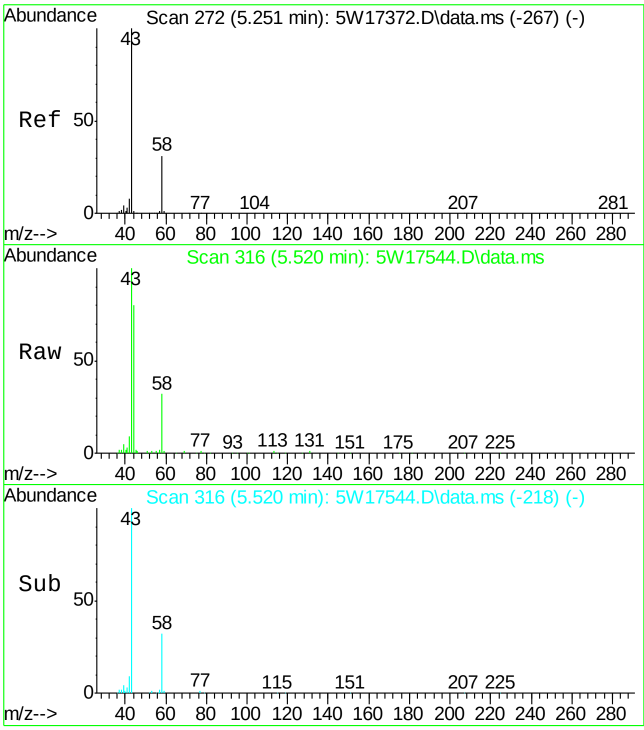





```
#20
Trichlorofluoromethane
Concen:    0.44 ppb(v)
RT:    5.618 min   Scan# 332
Delta R.T.  0.233 min
Lab File:   5W17544.D
Acq:  6 Apr 2016  11:52 pm

Tgt Ion:101 Resp:   20686
Ion  Ratio  Lower  Upper
101  100
103   64.7   45.1   83.9
105   10.3    7.5   13.9
```

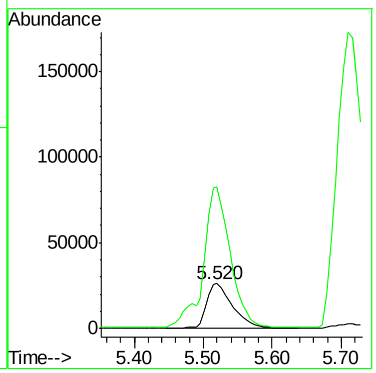


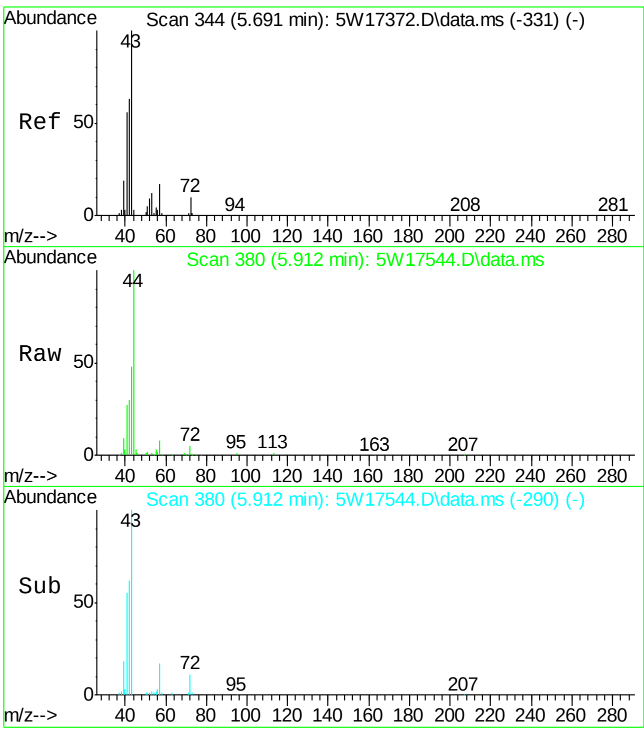


#21
Acetone
Concen: 8.94 ppb(v)
RT: 5.520 min Scan# 316
Delta R.T. 0.269 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 58 Resp: 67756

Ion	Ratio	Lower	Upper
58	100		
43	314.5	227.9	423.3

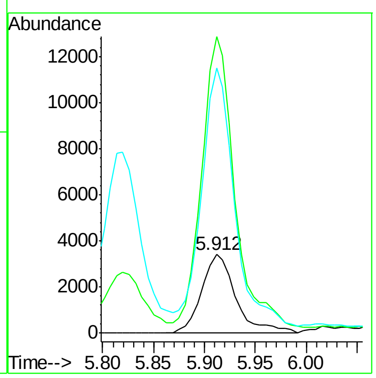


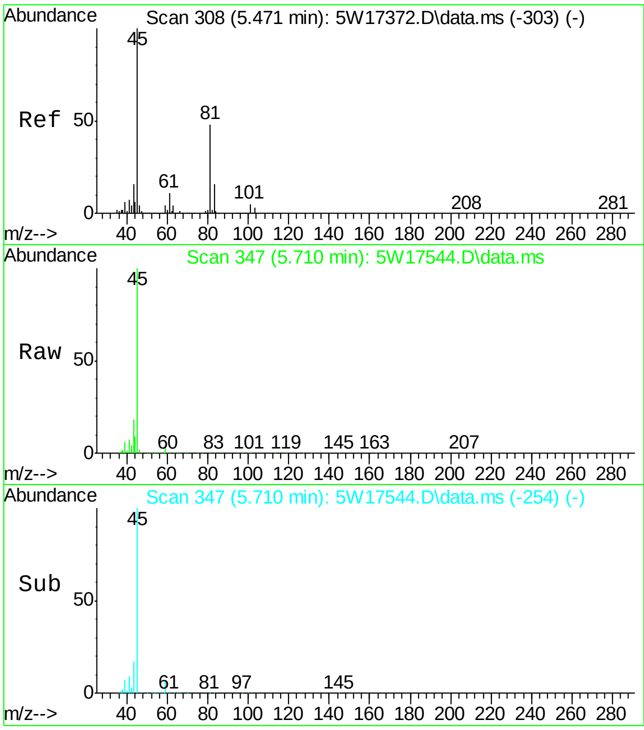


#22
Pentane
Concen: 2.10 ppb(v)
RT: 5.912 min Scan# 380
Delta R.T. 0.220 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 57 Resp: 7924

Ion	Ratio	Lower	Upper
57	100		
42	378.8	258.3	479.7
41	338.7	233.4	433.5

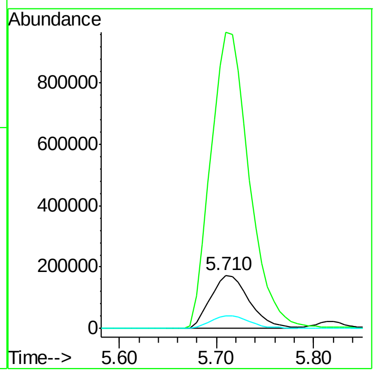


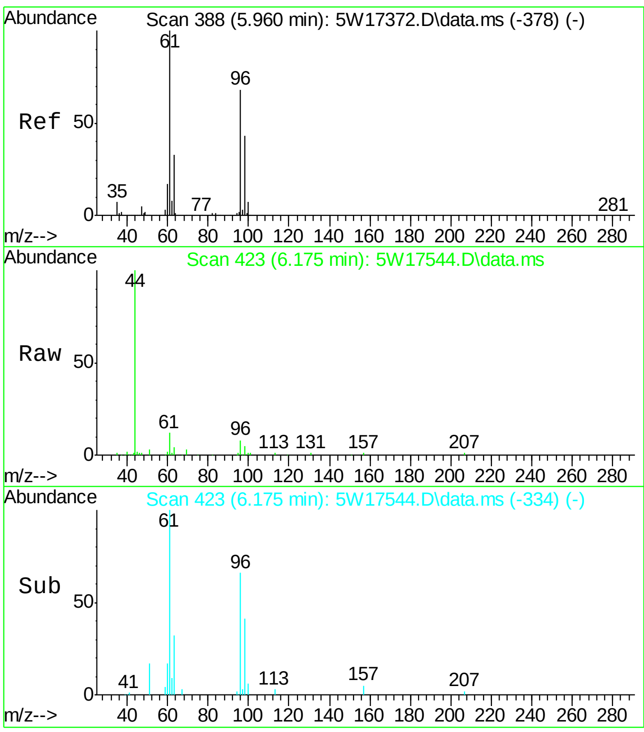


#25
Isopropyl Alcohol
Concen: 80.72 ppb(v)
RT: 5.710 min Scan# 347
Delta R.T. 0.239 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 43 Resp: 474877

Ion	Ratio	Lower	Upper
43	100		
45	558.7	409.4	760.2
59	24.4	16.8	31.2

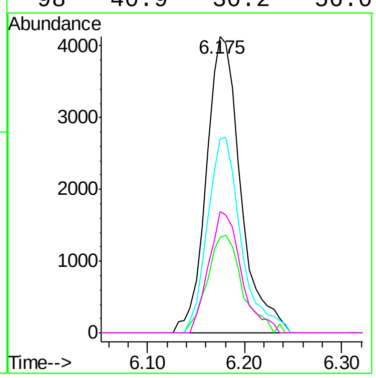


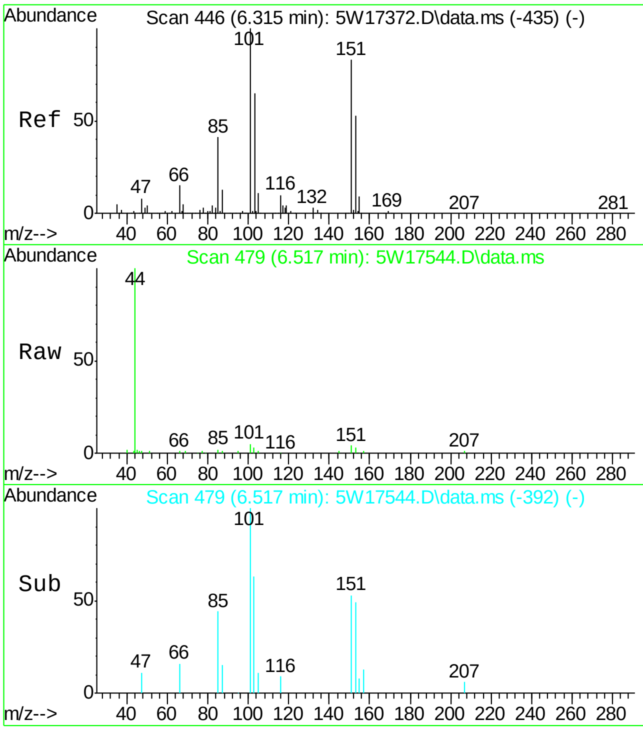


#26
1,1-Dichloroethene
Concen: 0.39 ppb(v)
RT: 6.175 min Scan# 423
Delta R.T. 0.214 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 61 Resp: 10112

Ion	Ratio	Lower	Upper
61	100		
63	32.1	22.8	42.4
96	65.7	47.7	88.7
98	40.9	30.2	56.0

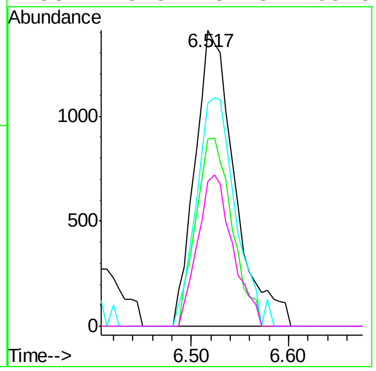


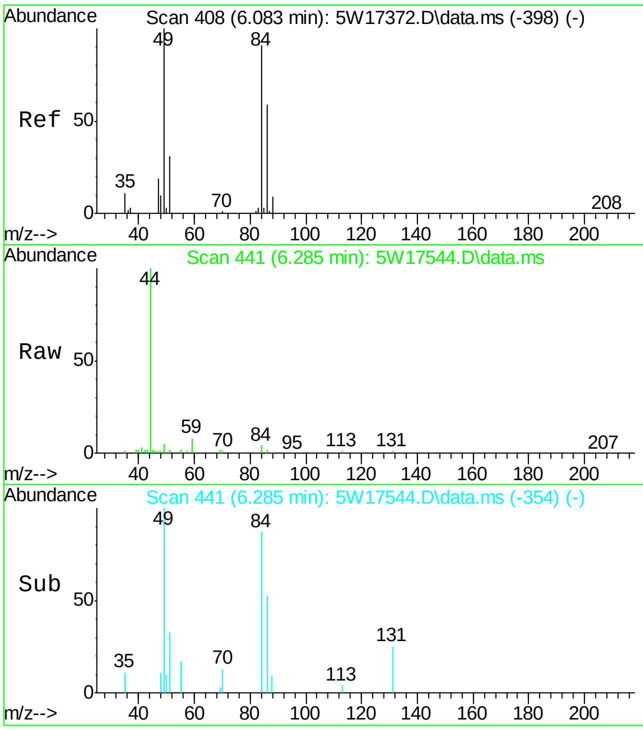


#27
Freon 113
Concen: 0.10 ppb(v)
RT: 6.517 min Scan# 479
Delta R.T. 0.202 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:101 Resp: 4002

Ion	Ratio	Lower	Upper
101	100		
103	63.3	45.4	84.2
151	75.2	57.7	107.3
153	48.8	37.3	69.3

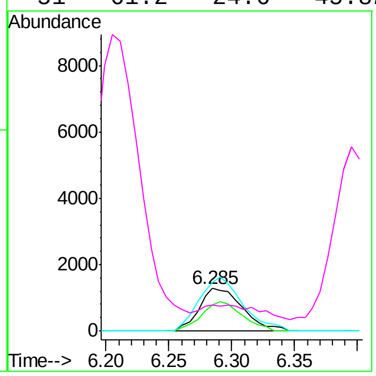


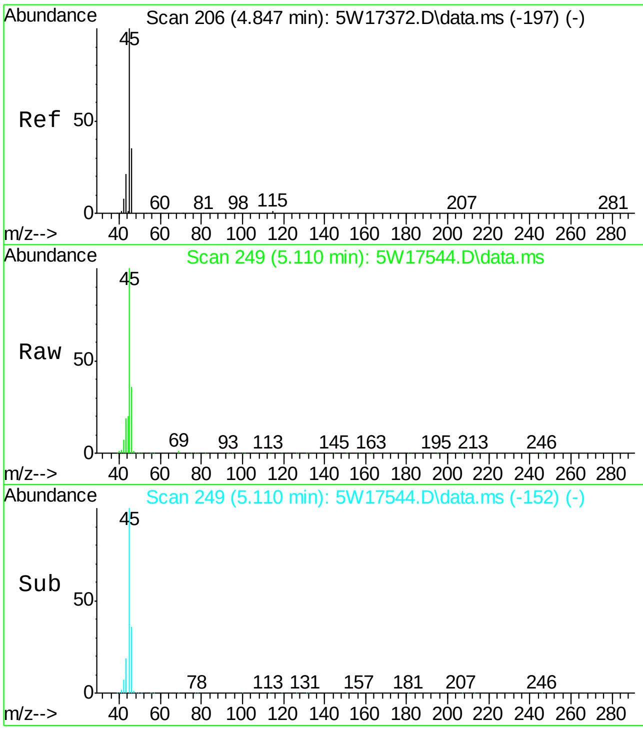


#28
Methylene Chloride
Concen: 0.19 ppb(v)
RT: 6.285 min Scan# 441
Delta R.T. 0.202 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 84 Resp: 3084

Ion	Ratio	Lower	Upper
84	100		
86	61.1	45.8	85.0
49	115.4	77.6	144.2
51	61.2	24.6	45.8#

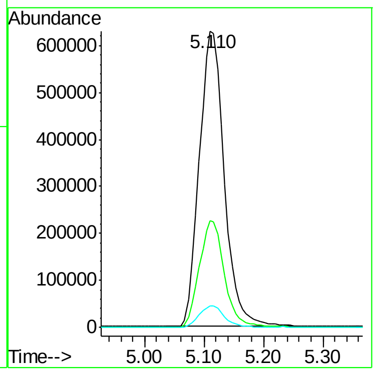


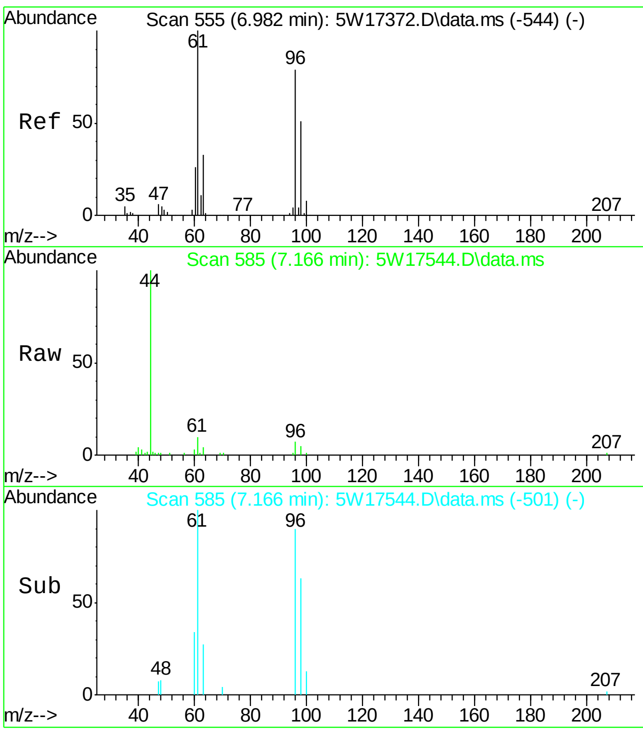


#30
Ethanol
Concen: 285.38 ppb(v)
RT: 5.110 min Scan# 249
Delta R.T. 0.263 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 45 Resp: 1838285

Ion	Ratio	Lower	Upper
45	100		
46	36.0	24.6	45.8
42	7.4	6.5	12.1

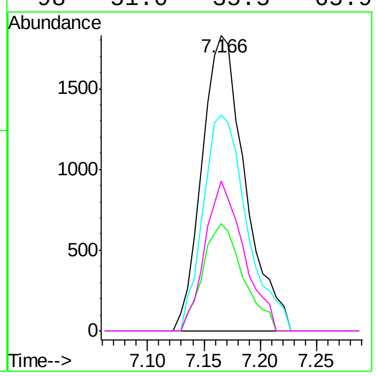


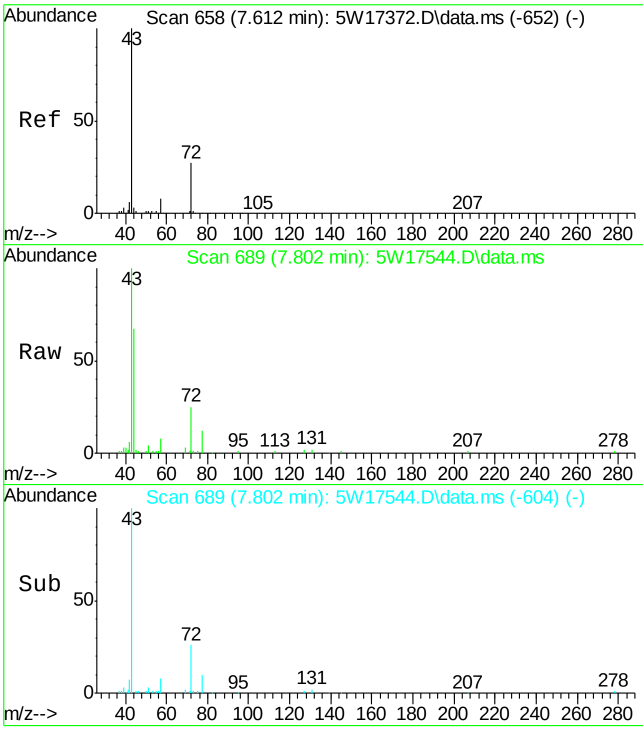


#33
trans-1,2-Dichloroethene
Concen: 0.22 ppb(v)
RT: 7.166 min Scan# 585
Delta R.T. 0.184 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 61 Resp: 4883

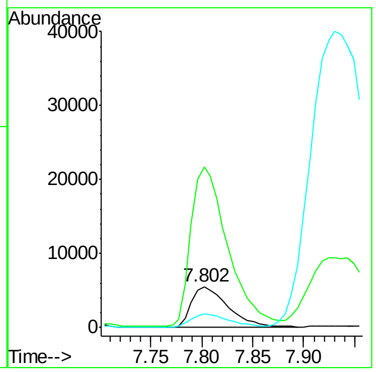
Ion	Ratio	Lower	Upper
61	100		
63	36.3	22.7	42.3
96	73.1	55.1	102.3
98	51.0	35.5	65.9

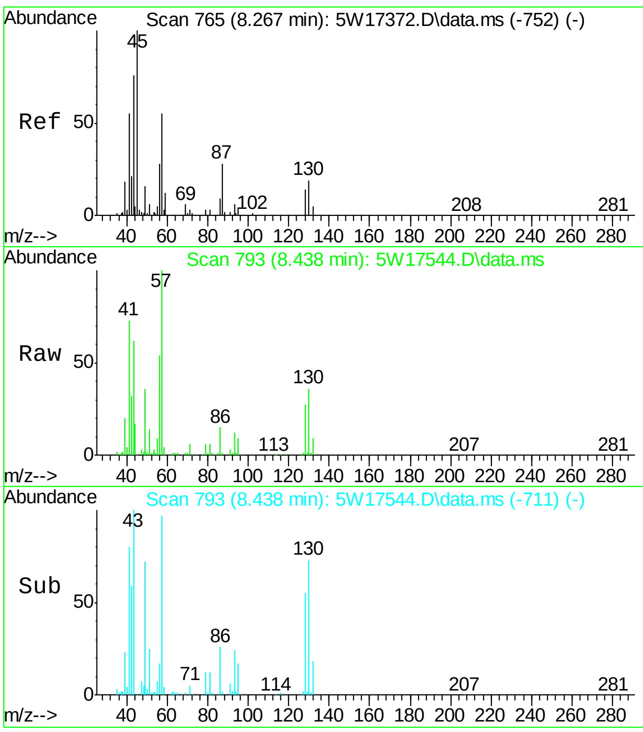




#38
2-Butanone
Concen: 1.85 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

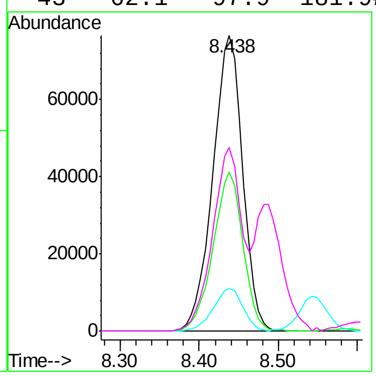
Tgt Ion: 72	Resp:	13745	
Ion	Ratio	Lower	Upper
72	100		
43	393.0	262.9	488.3
57	32.5	21.3	39.6

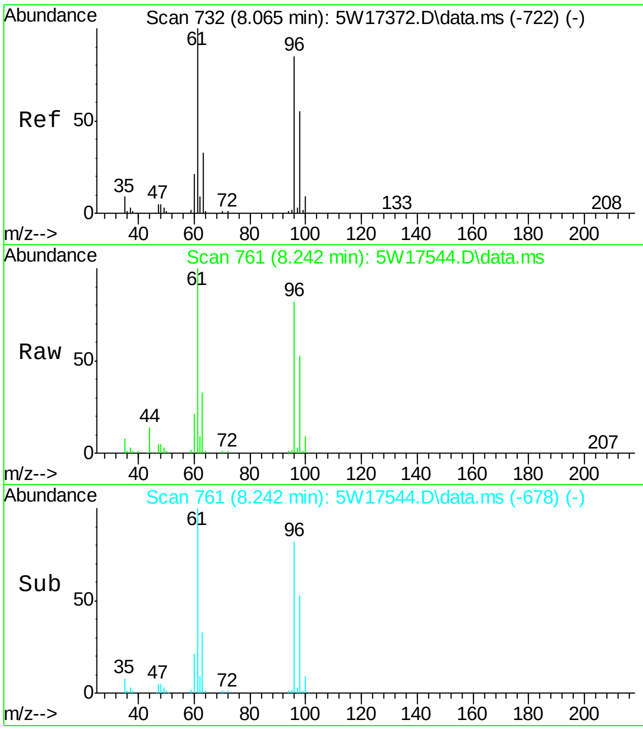


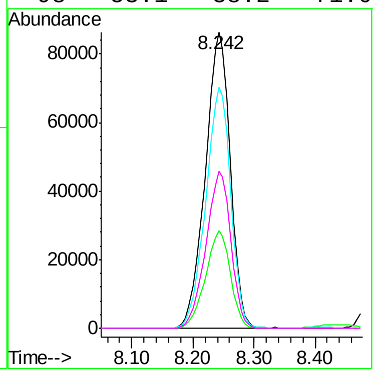


#39
Hexane
Concen: 7.62 ppb(v)
RT: 8.438 min Scan# 793
Delta R.T. 0.171 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 57	Resp:	199426	
Ion	Ratio	Lower	Upper
57	100		
56	53.6	36.5	67.9
86	14.5	11.1	20.7
43	62.1	97.9	181.9#



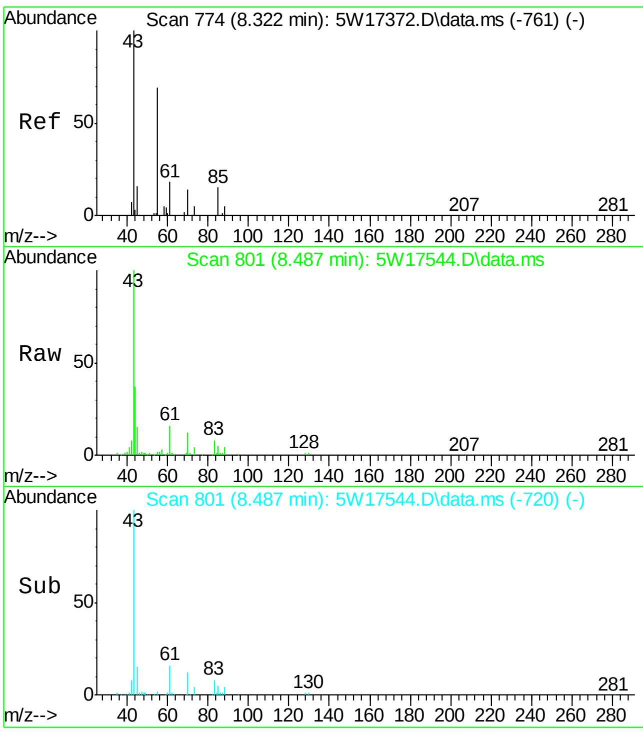


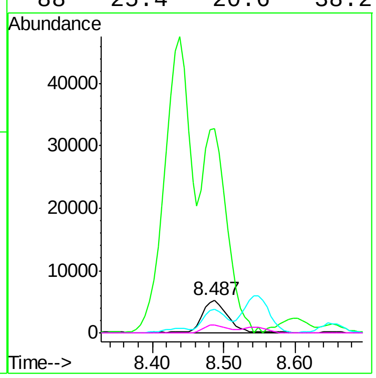


#40
cis-1,2-Dichloroethene
Concen: 11.08 ppb(v)
RT: 8.242 min Scan# 761
Delta R.T. 0.178 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 61 Resp: 244814

Ion	Ratio	Lower	Upper
61	100		
63	32.9	23.0	42.8
96	81.6	59.3	110.1
98	53.1	38.2	71.0

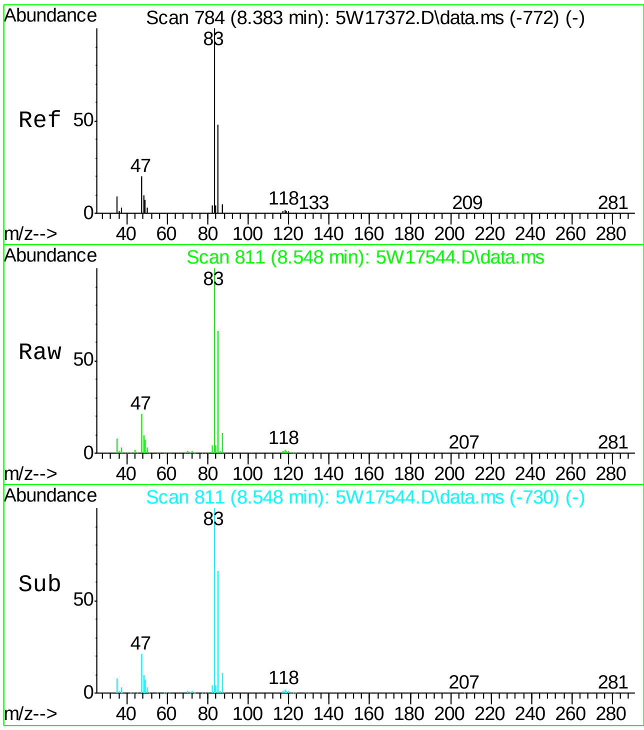




#42
Ethyl Acetate
Concen: 2.57 ppb(v)
RT: 8.487 min Scan# 801
Delta R.T. 0.165 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 61 Resp: 13235

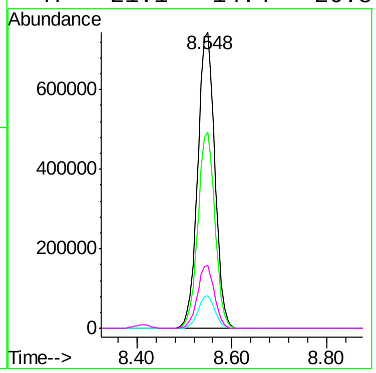
Ion	Ratio	Lower	Upper
61	100		
43	623.3	466.1	865.7
70	71.7	56.3	104.5
88	25.4	20.6	38.2

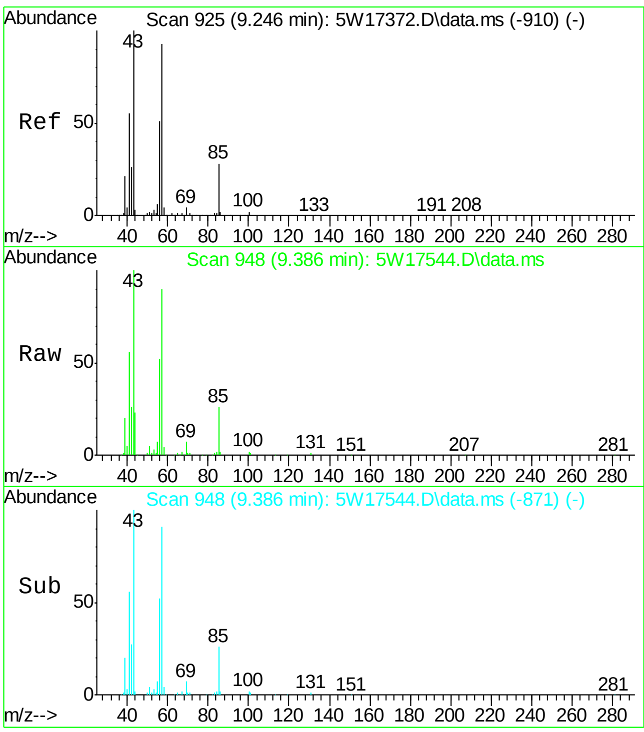


#44
Chloroform
Concen: 46.84 ppb(v)
RT: 8.548 min Scan# 811
Delta R.T. 0.165 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 83 Resp: 1861223

Ion	Ratio	Lower	Upper
83	100		
85	66.2	45.4	84.2
87	11.1	7.3	13.5
47	21.1	14.4	26.8

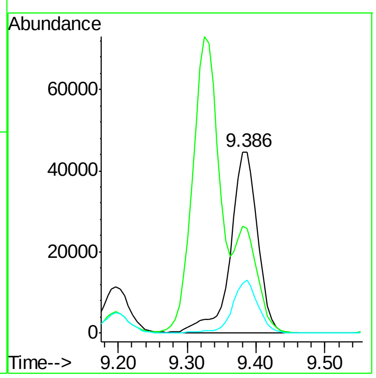


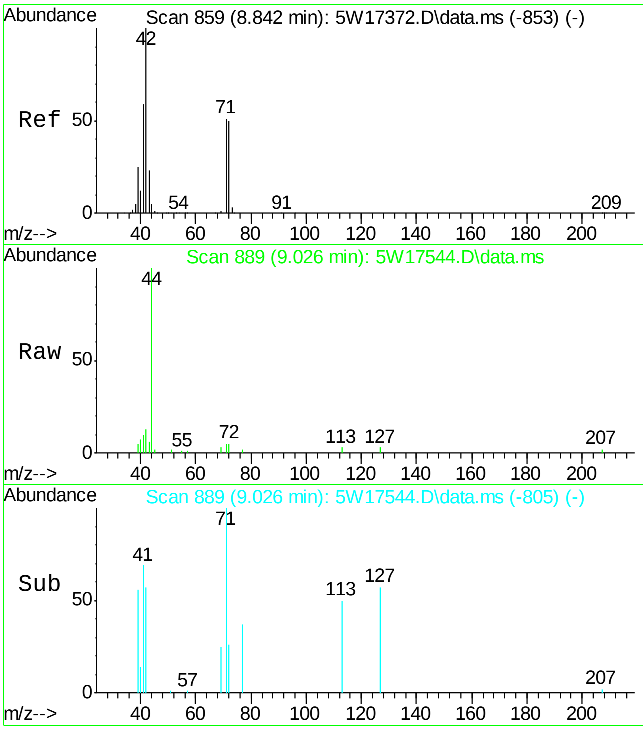


#45
2,4-Dimethylpentane
Concen: 4.11 ppb(v)
RT: 9.386 min Scan# 948
Delta R.T. 0.141 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 57 Resp: 122560

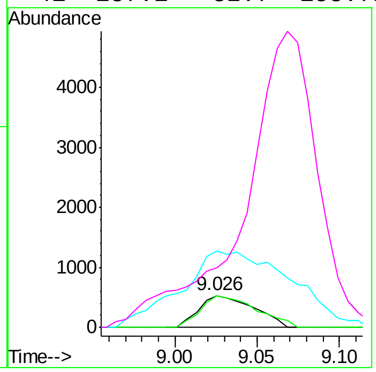
Ion	Ratio	Lower	Upper
57	100		
56	57.4	38.9	72.2
85	29.1	21.0	39.0

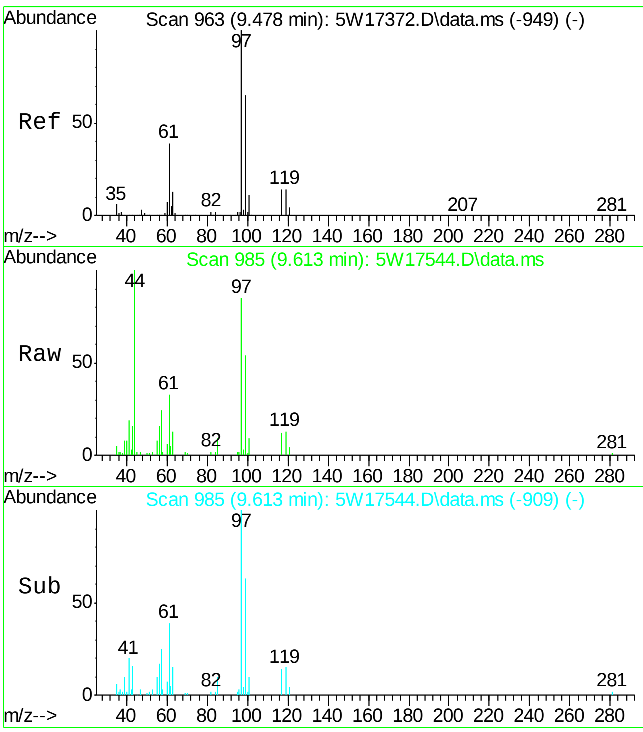




#46
Tetrahydrofuran
Concen: 0.17 ppb(v)
RT: 9.026 min Scan# 889
Delta R.T. 0.184 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

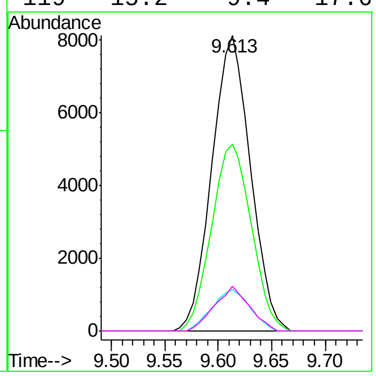
Tgt Ion: 72	Resp:		1227
Ion	Ratio	Lower	Upper
72	100		
71	99.6	70.7	131.3
42	240.3	139.4	259.0
41	187.1	82.7	153.7#

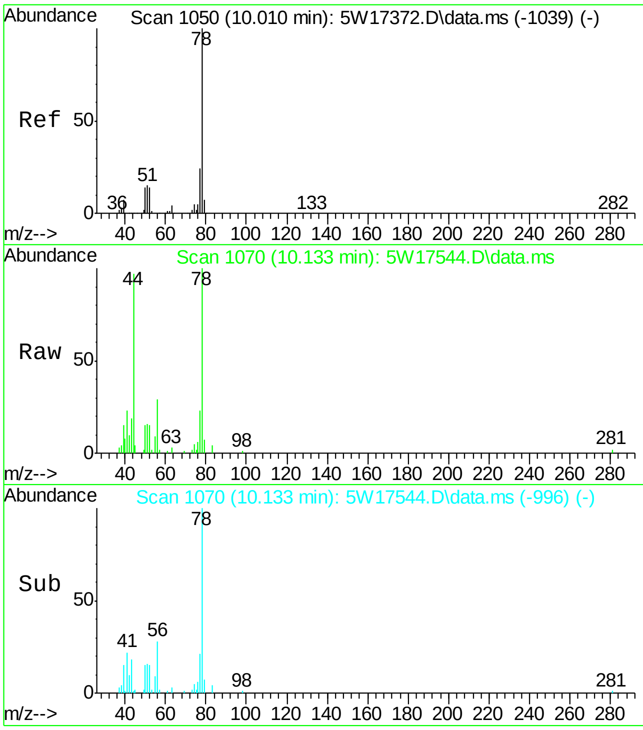




#47
1,1,1-Trichloroethane
Concen: 0.49 ppb(v)
RT: 9.613 min Scan# 985
Delta R.T. 0.135 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

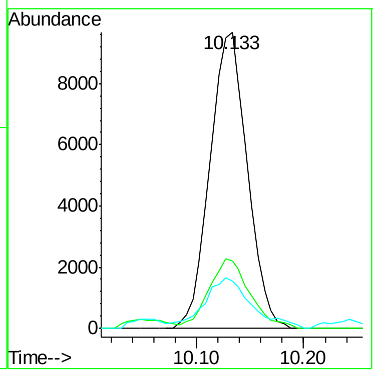
Tgt Ion: 97	Resp:		20365
Ion	Ratio	Lower	Upper
97	100		
99	63.2	45.3	84.1
117	14.1	10.0	18.6
119	15.2	9.4	17.6

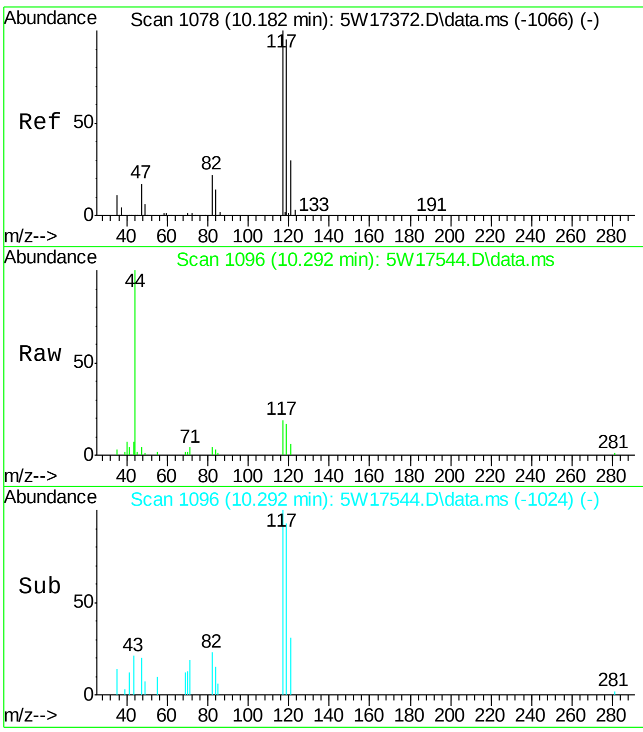





```
#49
Benzene
Concen:     0.44 ppb(v)
RT:  10.133 min   Scan# 1070
Delta R.T.   0.122 min
Lab File:    5W17544.D
Acq:  6 Apr 2016   11:52 pm

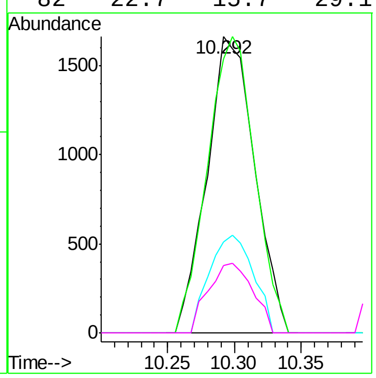
Tgt Ion: 78 Resp:    23518
Ion  Ratio   Lower   Upper
 78   100
 77    22.8   16.5    30.7
 51    15.8   10.5    19.5
```

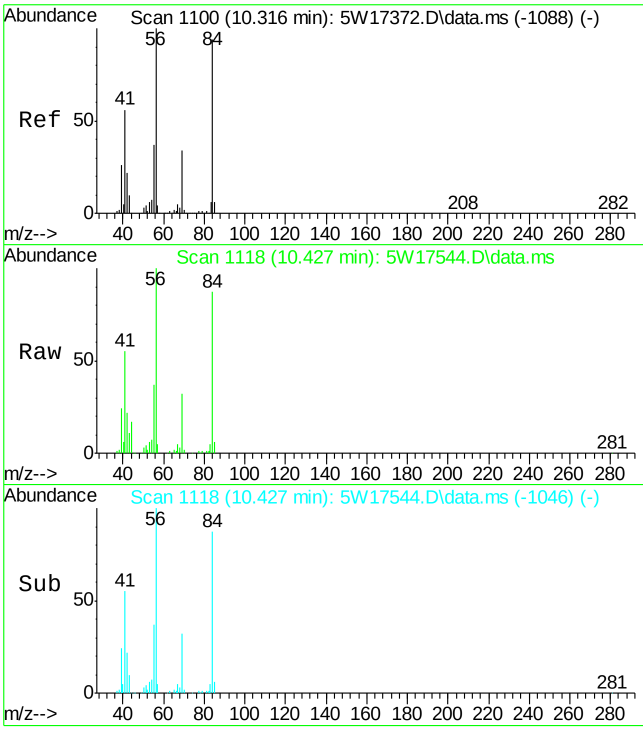





```
#50
Carbon Tetrachloride
Concen:     0.10 ppb(v)
RT:  10.292 min   Scan# 1096
Delta R.T.   0.110 min
Lab File:    5W17544.D
Acq:  6 Apr 2016   11:52 pm

Tgt Ion:117 Resp:     4113
Ion  Ratio   Lower   Upper
117   100
119    92.6   66.7   123.9
121    30.7   21.3    39.5
 82    22.7   15.7    29.1
```

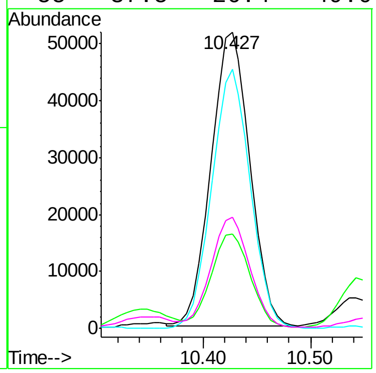


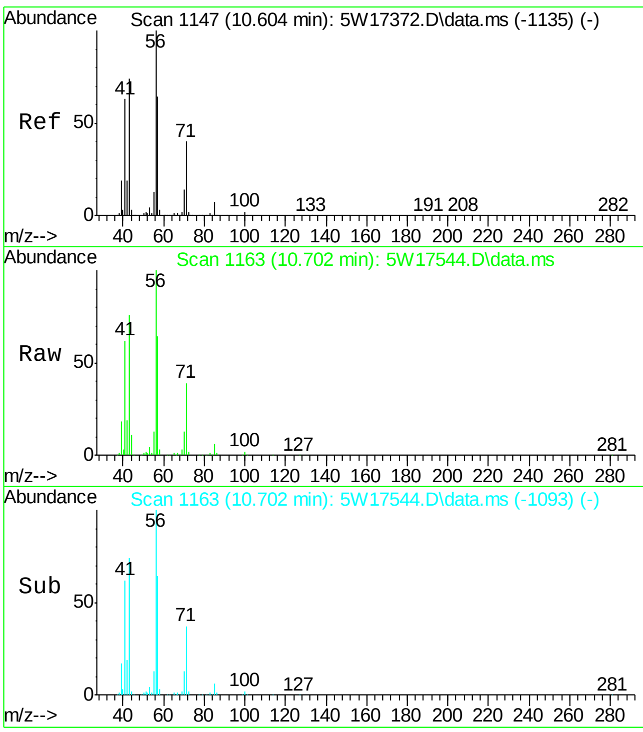


#51
Cyclohexane
Concen: 5.22 ppb(v)
RT: 10.427 min Scan# 1118
Delta R.T. 0.110 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 56 Resp: 130038

Ion	Ratio	Lower	Upper
56	100		
69	31.8	23.7	44.1
84	87.4	65.6	121.8
55	37.5	26.4	49.0

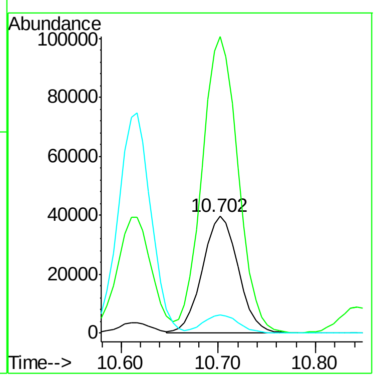


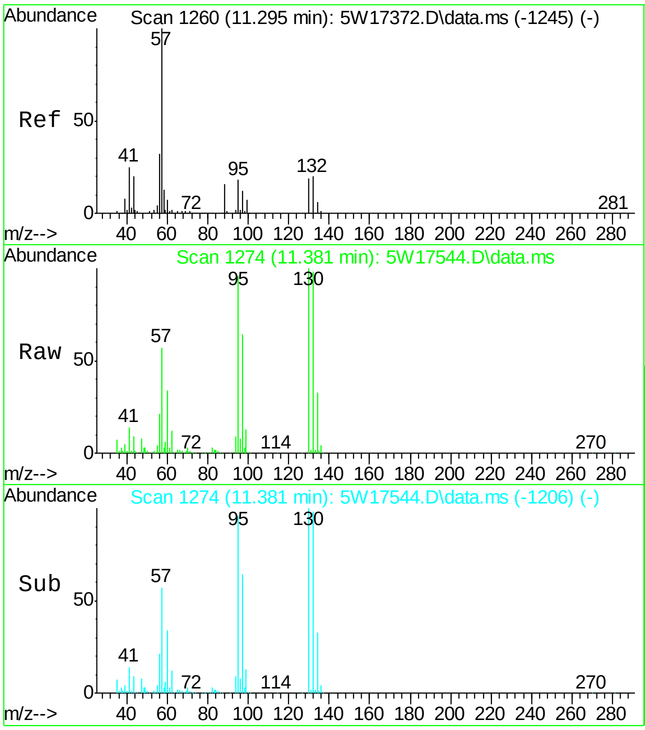


#52
2,3-Dimethylpentane
Concen: 8.77 ppb(v)
RT: 10.702 min Scan# 1163
Delta R.T. 0.098 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 71 Resp: 100964

Ion	Ratio	Lower	Upper
71	100		
56	254.3	175.3	325.5
85	15.8	12.0	22.2

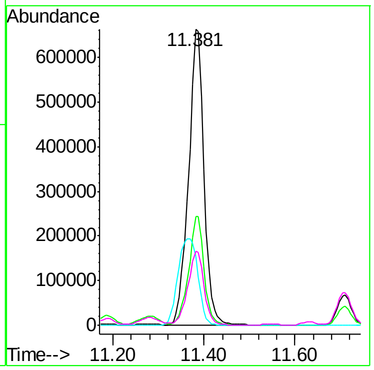


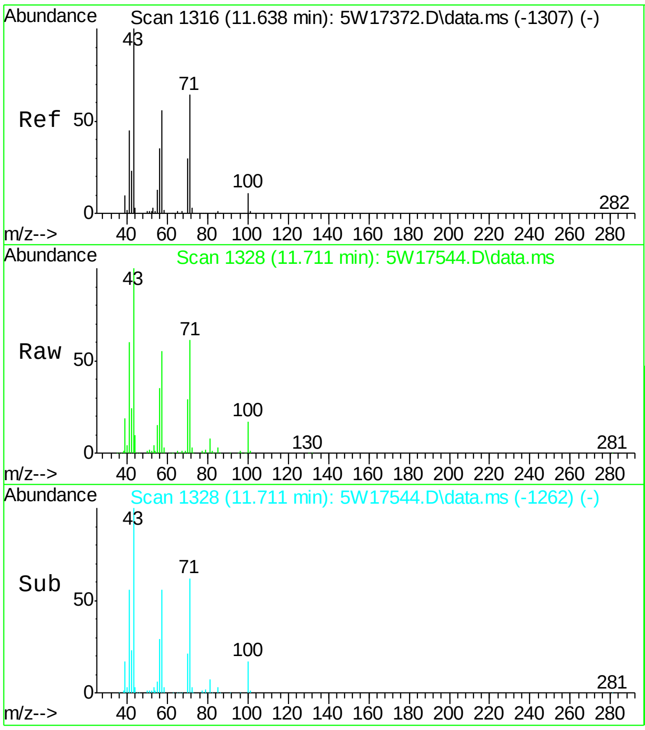


#54
2,2,4-Trimethylpentane
Concen: 19.77 ppb(v)
RT: 11.381 min Scan# 1274
Delta R.T. 0.086 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 57 Resp: 1578420

Ion	Ratio	Lower	Upper
57	100		
56	36.7	22.4	41.6
99	23.2	4.9	9.1#
41	25.2	17.4	32.4

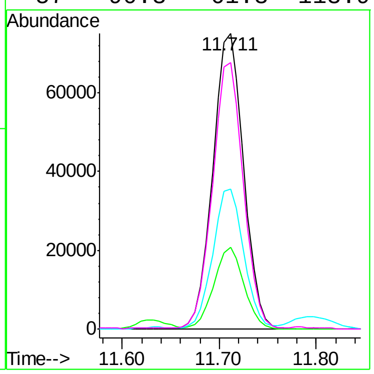


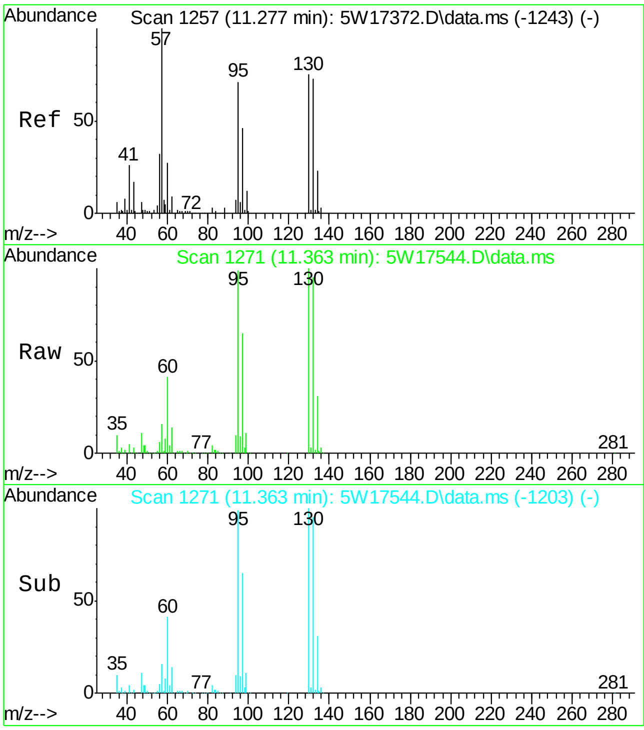


#55
Heptane
Concen: 9.71 ppb(v)
RT: 11.711 min Scan# 1328
Delta R.T. 0.074 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 71 Resp: 165845

Ion	Ratio	Lower	Upper
71	100		
100	27.5	19.6	36.4
70	47.4	34.0	63.2
57	90.3	61.3	113.9

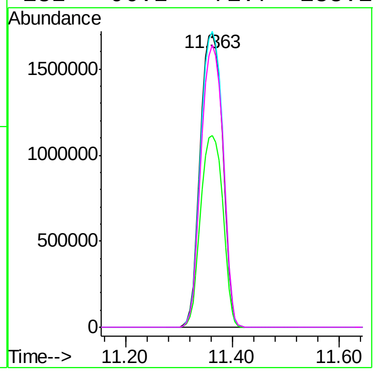


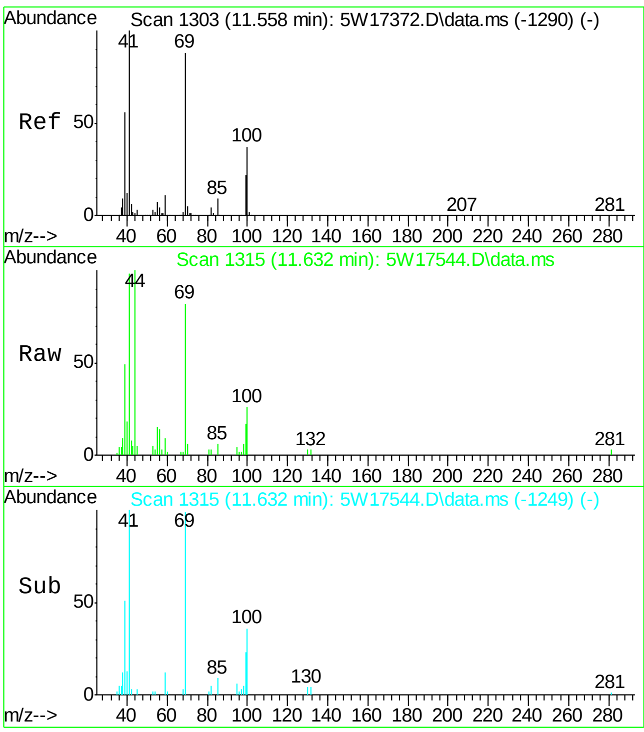


#56
Trichloroethene
Concen: 179.82 ppb(v)
RT: 11.363 min Scan# 1271
Delta R.T. 0.086 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 95 Resp: 4916387

Ion	Ratio	Lower	Upper
95	100		
97	65.5	45.4	84.4
130	100.9	74.1	137.5
132	96.2	71.7	133.1

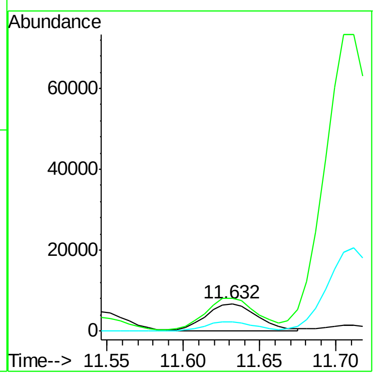


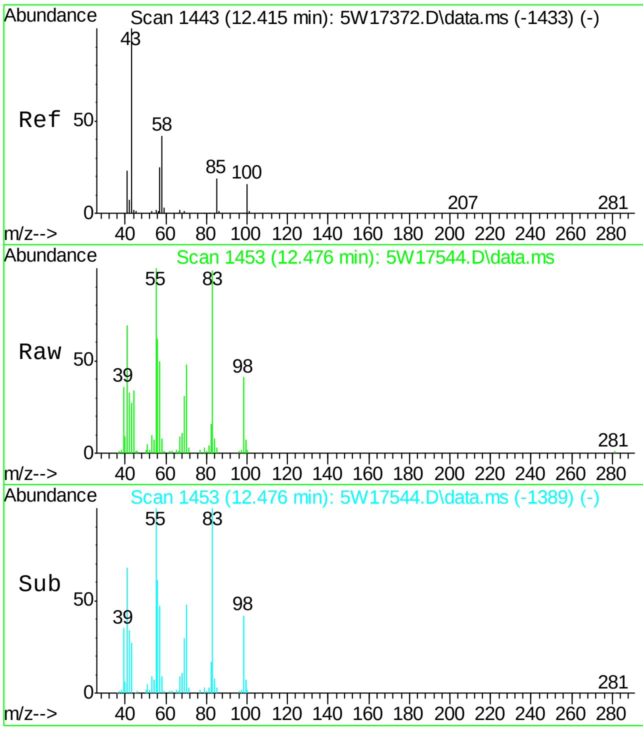


#60
Methyl Methacrylate
Concen: 0.81 ppb(v)
RT: 11.632 min Scan# 1315
Delta R.T. 0.074 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 69 Resp: 15678

Ion	Ratio	Lower	Upper
69	100		
41	119.4	79.4	147.4
100	32.3	29.2	54.2

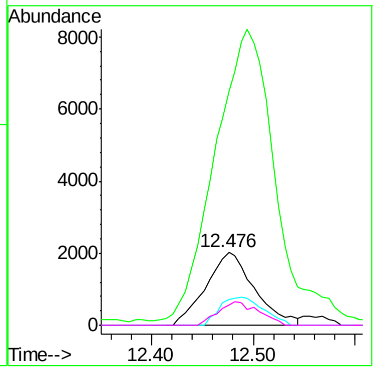


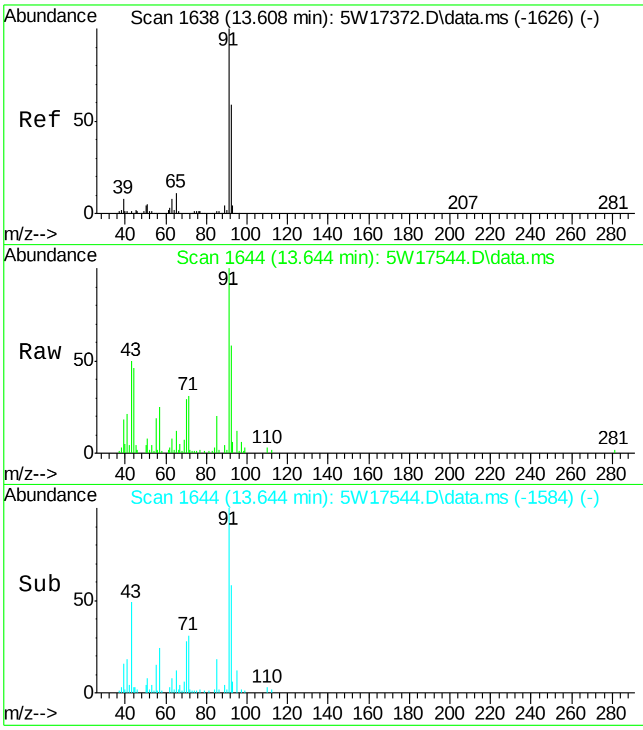


#64
4-Methyl-2-pentanone
Concen: 0.47 ppb(v)
RT: 12.476 min Scan# 1453
Delta R.T. 0.061 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 58 Resp: 6685

Ion	Ratio	Lower	Upper
58	100		
43	319.5	168.0	312.0#
85	34.6	33.6	62.4
100	27.2	26.4	49.0

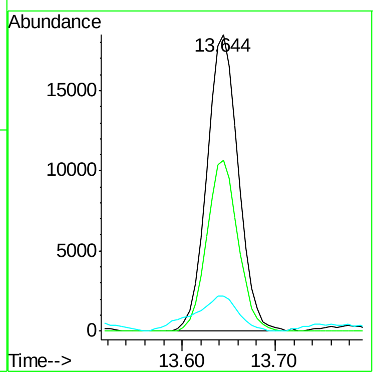


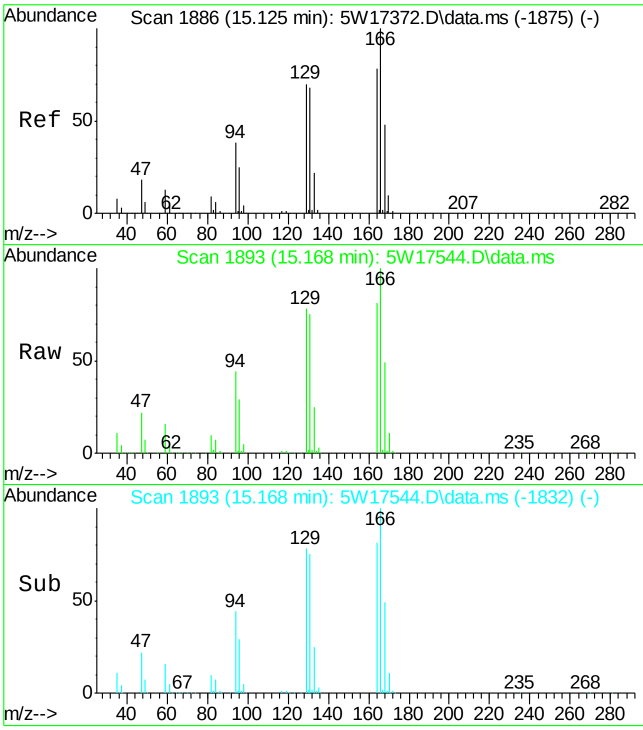


#66
Toluene
Concen: 0.64 ppb(v)
RT: 13.644 min Scan# 1644
Delta R.T. 0.037 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 91 Resp: 44006

Ion	Ratio	Lower	Upper
91	100		
92	57.7	41.2	76.6
65	11.8	7.3	13.7

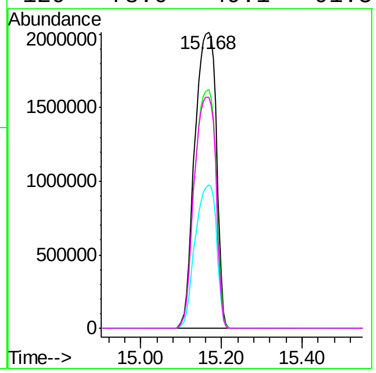


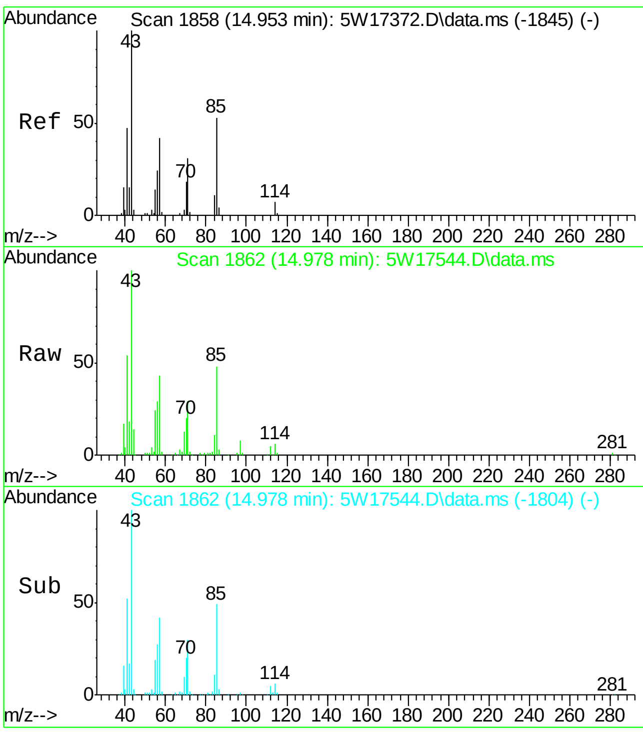


#72
Tetrachloroethene
Concen: 191.29 ppb(v)
RT: 15.168 min Scan# 1893
Delta R.T. 0.043 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:166 Resp: 7471195

Ion	Ratio	Lower	Upper
166	100		
164	80.6	54.6	101.4
168	48.5	33.5	62.3
129	78.0	49.1	91.3

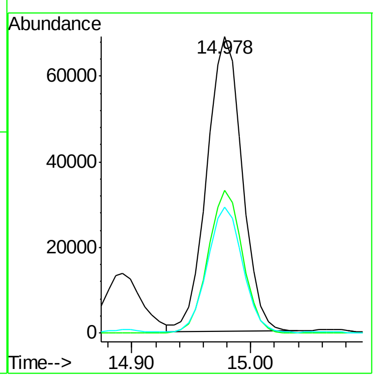


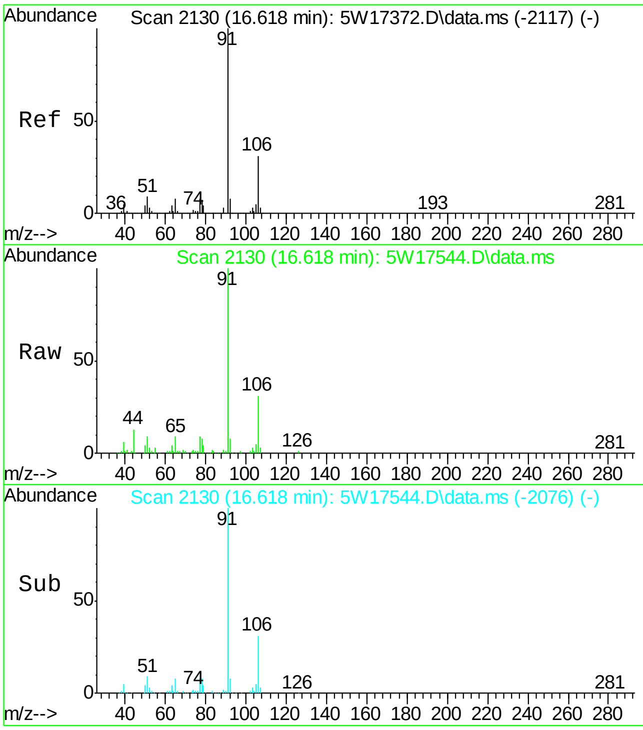


#74
Octane
Concen: 3.86 ppb(v)
RT: 14.978 min Scan# 1862
Delta R.T. 0.025 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 43 Resp: 142020

Ion	Ratio	Lower	Upper
43	100		
85	48.1	37.1	68.9
57	42.6	29.6	55.0

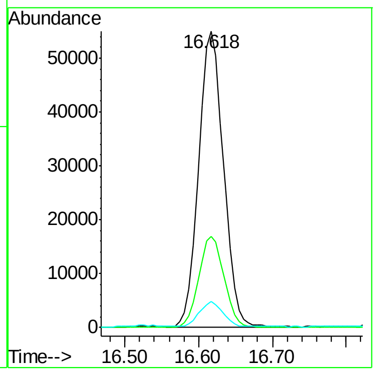


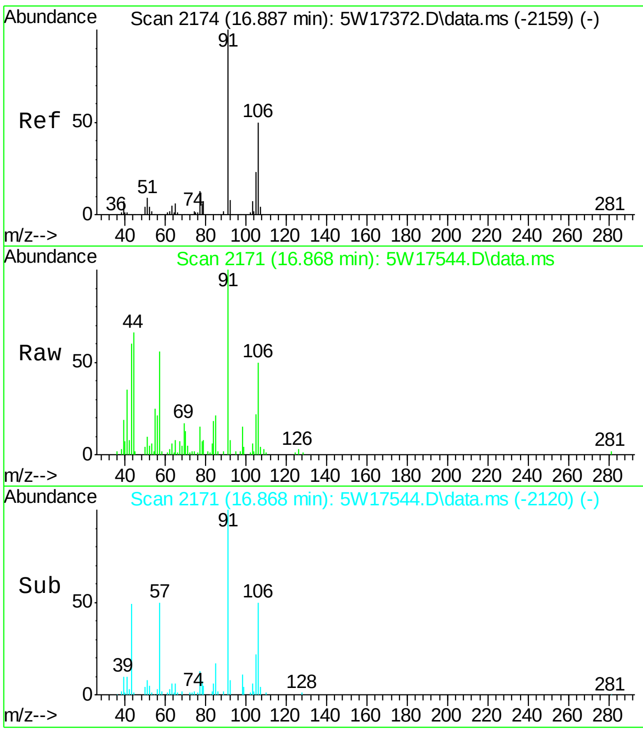


#78
Ethylbenzene
Concen: 1.39 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 91 Resp: 126975

Ion	Ratio	Lower	Upper
91	100		
106	30.7	22.0	40.8
77	8.7	5.9	10.9

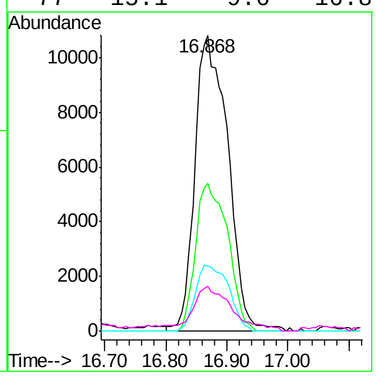


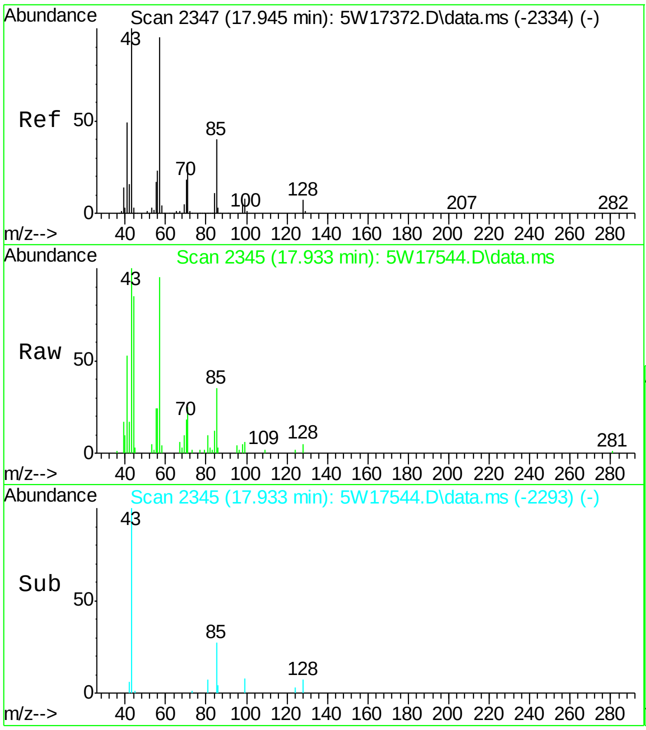


#79
m,p-Xylene
Concen: 0.59 ppb(v)
RT: 16.868 min Scan# 2171
Delta R.T. -0.018 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 91 Resp: 40497

Ion	Ratio	Lower	Upper
91	100		
106	50.2	35.3	65.5
105	21.9	16.2	30.0
77	15.1	9.0	16.8

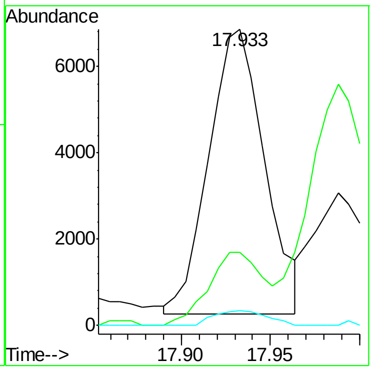


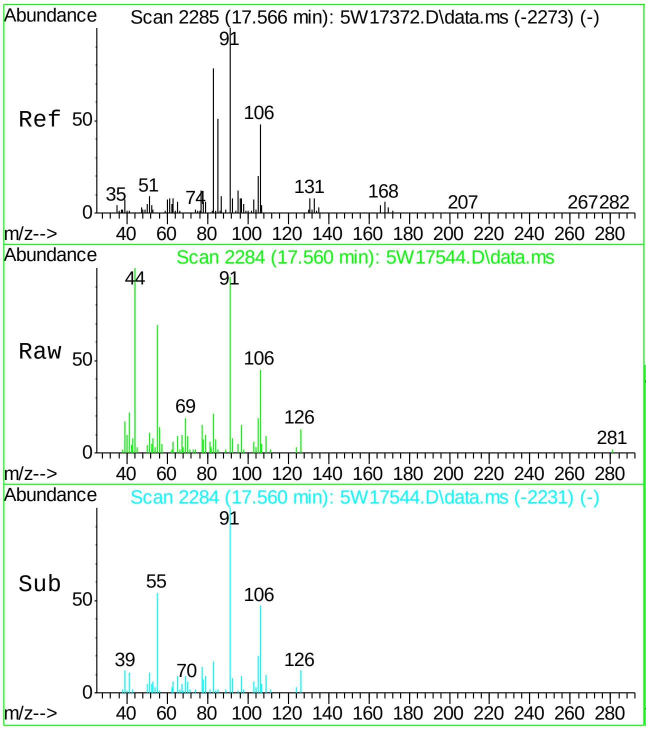


#81
Nonane
Concen: 0.38 ppb(v)
RT: 17.933 min Scan# 2345
Delta R.T. -0.012 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 43 Resp: 14336

Ion	Ratio	Lower	Upper
43	100		
71	24.6	18.9	35.1
128	5.0	4.6	8.6

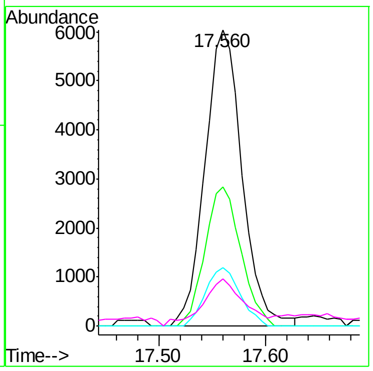


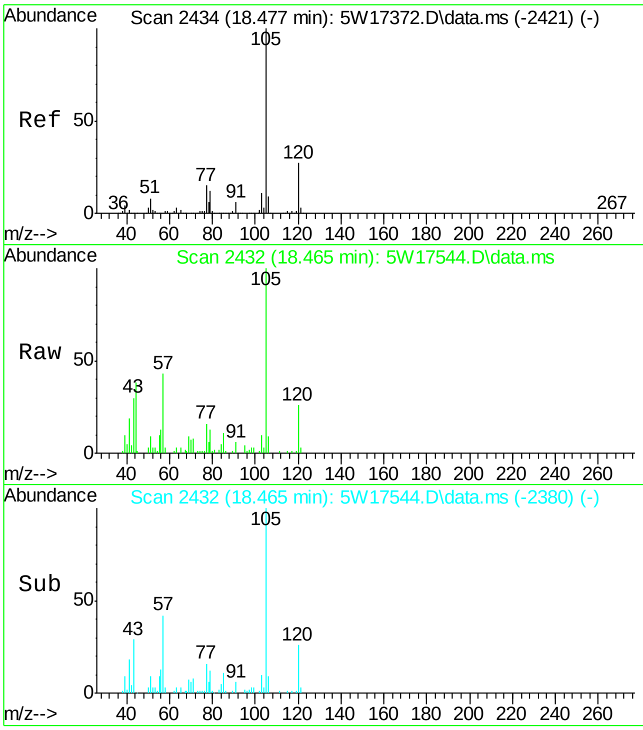


#82
o-Xylene
Concen: 0.20 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion: 91 Resp: 14576

Ion	Ratio	Lower	Upper
91	100		
106	46.8	33.5	62.3
105	19.9	13.7	25.5
77	16.0	8.4	15.6#

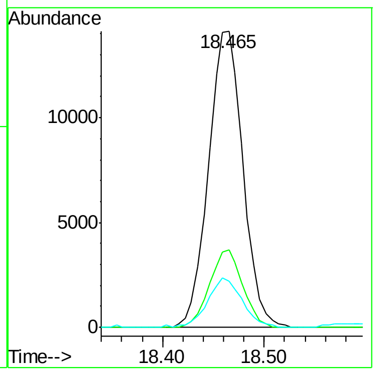


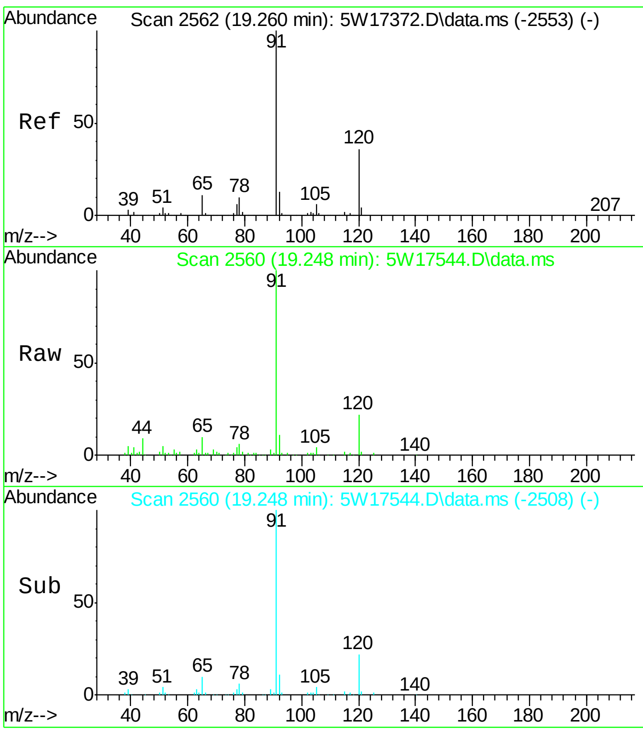


#86
Isopropylbenzene
Concen: 0.33 ppb(v)
RT: 18.465 min Scan# 2432
Delta R.T. -0.012 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:105 Resp: 33255

Ion	Ratio	Lower	Upper
105	100		
120	26.3	18.6	34.6
77	15.6	10.4	19.2

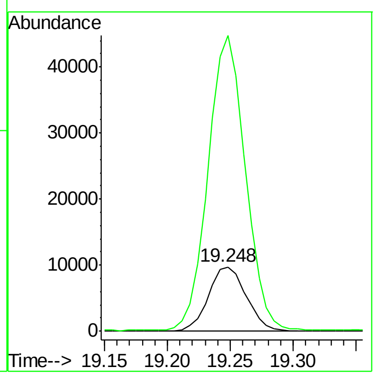


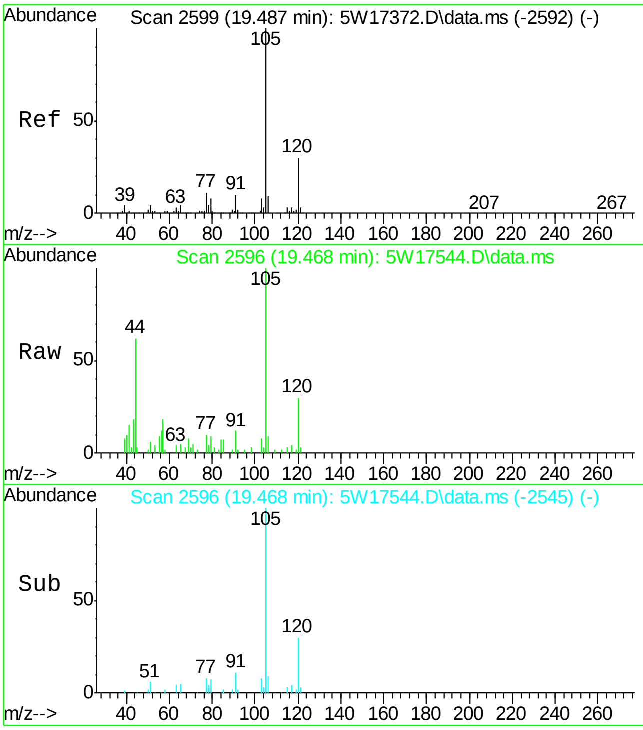


#89
n-Propylbenzene
Concen: 0.76 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:120 Resp: 20057

Ion	Ratio	Lower	Upper
120	100		
91	461.1	300.7	558.5

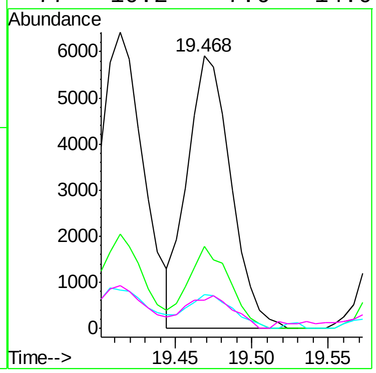


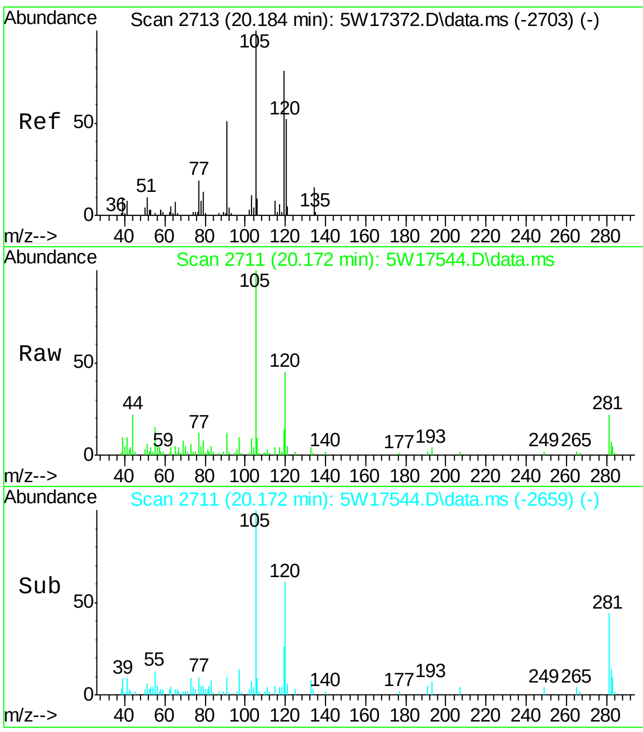


#91
4-Ethyltoluene
Concen: 0.12 ppb(v)
RT: 19.468 min Scan# 2596
Delta R.T. -0.018 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:105 Resp: 11784

Ion	Ratio	Lower	Upper
105	100		
120	30.1	20.9	38.9
91	12.5	7.3	13.7
77	10.2	7.6	14.0

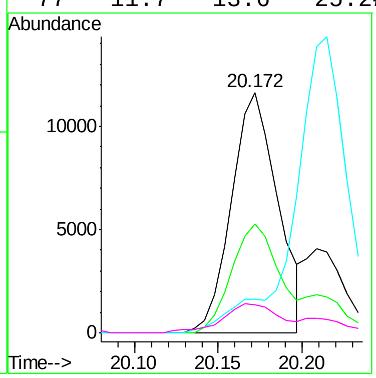




#95
1,2,4-Trimethylbenzene
Concen: 0.27 ppb(v) m
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

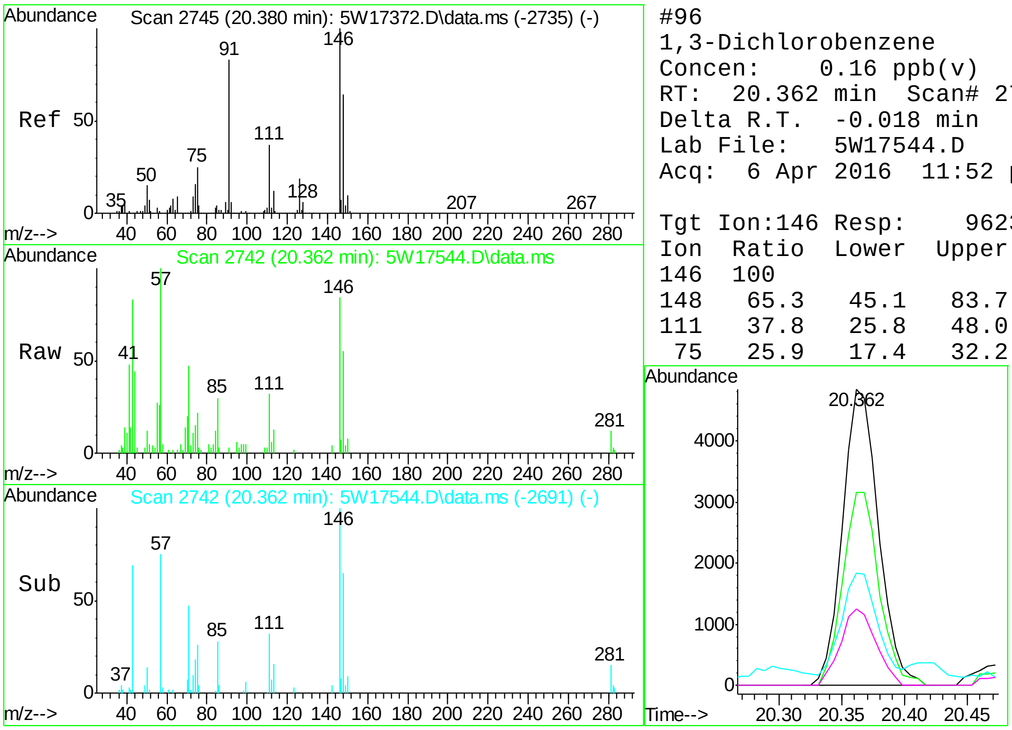
Tgt Ion:105 Resp: 22316

Ion	Ratio	Lower	Upper
105	100		
120	45.1	36.6	68.0
119	13.9	54.4	101.0#
77	11.7	13.6	25.2#



7.1.15

7



#96
1,3-Dichlorobenzene
Concen: 0.16 ppb(v)
RT: 20.362 min Scan# 2742
Delta R.T. -0.018 min
Lab File: 5W17544.D
Acq: 6 Apr 2016 11:52 pm

Tgt Ion:146 Resp: 9623

Ion	Ratio	Lower	Upper
146	100		
148	65.3	45.1	83.7
111	37.8	25.8	48.0
75	25.9	17.4	32.2

Manual Integration Approval Summary

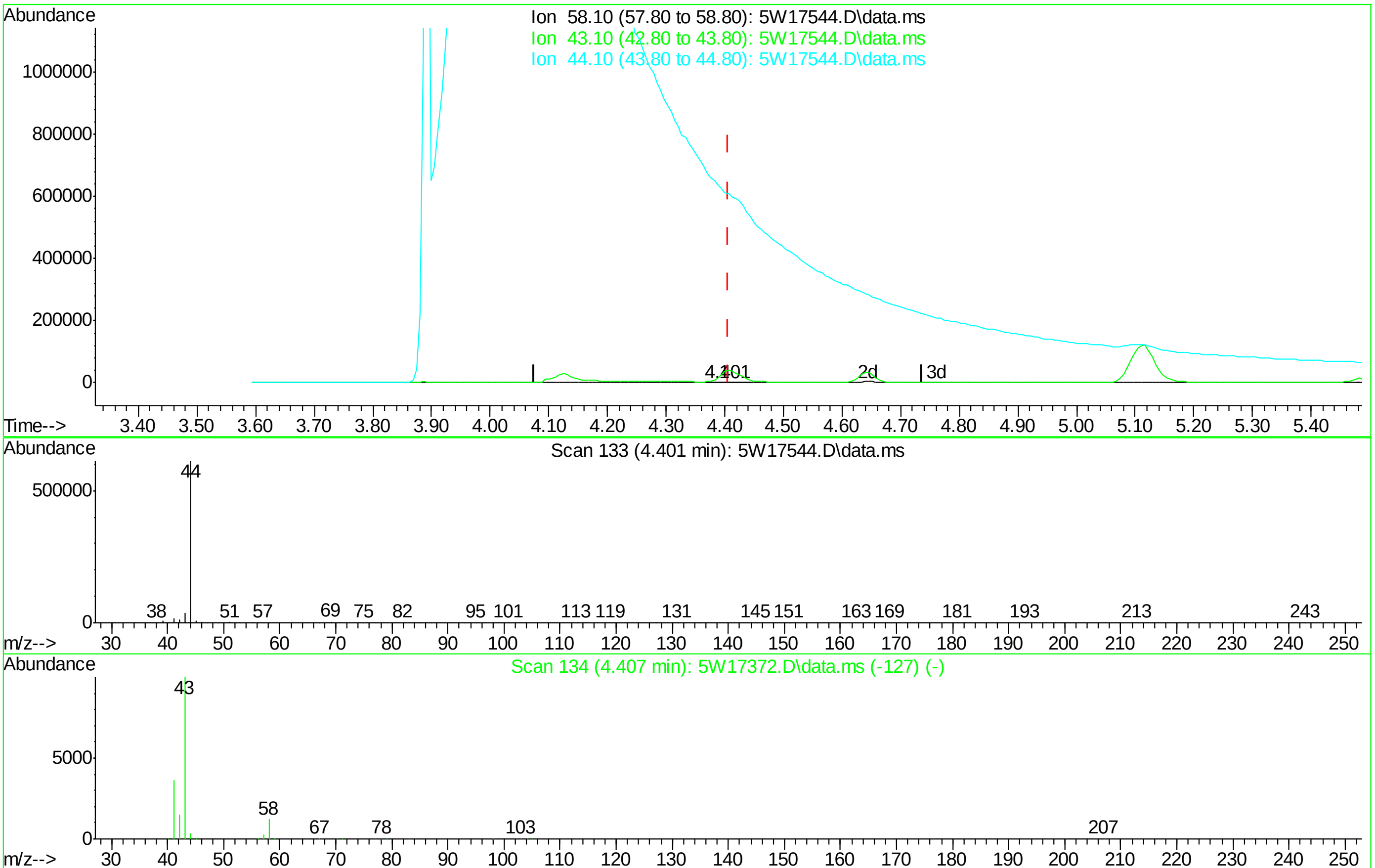
Sample Number:	JC17438-11	**Method:**	TO-15	
Lab FileID:	5W17544.D	**Analyst approved:**	04/08/16 11:59	Dana Tryon
Injection Time:	04/06/16 23:52	**Supervisor approved:**	04/08/16 16:02	Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak
1,2,4-Trimethylbenzene	95-63-6		20.17	Poor instrument integration

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17544.D
Acq On    :  6 Apr 2016  11:52 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 07 07:11:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17544.D\data.ms

(12) n-Butane

4.401min (-0.006) 0.64ppb(v)

response 1601

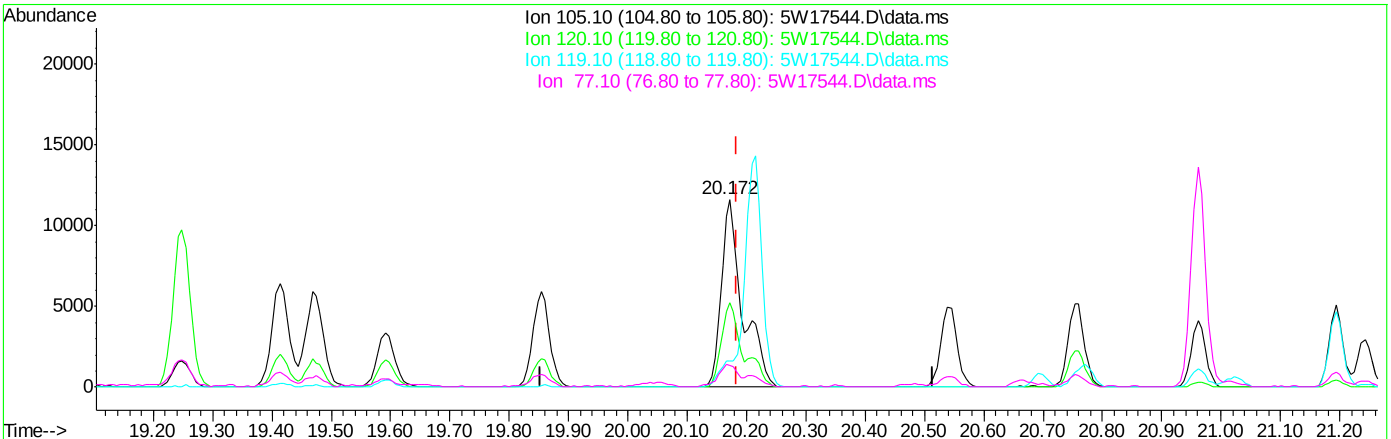
Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4373.79#
44.10	49.20	74244.66#
0.00	0.00	0.00

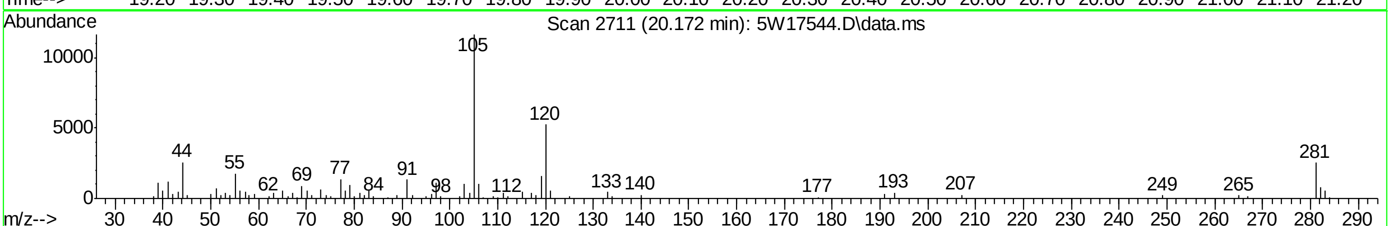
5W17544.D edits: n-Butane

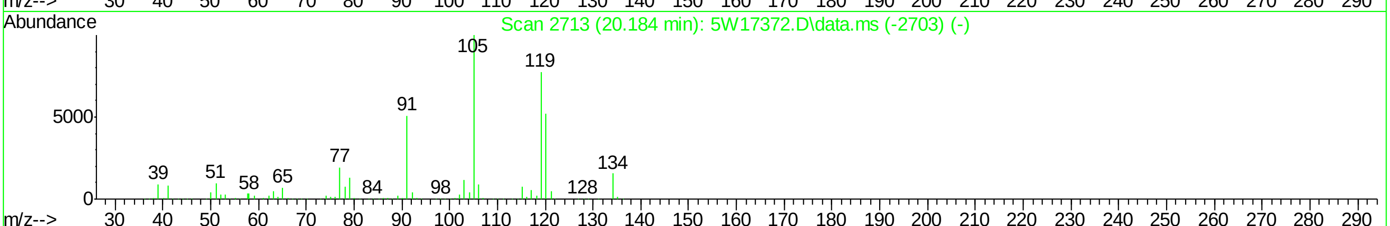
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17544.D
Acq On    :  6 Apr 2016  11:52 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 07 07:11:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```







TIC: 5W17544.D\data.ms

(95) 1,2,4-Trimethylbenzene

20.172min (-0.012) 0.35ppb(v)

response 28967

Ion	Exp%	Act%
105.10	100	100
120.10	52.30	45.12
119.10	77.70	13.88#
77.10	19.40	11.73#

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17561.D
Acq On    :  7 Apr 2016   3:55 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w700,40,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Apr 08 13:49:30 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

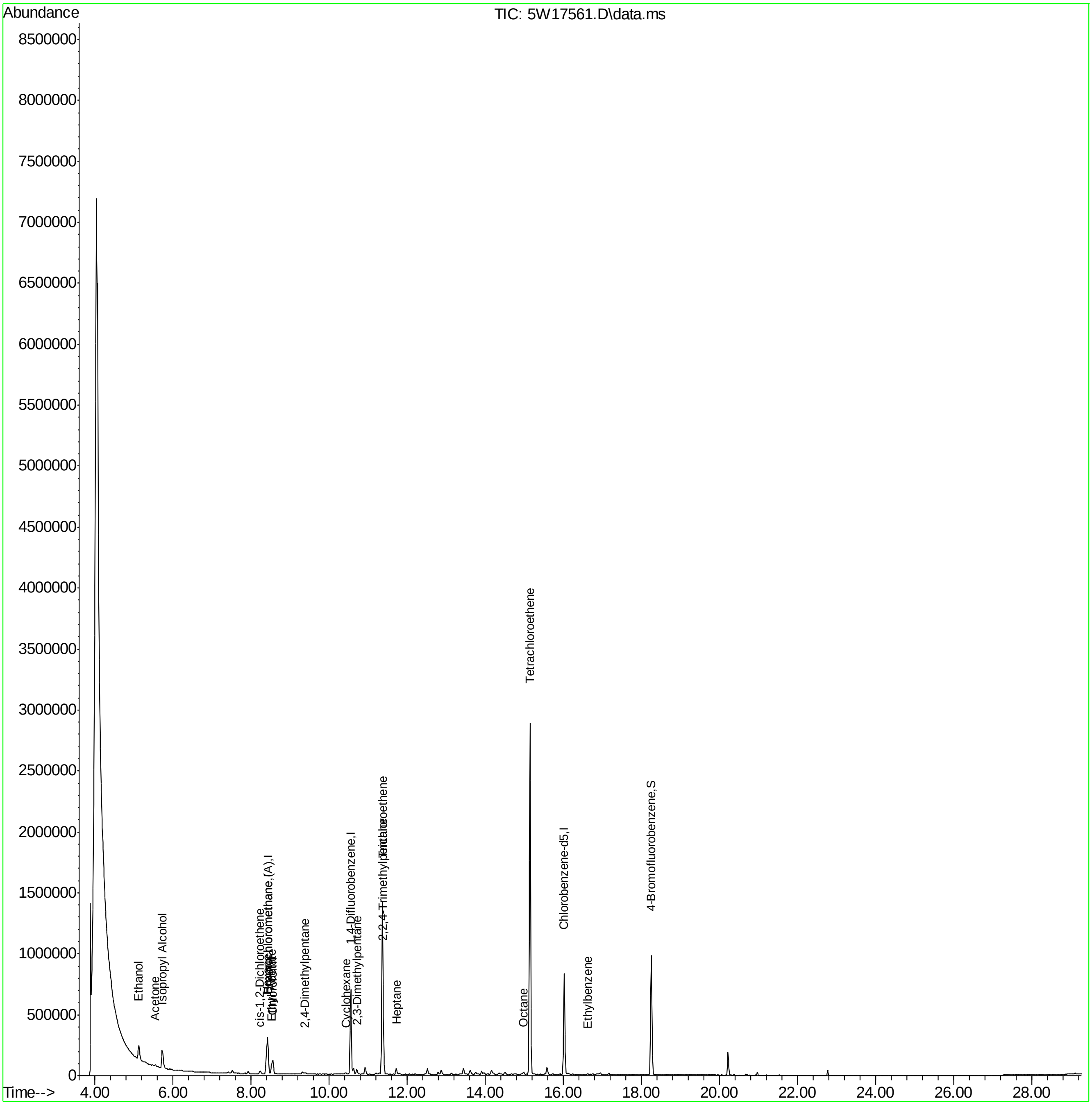
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.426	130	195335	10.00	ppb(v	0.18
53) 1,4-Difluorobenzene	10.549	114	728090	10.00	ppb(v	0.10
76) Chlorobenzene-d5	16.012	82	349416	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.426	130	195860	10.00	ppb(v	0.18
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	458768	9.59	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery	= 95.90%		
Target Compounds						Qvalue
21) Acetone	5.544	58	6185	0.81	ppb(v	97
25) Isopropyl Alcohol	5.722	43	47623	8.08	ppb(v	80
30) Ethanol	5.122	45	181970	28.21	ppb(v	99
39) Hexane	8.414	57	17006	0.65	ppb(v#	56
40) cis-1,2-Dichloroethene	8.218	61	21432	0.97	ppb(v	98
42) Ethyl Acetate	8.511	61	930	0.18	ppb(v#	86
44) Chloroform	8.554	83	173627	4.36	ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	10045	0.34	ppb(v	85
51) Cyclohexane	10.420	56	10781	0.43	ppb(v	90
52) 2,3-Dimethylpentane	10.702	71	8738	0.76	ppb(v	97
54) 2,2,4-Trimethylpentane	11.381	57	173396	2.14	ppb(v#	89
55) Heptane	11.717	71	13394	0.77	ppb(v	97
56) Trichloroethene	11.362	95	560223	20.18	ppb(v	95
72) Tetrachloroethene	15.143	166	1167709	29.45	ppb(v	99
74) Octane	14.972	43	12407	0.33	ppb(v	92
78) Ethylbenzene	16.624	91	9415	0.10	ppb(v	97

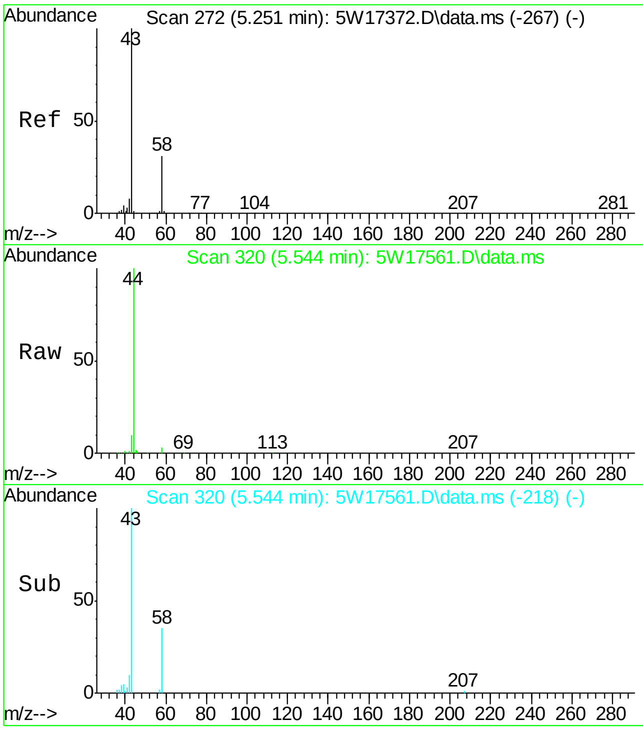
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17561.D
Acq On    :  7 Apr 2016   3:55 pm
Operator  : THOMASH
Sample    : JC17438-11
Misc      : MS107,v5w700,40,,,,1
ALS Vial  : 9   Sample Multiplier: 1

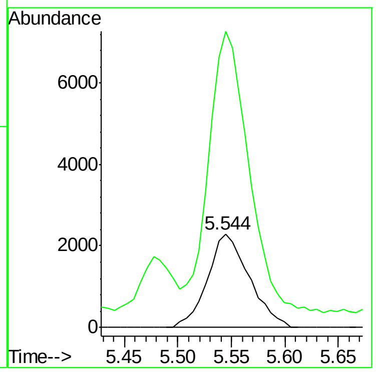
Quant Time: Apr 08 13:49:30 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

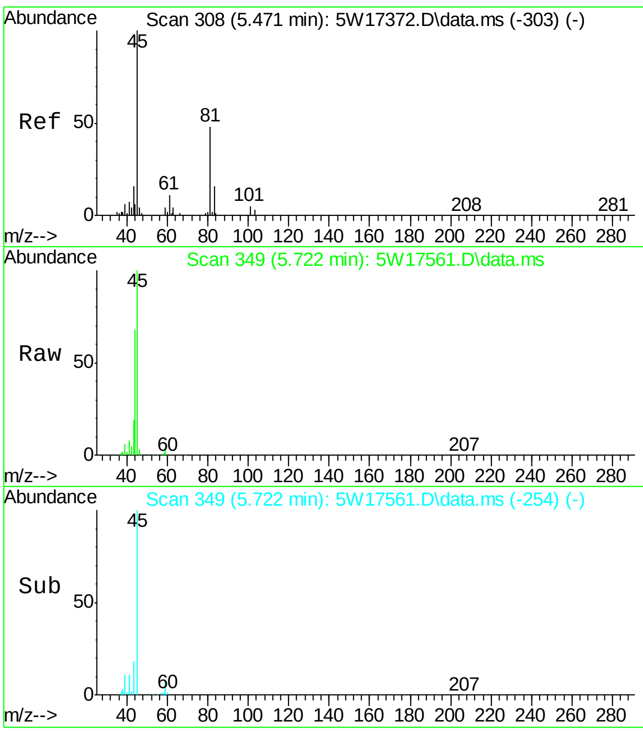




#21
Acetone
Concen: 0.81 ppb(v)
RT: 5.544 min Scan# 320
Delta R.T. 0.294 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

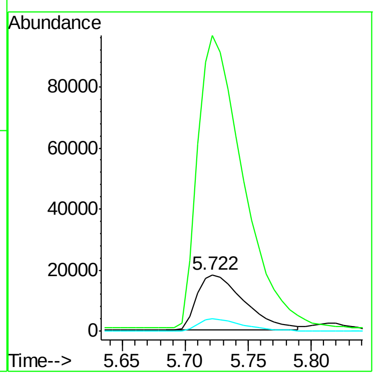
Tgt Ion: 58	Resp:	6185	
Ion	Ratio	Lower	Upper
58	100		
43	319.4	227.9	423.3

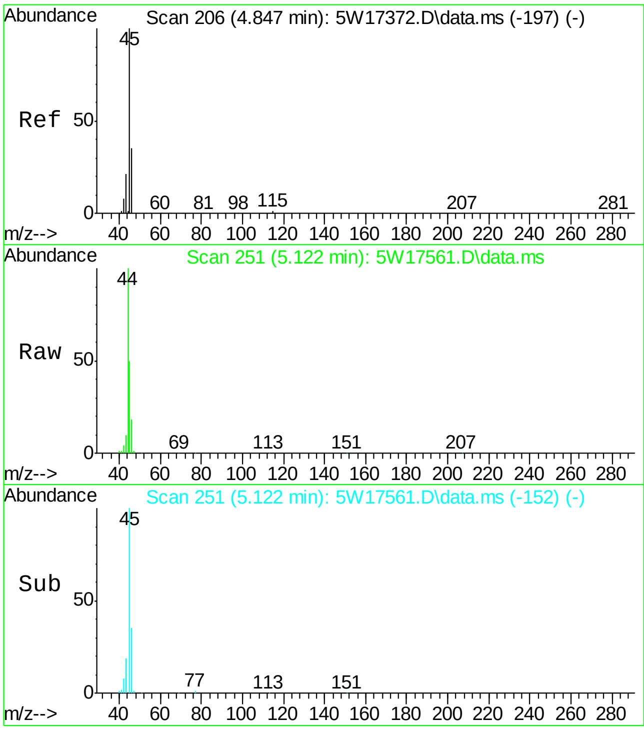




#25
Isopropyl Alcohol
Concen: 8.08 ppb(v)
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 43	Resp:	47623	
Ion	Ratio	Lower	Upper
43	100		
45	522.2	409.4	760.2
59	21.3	16.8	31.2

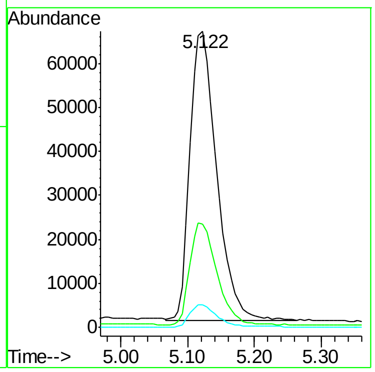


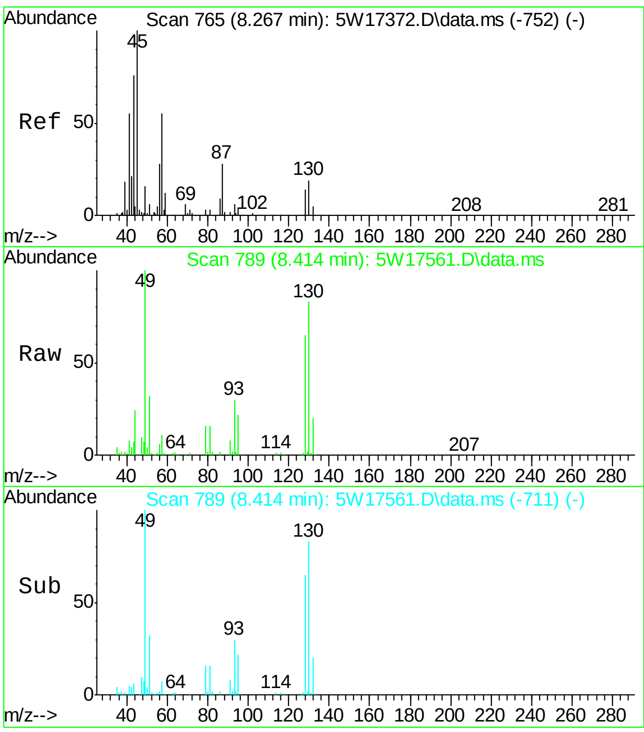


#30
Ethanol
Concen: 28.21 ppb(v)
RT: 5.122 min Scan# 251
Delta R.T. 0.275 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 45 Resp: 181970

Ion	Ratio	Lower	Upper
45	100		
46	34.9	24.6	45.8
42	7.8	6.5	12.1

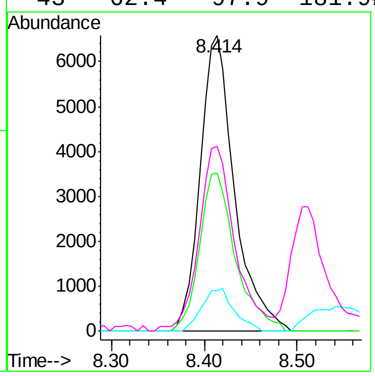


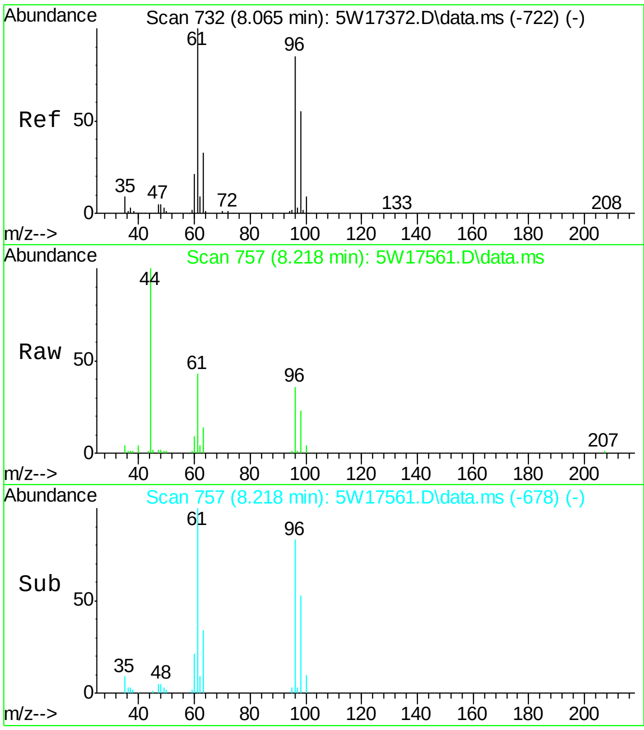


#39
Hexane
Concen: 0.65 ppb(v)
RT: 8.414 min Scan# 789
Delta R.T. 0.147 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 57 Resp: 17006

Ion	Ratio	Lower	Upper
57	100		
56	53.5	36.5	67.9
86	13.7	11.1	20.7
43	62.4	97.9	181.9#

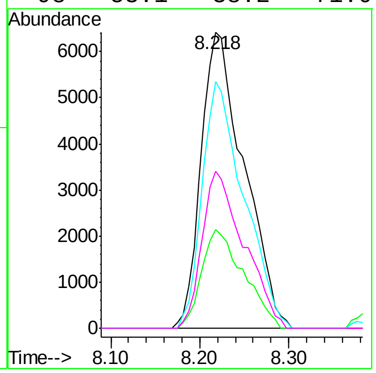


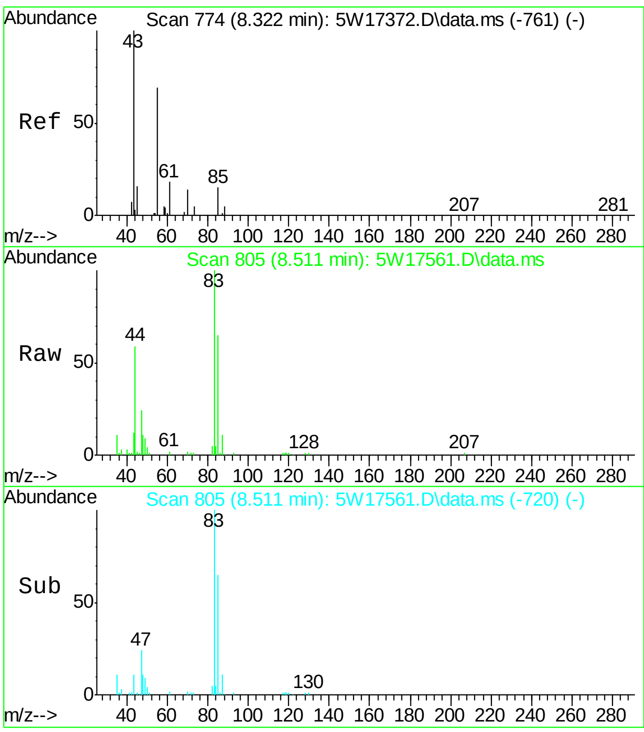


#40
cis-1,2-Dichloroethene
Concen: 0.97 ppb(v)
RT: 8.218 min Scan# 757
Delta R.T. 0.153 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 61 Resp: 21432

Ion	Ratio	Lower	Upper
61	100		
63	33.5	23.0	42.8
96	83.2	59.3	110.1
98	53.1	38.2	71.0

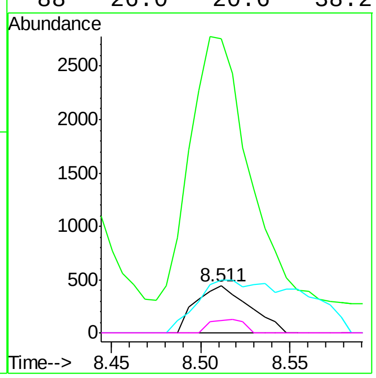


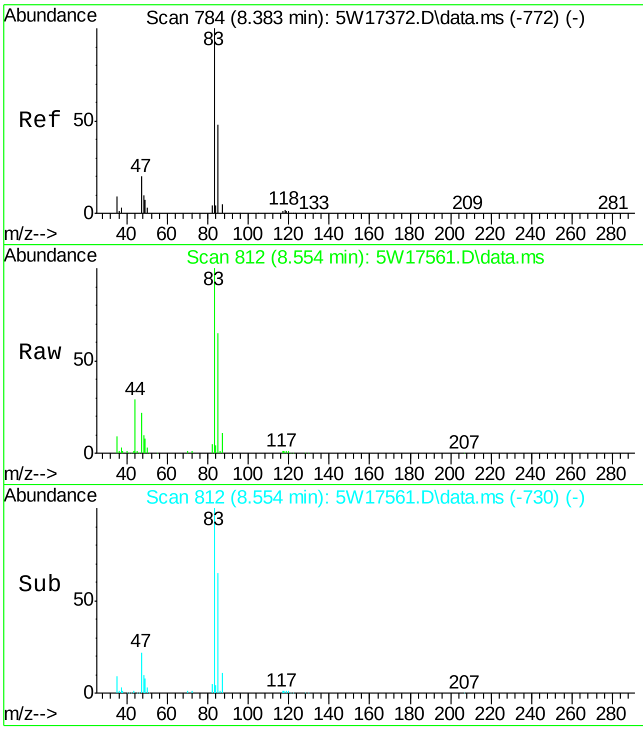


#42
Ethyl Acetate
Concen: 0.18 ppb(v)
RT: 8.511 min Scan# 805
Delta R.T. 0.190 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 61 Resp: 930

Ion	Ratio	Lower	Upper
61	100		
43	629.2	466.1	865.7
70	114.1	56.3	104.5#
88	26.0	20.6	38.2

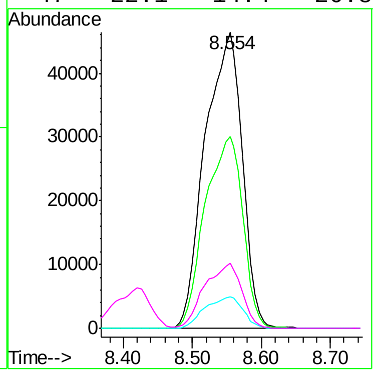


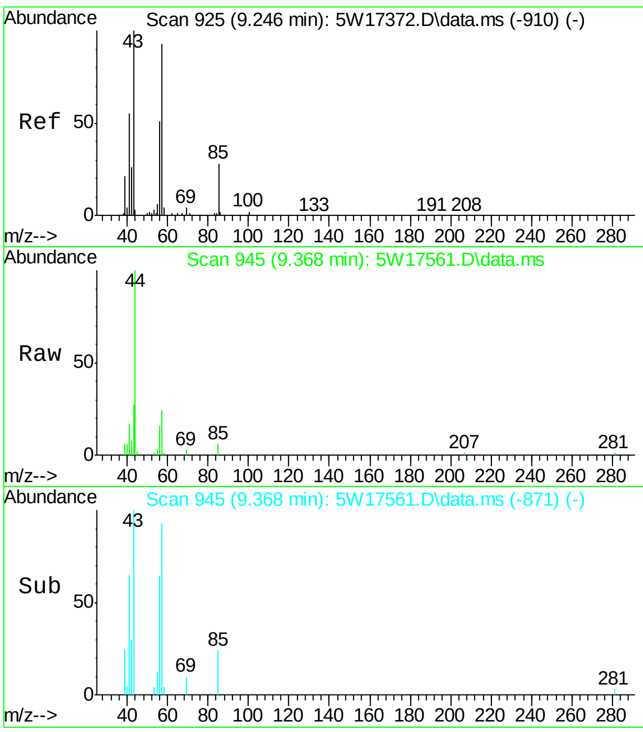


#44
Chloroform
Concen: 4.36 ppb(v)
RT: 8.554 min Scan# 812
Delta R.T. 0.171 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 83 Resp: 173627

Ion	Ratio	Lower	Upper
83	100		
85	64.9	45.4	84.2
87	10.6	7.3	13.5
47	22.1	14.4	26.8

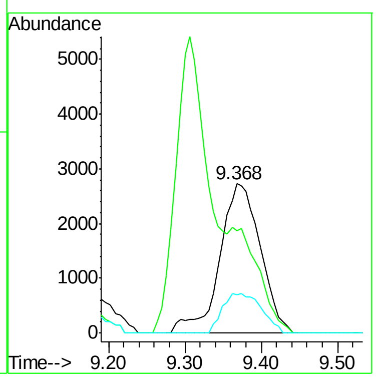


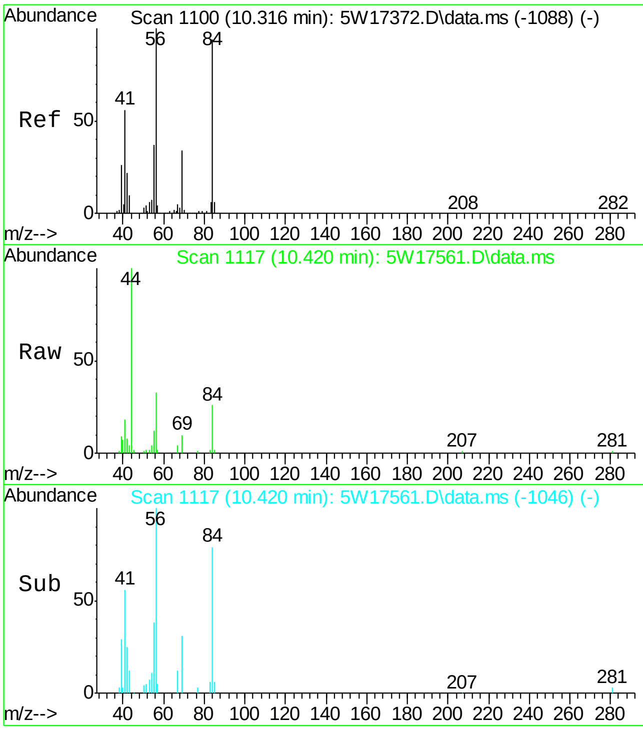


#45
2,4-Dimethylpentane
Concen: 0.34 ppb(v)
RT: 9.368 min Scan# 945
Delta R.T. 0.122 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 57 Resp: 10045

Ion	Ratio	Lower	Upper
57	100		
56	68.9	38.9	72.2
85	25.5	21.0	39.0

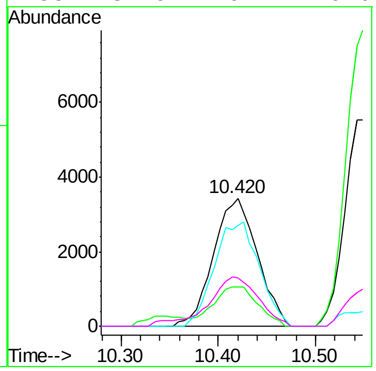


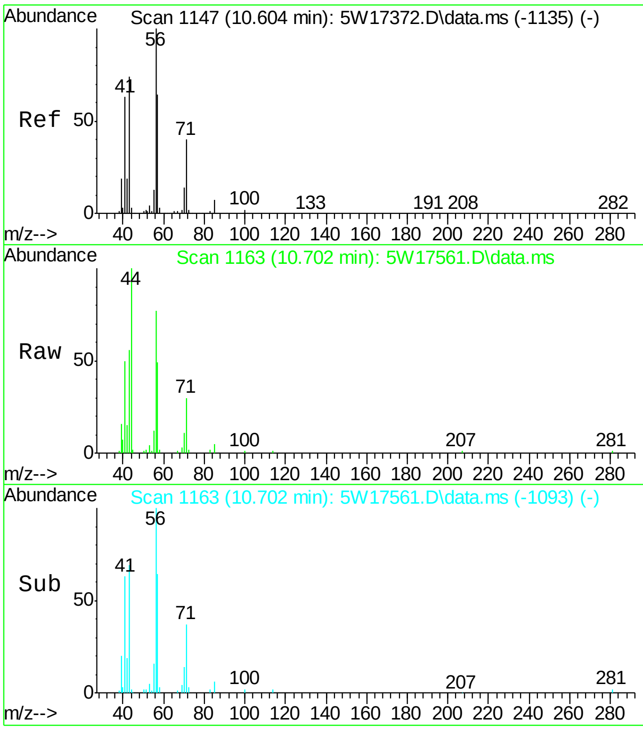


#51
Cyclohexane
Concen: 0.43 ppb(v)
RT: 10.420 min Scan# 1117
Delta R.T. 0.104 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 56 Resp: 10781

Ion	Ratio	Lower	Upper
56	100		
69	31.1	23.7	44.1
84	78.7	65.6	121.8
55	37.9	26.4	49.0

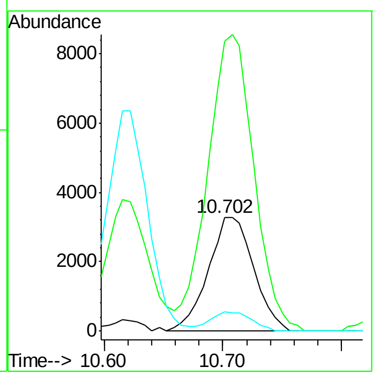


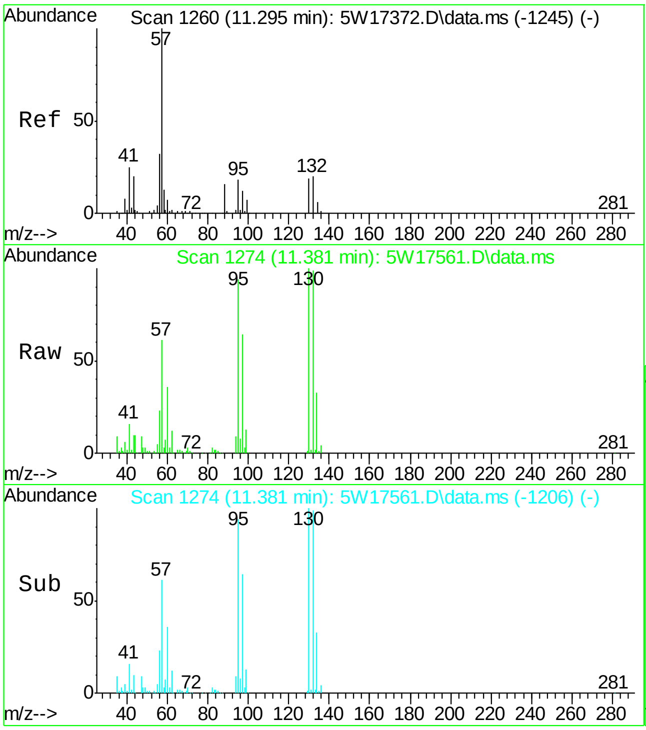


#52
2,3-Dimethylpentane
Concen: 0.76 ppb(v)
RT: 10.702 min Scan# 1163
Delta R.T. 0.098 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 71 Resp: 8738

Ion	Ratio	Lower	Upper
71	100		
56	256.3	175.3	325.5
85	16.6	12.0	22.2

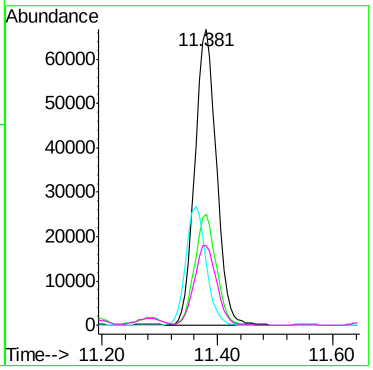


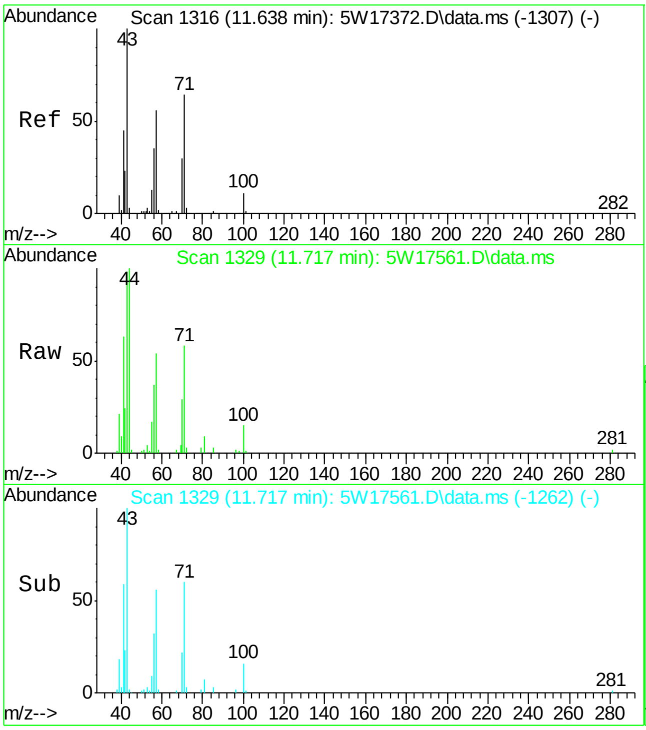


#54
2,2,4-Trimethylpentane
Concen: 2.14 ppb(v)
RT: 11.381 min Scan# 1274
Delta R.T. 0.086 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 57 Resp: 173396

Ion	Ratio	Lower	Upper
57	100		
56	37.4	22.4	41.6
99	21.1	4.9	9.1#
41	27.1	17.4	32.4

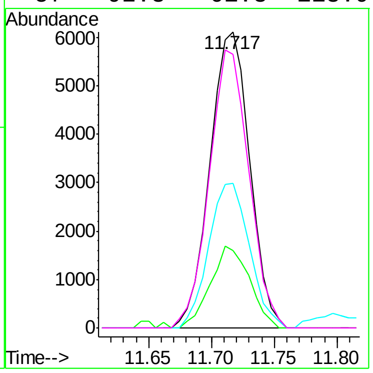


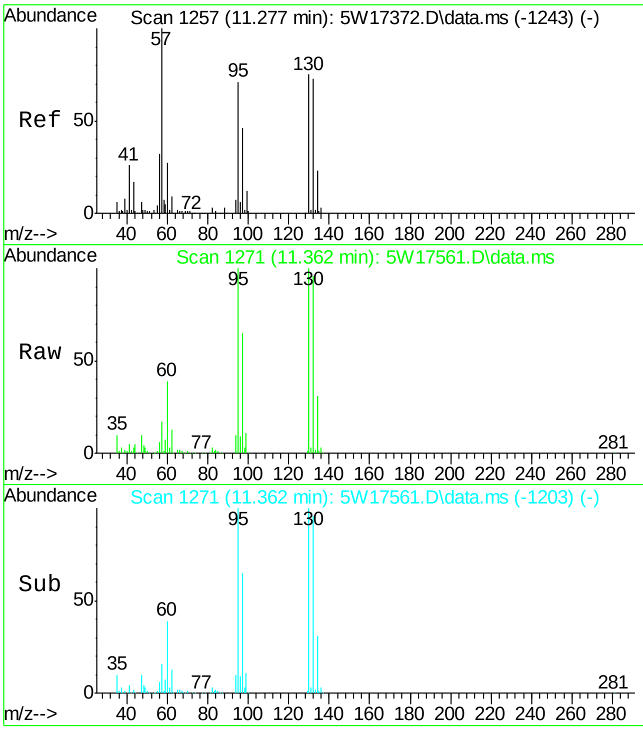


#55
Heptane
Concen: 0.77 ppb(v)
RT: 11.717 min Scan# 1329
Delta R.T. 0.079 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 71 Resp: 13394

Ion	Ratio	Lower	Upper
71	100		
100	26.1	19.6	36.4
70	49.0	34.0	63.2
57	92.3	61.3	113.9

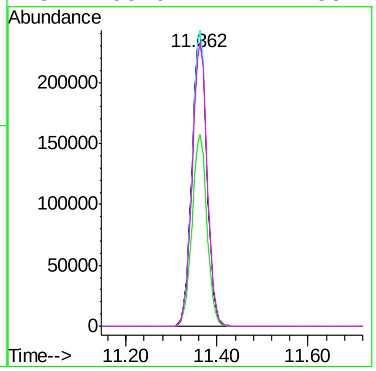


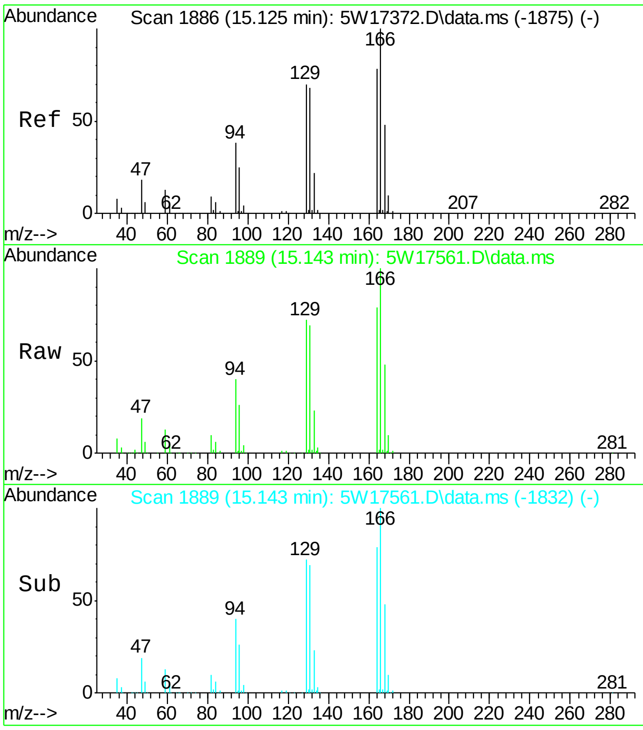


#56
Trichloroethene
Concen: 20.18 ppb(v)
RT: 11.362 min Scan# 1271
Delta R.T. 0.086 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 95 Resp: 560223

Ion	Ratio	Lower	Upper
95	100		
97	65.0	45.4	84.4
130	100.2	74.1	137.5
132	95.9	71.7	133.1

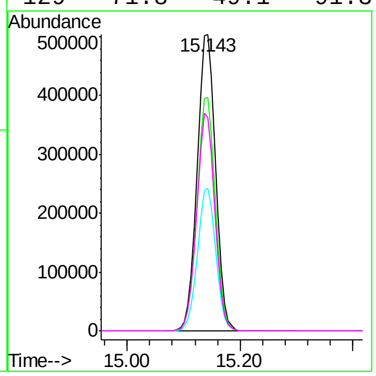


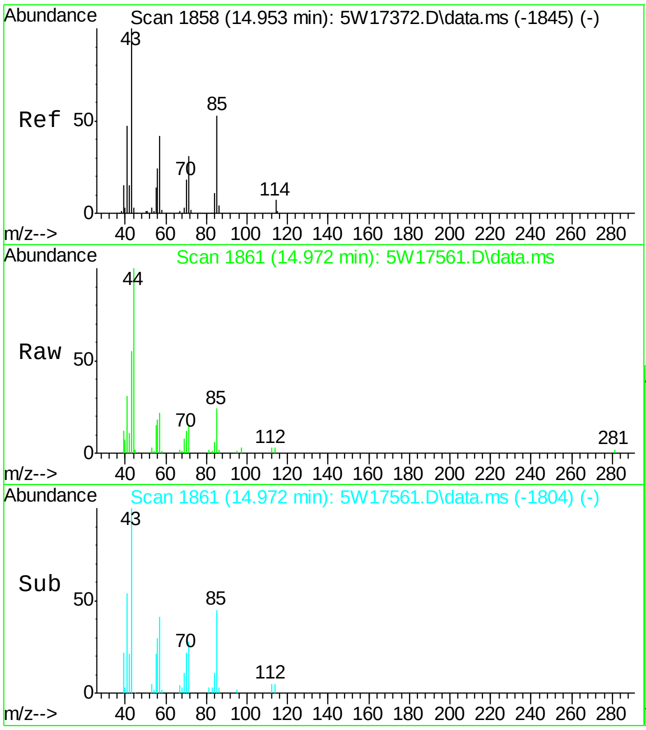


#72
Tetrachloroethene
Concen: 29.45 ppb(v)
RT: 15.143 min Scan# 1889
Delta R.T. 0.018 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion:166 Resp: 1167709

Ion	Ratio	Lower	Upper
166	100		
164	78.9	54.6	101.4
168	48.3	33.5	62.3
129	71.8	49.1	91.3

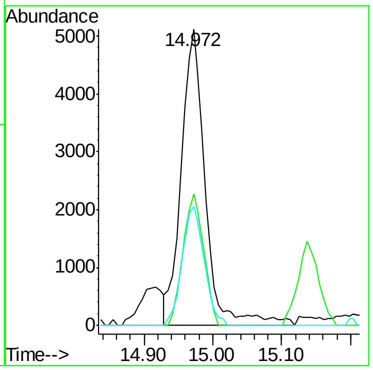


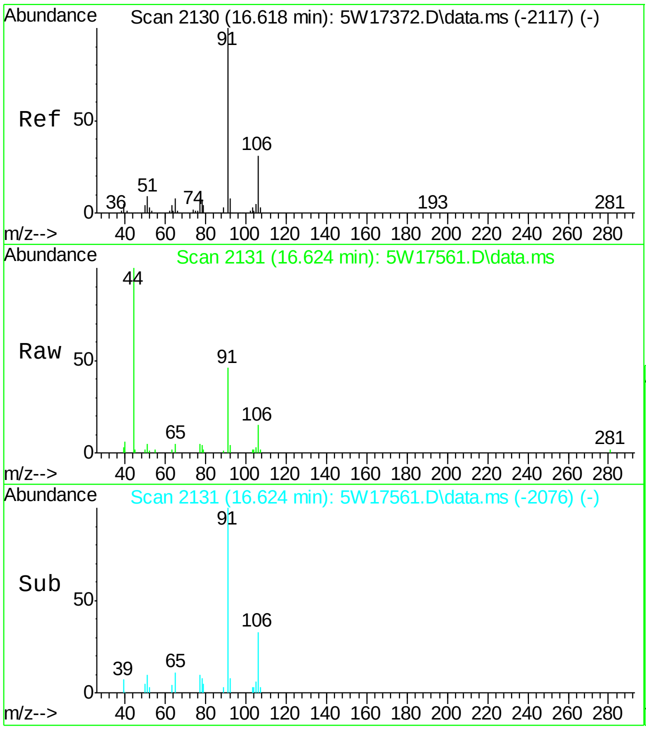


#74
Octane
Concen: 0.33 ppb(v)
RT: 14.972 min Scan# 1861
Delta R.T. 0.018 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 43 Resp: 12407

Ion	Ratio	Lower	Upper
43	100		
85	44.3	37.1	68.9
57	40.2	29.6	55.0

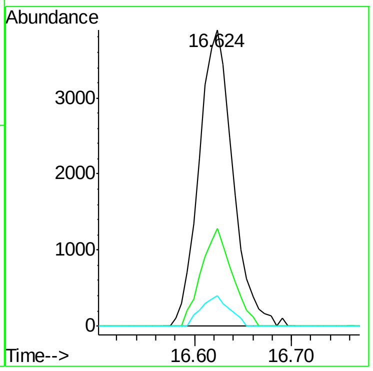




#78
Ethylbenzene
Concen: 0.10 ppb(v)
RT: 16.624 min Scan# 2131
Delta R.T. 0.006 min
Lab File: 5W17561.D
Acq: 7 Apr 2016 3:55 pm

Tgt Ion: 91 Resp: 9415

Ion	Ratio	Lower	Upper
91	100		
106	32.9	22.0	40.8
77	10.3	5.9	10.9



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 16:47

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17562.D
Acq On    :  7 Apr 2016   4:41 pm
Operator  : THOMASH
Sample    : JC17438-12
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 15:41:21 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

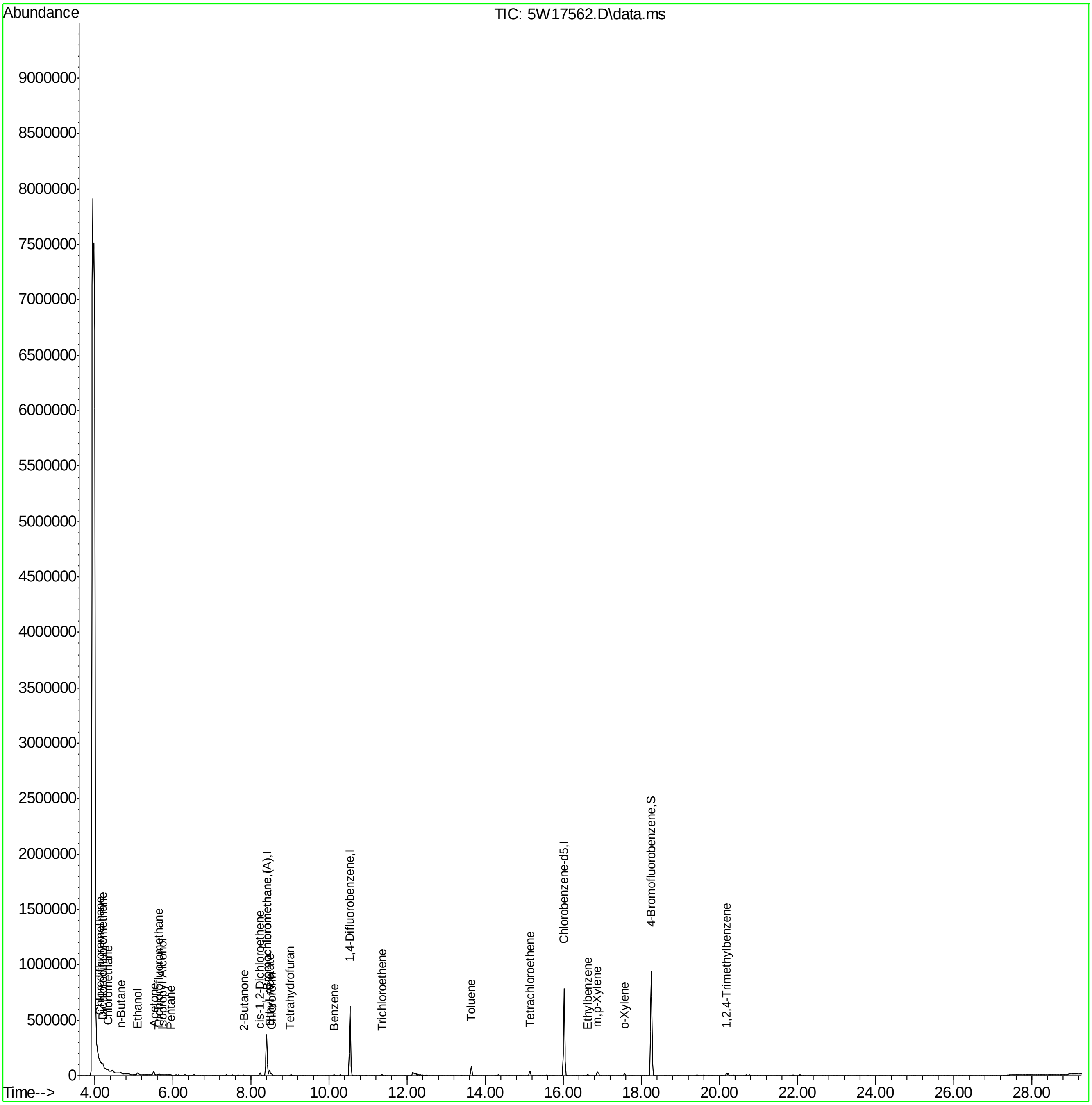
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.395	130	181165	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	672202	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	327455	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	182278	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	438170	9.77 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.70%		
Target Compounds					Qvalue
4) Chlorodifluoromethane	4.113	67	1073	0.24 ppb(v	86
6) Dichlorodifluoromethane	4.199	85	22873	0.55 ppb(v	98
8) Chloromethane	4.333	50	8605	0.67 ppb(v	100
12) n-Butane	4.663	58	1156	0.50 ppb(v#	1
20) Trichlorofluoromethane	5.630	101	10684	0.24 ppb(v	97
21) Acetone	5.508	58	13746	1.95 ppb(v	97
22) Pentane	5.924	57	756	0.22 ppb(v	84
25) Isopropyl Alcohol	5.722	43	1405m	0.26 ppb(v	
30) Ethanol	5.092	45	27382	4.58 ppb(v	99
38) 2-Butanone	7.808	72	1922	0.28 ppb(v	94
40) cis-1,2-Dichloroethene	8.224	61	15786	0.77 ppb(v	97
42) Ethyl Acetate	8.469	61	10960	2.29 ppb(v	95
44) Chloroform	8.530	83	9066	0.25 ppb(v	96
46) Tetrahydrofuran	9.001	72	3802	0.56 ppb(v	90
49) Benzene	10.114	78	6801	0.14 ppb(v	98
56) Trichloroethene	11.350	95	3614	0.14 ppb(v	94
66) Toluene	13.638	91	85856	1.34 ppb(v	100
72) Tetrachloroethene	15.137	166	16865	0.46 ppb(v	98
78) Ethylbenzene	16.617	91	11968	0.14 ppb(v	99
79) m,p-Xylene	16.862	91	40482	0.62 ppb(v	99
82) o-Xylene	17.560	91	15153	0.22 ppb(v	99
95) 1,2,4-Trimethylbenzene	20.172	105	17590	0.23 ppb(v#	57

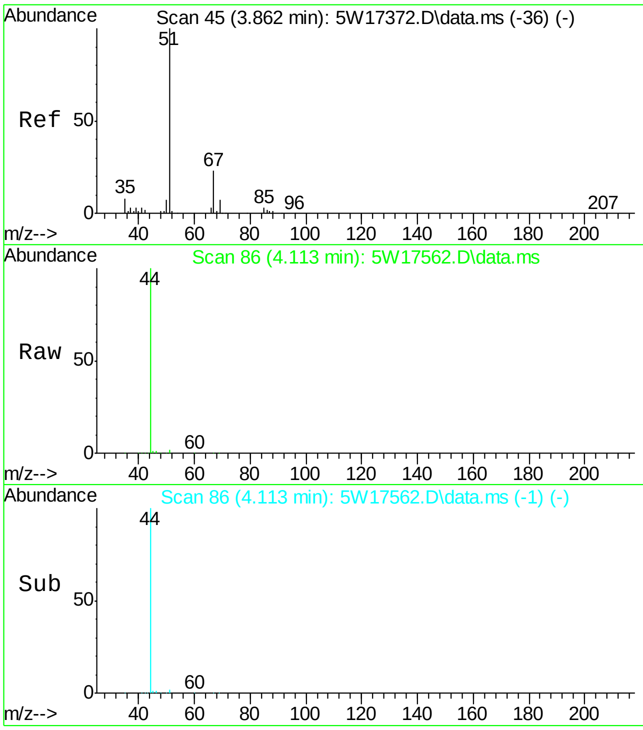
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17562.D
Acq On    :  7 Apr 2016   4:41 pm
Operator  : THOMASH
Sample    : JC17438-12
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 15:41:21 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

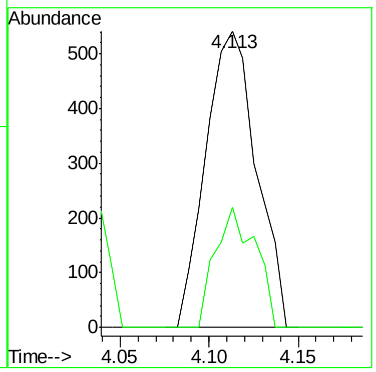


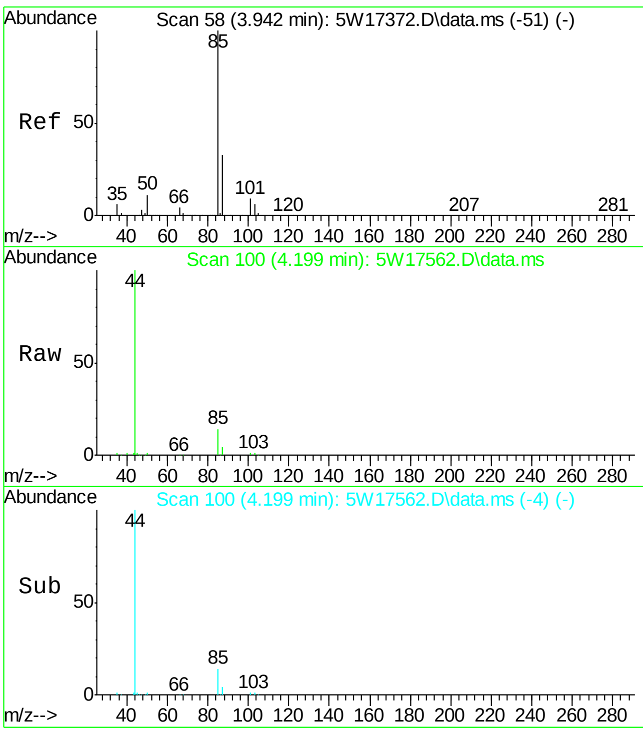


#4
Chlorodifluoromethane
Concen: 0.24 ppb(v)
RT: 4.113 min Scan# 86
Delta R.T. 0.251 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 67 Resp: 1073

Ion	Ratio	Lower	Upper
67	100		
69	40.5	22.7	42.1

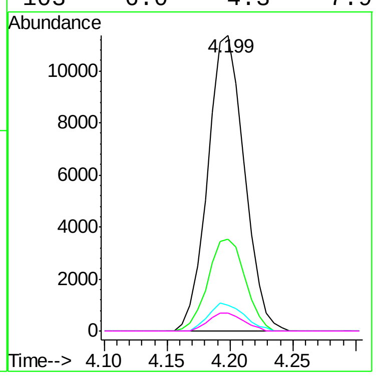


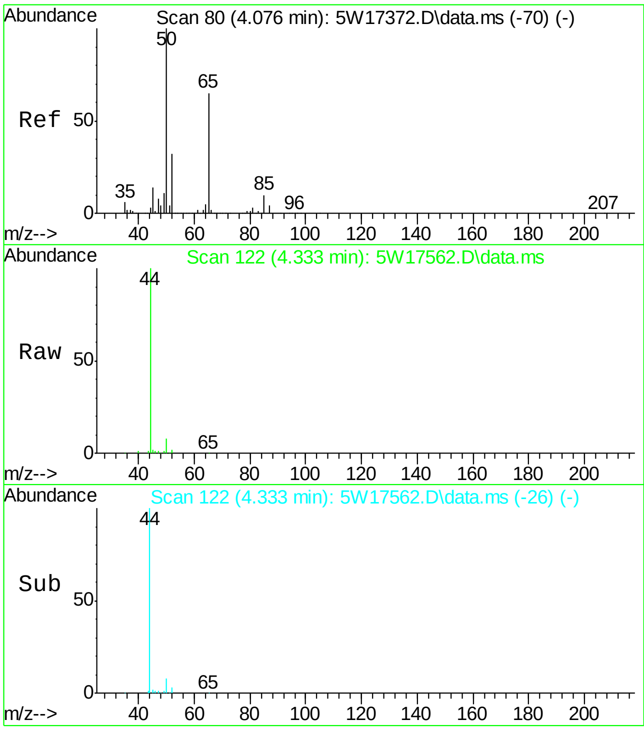


#6
Dichlorodifluoromethane
Concen: 0.55 ppb(v)
RT: 4.199 min Scan# 100
Delta R.T. 0.257 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 85 Resp: 22873

Ion	Ratio	Lower	Upper
85	100		
87	30.9	22.7	42.3
101	8.6	6.6	12.2
103	6.0	4.3	7.9

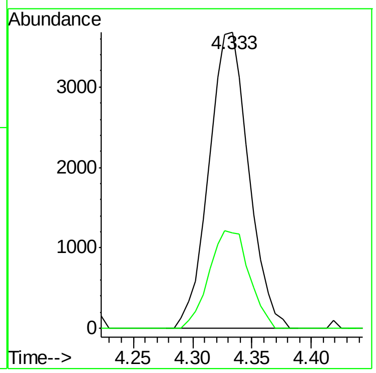


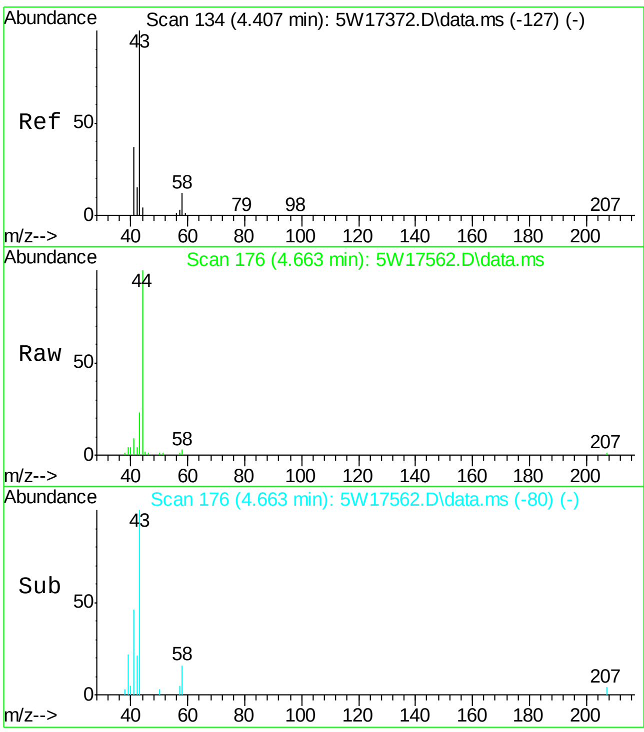


#8
Chloromethane
Concen: 0.67 ppb(v)
RT: 4.333 min   Scan# 122
Delta R.T.   0.257 min
Lab File: 5W17562.D
Acq: 7 Apr 2016   4:41 pm

Tgt Ion: 50 Resp: 8605

Ion	Ratio	Lower	Upper
50	100		
52	32.2	22.7	42.1

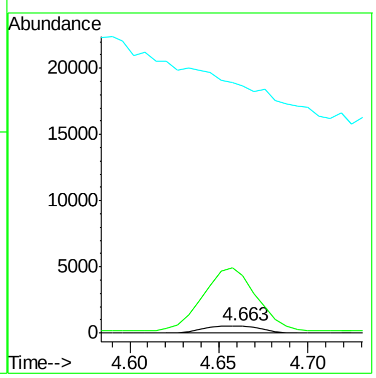


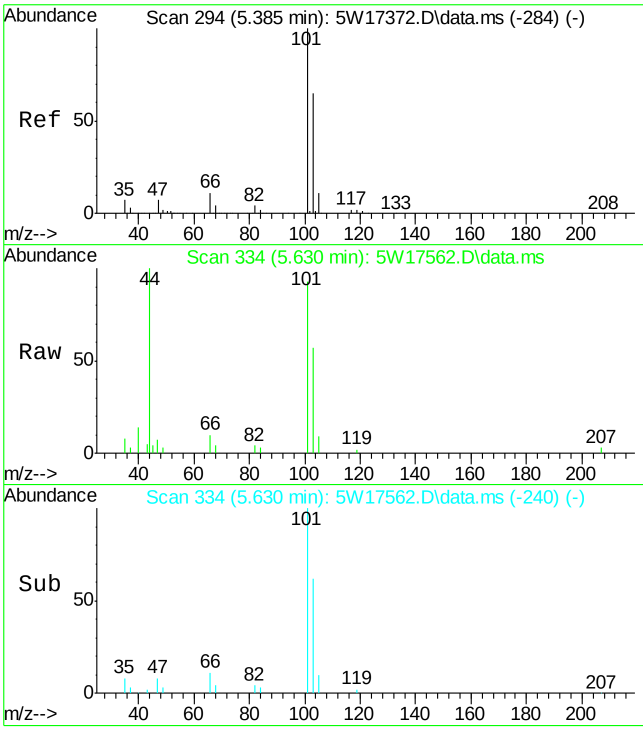


#12
n-Butane
Concen: 0.50 ppb(v)
RT: 4.663 min   Scan# 176
Delta R.T.   0.257 min
Lab File: 5W17562.D
Acq: 7 Apr 2016   4:41 pm

Tgt Ion: 58 Resp: 1156

Ion	Ratio	Lower	Upper
58	100		
43	797.6	576.3	1070.3
44	3398.5	34.4	64.0#

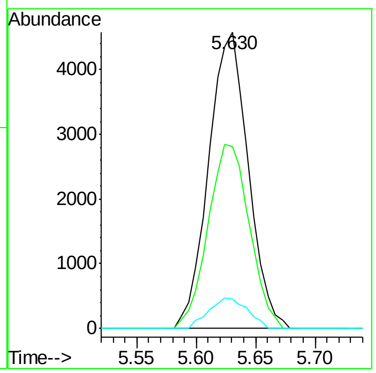


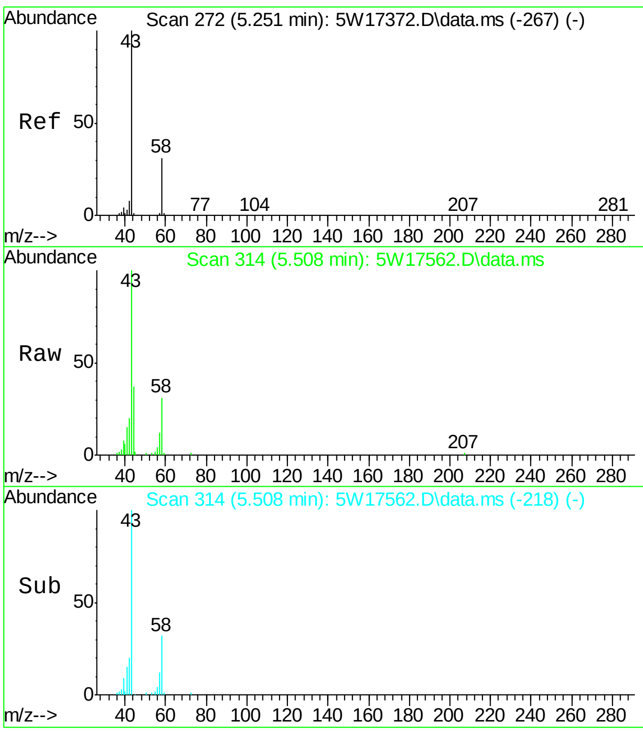


#20
Trichlorofluoromethane
Concen: 0.24 ppb(v)
RT: 5.630 min Scan# 334
Delta R.T. 0.245 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion:101 Resp: 10684

Ion	Ratio	Lower	Upper
101	100		
103	61.6	45.1	83.9
105	10.1	7.5	13.9

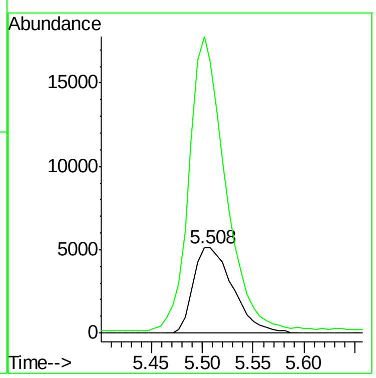


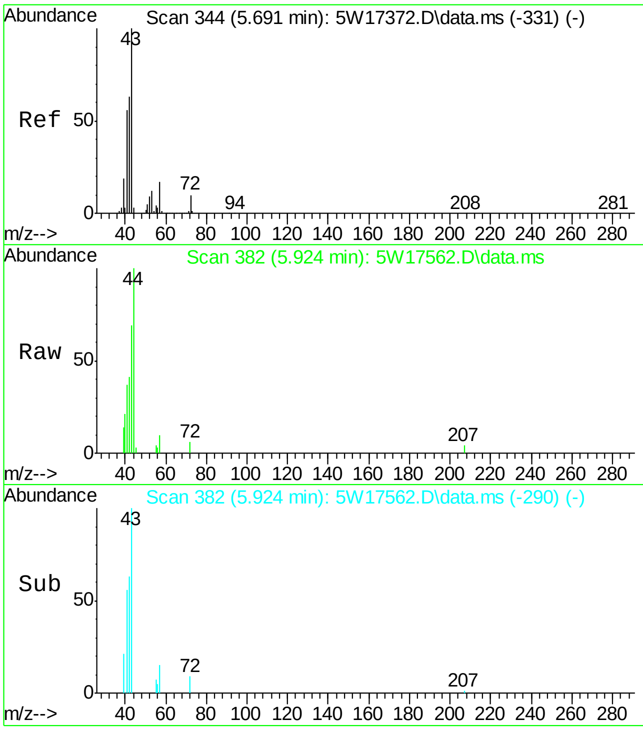


#21
Acetone
Concen: 1.95 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 58 Resp: 13746

Ion	Ratio	Lower	Upper
58	100		
43	318.4	227.9	423.3

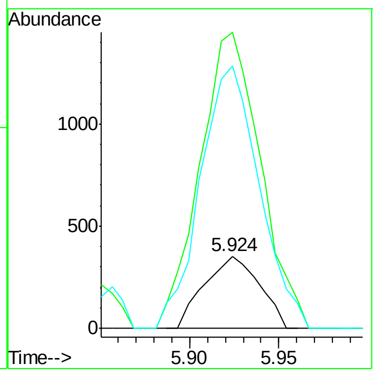


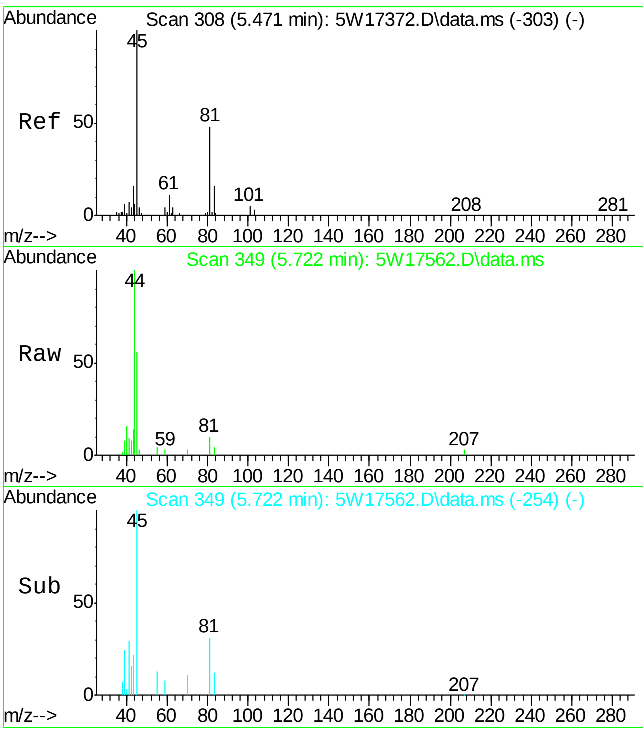


#22
Pentane
Concen: 0.22 ppb(v)
RT: 5.924 min Scan# 382
Delta R.T. 0.232 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 57 Resp: 756

Ion	Ratio	Lower	Upper
57	100		
42	409.0	258.3	479.7
41	363.3	233.4	433.5

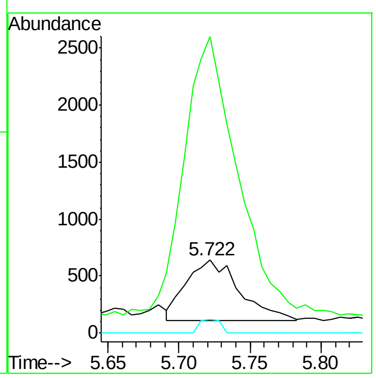


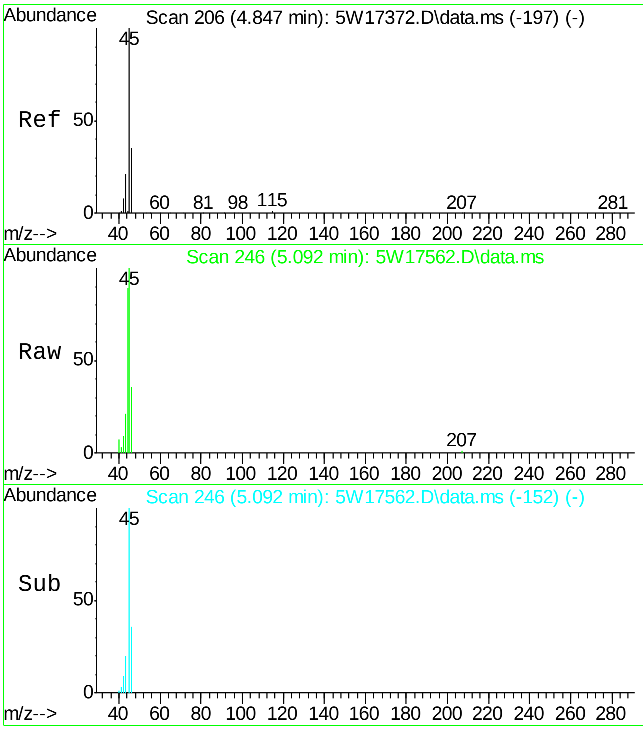


#25
Isopropyl Alcohol
Concen: 0.26 ppb(v) m
RT: 5.722 min Scan# 349
Delta R.T. 0.251 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 43 Resp: 1405

Ion	Ratio	Lower	Upper
43	100		
45	408.6	409.4	760.2#
59	18.5	16.8	31.2

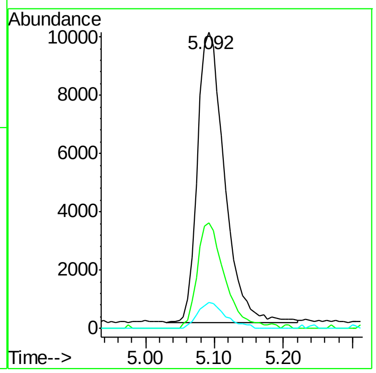


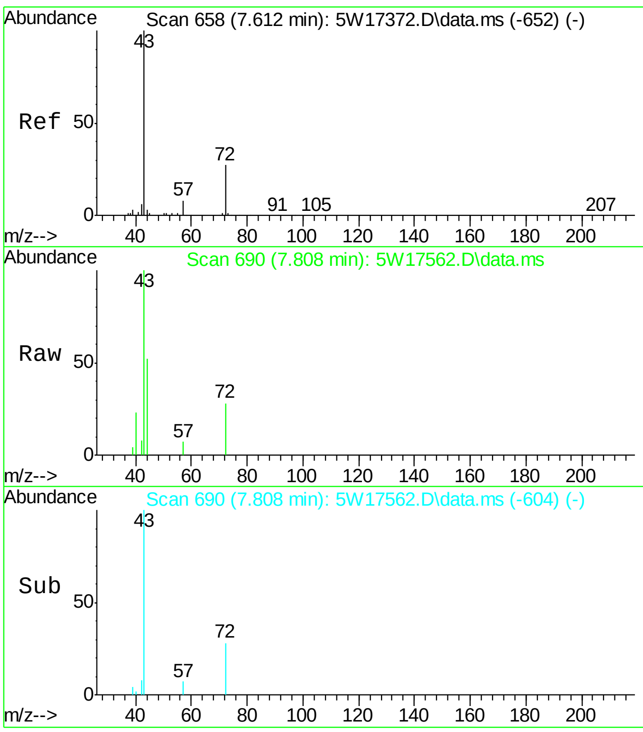


#30
Ethanol
Concen: 4.58 ppb(v)
RT: 5.092 min Scan# 246
Delta R.T. 0.245 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 45 Resp: 27382

Ion	Ratio	Lower	Upper
45	100		
46	35.5	24.6	45.8
42	8.6	6.5	12.1

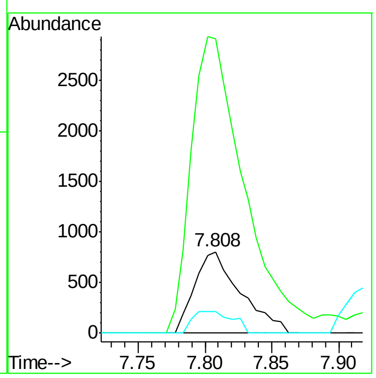


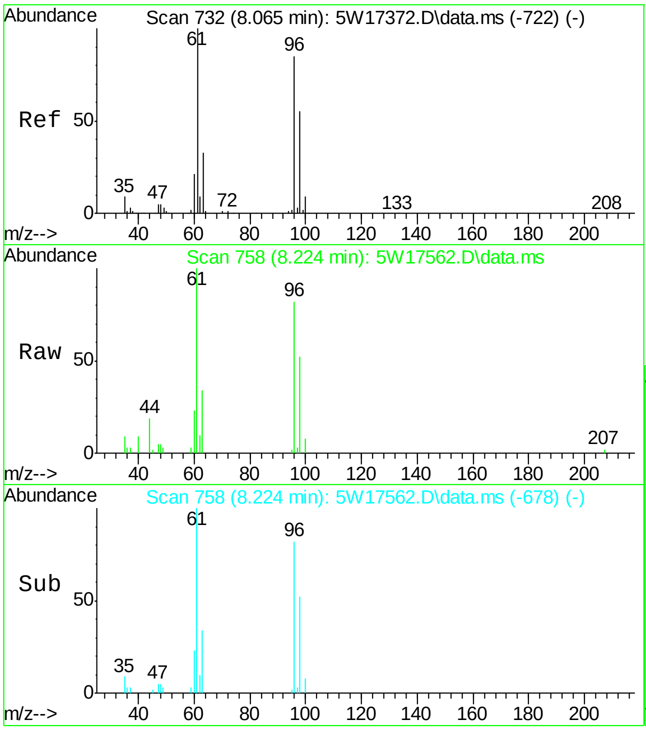


#38
2-Butanone
Concen: 0.28 ppb(v)
RT: 7.808 min Scan# 690
Delta R.T. 0.196 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 72 Resp: 1922

Ion	Ratio	Lower	Upper
72	100		
43	362.0	262.9	488.3
57	26.2	21.3	39.6

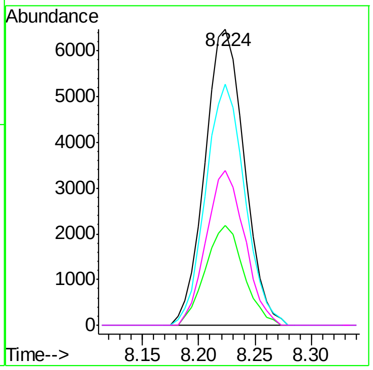


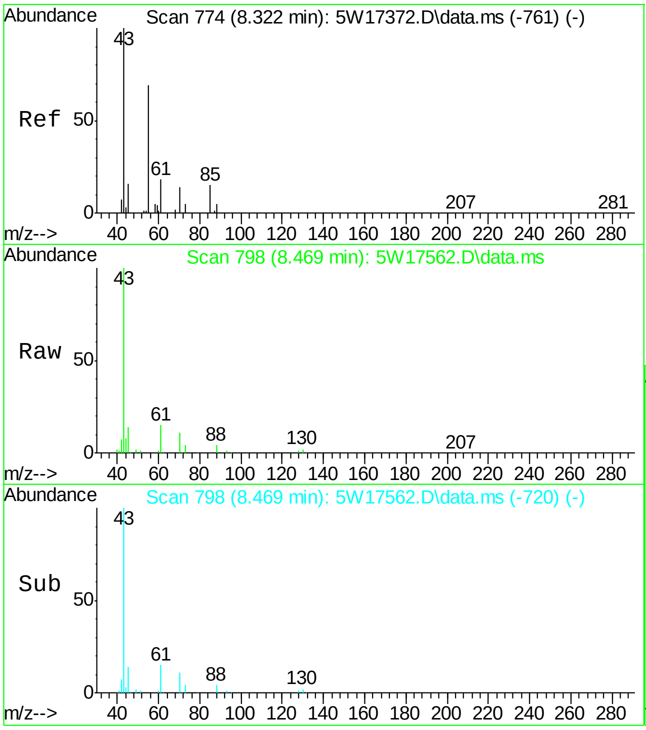


#40
cis-1,2-Dichloroethene
Concen: 0.77 ppb(v)
RT: 8.224 min Scan# 758
Delta R.T. 0.159 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 61 Resp: 15786

Ion	Ratio	Lower	Upper
61	100		
63	33.7	23.0	42.8
96	81.6	59.3	110.1
98	52.2	38.2	71.0

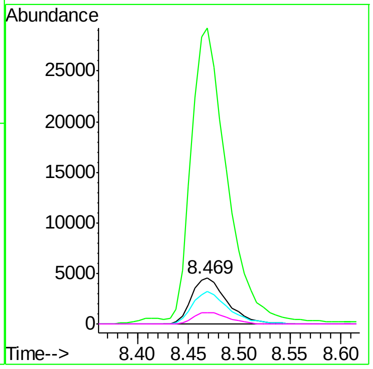


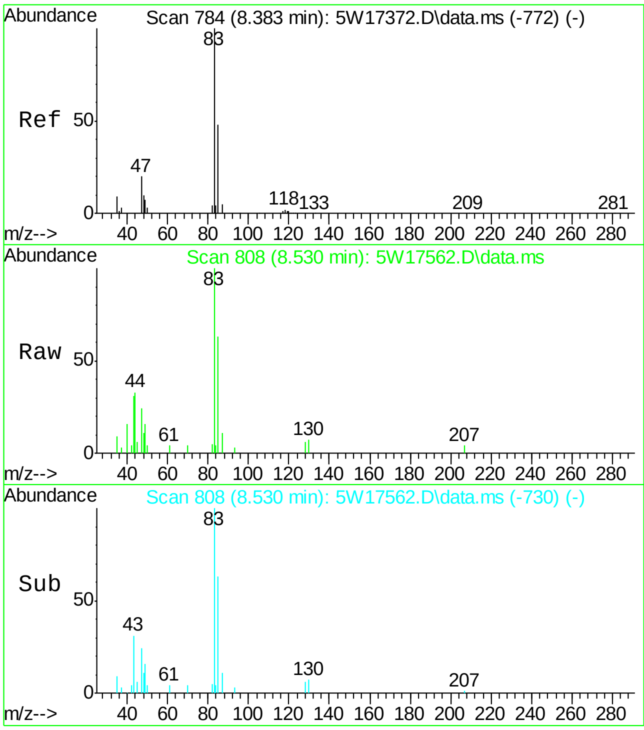


#42
Ethyl Acetate
Concen: 2.29 ppb(v)
RT: 8.469 min Scan# 798
Delta R.T. 0.147 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 61 Resp: 10960

Ion	Ratio	Lower	Upper
61	100		
43	650.1	466.1	865.7
70	71.4	56.3	104.5
88	25.2	20.6	38.2

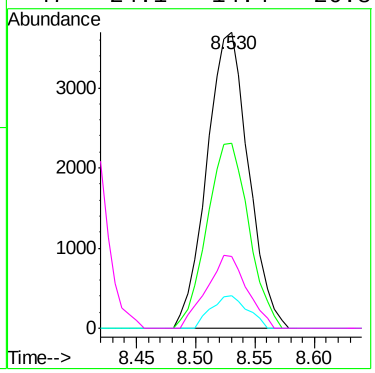


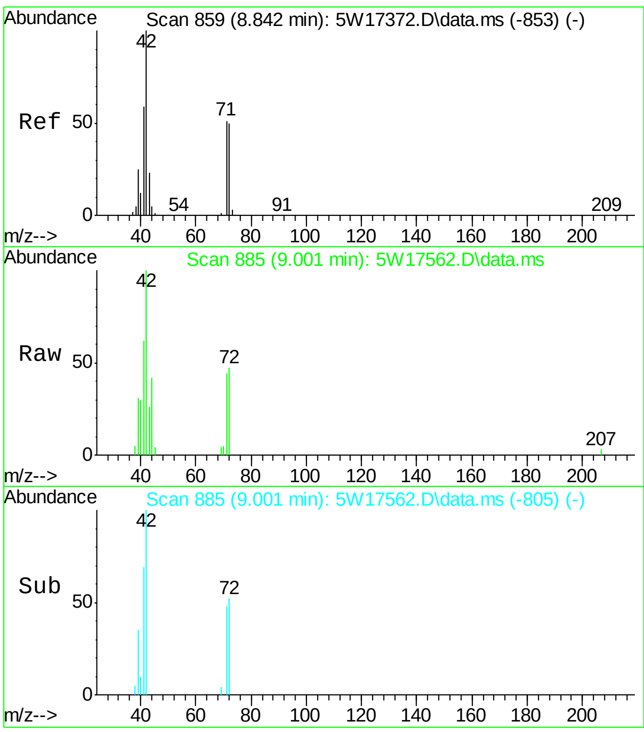


#44
Chloroform
Concen: 0.25 ppb(v)
RT: 8.530 min Scan# 808
Delta R.T. 0.147 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 83 Resp: 9066

Ion	Ratio	Lower	Upper
83	100		
85	62.6	45.4	84.2
87	10.8	7.3	13.5
47	24.1	14.4	26.8

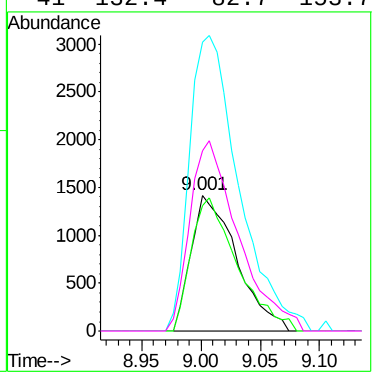


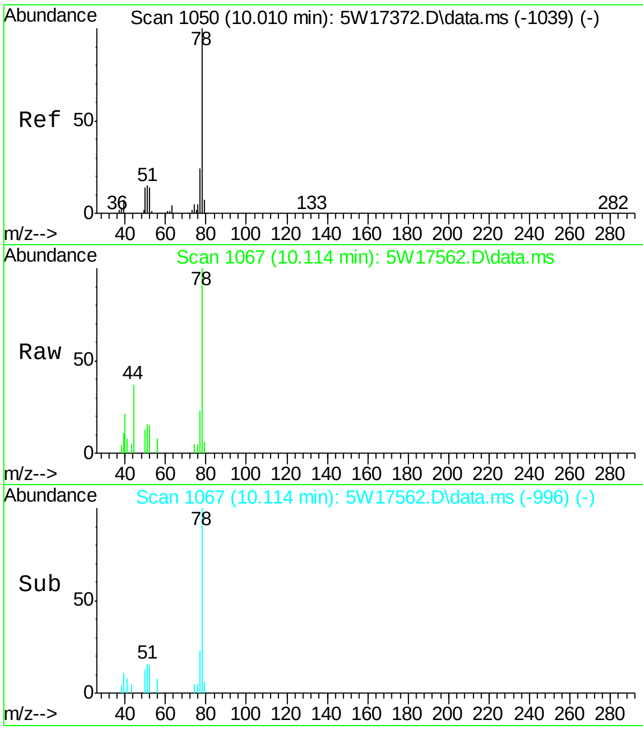


#46
Tetrahydrofuran
Concen: 0.56 ppb(v)
RT: 9.001 min Scan# 885
Delta R.T. 0.159 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 72 Resp: 3802

Ion	Ratio	Lower	Upper
72	100		
71	92.6	70.7	131.3
42	212.6	139.4	259.0
41	132.4	82.7	153.7

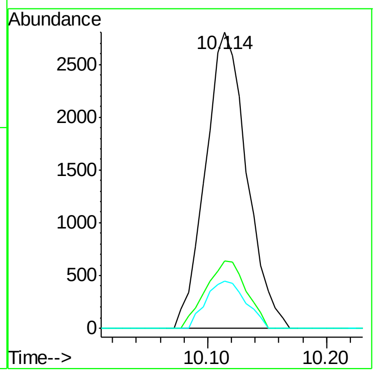


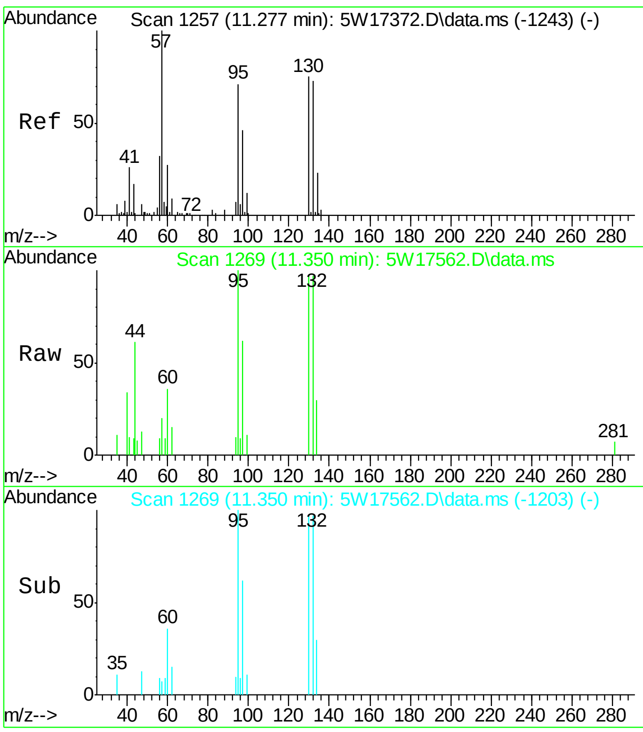


#49
Benzene
Concen: 0.14 ppb(v)
RT: 10.114 min Scan# 1067
Delta R.T. 0.104 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 78 Resp: 6801

Ion	Ratio	Lower	Upper
78	100		
77	22.8	16.5	30.7
51	16.0	10.5	19.5

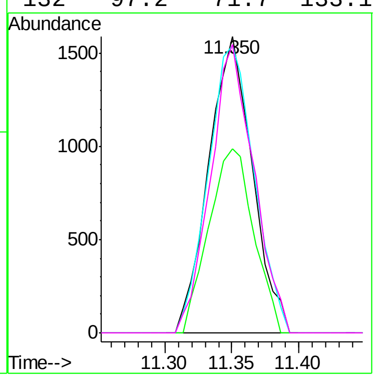


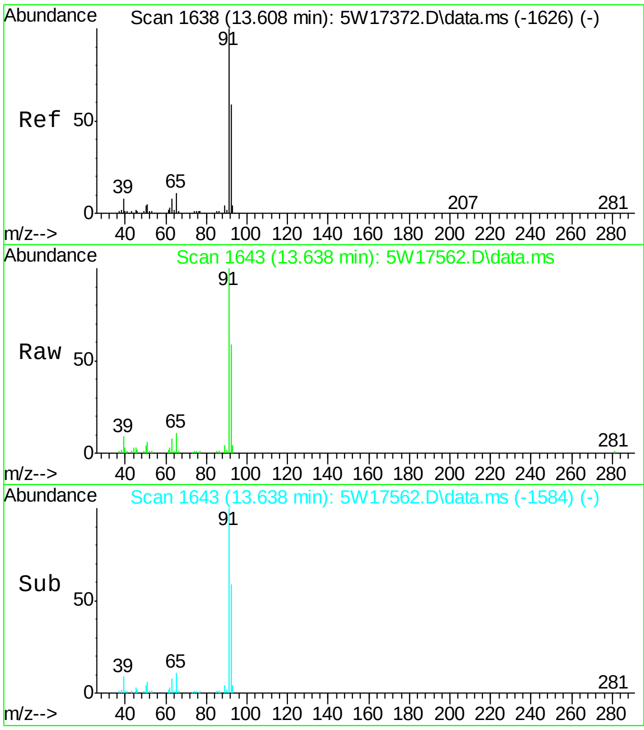


#56
Trichloroethene
Concen: 0.14 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.073 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 95 Resp: 3614

Ion	Ratio	Lower	Upper
95	100		
97	62.1	45.4	84.4
130	97.2	74.1	137.5
132	97.2	71.7	133.1

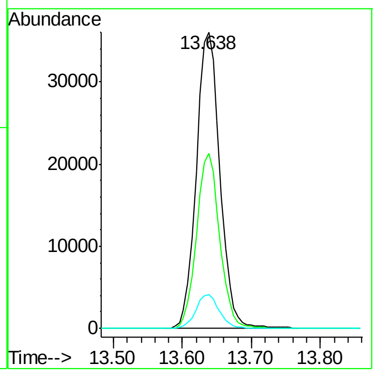


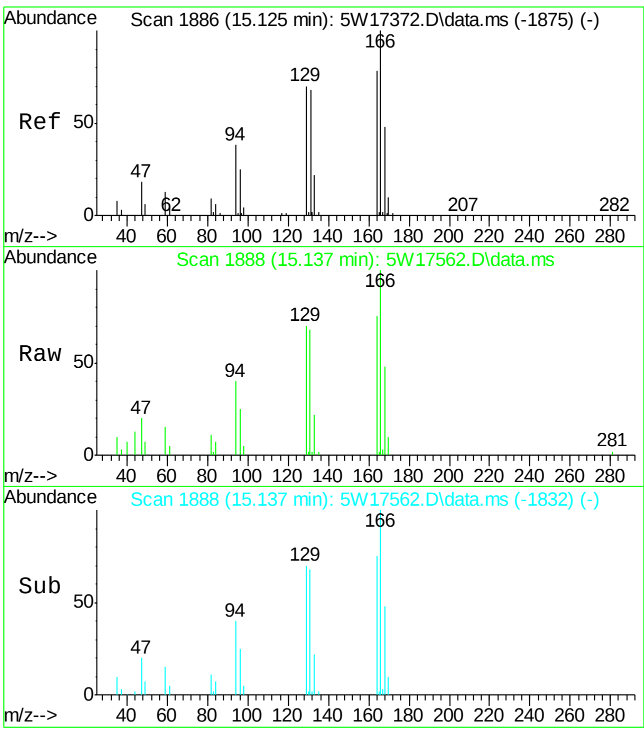


#66
Toluene
Concen: 1.34 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 91 Resp: 85856

Ion	Ratio	Lower	Upper
91	100		
92	58.9	41.2	76.6
65	11.3	7.3	13.7

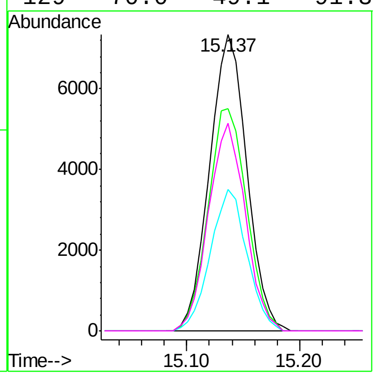


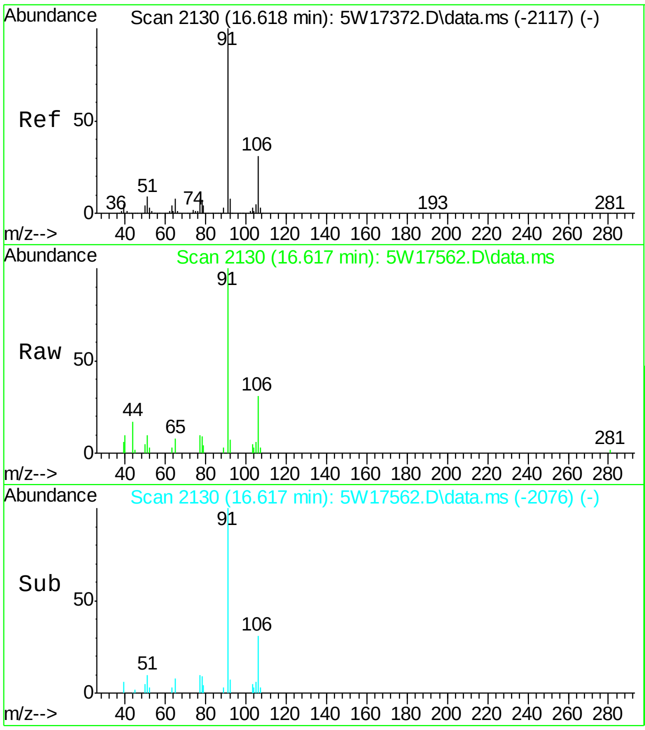


#72
Tetrachloroethene
Concen: 0.46 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion:166 Resp: 16865

Ion	Ratio	Lower	Upper
166	100		
164	74.9	54.6	101.4
168	47.9	33.5	62.3
129	70.0	49.1	91.3

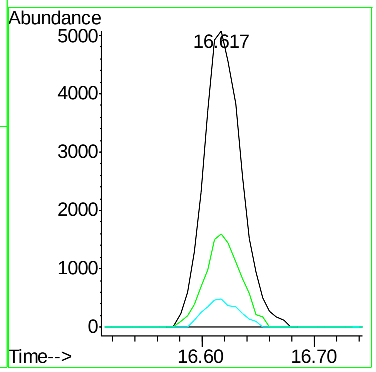


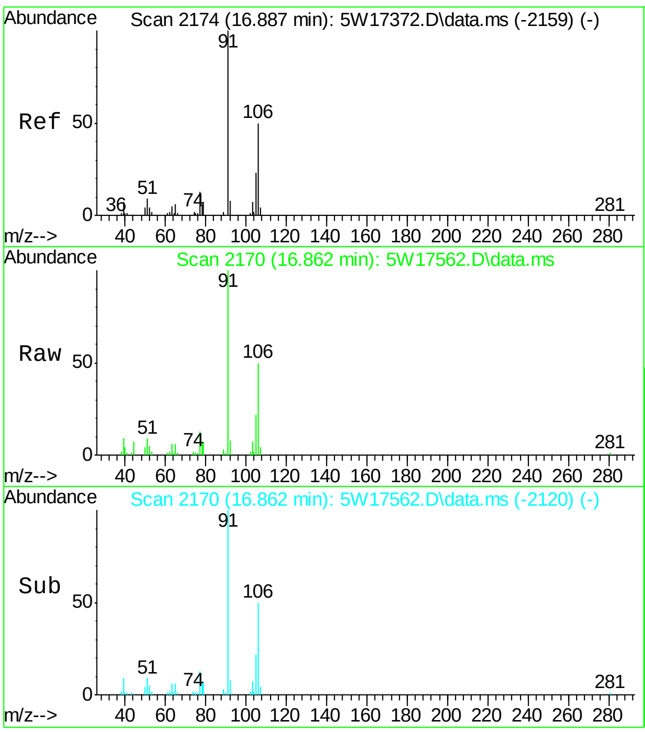


#78
Ethylbenzene
Concen: 0.14 ppb(v)
RT: 16.617 min Scan# 2130
Delta R.T. -0.000 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 91 Resp: 11968

Ion	Ratio	Lower	Upper
91	100		
106	31.3	22.0	40.8
77	9.7	5.9	10.9

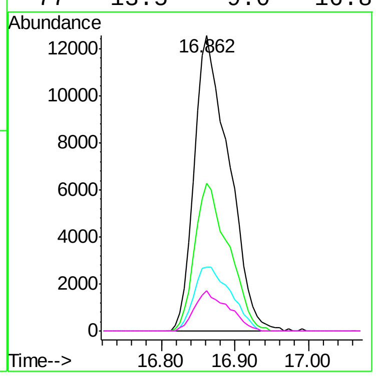


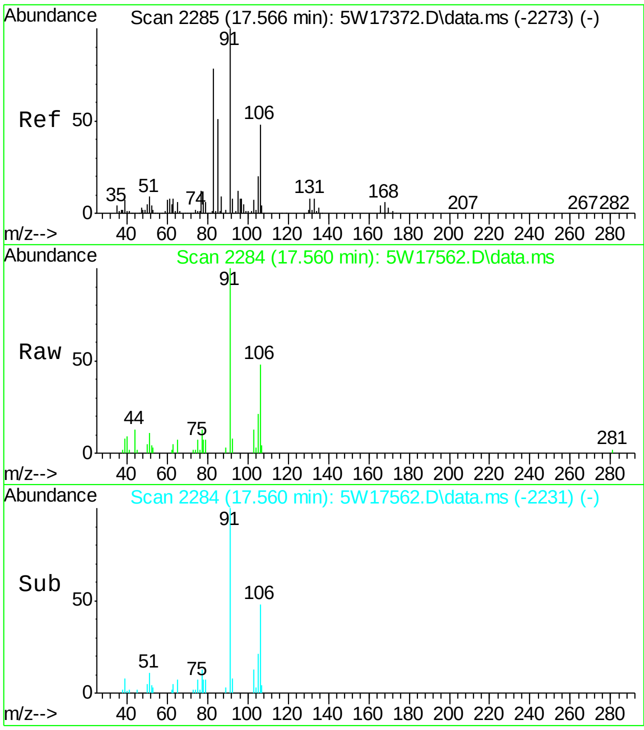


#79
m,p-Xylene
Concen: 0.62 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.025 min
Lab File: 5W17562.D
Acq: 7 Apr 2016 4:41 pm

Tgt Ion: 91 Resp: 40482

Ion	Ratio	Lower	Upper
91	100		
106	50.2	35.3	65.5
105	21.8	16.2	30.0
77	13.5	9.0	16.8

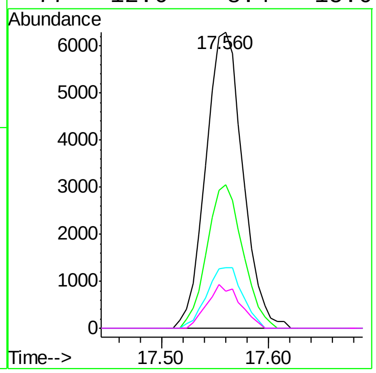


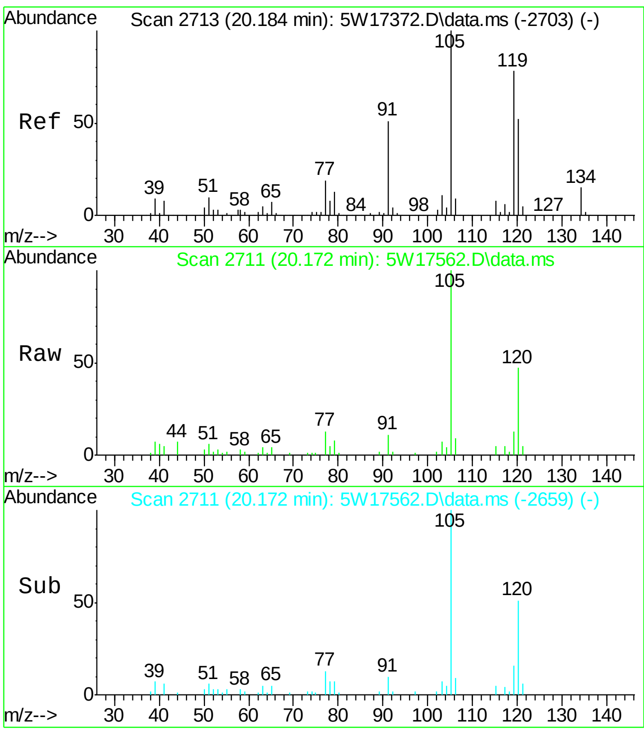


#82
o-Xylene
Concen: 0.22 ppb(v)
RT: 17.560 min   Scan# 2284
Delta R.T.   -0.006 min
Lab File: 5W17562.D
Acq: 7 Apr 2016   4:41 pm

Tgt Ion: 91 Resp: 15153

Ion	Ratio	Lower	Upper
91	100		
106	48.3	33.5	62.3
105	20.6	13.7	25.5
77	12.6	8.4	15.6

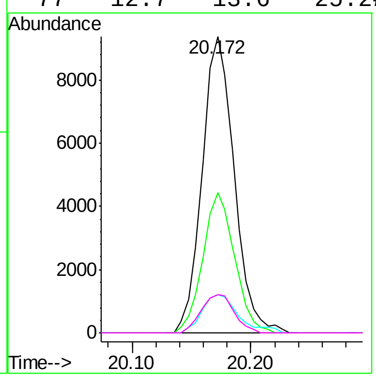




#95
1,2,4-Trimethylbenzene
Concen: 0.23 ppb(v)
RT: 20.172 min   Scan# 2711
Delta R.T.   -0.012 min
Lab File: 5W17562.D
Acq: 7 Apr 2016   4:41 pm

Tgt Ion:105 Resp: 17590

Ion	Ratio	Lower	Upper
105	100		
120	47.4	36.6	68.0
119	13.0	54.4	101.0#
77	12.7	13.6	25.2#



Manual Integration Approval Summary

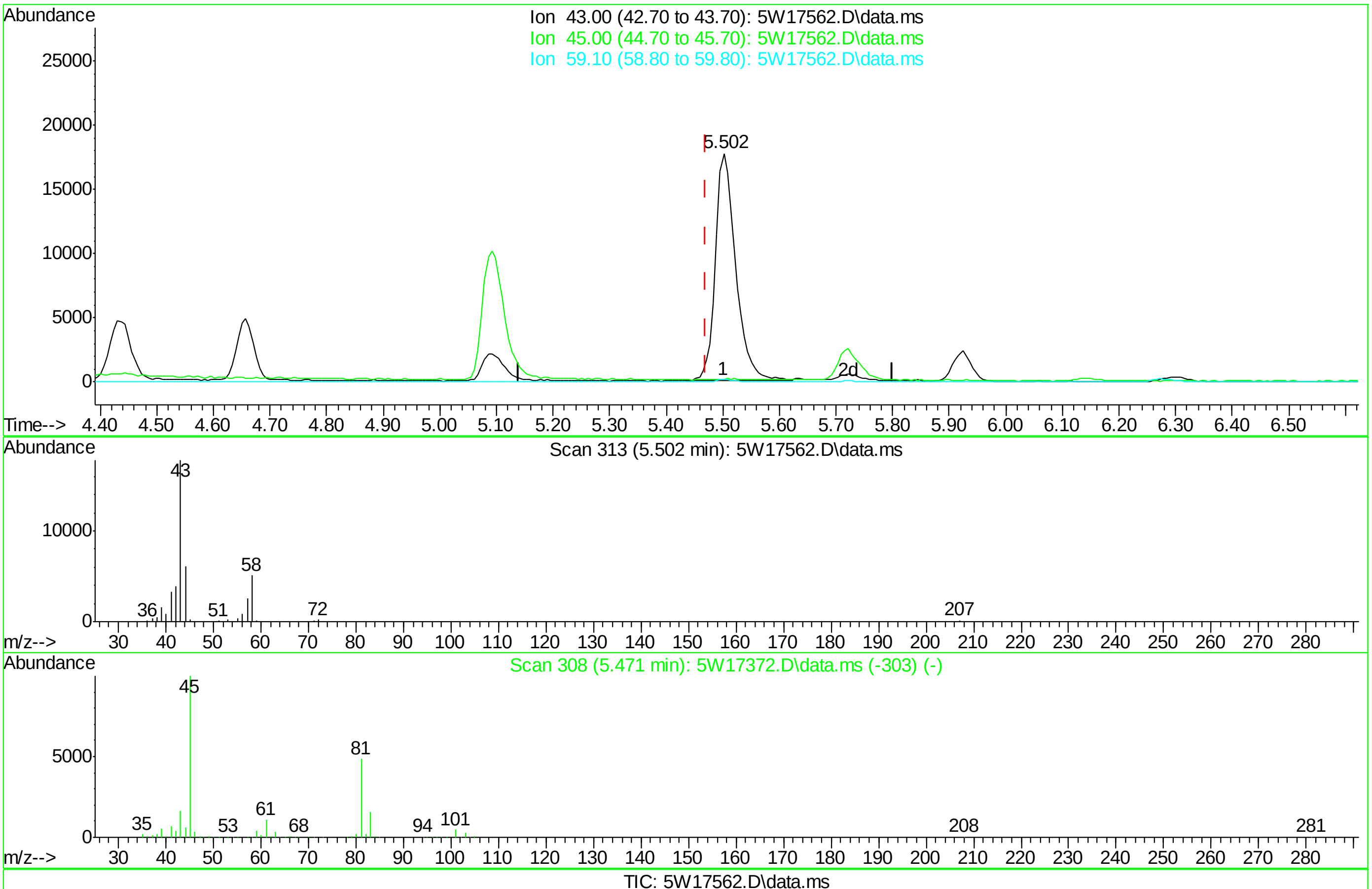
Sample Number: JC17438-12
Lab FileID: 5W17562.D
Injection Time: 04/07/16 16:41
Method: TO-15
Analyst approved: 04/08/16 14:58 Dana Tryon
Supervisor approved: 04/08/16 16:47 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.72	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17562.D
Acq On    :  7 Apr 2016   4:41 pm
Operator  : THOMASH
Sample    : JC17438-12
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 09:16:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(25) Isopropyl Alcohol

5.502min (+0.031) 8.03ppb(v)

response 43875

Ion	Exp%	Act%
43.00	100	100
45.00	584.80	1.37#
59.10	24.00	1.02#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17502.D
Acq On    :  5 Apr 2016  12:21 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Apr 05 13:15:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	154004	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	584267	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	286919	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	155061	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	380600	9.69	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.90%			

Target Compounds	Qvalue

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

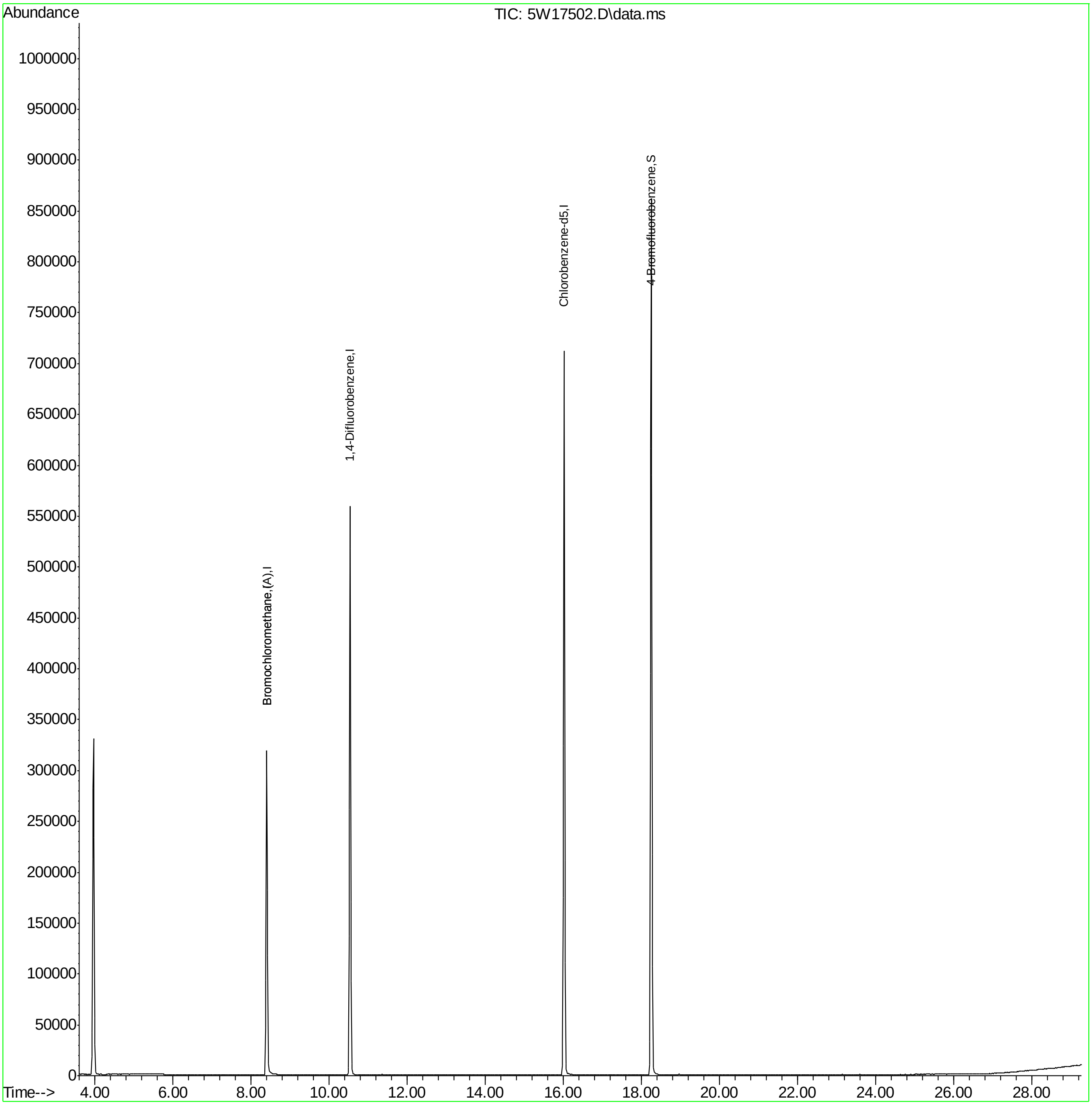
7.2.1

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17502.D
Acq On    :  5 Apr 2016  12:21 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Apr 05 13:15:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17532.D
Acq On    :  6 Apr 2016   2:29 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 06 15:02:15 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.395  130   198860    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene        10.530  114   759634    10.00 ppb(v    0.09
  76) Chlorobenzene-d5           16.012   82   350716    10.00 ppb(v    0.00
 107) Bromochloromethane (A)      8.395  130   201282    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.245   95   461377     9.61 ppb(v  -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   96.10%

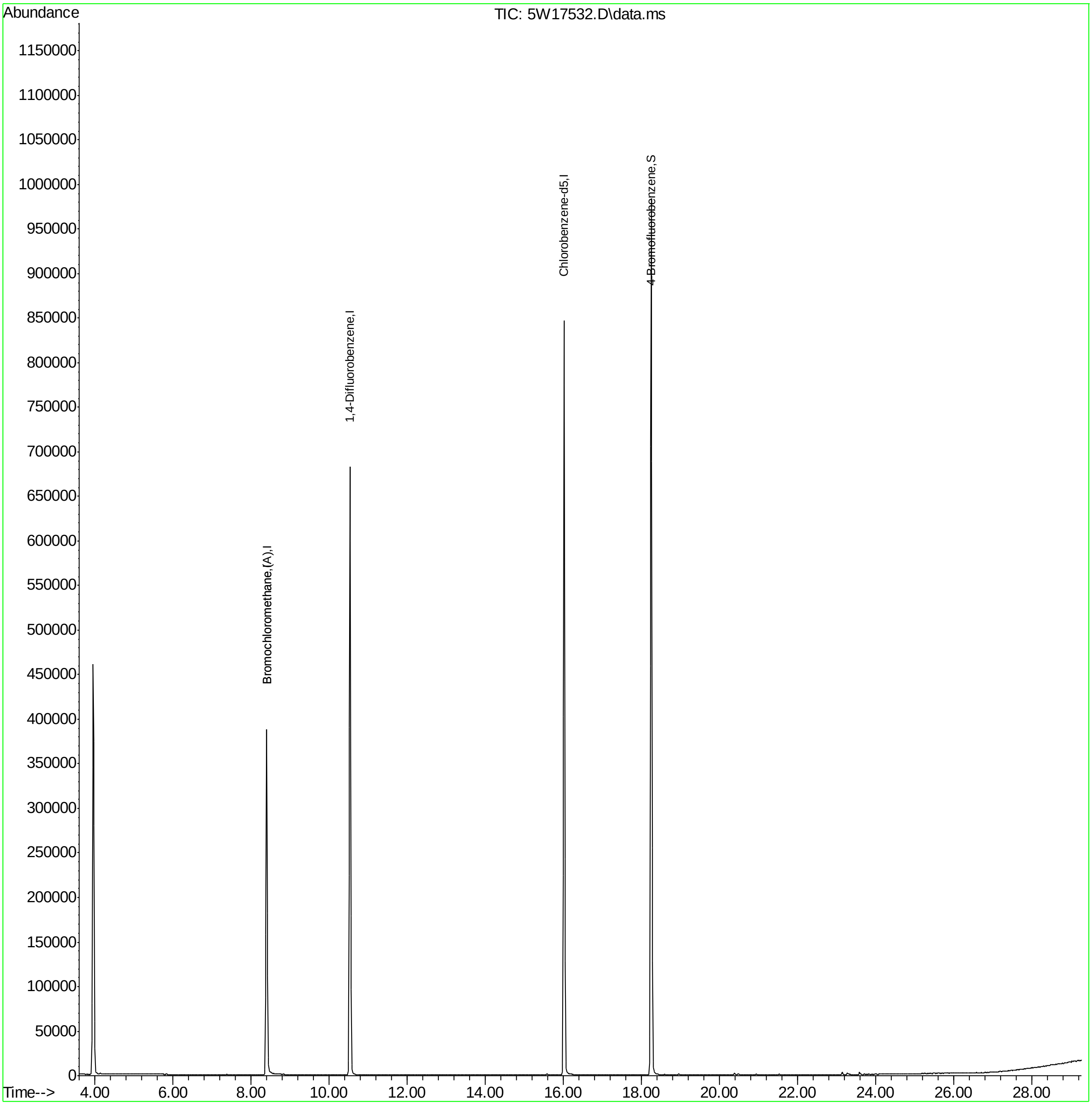
 Target Compounds                                                   Qvalue
 ---------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17532.D
Acq On    :  6 Apr 2016   2:29 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 06 15:02:15 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17556.D
Acq On    :  7 Apr 2016  11:47 am
Operator  : THOMASH
Sample    : MB
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 08 16:08:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 -------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.395  130   203394    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene        10.530  114   774231    10.00 ppb(v    0.09
  76) Chlorobenzene-d5           16.012   82   358507    10.00 ppb(v    0.00
 107) Bromochloromethane (A)      8.395  130   205933    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.245   95   470085     9.58 ppb(v  -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   95.80%

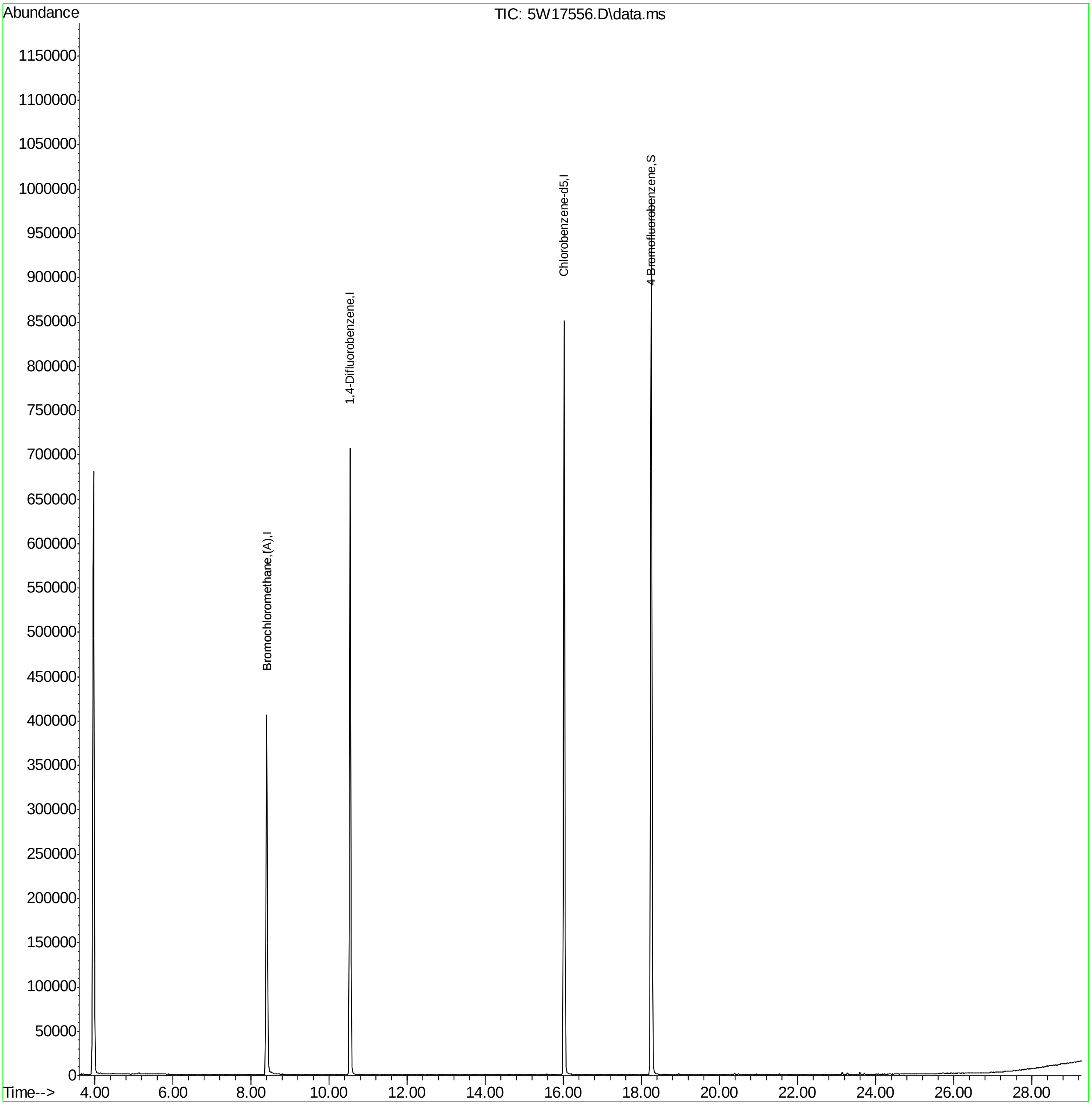
 Target Compounds                                                   Qvalue
 -------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17556.D
Acq On    :  7 Apr 2016  11:47 am
Operator  : THOMASH
Sample    : MB
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 08 16:08:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17588.D
Acq On    :  8 Apr 2016  12:55 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 08 13:29:41 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	188830	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	713265	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	330925	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	188939	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	432033	9.53	ppb(v	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 95.30%

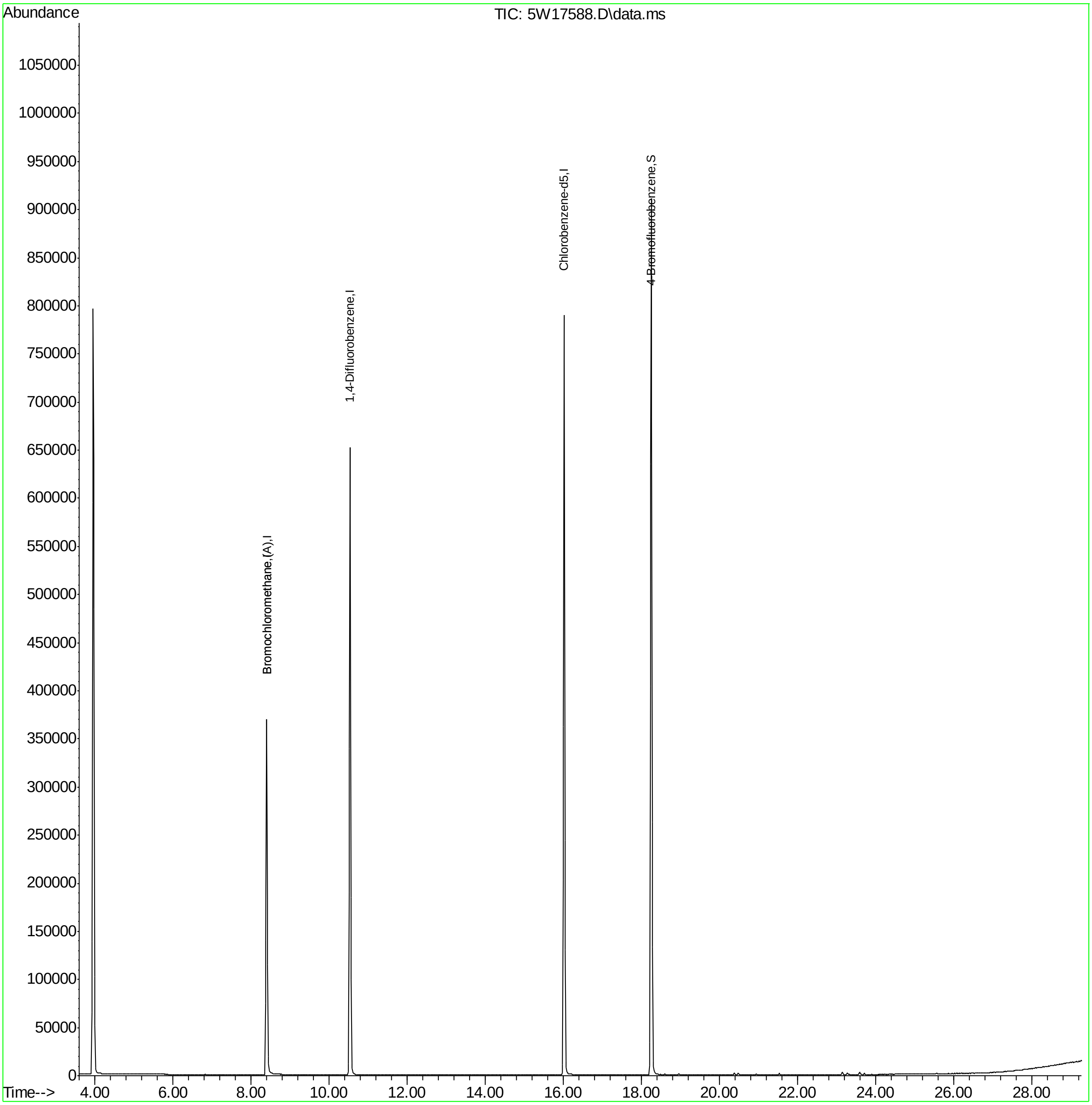
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17588.D
Acq On    :  8 Apr 2016  12:55 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Apr 08 13:29:41 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17079.D
Acq On    : 17 Mar 2016  12:56 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 17 14:26:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 -------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.248  130   130491    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.451  114   444921    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.018   82   211044    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)      8.248  130   130491    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.269   95   276368     9.92 ppb(v  -0.03
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   99.20%

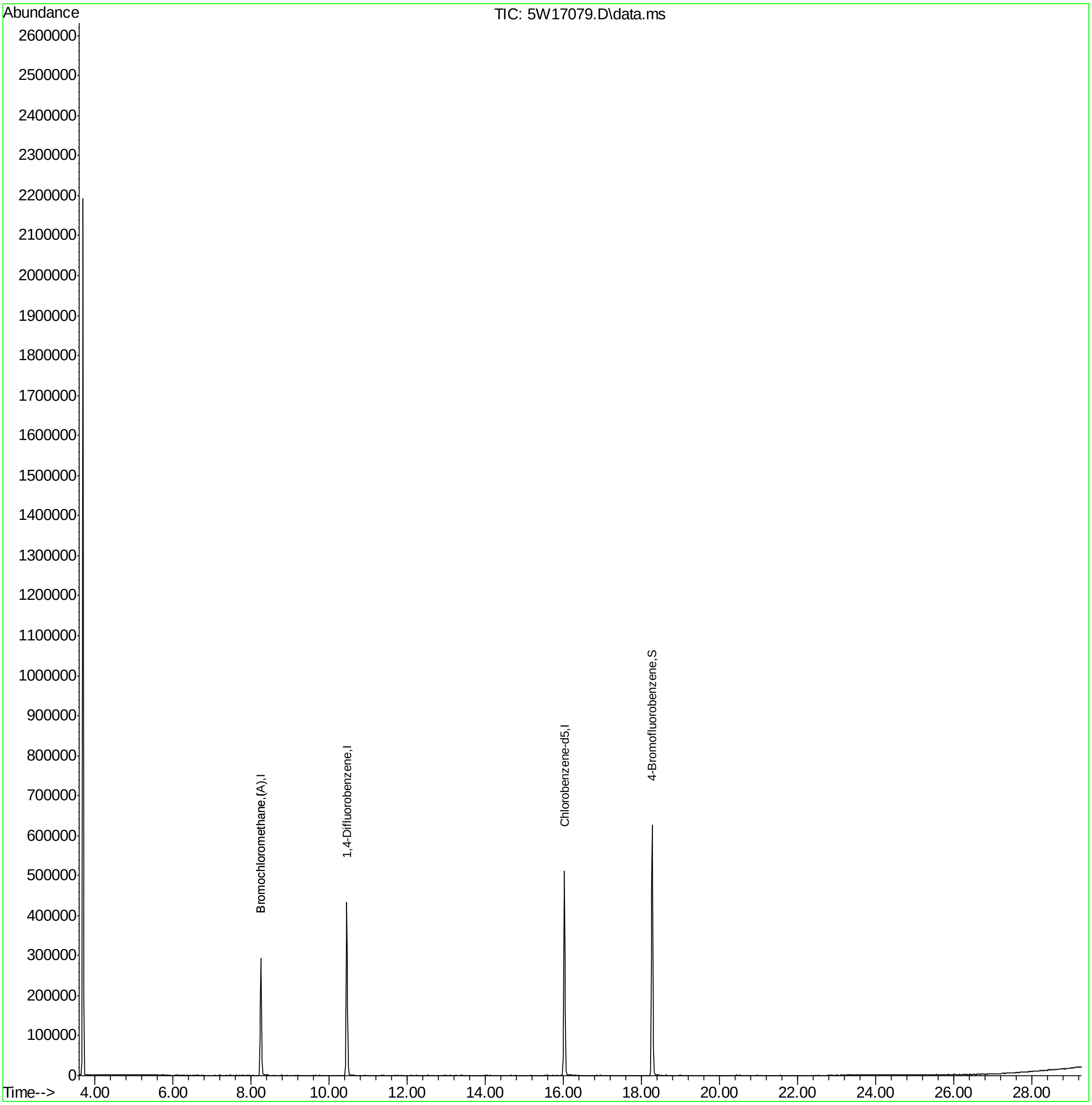
 Target Compounds                                                   Qvalue
 -------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17079.D
Acq On    : 17 Mar 2016  12:56 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 17 14:26:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



```
                        Quantitation Report    (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17110.D
Acq On    : 18 Mar 2016  12:20 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 11:23:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.248  130    130167    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.451  114    444517    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.018   82    212726    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)      8.248  130    130167    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.269   95    280005     9.98 ppb(v  -0.03
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   99.80%

 Target Compounds                                                  Qvalue
 --------------------------------------------------------------------------

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

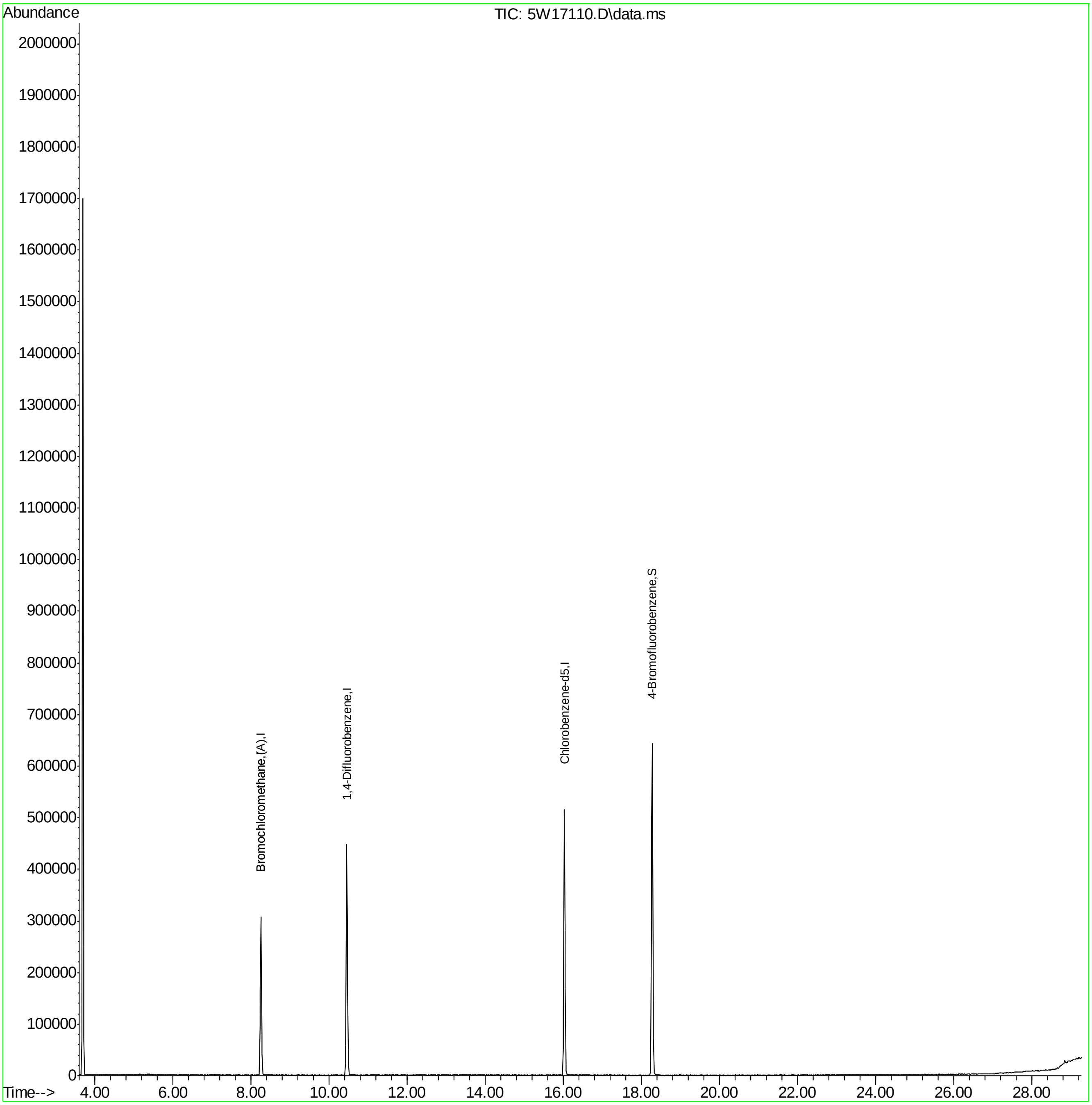
7.2.6

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17110.D
Acq On    : 18 Mar 2016  12:20 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 11:23:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52857.D                   Vial: 4
Acq On    : 18 Mar 2016  12:38 pm                      Operator: YOUMINH
Sample    : MB                                         Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21 09:52:43 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	96472	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	427572	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	185690	10.00	PPBV	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.31	95	198447	10.81	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 108.10%

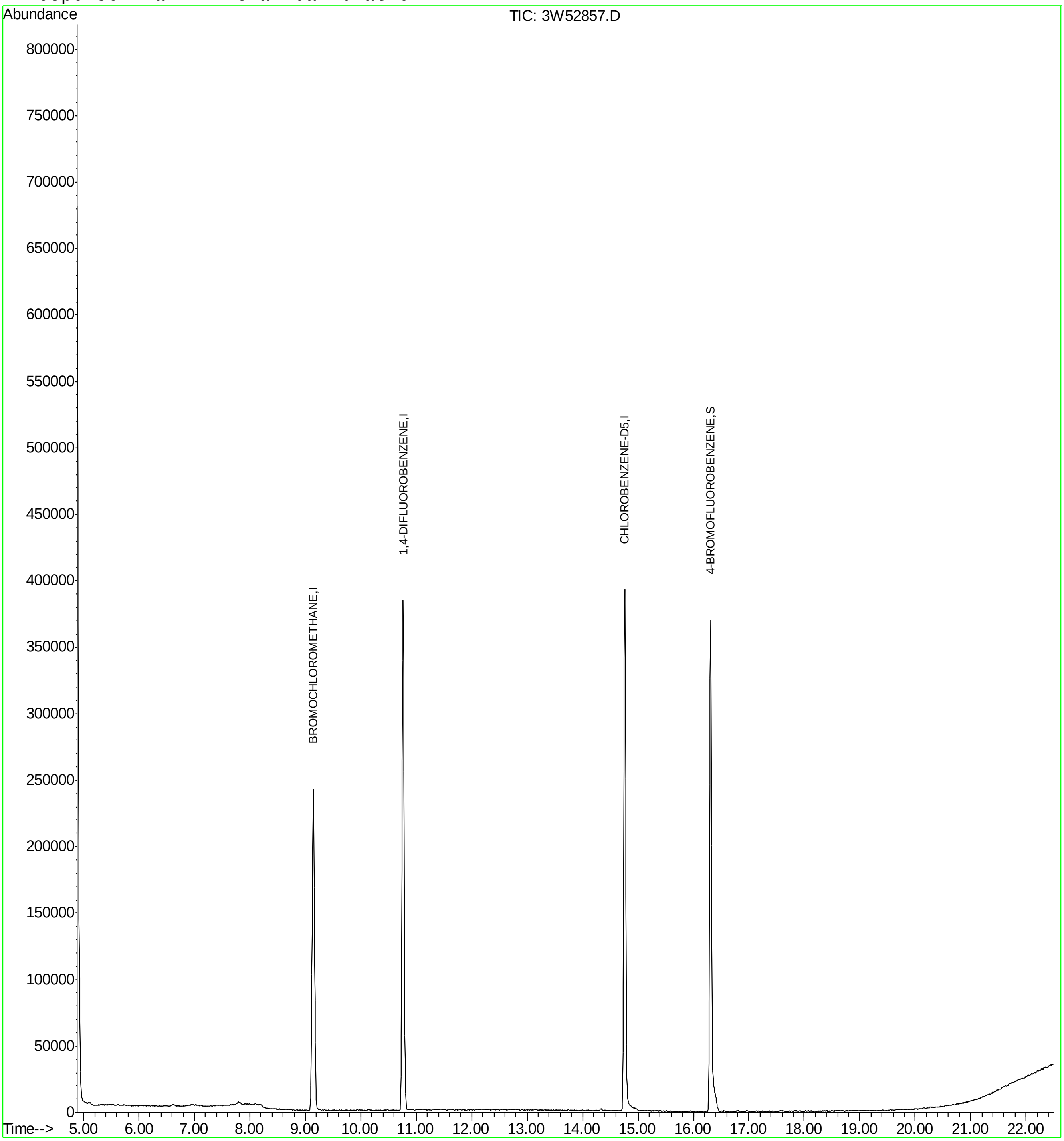
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52857.D              Vial: 4
Acq On    : 18 Mar 2016  12:38 pm                Operator: YOUMINH
Sample    : MB                                   Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:56 2016          Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54289.D                   Vial: 5
Acq On    : 18 Mar 2016   1:12 pm                    Operator: YOUMINH
Sample    : mb                                       Inst    : MSW
Misc      : MS99436,VW2168,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 14:27:15 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.17	128	87615	10.00	PPBV	0.01
49) 1,4-DIFLUOROBENZENE	10.89	114	454177	10.00	PPBV	0.01
68) CHLOROBENZENE-D5	15.14	82	177177	10.00	PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.76	95	164423	8.46	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 84.60%

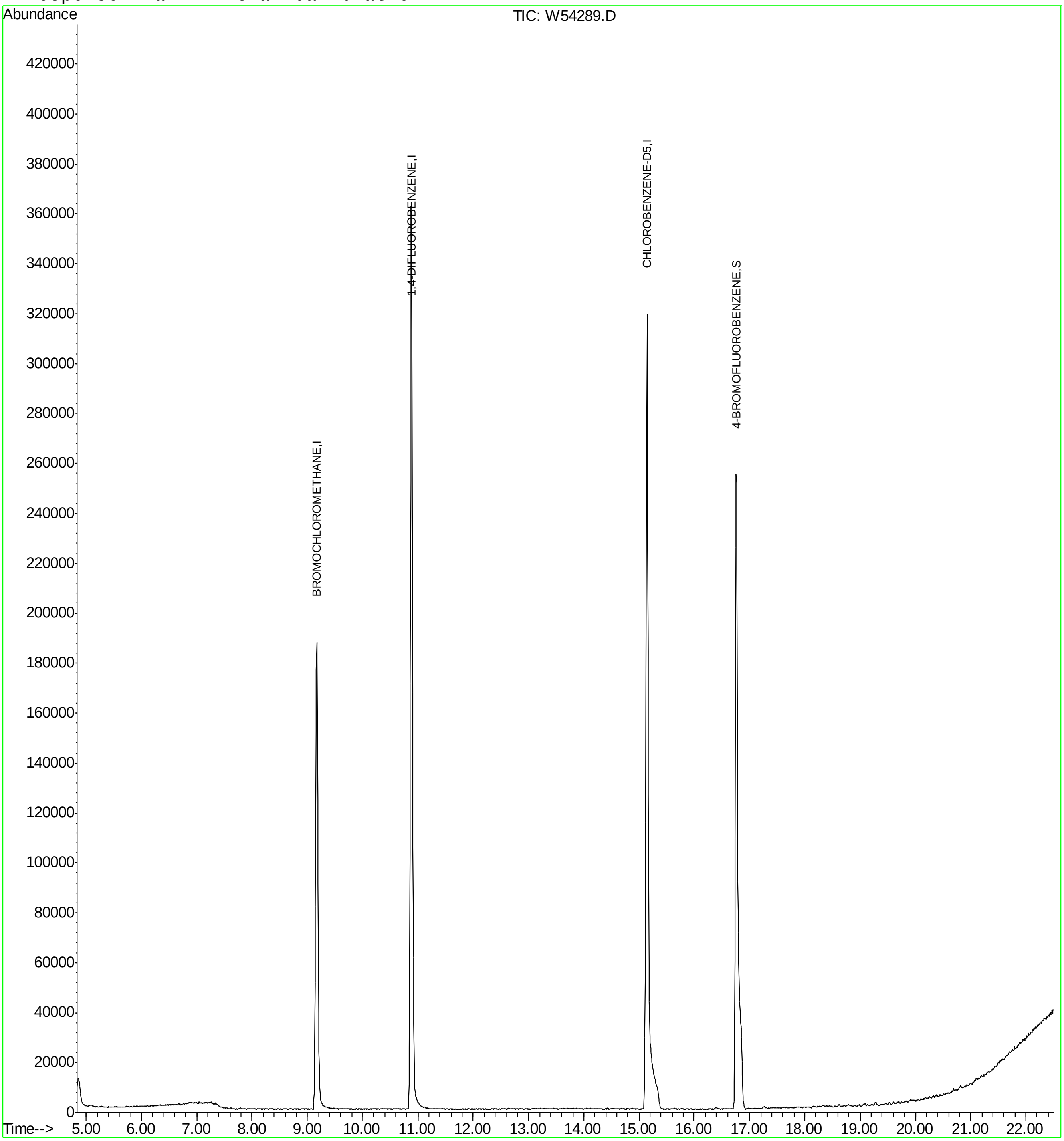
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54289.D              Vial: 5
Acq On    : 18 Mar 2016   1:12 pm               Operator: YOUMINH
Sample    : mb                                  Inst     : MSW
Misc      : MS99436,VW2168,,,,,1                Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 14:51 2016            Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17140.D
Acq On    : 19 Mar 2016   2:09 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 11:34:21 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.248  130    136356    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.445  114    480385    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.018   82    238545    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)      8.248  130    136356    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.263   95    312141     9.92 ppb(v  -0.04
   Spiked Amount     10.000   Range  65 - 128     Recovery    =   99.20%

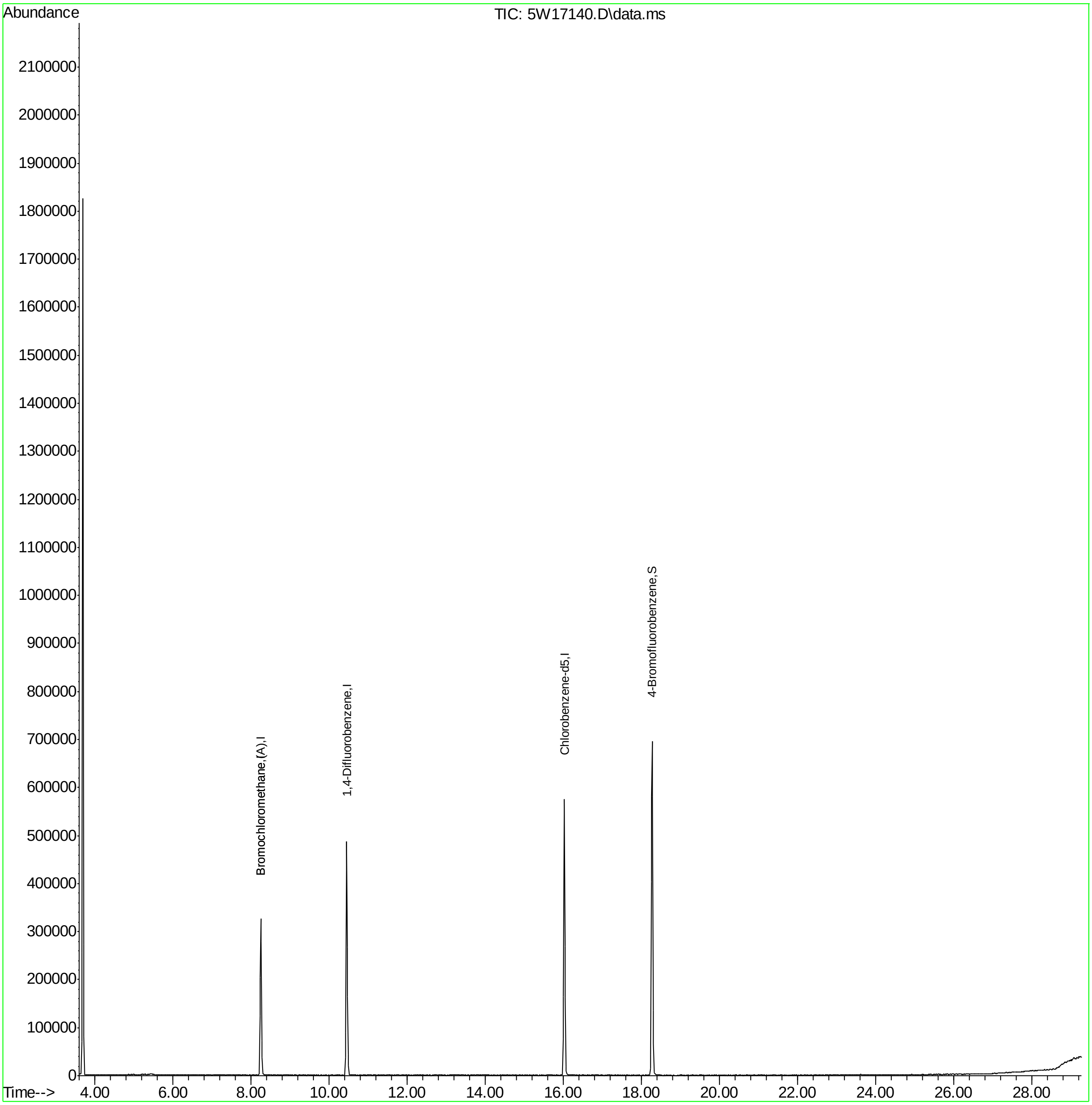
 Target Compounds                                                   Qvalue
 --------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17140.D
Acq On    : 19 Mar 2016   2:09 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 11:34:21 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17168.D
Acq On    : 21 Mar 2016  12:17 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 13:26:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.242	130	143987	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.445	114	513244	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.012	82	257876	10.00	ppb(v	-0.04
107) Bromochloromethane (A)	8.242	130	143987	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.263	95	336174	9.88	ppb(v	-0.04

Spiked Amount 10.000 Range 65 - 128 Recovery = 98.80%

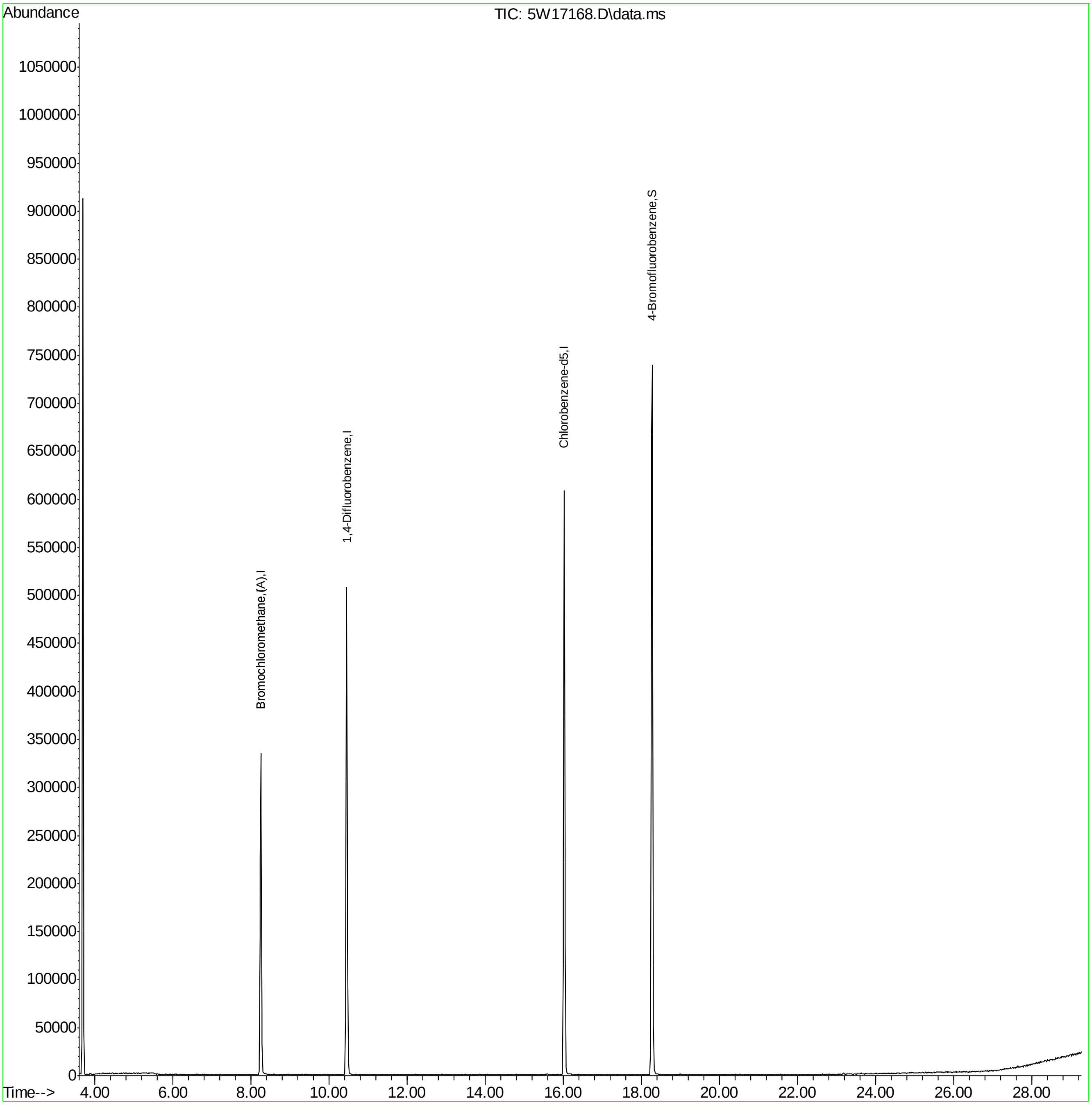
Target Compounds	Qvalue

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17168.D
Acq On    : 21 Mar 2016  12:17 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 21 13:26:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54349.D                    Vial: 4
Acq On    : 21 Mar 2016   7:19 pm                     Operator: YOUMINH
Sample    : MB                                        Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:49 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

 Internal Standards                 R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE            9.14  128    117954    10.00 PPBV   -0.01
  49) 1,4-DIFLUOROBENZENE          10.86  114    620983    10.00 PPBV   -0.01
  68) CHLOROBENZENE-D5             15.13   82    238442    10.00 PPBV   -0.01

 System Monitoring Compounds
  84) 4-BROMOFLUOROBENZENE         16.75   95    209298     8.00 PPBV    0.00
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   80.00%

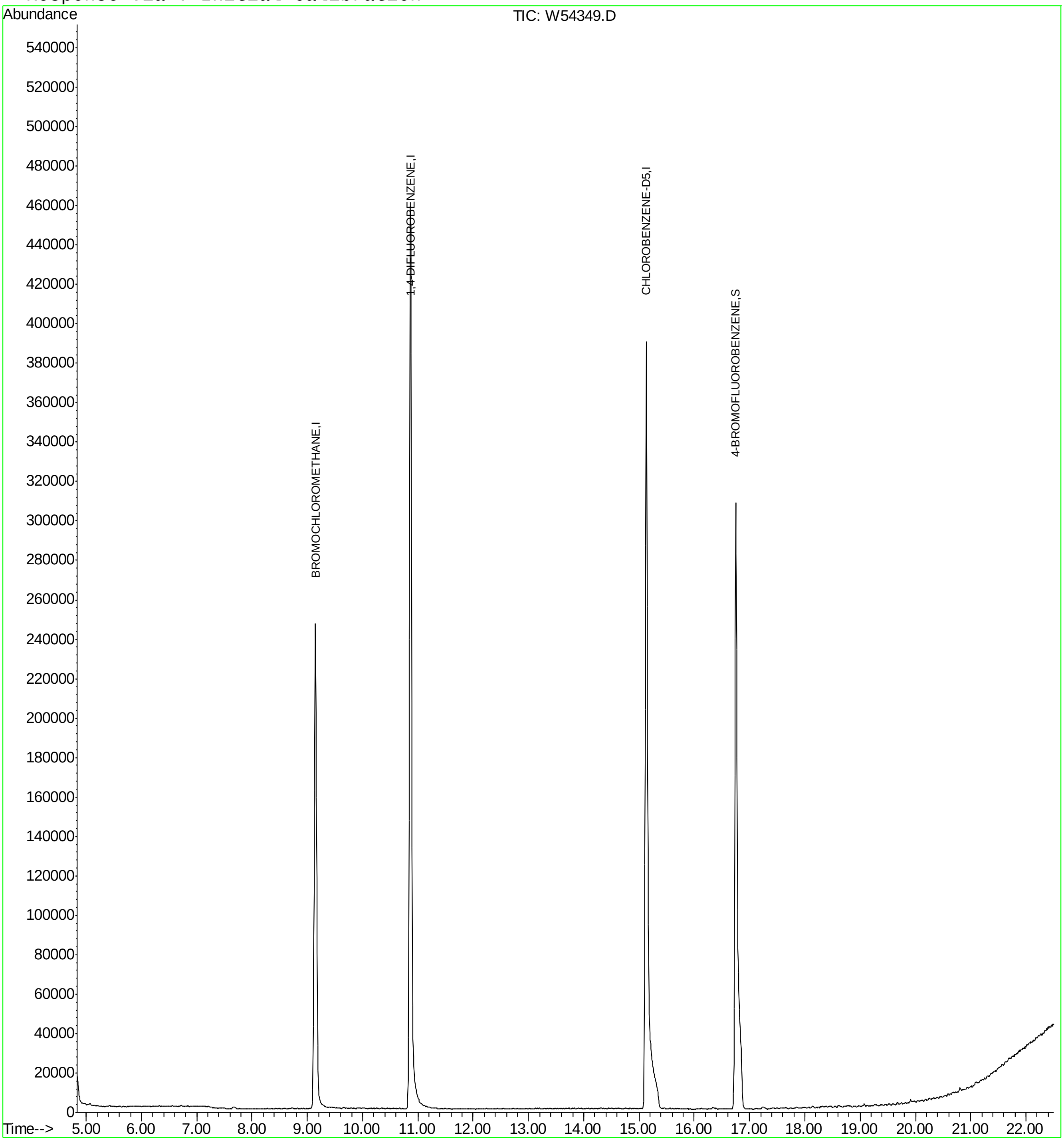
 Target Compounds                                                    Qvalue

 ---------------------------------------------------------------------------
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 W54349.D  MW2167.M      Tue Mar 22 10:57:04 2016      MSW
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54349.D              Vial: 4
Acq On    : 21 Mar 2016   7:19 pm               Operator: YOUMINH
Sample    : MB                                  Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22  9:53 2016          Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17194.D
Acq On    : 22 Mar 2016  12:12 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 22 13:17:07 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.242  130   172539    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.445  114   607510    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.012   82   299187    10.00 ppb(v   -0.04
 107) Bromochloromethane (A)      8.242  130   172539    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.263   95   388273     9.83 ppb(v  -0.04
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   98.30%

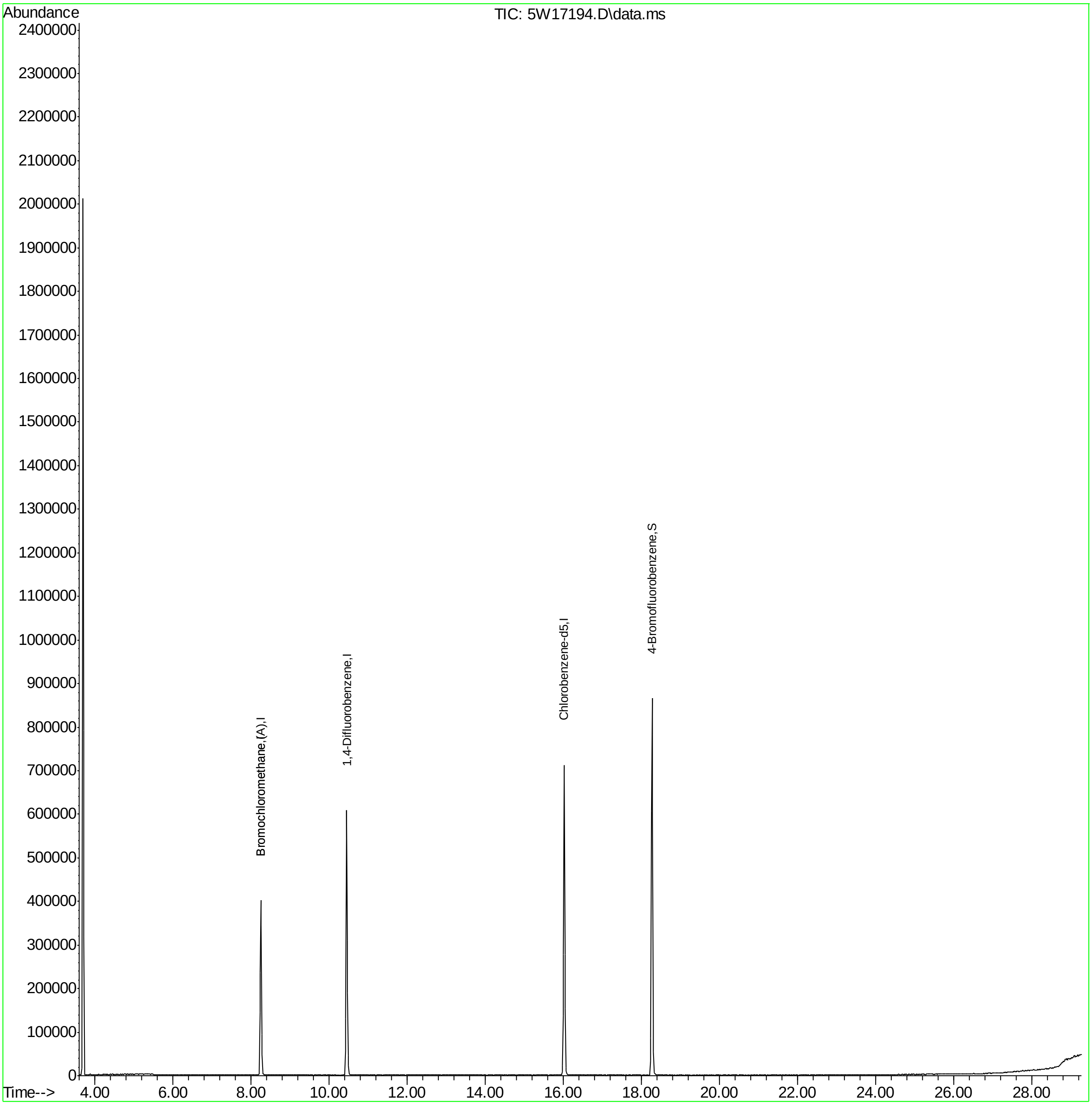
 Target Compounds                                                   Qvalue
 --------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17194.D
Acq On    : 22 Mar 2016  12:12 pm
Operator  : THOMASH
Sample    : MB
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 22 13:17:07 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54374.D                    Vial: 4
Acq On    : 22 Mar 2016   3:43 pm                     Operator: YOUMINH
Sample    : MB                                        Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:46 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.15  128    127393    10.00 PPBV    0.00
  49) 1,4-DIFLUOROBENZENE           10.87  114    708577    10.00 PPBV    0.00
  68) CHLOROBENZENE-D5              15.13   82    265524    10.00 PPBV   -0.01

 System Monitoring Compounds
  84) 4-BROMOFLUOROBENZENE          16.75   95    231907     7.96 PPBV    0.00
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   79.60%

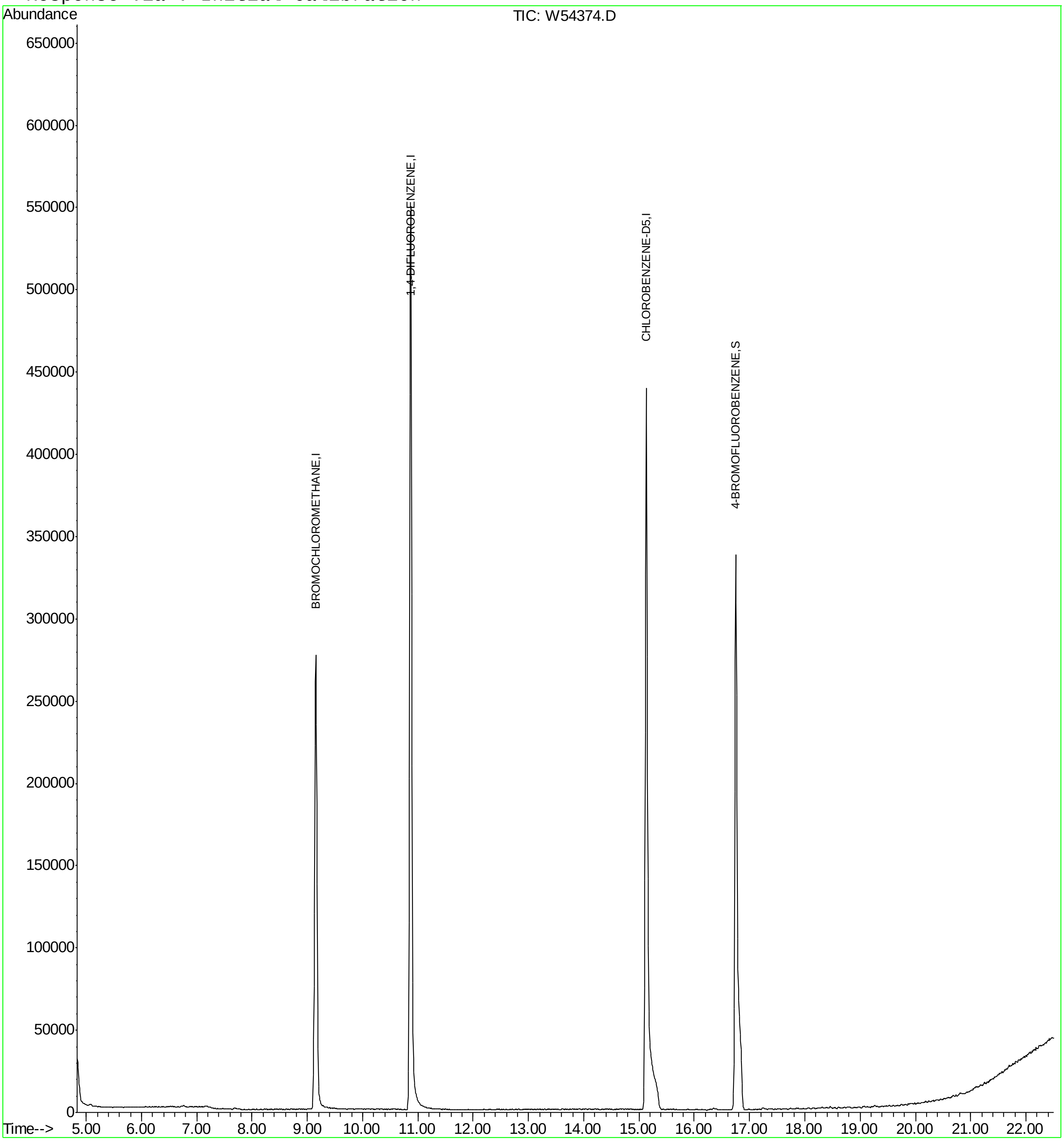
 Target Compounds                                                     Qvalue
```

```
 ---------------------------------------------------------------------------
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 W54374.D  MW2167.M      Wed Mar 23 10:01:19 2016      MSW
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54374.D                Vial: 4
Acq On    : 22 Mar 2016   3:43 pm                  Operator: YOUMINH
Sample    : MB                                     Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 10:01 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



W54374.D MW2167.M Wed Mar 23 10:01:19 2016 MSW Page 2

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52948.D                 Vial: 4
Acq On    : 24 Mar 2016   2:13 pm                   Operator: YOUMINH
Sample    : MB                                      Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:23 2016         Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.10  128    108877    10.00 PPBV   -0.01
  52) 1,4-DIFLUOROBENZENE           10.73  114    519317    10.00 PPBV   -0.01
  71) CHLOROBENZENE-D5              14.73   82    243570    10.00 PPBV   -0.01

 System Monitoring Compounds
  86) 4-BROMOFLUOROBENZENE          16.28   95    249101     9.63 PPBV   -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   96.30%

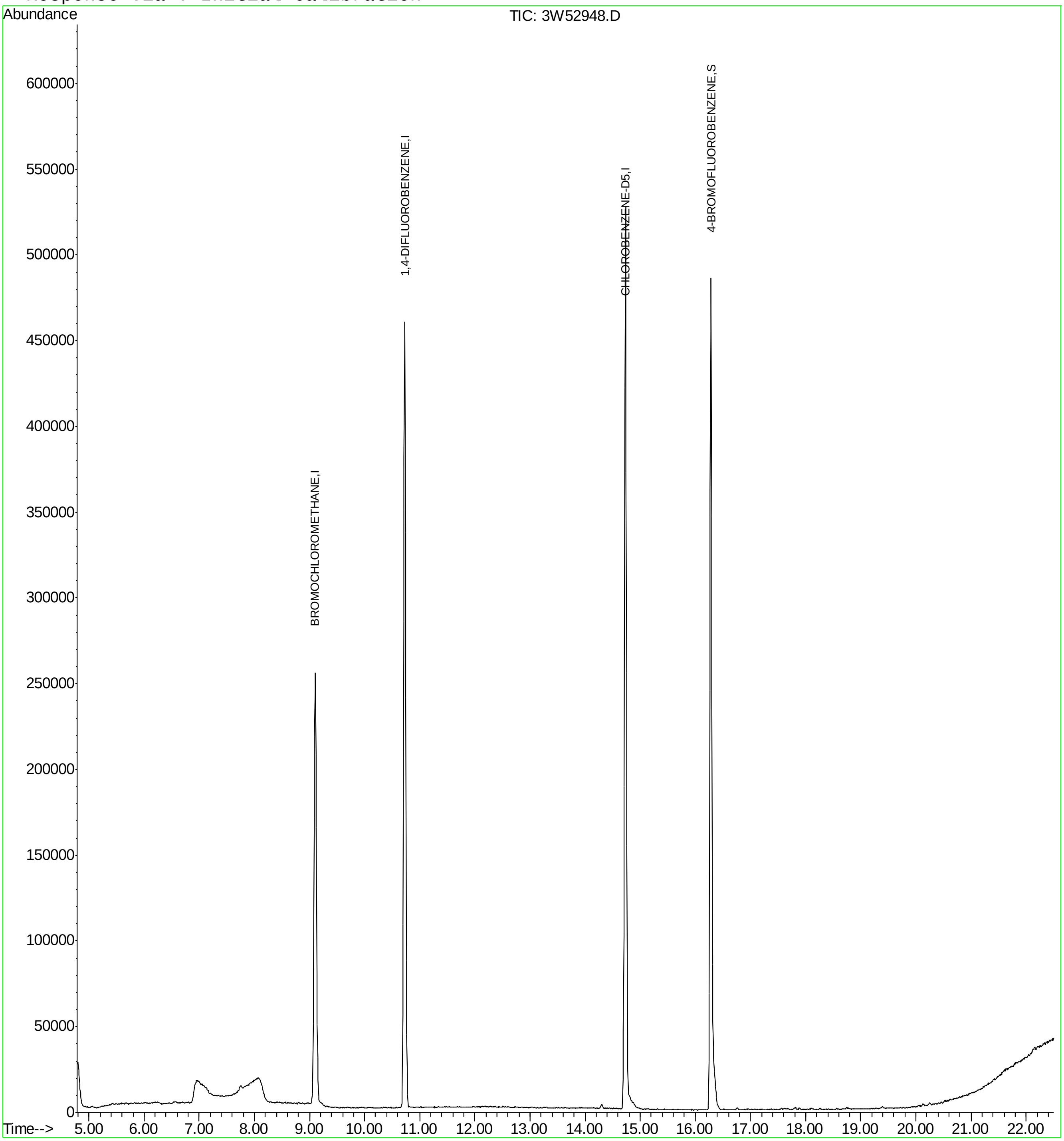
 Target Compounds                                                    Qvalue

-------------------------------------------------------------------------------
(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52948.D  M3W1998.M      Fri Mar 25 12:02:30 2016      MS3W
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52948.D                Vial: 4
Acq On    : 24 Mar 2016   2:13 pm                  Operator: YOUMINH
Sample    : MB                                     Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25  9:54 2016           Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/06/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On : 5 Apr 2016 9:26 am
Operator : THOMASH
Sample : BS
Misc : MS107,v5w698,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 11:26:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.401	130	180970	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	637302	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	342085	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.401	130	180970	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	457639	9.77	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.70%			
Target Compounds						Qvalue
3) Freon 152A	4.082	65	86785m	9.47	ppb(v	
4) Chlorodifluoromethane	4.119	67	43832	9.83	ppb(v	97
5) Propene	4.143	41	98705	10.50	ppb(v	98
6) Dichlorodifluoromethane	4.205	85	437534	10.59	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.315	65	335587	11.24	ppb(v	98
8) Chloromethane	4.333	50	133976	10.44	ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	478501	11.11	ppb(v	98
10) Vinyl Chloride	4.510	62	157296	11.38	ppb(v	99
11) 1,3-Butadiene	4.621	54	109771	9.96	ppb(v	100
12) n-Butane	4.663	58	24513	10.51	ppb(v	93
13) Bromomethane	4.847	94	177510	9.92	ppb(v	99
14) Chloroethane	4.982	64	77394	10.74	ppb(v	98
15) Dichlorofluoromethane	5.061	67	394725	11.21	ppb(v	100
16) Acetonitrile	5.275	41	119629	11.60	ppb(v	97
17) Freon 123	5.398	83	455031	10.92	ppb(v	99
18) Freon 123A	5.446	117	251364	10.47	ppb(v	94
19) Bromoethene	5.275	106	184060	10.61	ppb(v	99
20) Trichlorofluoromethane	5.624	101	479061	10.99	ppb(v	99
21) Acetone	5.489	58	73484	10.45	ppb(v	94
22) Pentane	5.924	57	36951	10.58	ppb(v	93
24) Iodomethane	6.119	142	479229	9.49	ppb(v	95
25) Isopropyl Alcohol	5.697	43	53743	9.85	ppb(v	80
26) 1,1-Dichloroethene	6.187	61	252443	10.54	ppb(v	96
27) Freon 113	6.529	101	373201	10.52	ppb(v	97
28) Methylene Chloride	6.297	84	140092	9.20	ppb(v	94
29) Carbon Disulfide	6.572	76	443246	9.99	ppb(v	100
30) Ethanol	5.092	45	55783	9.33	ppb(v	100
31) Acrylonitrile	5.893	53	106467	9.34	ppb(v	98
32) 3-Chloropropene	6.401	76	68701	9.83	ppb(v	82
33) trans-1,2-Dichloroethene	7.172	61	217885	10.40	ppb(v	96
34) tert-Butyl Alcohol	6.223	59	351554	10.58	ppb(v	97
35) Methyl tert-Butyl Ether	7.422	73	428204	9.63	ppb(v	97
36) Vinyl Acetate	7.520	43	404844	11.28	ppb(v	98
37) 1,1-Dichloroethane	7.374	63	285410	10.26	ppb(v	100
38) 2-Butanone	7.771	72	70035	10.16	ppb(v	85
39) Hexane	8.414	57	235193	9.69	ppb(v	91
40) cis-1,2-Dichloroethene	8.224	61	210182	10.25	ppb(v	98
41) Di-isopropyl Ether	8.420	87	146576	11.56	ppb(v	89
42) Ethyl Acetate	8.462	61	54462	11.40	ppb(v	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On : 5 Apr 2016 9:26 am
Operator : THOMASH
Sample : BS
Misc : MS107,v5w698,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 11:26:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.450	55	300016	11.15 ppb(v	97
44) Chloroform	8.530	83	385099	10.44 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	269357	9.74 ppb(v	98
46) Tetrahydrofuran	8.970	72	72980	10.68 ppb(v	92
47) 1,1,1-Trichloroethane	9.594	97	380706	9.92 ppb(v	99
48) 1,2-Dichloroethane	9.325	62	230239	10.89 ppb(v	99
49) Benzene	10.114	78	493058	9.90 ppb(v	98
50) Carbon Tetrachloride	10.286	117	402235	10.16 ppb(v	99
51) Cyclohexane	10.414	56	220258	9.52 ppb(v	96
52) 2,3-Dimethylpentane	10.689	71	102191	9.56 ppb(v	93
54) 2,2,4-Trimethylpentane	11.368	57	796082	11.22 ppb(v	99
55) Heptane	11.699	71	160570	10.58 ppb(v	98
56) Trichloroethene	11.350	95	262288	10.80 ppb(v	97
57) 1,2-Dichloropropane	11.056	63	191692	11.45 ppb(v	99
58) Dibromomethane	11.044	174	258001	10.23 ppb(v	98
59) Ethyl Acrylate	11.093	55	369360	11.86 ppb(v	99
60) Methyl Methacrylate	11.619	69	173259	10.09 ppb(v	94
61) 1,4-Dioxane	11.368	88	129448	11.22 ppb(v	92
62) Bromodichloromethane	11.301	83	412242	10.46 ppb(v	99
63) cis-1,3-Dichloropropene	12.408	75	302446	10.14 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	153623	12.04 ppb(v	97
65) trans-1,3-Dichloropropene	13.075	75	277697	11.16 ppb(v	99
66) Toluene	13.638	91	639539	10.50 ppb(v	100
67) 1,1,2-Trichloroethane	13.289	97	227828	10.35 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	301940	11.36 ppb(v	96
69) 2-Hexanone	14.005	58	214383	11.56 ppb(v	95
70) Ethyl Methacrylate	14.036	69	332118	11.61 ppb(v	98
71) Dibromochloromethane	14.189	129	485223	11.20 ppb(v	99
72) Tetrachloroethene	15.137	166	367760	10.60 ppb(v	100
73) 1,2-Dibromoethane	14.507	107	378800	10.64 ppb(v	100
74) Octane	14.966	43	373189	11.42 ppb(v	97
75) 1,1,1,2-Tetrachloroethane	16.055	131	334819	11.26 ppb(v	99
77) Chlorobenzene	16.073	112	537068	9.37 ppb(v	97
78) Ethylbenzene	16.617	91	836508	9.34 ppb(v	100
79) m,p-Xylene	16.887	91	1337948	19.73 ppb(v	99
80) Styrene	17.407	104	500642	9.69 ppb(v	99
81) Nonane	17.933	43	382787	10.42 ppb(v	97
82) o-Xylene	17.560	91	697215	9.91 ppb(v	99
83) Bromoform	16.966	173	493217	9.72 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	556801	10.39 ppb(v	100
85) 1,2,3-Trichloropropane	17.749	75	386794	10.21 ppb(v	99
86) Isopropylbenzene	18.459	105	984511	9.89 ppb(v	99
87) Bromobenzene	18.575	156	339623	9.35 ppb(v	96
88) 2-Chlorotoluene	19.175	126	244982	9.63 ppb(v	94
89) n-Propylbenzene	19.248	120	262004	10.13 ppb(v	98
91) 4-Ethyltoluene	19.468	105	923207	9.96 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	788961	9.69 ppb(v	99
93) alpha-Methylstyrene	19.823	118	415345	10.39 ppb(v	100
94) tert-Butylbenzene	20.160	134	178887	10.25 ppb(v	93
95) 1,2,4-Trimethylbenzene	20.172	105	817614	10.18 ppb(v	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On : 5 Apr 2016 9:26 am
Operator : THOMASH
Sample : BS
Misc : MS107,v5w698,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 11:26:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

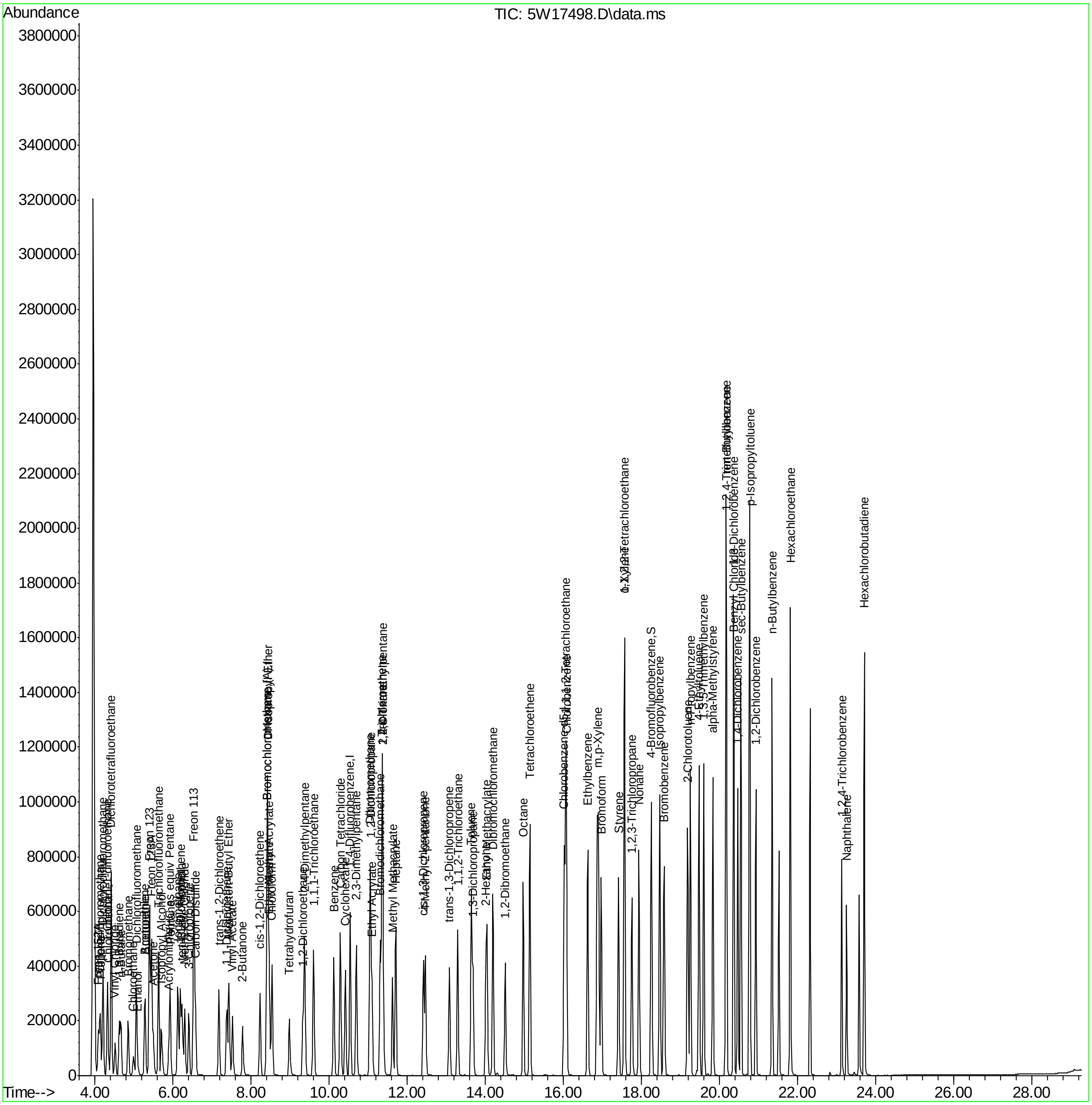
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.361	146	557558	9.66	ppb(v	99
97) Benzyl Chloride	20.349	91	690152	9.57	ppb(v	99
98) 1,4-Dichlorobenzene	20.459	146	523586	8.77	ppb(v	98
99) sec-Butylbenzene	20.539	134	219626	10.11	ppb(v	96
100) p-Isopropyltoluene	20.771	134	254026	10.56	ppb(v	97
101) 1,2-Dichlorobenzene	20.924	146	513708	9.40	ppb(v	99
102) n-Butylbenzene	21.340	134	220359	10.41	ppb(v	91
103) Hexachloroethane	21.805	201	343142	10.08	ppb(v	93
104) 1,2,4-Trichlorobenzene	23.127	180	266379	7.60	ppb(v	99
105) Naphthalene	23.249	128	503794	6.79	ppb(v	100
106) Hexachlorobutadiene	23.702	225	321194	9.02	ppb(v	99
108) TVHC as equiv Pentane	5.918	TIC	933897m	10.89	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On    :  5 Apr 2016   9:26 am
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:26:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



m5w693.M Tue Apr 05 11:31:27 2016 GCMS5W

Manual Integration Approval Summary

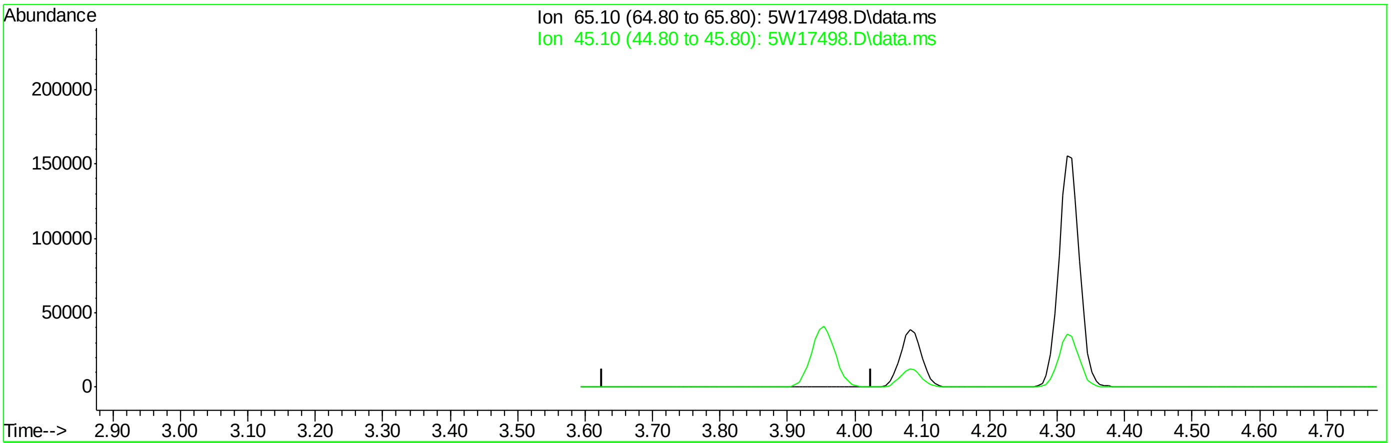
Sample Number:	V5W698-BS	**Method:**	TO-15
Lab FileID:	5W17498.D	**Analyst approved:**	04/05/16 12:32 Thomas Hilbig
Injection Time:	04/05/16 09:26	**Supervisor approved:**	04/06/16 11:53 Kanya Veerawat

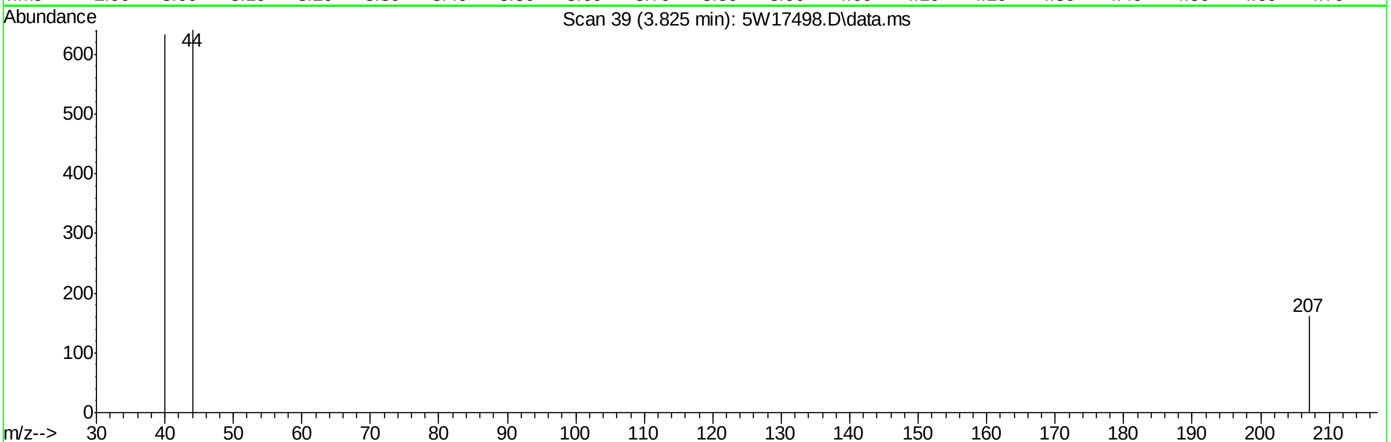
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On    :  5 Apr 2016   9:26 am
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17498.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

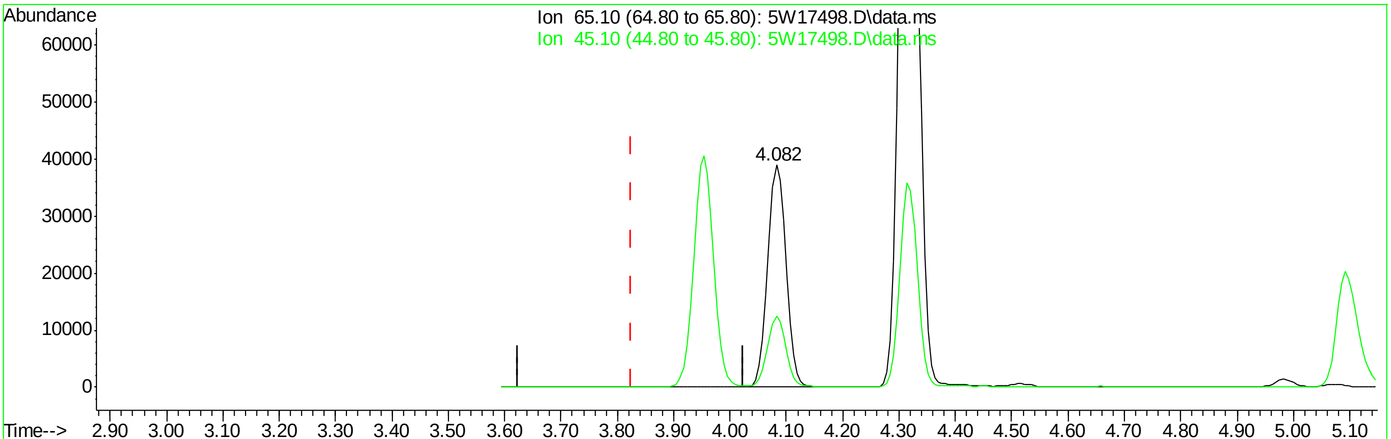
response 0

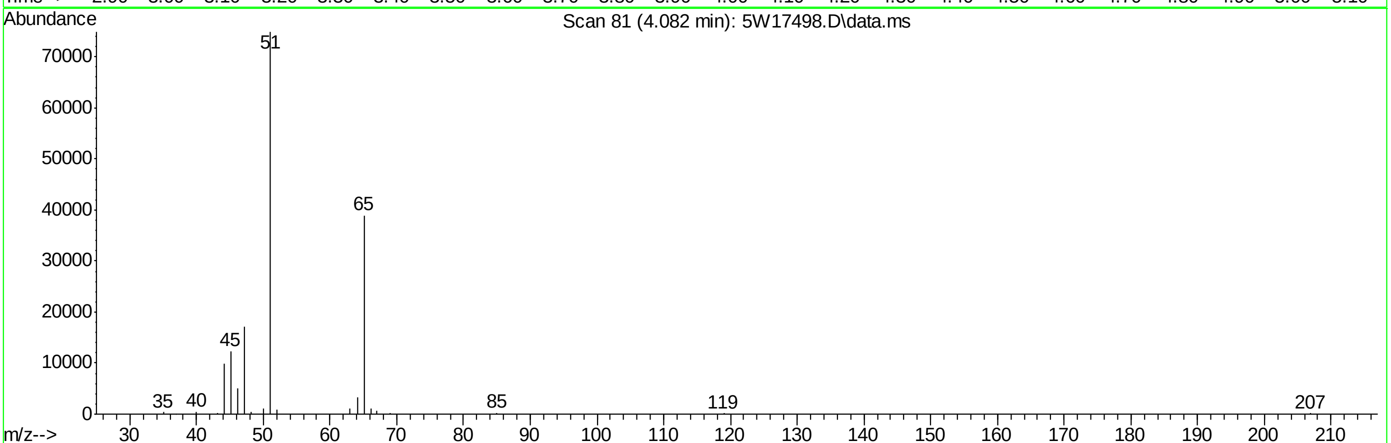
Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On    :  5 Apr 2016   9:26 am
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17498.D\data.ms

(3) Freon 152A

4.082min (+0.257) 9.47ppb(v) m

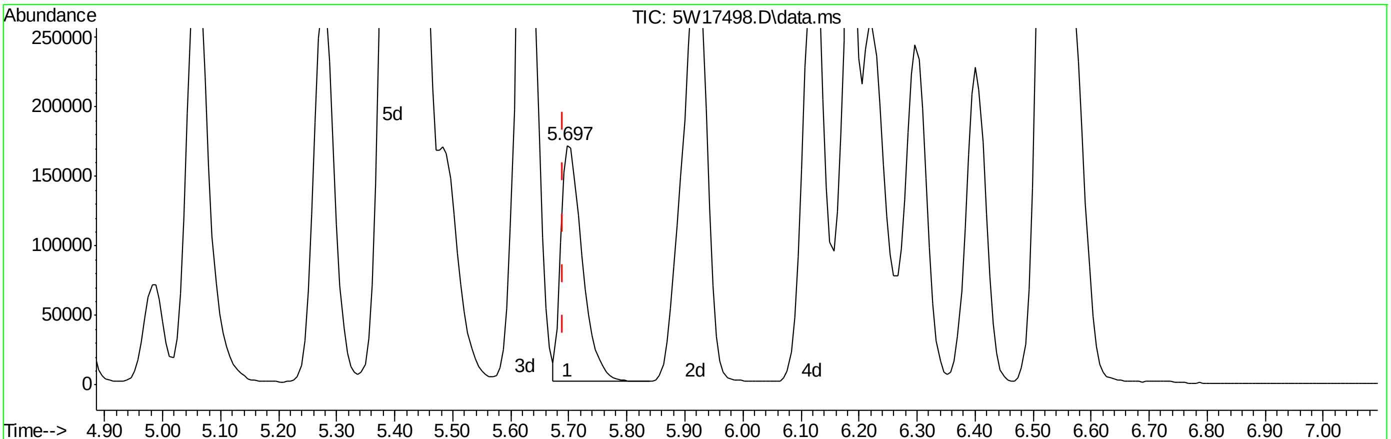
response 86785

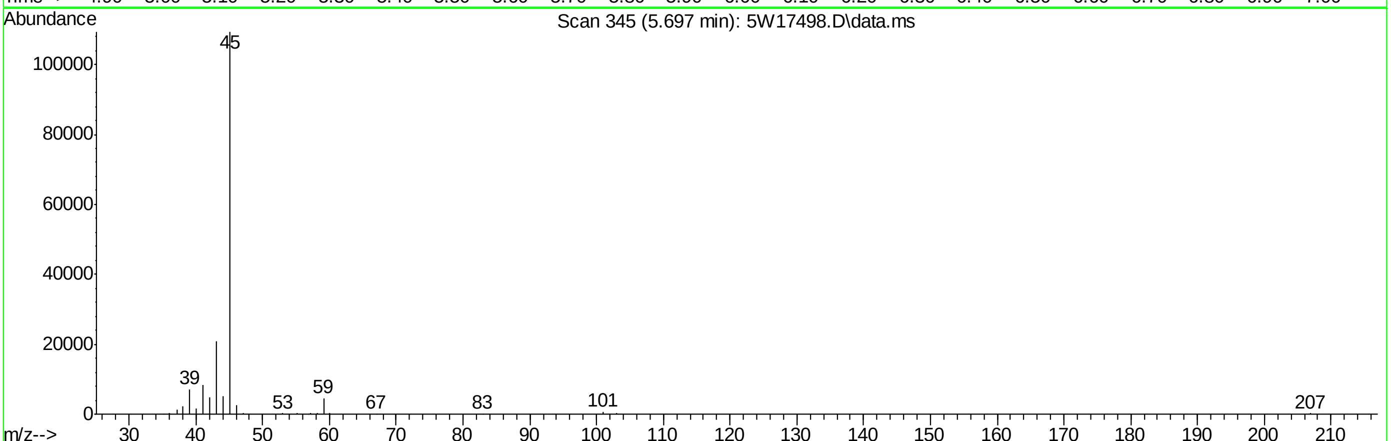
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	31.79
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On    :  5 Apr 2016   9:26 am
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17498.D\data.ms

(108) TVHC as equiv Pentane

5.697min (+0.006) 5.14ppb(v)

response 441138

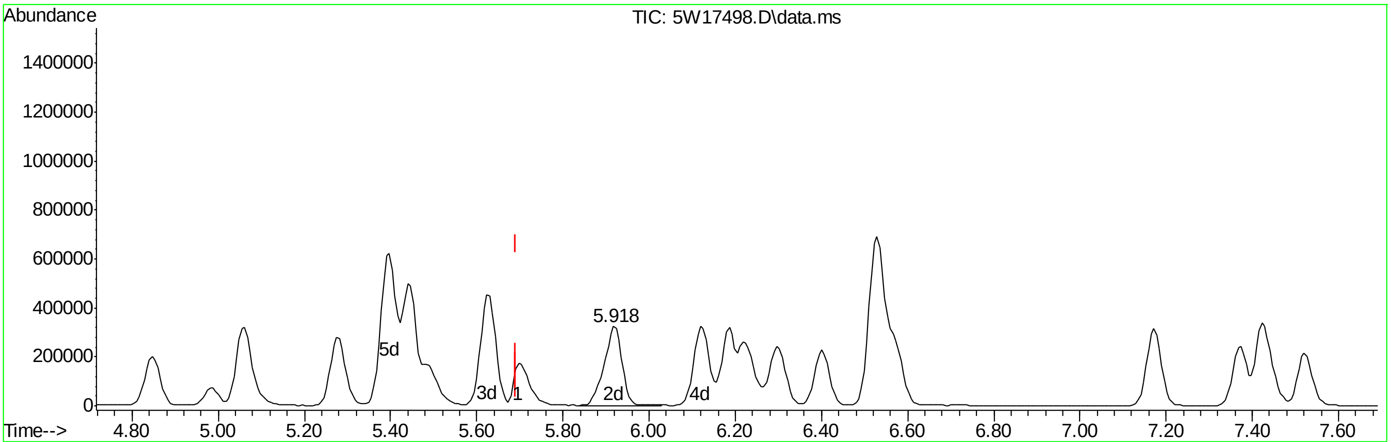
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

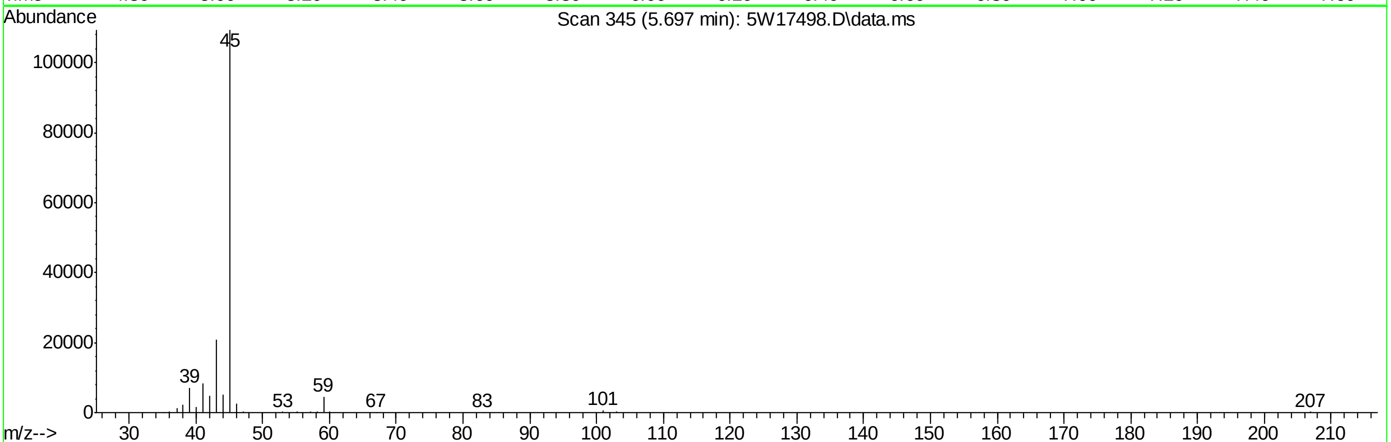
5W17498.D edits: TVHC as equiv Pentane

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17498.D
Acq On    :  5 Apr 2016   9:26 am
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17498.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 10.89ppb(v) m

response 933897

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/06/16 11:53

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On : 5 Apr 2016 10:07 am
Operator : THOMASH
Sample : BSD
Misc : MS107,v5w698,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 11:28:35 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	185761	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	660016	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	350872	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	185760	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	463486	9.65	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.50%			
Target Compounds						Qvalue
3) Freon 152A	4.082	65	84398m	8.97	ppb(v	
4) Chlorodifluoromethane	4.119	67	42537	9.30	ppb(v	97
5) Propene	4.144	41	94273	9.77	ppb(v	96
6) Dichlorodifluoromethane	4.205	85	426826	10.06	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.315	65	329414	10.75	ppb(v	98
8) Chloromethane	4.339	50	130118	9.88	ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	467432	10.58	ppb(v	98
10) Vinyl Chloride	4.517	62	152435	10.74	ppb(v	99
11) 1,3-Butadiene	4.621	54	106375	9.40	ppb(v	99
12) n-Butane	4.664	58	23560	9.84	ppb(v	93
13) Bromomethane	4.847	94	174118	9.48	ppb(v	100
14) Chloroethane	4.982	64	76137	10.30	ppb(v	99
15) Dichlorofluoromethane	5.055	67	391656	10.84	ppb(v	100
16) Acetonitrile	5.275	41	116866	11.04	ppb(v	99
17) Freon 123	5.392	83	447349	10.46	ppb(v	99
18) Freon 123A	5.440	117	249193	10.11	ppb(v	93
19) Bromoethene	5.275	106	181503	10.19	ppb(v	98
20) Trichlorofluoromethane	5.624	101	476131	10.64	ppb(v	99
21) Acetone	5.489	58	72399	10.03	ppb(v	100
22) Pentane	5.918	57	36713	10.24	ppb(v	94
24) Iodomethane	6.120	142	475699	9.18	ppb(v	94
25) Isopropyl Alcohol	5.697	43	51077	9.12	ppb(v	78
26) 1,1-Dichloroethene	6.187	61	250491	10.19	ppb(v	97
27) Freon 113	6.523	101	368445	10.12	ppb(v	97
28) Methylene Chloride	6.297	84	138570	8.86	ppb(v	95
29) Carbon Disulfide	6.572	76	436925	9.60	ppb(v	100
30) Ethanol	5.086	45	53944	8.79	ppb(v	99
31) Acrylonitrile	5.887	53	104357	8.91	ppb(v	99
32) 3-Chloropropene	6.401	76	68165	9.51	ppb(v	84
33) trans-1,2-Dichloroethene	7.172	61	215248	10.01	ppb(v	96
34) tert-Butyl Alcohol	6.224	59	348732	10.23	ppb(v	97
35) Methyl tert-Butyl Ether	7.423	73	427163	9.36	ppb(v	98
36) Vinyl Acetate	7.521	43	401177	10.89	ppb(v	99
37) 1,1-Dichloroethane	7.368	63	281515	9.86	ppb(v	100
38) 2-Butanone	7.771	72	70152	9.91	ppb(v	90
39) Hexane	8.414	57	232016	9.31	ppb(v	89
40) cis-1,2-Dichloroethene	8.224	61	208665	9.91	ppb(v	97
41) Di-isopropyl Ether	8.420	87	144688	11.11	ppb(v	91
42) Ethyl Acetate	8.457	61	54081	11.03	ppb(v	84

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:28:35 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.450	55	295901	10.71 ppb(v	98
44) Chloroform	8.530	83	383449	10.13 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	269446	9.49 ppb(v	98
46) Tetrahydrofuran	8.970	72	73098	10.42 ppb(v	93
47) 1,1,1-Trichloroethane	9.594	97	382302	9.71 ppb(v	100
48) 1,2-Dichloroethane	9.319	62	228603	10.54 ppb(v	99
49) Benzene	10.114	78	489593	9.58 ppb(v	99
50) Carbon Tetrachloride	10.280	117	403069	9.92 ppb(v	99
51) Cyclohexane	10.408	56	217487	9.16 ppb(v	96
52) 2,3-Dimethylpentane	10.689	71	101331	9.24 ppb(v	95
54) 2,2,4-Trimethylpentane	11.362	57	789330	10.74 ppb(v	98
55) Heptane	11.699	71	159690	10.16 ppb(v	98
56) Trichloroethene	11.344	95	260224	10.34 ppb(v	95
57) 1,2-Dichloropropane	11.057	63	191049	11.01 ppb(v	99
58) Dibromomethane	11.038	174	258592	9.90 ppb(v	95
59) Ethyl Acrylate	11.093	55	365140	11.32 ppb(v	99
60) Methyl Methacrylate	11.613	69	173501	9.75 ppb(v	94
61) 1,4-Dioxane	11.369	88	128682	10.77 ppb(v	93
62) Bromodichloromethane	11.301	83	413557	10.13 ppb(v	100
63) cis-1,3-Dichloropropene	12.409	75	303976	9.84 ppb(v	100
64) 4-Methyl-2-pentanone	12.457	58	151465	11.47 ppb(v	96
65) trans-1,3-Dichloropropene	13.075	75	278473	10.81 ppb(v	99
66) Toluene	13.638	91	634978	10.07 ppb(v	100
67) 1,1,2-Trichloroethane	13.283	97	230282	10.10 ppb(v	98
68) 1,3-Dichloropropane	13.675	76	299621	10.88 ppb(v	96
69) 2-Hexanone	14.005	58	213079	11.09 ppb(v	96
70) Ethyl Methacrylate	14.036	69	329745	11.13 ppb(v	97
71) Dibromochloromethane	14.189	129	482008	10.74 ppb(v	100
72) Tetrachloroethene	15.137	166	367391	10.22 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	388267	10.53 ppb(v	99
74) Octane	14.966	43	367373	10.86 ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	330795	10.74 ppb(v	98
77) Chlorobenzene	16.073	112	531539	9.04 ppb(v	98
78) Ethylbenzene	16.611	91	836862	9.11 ppb(v	100
79) m,p-Xylene	16.887	91	1327555	19.09 ppb(v	99
80) Styrene	17.407	104	492821	9.30 ppb(v	99
81) Nonane	17.933	43	373427	9.91 ppb(v	98
82) o-Xylene	17.554	91	685581	9.50 ppb(v	99
83) Bromoform	16.960	173	487087	9.36 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.554	83	546699	9.94 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	378834	9.75 ppb(v	99
86) Isopropylbenzene	18.459	105	967366	9.47 ppb(v	99
87) Bromobenzene	18.575	156	334922	8.99 ppb(v	96
88) 2-Chlorotoluene	19.175	126	242035	9.28 ppb(v	95
89) n-Propylbenzene	19.248	120	256882	9.69 ppb(v	96
91) 4-Ethyltoluene	19.468	105	908822	9.56 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	774008	9.27 ppb(v	99
93) alpha-Methylstyrene	19.823	118	408088	9.95 ppb(v	98
94) tert-Butylbenzene	20.160	134	174752	9.76 ppb(v	90
95) 1,2,4-Trimethylbenzene	20.172	105	801226	9.72 ppb(v	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On : 5 Apr 2016 10:07 am
Operator : THOMASH
Sample : BSD
Misc : MS107,v5w698,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 05 11:28:35 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

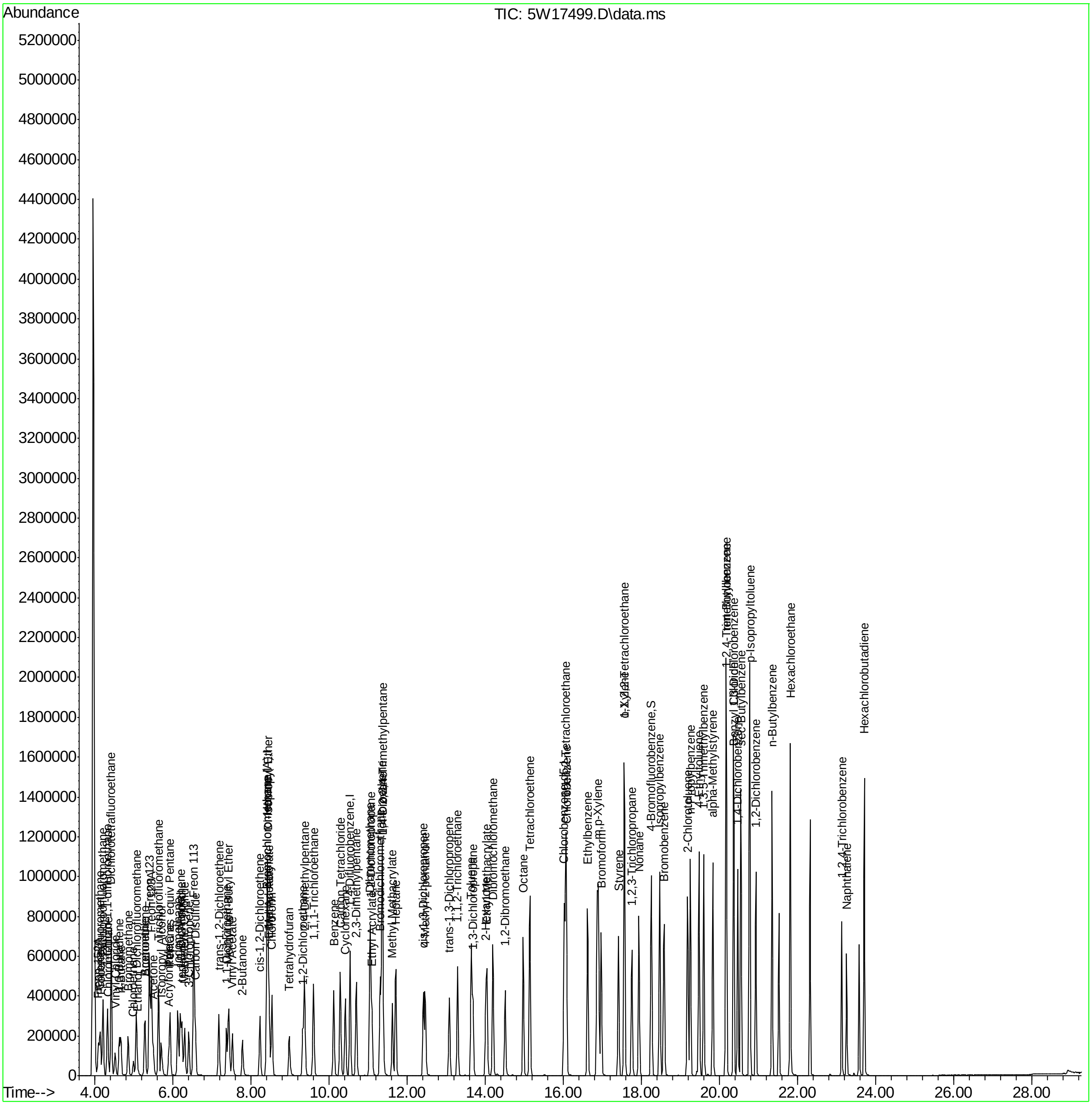
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.362	146	544267	9.19	ppb(v	99
97) Benzyl Chloride	20.349	91	673347	9.11	ppb(v	99
98) 1,4-Dichlorobenzene	20.459	146	517647	8.45	ppb(v	98
99) sec-Butylbenzene	20.539	134	215040	9.65	ppb(v	95
100) p-Isopropyltoluene	20.771	134	250487	10.16	ppb(v	99
101) 1,2-Dichlorobenzene	20.924	146	507663	9.06	ppb(v	99
102) n-Butylbenzene	21.340	134	215420	9.92	ppb(v	91
103) Hexachloroethane	21.805	201	336354	9.64	ppb(v	94
104) 1,2,4-Trichlorobenzene	23.127	180	262402	7.30	ppb(v	99
105) Naphthalene	23.249	128	504046	6.62	ppb(v	100
106) Hexachlorobutadiene	23.702	225	309033	8.46	ppb(v	99
108) TVHC as equiv Pentane	5.918	TIC	914187m	10.39	ppb(v	

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

Quantitation Report   (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:28:35 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

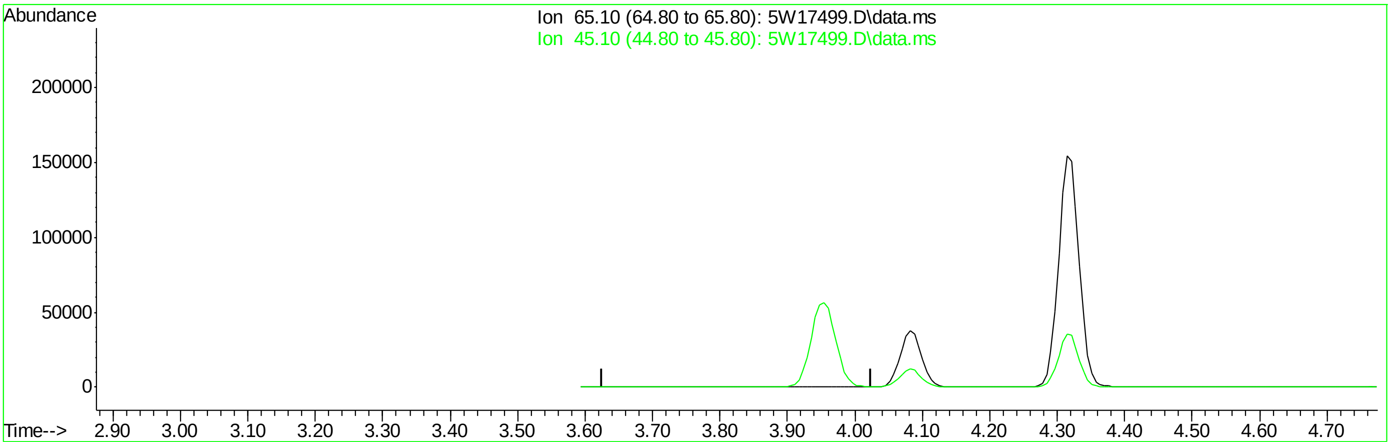
Sample Number:	V5W698-BSD	**Method:**	TO-15
Lab FileID:	5W17499.D	**Analyst approved:**	04/05/16 12:32 Thomas Hilbig
Injection Time:	04/05/16 10:07	**Supervisor approved:**	04/06/16 11:53 Kanya Veerawat

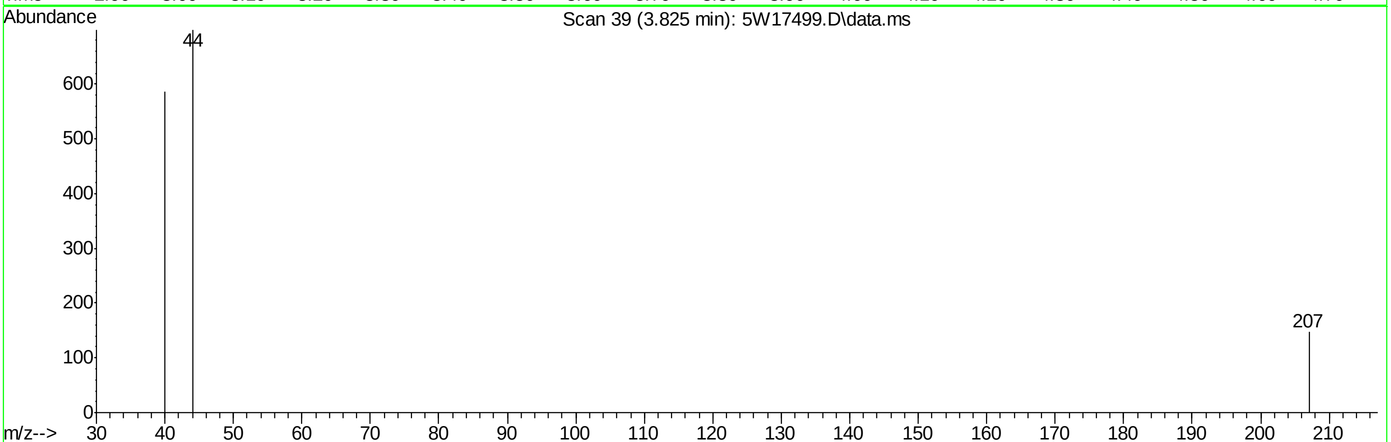
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17499.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

response 0

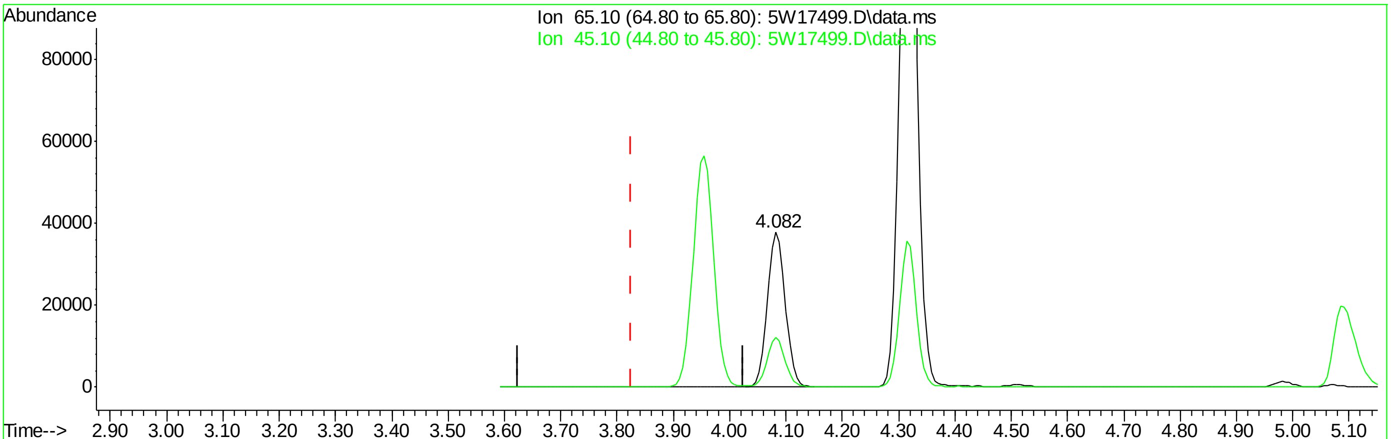
Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

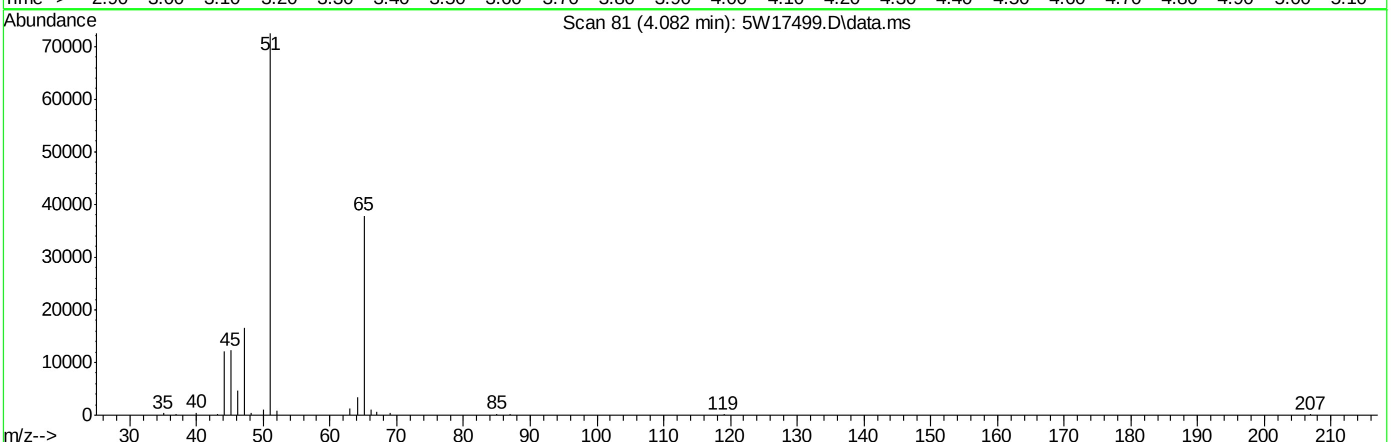
5W17499.D edits: Freon 152A

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17499.D\data.ms

(3) Freon 152A

4.082min (+0.257) 8.97ppb(v) m

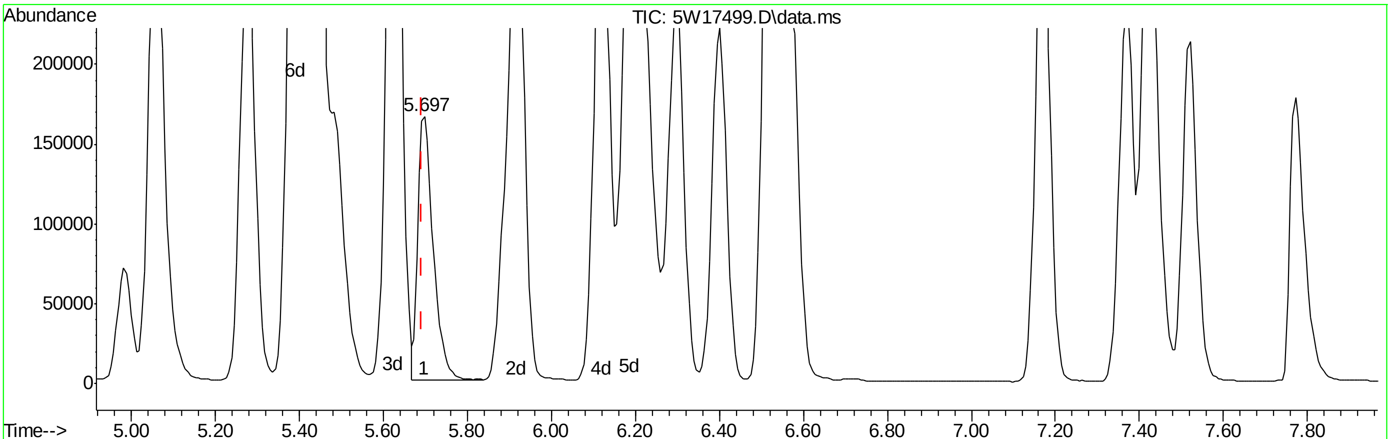
response 84398

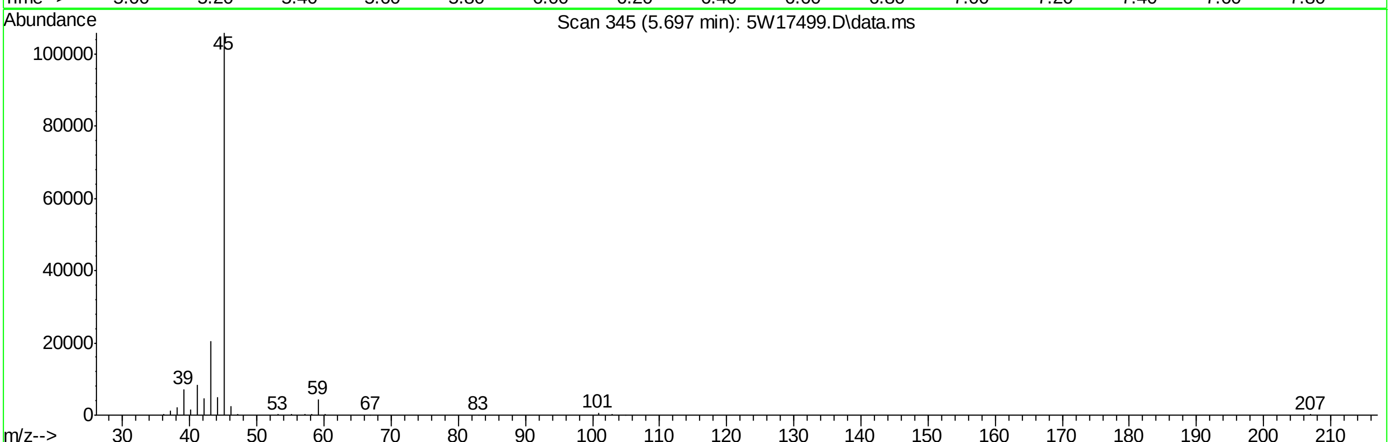
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	32.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17499.D\data.ms

(108) TVHC as equiv Pentane

5.697min (+0.006) 4.80ppb(v)

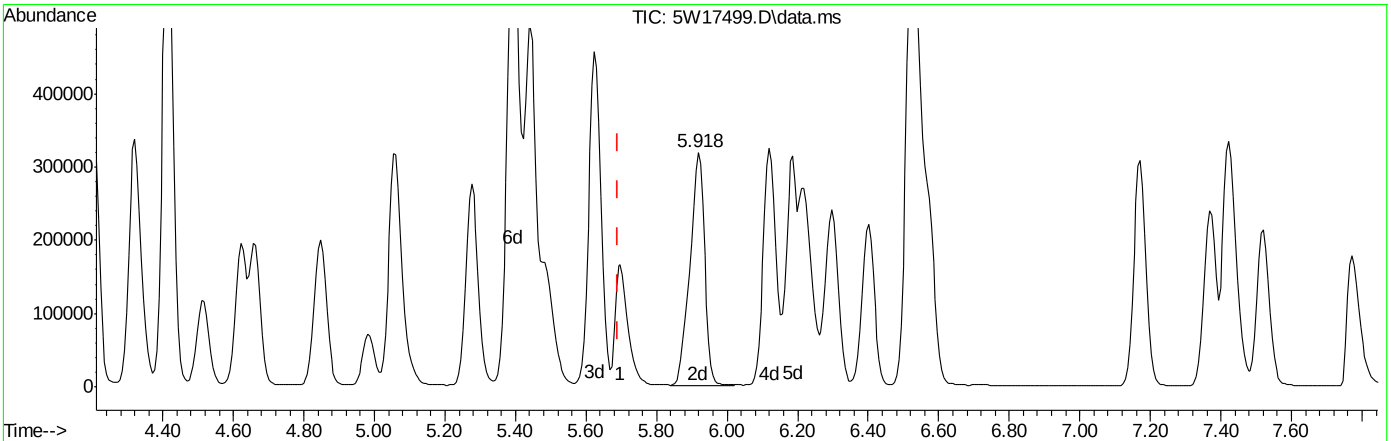
response 422424

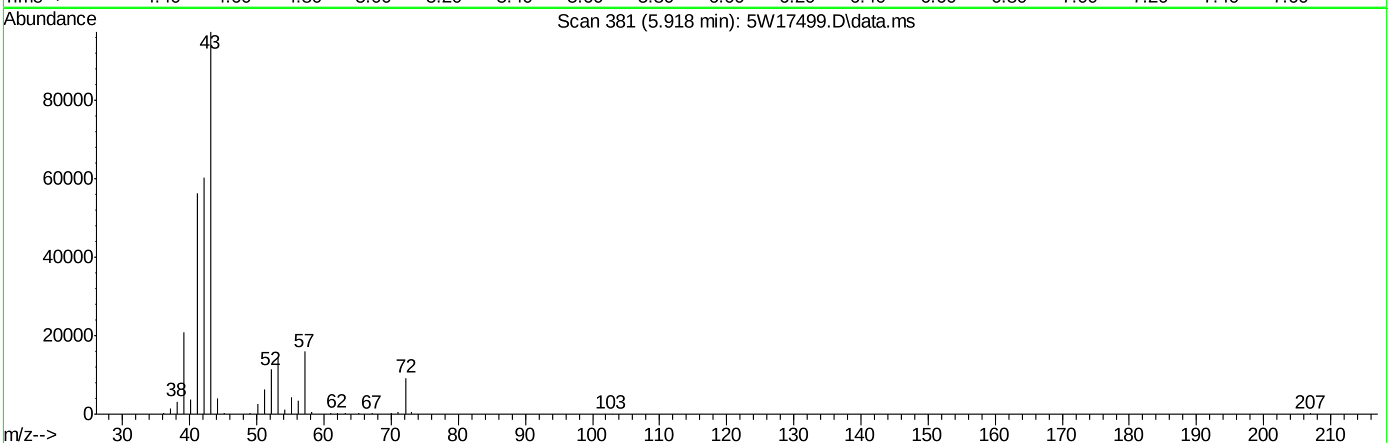
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17499.D
Acq On    :  5 Apr 2016  10:07 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 05 11:06:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17499.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 10.39ppb(v) m

response 914187

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 13:17

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:21:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	210433	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	782562	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	383271	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	210432	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	499490	9.52	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.20%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) Freon 152A	4.076	65	108903m	10.22	ppb(v	
4) Chlorodifluoromethane	4.113	67	45072	8.70	ppb(v	98
5) Propene	4.137	41	117367	10.74	ppb(v	99
6) Dichlorodifluoromethane	4.198	85	471014	9.80	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.315	65	335797	9.67	ppb(v	99
8) Chloromethane	4.333	50	154924	10.39	ppb(v	99
9) Dichlorotetrafluoroethane	4.406	85	516731	10.32	ppb(v	97
10) Vinyl Chloride	4.510	62	181596	11.30	ppb(v	99
11) 1,3-Butadiene	4.614	54	126773	9.89	ppb(v	97
12) n-Butane	4.657	58	28480	10.50	ppb(v	98
13) Bromomethane	4.841	94	192596	9.26	ppb(v	99
14) Chloroethane	4.982	64	88027	10.51	ppb(v	100
15) Dichlorofluoromethane	5.055	67	421467	10.30	ppb(v	99
16) Acetonitrile	5.275	41	132556	11.05	ppb(v	97
17) Freon 123	5.391	83	485014	10.01	ppb(v	99
18) Freon 123A	5.440	117	265237	9.50	ppb(v	91
19) Bromoethene	5.275	106	195786	9.71	ppb(v	100
20) Trichlorofluoromethane	5.624	101	491089	9.69	ppb(v	99
21) Acetone	5.483	58	82299	10.06	ppb(v	93
22) Pentane	5.918	57	45295	11.15	ppb(v	98
24) Iodomethane	6.119	142	574475	9.79	ppb(v	100
25) Isopropyl Alcohol	5.697	43	54555	8.59	ppb(v	91
26) 1,1-Dichloroethene	6.181	61	294174	10.56	ppb(v	99
27) Freon 113	6.523	101	440088	10.67	ppb(v	98
28) Methylene Chloride	6.297	84	173807	9.81	ppb(v	98
29) Carbon Disulfide	6.566	76	550812	10.68	ppb(v	100
30) Ethanol	5.086	45	62284	8.96	ppb(v	98
31) Acrylonitrile	5.887	53	133470	10.06	ppb(v	99
32) 3-Chloropropene	6.401	76	86858	10.69	ppb(v	97
33) trans-1,2-Dichloroethene	7.166	61	259022	10.63	ppb(v	97
34) tert-Butyl Alcohol	6.223	59	410171	10.62	ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	500793	9.69	ppb(v	99
36) Vinyl Acetate	7.514	43	464003	11.12	ppb(v	100
37) 1,1-Dichloroethane	7.367	63	346023	10.70	ppb(v	99
38) 2-Butanone	7.771	72	87379	10.90	ppb(v	99
39) Hexane	8.414	57	267384	9.47	ppb(v	93
40) cis-1,2-Dichloroethene	8.218	61	249056	10.44	ppb(v	98
41) Di-isopropyl Ether	8.420	87	163268	11.07	ppb(v	92
42) Ethyl Acetate	8.456	61	63867	11.50	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On : 6 Apr 2016 12:02 pm
Operator : THOMASH
Sample : BS
Misc : MS107,v5w699,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 06 13:21:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.450	55	336052	10.74 ppb(v	98
44) Chloroform	8.530	83	430079	10.03 ppb(v	99
45) 2,4-Dimethylpentane	9.362	57	325110	10.11 ppb(v	98
46) Tetrahydrofuran	8.970	72	90664	11.41 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	425566	9.54 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	248867	10.12 ppb(v	99
49) Benzene	10.114	78	603197	10.42 ppb(v	100
50) Carbon Tetrachloride	10.279	117	445686	9.68 ppb(v	99
51) Cyclohexane	10.408	56	270609	10.06 ppb(v	95
52) 2,3-Dimethylpentane	10.689	71	124400	10.01 ppb(v	99
54) 2,2,4-Trimethylpentane	11.362	57	902215	10.36 ppb(v	99
55) Heptane	11.699	71	185104	9.93 ppb(v	98
56) Trichloroethene	11.344	95	289463	9.70 ppb(v	97
57) 1,2-Dichloropropane	11.056	63	224517	10.92 ppb(v	98
58) Dibromomethane	11.038	174	290820	9.39 ppb(v	97
59) Ethyl Acrylate	11.093	55	426921	11.17 ppb(v	100
60) Methyl Methacrylate	11.613	69	202140	9.58 ppb(v	99
61) 1,4-Dioxane	11.368	88	147143	10.38 ppb(v	98
62) Bromodichloromethane	11.301	83	460188	9.51 ppb(v	100
63) cis-1,3-Dichloropropene	12.408	75	358256	9.78 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	177507	11.33 ppb(v	98
65) trans-1,3-Dichloropropene	13.075	75	319503	10.46 ppb(v	99
66) Toluene	13.638	91	733716	9.81 ppb(v	99
67) 1,1,2-Trichloroethane	13.283	97	266509	9.86 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	340157	10.42 ppb(v	100
69) 2-Hexanone	14.005	58	242427	10.64 ppb(v	98
70) Ethyl Methacrylate	14.036	69	367852	10.47 ppb(v	98
71) Dibromochloromethane	14.189	129	512710	9.64 ppb(v	100
72) Tetrachloroethene	15.137	166	387469	9.09 ppb(v	99
73) 1,2-Dibromoethane	14.501	107	434110	9.93 ppb(v	100
74) Octane	14.966	43	403152	10.05 ppb(v	96
75) 1,1,1,2-Tetrachloroethane	16.055	131	360379	9.87 ppb(v	98
77) Chlorobenzene	16.073	112	598211	9.32 ppb(v	98
78) Ethylbenzene	16.611	91	945021	9.42 ppb(v	100
79) m,p-Xylene	16.887	91	1450280	19.09 ppb(v	99
80) Styrene	17.407	104	554497	9.58 ppb(v	99
81) Nonane	17.933	43	409447	9.95 ppb(v	99
82) o-Xylene	17.560	91	741906	9.41 ppb(v	100
83) Bromoform	16.966	173	526195	9.25 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	595940	9.92 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	421344	9.93 ppb(v	99
86) Isopropylbenzene	18.459	105	1063556	9.53 ppb(v	99
87) Bromobenzene	18.575	156	365149	8.97 ppb(v	96
88) 2-Chlorotoluene	19.175	126	267144	9.38 ppb(v	98
89) n-Propylbenzene	19.248	120	282148	9.74 ppb(v	98
91) 4-Ethyltoluene	19.468	105	987397	9.51 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	831418	9.12 ppb(v	100
93) alpha-Methylstyrene	19.823	118	441589	9.86 ppb(v	99
94) tert-Butylbenzene	20.160	134	184126	9.41 ppb(v	94
95) 1,2,4-Trimethylbenzene	20.172	105	831138	9.23 ppb(v	88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On : 6 Apr 2016 12:02 pm
Operator : THOMASH
Sample : BS
Misc : MS107,v5w699,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 06 13:21:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

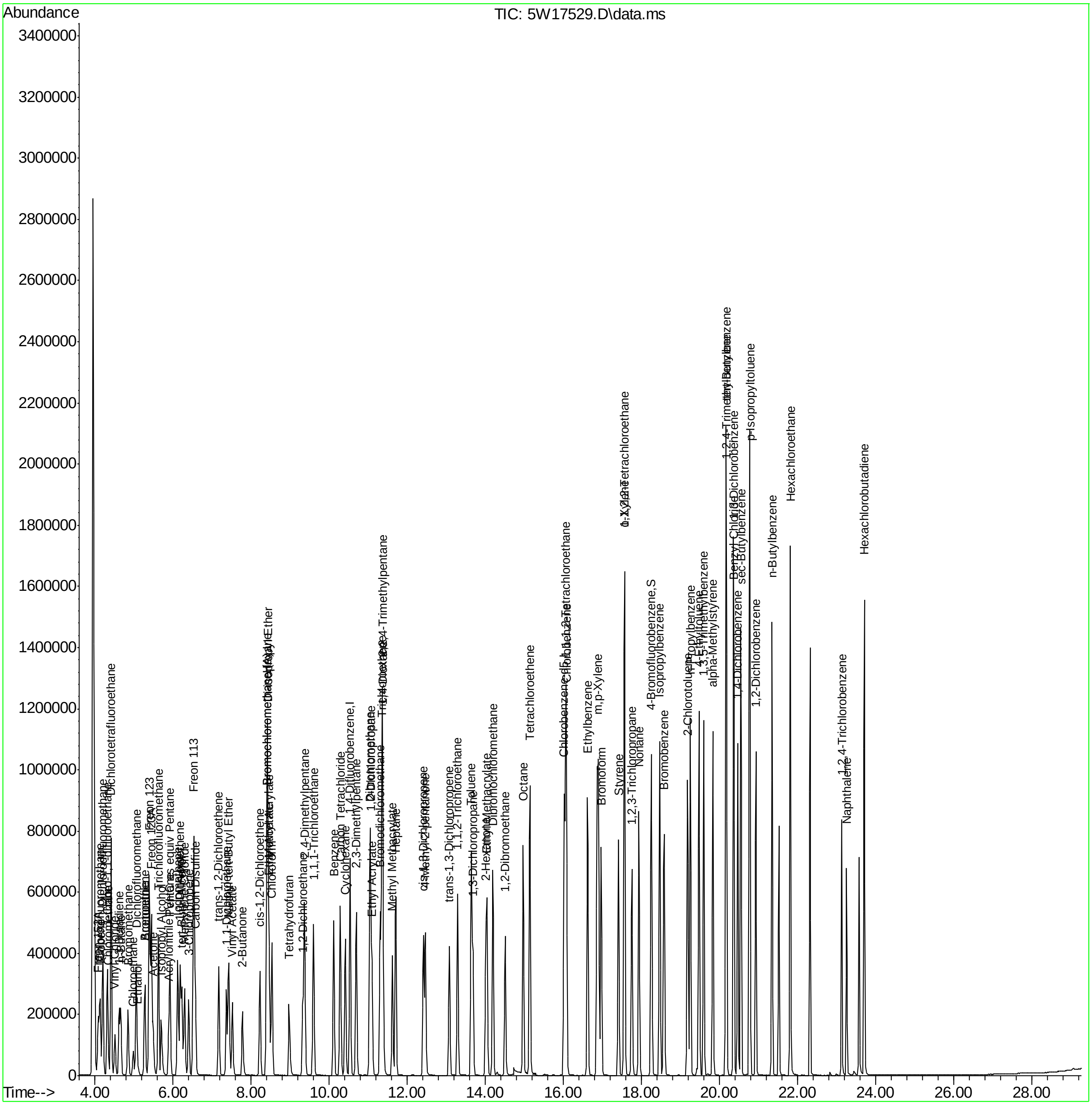
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.361	146	573904	8.88	ppb(v	99
97) Benzyl Chloride	20.349	91	707976	8.77	ppb(v	99
98) 1,4-Dichlorobenzene	20.459	146	556239	8.31	ppb(v	99
99) sec-Butylbenzene	20.539	134	230492	9.47	ppb(v	96
100) p-Isopropyltoluene	20.771	134	264723	9.83	ppb(v	99
101) 1,2-Dichlorobenzene	20.924	146	543399	8.88	ppb(v	99
102) n-Butylbenzene	21.340	134	233135	9.83	ppb(v	92
103) Hexachloroethane	21.805	201	364131	9.55	ppb(v	94
104) 1,2,4-Trichlorobenzene	23.127	180	291911	7.43	ppb(v	99
105) Naphthalene	23.249	128	564127	6.79	ppb(v	100
106) Hexachlorobutadiene	23.702	225	344616	8.64	ppb(v	100
108) TVHC as equiv Pentane	5.918	TIC	1089043m	10.92	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:21:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

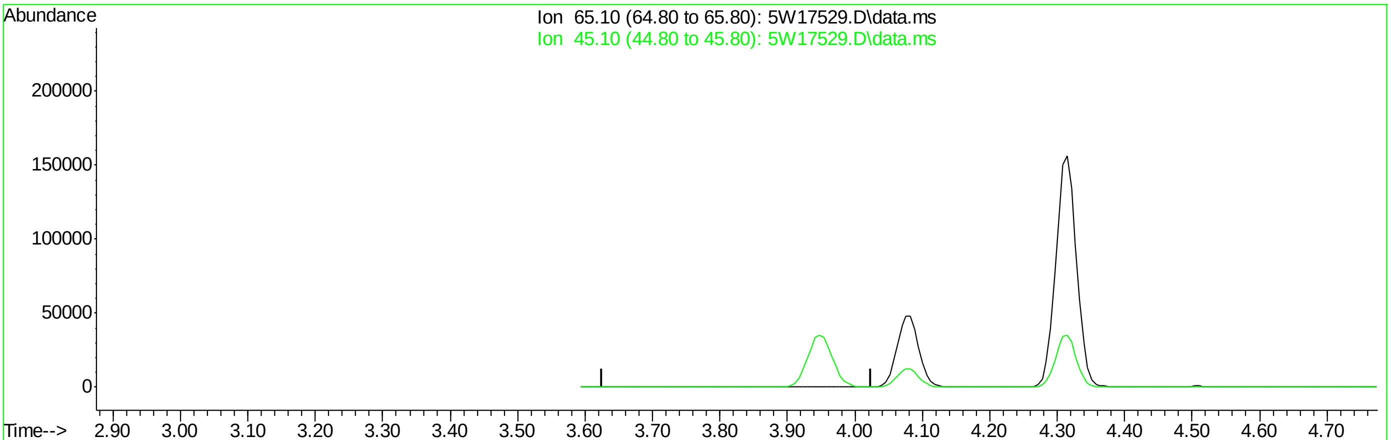
Sample Number: V5W699-BS
Lab FileID: 5W17529.D
Injection Time: 04/06/16 12:02
Method: TO-15
Analyst approved: 04/06/16 15:00 Thomas Hilbig
Supervisor approved: 04/07/16 13:17 Kanya Veerawat

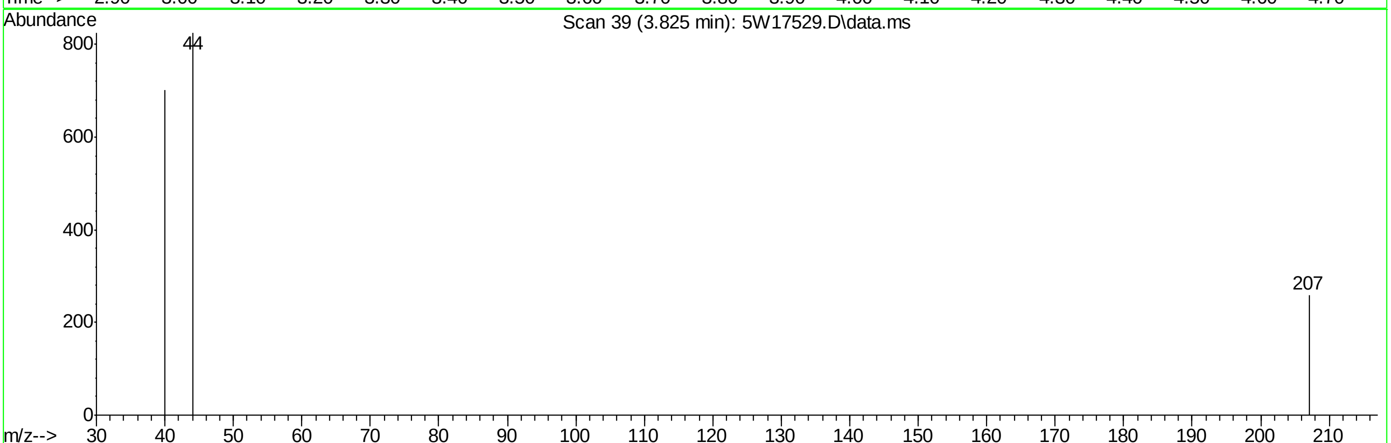
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:25 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17529.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

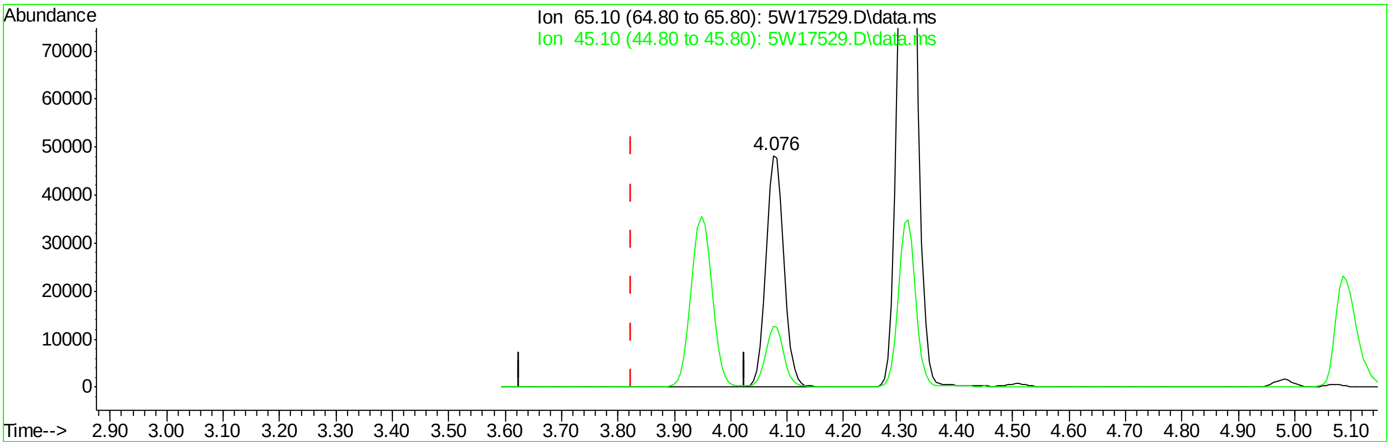
response 0

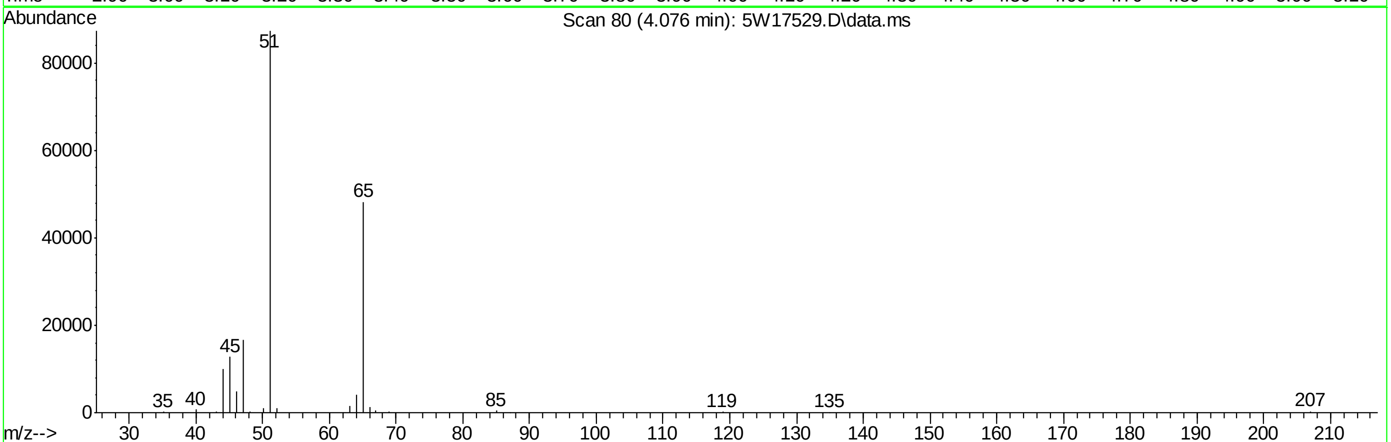
Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:25 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17529.D\data.ms

(3) Freon 152A

4.076min (+0.251) 10.22ppb(v) m

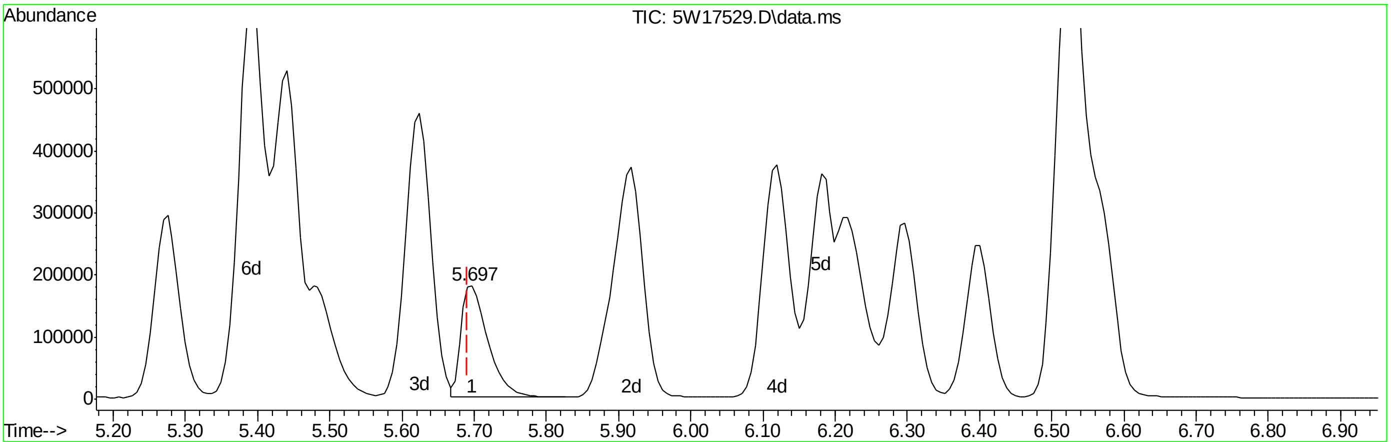
response 108903

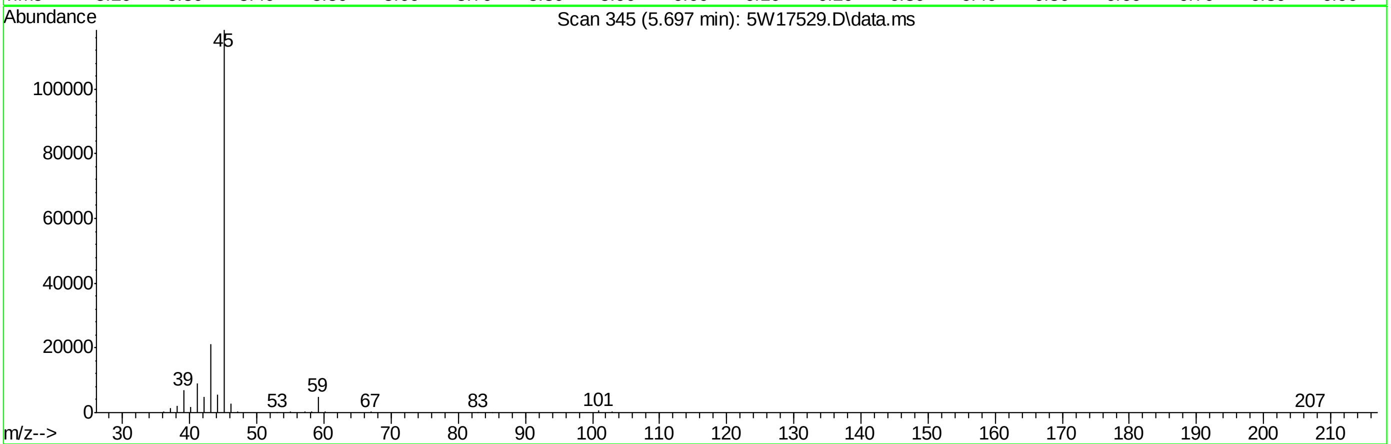
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:25 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17529.D\data.ms

(108) TVHC as equiv Pentane

5.697min (+0.006) 4.73ppb(v)

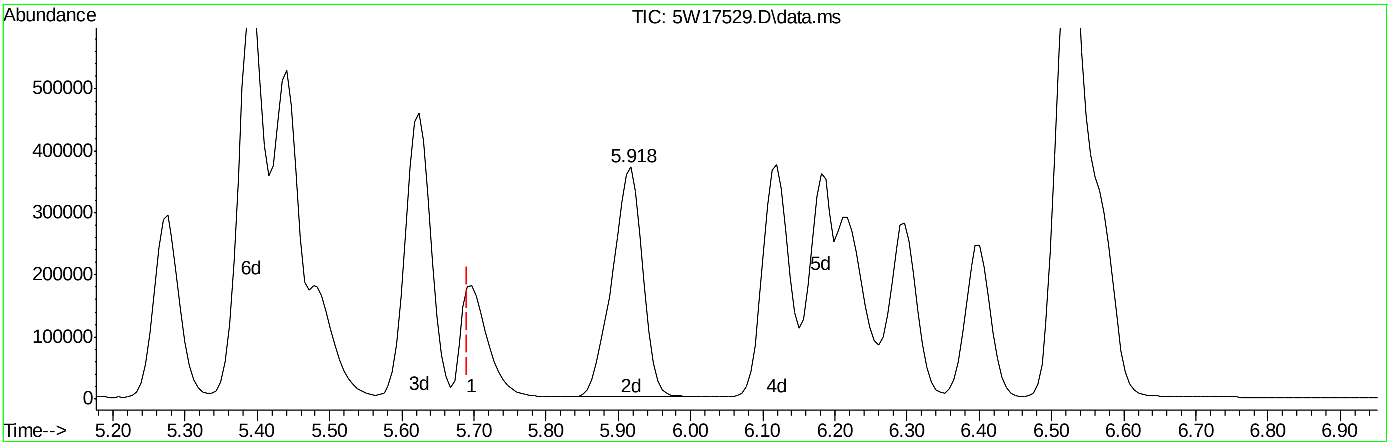
response 471764

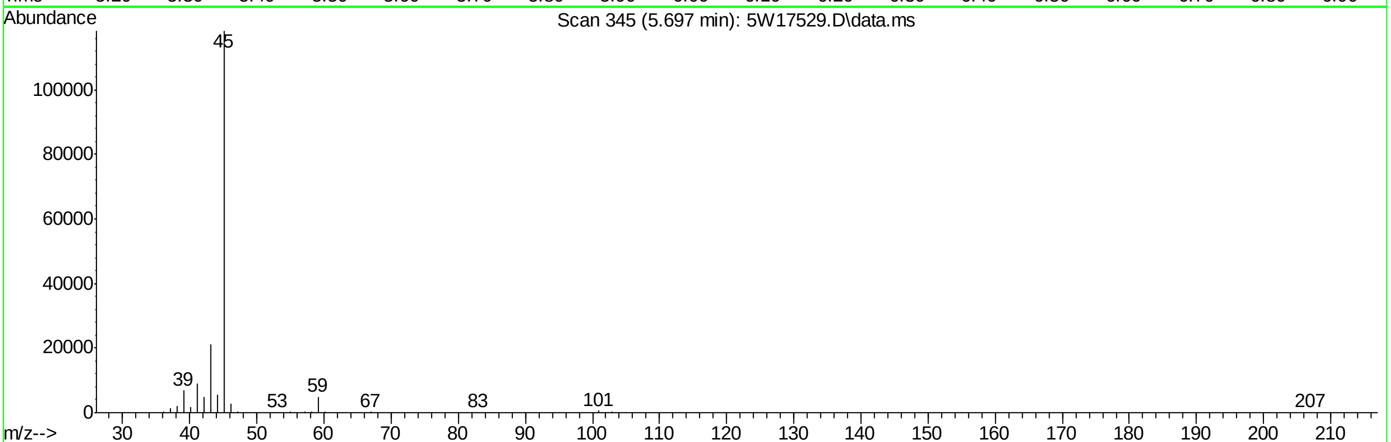
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17529.D
Acq On    :  6 Apr 2016  12:02 pm
Operator  : THOMASH
Sample    : BS
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:25 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17529.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 10.92ppb(v) m

response 1089043

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 13:17

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:23:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.395	130	214560	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.531	114	810680	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	395053	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	214559	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	523605	9.68 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.80%		
Target Compounds					Qvalue
3) Freon 152A	4.082	65	108615m	9.99 ppb(v	
4) Chlorodifluoromethane	4.119	67	44785	8.48 ppb(v	98
5) Propene	4.144	41	117164	10.51 ppb(v	99
6) Dichlorodifluoromethane	4.205	85	474432	9.68 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.315	65	338321	9.56 ppb(v	99
8) Chloromethane	4.333	50	154681	10.17 ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	515187	10.09 ppb(v	98
10) Vinyl Chloride	4.511	62	179448	10.95 ppb(v	100
11) 1,3-Butadiene	4.621	54	124848	9.55 ppb(v	96
12) n-Butane	4.664	58	27743m	10.04 ppb(v	
13) Bromomethane	4.847	94	191862	9.04 ppb(v	99
14) Chloroethane	4.982	64	87456	10.24 ppb(v	99
15) Dichlorofluoromethane	5.055	67	416120	9.97 ppb(v	100
16) Acetonitrile	5.275	41	131647	10.77 ppb(v	98
17) Freon 123	5.392	83	483913	9.79 ppb(v	99
18) Freon 123A	5.441	117	264163	9.28 ppb(v	91
19) Bromoethene	5.275	106	195263	9.49 ppb(v	99
20) Trichlorofluoromethane	5.624	101	486831	9.42 ppb(v	99
21) Acetone	5.490	58	82365	9.88 ppb(v	91
22) Pentane	5.918	57	45584	11.00 ppb(v	96
24) Iodomethane	6.120	142	575222	9.61 ppb(v	100
25) Isopropyl Alcohol	5.698	43	54402	8.41 ppb(v	86
26) 1,1-Dichloroethene	6.187	61	293303	10.33 ppb(v	99
27) Freon 113	6.523	101	440498	10.48 ppb(v	97
28) Methylene Chloride	6.297	84	173328	9.60 ppb(v	97
29) Carbon Disulfide	6.572	76	550666	10.47 ppb(v	100
30) Ethanol	5.092	45	63565	8.97 ppb(v	98
31) Acrylonitrile	5.893	53	133580	9.88 ppb(v	99
32) 3-Chloropropene	6.401	76	85841	10.36 ppb(v	98
33) trans-1,2-Dichloroethene	7.172	61	259355	10.44 ppb(v	98
34) tert-Butyl Alcohol	6.224	59	409855	10.41 ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	504205	9.56 ppb(v	99
36) Vinyl Acetate	7.521	43	467401	10.98 ppb(v	100
37) 1,1-Dichloroethane	7.368	63	344092	10.43 ppb(v	99
38) 2-Butanone	7.771	72	87386	10.69 ppb(v	99
39) Hexane	8.414	57	264400	9.18 ppb(v	94
40) cis-1,2-Dichloroethene	8.224	61	249124	10.24 ppb(v	100
41) Di-isopropyl Ether	8.420	87	161863	10.76 ppb(v	91
42) Ethyl Acetate	8.457	61	63475	11.21 ppb(v	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On : 6 Apr 2016 12:43 pm
Operator : THOMASH
Sample : BSD
Misc : MS107,v5w699,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 06 13:23:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.450	55	333198	10.44 ppb(v	98
44) Chloroform	8.530	83	429611	9.83 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	322089	9.82 ppb(v	98
46) Tetrahydrofuran	8.970	72	91208	11.26 ppb(v	98
47) 1,1,1-Trichloroethane	9.595	97	423198	9.30 ppb(v	100
48) 1,2-Dichloroethane	9.319	62	245014	9.78 ppb(v	99
49) Benzene	10.115	78	598073	10.13 ppb(v	100
50) Carbon Tetrachloride	10.280	117	446806	9.52 ppb(v	99
51) Cyclohexane	10.408	56	269308	9.82 ppb(v	95
52) 2,3-Dimethylpentane	10.690	71	124062	9.79 ppb(v	97
54) 2,2,4-Trimethylpentane	11.363	57	903398	10.01 ppb(v	99
55) Heptane	11.699	71	185060	9.58 ppb(v	98
56) Trichloroethene	11.344	95	287897	9.32 ppb(v	95
57) 1,2-Dichloropropane	11.057	63	224273	10.53 ppb(v	97
58) Dibromomethane	11.038	174	291630	9.09 ppb(v	97
59) Ethyl Acrylate	11.093	55	429187	10.84 ppb(v	99
60) Methyl Methacrylate	11.613	69	202668	9.28 ppb(v	99
61) 1,4-Dioxane	11.369	88	148464	10.11 ppb(v	98
62) Bromodichloromethane	11.301	83	462188	9.22 ppb(v	100
63) cis-1,3-Dichloropropene	12.409	75	356526	9.40 ppb(v	100
64) 4-Methyl-2-pentanone	12.458	58	177309	10.93 ppb(v	96
65) trans-1,3-Dichloropropene	13.075	75	318274	10.06 ppb(v	99
66) Toluene	13.638	91	733101	9.47 ppb(v	100
67) 1,1,2-Trichloroethane	13.283	97	268977	9.61 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	342196	10.12 ppb(v	99
69) 2-Hexanone	14.005	58	243771	10.33 ppb(v	98
70) Ethyl Methacrylate	14.036	69	370088	10.17 ppb(v	97
71) Dibromochloromethane	14.189	129	514850	9.34 ppb(v	100
72) Tetrachloroethene	15.137	166	406964	9.22 ppb(v	99
73) 1,2-Dibromoethane	14.501	107	431854	9.54 ppb(v	100
74) Octane	14.966	43	409109	9.84 ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	358992	9.49 ppb(v	98
77) Chlorobenzene	16.073	112	598428	9.04 ppb(v	99
78) Ethylbenzene	16.611	91	940512	9.09 ppb(v	100
79) m,p-Xylene	16.887	91	1447396	18.48 ppb(v	99
80) Styrene	17.407	104	555663	9.31 ppb(v	99
81) Nonane	17.933	43	407264	9.60 ppb(v	99
82) o-Xylene	17.560	91	741910	9.13 ppb(v	100
83) Bromoform	16.960	173	526130	8.98 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.554	83	595145	9.61 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	419628	9.59 ppb(v	98
86) Isopropylbenzene	18.459	105	1062195	9.24 ppb(v	99
87) Bromobenzene	18.575	156	366081	8.73 ppb(v	95
88) 2-Chlorotoluene	19.175	126	267525	9.11 ppb(v	96
89) n-Propylbenzene	19.248	120	279931	9.37 ppb(v	97
91) 4-Ethyltoluene	19.468	105	982169	9.18 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	832375	8.86 ppb(v	100
93) alpha-Methylstyrene	19.823	118	441172	9.55 ppb(v	100
94) tert-Butylbenzene	20.160	134	183487	9.10 ppb(v	94
95) 1,2,4-Trimethylbenzene	20.172	105	827932	8.92 ppb(v	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On : 6 Apr 2016 12:43 pm
Operator : THOMASH
Sample : BSD
Misc : MS107,v5w699,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 06 13:23:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

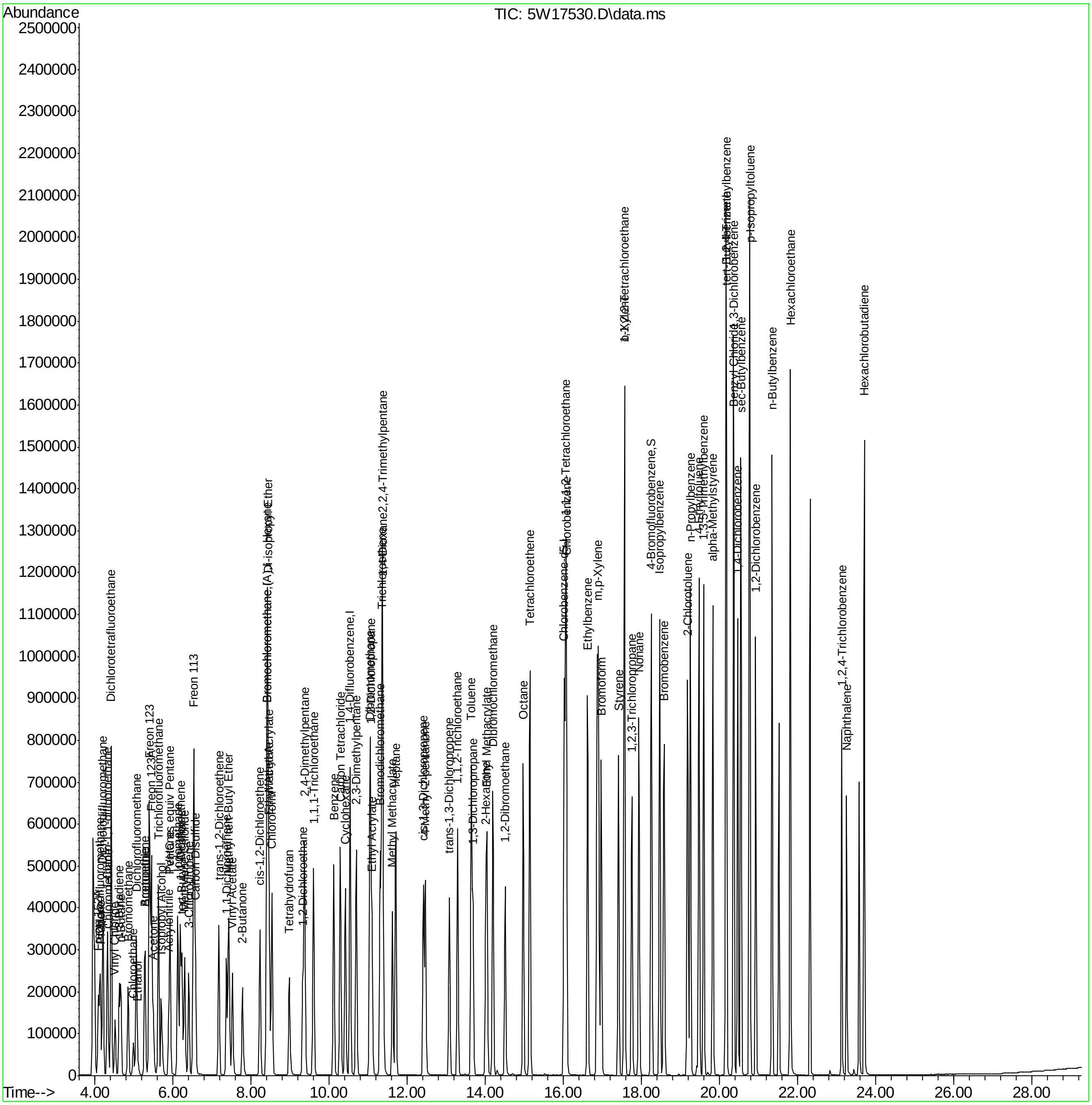
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	1,3-Dichlorobenzene	20.362	146	571492	8.57	ppb(v	99
97)	Benzyl Chloride	20.349	91	702747	8.44	ppb(v	99
98)	1,4-Dichlorobenzene	20.460	146	554398	8.04	ppb(v	99
99)	sec-Butylbenzene	20.539	134	230964	9.21	ppb(v	97
100)	p-Isopropyltoluene	20.772	134	262095	9.44	ppb(v	99
101)	1,2-Dichlorobenzene	20.924	146	543705	8.62	ppb(v	99
102)	n-Butylbenzene	21.340	134	232873	9.53	ppb(v	92
103)	Hexachloroethane	21.805	201	359167	9.14	ppb(v	93
104)	1,2,4-Trichlorobenzene	23.127	180	290663	7.18	ppb(v	99
105)	Naphthalene	23.249	128	558598	6.52	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	338243	8.23	ppb(v	100
108)	TVHC as equiv Pentane	5.918	TIC	1080450m	10.63	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:23:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

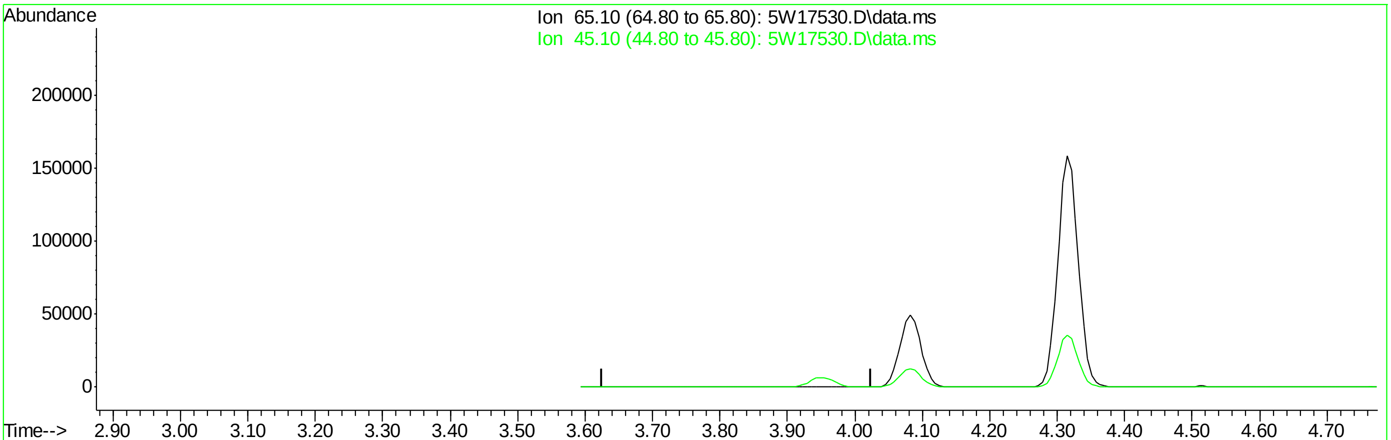
Sample Number:	V5W699-BSD	**Method:**	TO-15
Lab FileID:	5W17530.D	**Analyst approved:**	04/06/16 15:00 Thomas Hilbig
Injection Time:	04/06/16 12:43	**Supervisor approved:**	04/07/16 13:17 Kanya Veerawat

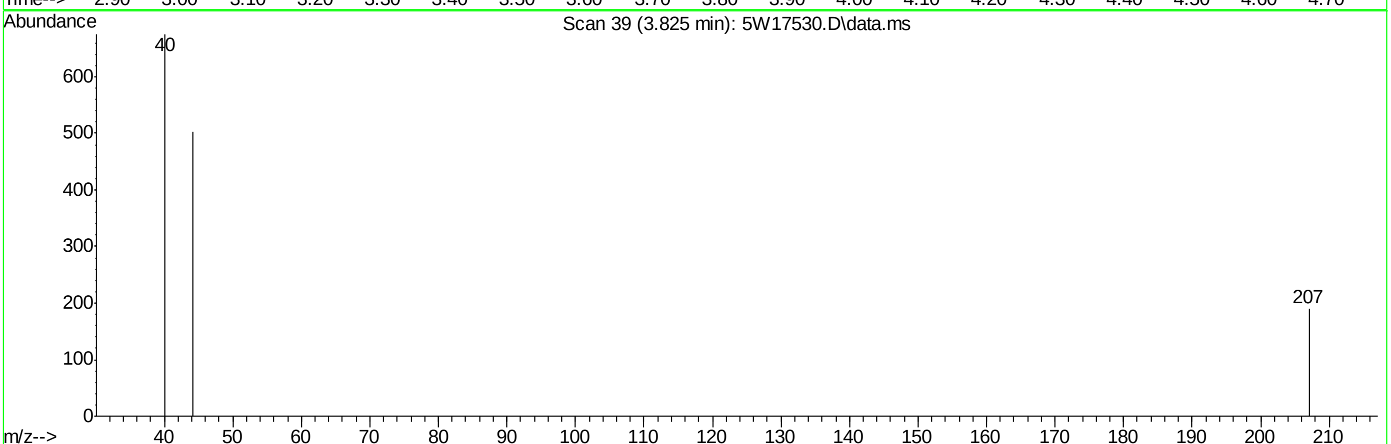
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak
n-Butane	106-97-8		4.66	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17530.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

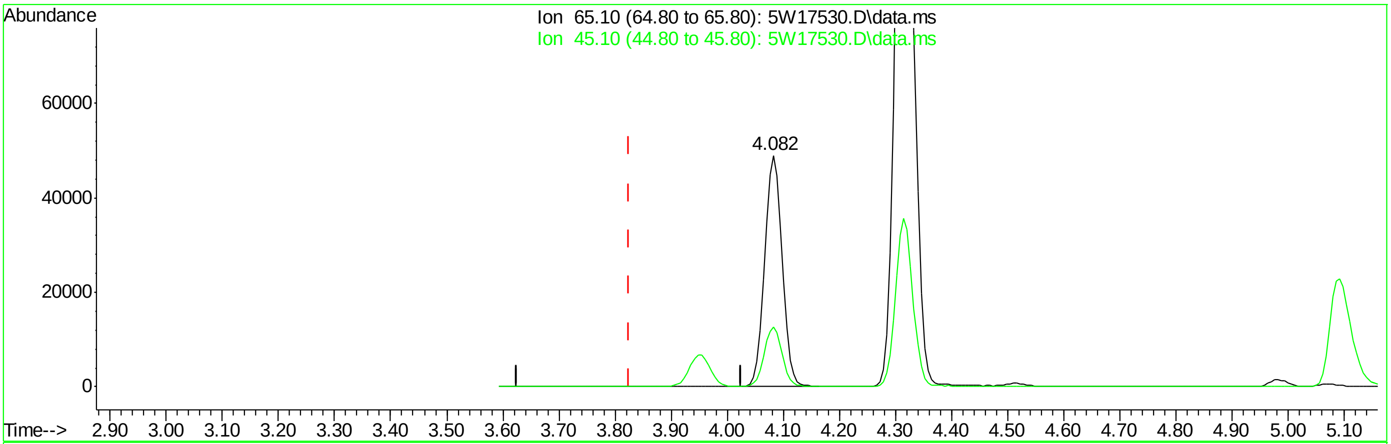
response 0

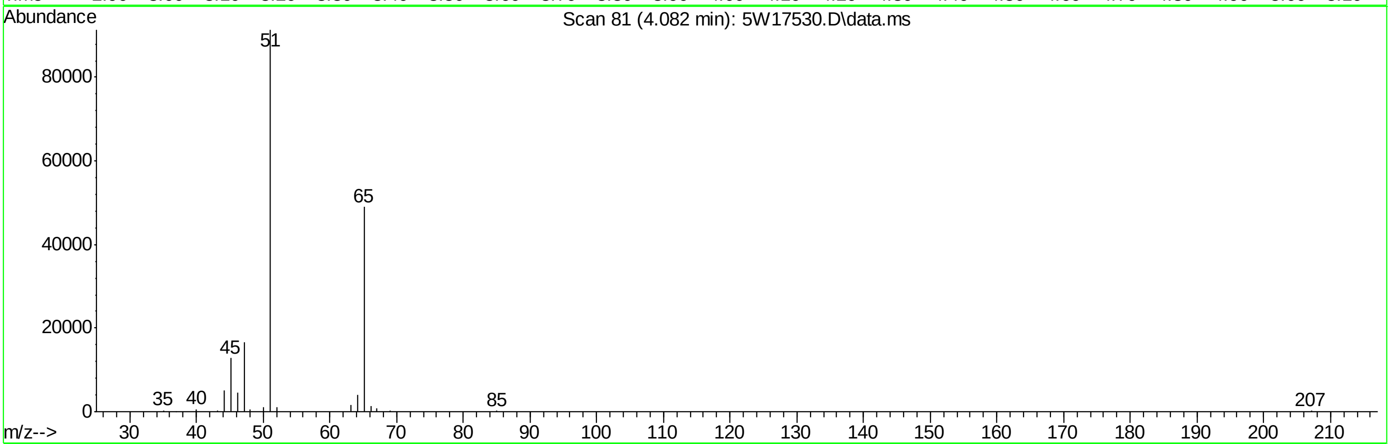
Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17530.D\data.ms

(3) Freon 152A

4.082min (+0.257) 9.99ppb(v) m

response 108615

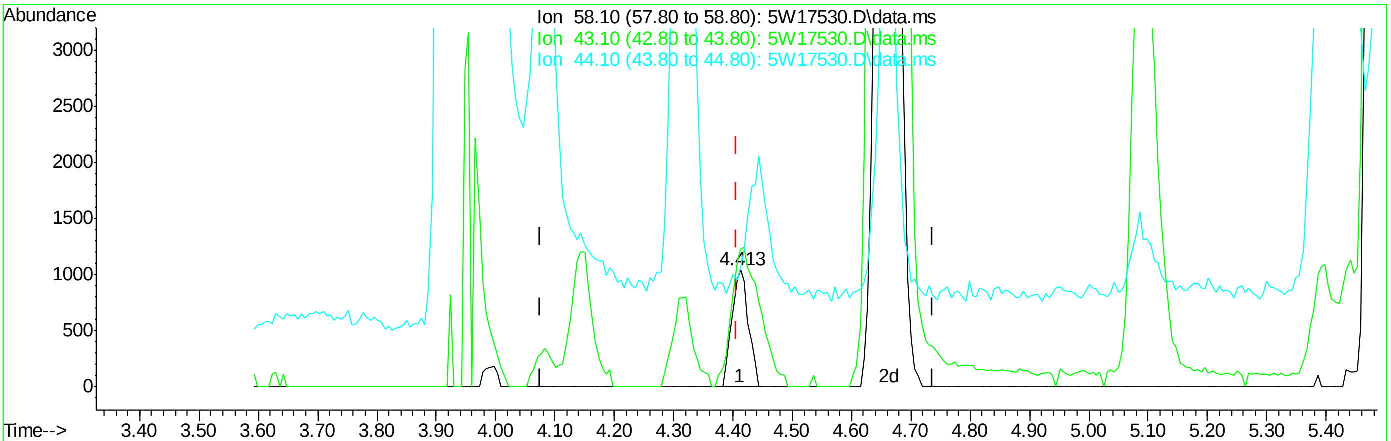
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.02
0.00	0.00	0.00
0.00	0.00	0.00

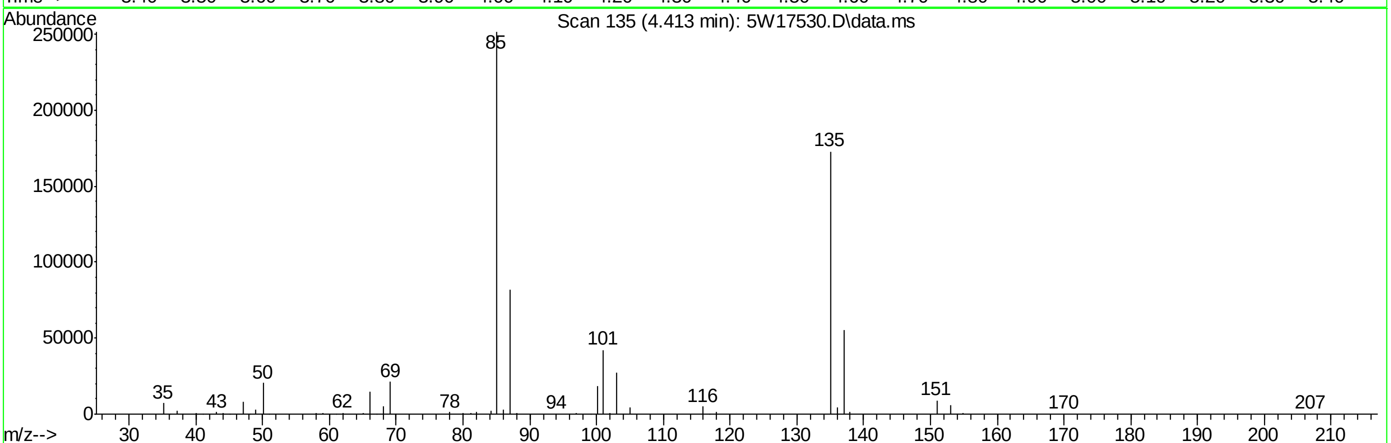
5W17530.D edits: Freon 152A

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17530.D\data.ms

(12) n-Butane

4.413min (+0.006) 0.73ppb(v)

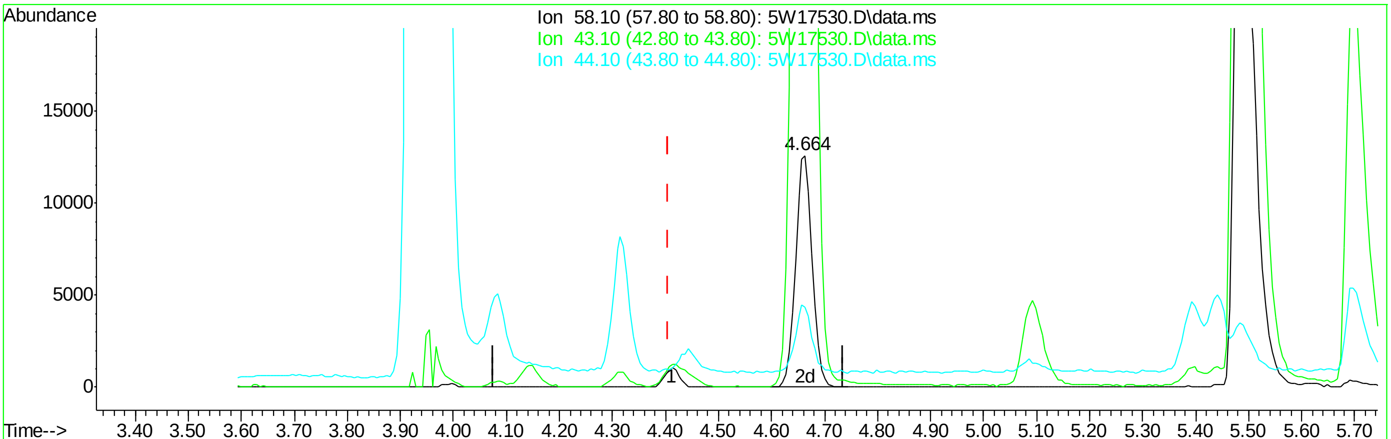
response 2009

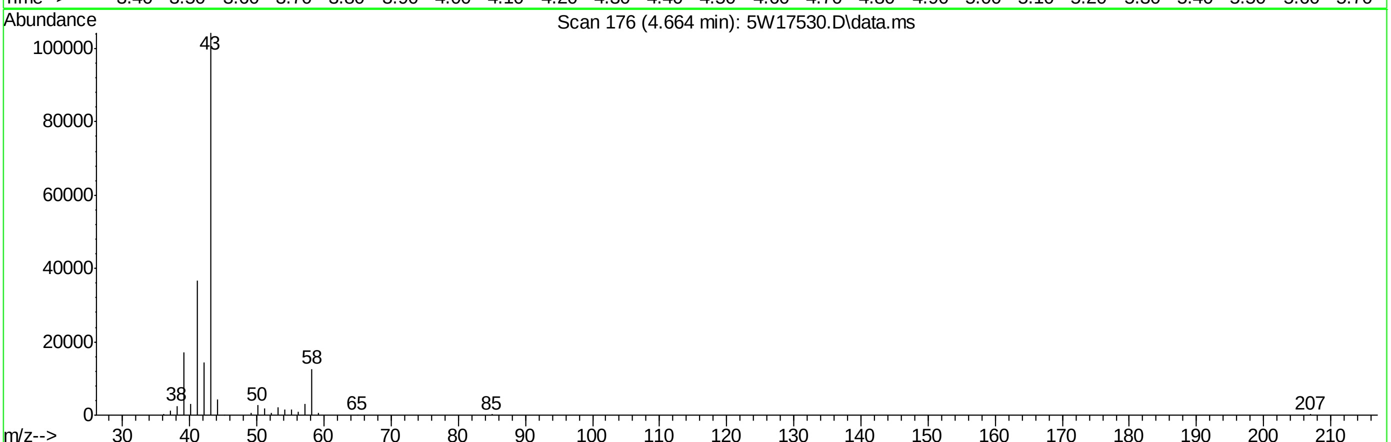
Ion	Exp%	Act%
58.10	100	100
43.10	823.30	118.73#
44.10	49.20	102.79#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17530.D\data.ms

(12) n-Butane

4.664min (+0.257) 10.04ppb(v) m

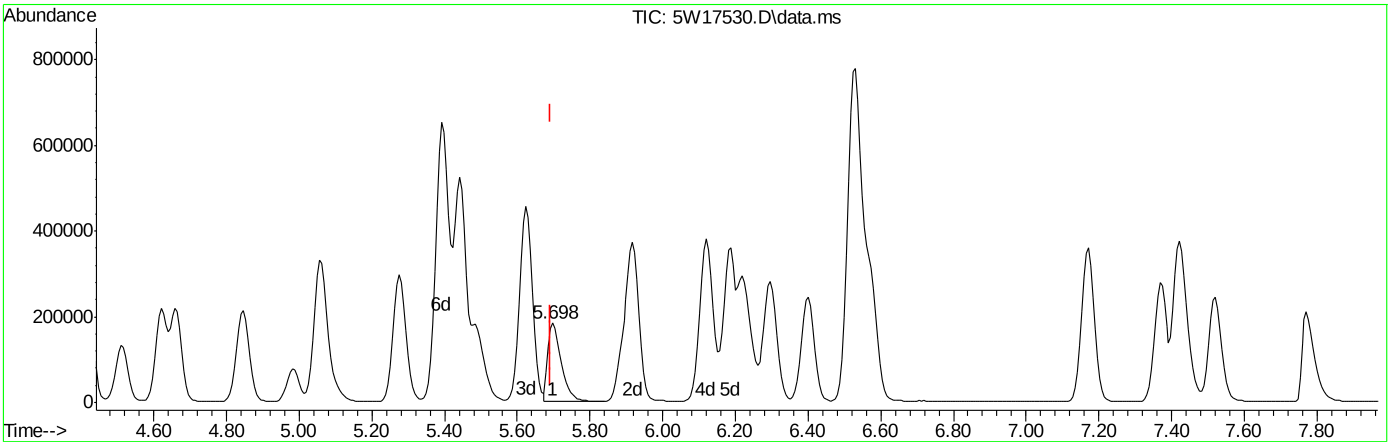
response 27743

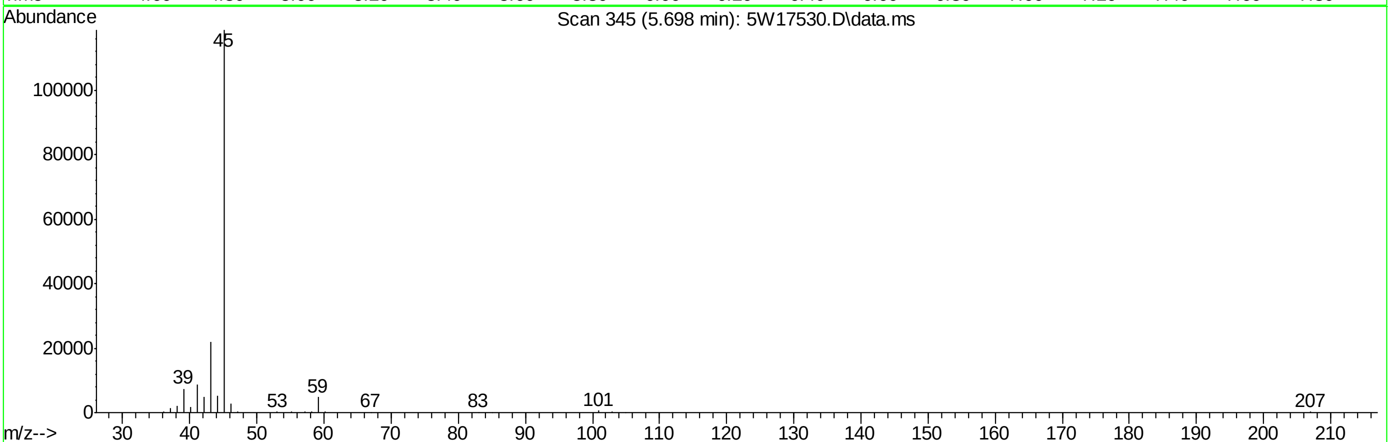
Ion	Exp%	Act%
58.10	100	100
43.10	823.30	828.28
44.10	49.20	34.40#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17530.D\data.ms

(108) TVHC as equiv Pentane

5.698min (+0.006) 4.55ppb(v)

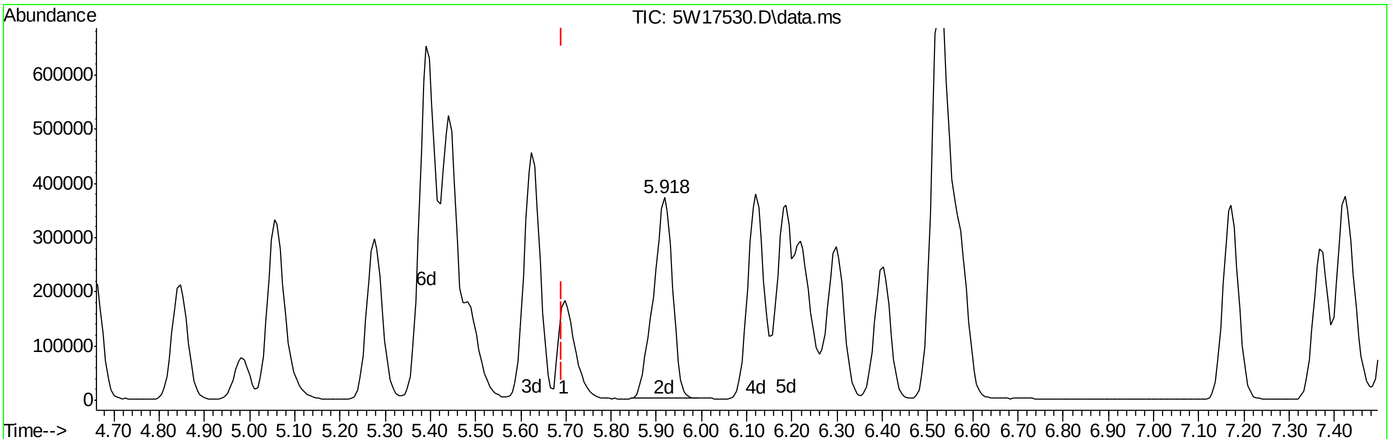
response 462459

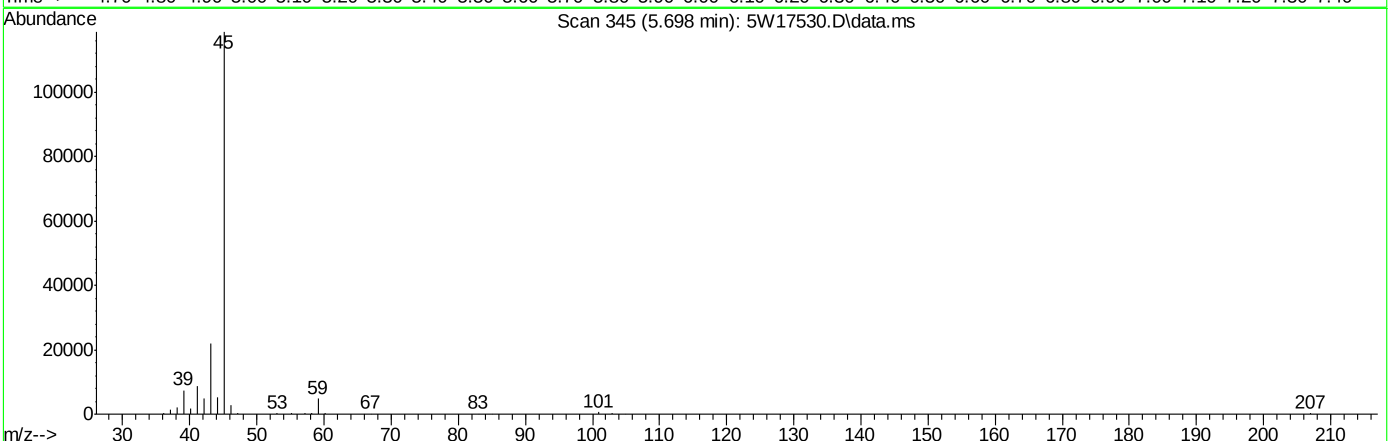
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17530.D
Acq On    :  6 Apr 2016  12:43 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 06 13:17:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17530.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 10.63ppb(v) m

response 1080450

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W17530.D edits: TVHC as equiv Pentane

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/08/16 17:11

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On    :  7 Apr 2016   9:23 am
Operator  : THOMASH
Sample    : BS
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 16:07:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

7.3.5

7

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.395	130	219743	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	824830	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	405988	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	219742	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	529418	9.52 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.20%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.997	69	208734	4.11 ppb(v#	61
3) Freon 152A	4.082	65	116056m	10.43 ppb(v	
4) Chlorodifluoromethane	4.119	67	47980	8.87 ppb(v	100
5) Propene	4.144	41	126979	11.12 ppb(v	99
6) Dichlorodifluoromethane	4.205	85	504602	10.06 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.321	65	363018	10.01 ppb(v	99
8) Chloromethane	4.339	50	164884	10.59 ppb(v	100
9) Dichlorotetrafluoroethane	4.413	85	547505	10.47 ppb(v	96
10) Vinyl Chloride	4.517	62	192250	11.45 ppb(v	99
11) 1,3-Butadiene	4.621	54	134214	10.03 ppb(v	96
12) n-Butane	4.664	58	29665	10.48 ppb(v	99
13) Bromomethane	4.847	94	204552	9.41 ppb(v	98
14) Chloroethane	4.988	64	93475	10.69 ppb(v	100
15) Dichlorofluoromethane	5.061	67	450662	10.54 ppb(v	100
16) Acetonitrile	5.275	41	142530	11.38 ppb(v	98
17) Freon 123	5.398	83	514313	10.16 ppb(v	99
18) Freon 123A	5.447	117	279287	9.58 ppb(v	93
19) Bromoethene	5.275	106	206500	9.80 ppb(v	98
20) Trichlorofluoromethane	5.630	101	514084	9.71 ppb(v	99
21) Acetone	5.489	58	87864	10.29 ppb(v	94
22) Pentane	5.924	57	48233	11.37 ppb(v	97
23) 1,1-Dichloro-1-fluoroe...	5.447	81	2459	0.05 ppb(v#	80
24) Iodomethane	6.120	142	610015	9.95 ppb(v	100
25) Isopropyl Alcohol	5.697	43	58967	8.90 ppb(v	88
26) 1,1-Dichloroethene	6.187	61	314177	10.80 ppb(v	99
27) Freon 113	6.529	101	467593	10.86 ppb(v	98
28) Methylene Chloride	6.297	84	187476	10.13 ppb(v	97
29) Carbon Disulfide	6.572	76	591476	10.98 ppb(v	100
30) Ethanol	5.092	45	73452	10.12 ppb(v	98
31) Acrylonitrile	5.893	53	142654	10.30 ppb(v	99
32) 3-Chloropropene	6.401	76	92062	10.85 ppb(v	94
33) trans-1,2-Dichloroethene	7.172	61	277658	10.91 ppb(v	97
34) tert-Butyl Alcohol	6.224	59	436224	10.81 ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	534071	9.89 ppb(v	98
36) Vinyl Acetate	7.521	43	502481	11.53 ppb(v	100
37) 1,1-Dichloroethane	7.374	63	369669	10.94 ppb(v	100
38) 2-Butanone	7.771	72	92788	11.08 ppb(v	97
39) Hexane	8.414	57	283974	9.63 ppb(v	95
40) cis-1,2-Dichloroethene	8.224	61	265432	10.66 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On : 7 Apr 2016 9:23 am
Operator : THOMASH
Sample : BS
Misc : MS514,v5w700,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 16:07:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	171881	11.16 ppb(v	87
42) Ethyl Acetate	8.463	61	68123	11.74 ppb(v	98
43) Methyl Acrylate	8.450	55	357301	10.93 ppb(v	97
44) Chloroform	8.530	83	460182	10.28 ppb(v	100
45) 2,4-Dimethylpentane	9.368	57	344563	10.26 ppb(v	98
46) Tetrahydrofuran	8.970	72	96136	11.59 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	452130	9.71 ppb(v	100
48) 1,2-Dichloroethane	9.319	62	263214	10.25 ppb(v	100
49) Benzene	10.114	78	640459	10.59 ppb(v	100
50) Carbon Tetrachloride	10.286	117	474046	9.86 ppb(v	99
51) Cyclohexane	10.414	56	289039	10.29 ppb(v	96
52) 2,3-Dimethylpentane	10.690	71	132688	10.22 ppb(v	97
54) 2,2,4-Trimethylpentane	11.369	57	971209	10.58 ppb(v	99
55) Heptane	11.705	71	198245	10.09 ppb(v	98
56) Trichloroethene	11.350	95	306291	9.74 ppb(v	96
57) 1,2-Dichloropropane	11.063	63	239185	11.03 ppb(v	97
58) Dibromomethane	11.044	174	305472	9.36 ppb(v	99
59) Ethyl Acrylate	11.093	55	454628	11.28 ppb(v	99
60) Methyl Methacrylate	11.619	69	217091	9.77 ppb(v	99
61) 1,4-Dioxane	11.369	88	156635	10.49 ppb(v	94
62) Bromodichloromethane	11.301	83	492045	9.64 ppb(v	100
63) cis-1,3-Dichloropropene	12.409	75	377804	9.79 ppb(v	99
64) 4-Methyl-2-pentanone	12.458	58	190014	11.51 ppb(v	98
65) trans-1,3-Dichloropropene	13.075	75	337286	10.48 ppb(v	99
66) Toluene	13.638	91	780121	9.90 ppb(v	100
67) 1,1,2-Trichloroethane	13.290	97	285659	10.03 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	364328	10.59 ppb(v	100
69) 2-Hexanone	14.005	58	258768	10.78 ppb(v	99
70) Ethyl Methacrylate	14.042	69	391966	10.59 ppb(v	97
71) Dibromochloromethane	14.189	129	545964	9.74 ppb(v	100
72) Tetrachloroethene	15.137	166	429605	9.56 ppb(v	99
73) 1,2-Dibromoethane	14.507	107	461048	10.01 ppb(v	99
74) Octane	14.966	43	439844	10.40 ppb(v	97
75) 1,1,1,2-Tetrachloroethane	16.055	131	380001	9.88 ppb(v	99
77) Chlorobenzene	16.073	112	634414	9.33 ppb(v	98
78) Ethylbenzene	16.618	91	1001447	9.42 ppb(v	100
79) m,p-Xylene	16.887	91	1537972	19.11 ppb(v	100
80) Styrene	17.407	104	588750	9.60 ppb(v	99
81) Nonane	17.933	43	443800	10.18 ppb(v	98
82) o-Xylene	17.560	91	790956	9.47 ppb(v	100
83) Bromoform	16.966	173	554546	9.21 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	639603	10.05 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	450266	10.01 ppb(v	98
86) Isopropylbenzene	18.459	105	1128125	9.55 ppb(v	99
87) Bromobenzene	18.575	156	388117	9.00 ppb(v	95
88) 2-Chlorotoluene	19.175	126	283151	9.38 ppb(v	94
89) n-Propylbenzene	19.248	120	298481	9.73 ppb(v	96
91) 4-Ethyltoluene	19.468	105	1051306	9.56 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	886725	9.18 ppb(v	100
93) alpha-Methylstyrene	19.823	118	469646	9.90 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On : 7 Apr 2016 9:23 am
Operator : THOMASH
Sample : BS
Misc : MS514,v5w700,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 16:07:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	195762	9.45	ppb(v	95
95)	1,2,4-Trimethylbenzene	20.172	105	891537	9.35	ppb(v	90
96)	1,3-Dichlorobenzene	20.362	146	607875	8.87	ppb(v	99
97)	Benzyl Chloride	20.355	91	749668	8.76	ppb(v	100
98)	1,4-Dichlorobenzene	20.459	146	589319	8.32	ppb(v	99
99)	sec-Butylbenzene	20.539	134	246601	9.57	ppb(v	93
100)	p-Isopropyltoluene	20.771	134	282016	9.88	ppb(v	97
101)	1,2-Dichlorobenzene	20.924	146	577100	8.90	ppb(v	99
102)	n-Butylbenzene	21.340	134	248727	9.90	ppb(v	89
103)	Hexachloroethane	21.805	201	383589	9.50	ppb(v	92
104)	1,2,4-Trichlorobenzene	23.127	180	294688	7.08	ppb(v	99
105)	Naphthalene	23.249	128	568045	6.45	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	357268	8.46	ppb(v	100
108)	TVHC as equiv Pentane	5.918	TIC	1170373	11.24	ppb(v	100

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

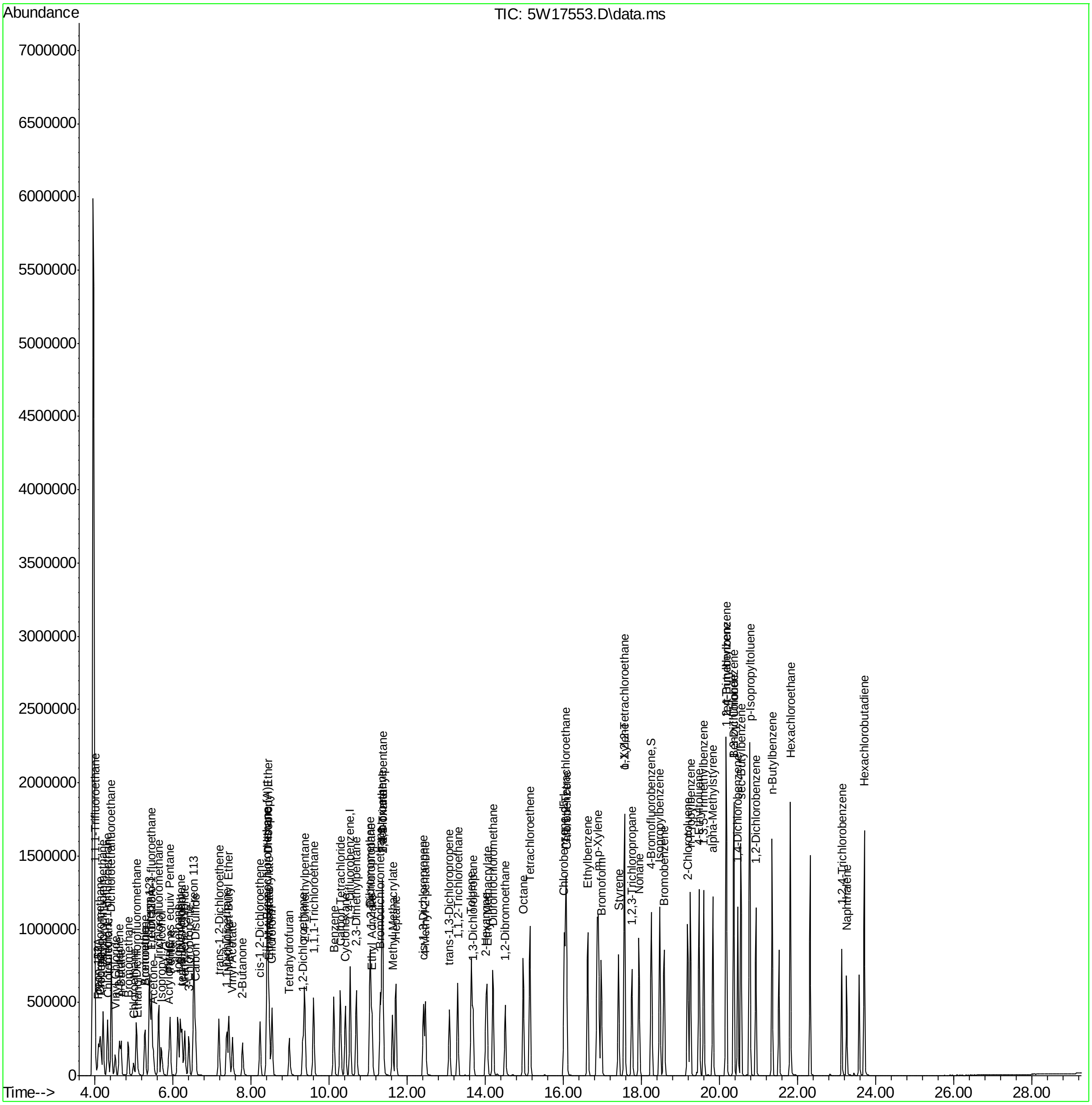
7.3.5

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On    :  7 Apr 2016   9:23 am
Operator  : THOMASH
Sample    : BS
Misc      : MS514,v5w700,,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 16:07:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

m5w693.M Fri Apr 08 16:08:08 2016 GCMS5W

Manual Integration Approval Summary

Sample Number: V5W700-BS
Lab FileID: 5W17553.D
Injection Time: 04/07/16 09:23

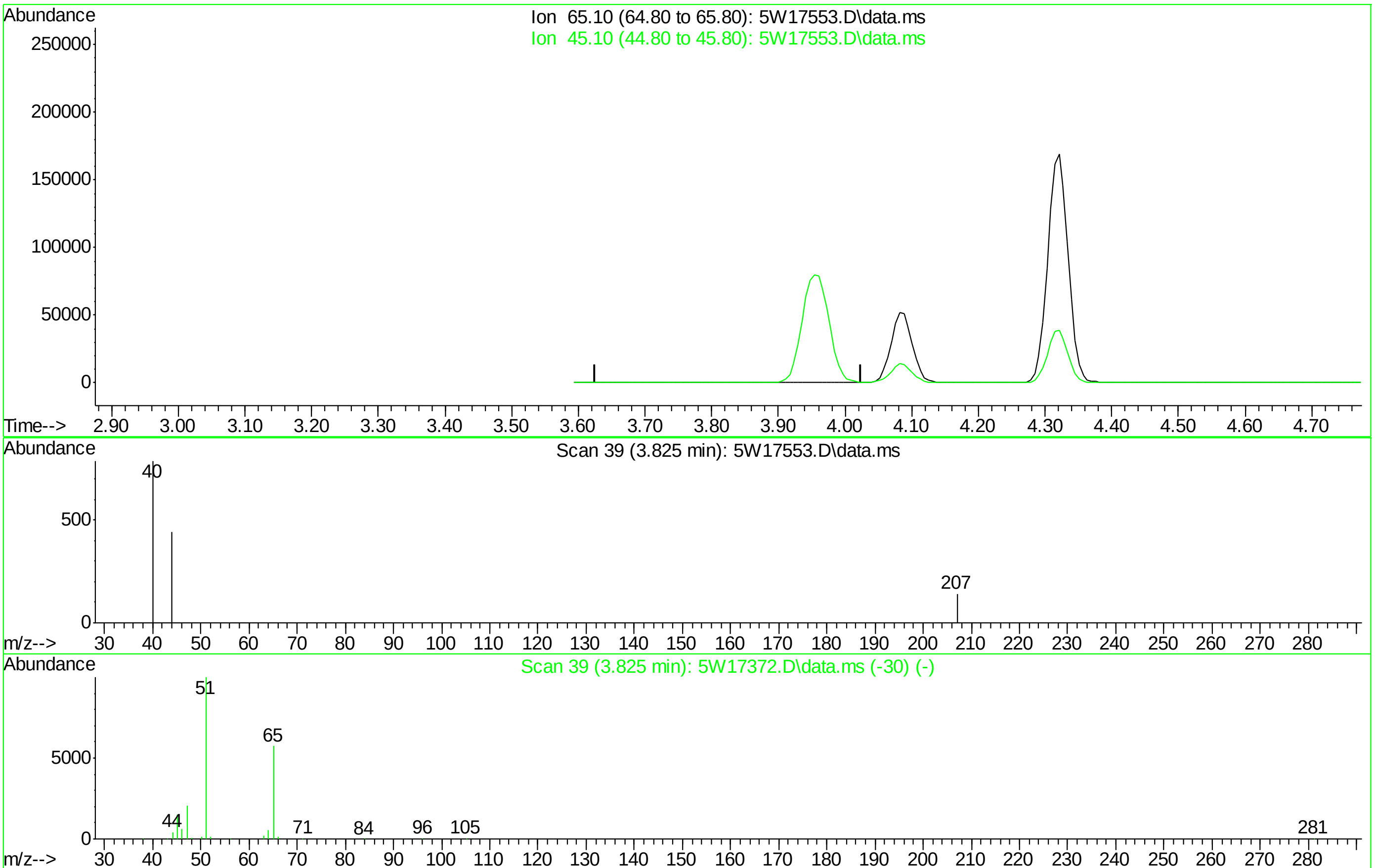
Method: TO-15
Analyst approved: 04/08/16 17:08 Dana Tryon
Supervisor approved: 04/08/16 17:11 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On    :  7 Apr 2016   9:23 am
Operator  : THOMASH
Sample    : BS
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 07 11:33:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17553.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

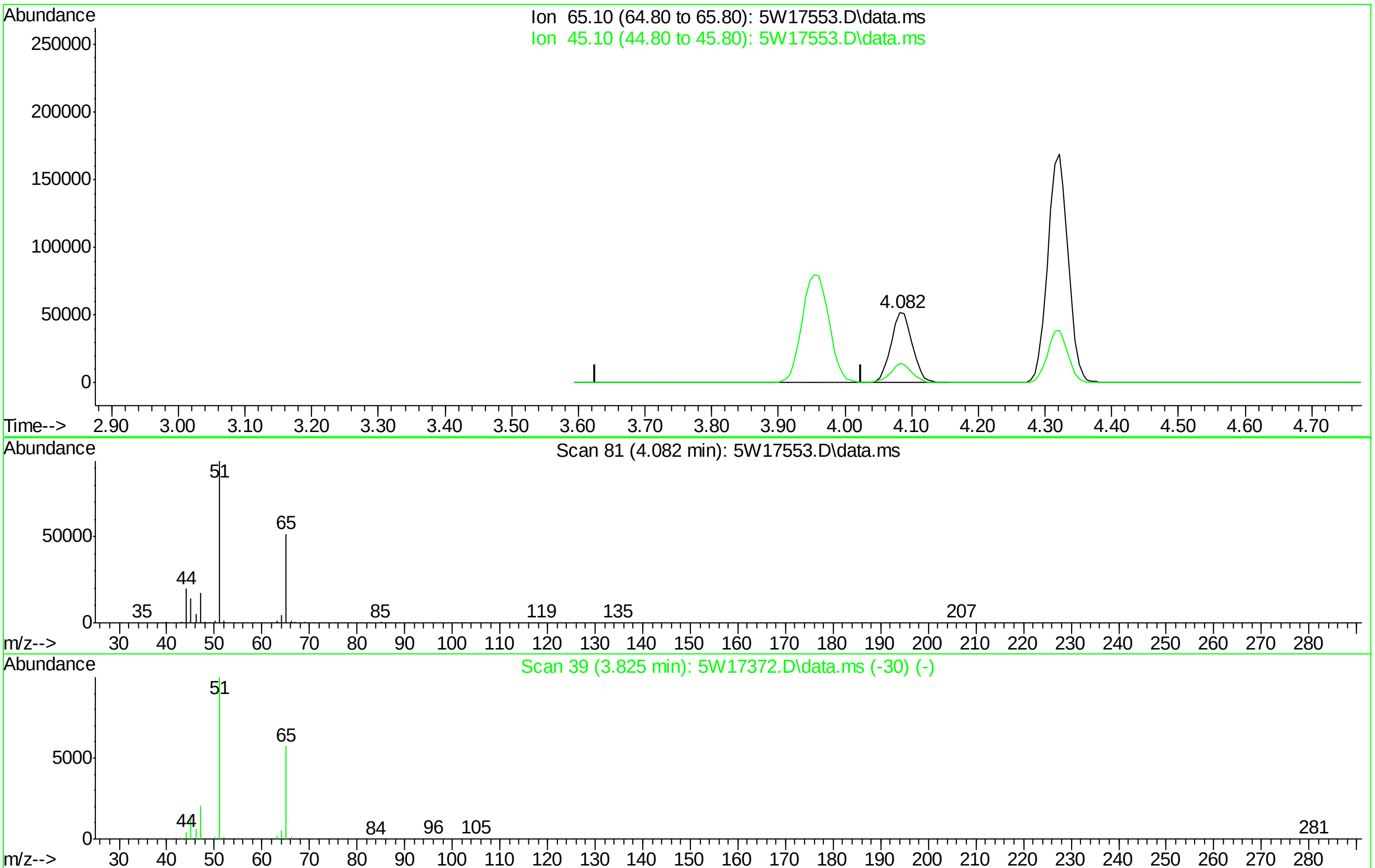
response 0

Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On    :  7 Apr 2016   9:23 am
Operator  : THOMASH
Sample    : BS
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 07 11:33:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17553.D\data.ms

(3) Freon 152A

4.082min (+0.257) 10.43ppb(v) m

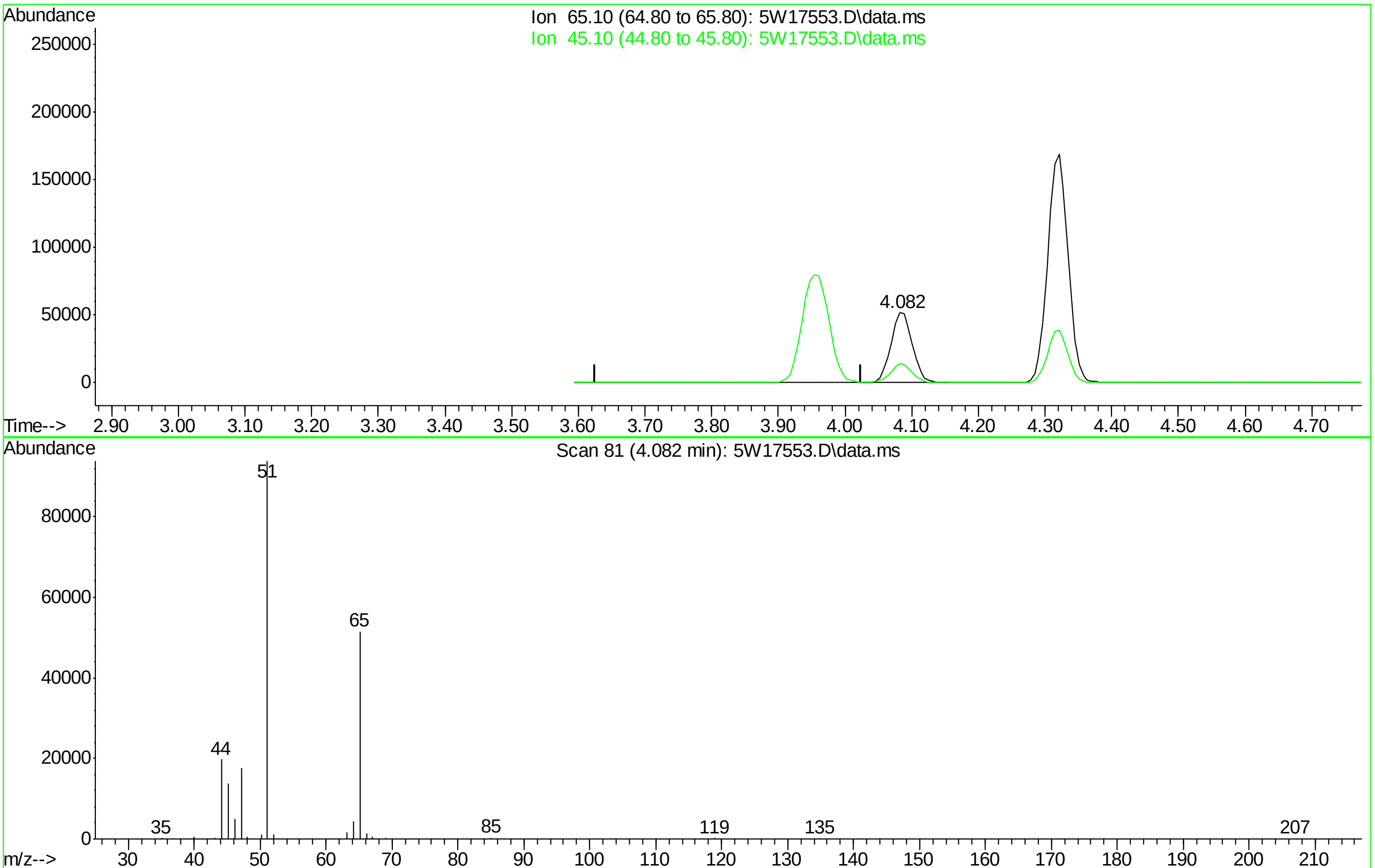
response 116055

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.88
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17553.D
Acq On    :  7 Apr 2016   9:23 am
Operator  : THOMASH
Sample    : BS
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 09:16:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17553.D\data.ms

(3) Freon 152A

4.082min (+0.257) 10.43ppb(v) m

response 116056

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.88
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/08/16 17:11

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On    :  7 Apr 2016  10:06 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 16:08:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	220294	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	820411	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	404462	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	220331	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	529596	9.56	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 95.60%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,1,1-Trifluoroethane	3.991	69	203758	4.00	ppb(v#	61
3) Freon 152A	4.082	65	113082m	10.13	ppb(v	
4) Chlorodifluoromethane	4.119	67	46643	8.60	ppb(v	97
5) Propene	4.143	41	122478	10.70	ppb(v	98
6) Dichlorodifluoromethane	4.205	85	491903	9.78	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.315	65	352885	9.71	ppb(v	99
8) Chloromethane	4.333	50	160830	10.30	ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	536058	10.23	ppb(v	97
10) Vinyl Chloride	4.511	62	188490	11.20	ppb(v	99
11) 1,3-Butadiene	4.621	54	131609	9.81	ppb(v	96
12) n-Butane	4.657	58	28869	10.17	ppb(v	98
13) Bromomethane	4.847	94	199548	9.16	ppb(v	99
14) Chloroethane	4.982	64	92479	10.55	ppb(v	100
15) Dichlorofluoromethane	5.055	67	437231	10.20	ppb(v	99
16) Acetonitrile	5.275	41	138922	11.07	ppb(v	98
17) Freon 123	5.391	83	504415	9.94	ppb(v	100
18) Freon 123A	5.440	117	273010	9.34	ppb(v	89
19) Bromoethene	5.275	106	203046	9.61	ppb(v	100
20) Trichlorofluoromethane	5.624	101	509988	9.61	ppb(v	99
21) Acetone	5.483	58	85790	10.02	ppb(v	96
22) Pentane	5.918	57	47844	11.25	ppb(v	97
23) 1,1-Dichloro-1-fluoroe...	5.440	81	2481	0.05	ppb(v#	88
24) Iodomethane	6.119	142	600198	9.77	ppb(v	100
25) Isopropyl Alcohol	5.697	43	57971	8.72	ppb(v	88
26) 1,1-Dichloroethene	6.181	61	307806	10.56	ppb(v	97
27) Freon 113	6.523	101	459180	10.64	ppb(v	97
28) Methylene Chloride	6.297	84	182110	9.82	ppb(v	98
29) Carbon Disulfide	6.572	76	579487	10.73	ppb(v	100
30) Ethanol	5.086	45	69608	9.57	ppb(v	99
31) Acrylonitrile	5.887	53	140059	10.09	ppb(v	99
32) 3-Chloropropene	6.401	76	90413	10.63	ppb(v	97
33) trans-1,2-Dichloroethene	7.166	61	273462	10.72	ppb(v	96
34) tert-Butyl Alcohol	6.217	59	426371	10.54	ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	527339	9.74	ppb(v	98
36) Vinyl Acetate	7.520	43	495694	11.35	ppb(v	100
37) 1,1-Dichloroethane	7.367	63	363091	10.72	ppb(v	100
38) 2-Butanone	7.771	72	90785	10.82	ppb(v	96
39) Hexane	8.414	57	281435	9.52	ppb(v	93
40) cis-1,2-Dichloroethene	8.224	61	261268	10.46	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On : 7 Apr 2016 10:06 am
Operator : THOMASH
Sample : BSD
Misc : MS514,v5w700,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 16:08:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	171071	11.08 ppb(v	91
42) Ethyl Acetate	8.456	61	67625	11.63 ppb(v	96
43) Methyl Acrylate	8.450	55	354413	10.82 ppb(v	98
44) Chloroform	8.530	83	453075	10.09 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	340133	10.10 ppb(v	98
46) Tetrahydrofuran	8.970	72	94535	11.37 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	445981	9.55 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	260146	10.11 ppb(v	99
49) Benzene	10.114	78	628947	10.37 ppb(v	100
50) Carbon Tetrachloride	10.280	117	467331	9.70 ppb(v	99
51) Cyclohexane	10.408	56	281916	10.01 ppb(v	96
52) 2,3-Dimethylpentane	10.689	71	129837	9.98 ppb(v	99
54) 2,2,4-Trimethylpentane	11.362	57	952570	10.43 ppb(v	99
55) Heptane	11.699	71	193968	9.92 ppb(v	98
56) Trichloroethene	11.350	95	300025	9.59 ppb(v	97
57) 1,2-Dichloropropane	11.056	63	234643	10.88 ppb(v	97
58) Dibromomethane	11.038	174	302095	9.30 ppb(v	97
59) Ethyl Acrylate	11.093	55	449361	11.21 ppb(v	99
60) Methyl Methacrylate	11.613	69	212510	9.61 ppb(v	99
61) 1,4-Dioxane	11.368	88	154609	10.41 ppb(v	95
62) Bromodichloromethane	11.301	83	481542	9.49 ppb(v	100
63) cis-1,3-Dichloropropene	12.408	75	374160	9.74 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	186762	11.37 ppb(v	98
65) trans-1,3-Dichloropropene	13.075	75	333113	10.40 ppb(v	99
66) Toluene	13.638	91	766534	9.78 ppb(v	99
67) 1,1,2-Trichloroethane	13.283	97	281523	9.93 ppb(v	98
68) 1,3-Dichloropropane	13.675	76	358172	10.46 ppb(v	100
69) 2-Hexanone	14.005	58	257168	10.77 ppb(v	99
70) Ethyl Methacrylate	14.036	69	388485	10.55 ppb(v	97
71) Dibromochloromethane	14.189	129	540487	9.69 ppb(v	100
72) Tetrachloroethene	15.137	166	419254	9.38 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	451870	9.86 ppb(v	100
74) Octane	14.966	43	434408	10.33 ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	374230	9.78 ppb(v	99
77) Chlorobenzene	16.073	112	622646	9.19 ppb(v	98
78) Ethylbenzene	16.617	91	982096	9.27 ppb(v	100
79) m,p-Xylene	16.887	91	1511751	18.86 ppb(v	100
80) Styrene	17.407	104	581041	9.51 ppb(v	99
81) Nonane	17.933	43	439694	10.12 ppb(v	99
82) o-Xylene	17.560	91	779340	9.36 ppb(v	100
83) Bromoform	16.966	173	544725	9.08 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	625184	9.86 ppb(v	100
85) 1,2,3-Trichloropropane	17.749	75	443099	9.89 ppb(v	98
86) Isopropylbenzene	18.459	105	1114808	9.47 ppb(v	98
87) Bromobenzene	18.575	156	382661	8.91 ppb(v	96
88) 2-Chlorotoluene	19.175	126	276157	9.18 ppb(v	95
89) n-Propylbenzene	19.248	120	292143	9.56 ppb(v	96
91) 4-Ethyltoluene	19.468	105	1033640	9.43 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	872451	9.07 ppb(v	99
93) alpha-Methylstyrene	19.823	118	460473	9.74 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On : 7 Apr 2016 10:06 am
Operator : THOMASH
Sample : BSD
Misc : MS514,v5w700,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 16:08:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

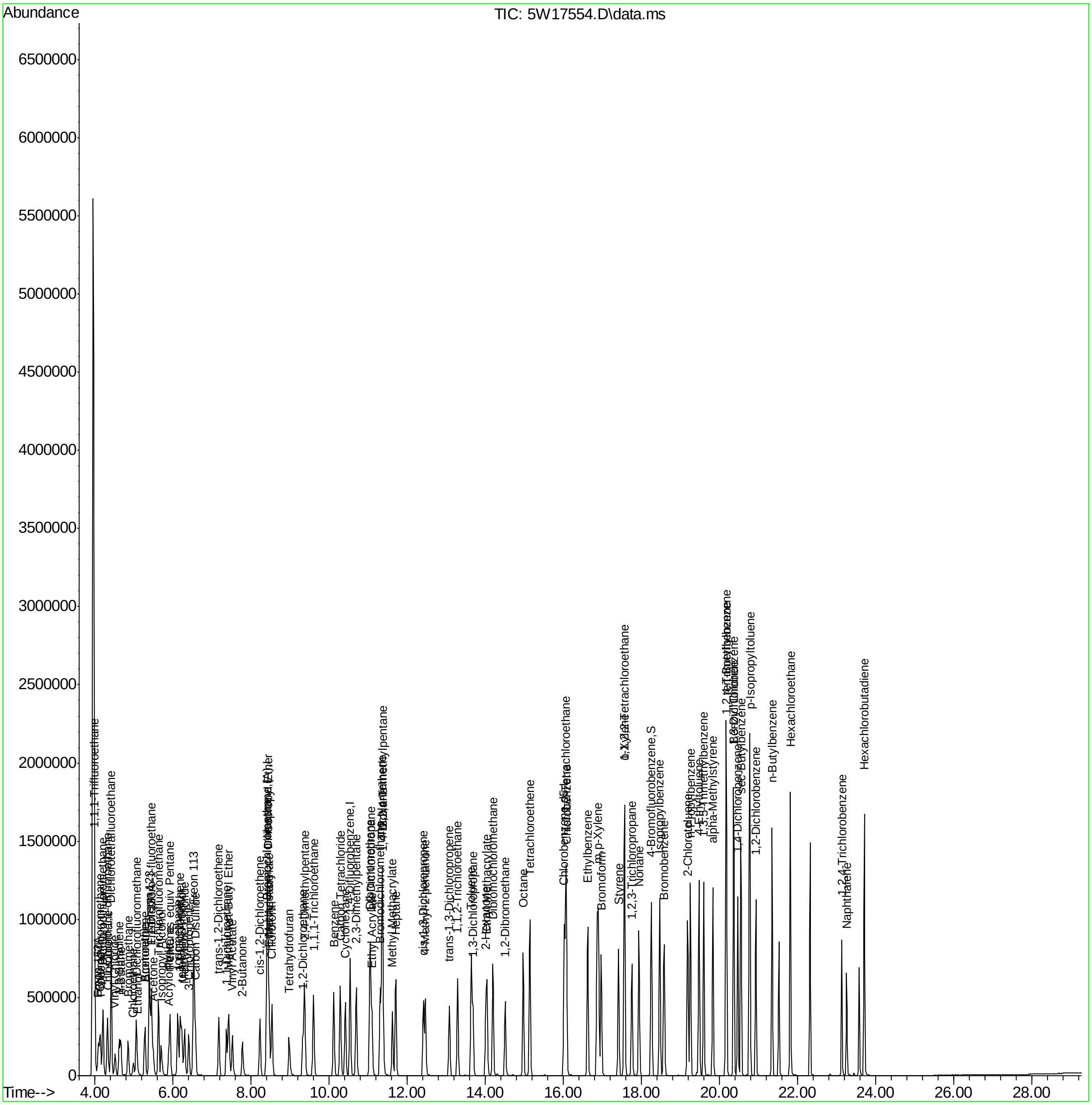
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	194439	9.42	ppb(v	97
95)	1,2,4-Trimethylbenzene	20.172	105	876723	9.23	ppb(v	90
96)	1,3-Dichlorobenzene	20.361	146	599097	8.78	ppb(v	99
97)	Benzyl Chloride	20.355	91	741449	8.70	ppb(v	100
98)	1,4-Dichlorobenzene	20.459	146	575502	8.15	ppb(v	99
99)	sec-Butylbenzene	20.539	134	238441	9.28	ppb(v	97
100)	p-Isopropyltoluene	20.771	134	273628	9.62	ppb(v	97
101)	1,2-Dichlorobenzene	20.924	146	562133	8.70	ppb(v	99
102)	n-Butylbenzene	21.340	134	243914	9.75	ppb(v	88
103)	Hexachloroethane	21.805	201	376312	9.35	ppb(v	93
104)	1,2,4-Trichlorobenzene	23.127	180	292823	7.06	ppb(v	100
105)	Naphthalene	23.249	128	560130	6.38	ppb(v	99
106)	Hexachlorobutadiene	23.702	225	354576	8.43	ppb(v	99
108)	TVHC as equiv Pentane	5.918	TIC	1148657	11.00	ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On    :  7 Apr 2016  10:06 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 16:08:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



m5w693.M Fri Apr 08 16:08:31 2016 GCMS5W Page: 4

Manual Integration Approval Summary

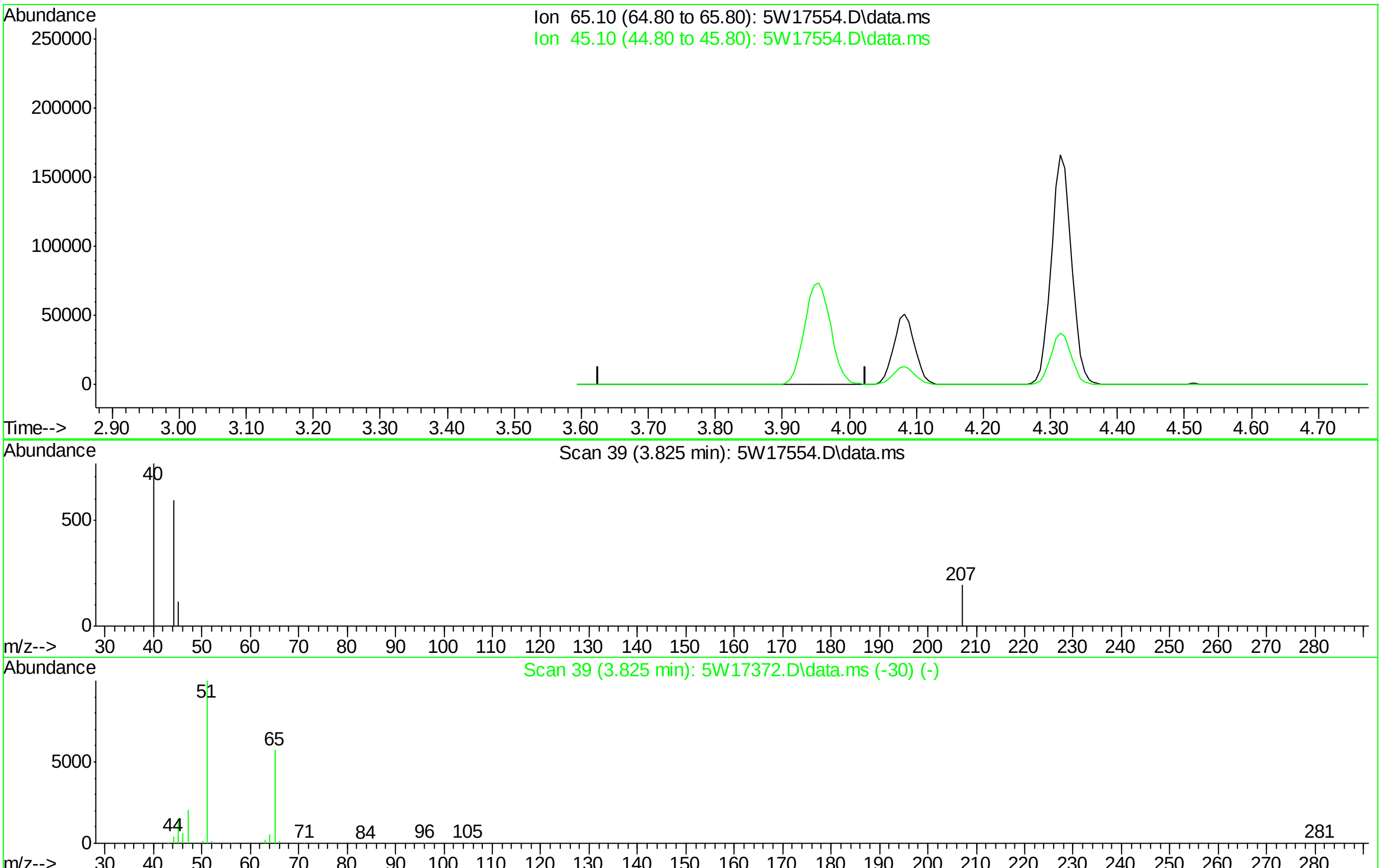
Sample Number:	V5W700-BSD	**Method:**	TO-15
Lab FileID:	5W17554.D	**Analyst approved:**	04/08/16 17:08 Dana Tryon
Injection Time:	04/07/16 10:06	**Supervisor approved:**	04/08/16 17:11 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On    :  7 Apr 2016  10:06 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 07 10:40:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17554.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

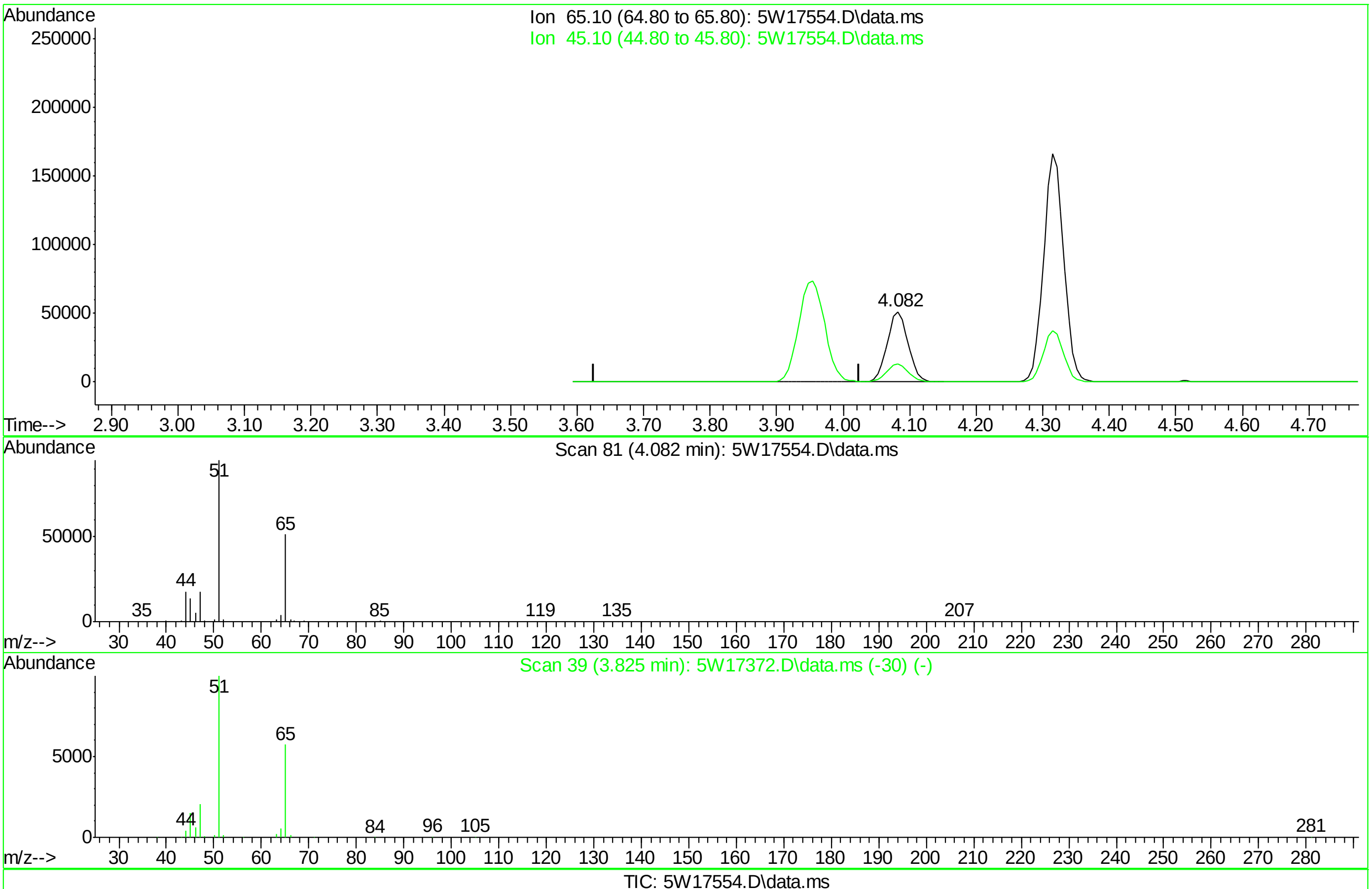
response 0

Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On    :  7 Apr 2016  10:06 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 07 10:40:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(3) Freon 152A

4.082min (+0.257) 10.15ppb(v) m

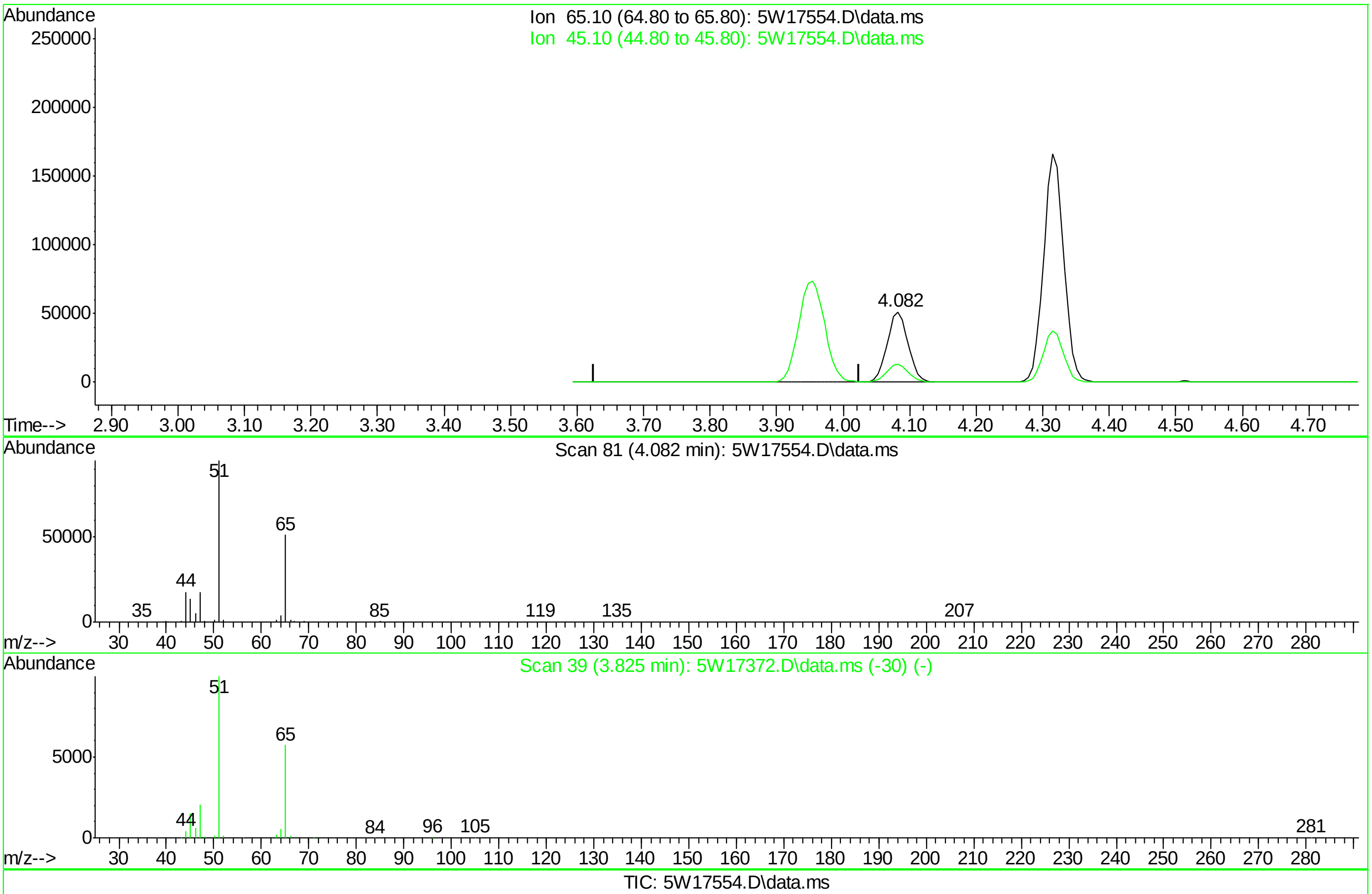
response 113249

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.11
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17554.D
Acq On    :  7 Apr 2016  10:06 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 09:16:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



(3) Freon 152A

4.082min (+0.257) 10.13ppb(v) m

response 113082

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.11
0.00	0.00	0.00
0.00	0.00	0.00

5W17554.D edits: Freon 152A

Manual Integrations
APPROVED
(compounds with "m" flag)
Kanya Veerawat
04/08/16 17:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On : 8 Apr 2016 10:46 am
Operator : THOMASH
Sample : BS
Misc : MS676,v5w701,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 13:32:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.395	130	216704	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.531	114	800857	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	395051	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	216703	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	520140	9.62 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.20%		
Target Compounds					Qvalue
3) Freon 152A	4.082	65	110988m	10.11 ppb(v	
4) Chlorodifluoromethane	4.119	67	46448	8.70 ppb(v	97
5) Propene	4.138	41	117914	10.47 ppb(v	99
6) Dichlorodifluoromethane	4.199	85	486549	9.83 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.315	65	347653	9.73 ppb(v	99
8) Chloromethane	4.333	50	155413	10.12 ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	530629	10.29 ppb(v	99
10) Vinyl Chloride	4.511	62	183277	11.07 ppb(v	99
11) 1,3-Butadiene	4.621	54	127987	9.70 ppb(v	96
12) n-Butane	4.658	58	28657	10.26 ppb(v	96
13) Bromomethane	4.847	94	196017	9.15 ppb(v	100
14) Chloroethane	4.982	64	89184	10.34 ppb(v	100
15) Dichlorofluoromethane	5.055	67	435382	10.33 ppb(v	100
16) Acetonitrile	5.275	41	133970	10.85 ppb(v	98
17) Freon 123	5.392	83	497724	9.97 ppb(v	100
18) Freon 123A	5.441	117	271924	9.46 ppb(v	91
19) Bromoethene	5.275	106	199876	9.62 ppb(v	100
20) Trichlorofluoromethane	5.624	101	501509	9.61 ppb(v	99
21) Acetone	5.490	58	84088	9.98 ppb(v	93
22) Pentane	5.918	57	45977	10.99 ppb(v	95
23) 1,1-Dichloro-1-fluoroe...	5.441	81	2416	0.05 ppb(v#	87
24) Iodomethane	6.120	142	584715	9.67 ppb(v	99
25) Isopropyl Alcohol	5.698	43	57194	8.75 ppb(v	85
26) 1,1-Dichloroethene	6.181	61	299593	10.44 ppb(v	98
27) Freon 113	6.523	101	451908	10.64 ppb(v	96
28) Methylene Chloride	6.297	84	178063	9.76 ppb(v	97
29) Carbon Disulfide	6.572	76	567556	10.69 ppb(v	100
30) Ethanol	5.092	45	64696	9.04 ppb(v	99
31) Acrylonitrile	5.887	53	135257	9.90 ppb(v	100
32) 3-Chloropropene	6.401	76	87657	10.48 ppb(v	98
33) trans-1,2-Dichloroethene	7.172	61	264685	10.55 ppb(v	98
34) tert-Butyl Alcohol	6.224	59	415461	10.44 ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	512193	9.62 ppb(v	98
36) Vinyl Acetate	7.521	43	473342	11.01 ppb(v	100
37) 1,1-Dichloroethane	7.368	63	352560	10.58 ppb(v	100
38) 2-Butanone	7.771	72	88729	10.75 ppb(v	98
39) Hexane	8.414	57	274853	9.45 ppb(v	95
40) cis-1,2-Dichloroethene	8.224	61	253073	10.30 ppb(v	99
41) Di-isopropyl Ether	8.420	87	166686	10.97 ppb(v	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On : 8 Apr 2016 10:46 am
Operator : THOMASH
Sample : BS
Misc : MS676,v5w701,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 13:32:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Ethyl Acetate	8.463	61	65238	11.41 ppb(v	96
43) Methyl Acrylate	8.450	55	343960	10.67 ppb(v	97
44) Chloroform	8.530	83	443582	10.05 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	328416	9.91 ppb(v	98
46) Tetrahydrofuran	8.970	72	91880	11.23 ppb(v	98
47) 1,1,1-Trichloroethane	9.595	97	434745	9.46 ppb(v	100
48) 1,2-Dichloroethane	9.319	62	252659	9.98 ppb(v	100
49) Benzene	10.115	78	612138	10.26 ppb(v	100
50) Carbon Tetrachloride	10.280	117	455432	9.61 ppb(v	99
51) Cyclohexane	10.408	56	272282	9.83 ppb(v	95
52) 2,3-Dimethylpentane	10.690	71	126513	9.89 ppb(v	96
54) 2,2,4-Trimethylpentane	11.369	57	926557	10.39 ppb(v	99
55) Heptane	11.699	71	188854	9.90 ppb(v	98
56) Trichloroethene	11.350	95	294234	9.64 ppb(v	97
57) 1,2-Dichloropropane	11.057	63	227436	10.81 ppb(v	97
58) Dibromomethane	11.038	174	293730	9.27 ppb(v	94
59) Ethyl Acrylate	11.093	55	436951	11.17 ppb(v	99
60) Methyl Methacrylate	11.613	69	208333	9.65 ppb(v	98
61) 1,4-Dioxane	11.369	88	150228	10.36 ppb(v	94
62) Bromodichloromethane	11.301	83	471927	9.53 ppb(v	99
63) cis-1,3-Dichloropropene	12.409	75	358805	9.57 ppb(v	99
64) 4-Methyl-2-pentanone	12.458	58	180762	11.28 ppb(v	95
65) trans-1,3-Dichloropropene	13.075	75	321383	10.28 ppb(v	99
66) Toluene	13.638	91	740766	9.68 ppb(v	100
67) 1,1,2-Trichloroethane	13.290	97	272254	9.84 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	350763	10.50 ppb(v	99
69) 2-Hexanone	14.005	58	248280	10.65 ppb(v	98
70) Ethyl Methacrylate	14.036	69	376413	10.47 ppb(v	97
71) Dibromochloromethane	14.189	129	524872	9.64 ppb(v	100
72) Tetrachloroethene	15.137	166	414008	9.49 ppb(v	99
73) 1,2-Dibromoethane	14.507	107	440021	9.84 ppb(v	99
74) Octane	14.966	43	419058	10.20 ppb(v	97
75) 1,1,1,2-Tetrachloroethane	16.055	131	364588	9.76 ppb(v	100
77) Chlorobenzene	16.073	112	603281	9.12 ppb(v	98
78) Ethylbenzene	16.618	91	963779	9.32 ppb(v	100
79) m,p-Xylene	16.887	91	1477828	18.87 ppb(v	100
80) Styrene	17.407	104	563261	9.44 ppb(v	99
81) Nonane	17.933	43	423127	9.97 ppb(v	99
82) o-Xylene	17.560	91	763023	9.39 ppb(v	100
83) Bromoform	16.966	173	539879	9.21 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	618716	9.99 ppb(v	100
85) 1,2,3-Trichloropropane	17.749	75	434981	9.94 ppb(v	99
86) Isopropylbenzene	18.465	105	1089303	9.47 ppb(v	100
87) Bromobenzene	18.575	156	375330	8.95 ppb(v	96
88) 2-Chlorotoluene	19.175	126	272409	9.28 ppb(v	95
89) n-Propylbenzene	19.248	120	288320	9.65 ppb(v	95
91) 4-Ethyltoluene	19.468	105	1008592	9.42 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	853336	9.08 ppb(v	100
93) alpha-Methylstyrene	19.823	118	450316	9.75 ppb(v	99
94) tert-Butylbenzene	20.160	134	189037	9.38 ppb(v	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On : 8 Apr 2016 10:46 am
Operator : THOMASH
Sample : BS
Misc : MS676,v5w701,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 13:32:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

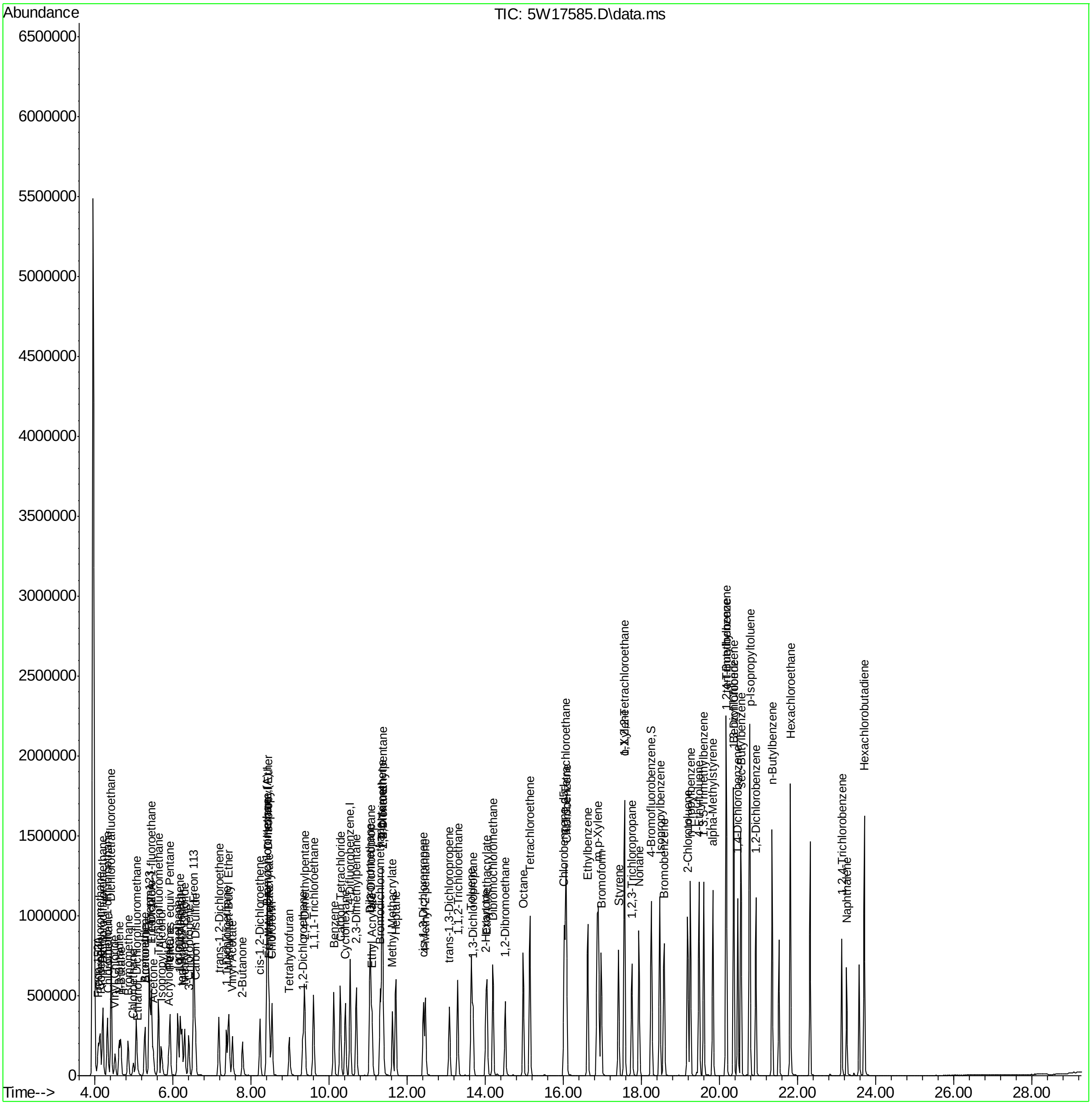
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
95) 1,2,4-Trimethylbenzene	20.172	105	864777	9.32 ppb(v	89
96) 1,3-Dichlorobenzene	20.362	146	588946	8.84 ppb(v	98
97) Benzyl Chloride	20.356	91	722110	8.67 ppb(v	100
98) 1,4-Dichlorobenzene	20.460	146	569306	8.26 ppb(v	99
99) sec-Butylbenzene	20.539	134	237676	9.48 ppb(v	94
100) p-Isopropyltoluene	20.772	134	271094	9.76 ppb(v	98
101) 1,2-Dichlorobenzene	20.924	146	557269	8.83 ppb(v	99
102) n-Butylbenzene	21.340	134	238300	9.75 ppb(v	89
103) Hexachloroethane	21.805	201	371601	9.46 ppb(v	93
104) 1,2,4-Trichlorobenzene	23.127	180	294218	7.26 ppb(v	100
105) Naphthalene	23.249	128	565534	6.60 ppb(v	100
106) Hexachlorobutadiene	23.702	225	349655	8.51 ppb(v	99
108) TVHC as equiv Pentane	5.918	TIC	1105350	10.76 ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On    :  8 Apr 2016  10:46 am
Operator  : THOMASH
Sample    : BS
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:32:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



m5w693.M Fri Apr 08 13:32:35 2016 GCMS5W Page: 4

Manual Integration Approval Summary

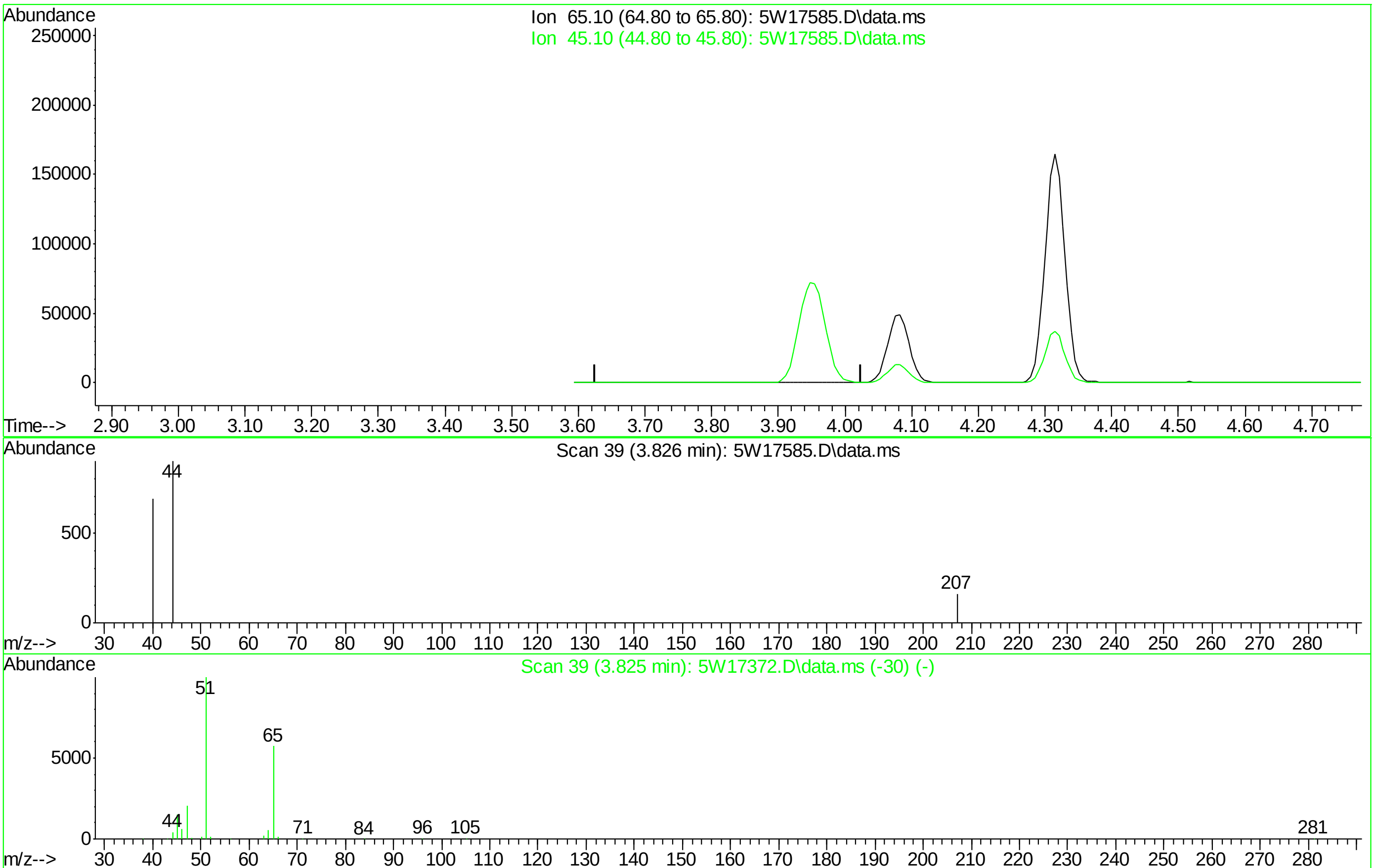
Sample Number:	V5W701-BS	**Method:**	TO-15
Lab FileID:	5W17585.D	**Analyst approved:**	04/08/16 14:32 Dana Tryon
Injection Time:	04/08/16 10:46	**Supervisor approved:**	04/08/16 17:19 Kanya Veerawat

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Freon 152A	75-37-6		4.08	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On    :  8 Apr 2016  10:46 am
Operator  : THOMASH
Sample    : BS
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:31:42 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17585.D\data.ms

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

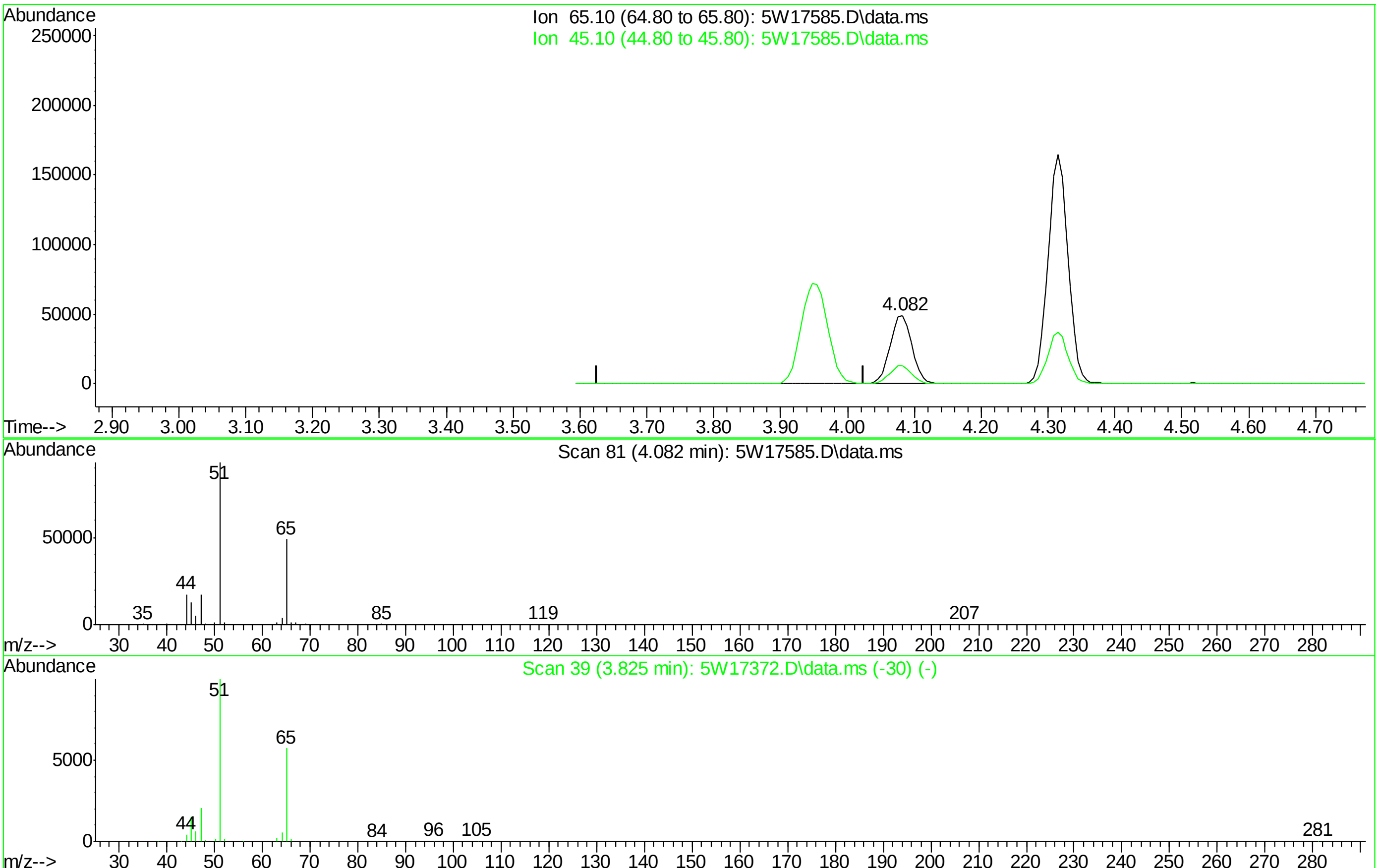
response 0

Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17585.D
Acq On    :  8 Apr 2016  10:46 am
Operator  : THOMASH
Sample    : BS
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:31:42 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17585.D\data.ms

(3) Freon 152A

4.082min (+0.257) 10.11ppb(v) m

response 110988

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.48
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 17:19

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On    :  8 Apr 2016  11:28 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:33:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.395	130	216539	10.00	ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	804535	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	397163	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	216538	10.00	ppb(v	0.15
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	519889	9.56	ppb(v	-0.01
Spiked Amount 10.000 Range 65 - 128 Recovery = 95.60%						
Target Compounds						Qvalue
3) Freon 152A	4.082	65	108815m	9.92	ppb(v	
4) Chlorodifluoromethane	4.119	67	46033	8.63	ppb(v	100
5) Propene	4.143	41	117186	10.42	ppb(v	99
6) Dichlorodifluoromethane	4.205	85	483244	9.77	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.315	65	343515	9.62	ppb(v	100
8) Chloromethane	4.333	50	152968	9.97	ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	524807	10.19	ppb(v	97
10) Vinyl Chloride	4.511	62	180293	10.90	ppb(v	99
11) 1,3-Butadiene	4.621	54	127142	9.64	ppb(v	95
12) n-Butane	4.663	58	27838	9.98	ppb(v	99
13) Bromomethane	4.847	94	195178	9.12	ppb(v	99
14) Chloroethane	4.982	64	88691	10.29	ppb(v	99
15) Dichlorofluoromethane	5.055	67	427097	10.14	ppb(v	100
16) Acetonitrile	5.275	41	132838	10.76	ppb(v	97
17) Freon 123	5.391	83	490623	9.84	ppb(v	99
18) Freon 123A	5.440	117	266588	9.28	ppb(v	89
19) Bromoethene	5.275	106	197972	9.54	ppb(v	99
20) Trichlorofluoromethane	5.624	101	493990	9.47	ppb(v	99
21) Acetone	5.489	58	82973	9.86	ppb(v	91
22) Pentane	5.924	57	45710	10.93	ppb(v	96
24) Iodomethane	6.119	142	580385	9.61	ppb(v	100
25) Isopropyl Alcohol	5.697	43	56018	8.58	ppb(v	89
26) 1,1-Dichloroethene	6.187	61	297896	10.39	ppb(v	99
27) Freon 113	6.529	101	446037	10.51	ppb(v	98
28) Methylene Chloride	6.297	84	177053	9.71	ppb(v	97
29) Carbon Disulfide	6.572	76	564776	10.64	ppb(v	100
30) Ethanol	5.092	45	62907	8.80	ppb(v	98
31) Acrylonitrile	5.893	53	135172	9.91	ppb(v	99
32) 3-Chloropropene	6.401	76	87767	10.50	ppb(v	98
33) trans-1,2-Dichloroethene	7.172	61	261393	10.42	ppb(v	98
34) tert-Butyl Alcohol	6.223	59	412473	10.38	ppb(v	99
35) Methyl tert-Butyl Ether	7.423	73	508077	9.55	ppb(v	99
36) Vinyl Acetate	7.520	43	469177	10.93	ppb(v	100
37) 1,1-Dichloroethane	7.367	63	347804	10.45	ppb(v	99
38) 2-Butanone	7.771	72	89043	10.79	ppb(v	98
39) Hexane	8.414	57	270191	9.30	ppb(v	95
40) cis-1,2-Dichloroethene	8.224	61	250818	10.22	ppb(v	99
41) Di-isopropyl Ether	8.420	87	165341	10.89	ppb(v	92
42) Ethyl Acetate	8.463	61	64630	11.31	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On : 8 Apr 2016 11:28 am
Operator : THOMASH
Sample : BSD
Misc : MS676,v5w701,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Apr 08 13:33:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.450	55	340550	10.58 ppb(v	97
44) Chloroform	8.530	83	439817	9.97 ppb(v	100
45) 2,4-Dimethylpentane	9.368	57	328293	9.92 ppb(v	98
46) Tetrahydrofuran	8.970	72	91854	11.24 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	430908	9.39 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	251937	9.96 ppb(v	99
49) Benzene	10.114	78	605633	10.16 ppb(v	99
50) Carbon Tetrachloride	10.286	117	454607	9.60 ppb(v	99
51) Cyclohexane	10.408	56	272310	9.84 ppb(v	95
52) 2,3-Dimethylpentane	10.689	71	126014	9.85 ppb(v	98
54) 2,2,4-Trimethylpentane	11.368	57	924637	10.32 ppb(v	99
55) Heptane	11.699	71	188644	9.84 ppb(v	97
56) Trichloroethene	11.350	95	294164	9.59 ppb(v	96
57) 1,2-Dichloropropane	11.056	63	226818	10.73 ppb(v	97
58) Dibromomethane	11.038	174	294676	9.25 ppb(v	96
59) Ethyl Acrylate	11.093	55	432677	11.01 ppb(v	99
60) Methyl Methacrylate	11.613	69	206908	9.54 ppb(v	99
61) 1,4-Dioxane	11.368	88	150246	10.31 ppb(v	96
62) Bromodichloromethane	11.301	83	473046	9.50 ppb(v	100
63) cis-1,3-Dichloropropene	12.408	75	359085	9.54 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	178786	11.10 ppb(v	98
65) trans-1,3-Dichloropropene	13.075	75	318081	10.13 ppb(v	99
66) Toluene	13.638	91	738632	9.61 ppb(v	100
67) 1,1,2-Trichloroethane	13.283	97	271497	9.77 ppb(v	98
68) 1,3-Dichloropropane	13.675	76	344944	10.28 ppb(v	100
69) 2-Hexanone	14.005	58	245699	10.49 ppb(v	99
70) Ethyl Methacrylate	14.036	69	375800	10.41 ppb(v	97
71) Dibromochloromethane	14.189	129	526196	9.62 ppb(v	100
72) Tetrachloroethene	15.137	166	408917	9.33 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	441898	9.84 ppb(v	100
74) Octane	14.966	43	418269	10.14 ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	362553	9.66 ppb(v	100
77) Chlorobenzene	16.073	112	602518	9.06 ppb(v	98
78) Ethylbenzene	16.617	91	951391	9.15 ppb(v	100
79) m,p-Xylene	16.868	91	1472737	18.71 ppb(v	99
80) Styrene	17.407	104	561938	9.37 ppb(v	99
81) Nonane	17.933	43	414531	9.72 ppb(v	100
82) o-Xylene	17.560	91	756991	9.26 ppb(v	100
83) Bromoform	16.966	173	535440	9.09 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	612023	9.83 ppb(v	100
85) 1,2,3-Trichloropropane	17.749	75	432829	9.84 ppb(v	99
86) Isopropylbenzene	18.465	105	1077053	9.32 ppb(v	99
87) Bromobenzene	18.575	156	370442	8.78 ppb(v	96
88) 2-Chlorotoluene	19.175	126	270313	9.16 ppb(v	94
89) n-Propylbenzene	19.248	120	286828	9.55 ppb(v	97
91) 4-Ethyltoluene	19.468	105	996272	9.26 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	844778	8.94 ppb(v	100
93) alpha-Methylstyrene	19.823	118	452141	9.74 ppb(v	99
94) tert-Butylbenzene	20.160	134	188262	9.29 ppb(v	96
95) 1,2,4-Trimethylbenzene	20.172	105	856538	9.18 ppb(v	89

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On    :  8 Apr 2016  11:28 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:33:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

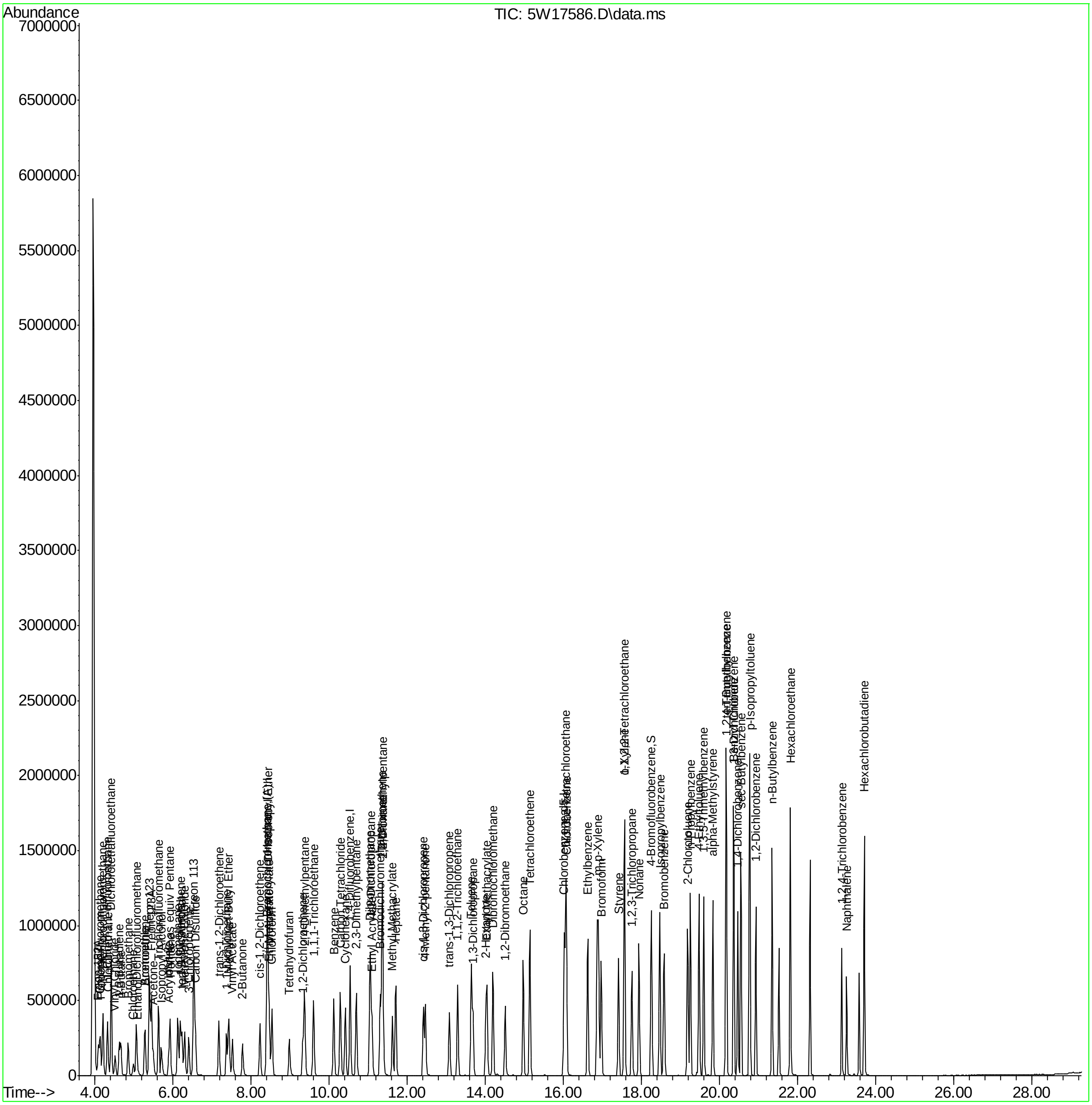
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.361	146	589569	8.80	ppb(v	99
97) Benzyl Chloride	20.355	91	723101	8.64	ppb(v	99
98) 1,4-Dichlorobenzene	20.459	146	565678	8.16	ppb(v	99
99) sec-Butylbenzene	20.539	134	231873	9.19	ppb(v	93
100) p-Isopropyltoluene	20.771	134	266172	9.53	ppb(v	96
101) 1,2-Dichlorobenzene	20.924	146	552570	8.71	ppb(v	100
102) n-Butylbenzene	21.340	134	236648	9.63	ppb(v	89
103) Hexachloroethane	21.805	201	366932	9.29	ppb(v	93
104) 1,2,4-Trichlorobenzene	23.127	180	288836	7.09	ppb(v	99
105) Naphthalene	23.249	128	555366	6.45	ppb(v	100
106) Hexachlorobutadiene	23.702	225	341497	8.26	ppb(v	99
108) TVHC as equiv Pentane	5.918	TIC	1102155	10.74	ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On    :  8 Apr 2016  11:28 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:33:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



m5w693.M Fri Apr 08 13:33:04 2016 GCMS5W Page: 4

Manual Integration Approval Summary

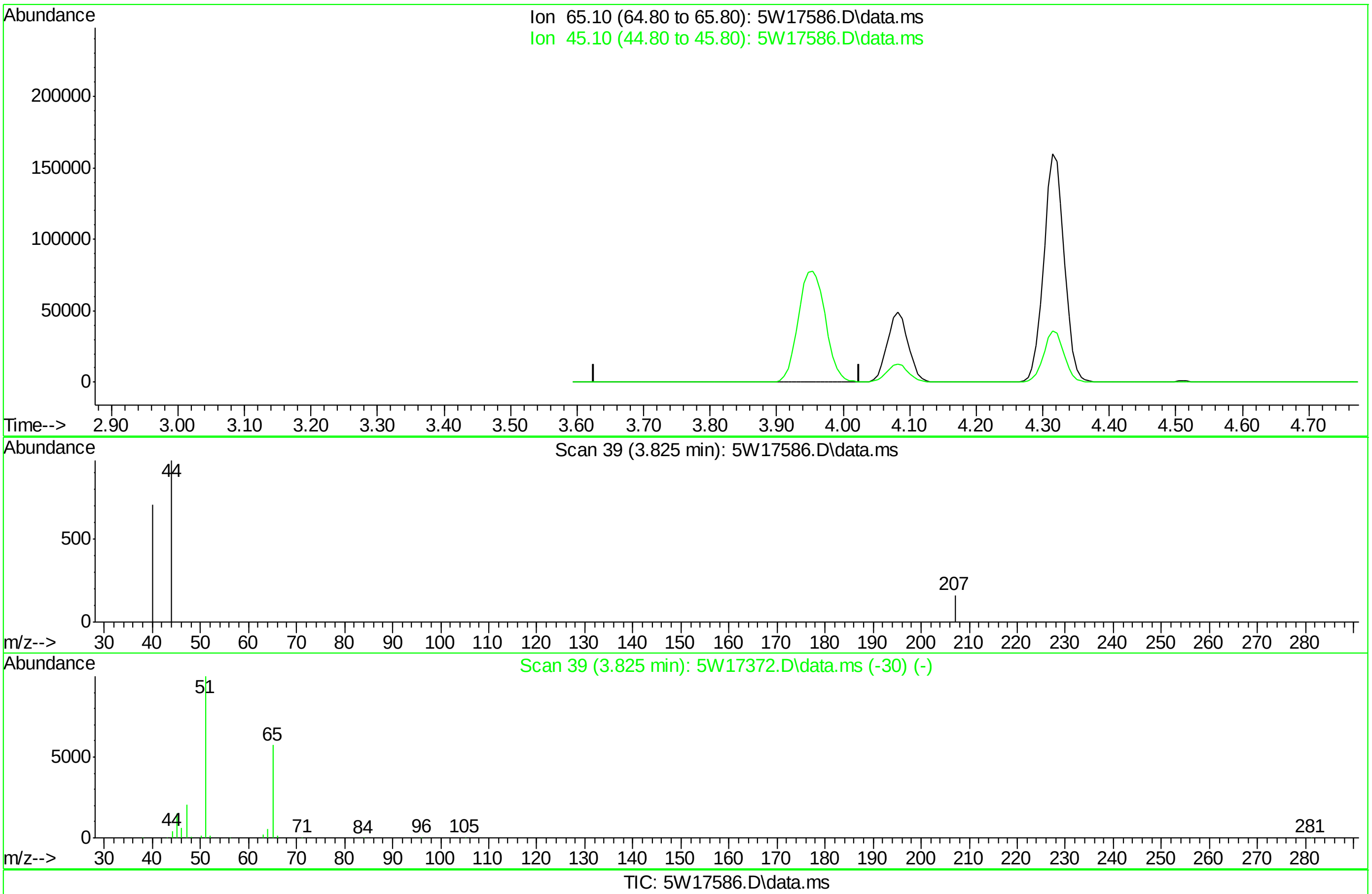
Sample Number:	V5W701-BSD	**Method:**	TO-15	
Lab FileID:	5W17586.D	**Analyst approved:**	04/08/16 14:32	Dana Tryon
Injection Time:	04/08/16 11:28	**Supervisor approved:**	04/08/16 17:19	Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On    :  8 Apr 2016  11:28 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:20:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(3) Freon 152A

3.825min (-3.825) 0.00ppb(v)

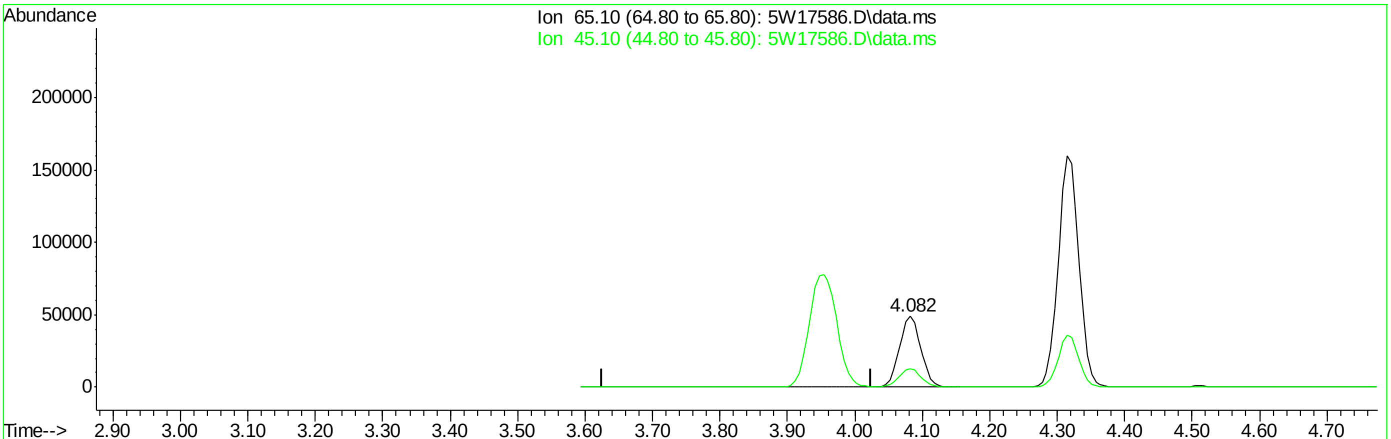
response 0

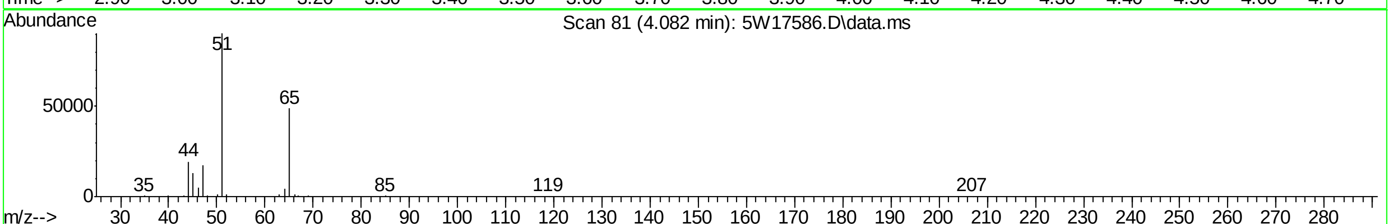
Ion	Exp%	Act%
65.10	100	0.00
45.10	28.20	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

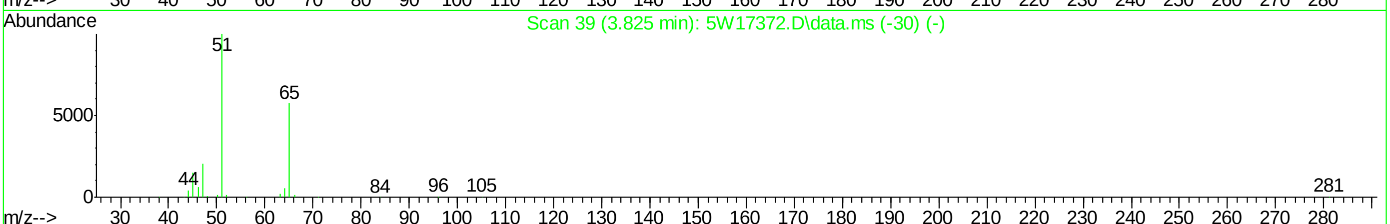
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17586.D
Acq On    :  8 Apr 2016  11:28 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Apr 08 13:20:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17586.D\data.ms

(3) Freon 152A

4.082min (+0.257) 9.92ppb(v) m

response 108815

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.36
0.00	0.00	0.00
0.00	0.00	0.00

5W17586.D edits: Freon 152A

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17076.D
Acq On : 17 Mar 2016 10:35 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w683,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 17 14:25:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.248	130	129689	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	458611	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	234235	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.248	130	129689	10.00 ppb(v	-0.04

System Monitoring Compounds

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) 4-Bromofluorobenzene	18.269	95	314563	10.18 ppb(v	-0.03

Spiked Amount 10.000 Range 65 - 128 Recovery = 101.80%

Target Compounds

Compound	R.T.	QIon	Response	Conc Units	Qvalue
2) 1,1,1-Trifluoroethane	3.727	69	132751	4.12 ppb(v#	62
3) Freon 152A	3.819	65	87163	12.20 ppb(v	94
4) Chlorodifluoromethane	3.856	67	31376	11.91 ppb(v	100
5) Propene	3.880	41	95264	11.77 ppb(v	98
6) Dichlorodifluoromethane	3.935	85	339866	11.59 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	3.819	65	87163	4.44 ppb(v#	83
8) Chloromethane	4.070	50	125344	12.22 ppb(v	100
9) Dichlorotetrafluoroethane	4.150	85	393412	11.93 ppb(v	98
10) Vinyl Chloride	4.254	62	137747	11.95 ppb(v	99
11) 1,3-Butadiene	4.358	54	99011	11.49 ppb(v	99
12) n-Butane	4.400	58	21109	11.14 ppb(v	85
13) Bromomethane	4.584	94	146119	11.00 ppb(v	99
14) Chloroethane	4.725	64	63495	11.17 ppb(v	98
15) Dichlorofluoromethane	4.804	67	309193	11.53 ppb(v	99
16) Acetonitrile	5.031	41	115893	12.49 ppb(v	100
17) Freon 123	5.147	83	350730	11.14 ppb(v	99
18) Freon 123A	5.196	117	177289	10.35 ppb(v	93
19) Bromoethene	5.024	106	143468	11.22 ppb(v	97
20) Trichlorofluoromethane	5.379	101	347802	11.58 ppb(v	98
21) Acetone	5.251	58	61321	9.93 ppb(v	93
22) Pentane	5.691	57	30332	9.85 ppb(v	96
23) 1,1-Dichloro-1-fluoroe...	5.202	81	1540	0.06 ppb(v#	59
24) Iodomethane	5.893	142	380767	10.56 ppb(v	96
25) Isopropyl Alcohol	5.465	43	42769	10.62 ppb(v	96
26) 1,1-Dichloroethene	5.960	61	191704	10.61 ppb(v	98
27) Freon 113	6.315	101	282759	10.64 ppb(v	97
28) Methylene Chloride	6.077	84	115755	9.45 ppb(v	98
29) Carbon Disulfide	6.358	76	380066	10.68 ppb(v	99
30) Ethanol	4.841	45	54402	11.48 ppb(v	98
31) Acrylonitrile	5.661	53	95989	10.87 ppb(v	98
32) 3-Chloropropene	6.187	76	54830	10.20 ppb(v	92
33) trans-1,2-Dichloroethene	6.976	61	171366	10.56 ppb(v	100
34) tert-Butyl Alcohol	6.003	59	251915	9.99 ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	300911	9.35 ppb(v	98
36) Vinyl Acetate	7.349	43	340632	12.11 ppb(v	100
37) 1,1-Dichloroethane	7.184	63	229971	10.75 ppb(v	95
38) 2-Butanone	7.612	72	55342	9.89 ppb(v	92
39) Hexane	8.267	57	179181	9.79 ppb(v	92
40) cis-1,2-Dichloroethene	8.071	61	160535	10.09 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17076.D
Acq On : 17 Mar 2016 10:35 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w683,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 17 14:25:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	99269	10.21 ppb(v	86
42) Ethyl Acetate	8.322	61	42982	11.84 ppb(v	100
43) Methyl Acrylate	8.310	55	234841	10.27 ppb(v	98
44) Chloroform	8.389	83	283697	10.64 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	217939	10.15 ppb(v	98
46) Tetrahydrofuran	8.848	72	56197	10.80 ppb(v	87
47) 1,1,1-Trichloroethane	9.484	97	269297	10.50 ppb(v	95
48) 1,2-Dichloroethane	9.203	62	162258	11.19 ppb(v	100
49) Benzene	10.016	78	382341	9.83 ppb(v	99
50) Carbon Tetrachloride	10.188	117	284227	10.76 ppb(v	99
51) Cyclohexane	10.322	56	183244	10.17 ppb(v	98
52) 2,3-Dimethylpentane	10.610	71	79180	9.85 ppb(v	95
54) 2,2,4-Trimethylpentane	11.301	57	626877	11.40 ppb(v	100
55) Heptane	11.650	71	117947	10.51 ppb(v	99
56) Trichloroethene	11.283	95	186352	10.68 ppb(v	97
57) 1,2-Dichloropropane	10.983	63	151745	11.61 ppb(v	98
58) Dibromomethane	10.965	174	193291	11.28 ppb(v	87
59) Ethyl Acrylate	11.026	55	283408	11.10 ppb(v	99
60) Methyl Methacrylate	11.558	69	125811	10.05 ppb(v	97
61) 1,4-Dioxane	11.307	88	91225	10.41 ppb(v	99
62) Bromodichloromethane	11.234	83	302817	11.02 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	219959	9.91 ppb(v	98
64) 4-Methyl-2-pentanone	12.415	58	116771	11.59 ppb(v	96
65) trans-1,3-Dichloropropene	13.045	75	193413	10.55 ppb(v	99
66) Toluene	13.614	91	453601	10.17 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	171211	10.76 ppb(v	96
68) 1,3-Dichloropropane	13.657	76	224160	11.11 ppb(v	97
69) 2-Hexanone	13.999	58	155034	11.18 ppb(v	98
70) Ethyl Methacrylate	14.024	69	235287	11.10 ppb(v	99
71) Dibromochloromethane	14.177	129	338089	11.50 ppb(v	100
72) Tetrachloroethene	15.131	166	256506	11.02 ppb(v	97
73) 1,2-Dibromoethane	14.495	107	274689	10.52 ppb(v	97
74) Octane	14.960	43	308683	12.49 ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.061	131	225396	11.16 ppb(v	96
77) Chlorobenzene	16.079	112	364278	9.45 ppb(v	98
78) Ethylbenzene	16.624	91	572205	9.53 ppb(v	100
79) m,p-Xylene	16.881	91	894856	19.38 ppb(v	99
80) Styrene	17.425	104	317960	9.24 ppb(v	99
81) Nonane	17.951	43	307761	11.59 ppb(v	97
82) o-Xylene	17.572	91	455887	9.70 ppb(v	98
83) Bromoform	16.972	173	349384	10.91 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.578	83	392710	10.43 ppb(v	100
85) 1,2,3-Trichloropropane	17.768	75	270633	10.19 ppb(v	98
86) Isopropylbenzene	18.483	105	647516	9.81 ppb(v	100
87) Bromobenzene	18.593	156	223824	9.57 ppb(v	92
88) 2-Chlorotoluene	19.199	126	156335	9.34 ppb(v	95
89) n-Propylbenzene	19.273	120	166900	9.66 ppb(v	99
91) 4-Ethyltoluene	19.493	105	585980	9.50 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.615	105	493124	9.28 ppb(v	99
93) alpha-Methylstyrene	19.848	118	256819	9.63 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17076.D
Acq On : 17 Mar 2016 10:35 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w683,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 17 14:25:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.184	134	107990	9.61 ppb(v	96
95) 1,2,4-Trimethylbenzene	20.196	105	510360	9.59 ppb(v	99
96) 1,3-Dichlorobenzene	20.386	146	345958	9.27 ppb(v	96
97) Benzyl Chloride	20.374	91	418274	9.01 ppb(v	98
98) 1,4-Dichlorobenzene	20.484	146	330334	8.57 ppb(v	97
99) sec-Butylbenzene	20.563	134	135353	9.59 ppb(v	99
100) p-Isopropyltoluene	20.796	134	155936	9.99 ppb(v	97
101) 1,2-Dichlorobenzene	20.949	146	334693	9.43 ppb(v	95
102) n-Butylbenzene	21.365	134	134518	9.71 ppb(v	95
103) Hexachloroethane	21.830	201	230102	10.94 ppb(v	86
104) 1,2,4-Trichlorobenzene	23.145	180	181584	8.31 ppb(v	98
105) Naphthalene	23.274	128	355908	7.38 ppb(v	99
106) Hexachlorobutadiene	23.720	225	220791	10.47 ppb(v	99
108) TVHC as equiv Pentane	5.685	TIC	793919	12.26 ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17076.D
Acq On    : 17 Mar 2016  10:35 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 17 14:25:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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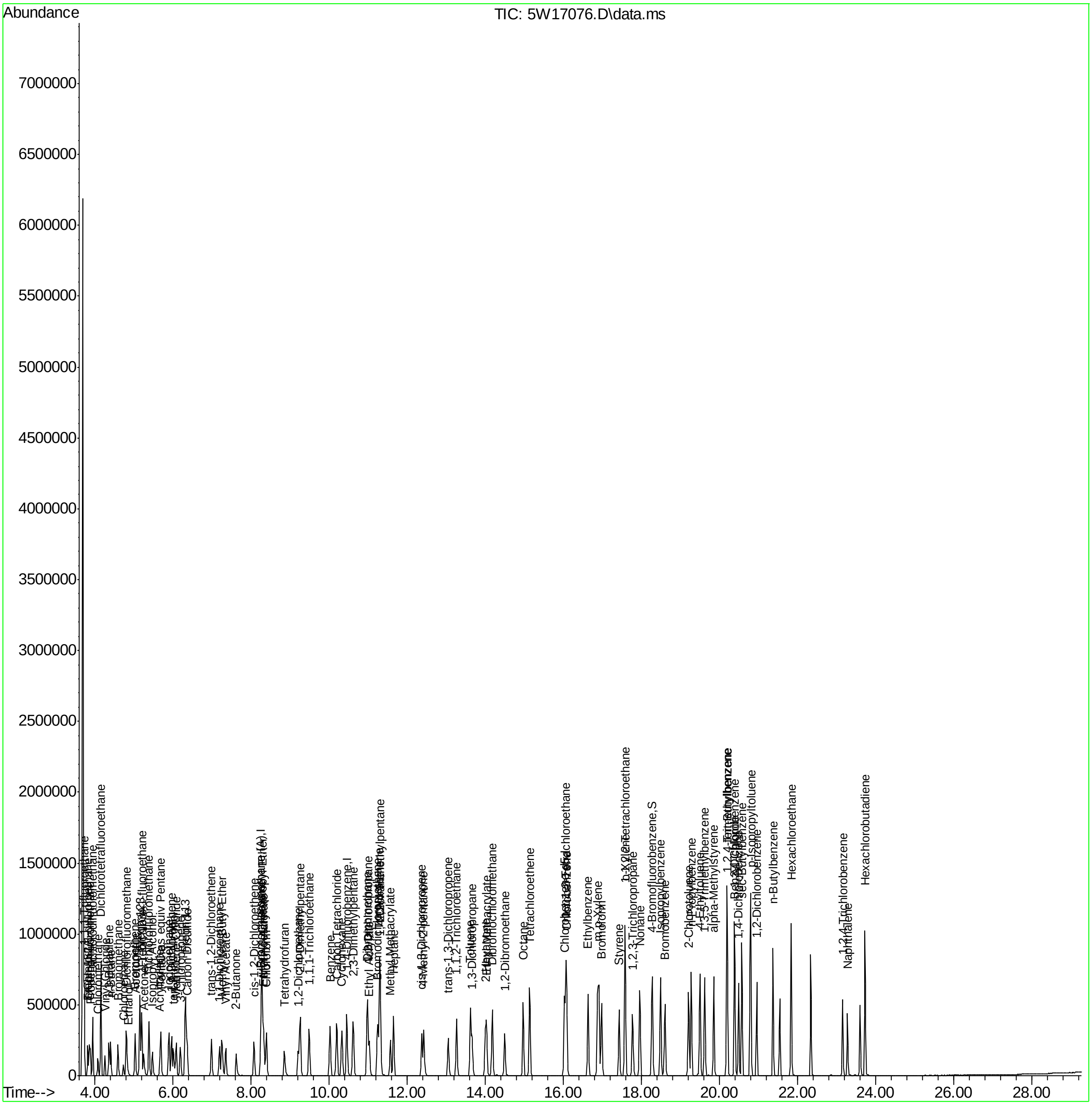

m5w637.M Thu Mar 17 14:29:01 2016 GCMS5W Page: 4

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17077.D
Acq On    : 17 Mar 2016  11:22 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 17 14:25:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                    R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane           8.248  130    143538    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene         10.451  114    508587    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5            16.018   82    258552    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)       8.248  130    143538    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene        18.269   95    344716    10.10 ppb(v  -0.03
   Spiked Amount     10.000   Range  65 - 128    Recovery   =  101.00%

 Target Compounds                                                   Qvalue
   2) 1,1,1-Trifluoroethane        3.721   69    148012     4.15 ppb(v#    62
   3) Freon 152A                   3.813   65     89537    11.32 ppb(v     95
   4) Chlorodifluoromethane        3.856   67     32213    11.05 ppb(v    100
   5) Propene                      3.880   41     99633    11.12 ppb(v     98
   6) Dichlorodifluoromethane      3.935   85    346948    10.69 ppb(v     98
   7) 1-Chloro-1,1-difluoroe...    3.813   65     89537     4.12 ppb(v#    84
   8) Chloromethane                4.070   50    127122    11.20 ppb(v    100
   9) Dichlorotetrafluoroethane    4.150   85    400610    10.98 ppb(v     99
  10) Vinyl Chloride               4.254   62    141209    11.07 ppb(v     99
  11) 1,3-Butadiene                4.358   54     99988    10.49 ppb(v     98
  12) n-Butane                     4.400   58     21706    10.35 ppb(v     99
  13) Bromomethane                 4.590   94    147047    10.00 ppb(v     99
  14) Chloroethane                 4.725   64     65076    10.35 ppb(v     98
  15) Dichlorofluoromethane        4.804   67    317208    10.69 ppb(v     99
  16) Acetonitrile                 5.031   41    119104    11.60 ppb(v     99
  17) Freon 123                    5.147   83    356030    10.22 ppb(v     99
  18) Freon 123A                   5.196  117    178574     9.42 ppb(v     93
  19) Bromoethene                  5.024  106    146419    10.35 ppb(v     98
  20) Trichlorofluoromethane       5.385  101    350895    10.56 ppb(v    100
  21) Acetone                      5.251   58     62269     9.11 ppb(v     99
  22) Pentane                      5.691   57     30433     8.93 ppb(v     99
  23) 1,1-Dichloro-1-fluoroe...    5.202   81      1807     0.06 ppb(v#    59
  24) Iodomethane                  5.893  142    383521     9.61 ppb(v     95
  25) Isopropyl Alcohol            5.465   43     43554     9.77 ppb(v     96
  26) 1,1-Dichloroethene           5.960   61    195540     9.78 ppb(v     97
  27) Freon 113                    6.315  101    287603     9.78 ppb(v     97
  28) Methylene Chloride           6.083   84    118823     8.76 ppb(v     94
  29) Carbon Disulfide             6.358   76    380876     9.67 ppb(v     99
  30) Ethanol                      4.841   45     54758    10.44 ppb(v     99
  31) Acrylonitrile                5.661   53     97751    10.00 ppb(v     98
  32) 3-Chloropropene              6.187   76     55863     9.39 ppb(v     95
  33) trans-1,2-Dichloroethene     6.982   61    176318     9.82 ppb(v     95
  34) tert-Butyl Alcohol           6.009   59    255734     9.16 ppb(v     96
  35) Methyl tert-Butyl Ether      7.251   73    309635     8.70 ppb(v     96
  36) Vinyl Acetate                7.349   43    350591    11.26 ppb(v     99
  37) 1,1-Dichloroethane           7.190   63    233449     9.86 ppb(v     99
  38) 2-Butanone                   7.612   72     57614     9.30 ppb(v     96
  39) Hexane                       8.273   57    180241     8.90 ppb(v     95
  40) cis-1,2-Dichloroethene       8.071   61    169029     9.60 ppb(v     96
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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17077.D
Acq On    : 17 Mar 2016  11:22 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 17 14:25:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	100148	9.31	ppb(v	89
42) Ethyl Acetate	8.322	61	43274	10.77	ppb(v	92
43) Methyl Acrylate	8.310	55	238730	9.44	ppb(v	98
44) Chloroform	8.389	83	287876	9.75	ppb(v	98
45) 2,4-Dimethylpentane	9.252	57	227297	9.57	ppb(v	99
46) Tetrahydrofuran	8.848	72	58108	10.09	ppb(v	87
47) 1,1,1-Trichloroethane	9.484	97	273914	9.65	ppb(v	99
48) 1,2-Dichloroethane	9.203	62	167574	10.44	ppb(v	99
49) Benzene	10.016	78	393259	9.13	ppb(v	99
50) Carbon Tetrachloride	10.194	117	292539	10.00	ppb(v	99
51) Cyclohexane	10.322	56	188784	9.47	ppb(v	96
52) 2,3-Dimethylpentane	10.610	71	80947	9.10	ppb(v	93
54) 2,2,4-Trimethylpentane	11.301	57	634811	10.41	ppb(v	99
55) Heptane	11.650	71	121178	9.73	ppb(v	98
56) Trichloroethene	11.283	95	185709	9.60	ppb(v	95
57) 1,2-Dichloropropane	10.989	63	154171	10.64	ppb(v	99
58) Dibromomethane	10.971	174	198572	10.45	ppb(v	88
59) Ethyl Acrylate	11.026	55	295733	10.44	ppb(v	100
60) Methyl Methacrylate	11.558	69	129495	9.33	ppb(v	92
61) 1,4-Dioxane	11.313	88	94232	9.70	ppb(v	87
62) Bromodichloromethane	11.234	83	301489	9.90	ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	226066	9.19	ppb(v	99
64) 4-Methyl-2-pentanone	12.421	58	118901	10.64	ppb(v	97
65) trans-1,3-Dichloropropene	13.045	75	200999	9.88	ppb(v	98
66) Toluene	13.614	91	468097	9.47	ppb(v	98
67) 1,1,2-Trichloroethane	13.259	97	176784	10.02	ppb(v	97
68) 1,3-Dichloropropane	13.656	76	228820	10.23	ppb(v	97
69) 2-Hexanone	13.993	58	160558	10.45	ppb(v	95
70) Ethyl Methacrylate	14.024	69	238018	10.12	ppb(v	99
71) Dibromochloromethane	14.176	129	344697	10.57	ppb(v	100
72) Tetrachloroethene	15.137	166	261222	10.12	ppb(v	98
73) 1,2-Dibromoethane	14.495	107	281846	9.73	ppb(v	98
74) Octane	14.966	43	315348	11.51	ppb(v	93
75) 1,1,1,2-Tetrachloroethane	16.061	131	226066	10.09	ppb(v	97
77) Chlorobenzene	16.079	112	371577	8.74	ppb(v	99
78) Ethylbenzene	16.624	91	587500	8.86	ppb(v	100
79) m,p-Xylene	16.899	91	917309	18.00	ppb(v	98
80) Styrene	17.425	104	324539	8.55	ppb(v	99
81) Nonane	17.951	43	312714	10.67	ppb(v	96
82) o-Xylene	17.572	91	469616	9.05	ppb(v	99
83) Bromoform	16.978	173	359644	10.17	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	403062	9.70	ppb(v	100
85) 1,2,3-Trichloropropane	17.768	75	280075	9.55	ppb(v	98
86) Isopropylbenzene	18.483	105	656219	9.00	ppb(v	99
87) Bromobenzene	18.593	156	227870	8.83	ppb(v	93
88) 2-Chlorotoluene	19.199	126	156745	8.48	ppb(v	95
89) n-Propylbenzene	19.273	120	169846	8.91	ppb(v	95
91) 4-Ethyltoluene	19.493	105	601501	8.83	ppb(v	100
92) 1,3,5-Trimethylbenzene	19.615	105	507949	8.66	ppb(v	99
93) alpha-Methylstyrene	19.848	118	260526	8.85	ppb(v	98

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17077.D
Acq On    : 17 Mar 2016  11:22 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 17 14:25:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.184	134	108937	8.79	ppb(v	97
95)	1,2,4-Trimethylbenzene	20.196	105	520141	8.85	ppb(v	99
96)	1,3-Dichlorobenzene	20.386	146	355307	8.63	ppb(v	96
97)	Benzyl Chloride	20.374	91	431332	8.42	ppb(v	98
98)	1,4-Dichlorobenzene	20.484	146	337937	7.94	ppb(v	97
99)	sec-Butylbenzene	20.563	134	135489	8.70	ppb(v	99
100)	p-Isopropyltoluene	20.796	134	156656	9.09	ppb(v	99
101)	1,2-Dichlorobenzene	20.949	146	336524	8.59	ppb(v	95
102)	n-Butylbenzene	21.365	134	132536	8.67	ppb(v	98
103)	Hexachloroethane	21.830	201	231772	9.99	ppb(v	85
104)	1,2,4-Trichlorobenzene	23.151	180	185044	7.67	ppb(v	98
105)	Naphthalene	23.274	128	364259	6.85	ppb(v	99
106)	Hexachlorobutadiene	23.726	225	217768	9.36	ppb(v	98
108)	TVHC as equiv Pentane	5.685	TIC	805145	11.23	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17077.D
Acq On    : 17 Mar 2016  11:22 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 17 14:25:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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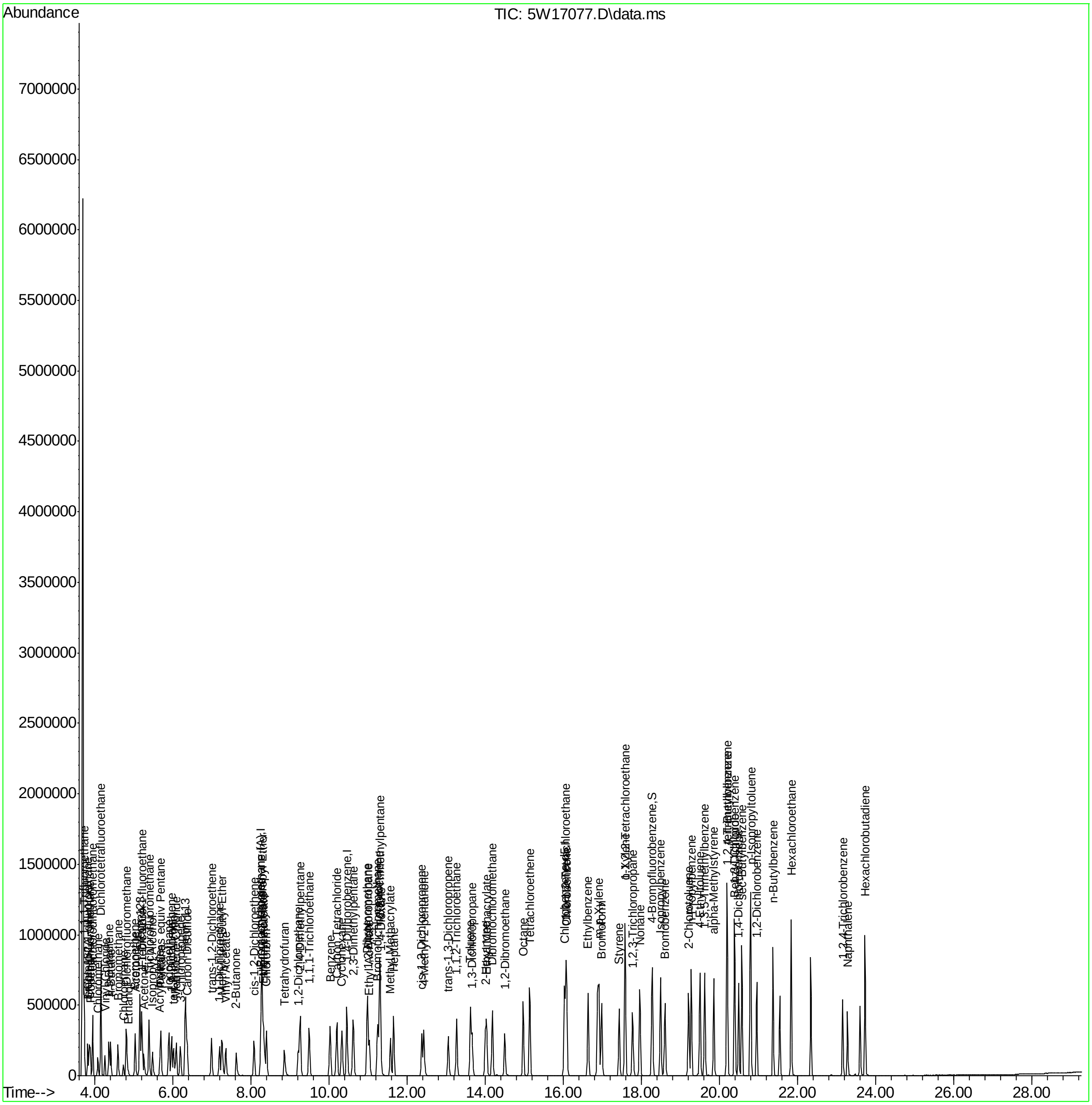

m5w637.M Thu Mar 17 14:29:04 2016 GCMS5W Page: 4

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17107.D
Acq On    : 18 Mar 2016  10:08 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:22:29 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.255	130	139058	10.00 ppb(v	-0.03
53) 1,4-Difluorobenzene	10.457	114	491417	10.00 ppb(v	-0.03
76) Chlorobenzene-d5	16.018	82	244580	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.255	130	139058	10.00 ppb(v	-0.03
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.269	95	322506	9.99 ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.90%		
Target Compounds					Qvalue
3) Freon 152A	3.819	65	84837	11.07 ppb(v	95
4) Chlorodifluoromethane	3.856	67	32777	11.60 ppb(v	99
5) Propene	3.880	41	100040	11.52 ppb(v	99
6) Dichlorodifluoromethane	3.942	85	341640	10.86 ppb(v	99
8) Chloromethane	4.076	50	131579	11.96 ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	397350	11.24 ppb(v	99
10) Vinyl Chloride	4.254	62	142319	11.52 ppb(v	98
11) 1,3-Butadiene	4.364	54	99267	10.75 ppb(v	97
12) n-Butane	4.407	58	21702	10.68 ppb(v	90
13) Bromomethane	4.590	94	146147	10.26 ppb(v	99
14) Chloroethane	4.731	64	66872	10.98 ppb(v	99
15) Dichlorofluoromethane	4.804	67	323546	11.25 ppb(v	98
16) Acetonitrile	5.037	41	128910	12.96 ppb(v	98
17) Freon 123	5.153	83	357674	10.60 ppb(v	98
18) Freon 123A	5.202	117	175228	9.54 ppb(v	97
19) Bromoethene	5.031	106	145120	10.59 ppb(v	99
20) Trichlorofluoromethane	5.385	101	354781	11.02 ppb(v	98
21) Acetone	5.251	58	66054	9.98 ppb(v	97
22) Pentane	5.691	57	30630	9.28 ppb(v	95
24) Iodomethane	5.899	142	371766	9.62 ppb(v	98
25) Isopropyl Alcohol	5.471	43	47638	11.03 ppb(v	98
26) 1,1-Dichloroethene	5.967	61	196775	10.15 ppb(v	98
27) Freon 113	6.321	101	284680	9.99 ppb(v	98
28) Methylene Chloride	6.083	84	119647	9.11 ppb(v	99
29) Carbon Disulfide	6.364	76	387599	10.16 ppb(v	100
30) Ethanol	4.847	45	59556	11.72 ppb(v	100
31) Acrylonitrile	5.667	53	104266	11.01 ppb(v	97
32) 3-Chloropropene	6.193	76	54793	9.51 ppb(v	94
33) trans-1,2-Dichloroethene	6.982	61	175263	10.08 ppb(v	98
34) tert-Butyl Alcohol	6.016	59	254917	9.43 ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	300259	8.71 ppb(v	93
36) Vinyl Acetate	7.349	43	347798	11.53 ppb(v	98
37) 1,1-Dichloroethane	7.190	63	233772	10.19 ppb(v	100
38) 2-Butanone	7.618	72	57014	9.50 ppb(v	91
39) Hexane	8.273	57	186517	9.50 ppb(v	95
40) cis-1,2-Dichloroethene	8.077	61	166813	9.78 ppb(v	97
41) Di-isopropyl Ether	8.279	87	99546	9.55 ppb(v	78
42) Ethyl Acetate	8.328	61	44994	11.56 ppb(v	96
43) Methyl Acrylate	8.316	55	247719	10.11 ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17107.D
Acq On : 18 Mar 2016 10:08 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w684,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:22:29 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) Chloroform	8.395	83	291106	10.18 ppb(v	99
45) 2,4-Dimethylpentane	9.258	57	220205	9.57 ppb(v	97
46) Tetrahydrofuran	8.848	72	56648	10.15 ppb(v	87
47) 1,1,1-Trichloroethane	9.490	97	273228	9.93 ppb(v	99
48) 1,2-Dichloroethane	9.209	62	167191	10.75 ppb(v	99
49) Benzene	10.023	78	376657	9.03 ppb(v	99
50) Carbon Tetrachloride	10.194	117	288785	10.19 ppb(v	99
51) Cyclohexane	10.322	56	183638	9.51 ppb(v	96
52) 2,3-Dimethylpentane	10.610	71	79975	9.28 ppb(v	94
54) 2,2,4-Trimethylpentane	11.307	57	644344	10.93 ppb(v	99
55) Heptane	11.650	71	119848	9.96 ppb(v	98
56) Trichloroethene	11.283	95	188617	10.09 ppb(v	96
57) 1,2-Dichloropropane	10.989	63	155504	11.10 ppb(v	99
58) Dibromomethane	10.971	174	190828	10.39 ppb(v	89
59) Ethyl Acrylate	11.026	55	297349	10.87 ppb(v	99
60) Methyl Methacrylate	11.564	69	129282	9.64 ppb(v	90
61) 1,4-Dioxane	11.307	88	96963	10.33 ppb(v	99
62) Bromodichloromethane	11.240	83	308900	10.50 ppb(v	99
63) cis-1,3-Dichloropropene	12.372	75	218589	9.19 ppb(v	99
64) 4-Methyl-2-pentanone	12.421	58	118956	11.02 ppb(v	96
65) trans-1,3-Dichloropropene	13.051	75	200534	10.20 ppb(v	99
66) Toluene	13.614	91	453385	9.49 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	171737	10.07 ppb(v	98
68) 1,3-Dichloropropane	13.657	76	230140	10.65 ppb(v	97
69) 2-Hexanone	13.993	58	163336	11.00 ppb(v	96
70) Ethyl Methacrylate	14.030	69	238253	10.49 ppb(v	98
71) Dibromochloromethane	14.177	129	345544	10.97 ppb(v	100
72) Tetrachloroethene	15.131	166	252735	10.13 ppb(v	98
73) 1,2-Dibromoethane	14.495	107	280951	10.04 ppb(v	100
74) Octane	14.966	43	315017	11.90 ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.061	131	221427	10.23 ppb(v	98
77) Chlorobenzene	16.079	112	361898	8.99 ppb(v	99
78) Ethylbenzene	16.624	91	567936	9.06 ppb(v	99
79) m,p-Xylene	16.899	91	892473	18.51 ppb(v	99
80) Styrene	17.425	104	311754	8.68 ppb(v	99
81) Nonane	17.951	43	320955	11.57 ppb(v	96
82) o-Xylene	17.572	91	455669	9.29 ppb(v	99
83) Bromoform	16.978	173	341646	10.21 ppb(v	98
84) 1,1,2,2-Tetrachloroethane	17.572	83	396779	10.09 ppb(v	100
85) 1,2,3-Trichloropropane	17.768	75	274345	9.89 ppb(v	99
86) Isopropylbenzene	18.483	105	626612	9.09 ppb(v	99
87) Bromobenzene	18.600	156	221178	9.06 ppb(v	92
88) 2-Chlorotoluene	19.199	126	152034	8.70 ppb(v	98
89) n-Propylbenzene	19.273	120	166114	9.21 ppb(v	95
91) 4-Ethyltoluene	19.493	105	583595	9.06 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.615	105	490550	8.84 ppb(v	99
93) alpha-Methylstyrene	19.848	118	242917	8.72 ppb(v	97
94) tert-Butylbenzene	20.184	134	104218	8.89 ppb(v	98
95) 1,2,4-Trimethylbenzene	20.196	105	497513	8.95 ppb(v	99
96) 1,3-Dichlorobenzene	20.386	146	345387	8.87 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17107.D
Acq On : 18 Mar 2016 10:08 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w684,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:22:29 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

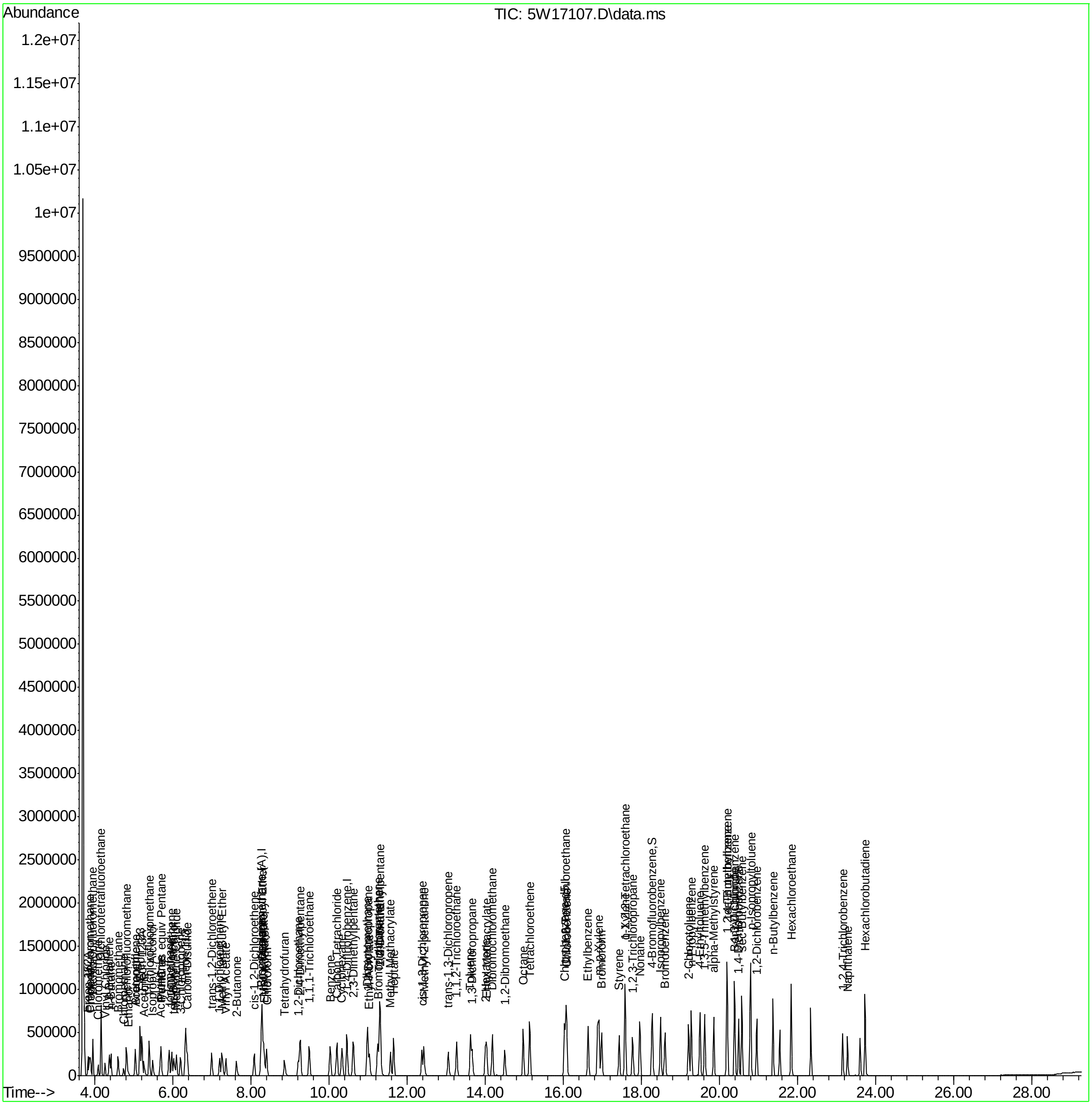
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) Benzyl Chloride	20.374	91	418101	8.63 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	328503	8.16 ppb(v	97
99) sec-Butylbenzene	20.563	134	130705	8.87 ppb(v	99
100) p-Isopropyltoluene	20.796	134	154190	9.46 ppb(v	99
101) 1,2-Dichlorobenzene	20.949	146	321929	8.68 ppb(v	95
102) n-Butylbenzene	21.365	134	126245	8.73 ppb(v	96
103) Hexachloroethane	21.830	201	217432	9.90 ppb(v	85
104) 1,2,4-Trichlorobenzene	23.151	180	163557	7.16 ppb(v	98
105) Naphthalene	23.274	128	369669	7.34 ppb(v	99
106) Hexachlorobutadiene	23.726	225	200749	9.12 ppb(v	97
108) TVHC as equiv Pentane	5.691	TIC	844905	12.17 ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17107.D
Acq On    : 18 Mar 2016  10:08 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:22:29 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 11:01

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52854.D   Vial: 3
Acq On    : 18 Mar 2016  10:22 am                       Operator: YOUMINH
Sample    : BS                                          Inst     : MS3W
Misc      : MS99296,V3W1996,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:45 2016              Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	80624	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	407103	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	224153	10.00 PPBV	0.00

System Monitoring Compounds

86) 4-BROMOFLUOROBENZENE	16.32	95	217902	9.84 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 98.40%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
4) FREON 152A	5.04	65	101831	11.31 PPBV	99
5) CHLORODIFLUOROMETHANE	5.08	67	36179	10.59 PPBV	98
6) DICHLORODIFLUOROMETHANE	5.19	85	363113	10.96 PPBV	100
7) PROPYLENE	5.12	41	147521	11.82 PPBV	98
9) FREON 114	5.44	85	421404	10.70 PPBV	98
10) CHLOROMETHANE	5.35	50	176284m	11.05 PPBV	
11) VINYL CHLORIDE	5.56	62	200927	11.49 PPBV	100
12) 1,3-BUTADIENE	5.69	54	153917	11.24 PPBV	97
13) n-BUTANE	5.74	43	331182	11.53 PPBV	99
14) BROMOMETHANE	5.95	94	154139	10.29 PPBV	99
15) CHLOROETHANE	6.10	64	96021	11.18 PPBV	99
16) DICHLOROFLUOROMETHANE	6.16	67	360060	10.71 PPBV	100
17) ACETONITRILE	6.39	41	135327	11.40 PPBV	100
18) FREON 123	6.51	83	356885	10.01 PPBV	99
19) FREON 123A	6.55	117	169531	9.40 PPBV	91
20) TRICHLOROFLUOROMETHANE	6.75	101	340295	10.44 PPBV	99
22) ISOPROPYL ALCOHOL	6.83	45	322152	11.28 PPBV	99
23) ACETONE	6.62	58	72226	10.40 PPBV	94
24) PENTANE	7.03	42	223815	12.26 PPBV	99
25) TVHC as EQUIV PENTANE	7.03	TIC	1269405m	11.53 PPBV	
26) IODOMETHANE	7.24	142	345471	9.99 PPBV	98
27) 1,1-DICHLOROETHYLENE	7.28	96	156923	9.77 PPBV	95
28) CARBON DISULFIDE	7.66	76	520327	10.65 PPBV	98
29) ETHANOL	6.21	45	72212	10.48 PPBV	99
30) BROMOETHENE	6.40	106	146286	10.23 PPBV	100
31) ACRYLONITRILE	7.00	52	98878	11.26 PPBV	99
32) METHYLENE CHLORIDE	7.37	84	140875	9.65 PPBV	94
33) 3-CHLOROPROPENE	7.47	76	80906	10.79 PPBV #	88
34) FREON 113	7.57	151	214995	9.93 PPBV	95
35) TRANS-1,2-DICHLOROETHYLENE	8.14	96	148348	9.56 PPBV	91
36) TERTIARY BUTYL ALCOHOL	7.34	59	381326	10.55 PPBV	98
37) METHYL TERTIARY BUTYL ETHE	8.38	73	333256	8.71 PPBV	97
38) TETRAHYDROFURAN	9.64	72	62069	10.33 PPBV #	1
39) HEXANE	9.15	57	250339	10.40 PPBV	97
40) VINYL ACETATE	8.41	86	29236	9.77 PPBV #	74
41) 1,1-DICHLOROETHANE	8.32	63	273785	9.37 PPBV	100
42) METHYL ETHYL KETONE	8.66	72	62123	10.10 PPBV #	85
43) cis-1,2-DICHLOROETHYLENE	9.00	96	139243	9.93 PPBV	97
44) DIISOPROPYL ETHER	9.16	59	64739	10.46 PPBV #	93
45) ETHYL ACETATE	9.18	61	46207	10.89 PPBV #	90
46) METHYL ACRYLATE	9.18	55	248801	10.02 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52854.D   Vial: 3
Acq On    : 18 Mar 2016  10:22 am                       Operator: YOUMINH
Sample    : BS                                          Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:45 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
47)	CHLOROFORM	9.25	83	279364	10.44 PPBV	99
48)	2,4-DIMETHYLPENTANE	9.89	57	291893	10.86 PPBV	98
49)	1,1,1-TRICHLOROETHANE	10.10	97	258627	10.29 PPBV	98
50)	CARBON TETRACHLORIDE	10.62	117	268825	10.26 PPBV	100
51)	1,2-DICHLOROETHANE	9.89	62	172067	10.67 PPBV	100
53)	BENZENE	10.50	78	442964	10.05 PPBV	99
54)	CYCLOHEXANE	10.73	84	199798	9.67 PPBV	97
55)	2,3-DIMETHYLPENTANE	10.90	71	104498	10.27 PPBV	95
56)	TRICHLOROETHYLENE	11.41	95	184660	9.45 PPBV	99
57)	1,2-DICHLOROPROPANE	11.21	63	178801	10.45 PPBV	99
58)	DIBROMOMETHANE	11.19	174	151590	9.27 PPBV	97
59)	ETHYL ACRYLATE	11.18	55	321178	9.97 PPBV	99
60)	BROMODICHLOROMETHANE	11.38	83	297518	9.68 PPBV	99
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	790705	10.14 PPBV	99
62)	1,4-DIOXANE	11.44	88	92519	10.07 PPBV	95
63)	HEPTANE	11.63	43	291539	9.92 PPBV	97
64)	METHYL METHACRYLATE	11.56	69	144501	9.56 PPBV	93
65)	METHYL ISOBUTYL KETONE	12.21	58	140171	10.99 PPBV	94
66)	cis-1,3-DICHLOROPROPENE	12.17	75	256404	9.41 PPBV	96
67)	TOLUENE	13.07	92	273345	9.78 PPBV	99
68)	1,3-DICHLOROPROPANE	13.09	76	240473	9.88 PPBV	99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	225894	10.02 PPBV	98
70)	1,1,2-TRICHLOROETHANE	12.81	83	150558	10.07 PPBV	98
72)	2-HEXANONE	13.31	58	196042	11.04 PPBV	96
73)	ETHYL METHACRYLATE	13.29	69	268628	10.56 PPBV	96
74)	TETRACHLOROETHYLENE	14.14	164	173471	9.08 PPBV	99
75)	DIBROMOCHLOROMETHANE	13.48	129	287771	9.67 PPBV	100
76)	1,2-DIBROMOETHANE	13.72	107	255131	9.79 PPBV	100
77)	OCTANE	13.96	43	403373	9.85 PPBV	96
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	217683	9.98 PPBV	99
79)	CHLOROBENZENE	14.81	112	385932	9.52 PPBV	99
80)	ETHYLBENZENE	15.17	91	563792	9.61 PPBV	100
81)	m,p-XYLENE	15.35	106	437865	19.68 PPBV	99
82)	o-XYLENE	15.84	106	217138	10.04 PPBV	100
83)	STYRENE	15.72	104	325243	9.85 PPBV	99
84)	NONANE	16.02	43	446583	10.80 PPBV	98
85)	BROMOFORM	15.45	173	274485	9.69 PPBV	99
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	383568	9.98 PPBV	100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	273718	10.13 PPBV	98
89)	ISOPROPYLBENZENE	16.44	105	649470	9.93 PPBV	99
90)	BROMOBENZENE	16.55	77	327534	9.51 PPBV	96
91)	2-CHLOROTOLUENE	16.96	126	157590	9.94 PPBV	100
92)	n-PROPYLBENZENE	16.99	120	173369	10.21 PPBV	99
93)	4-ETHYLTOLUENE	17.14	105	587924	10.25 PPBV	99
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	503325	9.92 PPBV	99
95)	ALPHA-METHYLSTYRENE	17.39	118	253028	10.74 PPBV	99
96)	tert-BUTYLBENZENE	17.66	134	125317	10.10 PPBV	98
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	496245	10.03 PPBV	100
98)	m-DICHLOROBENZENE	17.84	146	302847	9.44 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52854.D   Vial: 3
Acq On    : 18 Mar 2016  10:22 am                    Operator: YOUMINH
Sample    : BS                                       Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:45 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

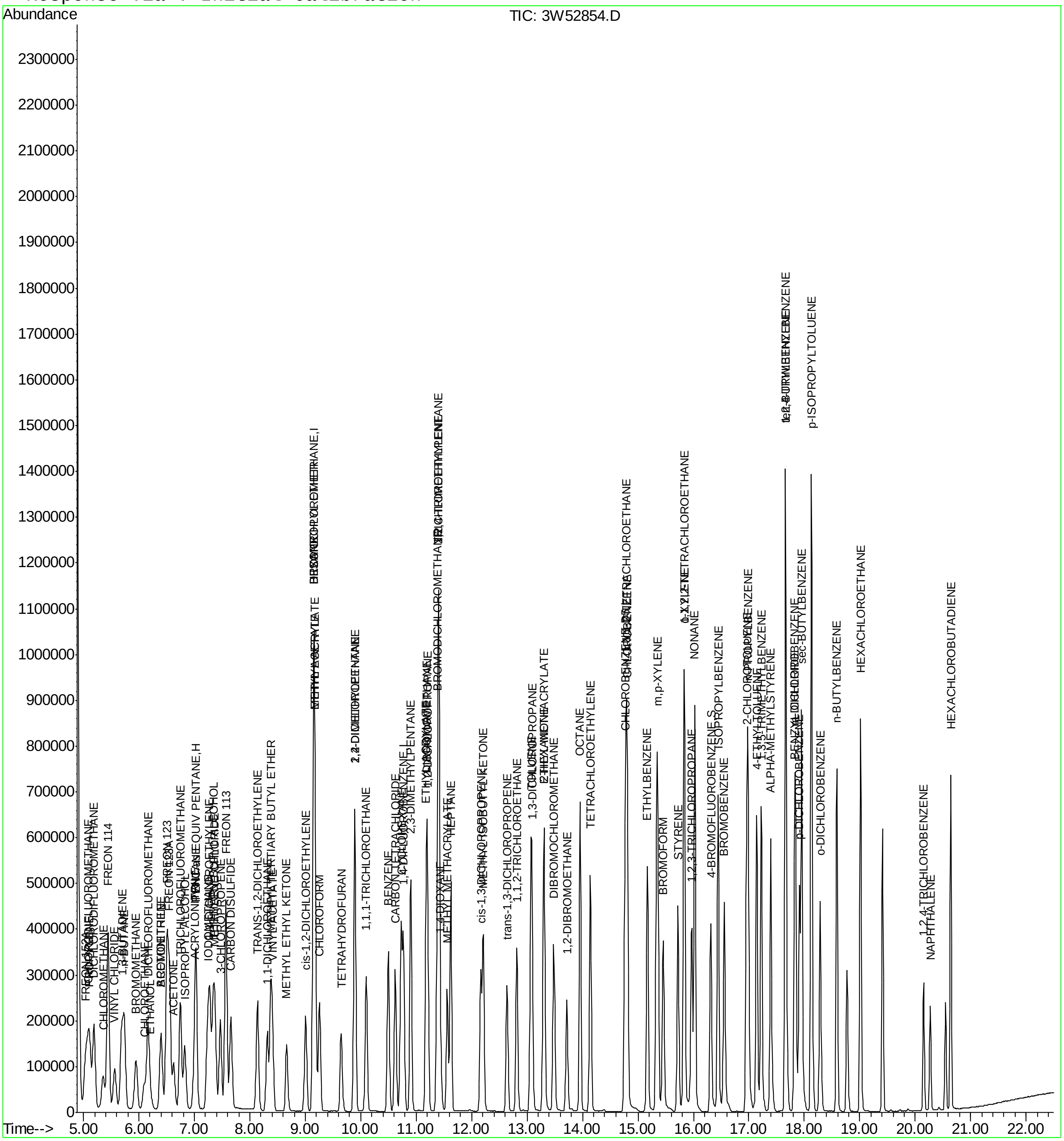
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.82	91	414550	10.51	PPBV	99
100)	p-DICHLOROBENZENE	17.91	146	300580	9.27	PPBV	100
101)	sec-BUTYLBENZENE	17.95	134	150159	10.14	PPBV	97
102)	p-ISOPROPYLTOLUENE	18.12	134	164654	10.43	PPBV	97
103)	o-DICHLOROBENZENE	18.29	146	274414	9.43	PPBV	99
104)	n-BUTYLBENZENE	18.59	134	134990	10.43	PPBV	94
105)	HEXACHLOROETHANE	19.01	117	241583	9.96	PPBV	98
106)	HEXACHLOROBUTADIENE	20.64	225	157050	8.78	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	106491	9.20	PPBV	99
108)	NAPHTHALENE	20.27	128	213489	8.91	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52854.D   Vial: 3
Acq On    : 18 Mar 2016  10:22 am                       Operator: YOUMINH
Sample    : BS                                          Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:54 2016                 Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

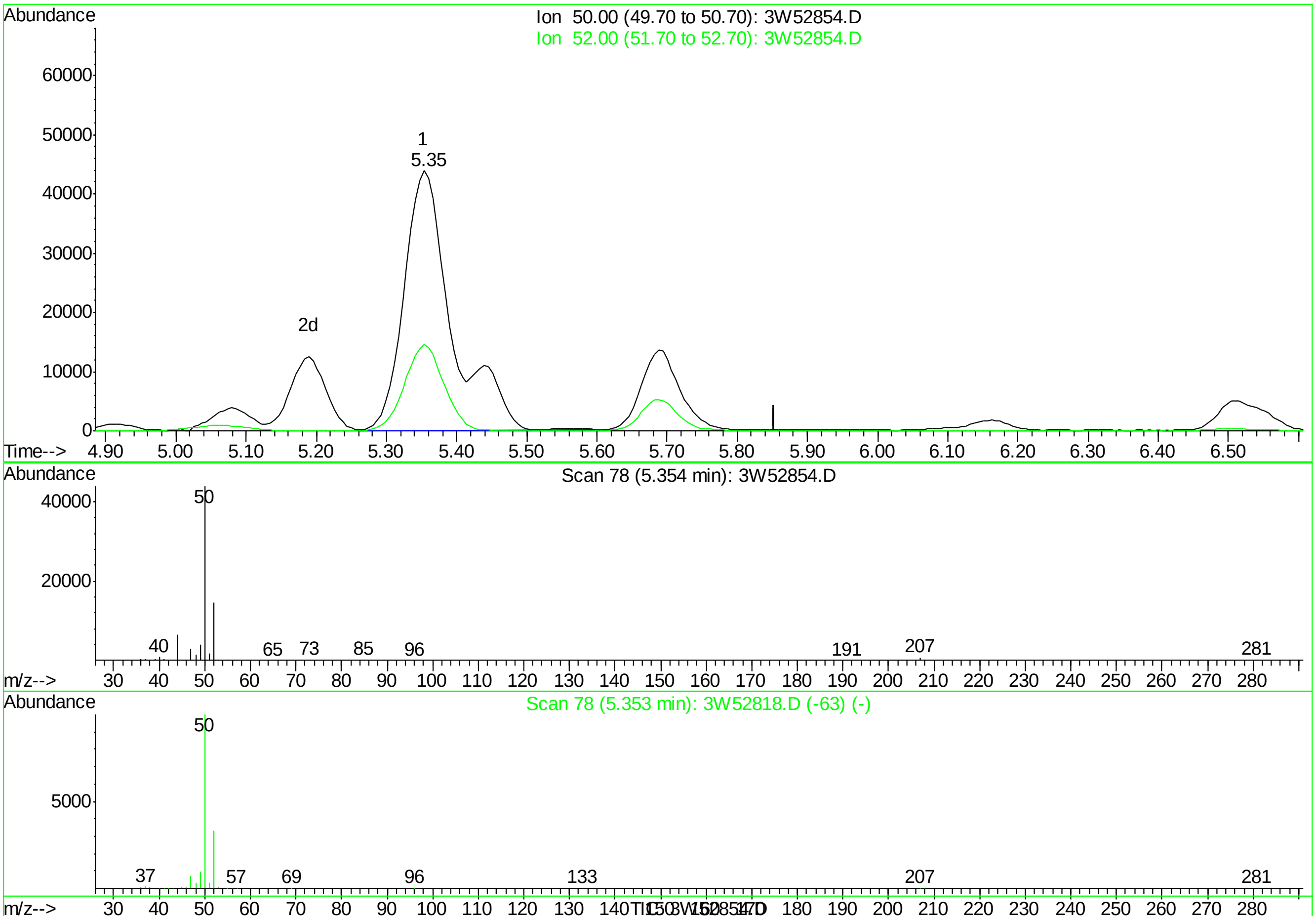
Sample Number:	V3W1996-BS	**Method:**	TO-15	
Lab FileID:	3W52854.D	**Analyst approved:**	04/01/16 10:52	Dana Tryon
Injection Time:	03/18/16 10:22	**Supervisor approved:**	04/01/16 11:01	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52854.D                    Vial: 3
Acq On    : 18 Mar 2016  10:22 am                      Operator: YOUMINH
Sample    : BS                                         Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:48 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 13.07PPBV

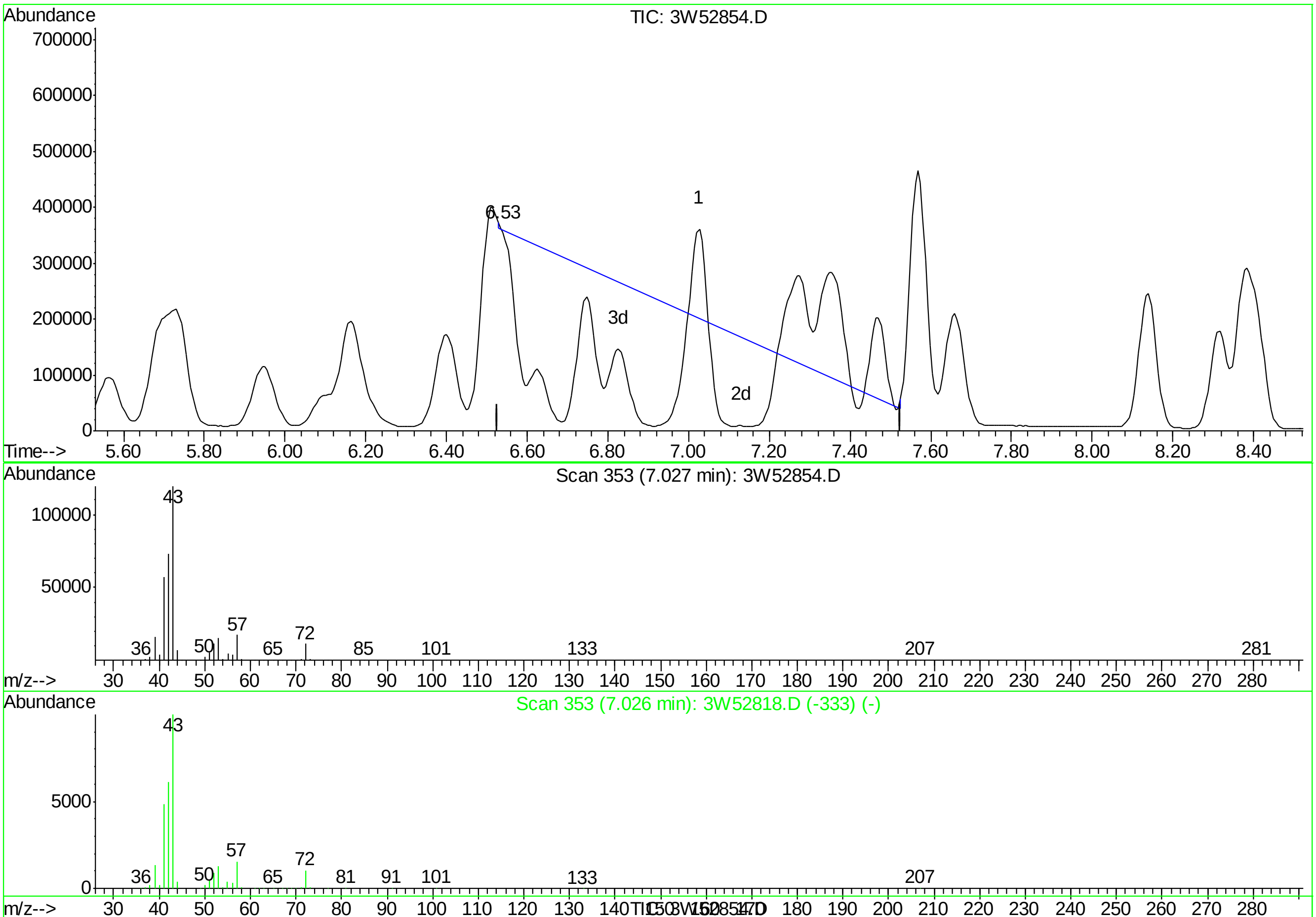
response 208475

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52854.D                    Vial: 3
Acq On    : 18 Mar 2016  10:22 am                      Operator: YOUMINH
Sample    : BS                                         Inst     : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:48 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 49.20PPBV m

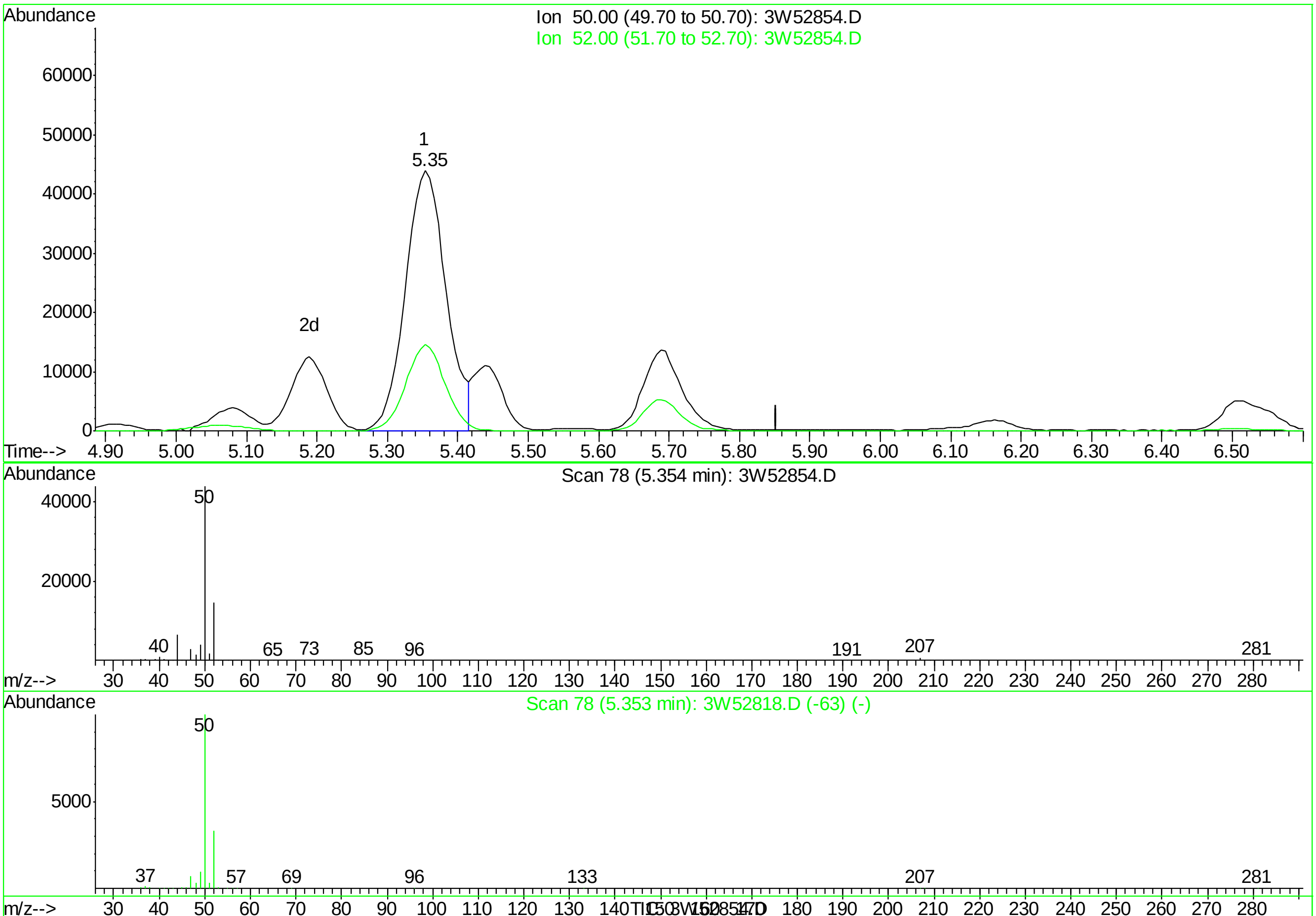
response 5414407

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	0.50#
0.00	2.20	0.43#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52854.D                 Vial: 3
Acq On    : 18 Mar 2016  10:22 am                   Operator: YOUMINH
Sample    : BS                                      Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:55 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 11.05PPBV m

response 176284

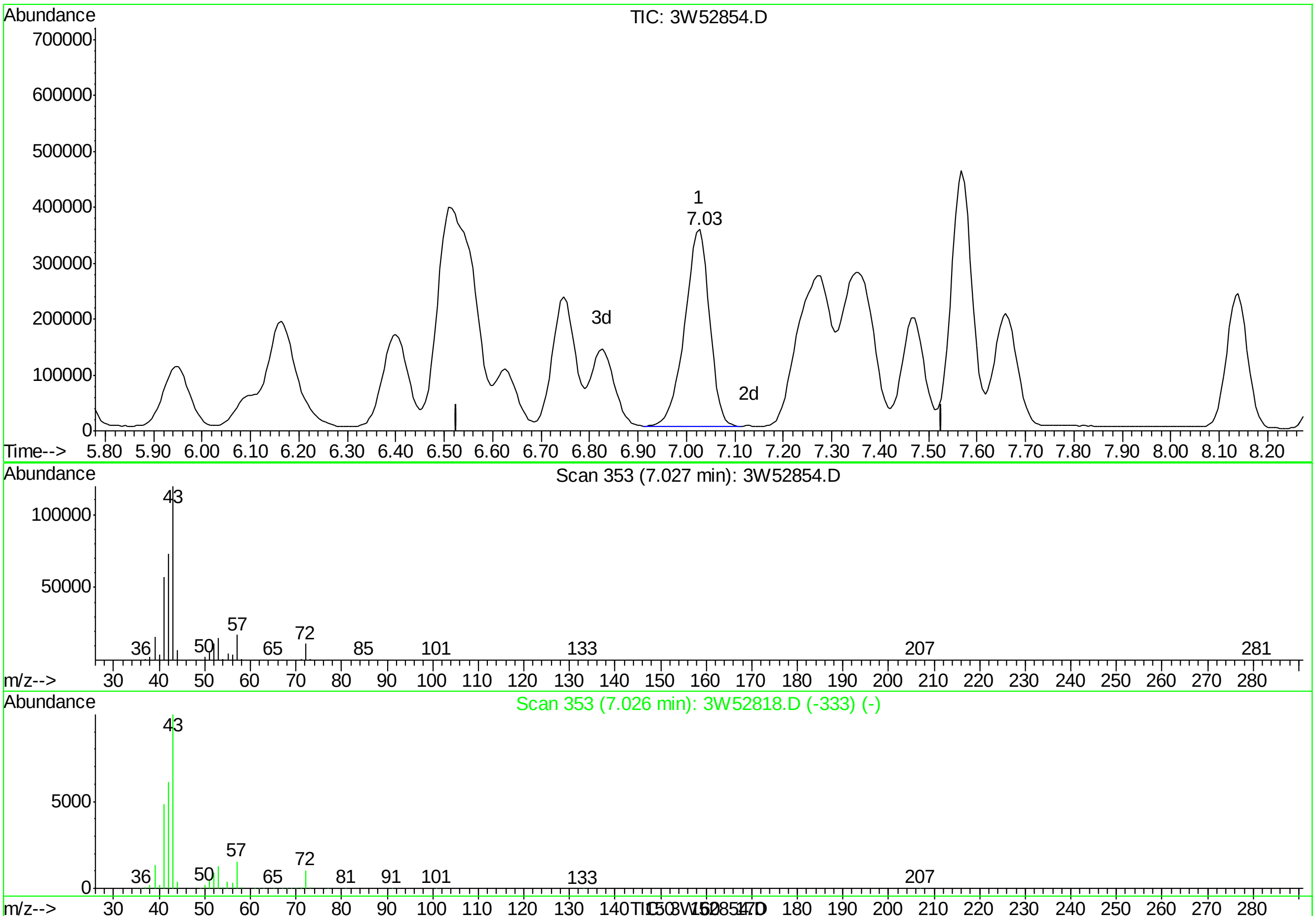
Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.07
0.00	0.00	0.00
0.00	0.00	0.00

3W52854.D M3W1994.M Mon Mar 21 13:04:21 2016 MS3W

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52854.D                    Vial: 3
Acq On    : 18 Mar 2016  10:22 am                      Operator: YOUMINH
Sample    : BS                                         Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:55 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 11.49PPBV m

response 1263936

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.15#
0.00	2.20	1.83#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17108.D
Acq On    : 18 Mar 2016  10:50 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:22:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.255	130	133712	10.00 ppb(v	-0.03
53) 1,4-Difluorobenzene	10.451	114	460992	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	249608	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.255	130	133712	10.00 ppb(v	-0.03
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.269	95	321455	9.76 ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.60%		
Target Compounds					Qvalue
3) Freon 152A	3.819	65	83130	11.29 ppb(v	96
4) Chlorodifluoromethane	3.862	67	30951	11.40 ppb(v	97
5) Propene	3.887	41	98395	11.79 ppb(v	97
6) Dichlorodifluoromethane	3.942	85	333278	11.02 ppb(v	99
8) Chloromethane	4.076	50	126656	11.98 ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	384321	11.30 ppb(v	99
10) Vinyl Chloride	4.260	62	138367	11.64 ppb(v	98
11) 1,3-Butadiene	4.364	54	99614	11.22 ppb(v	97
12) n-Butane	4.407	58	21031	10.76 ppb(v	81
13) Bromomethane	4.596	94	140486	10.26 ppb(v	100
14) Chloroethane	4.731	64	64582	11.02 ppb(v	98
15) Dichlorofluoromethane	4.804	67	317145	11.47 ppb(v	99
16) Acetonitrile	5.031	41	127982	13.38 ppb(v	97
17) Freon 123	5.153	83	344823	10.63 ppb(v	98
18) Freon 123A	5.202	117	172771	9.78 ppb(v	97
19) Bromoethene	5.031	106	140713	10.68 ppb(v	97
20) Trichlorofluoromethane	5.385	101	344300	11.12 ppb(v	98
21) Acetone	5.251	58	64969	10.20 ppb(v	96
22) Pentane	5.691	57	30391	9.57 ppb(v	86
24) Iodomethane	5.899	142	364030	9.79 ppb(v	96
25) Isopropyl Alcohol	5.471	43	45278	10.91 ppb(v	99
26) 1,1-Dichloroethene	5.967	61	195294	10.48 ppb(v	97
27) Freon 113	6.321	101	276528	10.10 ppb(v	96
28) Methylene Chloride	6.083	84	115419	9.14 ppb(v	98
29) Carbon Disulfide	6.364	76	380513	10.37 ppb(v	100
30) Ethanol	4.847	45	59196	12.11 ppb(v	99
31) Acrylonitrile	5.667	53	101797	11.18 ppb(v	96
32) 3-Chloropropene	6.193	76	54091	9.76 ppb(v	93
33) trans-1,2-Dichloroethene	6.982	61	174319	10.42 ppb(v	99
34) tert-Butyl Alcohol	6.016	59	247215	9.51 ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	301133	9.08 ppb(v	95
36) Vinyl Acetate	7.349	43	347641	11.98 ppb(v	97
37) 1,1-Dichloroethane	7.190	63	229113	10.39 ppb(v	98
38) 2-Butanone	7.612	72	56589	9.81 ppb(v	89
39) Hexane	8.273	57	180215	9.55 ppb(v	98
40) cis-1,2-Dichloroethene	8.077	61	165263	10.08 ppb(v	99
41) Di-isopropyl Ether	8.279	87	98748	9.85 ppb(v	80
42) Ethyl Acetate	8.328	61	44225	11.82 ppb(v	96
43) Methyl Acrylate	8.316	55	246479	10.46 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17108.D
Acq On : 18 Mar 2016 10:50 am
Operator : THOMASH
Sample : BSD
Misc : MS99296,v5w684,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:22:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) Chloroform	8.389	83	283202	10.30 ppb(v	98
45) 2,4-Dimethylpentane	9.252	57	219808	9.93 ppb(v	98
46) Tetrahydrofuran	8.854	72	56095	10.46 ppb(v	90
47) 1,1,1-Trichloroethane	9.484	97	268687	10.16 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	164319	10.99 ppb(v	99
49) Benzene	10.023	78	375925	9.37 ppb(v	98
50) Carbon Tetrachloride	10.194	117	280302	10.29 ppb(v	99
51) Cyclohexane	10.322	56	181632	9.78 ppb(v	95
52) 2,3-Dimethylpentane	10.610	71	79148	9.55 ppb(v	87
54) 2,2,4-Trimethylpentane	11.301	57	632054	11.43 ppb(v	97
55) Heptane	11.644	71	118252	10.48 ppb(v	97
56) Trichloroethene	11.283	95	182211	10.39 ppb(v	99
57) 1,2-Dichloropropane	10.989	63	151502	11.53 ppb(v	98
58) Dibromomethane	10.971	174	187880	10.91 ppb(v	87
59) Ethyl Acrylate	11.032	55	292730	11.41 ppb(v	99
60) Methyl Methacrylate	11.564	69	126699	10.07 ppb(v	91
61) 1,4-Dioxane	11.313	88	94729	10.76 ppb(v	87
62) Bromodichloromethane	11.240	83	299263	10.84 ppb(v	98
63) cis-1,3-Dichloropropene	12.372	75	218074	9.78 ppb(v	99
64) 4-Methyl-2-pentanone	12.421	58	121621	12.01 ppb(v	93
65) trans-1,3-Dichloropropene	13.051	75	197958	10.74 ppb(v	99
66) Toluene	13.614	91	443649	9.90 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	167551	10.47 ppb(v	97
68) 1,3-Dichloropropane	13.657	76	223085	11.00 ppb(v	96
69) 2-Hexanone	13.993	58	163924	11.77 ppb(v	94
70) Ethyl Methacrylate	14.030	69	238706	11.20 ppb(v	97
71) Dibromochloromethane	14.177	129	330398	11.18 ppb(v	98
72) Tetrachloroethene	15.131	166	244705	10.45 ppb(v	98
73) 1,2-Dibromoethane	14.495	107	272780	10.39 ppb(v	99
74) Octane	14.966	43	309815	12.47 ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.061	131	221148	10.89 ppb(v	98
77) Chlorobenzene	16.079	112	364669	8.88 ppb(v	99
78) Ethylbenzene	16.624	91	552929	8.64 ppb(v	99
79) m,p-Xylene	16.899	91	871821	17.72 ppb(v	100
80) Styrene	17.425	104	309320	8.44 ppb(v	99
81) Nonane	17.951	43	309564	10.94 ppb(v	95
82) o-Xylene	17.572	91	449207	8.97 ppb(v	98
83) Bromoform	16.978	173	337338	9.88 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.578	83	391856	9.76 ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	270565	9.56 ppb(v	99
86) Isopropylbenzene	18.483	105	617780	8.78 ppb(v	99
87) Bromobenzene	18.594	156	217203	8.71 ppb(v	94
88) 2-Chlorotoluene	19.199	126	148818	8.34 ppb(v	98
89) n-Propylbenzene	19.273	120	161414	8.77 ppb(v	99
91) 4-Ethyltoluene	19.493	105	565205	8.60 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.615	105	473255	8.36 ppb(v	99
93) alpha-Methylstyrene	19.848	118	244005	8.58 ppb(v	99
94) tert-Butylbenzene	20.184	134	102673	8.58 ppb(v	98
95) 1,2,4-Trimethylbenzene	20.196	105	488167	8.60 ppb(v	99
96) 1,3-Dichlorobenzene	20.386	146	337143	8.48 ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17108.D
Acq On : 18 Mar 2016 10:50 am
Operator : THOMASH
Sample : BSD
Misc : MS99296,v5w684,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:22:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

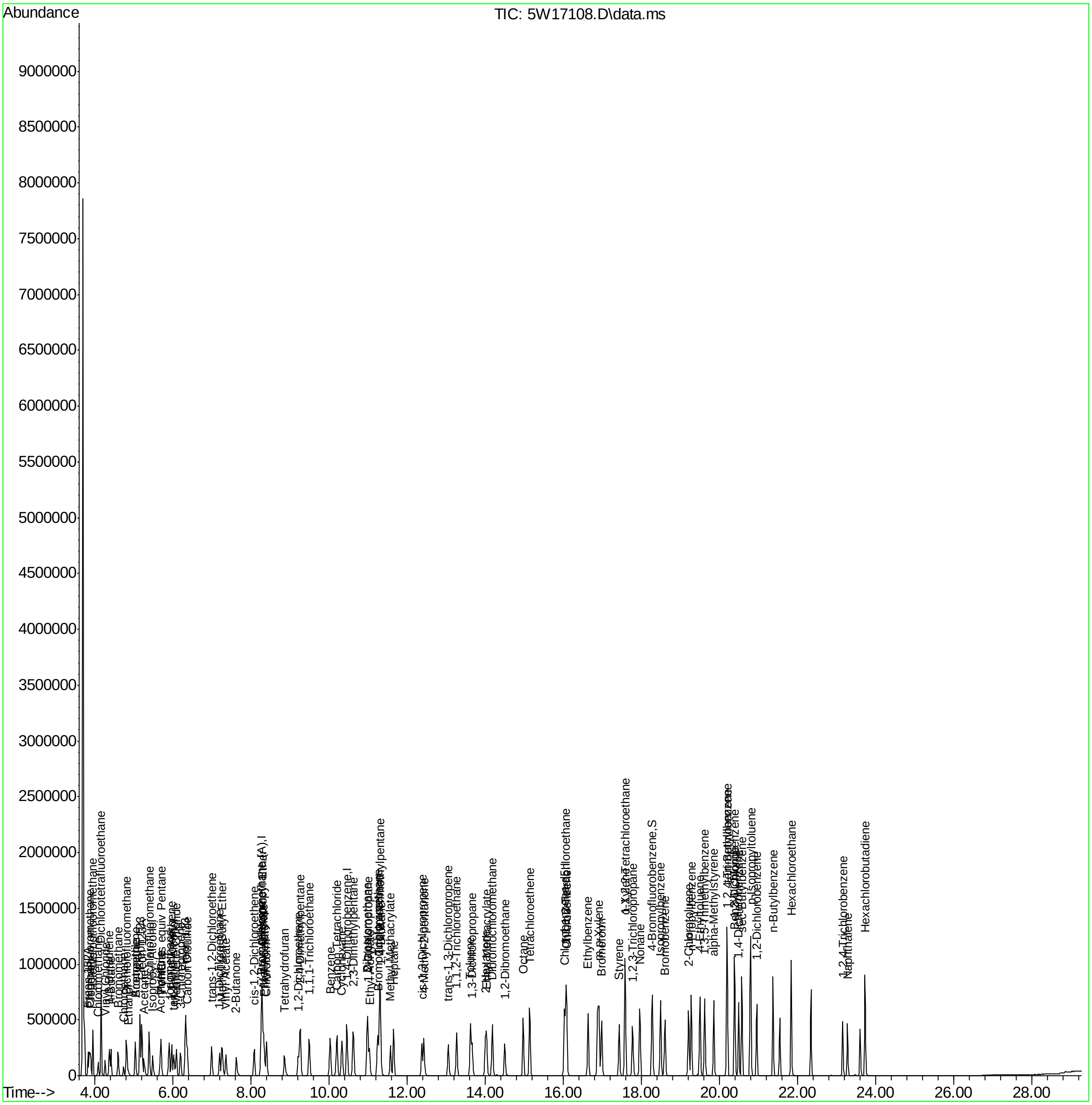
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) Benzyl Chloride	20.374	91	413578	8.36 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	325726	7.93 ppb(v	97
99) sec-Butylbenzene	20.563	134	126672	8.42 ppb(v	96
100) p-Isopropyltoluene	20.796	134	145574	8.75 ppb(v	98
101) 1,2-Dichlorobenzene	20.949	146	317457	8.39 ppb(v	97
102) n-Butylbenzene	21.365	134	124663	8.45 ppb(v	96
103) Hexachloroethane	21.830	201	210521	9.39 ppb(v	86
104) 1,2,4-Trichlorobenzene	23.151	180	164748	7.07 ppb(v	98
105) Naphthalene	23.274	128	372152	7.24 ppb(v	99
106) Hexachlorobutadiene	23.726	225	193196	8.60 ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	821217	12.30 ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17108.D
Acq On    : 18 Mar 2016  10:50 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:22:46 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54286.D                      Vial: 4
Acq On    : 18 Mar 2016  10:56 am                       Operator: YOUMINH
Sample    : bs                                          Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:50:46 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	112469	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	587178	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	275066	10.00 PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.76	95	330918	10.97 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 109.70%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.01	65	82353	11.48 PPBV	100
4) CHLORODIFLUOROMETHANE	5.04	67	33397	11.18 PPBV	100
5) DICHLORODIFLUOROMETHANE	5.15	85	330822	9.90 PPBV	100
6) PROPYLENE	5.08	41	101212	9.89 PPBV	99
7) FREON 114	5.39	85	363849	10.38 PPBV	99
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.28	65	241231	10.27 PPBV	99
9) CHLOROMETHANE	5.30	52	35512	11.54 PPBV	97
10) VINYL CHLORIDE	5.51	62	133113	11.18 PPBV	100
11) 1,3-BUTADIENE	5.63	54	104280	11.06 PPBV	99
12) n-BUTANE	5.68	58	30081	11.13 PPBV	98
13) BROMOMETHANE	5.88	94	124076	10.72 PPBV	99
14) CHLOROETHANE	6.02	64	74432	11.17 PPBV	100
15) DICHLOROFLUOROMETHANE	6.08	67	297061	10.50 PPBV	99
16) ACROLEIN	6.41	56	58411	9.80 PPBV	96
17) TRICHLOROFLUOROMETHANE	6.66	101	311432	9.80 PPBV	100
18) ISOPROPYL ALCOHOL	6.70	45	242126	7.81 PPBV	99
19) ACETONE	6.52	58	69270	11.15 PPBV	100
21) ACRYLONITRILE	6.90	53	112607	11.67 PPBV	100
22) PENTANE	6.95	57	41849	9.49 PPBV	96
23) IODOMETHANE	7.16	142	353372	10.04 PPBV	100
24) 1,1-DICHLOROETHYLENE	7.21	96	137117	9.35 PPBV	97
25) CARBON DISULFIDE	7.60	76	341370	10.34 PPBV	100
26) ETHANOL	6.10	45	53112	9.46 PPBV	98
27) ACETONITRILE	6.30	41	111233	11.32 PPBV	99
28) BROMOETHENE	6.32	106	129885	10.20 PPBV	99
29) METHYLENE CHLORIDE	7.30	84	108162	9.71 PPBV	100
30) 3-CHLOROPROPENE	7.40	76	58951	10.68 PPBV	98
31) FREON 113	7.50	151	241580	10.55 PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	122800	9.22 PPBV	99
33) TERTIARY BUTYL ALCOHOL	7.21	59	299424	11.18 PPBV	98
34) METHYL TERTIARY BUTYL ETHE	8.32	73	360708	10.14 PPBV	100
35) TETRAHYDROFURAN	9.65	72	58879	11.29 PPBV	100
36) HEXANE	9.16	57	203903	10.43 PPBV	98
37) VINYL ACETATE	8.36	86	35334	11.86 PPBV	98
38) 1,1-DICHLOROETHANE	8.28	63	216193	10.65 PPBV	100
39) METHYL ETHYL KETONE	8.61	72	58037	10.96 PPBV	95
40) cis-1,2-DICHLOROETHYLENE	9.00	96	127764	9.35 PPBV	99
41) DI-ISOPROPYL ETHER	9.14	87	123821	11.66 PPBV	99
42) ETHYL ACETATE	9.16	61	42742	11.77 PPBV #	96
43) METHYL ACRYLATE	9.17	55	230915	10.80 PPBV	100
44) CHLOROFORM	9.26	83	256670	10.55 PPBV	99

(#) = qualifier out of range (m) = manual integration

7.3.14
7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54286.D Vial: 4
Acq On : 18 Mar 2016 10:56 am Operator: YOUMINH
Sample : bs Inst : MSW
Misc : MS99296,VW2168,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:50:46 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45) 2,4-DIMETHYLPENTANE	9.96	57	231853	10.51 PPBV		100
46) 1,1,1-TRICHLOROETHANE	10.17	97	274533	10.42 PPBV		100
47) CARBON TETRACHLORIDE	10.73	117	289325	10.43 PPBV		100
48) 1,2-DICHLOROETHANE	9.93	62	155416	11.04 PPBV		99
50) BENZENE	10.59	78	392007	10.40 PPBV		100
51) CYCLOHEXANE	10.85	84	176076	9.82 PPBV		99
52) 2,3-DIMETHYLPENTANE	11.03	71	89434	10.69 PPBV		98
53) TRICHLOROETHYLENE	11.56	95	173739	9.99 PPBV		100
54) DIBROMOMETHANE	11.33	174	172987	10.38 PPBV		99
55) 1,2-DICHLOROPROPANE	11.35	63	138764	9.99 PPBV		100
56) ETHYL ACRYLATE	11.29	55	265948	10.81 PPBV		99
57) BROMODICHLOROMETHANE	11.53	83	282065	10.06 PPBV		100
58) 2,2,4-TRIMETHYLPENTANE	11.57	57	655612	10.20 PPBV		100
59) 1,4-DIOXANE	11.57	88	85767	10.65 PPBV		97
60) METHYL METHACRYLATE	11.71	69	140827	10.78 PPBV		98
61) HEPTANE	11.80	43	222333	10.20 PPBV		98
62) METHYL ISOBUTYL KETONE	12.39	43	269566	10.89 PPBV		99
63) cis-1,3-DICHLOROPROPENE	12.37	75	208578	10.12 PPBV		97
64) TOLUENE	13.34	92	294522	10.89 PPBV		100
65) 1,3-DICHLOROPROPANE	13.36	76	216990	11.15 PPBV		99
66) trans-1,3-DICHLOROPROPENE	12.87	75	168229	11.53 PPBV		99
67) 1,1,2-TRICHLOROETHANE	13.06	83	126488	11.01 PPBV		99
69) ETHYL METHACRYLATE	13.56	69	241779	11.01 PPBV		99
70) 2-HEXANONE	13.57	58	144333	10.65 PPBV		100
71) TETRACHLOROETHYLENE	14.48	164	209224	10.03 PPBV		99
72) DIBROMOCHLOROMETHANE	13.78	129	298889	10.48 PPBV		100
73) 1,2-DIBROMOETHANE	14.03	107	211065	10.70 PPBV		100
74) OCTANE	14.27	43	316733	10.35 PPBV		99
75) 1,1,1,2-TETRACHLOROETHANE	15.17	131	237506	10.71 PPBV	#	83
76) CHLOROBENZENE	15.19	112	387977	10.44 PPBV		100
77) ETHYLBENZENE	15.56	91	613412	10.35 PPBV		100
78) m,p-XYLENE	15.76	106	525541	21.74 PPBV		98
79) o-XYLENE	16.27	106	253063	11.03 PPBV		99
80) STYRENE	16.15	104	380491	11.56 PPBV		99
81) 1,2,3-TRICHLOROPROPANE	16.41	75	242901	10.03 PPBV		99
82) NONANE	16.45	43	340872	11.25 PPBV		100
83) BROMOFORM	15.88	173	289427	11.15 PPBV		100
85) 1,1,2,2-TETRACHLOROETHANE	16.27	83	339856	10.85 PPBV		100
86) ISOPROPYLBENZENE	16.89	105	765570	10.65 PPBV		100
87) BROMOBENZENE	17.02	156	211824	11.17 PPBV		99
88) 2-CHLOROTOLUENE	17.42	126	172853	10.93 PPBV		99
89) n-PROPYLBENZENE	17.44	120	200473	11.17 PPBV		99
90) 4-ETHYLTOLUENE	17.60	105	645071	11.05 PPBV		100
91) 1,3,5-TRIMETHYLBENZENE	17.68	105	619151	10.72 PPBV		100
92) ALPHA-METHYLSTYRENE	17.86	118	282979	11.80 PPBV		100
93) TERT-BUTYLBENZENE	18.13	134	158895	11.46 PPBV		99
94) 1,2,4-TRIMETHYLBENZENE	18.14	105	576382	10.84 PPBV		100
95) m-DICHLOROBENZENE	18.32	146	300945	11.15 PPBV		100
96) BENZYL CHLORIDE	18.30	91	332311	11.32 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54286.D                Vial: 4
Acq On    : 18 Mar 2016  10:56 am                 Operator: YOUMINH
Sample    : bs                                    Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:50:46 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

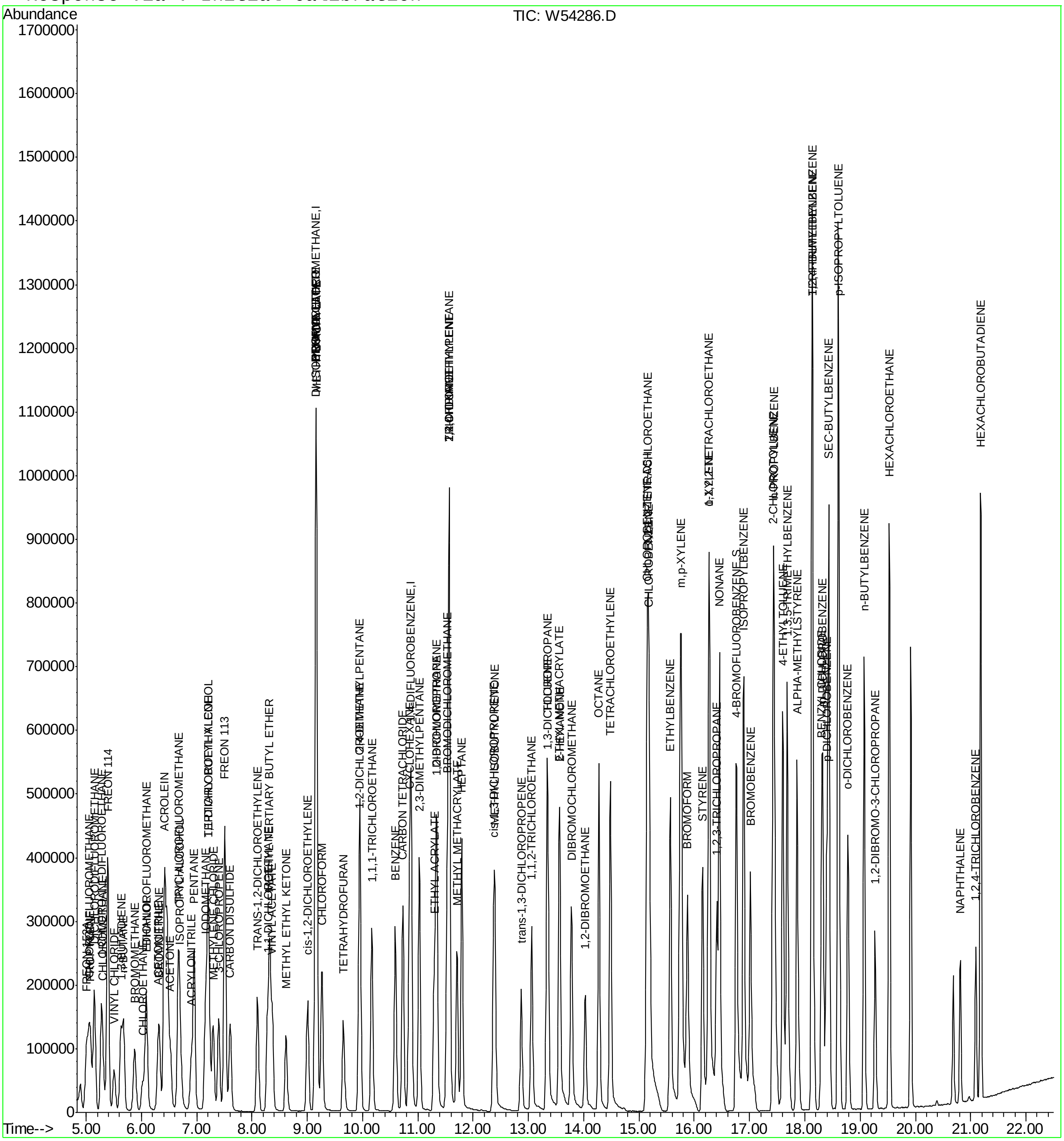
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.40	146	284412	11.31	PPBV	99
98)	SEC-BUTYLBENZENE	18.43	134	186901	11.29	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.61	134	199547	11.30	PPBV	100
100)	o-DICHLOROBENZENE	18.78	146	296152	10.69	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	157998	11.68	PPBV	98
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	125397	9.81	PPBV	99
103)	HEXACHLOROETHANE	19.53	201	244439	10.99	PPBV	98
104)	HEXACHLOROBUTADIENE	21.18	225	243776	9.99	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	101731	10.00	PPBV	99
106)	NAPHTHALENE	20.81	128	234334	9.35	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54286.D                    Vial: 4
Acq On    : 18 Mar 2016  10:56 am                      Operator: YOUMINH
Sample    : bs                                         Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:16 2016                 Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



W54286.D MW2167.M Fri Mar 18 12:16:06 2016 MSW Page 4

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 11:01

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52855.D   Vial: 3
Acq On    : 18 Mar 2016  11:04 am                      Operator: YOUMINH
Sample    : BSD                                        Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:54 2016             Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	83188	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	426252	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	242555	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	245294	10.23 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 102.30%

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
4) FREON 152A	5.03	65	105433	11.35 PPBV		97
5) CHLORODIFLUOROMETHANE	5.08	67	37689	10.69 PPBV		96
6) DICHLORODIFLUOROMETHANE	5.19	85	379755	11.10 PPBV		100
7) PROPYLENE	5.11	41	152831	11.87 PPBV		99
9) FREON 114	5.44	85	436761	10.75 PPBV		98
10) CHLOROMETHANE	5.35	50	182791m	11.11 PPBV		
11) VINYL CHLORIDE	5.56	62	209706	11.62 PPBV		100
12) 1,3-BUTADIENE	5.69	54	158054	11.18 PPBV		97
13) n-BUTANE	5.73	43	343728	11.60 PPBV		97
14) BROMOMETHANE	5.94	94	159087	10.30 PPBV		100
15) CHLOROETHANE	6.09	64	98547	11.12 PPBV		99
16) DICHLOROFLUOROMETHANE	6.16	67	369035	10.64 PPBV		100
17) ACETONITRILE	6.39	41	132271	10.80 PPBV		99
18) FREON 123	6.50	83	371016	10.09 PPBV		98
19) FREON 123A	6.55	117	174720	9.39 PPBV		92
20) TRICHLOROFLUOROMETHANE	6.75	101	353841	10.52 PPBV		99
22) ISOPROPYL ALCOHOL	6.82	45	317583	10.78 PPBV		99
23) ACETONE	6.62	58	74266	10.37 PPBV		95
24) PENTANE	7.03	42	230578	12.24 PPBV		99
25) TVHC as EQUIV PENTANE	7.02	TIC	1291069m	11.37 PPBV		
26) IODOMETHANE	7.23	142	362010	10.15 PPBV		98
27) 1,1-DICHLOROETHYLENE	7.28	96	163879	9.89 PPBV		95
28) CARBON DISULFIDE	7.65	76	542776	10.76 PPBV		98
29) ETHANOL	6.20	45	73097	10.28 PPBV		97
30) BROMOETHENE	6.40	106	150911	10.23 PPBV		100
31) ACRYLONITRILE	6.99	52	97731	10.79 PPBV		98
32) METHYLENE CHLORIDE	7.37	84	147821	9.81 PPBV		94
33) 3-CHLOROPROPENE	7.46	76	83596	10.80 PPBV	#	88
34) FREON 113	7.56	151	221735	9.93 PPBV		96
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	159939	9.99 PPBV		93
36) TERTIARY BUTYL ALCOHOL	7.33	59	383535	10.28 PPBV		98
37) METHYL TERTIARY BUTYL ETHE	8.37	73	355259	9.00 PPBV		97
38) TETRAHYDROFURAN	9.64	72	66681	10.75 PPBV	#	1
39) HEXANE	9.14	57	263235	10.60 PPBV		97
40) VINYL ACETATE	8.41	86	30285	9.80 PPBV	#	74
41) 1,1-DICHLOROETHANE	8.31	63	288333	9.56 PPBV		99
42) METHYL ETHYL KETONE	8.66	72	65762	10.37 PPBV	#	82
43) cis-1,2-DICHLOROETHYLENE	9.00	96	146714	10.14 PPBV		96
44) DIISOPROPYL ETHER	9.16	59	69537	10.89 PPBV	#	93
45) ETHYL ACETATE	9.18	61	49113	11.22 PPBV	#	92
46) METHYL ACRYLATE	9.17	55	260226	10.15 PPBV		100

(#) = qualifier out of range (m) = manual integration

7.3.15
7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52855.D Vial: 3
Acq On : 18 Mar 2016 11:04 am Operator: YOUMINH
Sample : BSD Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:54 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.25	83	292134	10.59 PPBV		99
48)	2,4-DIMETHYLPENTANE	9.89	57	309738	11.17 PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.10	97	272356	10.50 PPBV		99
50)	CARBON TETRACHLORIDE	10.62	117	284011	10.50 PPBV		100
51)	1,2-DICHLOROETHANE	9.89	62	182603	10.98 PPBV		100
53)	BENZENE	10.49	78	470301	10.19 PPBV		99
54)	CYCLOHEXANE	10.73	84	209985	9.70 PPBV		96
55)	2,3-DIMETHYLPENTANE	10.90	71	110541	10.37 PPBV		95
56)	TRICHLOROETHYLENE	11.40	95	199094	9.73 PPBV		99
57)	1,2-DICHLOROPROPANE	11.21	63	192554	10.75 PPBV		99
58)	DIBROMOMETHANE	11.19	174	163030	9.52 PPBV		97
59)	ETHYL ACRYLATE	11.18	55	337070	9.99 PPBV		99
60)	BROMODICHLOROMETHANE	11.38	83	317567	9.86 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	855893	10.48 PPBV		99
62)	1,4-DIOXANE	11.44	88	98027	10.19 PPBV	#	74
63)	HEPTANE	11.62	43	316871	10.29 PPBV		97
64)	METHYL METHACRYLATE	11.56	69	151565	9.57 PPBV		96
65)	METHYL ISOBUTYL KETONE	12.21	58	141553	10.60 PPBV		95
66)	cis-1,3-DICHLOROPROPENE	12.16	75	281164	9.85 PPBV		98
67)	TOLUENE	13.07	92	308213	10.54 PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	258656	10.15 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	250857	10.62 PPBV		98
70)	1,1,2-TRICHLOROETHANE	12.81	83	164350	10.49 PPBV		99
72)	2-HEXANONE	13.31	58	194885	10.14 PPBV		95
73)	ETHYL METHACRYLATE	13.29	69	266997	9.70 PPBV		96
74)	TETRACHLOROETHYLENE	14.14	164	188325	9.11 PPBV		99
75)	DIBROMOCHLOROMETHANE	13.48	129	311592	9.68 PPBV		100
76)	1,2-DIBROMOETHANE	13.72	107	276378	9.80 PPBV		100
77)	OCTANE	13.96	43	446544	10.08 PPBV		96
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	235632	9.98 PPBV		99
79)	CHLOROBENZENE	14.81	112	422842	9.64 PPBV		99
80)	ETHYLBENZENE	15.17	91	591408	9.32 PPBV		100
81)	m,p-XYLENE	15.35	106	453764	18.85 PPBV		100
82)	o-XYLENE	15.84	106	220653	9.43 PPBV		100
83)	STYRENE	15.72	104	335263	9.39 PPBV		99
84)	NONANE	16.02	43	474120	10.60 PPBV		98
85)	BROMOFORM	15.45	173	294467	9.61 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.83	83	382039	9.19 PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	269970	9.24 PPBV		98
89)	ISOPROPYLBENZENE	16.44	105	652590	9.22 PPBV		99
90)	BROMOBENZENE	16.55	77	348979	9.36 PPBV		96
91)	2-CHLOROTOLUENE	16.95	126	161811	9.43 PPBV		100
92)	n-PROPYLBENZENE	16.99	120	170882	9.30 PPBV		100
93)	4-ETHYLTOLUENE	17.14	105	566534	9.13 PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	492727	8.97 PPBV		99
95)	ALPHA-METHYLSTYRENE	17.39	118	245219	9.62 PPBV		100
96)	tert-BUTYLBENZENE	17.66	134	120900	9.01 PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	476345	8.90 PPBV		100
98)	m-DICHLOROBENZENE	17.84	146	308084	8.88 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52855.D Vial: 3
Acq On : 18 Mar 2016 11:04 am Operator: YOUMINH
Sample : BSD Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:54 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

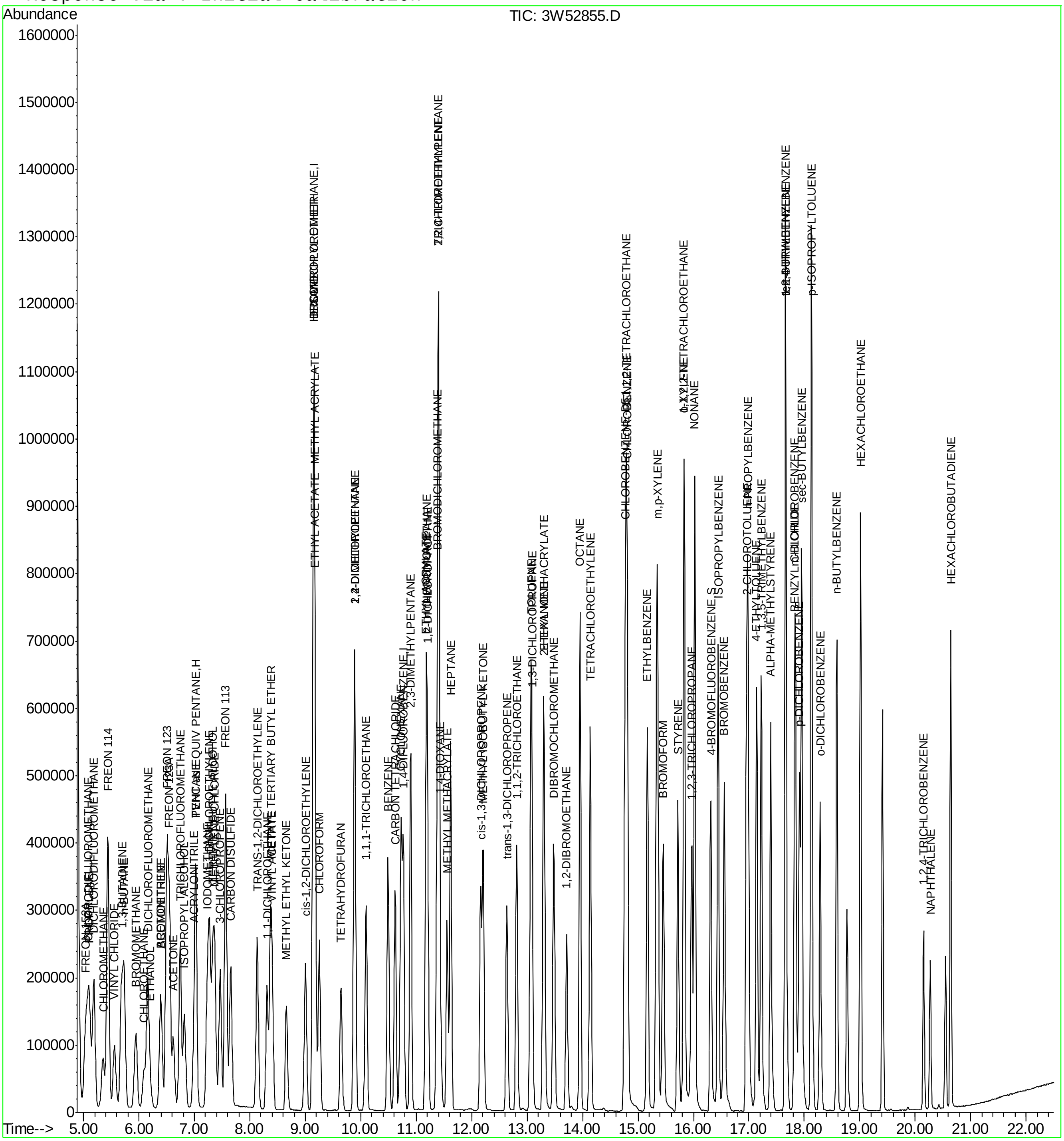
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.82	91	400829	9.39	PPBV	99
100)	p-DICHLOROBENZENE	17.91	146	301978	8.61	PPBV	99
101)	sec-BUTYLBENZENE	17.95	134	143338	8.95	PPBV	96
102)	p-ISOPROPYLTOLUENE	18.12	134	155836	9.12	PPBV	97
103)	o-DICHLOROBENZENE	18.29	146	272365	8.65	PPBV	99
104)	n-BUTYLBENZENE	18.59	134	127745	9.12	PPBV	93
105)	HEXACHLOROETHANE	19.01	117	249824	9.51	PPBV	98
106)	HEXACHLOROBUTADIENE	20.64	225	151992	7.86	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	101954	8.14	PPBV	99
108)	NAPHTHALENE	20.27	128	206479	7.96	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52855.D   Vial: 3
Acq On    : 18 Mar 2016  11:04 am                     Operator: YOUMINH
Sample    : BSD                                       Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:54 2016              Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

Sample Number: V3W1996-BSD
Lab FileID: 3W52855.D
Injection Time: 03/18/16 11:04

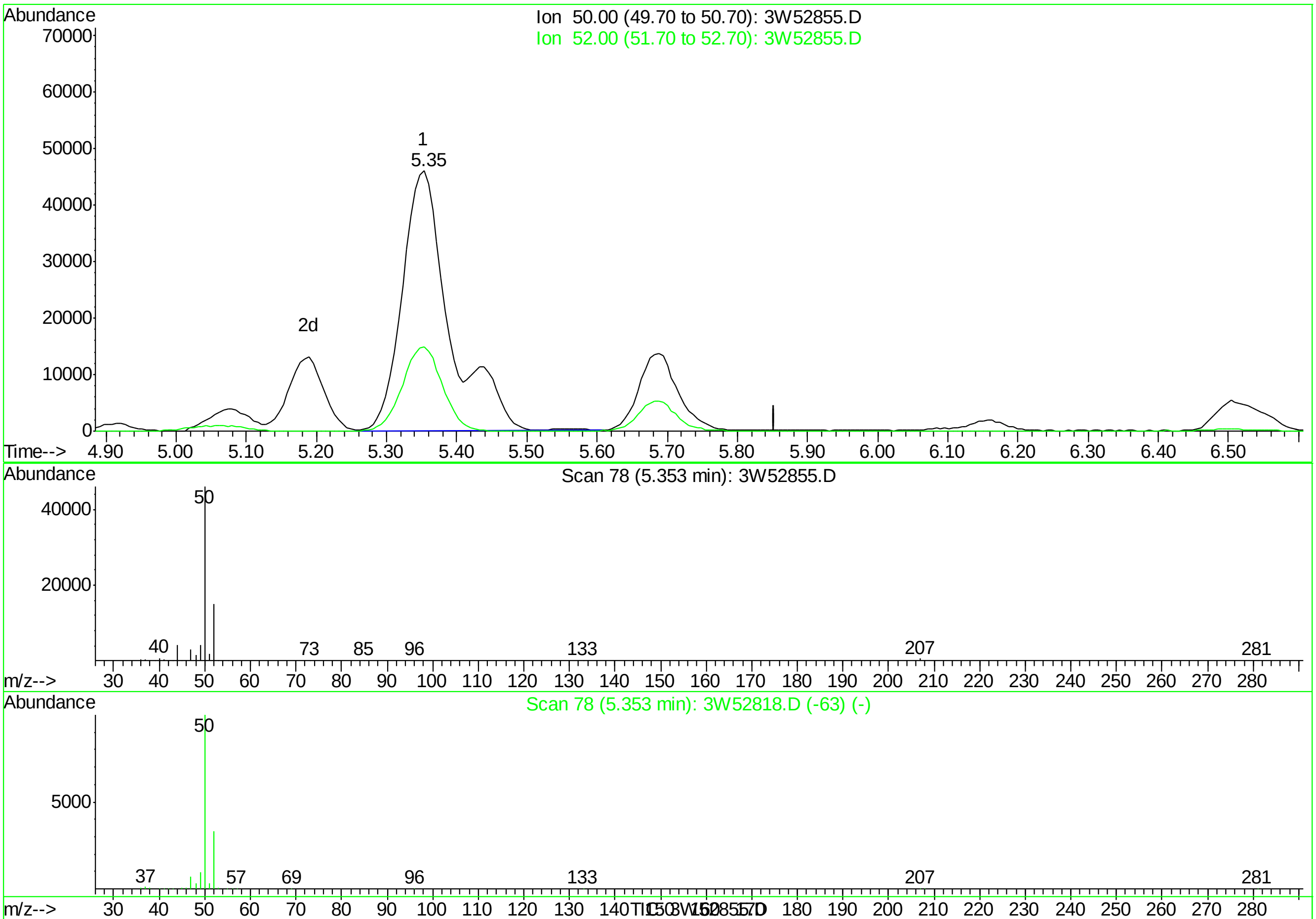
Method: TO-15
Analyst approved: 04/01/16 10:52 Dana Tryon
Supervisor approved: 04/01/16 11:01 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52855.D                Vial: 3
Acq On    : 18 Mar 2016  11:04 am                  Operator: YOUMINH
Sample    : BSD                                    Inst     : MS3W
Misc      : MS99296,V3W1996,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:48 2016            Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 13.21PPBV

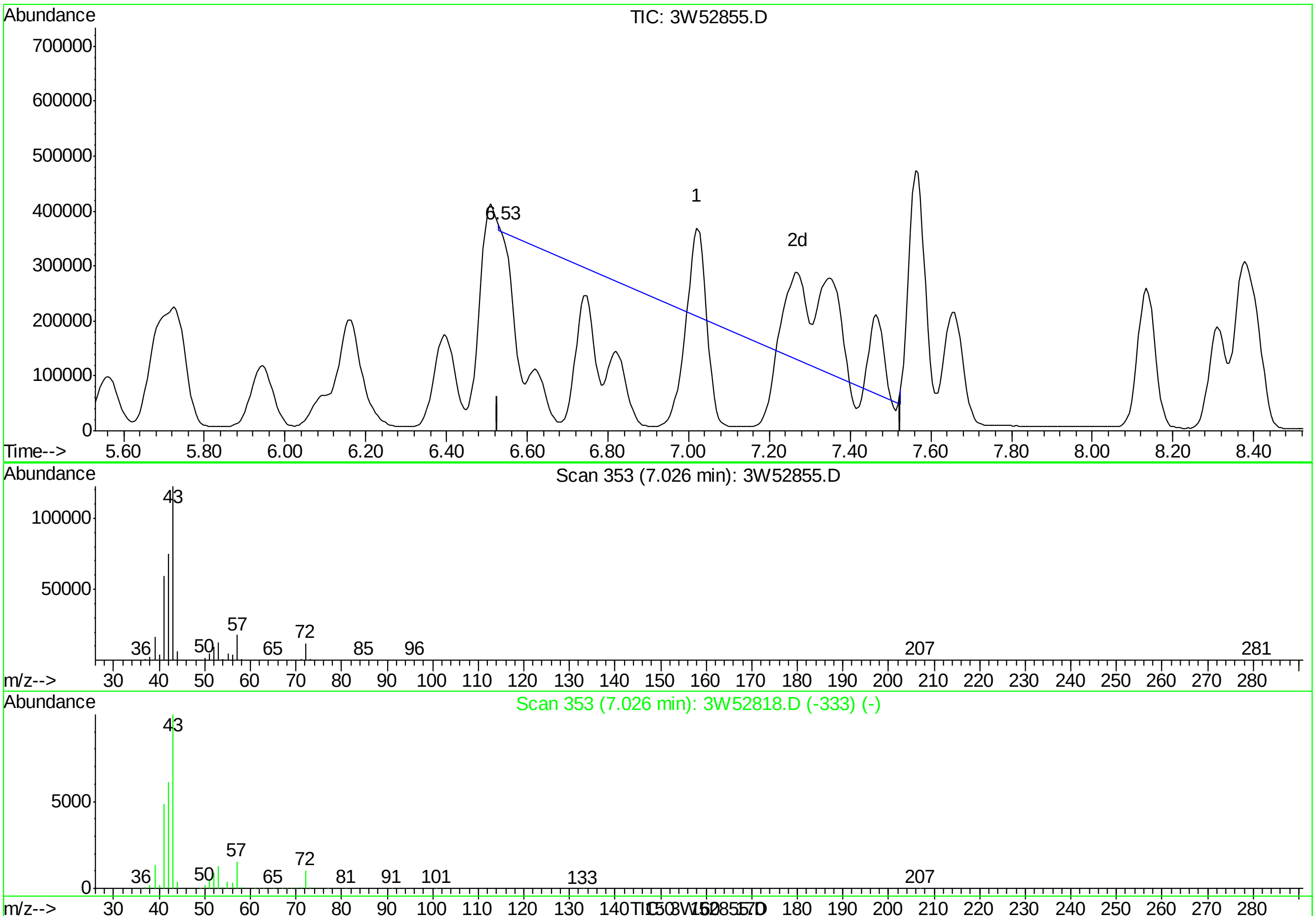
response 217513

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.48
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52855.D                    Vial: 3
Acq On    : 18 Mar 2016  11:04 am                      Operator: YOUMINH
Sample    : BSD                                        Inst     : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:49 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 45.25PPBV m

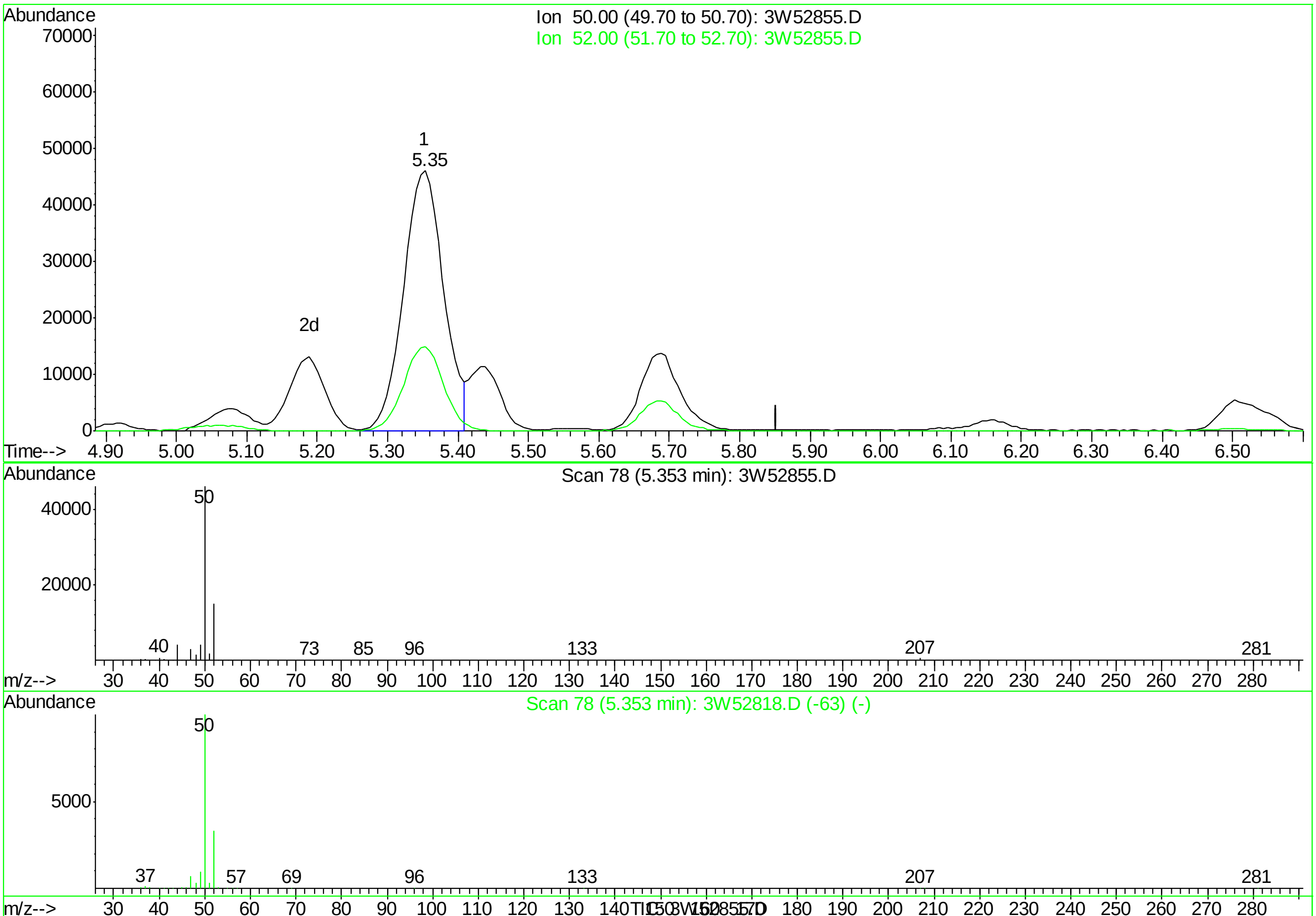
response 5138247

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	0.51#
0.00	2.20	0.44#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3W52855.D Vial: 3
Acq On : 18 Mar 2016 11:04 am Operator: YOUMINH
Sample : BSD Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21 9:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration



(10) CHLOROMETHANE

5.35min 11.11PPBV m

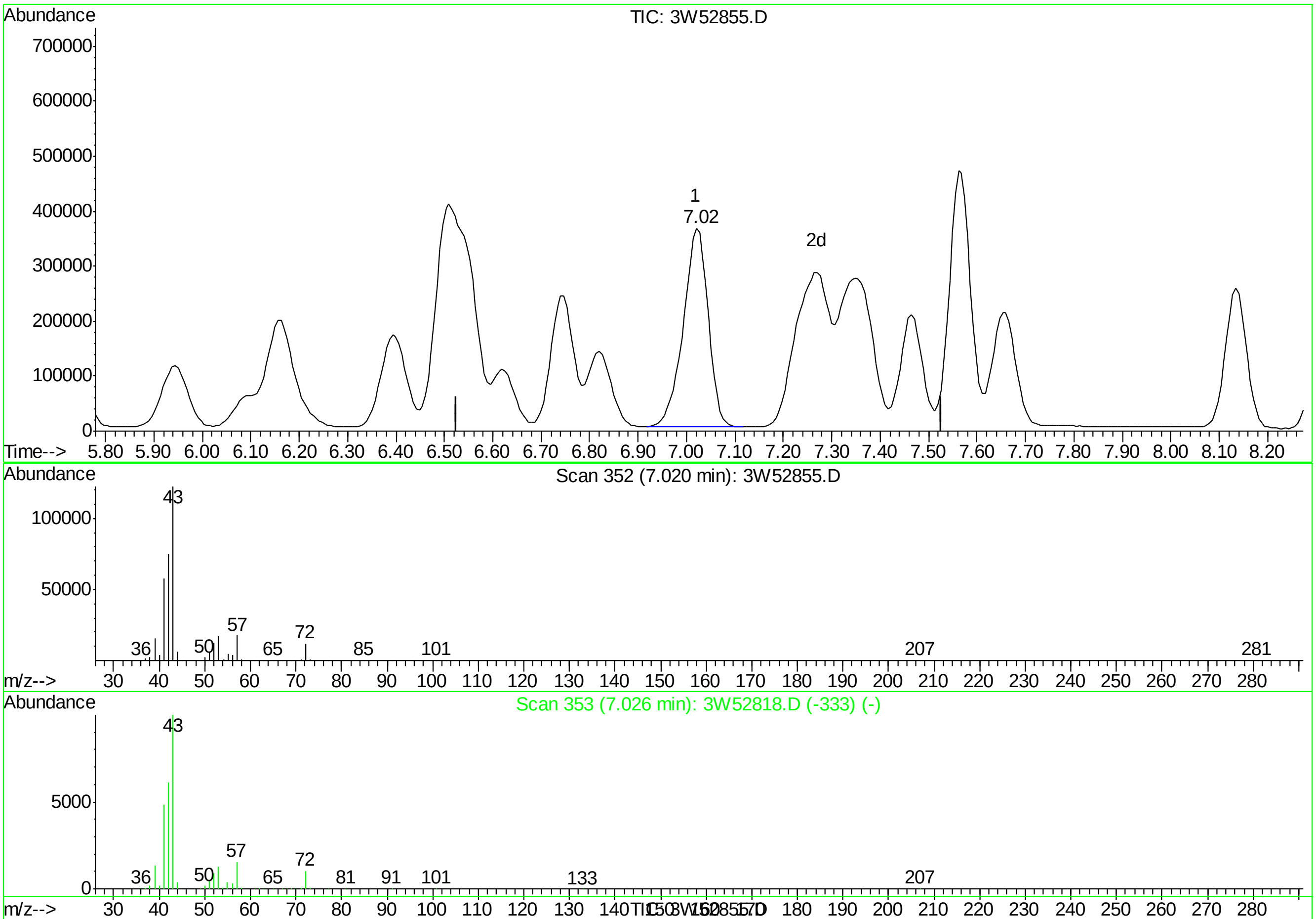
response 182791

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52855.D                  Vial: 3
Acq On    : 18 Mar 2016  11:04 am                     Operator: YOUMINH
Sample    : BSD                                       Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:56 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.02min 11.36PPBV m

response 1290301

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.03#
0.00	2.20	1.75#
0.00	0.00	0.00

```
3W52855.D  M3W1994.M       Mon Mar 21 14:50:53 2016       MS3W
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54287.D                    Vial: 4
Acq On    : 18 Mar 2016  11:37 am                     Operator: YOUMINH
Sample    : bsd                                       Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:11:53 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	112708	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	583498	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	266561	10.00 PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.77	95	316403	10.82 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 108.20%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.01	65	82859	11.53 PPBV	98
4) CHLORODIFLUOROMETHANE	5.04	67	33443	11.17 PPBV	99
5) DICHLORODIFLUOROMETHANE	5.15	85	344997	10.31 PPBV	100
6) PROPYLENE	5.07	41	107141	10.44 PPBV	98
7) FREON 114	5.39	85	360709	10.26 PPBV	100
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.28	65	238810	10.14 PPBV	99
9) CHLOROMETHANE	5.30	52	36053	11.69 PPBV	98
10) VINYL CHLORIDE	5.51	62	134318	11.25 PPBV	100
11) 1,3-BUTADIENE	5.63	54	103699	10.97 PPBV	99
12) n-BUTANE	5.68	58	30552	11.28 PPBV	96
13) BROMOMETHANE	5.88	94	123617	10.66 PPBV	99
14) CHLOROETHANE	6.02	64	73182	10.96 PPBV	100
15) DICHLOROFLUOROMETHANE	6.08	67	290384	10.24 PPBV	100
16) ACROLEIN	6.41	56	57007	9.54 PPBV	95
17) TRICHLOROFLUOROMETHANE	6.67	101	308403	9.68 PPBV	100
18) ISOPROPYL ALCOHOL	6.71	45	239213	7.70 PPBV	99
19) ACETONE	6.52	58	66853	10.74 PPBV	99
21) ACRYLONITRILE	6.90	53	108548	11.23 PPBV	98
22) PENTANE	6.95	57	41072	9.30 PPBV	97
23) IODOMETHANE	7.16	142	350663	9.94 PPBV	99
24) 1,1-DICHLOROETHYLENE	7.21	96	138482	9.42 PPBV	100
25) CARBON DISULFIDE	7.60	76	348267	10.53 PPBV	100
26) ETHANOL	6.10	45	52415	9.32 PPBV	97
27) ACETONITRILE	6.30	41	108006	10.97 PPBV	99
28) BROMOETHENE	6.32	106	129272	10.13 PPBV	100
29) METHYLENE CHLORIDE	7.30	84	119004	10.66 PPBV	98
30) 3-CHLOROPROPENE	7.40	76	59303	10.72 PPBV	97
31) FREON 113	7.50	151	241614	10.53 PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	126311	9.46 PPBV	100
33) TERTIARY BUTYL ALCOHOL	7.22	59	305175	11.37 PPBV	97
34) METHYL TERTIARY BUTYL ETHE	8.32	73	355843	9.98 PPBV	100
35) TETRAHYDROFURAN	9.66	72	58628	11.22 PPBV	100
36) HEXANE	9.16	57	202768	10.35 PPBV	100
37) VINYL ACETATE	8.37	86	35413	11.86 PPBV	99
38) 1,1-DICHLOROETHANE	8.28	63	217457	10.68 PPBV	100
39) METHYL ETHYL KETONE	8.61	72	58006	10.93 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	9.00	96	129087	9.43 PPBV	99
41) DI-ISOPROPYL ETHER	9.15	87	119765	11.25 PPBV	100
42) ETHYL ACETATE	9.16	61	40258	11.06 PPBV	98
43) METHYL ACRYLATE	9.17	55	223440	10.42 PPBV	100
44) CHLOROFORM	9.27	83	256741	10.53 PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

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Data File : C:\MSDCHEM\1\DATA\W54287.D                Vial: 4
Acq On    : 18 Mar 2016  11:37 am                 Operator: YOUMINH
Sample    : bsd                                   Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:11:53 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45) 2,4-DIMETHYLPENTANE	9.95	57	233275	10.55 PPBV	100
46) 1,1,1-TRICHLOROETHANE	10.17	97	272903	10.34 PPBV	100
47) CARBON TETRACHLORIDE	10.73	117	286642	10.31 PPBV	100
48) 1,2-DICHLOROETHANE	9.94	62	154403	10.95 PPBV	100
50) BENZENE	10.59	78	394548	10.53 PPBV	100
51) CYCLOHEXANE	10.85	84	177047	9.94 PPBV	99
52) 2,3-DIMETHYLPENTANE	11.03	71	91208	10.97 PPBV	99
53) TRICHLOROETHYLENE	11.56	95	171221	9.91 PPBV	100
54) DIBROMOMETHANE	11.33	174	171112	10.33 PPBV	99
55) 1,2-DICHLOROPROPANE	11.35	63	135956	9.85 PPBV	100
56) ETHYL ACRYLATE	11.29	55	258076	10.56 PPBV	99
57) BROMODICHLOROMETHANE	11.53	83	279470	10.03 PPBV	100
58) 2,2,4-TRIMETHYLPENTANE	11.57	57	646746	10.13 PPBV	100
59) 1,4-DIOXANE	11.58	88	85627	10.70 PPBV #	84
60) METHYL METHACRYLATE	11.71	69	136686	10.53 PPBV	99
61) HEPTANE	11.79	43	219989	10.16 PPBV	99
62) METHYL ISOBUTYL KETONE	12.40	43	261539	10.63 PPBV	99
63) cis-1,3-DICHLOROPROPENE	12.37	75	205339	10.02 PPBV	98
64) TOLUENE	13.34	92	287160	10.69 PPBV	100
65) 1,3-DICHLOROPROPANE	13.36	76	211715	10.95 PPBV	99
66) trans-1,3-DICHLOROPROPENE	12.87	75	164364	11.34 PPBV	99
67) 1,1,2-TRICHLOROETHANE	13.06	83	124928	10.94 PPBV	99
69) ETHYL METHACRYLATE	13.56	69	231643	10.88 PPBV	99
70) 2-HEXANONE	13.57	58	139914	10.66 PPBV	100
71) TETRACHLOROETHYLENE	14.49	164	205864	10.19 PPBV	99
72) DIBROMOCHLOROMETHANE	13.78	129	293054	10.60 PPBV	100
73) 1,2-DIBROMOETHANE	14.03	107	206044	10.78 PPBV	100
74) OCTANE	14.27	43	310295	10.47 PPBV	99
75) 1,1,1,2-TETRACHLOROETHANE	15.17	131	228671	10.64 PPBV	88
76) CHLOROBENZENE	15.19	112	374451	10.39 PPBV	99
77) ETHYLBENZENE	15.57	91	587460	10.23 PPBV	100
78) m,p-XYLENE	15.76	106	503746	21.50 PPBV	99
79) o-XYLENE	16.27	106	240470	10.82 PPBV	99
80) STYRENE	16.16	104	362302	11.36 PPBV	100
81) 1,2,3-TRICHLOROPROPANE	16.41	75	230369	9.81 PPBV	99
82) NONANE	16.45	43	324677	11.06 PPBV	99
83) BROMOFORM	15.88	173	275825	10.96 PPBV	100
85) 1,1,2,2-TETRACHLOROETHANE	16.27	83	320079	10.55 PPBV	100
86) ISOPROPYLBENZENE	16.89	105	723614	10.39 PPBV	100
87) BROMOBENZENE	17.02	156	199798	10.88 PPBV	100
88) 2-CHLOROTOLUENE	17.42	126	164274	10.72 PPBV #	92
89) n-PROPYLBENZENE	17.44	120	188952	10.86 PPBV	99
90) 4-ETHYLTOLUENE	17.60	105	601781	10.64 PPBV	100
91) 1,3,5-TRIMETHYLBENZENE	17.68	105	582386	10.41 PPBV	100
92) ALPHA-METHYLSTYRENE	17.86	118	265037	11.41 PPBV	100
93) TERT-BUTYLBENZENE	18.13	134	148490	11.05 PPBV	99
94) 1,2,4-TRIMETHYLBENZENE	18.14	105	539640	10.47 PPBV	100
95) m-DICHLOROBENZENE	18.33	146	278863	10.66 PPBV	100
96) BENZYL CHLORIDE	18.30	91	307331	10.81 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54287.D                 Vial: 4
Acq On    : 18 Mar 2016  11:37 am                  Operator: YOUMINH
Sample    : bsd                                    Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:11:53 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.40	146	264971	10.87	PPBV	100
98)	SEC-BUTYLBENZENE	18.43	134	173890	10.84	PPBV	98
99)	p-ISOPROPYLTOLUENE	18.61	134	186462	10.90	PPBV	100
100)	o-DICHLOROBENZENE	18.78	146	275811	10.28	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	147215	11.23	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	116417	9.40	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	229843	10.66	PPBV	98
104)	HEXACHLOROBUTADIENE	21.18	225	231272	9.78	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	95491	9.68	PPBV	99
106)	NAPHTHALENE	20.81	128	220813	9.10	PPBV	100

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

Quantitation Report (QT Reviewed)

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Data File : C:\MSDCHEM\1\DATA\W54287.D                    Vial: 4
Acq On    : 18 Mar 2016  11:37 am                     Operator: YOUMINH
Sample    : bsd                                       Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:16 2016               Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
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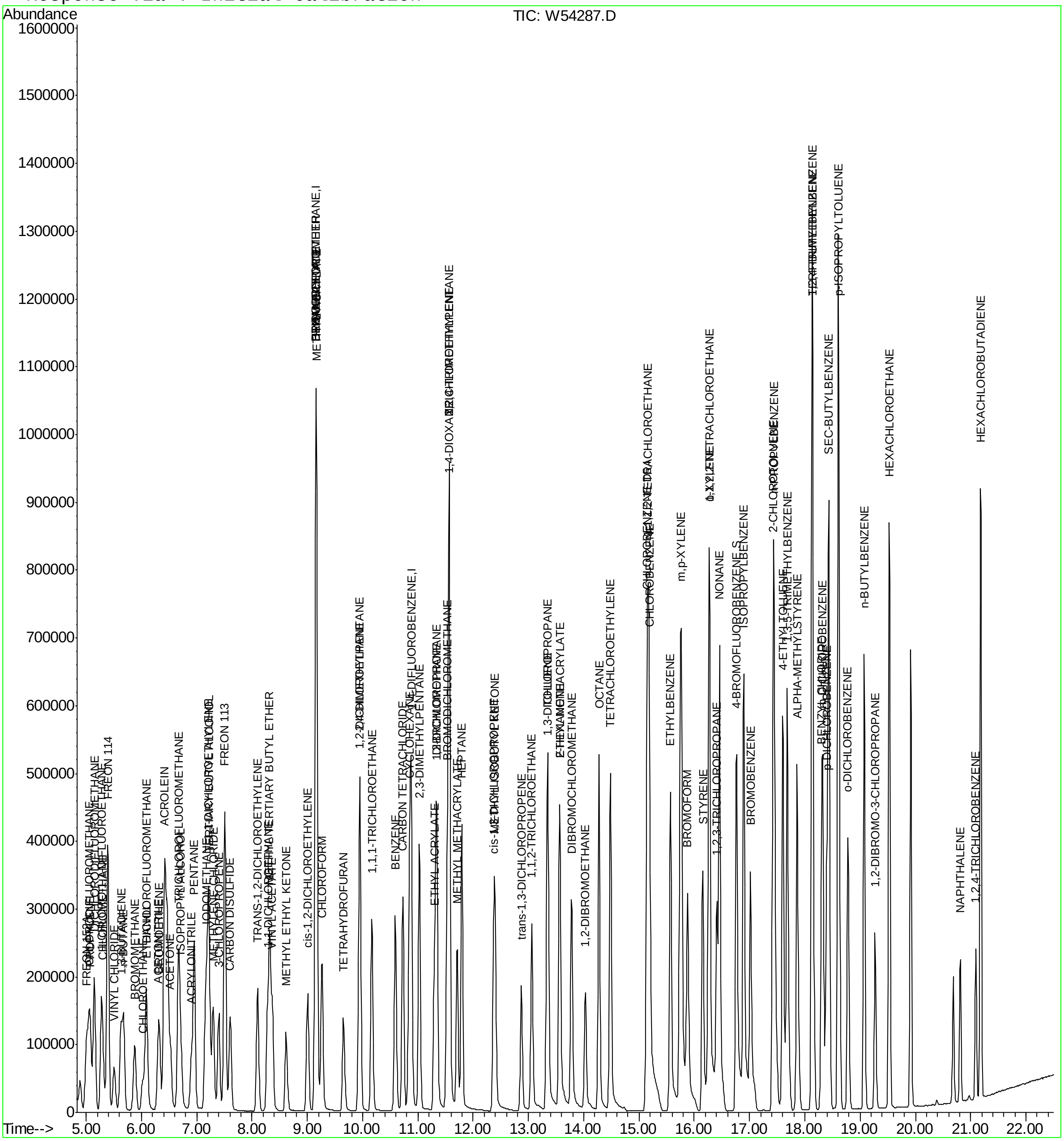

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17137.D
Acq On : 19 Mar 2016 11:55 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w685,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:32:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	140182	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	493585	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	262513	10.00	ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	140182	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.269	95	353034	10.19	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.90%			
Target Compounds						Qvalue
3) Freon 152A	3.825	65	88648	11.48	ppb(v	97
4) Chlorodifluoromethane	3.862	67	33200	11.66	ppb(v	99
5) Propene	3.887	41	107157	12.24	ppb(v	99
6) Dichlorodifluoromethane	3.948	85	345126	10.89	ppb(v	100
8) Chloromethane	4.082	50	134013	12.09	ppb(v	100
9) Dichlorotetrafluoroethane	4.156	85	395234	11.09	ppb(v	98
10) Vinyl Chloride	4.260	62	144776	11.62	ppb(v	99
11) 1,3-Butadiene	4.364	54	103427	11.11	ppb(v	95
12) n-Butane	4.407	58	21637	10.56	ppb(v	76
13) Bromomethane	4.590	94	143055	9.96	ppb(v	99
14) Chloroethane	4.731	64	64838	10.56	ppb(v	99
15) Dichlorofluoromethane	4.810	67	321179	11.08	ppb(v	99
16) Acetonitrile	5.031	41	129911	12.95	ppb(v	98
17) Freon 123	5.153	83	348089	10.23	ppb(v	99
18) Freon 123A	5.202	117	168690	9.11	ppb(v	98
19) Bromoethene	5.031	106	139748	10.11	ppb(v	99
20) Trichlorofluoromethane	5.385	101	345199	10.63	ppb(v	98
21) Acetone	5.251	58	64254	9.63	ppb(v	95
22) Pentane	5.697	57	31286	9.40	ppb(v	96
24) Iodomethane	5.899	142	367915	9.44	ppb(v	98
25) Isopropyl Alcohol	5.471	43	45480	10.45	ppb(v	99
26) 1,1-Dichloroethene	5.967	61	206058	10.55	ppb(v	99
27) Freon 113	6.321	101	280288	9.76	ppb(v	98
28) Methylene Chloride	6.083	84	117235	8.85	ppb(v	98
29) Carbon Disulfide	6.364	76	385194	10.02	ppb(v	100
30) Ethanol	4.847	45	59461	11.61	ppb(v	98
31) Acrylonitrile	5.667	53	104042	10.90	ppb(v	99
32) 3-Chloropropene	6.187	76	56933	9.80	ppb(v	86
33) trans-1,2-Dichloroethene	6.982	61	182905	10.43	ppb(v	98
34) tert-Butyl Alcohol	6.016	59	265885	9.76	ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	319588	9.19	ppb(v	94
36) Vinyl Acetate	7.349	43	372083	12.23	ppb(v	97
37) 1,1-Dichloroethane	7.190	63	239774	10.37	ppb(v	100
38) 2-Butanone	7.612	72	58373	9.65	ppb(v	79
39) Hexane	8.273	57	189480	9.58	ppb(v	97
40) cis-1,2-Dichloroethene	8.071	61	173590	10.09	ppb(v	98
41) Di-isopropyl Ether	8.279	87	102259	9.73	ppb(v	63
42) Ethyl Acetate	8.322	61	45410	11.57	ppb(v	90
43) Methyl Acrylate	8.316	55	251540	10.18	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17137.D
Acq On : 19 Mar 2016 11:55 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w685,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:32:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) Chloroform	8.395	83	289845	10.05 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	233728	10.07 ppb(v	97
46) Tetrahydrofuran	8.848	72	59619	10.60 ppb(v	86
47) 1,1,1-Trichloroethane	9.484	97	276241	9.96 ppb(v	96
48) 1,2-Dichloroethane	9.209	62	171996	10.97 ppb(v	99
49) Benzene	10.017	78	388200	9.23 ppb(v	99
50) Carbon Tetrachloride	10.194	117	287381	10.06 ppb(v	99
51) Cyclohexane	10.322	56	193847	9.96 ppb(v	97
52) 2,3-Dimethylpentane	10.610	71	80433	9.26 ppb(v	87
54) 2,2,4-Trimethylpentane	11.301	57	660748	11.16 ppb(v	98
55) Heptane	11.644	71	122261	10.12 ppb(v	98
56) Trichloroethene	11.283	95	183064	9.75 ppb(v	99
57) 1,2-Dichloropropane	10.989	63	159740	11.36 ppb(v	99
58) Dibromomethane	10.965	174	182141	9.87 ppb(v	94
59) Ethyl Acrylate	11.026	55	306842	11.17 ppb(v	99
60) Methyl Methacrylate	11.558	69	130077	9.66 ppb(v	87
61) 1,4-Dioxane	11.313	88	91291	9.68 ppb(v	97
62) Bromodichloromethane	11.234	83	306689	10.37 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	227579	9.53 ppb(v	98
64) 4-Methyl-2-pentanone	12.421	58	123172	11.36 ppb(v	92
65) trans-1,3-Dichloropropene	13.045	75	204250	10.35 ppb(v	99
66) Toluene	13.614	91	451545	9.41 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	169739	9.91 ppb(v	99
68) 1,3-Dichloropropane	13.657	76	224657	10.35 ppb(v	93
69) 2-Hexanone	13.993	58	163688	10.97 ppb(v	90
70) Ethyl Methacrylate	14.024	69	239294	10.49 ppb(v	98
71) Dibromochloromethane	14.177	129	321428	10.16 ppb(v	100
72) Tetrachloroethene	15.131	166	246806	9.85 ppb(v	99
73) 1,2-Dibromoethane	14.489	107	270501	9.63 ppb(v	99
74) Octane	14.960	43	343048	12.90 ppb(v	89
75) 1,1,1,2-Tetrachloroethane	16.061	131	218316	10.04 ppb(v	97
77) Chlorobenzene	16.079	112	356797	8.26 ppb(v	98
78) Ethylbenzene	16.624	91	571672	8.50 ppb(v	97
79) m,p-Xylene	16.899	91	897684	17.35 ppb(v	99
80) Styrene	17.419	104	319319	8.28 ppb(v	99
81) Nonane	17.951	43	343253	11.53 ppb(v	94
82) o-Xylene	17.572	91	457877	8.69 ppb(v	100
83) Bromoform	16.978	173	332117	9.25 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.578	83	397437	9.42 ppb(v	100
85) 1,2,3-Trichloropropane	17.768	75	277574	9.32 ppb(v	98
86) Isopropylbenzene	18.483	105	634353	8.57 ppb(v	100
87) Bromobenzene	18.594	156	217789	8.31 ppb(v	97
88) 2-Chlorotoluene	19.199	126	154019	8.21 ppb(v	97
89) n-Propylbenzene	19.273	120	163314	8.43 ppb(v	92
91) 4-Ethyltoluene	19.493	105	586080	8.48 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.615	105	494750	8.31 ppb(v	99
93) alpha-Methylstyrene	19.842	118	251310	8.41 ppb(v	98
94) tert-Butylbenzene	20.178	134	104625	8.31 ppb(v	97
95) 1,2,4-Trimethylbenzene	20.196	105	505617	8.47 ppb(v	96
96) 1,3-Dichlorobenzene	20.386	146	335761	8.03 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17137.D
Acq On : 19 Mar 2016 11:55 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w685,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:32:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
97) Benzyl Chloride	20.374	91	421688	8.11 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	319388	7.39 ppb(v	97
99) sec-Butylbenzene	20.563	134	129690	8.20 ppb(v	91
100) p-Isopropyltoluene	20.796	134	149224	8.53 ppb(v	95
101) 1,2-Dichlorobenzene	20.943	146	321460	8.08 ppb(v	97
102) n-Butylbenzene	21.365	134	132302	8.52 ppb(v	96
103) Hexachloroethane	21.830	201	218183	9.26 ppb(v	87
104) 1,2,4-Trichlorobenzene	23.145	180	178371	7.28 ppb(v	98
105) Naphthalene	23.274	128	367985	6.81 ppb(v	99
106) Hexachlorobutadiene	23.720	225	215975	9.14 ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	860954	12.30 ppb(v	100

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

7.3.17

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17137.D
Acq On    : 19 Mar 2016  11:55 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:32:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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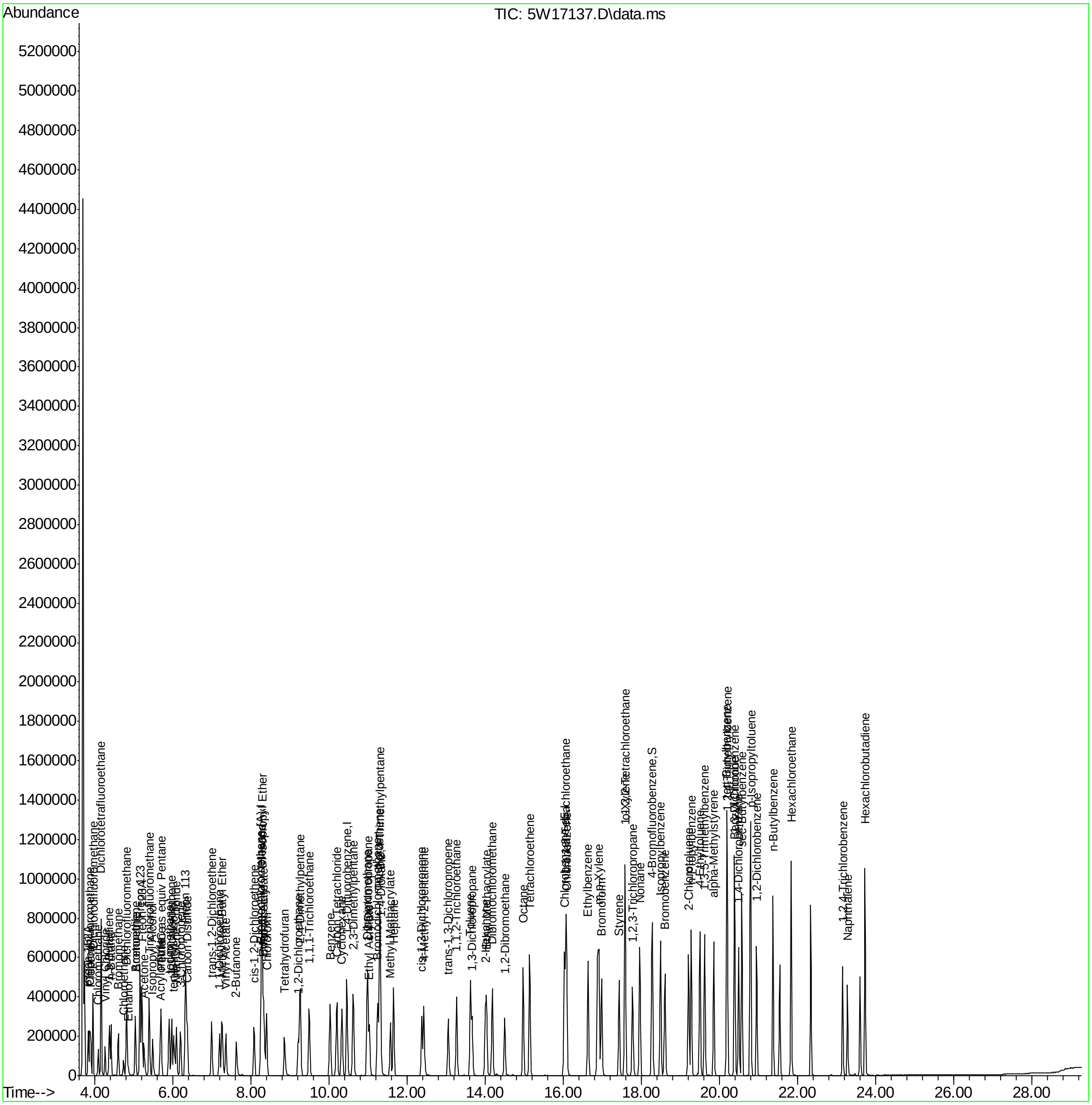

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17138.D
Acq On    : 19 Mar 2016  12:37 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:33:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	137781	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	491652	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	260299	10.00	ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	137781	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.269	95	347244	10.11	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.10%			
Target Compounds						Qvalue
3) Freon 152A	3.819	65	92385	12.17	ppb(v	94
4) Chlorodifluoromethane	3.862	67	34053	12.17	ppb(v	96
5) Propene	3.887	41	110103	12.80	ppb(v	99
6) Dichlorodifluoromethane	3.942	85	350180	11.24	ppb(v	99
8) Chloromethane	4.082	50	137063	12.58	ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	400304	11.43	ppb(v	98
10) Vinyl Chloride	4.260	62	147091	12.01	ppb(v	99
11) 1,3-Butadiene	4.364	54	105452	11.52	ppb(v	93
12) n-Butane	4.407	58	22272	11.06	ppb(v	77
13) Bromomethane	4.596	94	145187	10.29	ppb(v	99
14) Chloroethane	4.731	64	67103	11.12	ppb(v	98
15) Dichlorofluoromethane	4.804	67	327239	11.49	ppb(v	99
16) Acetonitrile	5.031	41	130531	13.24	ppb(v	96
17) Freon 123	5.153	83	353251	10.56	ppb(v	99
18) Freon 123A	5.202	117	173288	9.52	ppb(v	98
19) Bromoethene	5.031	106	142074	10.46	ppb(v	98
20) Trichlorofluoromethane	5.385	101	353798	11.09	ppb(v	98
21) Acetone	5.251	58	65813	10.03	ppb(v	94
22) Pentane	5.691	57	32234	9.85	ppb(v	93
24) Iodomethane	5.899	142	370484	9.67	ppb(v	97
25) Isopropyl Alcohol	5.471	43	46412	10.85	ppb(v	95
26) 1,1-Dichloroethene	5.967	61	208853	10.88	ppb(v	99
27) Freon 113	6.321	101	285545	10.12	ppb(v	98
28) Methylene Chloride	6.083	84	117185	9.00	ppb(v	98
29) Carbon Disulfide	6.358	76	391912	10.37	ppb(v	100
30) Ethanol	4.847	45	60709	12.06	ppb(v	98
31) Acrylonitrile	5.667	53	105009	11.20	ppb(v	98
32) 3-Chloropropene	6.187	76	57239	10.02	ppb(v	85
33) trans-1,2-Dichloroethene	6.982	61	190071	11.03	ppb(v	99
34) tert-Butyl Alcohol	6.009	59	275765	10.30	ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	328299	9.61	ppb(v	95
36) Vinyl Acetate	7.349	43	389743	13.04	ppb(v	98
37) 1,1-Dichloroethane	7.190	63	245864	10.82	ppb(v	99
38) 2-Butanone	7.612	72	58999	9.93	ppb(v	72
39) Hexane	8.273	57	194225	9.99	ppb(v	94
40) cis-1,2-Dichloroethene	8.071	61	180194	10.66	ppb(v	99
41) Di-isopropyl Ether	8.279	87	104029	10.07	ppb(v	73
42) Ethyl Acetate	8.322	61	45624	11.83	ppb(v	87
43) Methyl Acrylate	8.310	55	258874	10.66	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17138.D
Acq On : 19 Mar 2016 12:37 pm
Operator : THOMASH
Sample : BSD
Misc : MS99296,v5w685,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:33:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) Chloroform	8.389	83	296195	10.45 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	231827	10.17 ppb(v	97
46) Tetrahydrofuran	8.848	72	60320	10.91 ppb(v	91
47) 1,1,1-Trichloroethane	9.484	97	280704	10.30 ppb(v	98
48) 1,2-Dichloroethane	9.203	62	175754	11.41 ppb(v	99
49) Benzene	10.017	78	399401	9.66 ppb(v	98
50) Carbon Tetrachloride	10.188	117	288899	10.29 ppb(v	99
51) Cyclohexane	10.322	56	198090	10.35 ppb(v	95
52) 2,3-Dimethylpentane	10.610	71	82474	9.66 ppb(v	88
54) 2,2,4-Trimethylpentane	11.301	57	669072	11.35 ppb(v	97
55) Heptane	11.644	71	121941	10.13 ppb(v	96
56) Trichloroethene	11.283	95	185757	9.93 ppb(v	98
57) 1,2-Dichloropropane	10.983	63	158922	11.34 ppb(v	98
58) Dibromomethane	10.965	174	185691	10.11 ppb(v	94
59) Ethyl Acrylate	11.026	55	308169	11.26 ppb(v	98
60) Methyl Methacrylate	11.558	69	135082	10.07 ppb(v	90
61) 1,4-Dioxane	11.307	88	92665	9.87 ppb(v	95
62) Bromodichloromethane	11.234	83	310749	10.55 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	235582	9.90 ppb(v	100
64) 4-Methyl-2-pentanone	12.421	58	126123	11.67 ppb(v	88
65) trans-1,3-Dichloropropene	13.045	75	206729	10.51 ppb(v	99
66) Toluene	13.614	91	461166	9.65 ppb(v	98
67) 1,1,2-Trichloroethane	13.259	97	174215	10.21 ppb(v	98
68) 1,3-Dichloropropane	13.657	76	229307	10.60 ppb(v	92
69) 2-Hexanone	13.993	58	169474	11.41 ppb(v	91
70) Ethyl Methacrylate	14.024	69	244081	10.74 ppb(v	98
71) Dibromochloromethane	14.170	129	330215	10.48 ppb(v	99
72) Tetrachloroethene	15.131	166	247897	9.93 ppb(v	98
73) 1,2-Dibromoethane	14.489	107	278102	9.94 ppb(v	99
74) Octane	14.966	43	340480	12.85 ppb(v	89
75) 1,1,1,2-Tetrachloroethane	16.061	131	220748	10.19 ppb(v	97
77) Chlorobenzene	16.079	112	359564	8.40 ppb(v	99
78) Ethylbenzene	16.624	91	582603	8.73 ppb(v	99
79) m,p-Xylene	16.899	91	907723	17.69 ppb(v	99
80) Styrene	17.419	104	318648	8.34 ppb(v	97
81) Nonane	17.951	43	344432	11.67 ppb(v	94
82) o-Xylene	17.572	91	474136	9.08 ppb(v	99
83) Bromoform	16.972	173	336761	9.46 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	408673	9.76 ppb(v	100
85) 1,2,3-Trichloropropane	17.768	75	284646	9.64 ppb(v	99
86) Isopropylbenzene	18.483	105	643899	8.78 ppb(v	99
87) Bromobenzene	18.594	156	219697	8.45 ppb(v	97
88) 2-Chlorotoluene	19.199	126	157081	8.44 ppb(v	98
89) n-Propylbenzene	19.267	120	167275	8.71 ppb(v	96
91) 4-Ethyltoluene	19.493	105	605169	8.83 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.615	105	506480	8.58 ppb(v	99
93) alpha-Methylstyrene	19.842	118	255001	8.60 ppb(v	99
94) tert-Butylbenzene	20.178	134	104640	8.38 ppb(v	99
95) 1,2,4-Trimethylbenzene	20.190	105	517024	8.74 ppb(v#	86
96) 1,3-Dichlorobenzene	20.386	146	345062	8.32 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17138.D
Acq On : 19 Mar 2016 12:37 pm
Operator : THOMASH
Sample : BSD
Misc : MS99296,v5w685,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:33:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	Benzyl Chloride	20.374	91	438478	8.50	ppb(v	99
98)	1,4-Dichlorobenzene	20.484	146	328034	7.66	ppb(v	96
99)	sec-Butylbenzene	20.563	134	133489	8.51	ppb(v	95
100)	p-Isopropyltoluene	20.796	134	151815	8.75	ppb(v	94
101)	1,2-Dichlorobenzene	20.943	146	330303	8.37	ppb(v	98
102)	n-Butylbenzene	21.365	134	130520	8.48	ppb(v	99
103)	Hexachloroethane	21.830	201	222086	9.50	ppb(v	87
104)	1,2,4-Trichlorobenzene	23.145	180	180363	7.42	ppb(v	99
105)	Naphthalene	23.274	128	366893	6.85	ppb(v	99
106)	Hexachlorobutadiene	23.720	225	206186	8.80	ppb(v	99
108)	TVHC as equiv Pentane	5.691	TIC	888946	12.92	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17138.D
Acq On    : 19 Mar 2016  12:37 pm
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:33:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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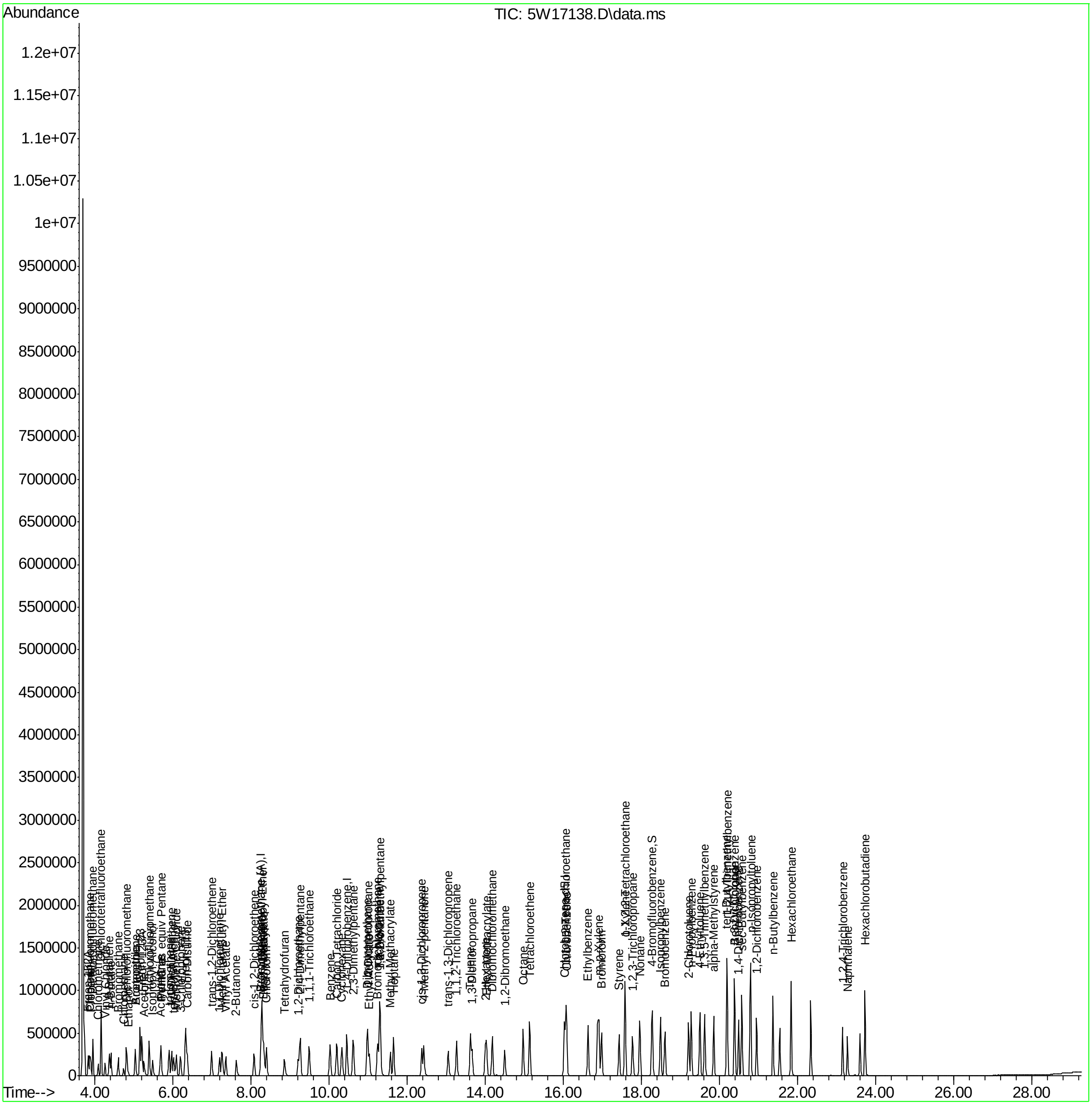

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17165.D
Acq On : 21 Mar 2016 9:54 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w686,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:19:58 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	156231	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.445	114	563454	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	294801	10.00	ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	156231	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.263	95	393016	10.10	ppb(v	-0.04
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.00%			
Target Compounds						Qvalue
3) Freon 152A	3.819	65	91687	10.65	ppb(v	96
4) Chlorodifluoromethane	3.856	67	35577	11.21	ppb(v	97
5) Propene	3.881	41	114154	11.70	ppb(v	99
6) Dichlorodifluoromethane	3.942	85	369940	10.47	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	272683	11.54	ppb(v	99
8) Chloromethane	4.076	50	144213	11.67	ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	415599	10.46	ppb(v	97
10) Vinyl Chloride	4.254	62	150373	10.83	ppb(v	98
11) 1,3-Butadiene	4.364	54	107893	10.40	ppb(v	98
12) n-Butane	4.407	58	22761	9.97	ppb(v	89
13) Bromomethane	4.590	94	150677	9.41	ppb(v	99
14) Chloroethane	4.731	64	67867	9.91	ppb(v	99
15) Dichlorofluoromethane	4.804	67	338881	10.49	ppb(v	99
16) Acetonitrile	5.031	41	129083	11.55	ppb(v	98
17) Freon 123	5.147	83	364154	9.60	ppb(v	99
18) Freon 123A	5.202	117	178443	8.64	ppb(v	95
19) Bromoethene	5.025	106	146928	9.54	ppb(v	99
20) Trichlorofluoromethane	5.385	101	365102	10.09	ppb(v	100
21) Acetone	5.251	58	66618	8.95	ppb(v	91
22) Pentane	5.685	57	33573	9.05	ppb(v	99
24) Iodomethane	5.893	142	388521	8.95	ppb(v	99
25) Isopropyl Alcohol	5.471	43	46461	9.58	ppb(v	100
26) 1,1-Dichloroethene	5.961	61	211316	9.71	ppb(v	99
27) Freon 113	6.315	101	290331	9.07	ppb(v	97
28) Methylene Chloride	6.083	84	123476	8.36	ppb(v	99
29) Carbon Disulfide	6.358	76	403362	9.41	ppb(v	100
30) Ethanol	4.841	45	59802	10.47	ppb(v	98
31) Acrylonitrile	5.661	53	105213	9.89	ppb(v	96
32) 3-Chloropropene	6.187	76	58797	9.08	ppb(v	82
33) trans-1,2-Dichloroethene	6.982	61	192365	9.84	ppb(v	97
34) tert-Butyl Alcohol	6.010	59	279115	9.19	ppb(v	96
35) Methyl tert-Butyl Ether	7.245	73	340030	8.78	ppb(v	96
36) Vinyl Acetate	7.349	43	398579	11.76	ppb(v	98
37) 1,1-Dichloroethane	7.190	63	250335	9.71	ppb(v	99
38) 2-Butanone	7.612	72	59891	8.89	ppb(v	78
39) Hexane	8.273	57	199635	9.05	ppb(v	92
40) cis-1,2-Dichloroethene	8.071	61	182722	9.53	ppb(v	100
41) Di-isopropyl Ether	8.279	87	107152	9.15	ppb(v	82
42) Ethyl Acetate	8.322	61	48142	11.01	ppb(v	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17165.D
Acq On : 21 Mar 2016 9:54 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w686,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:19:58 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.310	55	263718	9.58 ppb(v	98
44) Chloroform	8.389	83	304979	9.49 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	243336	9.41 ppb(v	99
46) Tetrahydrofuran	8.848	72	61206	9.77 ppb(v	82
47) 1,1,1-Trichloroethane	9.484	97	294634	9.53 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	183389	10.50 ppb(v	100
49) Benzene	10.017	78	413821	8.83 ppb(v	98
50) Carbon Tetrachloride	10.188	117	307367	9.66 ppb(v	98
51) Cyclohexane	10.322	56	204457	9.42 ppb(v	96
52) 2,3-Dimethylpentane	10.610	71	85372	8.82 ppb(v	92
54) 2,2,4-Trimethylpentane	11.301	57	691210	10.23 ppb(v	99
55) Heptane	11.644	71	127185	9.22 ppb(v	96
56) Trichloroethene	11.283	95	197731	9.22 ppb(v	97
57) 1,2-Dichloropropane	10.983	63	167667	10.44 ppb(v	96
58) Dibromomethane	10.965	174	198019	9.40 ppb(v	93
59) Ethyl Acrylate	11.026	55	323909	10.33 ppb(v	99
60) Methyl Methacrylate	11.564	69	138900	9.03 ppb(v	92
61) 1,4-Dioxane	11.307	88	97698	9.08 ppb(v	98
62) Bromodichloromethane	11.234	83	325691	9.65 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	248348	9.11 ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	132725	10.72 ppb(v	89
65) trans-1,3-Dichloropropene	13.045	75	225704	10.02 ppb(v	99
66) Toluene	13.614	91	489113	8.93 ppb(v	100
67) 1,1,2-Trichloroethane	13.259	97	181983	9.31 ppb(v	98
68) 1,3-Dichloropropane	13.657	76	240733	9.71 ppb(v	92
69) 2-Hexanone	13.993	58	180006	10.57 ppb(v	92
70) Ethyl Methacrylate	14.024	69	255254	9.80 ppb(v	99
71) Dibromochloromethane	14.171	129	353612	9.79 ppb(v	99
72) Tetrachloroethene	15.131	166	263262	9.20 ppb(v	97
73) 1,2-Dibromoethane	14.489	107	299867	9.35 ppb(v	97
74) Octane	14.960	43	355977	11.72 ppb(v	89
75) 1,1,1,2-Tetrachloroethane	16.055	131	239875	9.66 ppb(v	99
77) Chlorobenzene	16.079	112	400430	8.26 ppb(v	98
78) Ethylbenzene	16.624	91	627484	8.30 ppb(v	99
79) m,p-Xylene	16.899	91	974117	16.77 ppb(v	98
80) Styrene	17.419	104	355414	8.21 ppb(v	98
81) Nonane	17.951	43	361652	10.82 ppb(v	94
82) o-Xylene	17.572	91	508811	8.60 ppb(v	99
83) Bromoform	16.972	173	371465	9.21 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	427731	9.02 ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	304538	9.11 ppb(v	99
86) Isopropylbenzene	18.477	105	701058	8.44 ppb(v	99
87) Bromobenzene	18.594	156	244211	8.30 ppb(v	93
88) 2-Chlorotoluene	19.199	126	174235	8.27 ppb(v	98
89) n-Propylbenzene	19.267	120	182453	8.39 ppb(v	98
91) 4-Ethyltoluene	19.493	105	664986	8.56 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	537099	8.03 ppb(v	99
93) alpha-Methylstyrene	19.842	118	278875	8.31 ppb(v	99
94) tert-Butylbenzene	20.178	134	113707	8.04 ppb(v	98
95) 1,2,4-Trimethylbenzene	20.190	105	553771	8.26 ppb(v	92

7.3.19

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17165.D
Acq On : 21 Mar 2016 9:54 am
Operator : THOMASH
Sample : BS
Misc : MS99296,v5w686,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:19:58 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.386	146	393690	8.38 ppb(v	97
97) Benzyl Chloride	20.374	91	504964	8.65 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	377269	7.77 ppb(v	97
99) sec-Butylbenzene	20.564	134	143795	8.09 ppb(v	98
100) p-Isopropyltoluene	20.790	134	168362	8.57 ppb(v	96
101) 1,2-Dichlorobenzene	20.943	146	357711	8.00 ppb(v	97
102) n-Butylbenzene	21.359	134	148601	8.53 ppb(v	99
103) Hexachloroethane	21.824	201	249008	9.41 ppb(v	93
104) 1,2,4-Trichlorobenzene	23.145	180	212575	7.73 ppb(v	98
105) Naphthalene	23.274	128	427467	7.05 ppb(v	99
106) Hexachlorobutadiene	23.720	225	230125	8.67 ppb(v	98
108) TVHC as equiv Pentane	5.685	TIC	883379	11.32 ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17165.D
Acq On    : 21 Mar 2016   9:54 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:19:58 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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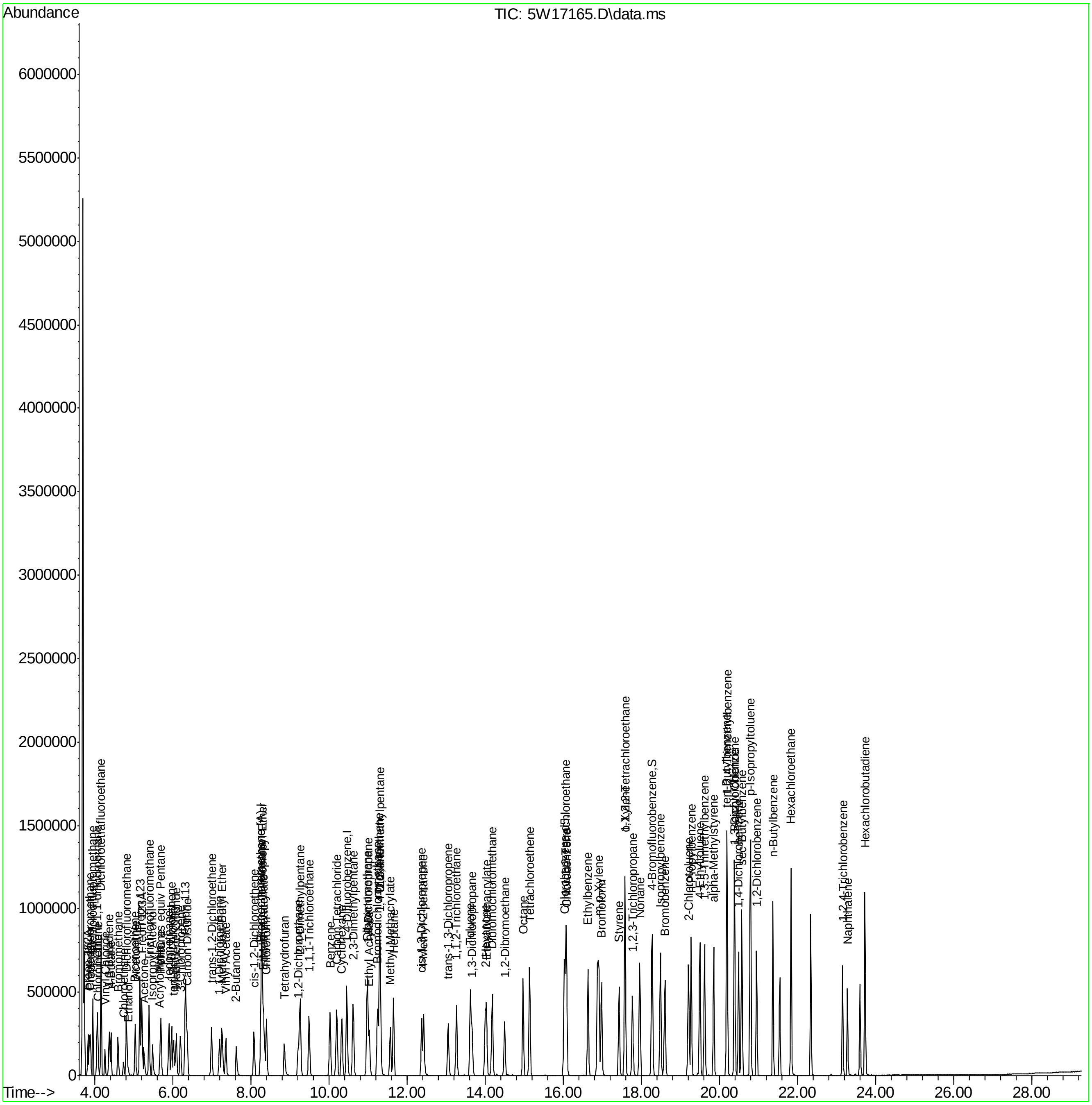

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17166.D
Acq On    : 21 Mar 2016  10:38 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:21:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.249	130	144587	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	525964	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	277245	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	144587	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	355727	9.72 ppb(v	-0.04
Spiked Amount 10.000	Range 65 - 128		Recovery = 97.20%		
Target Compounds					Qvalue
3) Freon 152A	3.819	65	89389	11.22 ppb(v	96
4) Chlorodifluoromethane	3.862	67	35678	12.15 ppb(v	98
5) Propene	3.881	41	113506	12.57 ppb(v	100
6) Dichlorodifluoromethane	3.942	85	367157	11.23 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.058	65	271748	12.42 ppb(v	99
8) Chloromethane	4.076	50	144336	12.62 ppb(v	100
9) Dichlorotetrafluoroethane	4.156	85	415562	11.30 ppb(v	100
10) Vinyl Chloride	4.254	62	152705	11.88 ppb(v	98
11) 1,3-Butadiene	4.364	54	109401	11.39 ppb(v	97
12) n-Butane	4.407	58	22931	10.85 ppb(v	75
13) Bromomethane	4.590	94	151705	10.24 ppb(v	99
14) Chloroethane	4.731	64	69784	11.02 ppb(v	99
15) Dichlorofluoromethane	4.804	67	337010	11.27 ppb(v	98
16) Acetonitrile	5.031	41	132329	12.79 ppb(v	98
17) Freon 123	5.153	83	365817	10.43 ppb(v	98
18) Freon 123A	5.202	117	179446	9.39 ppb(v	98
19) Bromoethene	5.024	106	149153	10.46 ppb(v	98
20) Trichlorofluoromethane	5.385	101	368937	11.02 ppb(v	99
21) Acetone	5.251	58	66967	9.73 ppb(v	95
22) Pentane	5.691	57	33417	9.73 ppb(v	83
24) Iodomethane	5.893	142	399497	9.94 ppb(v	98
25) Isopropyl Alcohol	5.471	43	47698	10.63 ppb(v	94
26) 1,1-Dichloroethene	5.961	61	217015	10.77 ppb(v	99
27) Freon 113	6.315	101	298462	10.08 ppb(v	97
28) Methylene Chloride	6.083	84	124674	9.13 ppb(v	97
29) Carbon Disulfide	6.358	76	406108	10.24 ppb(v	99
30) Ethanol	4.847	45	60329	11.42 ppb(v	98
31) Acrylonitrile	5.667	53	109233	11.10 ppb(v	99
32) 3-Chloropropene	6.187	76	60271	10.06 ppb(v	79
33) trans-1,2-Dichloroethene	6.982	61	197486	10.92 ppb(v	99
34) tert-Butyl Alcohol	6.009	59	290378	10.33 ppb(v	96
35) Methyl tert-Butyl Ether	7.251	73	344814	9.62 ppb(v	96
36) Vinyl Acetate	7.349	43	413975	13.20 ppb(v	97
37) 1,1-Dichloroethane	7.190	63	251763	10.56 ppb(v	100
38) 2-Butanone	7.612	72	60966	9.77 ppb(v	75
39) Hexane	8.267	57	200369	9.82 ppb(v	96
40) cis-1,2-Dichloroethene	8.071	61	188110	10.61 ppb(v	98
41) Di-isopropyl Ether	8.279	87	106381	9.82 ppb(v	72
42) Ethyl Acetate	8.322	61	47944	11.85 ppb(v	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17166.D
Acq On : 21 Mar 2016 10:38 am
Operator : THOMASH
Sample : BSD
Misc : MS99296,v5w686,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 21 11:21:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.310	55	264938	10.40 ppb(v	98
44) Chloroform	8.389	83	306172	10.30 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	242411	10.13 ppb(v	98
46) Tetrahydrofuran	8.842	72	64254	11.08 ppb(v	82
47) 1,1,1-Trichloroethane	9.484	97	295356	10.33 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	185262	11.46 ppb(v	98
49) Benzene	10.017	78	415569	9.58 ppb(v	99
50) Carbon Tetrachloride	10.188	117	310022	10.53 ppb(v	99
51) Cyclohexane	10.322	56	210537	10.48 ppb(v	94
52) 2,3-Dimethylpentane	10.610	71	87198	9.73 ppb(v	89
54) 2,2,4-Trimethylpentane	11.301	57	704830	11.17 ppb(v	96
55) Heptane	11.644	71	131013	10.17 ppb(v	95
56) Trichloroethene	11.283	95	203816	10.19 ppb(v	99
57) 1,2-Dichloropropane	10.983	63	170795	11.39 ppb(v	96
58) Dibromomethane	10.965	174	203035	10.33 ppb(v	90
59) Ethyl Acrylate	11.026	55	331473	11.32 ppb(v	99
60) Methyl Methacrylate	11.558	69	143852	10.02 ppb(v	89
61) 1,4-Dioxane	11.307	88	101616	10.12 ppb(v	98
62) Bromodichloromethane	11.234	83	334904	10.63 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	252728	9.93 ppb(v	100
64) 4-Methyl-2-pentanone	12.421	58	132879	11.50 ppb(v	91
65) trans-1,3-Dichloropropene	13.045	75	233182	11.09 ppb(v	99
66) Toluene	13.614	91	502632	9.83 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	186746	10.23 ppb(v	97
68) 1,3-Dichloropropane	13.657	76	246705	10.66 ppb(v	94
69) 2-Hexanone	13.993	58	185243	11.65 ppb(v	94
70) Ethyl Methacrylate	14.024	69	260450	10.71 ppb(v	98
71) Dibromochloromethane	14.170	129	362283	10.75 ppb(v	98
72) Tetrachloroethene	15.131	166	268693	10.06 ppb(v	97
73) 1,2-Dibromoethane	14.489	107	309603	10.34 ppb(v	98
74) Octane	14.960	43	361192	12.74 ppb(v	90
75) 1,1,1,2-Tetrachloroethane	16.055	131	246118	10.62 ppb(v	98
77) Chlorobenzene	16.079	112	403826	8.85 ppb(v	99
78) Ethylbenzene	16.624	91	642092	9.04 ppb(v	99
79) m,p-Xylene	16.893	91	984472	18.02 ppb(v	99
80) Styrene	17.419	104	365906	8.99 ppb(v	99
81) Nonane	17.951	43	362090	11.52 ppb(v	95
82) o-Xylene	17.572	91	506947	9.11 ppb(v	99
83) Bromoform	16.972	173	378943	9.99 ppb(v	98
84) 1,1,2,2-Tetrachloroethane	17.572	83	431529	9.68 ppb(v	99
85) 1,2,3-Trichloropropane	17.762	75	308904	9.83 ppb(v	98
86) Isopropylbenzene	18.483	105	715136	9.15 ppb(v	100
87) Bromobenzene	18.594	156	251423	9.08 ppb(v	94
88) 2-Chlorotoluene	19.199	126	176948	8.93 ppb(v	96
89) n-Propylbenzene	19.267	120	185605	9.08 ppb(v	96
91) 4-Ethyltoluene	19.493	105	678790	9.30 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.609	105	545422	8.67 ppb(v	99
93) alpha-Methylstyrene	19.842	118	283140	8.97 ppb(v	99
94) tert-Butylbenzene	20.178	134	118204	8.89 ppb(v	99
95) 1,2,4-Trimethylbenzene	20.190	105	562046	8.92 ppb(v	91

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17166.D
Acq On    : 21 Mar 2016  10:38 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:21:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.386	146	393581	8.91 ppb(v	97
97) Benzyl Chloride	20.374	91	514003	9.36 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	391299	8.57 ppb(v	96
99) sec-Butylbenzene	20.563	134	147842	8.85 ppb(v	99
100) p-Isopropyltoluene	20.796	134	172396	9.33 ppb(v	98
101) 1,2-Dichlorobenzene	20.943	146	364757	8.68 ppb(v	97
102) n-Butylbenzene	21.359	134	147864	9.02 ppb(v	98
103) Hexachloroethane	21.830	201	251942	10.12 ppb(v	81
104) 1,2,4-Trichlorobenzene	23.145	180	217973	8.42 ppb(v	98
105) Naphthalene	23.274	128	435411	7.63 ppb(v	98
106) Hexachlorobutadiene	23.720	225	235111	9.42 ppb(v	98
108) TVHC as equiv Pentane	5.691	TIC	910207	12.61 ppb(v	100

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

7.3.20

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17166.D
Acq On    : 21 Mar 2016  10:38 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 21 11:21:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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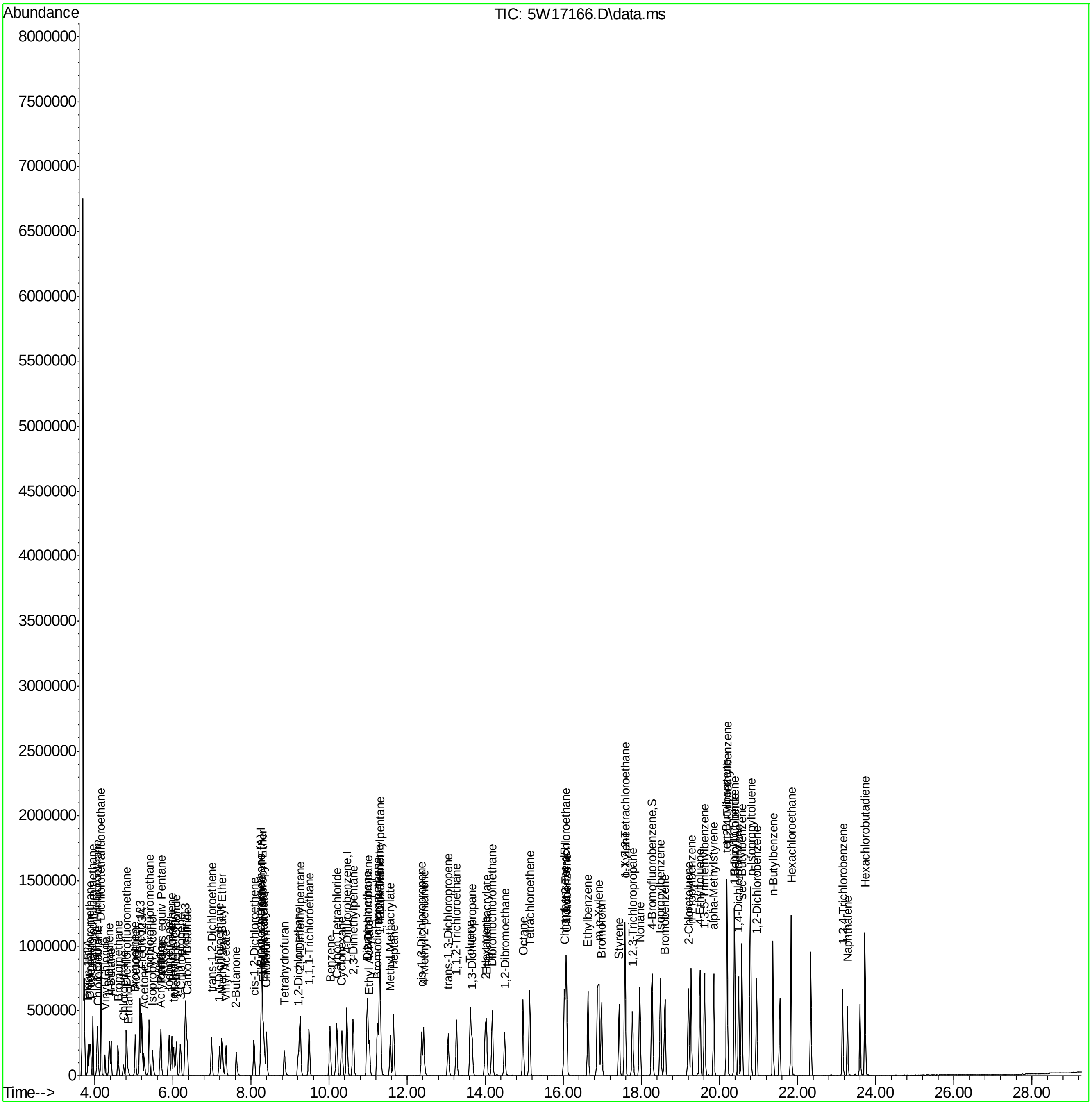


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54346.D Vial: 3
Acq On : 21 Mar 2016 3:26 pm Operator: YOUMINH
Sample : BS Inst : MSW
Misc : MS99296,VW2170,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:40 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	106973	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	593601	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	263759	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.76	95	294774	10.19 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 101.90%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.00	65	83337	12.22 PPBV	97
4) CHLORODIFLUOROMETHANE	5.04	67	29918	10.53 PPBV	100
5) DICHLORODIFLUOROMETHANE	5.15	85	306724	9.65 PPBV	100
6) PROPYLENE	5.07	41	106153	10.90 PPBV	97
7) FREON 114	5.38	85	332804	9.98 PPBV	96
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.27	65	221808	9.92 PPBV	99
9) CHLOROMETHANE	5.30	52	36472	12.46 PPBV	96
10) VINYL CHLORIDE	5.50	62	131636	11.62 PPBV	100
11) 1,3-BUTADIENE	5.62	54	101972	11.37 PPBV	99
12) n-BUTANE	5.67	58	29820	11.60 PPBV	99
13) BROMOMETHANE	5.87	94	112232	10.20 PPBV	98
14) CHLOROETHANE	6.02	64	70619	11.15 PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	269524	10.02 PPBV	99
16) ACROLEIN	6.40	56	50523	8.91 PPBV	95
17) TRICHLOROFLUOROMETHANE	6.66	101	271403	8.98 PPBV	100
18) ISOPROPYL ALCOHOL	6.69	45	207421	7.03 PPBV	100
19) ACETONE	6.52	58	60576	10.25 PPBV	98
21) ACRYLONITRILE	6.90	53	99101	10.80 PPBV	99
22) PENTANE	6.95	57	37161	8.86 PPBV	98
23) IODOMETHANE	7.16	142	313098	9.35 PPBV	98
24) 1,1-DICHLOROETHYLENE	7.20	96	123168	8.83 PPBV	97
25) CARBON DISULFIDE	7.60	76	363725	11.59 PPBV	98
26) ETHANOL	6.09	45	48620	9.10 PPBV	98
27) ACETONITRILE	6.29	41	98201	10.51 PPBV	99
28) BROMOETHENE	6.32	106	114937	9.49 PPBV	100
29) METHYLENE CHLORIDE	7.29	84	111174	10.50 PPBV	95
30) 3-CHLOROPROPENE	7.40	76	61424	11.70 PPBV	93
31) FREON 113	7.50	151	220740	10.13 PPBV	95
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	123269	9.73 PPBV	95
33) TERTIARY BUTYL ALCOHOL	7.21	59	264052	10.37 PPBV	98
34) METHYL TERTIARY BUTYL ETHE	8.32	73	343669	10.16 PPBV	98
35) TETRAHYDROFURAN	9.64	72	63064	12.71 PPBV	99
36) HEXANE	9.16	57	200063	10.76 PPBV	95
37) VINYL ACETATE	8.36	86	35834	12.65 PPBV #	95
38) 1,1-DICHLOROETHANE	8.27	63	225385	11.67 PPBV	99
39) METHYL ETHYL KETONE	8.61	72	61304	12.17 PPBV	99
40) cis-1,2-DICHLOROETHYLENE	9.00	96	126932	9.76 PPBV	96
41) DI-ISOPROPYL ETHER	9.14	87	115582	11.44 PPBV	99
42) ETHYL ACETATE	9.16	61	41267	11.95 PPBV #	85
43) METHYL ACRYLATE	9.16	55	218934	10.76 PPBV	100
44) CHLOROFORM	9.26	83	239331	10.34 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54346.D Vial: 3
Acq On : 21 Mar 2016 3:26 pm Operator: YOUMINH
Sample : BS Inst : MSW
Misc : MS99296,VW2170,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:40 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	2,4-DIMETHYLPENTANE	9.95	57	246565	11.75	PPBV		99
46)	1,1,1-TRICHLOROETHANE	10.16	97	243041	9.70	PPBV		99
47)	CARBON TETRACHLORIDE	10.72	117	251194	9.52	PPBV		100
48)	1,2-DICHLOROETHANE	9.93	62	137546	10.28	PPBV		99
50)	BENZENE	10.58	78	411708	10.81	PPBV		100
51)	CYCLOHEXANE	10.84	84	181826	10.03	PPBV		97
52)	2,3-DIMETHYLPENTANE	11.02	71	93544	11.06	PPBV		99
53)	TRICHLOROETHYLENE	11.55	95	158274	9.00	PPBV		100
54)	DIBROMOMETHANE	11.32	174	157705	9.36	PPBV		100
55)	1,2-DICHLOROPROPANE	11.34	63	143739	10.24	PPBV		95
56)	ETHYL ACRYLATE	11.28	55	266222	10.71	PPBV		99
57)	BROMODICHLOROMETHANE	11.52	83	253329	8.94	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	656342	10.11	PPBV		99
59)	1,4-DIOXANE	11.56	88	84587	10.39	PPBV		97
60)	METHYL METHACRYLATE	11.70	69	141348	10.71	PPBV		96
61)	HEPTANE	11.79	43	223640	10.15	PPBV		99
62)	METHYL ISOBUTYL KETONE	12.39	43	255257	10.20	PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.36	75	206234	9.90	PPBV		93
64)	TOLUENE	13.33	92	292284	10.69	PPBV		99
65)	1,3-DICHLOROPROPANE	13.35	76	211876	10.77	PPBV		97
66)	trans-1,3-DICHLOROPROPENE	12.86	75	160941	10.92	PPBV		94
67)	1,1,2-TRICHLOROETHANE	13.05	83	129472	11.14	PPBV		98
69)	ETHYL METHACRYLATE	13.55	69	227581	10.81	PPBV		98
70)	2-HEXANONE	13.56	58	137113	10.55	PPBV		94
71)	TETRACHLOROETHYLENE	14.48	164	193342	9.67	PPBV		100
72)	DIBROMOCHLOROMETHANE	13.77	129	264875	9.69	PPBV		100
73)	1,2-DIBROMOETHANE	14.02	107	199935	10.57	PPBV		100
74)	OCTANE	14.27	43	309996	10.57	PPBV		99
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	207691	9.77	PPBV		91
76)	CHLOROBENZENE	15.19	112	363971	10.21	PPBV		99
77)	ETHYLBENZENE	15.56	91	570461	10.04	PPBV		99
78)	m,p-XYLENE	15.75	106	468239	20.20	PPBV		100
79)	o-XYLENE	16.27	106	218283	9.92	PPBV		99
80)	STYRENE	16.15	104	345393	10.95	PPBV		98
81)	1,2,3-TRICHLOROPROPANE	16.40	75	218464	9.40	PPBV		97
82)	NONANE	16.45	43	309631	10.66	PPBV		100
83)	BROMOFORM	15.88	173	250135	10.05	PPBV		99
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	300309	10.00	PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	660436	9.59	PPBV		100
87)	BROMOBENZENE	17.01	156	184255	10.14	PPBV		99
88)	2-CHLOROTOLUENE	17.42	126	149685	9.87	PPBV	#	81
89)	n-PROPYLBENZENE	17.44	120	170388	9.90	PPBV		99
90)	4-ETHYLTOLUENE	17.59	105	554299	9.90	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	502931	9.08	PPBV		97
92)	ALPHA-METHYLSTYRENE	17.86	118	237200	10.32	PPBV		100
93)	TERT-BUTYLBENZENE	18.13	134	128356	9.65	PPBV		97
94)	1,2,4-TRIMETHYLBENZENE	18.13	105	457081	8.96	PPBV		98
95)	m-DICHLOROBENZENE	18.32	146	245071	9.47	PPBV		100
96)	BENZYL CHLORIDE	18.30	91	264790	9.41	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54346.D                    Vial: 3
Acq On    : 21 Mar 2016   3:26 pm                     Operator: YOUMINH
Sample    : BS                                        Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:40 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

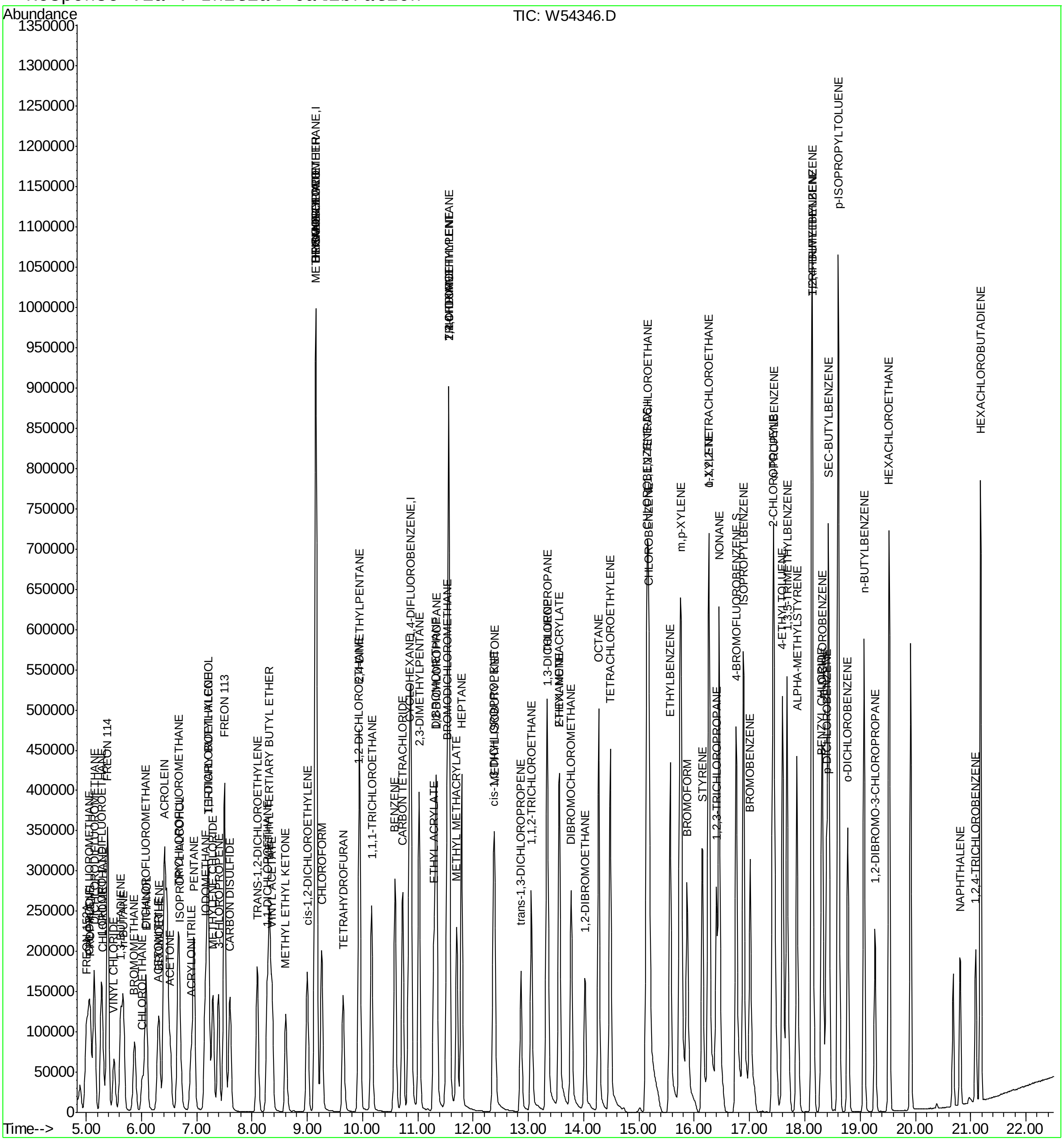
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.39	146	238113	9.88	PPBV	100
98)	SEC-BUTYLBENZENE	18.43	134	150081	9.45	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.60	134	158370	9.35	PPBV	99
100)	o-DICHLOROBENZENE	18.78	146	244145	9.19	PPBV	99
101)	n-BUTYLBENZENE	19.07	134	130327	10.05	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	105360	8.60	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	205930	9.65	PPBV	99
104)	HEXACHLOROBUTADIENE	21.18	225	201453	8.61	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	85943	8.81	PPBV	99
106)	NAPHTHALENE	20.81	128	195878	8.15	PPBV	99

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54346.D                   Vial: 3
Acq On    : 21 Mar 2016   3:26 pm                    Operator: YOUMINH
Sample    : BS                                       Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22  9:52 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54347.D                    Vial: 3
Acq On    : 21 Mar 2016   5:42 pm                     Operator: YOUMINH
Sample    : BSD                                       Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:45 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	104944	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	583756	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	250525	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.76	95	281604	10.25 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 102.50%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.01	65	74983	11.21 PPBV	95
4) CHLORODIFLUOROMETHANE	5.05	67	26380	9.46 PPBV	95
5) DICHLORODIFLUOROMETHANE	5.15	85	281197	9.02 PPBV	100
6) PROPYLENE	5.08	41	96748	10.13 PPBV	98
7) FREON 114	5.40	85	305150	9.33 PPBV	98
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	192602	8.78 PPBV	98
9) CHLOROMETHANE	5.31	52	33375	11.63 PPBV	94
10) VINYL CHLORIDE	5.51	62	124166	11.17 PPBV	99
11) 1,3-BUTADIENE	5.63	54	97047	11.03 PPBV	98
12) n-BUTANE	5.68	58	28576	11.33 PPBV	97
13) BROMOMETHANE	5.88	94	112475	10.41 PPBV	98
14) CHLOROETHANE	6.02	64	70005	11.26 PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	256183	9.70 PPBV	99
16) ACROLEIN	6.41	56	49050	8.82 PPBV	96
17) TRICHLOROFLUOROMETHANE	6.67	101	267814	9.03 PPBV	100
18) ISOPROPYL ALCOHOL	6.71	45	256137	8.86 PPBV	100
19) ACETONE	6.52	58	56532	9.75 PPBV	95
21) ACRYLONITRILE	6.90	53	87928	9.77 PPBV	99
22) PENTANE	6.96	57	33848	8.23 PPBV	99
23) IODOMETHANE	7.16	142	301421	9.18 PPBV	97
24) 1,1-DICHLOROETHYLENE	7.21	96	119116	8.70 PPBV	97
25) CARBON DISULFIDE	7.60	76	362467	11.77 PPBV	98
26) ETHANOL	6.11	45	49596	9.47 PPBV	98
27) ACETONITRILE	6.30	41	90784	9.90 PPBV	99
28) BROMOETHENE	6.33	106	116876	9.83 PPBV	100
29) METHYLENE CHLORIDE	7.30	84	105195	10.12 PPBV	97
30) 3-CHLOROPROPENE	7.40	76	62805	12.19 PPBV	93
31) FREON 113	7.50	151	216842	10.15 PPBV	95
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	122524	9.86 PPBV	95
33) TERTIARY BUTYL ALCOHOL	7.22	59	257389	10.30 PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.32	73	337605	10.17 PPBV	98
35) TETRAHYDROFURAN	9.65	72	60749	12.48 PPBV	98
36) HEXANE	9.16	57	204308	11.20 PPBV	94
37) VINYL ACETATE	8.36	86	33551	12.07 PPBV	100
38) 1,1-DICHLOROETHANE	8.28	63	225811	11.92 PPBV	99
39) METHYL ETHYL KETONE	8.61	72	59914	12.13 PPBV	97
40) cis-1,2-DICHLOROETHYLENE	9.00	96	129074	10.12 PPBV	95
41) DI-ISOPROPYL ETHER	9.14	87	110146	11.11 PPBV	98
42) ETHYL ACETATE	9.16	61	39831	11.75 PPBV #	78
43) METHYL ACRYLATE	9.16	55	219723	11.01 PPBV	100
44) CHLOROFORM	9.26	83	237026	10.44 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54347.D                  Vial: 3
Acq On    : 21 Mar 2016   5:42 pm                   Operator: YOUMINH
Sample    : BSD                                     Inst     : MSW
Misc      : MS99296,VW2170,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:45 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	2,4-DIMETHYLPENTANE	9.95	57	245907	11.95 PPBV		99
46)	1,1,1-TRICHLOROETHANE	10.16	97	240828	9.80 PPBV		99
47)	CARBON TETRACHLORIDE	10.72	117	248848	9.61 PPBV		100
48)	1,2-DICHLOROETHANE	9.93	62	139207	10.60 PPBV		99
50)	BENZENE	10.59	78	408885	10.91 PPBV		99
51)	CYCLOHEXANE	10.84	84	181506	10.18 PPBV		97
52)	2,3-DIMETHYLPENTANE	11.02	71	93770	11.28 PPBV		98
53)	TRICHLOROETHYLENE	11.55	95	160410	9.28 PPBV		99
54)	DIBROMOMETHANE	11.33	174	154634	9.33 PPBV		99
55)	1,2-DICHLOROPROPANE	11.34	63	142751	10.34 PPBV		95
56)	ETHYL ACRYLATE	11.29	55	257452	10.53 PPBV		99
57)	BROMODICHLOROMETHANE	11.52	83	260191	9.33 PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.57	57	659997	10.33 PPBV		99
59)	1,4-DIOXANE	11.58	88	80850	10.10 PPBV	#	76
60)	METHYL METHACRYLATE	11.71	69	137356	10.58 PPBV		96
61)	HEPTANE	11.79	43	222938	10.29 PPBV		99
62)	METHYL ISOBUTYL KETONE	12.39	43	254867	10.35 PPBV		99
63)	cis-1,3-DICHLOROPROPENE	12.36	75	216453	10.56 PPBV		93
64)	TOLUENE	13.33	92	286875	10.67 PPBV		99
65)	1,3-DICHLOROPROPANE	13.35	76	210966	10.90 PPBV		97
66)	trans-1,3-DICHLOROPROPENE	12.87	75	158241	10.91 PPBV		95
67)	1,1,2-TRICHLOROETHANE	13.06	83	126957	11.11 PPBV		98
69)	ETHYL METHACRYLATE	13.55	69	216954	10.85 PPBV		99
70)	2-HEXANONE	13.57	58	135976	11.02 PPBV		97
71)	TETRACHLOROETHYLENE	14.48	164	188480	9.92 PPBV		100
72)	DIBROMOCHLOROMETHANE	13.78	129	259230	9.98 PPBV		99
73)	1,2-DIBROMOETHANE	14.03	107	194816	10.84 PPBV		100
74)	OCTANE	14.27	43	312420	11.21 PPBV		98
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	198251	9.81 PPBV		99
76)	CHLOROBENZENE	15.19	112	356368	10.53 PPBV		99
77)	ETHYLBENZENE	15.56	91	553851	10.26 PPBV		99
78)	m,p-XYLENE	15.75	106	449360	20.41 PPBV		98
79)	o-XYLENE	16.27	106	209291	10.02 PPBV		100
80)	STYRENE	16.15	104	326895	10.91 PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.41	75	206227	9.35 PPBV		97
82)	NONANE	16.45	43	306584	11.11 PPBV		99
83)	BROMOFORM	15.88	173	241589	10.21 PPBV		99
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	289135	10.14 PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	625794	9.56 PPBV		100
87)	BROMOBENZENE	17.02	156	176193	10.21 PPBV		98
88)	2-CHLOROTOLUENE	17.42	126	144114	10.01 PPBV	#	71
89)	n-PROPYLBENZENE	17.44	120	161047	9.85 PPBV		96
90)	4-ETHYLTOLUENE	17.60	105	516093	9.71 PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	476383	9.06 PPBV		97
92)	ALPHA-METHYLSTYRENE	17.86	118	212788	9.75 PPBV		99
93)	TERT-BUTYLBENZENE	18.13	134	120682	9.56 PPBV		98
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	433751	8.95 PPBV		99
95)	m-DICHLOROBENZENE	18.32	146	233932	9.52 PPBV		100
96)	BENZYL CHLORIDE	18.30	91	249005	9.32 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54347.D                    Vial: 3
Acq On    : 21 Mar 2016   5:42 pm                     Operator: YOUMINH
Sample    : BSD                                       Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:45 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.39	146	216564	9.46	PPBV	100
98)	SEC-BUTYLBENZENE	18.43	134	139796	9.27	PPBV	100
99)	p-ISOPROPYLTOLUENE	18.60	134	144964	9.01	PPBV	99
100)	o-DICHLOROBENZENE	18.78	146	227569	9.02	PPBV	100
101)	n-BUTYLBENZENE	19.07	134	119952	9.74	PPBV	100
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	96221	8.26	PPBV	99
103)	HEXACHLOROETHANE	19.53	201	193965	9.57	PPBV	100
104)	HEXACHLOROBUTADIENE	21.18	225	182060	8.19	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	75204	8.12	PPBV	99
106)	NAPHTHALENE	20.81	128	175567	7.69	PPBV	99

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54347.D                  Vial: 3
Acq On    : 21 Mar 2016   5:42 pm                   Operator: YOUMINH
Sample    : BSD                                     Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22  9:52 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
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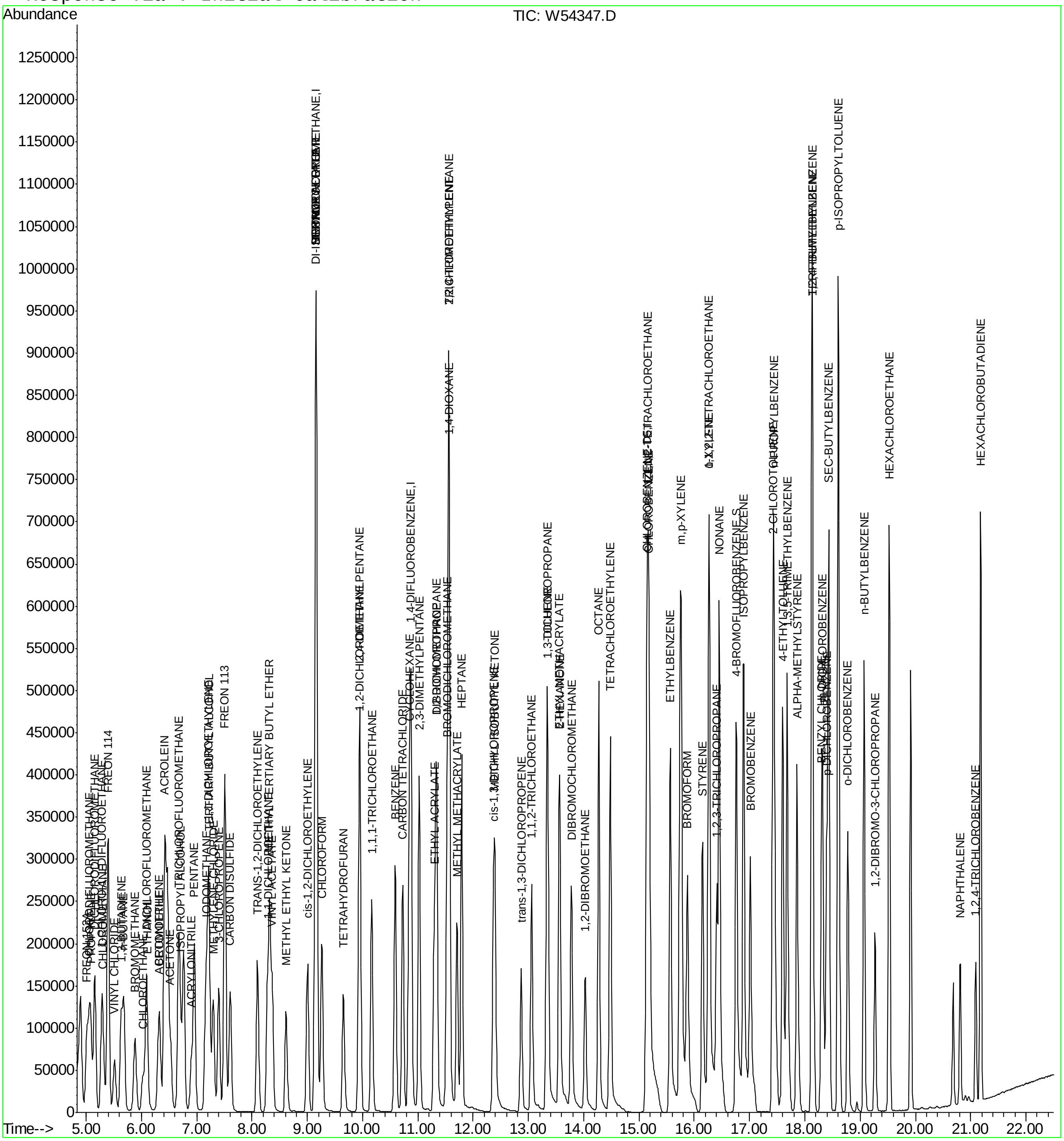


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17191.D
Acq On : 22 Mar 2016 9:47 am
Operator : THOMASH
Sample : BS
Misc : MS99577,v5w687,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 13:15:51 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.249	130	196497	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	711158	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	353933	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	196497	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	465680	9.97 ppb(v	-0.04
Spiked Amount 10.000	Range 65 - 128		Recovery = 99.70%		
Target Compounds					Qvalue
3) Freon 152A	3.819	65	114290	10.56 ppb(v	94
4) Chlorodifluoromethane	3.862	67	40460	10.14 ppb(v	96
5) Propene	3.887	41	147152	11.99 ppb(v	98
6) Dichlorodifluoromethane	3.942	85	436857	9.83 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	310894	10.46 ppb(v	96
8) Chloromethane	4.076	50	183741	11.82 ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	515022	10.31 ppb(v	100
10) Vinyl Chloride	4.254	62	194495	11.14 ppb(v#	99
11) 1,3-Butadiene	4.364	54	138615	10.62 ppb(v	96
12) n-Butane	4.407	58	29523	10.28 ppb(v	94
13) Bromomethane	4.590	94	191072	9.49 ppb(v	99
14) Chloroethane	4.731	64	87247	10.13 ppb(v	99
15) Dichlorofluoromethane	4.804	67	412410	10.15 ppb(v	99
16) Acetonitrile	5.037	41	171872	12.23 ppb(v	98
17) Freon 123	5.153	83	462530	9.70 ppb(v	99
18) Freon 123A	5.202	117	223754	8.62 ppb(v	99
19) Bromoethene	5.031	106	186650	9.64 ppb(v	97
20) Trichlorofluoromethane	5.386	101	419563	9.22 ppb(v	99
21) Acetone	5.251	58	86327	9.23 ppb(v	99
22) Pentane	5.691	57	43328	9.29 ppb(v	81
24) Iodomethane	5.899	142	492416	9.02 ppb(v	93
25) Isopropyl Alcohol	5.471	43	56750	9.30 ppb(v	88
26) 1,1-Dichloroethene	5.967	61	266732	9.74 ppb(v	97
27) Freon 113	6.322	101	370428	9.20 ppb(v	96
28) Methylene Chloride	6.083	84	159334	8.58 ppb(v	98
29) Carbon Disulfide	6.358	76	525567	9.75 ppb(v	100
30) Ethanol	4.847	45	77186	10.75 ppb(v	99
31) Acrylonitrile	5.667	53	142936	10.69 ppb(v	98
32) 3-Chloropropene	6.187	76	78490	9.64 ppb(v	90
33) trans-1,2-Dichloroethene	6.982	61	246605	10.03 ppb(v	100
34) tert-Butyl Alcohol	6.010	59	349292	9.14 ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	420022	8.62 ppb(v	94
36) Vinyl Acetate	7.349	43	527054	12.36 ppb(v	97
37) 1,1-Dichloroethane	7.190	63	322427	9.95 ppb(v	99
38) 2-Butanone	7.612	72	80307	9.47 ppb(v	76
39) Hexane	8.267	57	259098	9.34 ppb(v	92
40) cis-1,2-Dichloroethene	8.071	61	232994	9.67 ppb(v	99
41) Di-isopropyl Ether	8.279	87	136942	9.30 ppb(v	71
42) Ethyl Acetate	8.328	61	62164	11.30 ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17191.D
Acq On : 22 Mar 2016 9:47 am
Operator : THOMASH
Sample : BS
Misc : MS99577,v5w687,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 13:15:51 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Acrylate	8.310	55	343597	9.92	ppb(v	98
44) Chloroform	8.389	83	376929	9.33	ppb(v	100
45) 2,4-Dimethylpentane	9.252	57	315952	9.72	ppb(v	97
46) Tetrahydrofuran	8.848	72	81654	10.36	ppb(v	87
47) 1,1,1-Trichloroethane	9.484	97	347377	8.94	ppb(v	100
48) 1,2-Dichloroethane	9.203	62	215504	9.81	ppb(v	99
49) Benzene	10.017	78	534966	9.08	ppb(v	99
50) Carbon Tetrachloride	10.188	117	359164	8.97	ppb(v	99
51) Cyclohexane	10.323	56	266132	9.75	ppb(v	96
52) 2,3-Dimethylpentane	10.610	71	111257	9.13	ppb(v	86
54) 2,2,4-Trimethylpentane	11.301	57	904333	10.60	ppb(v	99
55) Heptane	11.644	71	172566	9.91	ppb(v	96
56) Trichloroethene	11.283	95	247308	9.14	ppb(v	98
57) 1,2-Dichloropropane	10.983	63	217977	10.76	ppb(v	96
58) Dibromomethane	10.965	174	246113	9.26	ppb(v	93
59) Ethyl Acrylate	11.026	55	421424	10.64	ppb(v	100
60) Methyl Methacrylate	11.558	69	186065	9.59	ppb(v	90
61) 1,4-Dioxane	11.307	88	126627	9.32	ppb(v	94
62) Bromodichloromethane	11.234	83	399428	9.38	ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	312968	9.09	ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	172189	11.02	ppb(v	90
65) trans-1,3-Dichloropropene	13.045	75	275326	9.68	ppb(v	98
66) Toluene	13.614	91	620167	8.97	ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	231126	9.36	ppb(v	99
68) 1,3-Dichloropropane	13.657	76	306071	9.78	ppb(v	94
69) 2-Hexanone	13.993	58	235704	10.97	ppb(v	91
70) Ethyl Methacrylate	14.024	69	330776	10.06	ppb(v	99
71) Dibromochloromethane	14.171	129	431197	9.46	ppb(v	99
72) Tetrachloroethene	15.131	166	328072	9.09	ppb(v	97
73) 1,2-Dibromoethane	14.489	107	382452	9.45	ppb(v	99
74) Octane	14.960	43	468184	12.22	ppb(v	89
75) 1,1,1,2-Tetrachloroethane	16.055	131	291763	9.31	ppb(v	98
77) Chlorobenzene	16.073	112	499527	8.58	ppb(v	99
78) Ethylbenzene	16.624	91	786335	8.67	ppb(v	99
79) m,p-Xylene	16.893	91	1220191	17.49	ppb(v	98
80) Styrene	17.419	104	446189	8.58	ppb(v	98
81) Nonane	17.945	43	474271	11.82	ppb(v	95
82) o-Xylene	17.572	91	620244	8.73	ppb(v	99
83) Bromoform	16.972	173	446465	9.22	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	547955	9.63	ppb(v	99
85) 1,2,3-Trichloropropane	17.762	75	378159	9.42	ppb(v	98
86) Isopropylbenzene	18.477	105	868393	8.70	ppb(v	100
87) Bromobenzene	18.594	156	305910	8.66	ppb(v	93
88) 2-Chlorotoluene	19.199	126	213491	8.44	ppb(v	95
89) n-Propylbenzene	19.267	120	221593	8.49	ppb(v	92
91) 4-Ethyltoluene	19.487	105	802321	8.61	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	672209	8.37	ppb(v	99
93) alpha-Methylstyrene	19.842	118	345469	8.57	ppb(v	98
94) tert-Butylbenzene	20.178	134	140548	8.28	ppb(v	93
95) 1,2,4-Trimethylbenzene	20.190	105	674470	8.38	ppb(v	94

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17191.D
Acq On    : 22 Mar 2016   9:47 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 22 13:15:51 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

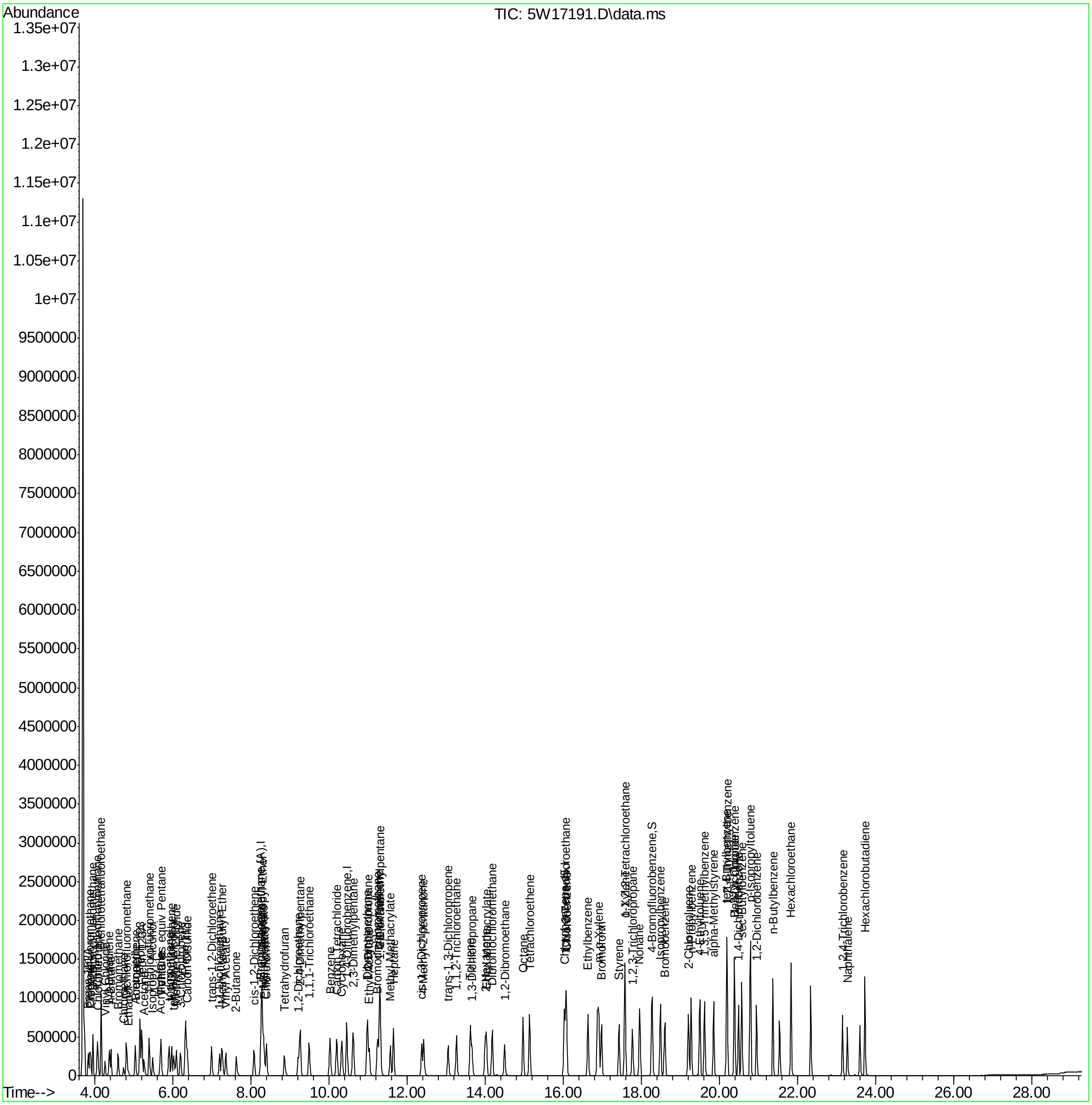
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96)	1,3-Dichlorobenzene	20.380	146	475387	8.43	ppb(v	97
97)	Benzyl Chloride	20.374	91	610829	8.71	ppb(v	98
98)	1,4-Dichlorobenzene	20.478	146	465560	7.99	ppb(v	97
99)	sec-Butylbenzene	20.564	134	178830	8.38	ppb(v	98
100)	p-Isopropyltoluene	20.790	134	202715	8.59	ppb(v	97
101)	1,2-Dichlorobenzene	20.943	146	445941	8.31	ppb(v	96
102)	n-Butylbenzene	21.359	134	177455	8.48	ppb(v	100
103)	Hexachloroethane	21.824	201	299023	9.41	ppb(v	90
104)	1,2,4-Trichlorobenzene	23.145	180	254772	7.71	ppb(v	100
105)	Naphthalene	23.268	128	519757	7.14	ppb(v	99
106)	Hexachlorobutadiene	23.720	225	265978	8.35	ppb(v	99
108)	TVHC as equiv Pentane	5.691	TIC	1171466	11.94	ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17191.D
Acq On    : 22 Mar 2016   9:47 am
Operator  : THOMASH
Sample    : BS
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 22 13:15:51 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



m5w637.M Tue Mar 22 13:17:45 2016 GCMS5W   Page: 4

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17192.D
Acq On    : 22 Mar 2016  10:29 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 22 13:16:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.249	130	183859	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	669881	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.012	82	339642	10.00 ppb(v	-0.04
107) Bromochloromethane (A)	8.249	130	183859	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	442229	9.87 ppb(v	-0.04
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.70%		
Target Compounds					Qvalue
3) Freon 152A	3.819	65	115509	11.40 ppb(v	95
4) Chlorodifluoromethane	3.862	67	40600	10.87 ppb(v	96
5) Propene	3.881	41	149684	13.04 ppb(v	97
6) Dichlorodifluoromethane	3.942	85	431108	10.37 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	306257	11.01 ppb(v	97
8) Chloromethane	4.076	50	184571	12.69 ppb(v	98
9) Dichlorotetrafluoroethane	4.156	85	508633	10.88 ppb(v	99
10) Vinyl Chloride	4.260	62	191373	11.71 ppb(v#	98
11) 1,3-Butadiene	4.364	54	137721	11.28 ppb(v	95
12) n-Butane	4.407	58	29422	10.95 ppb(v	71
13) Bromomethane	4.596	94	189051	10.04 ppb(v	99
14) Chloroethane	4.731	64	88787	11.02 ppb(v	99
15) Dichlorofluoromethane	4.804	67	411566	10.83 ppb(v	100
16) Acetonitrile	5.037	41	176814	13.44 ppb(v	97
17) Freon 123	5.153	83	457900	10.26 ppb(v	99
18) Freon 123A	5.202	117	221604	9.12 ppb(v	99
19) Bromoethene	5.031	106	185306	10.22 ppb(v	96
20) Trichlorofluoromethane	5.386	101	414707	9.74 ppb(v	100
21) Acetone	5.251	58	86449	9.87 ppb(v	96
22) Pentane	5.691	57	42851	9.81 ppb(v	88
24) Iodomethane	5.899	142	491895	9.62 ppb(v	93
25) Isopropyl Alcohol	5.471	43	58008	10.16 ppb(v	92
26) 1,1-Dichloroethene	5.967	61	270212	10.55 ppb(v	98
27) Freon 113	6.315	101	373375	9.91 ppb(v	99
28) Methylene Chloride	6.083	84	160038	9.21 ppb(v	98
29) Carbon Disulfide	6.358	76	526167	10.43 ppb(v	99
30) Ethanol	4.847	45	77230	11.49 ppb(v	98
31) Acrylonitrile	5.667	53	142827	11.41 ppb(v	99
32) 3-Chloropropene	6.187	76	78420	10.29 ppb(v	81
33) trans-1,2-Dichloroethene	6.982	61	244683	10.64 ppb(v	99
34) tert-Butyl Alcohol	6.016	59	350963	9.82 ppb(v	95
35) Methyl tert-Butyl Ether	7.251	73	419060	9.19 ppb(v	94
36) Vinyl Acetate	7.349	43	530963	13.31 ppb(v	97
37) 1,1-Dichloroethane	7.190	63	321343	10.60 ppb(v	97
38) 2-Butanone	7.612	72	79505	10.02 ppb(v	86
39) Hexane	8.273	57	258669	9.97 ppb(v	94
40) cis-1,2-Dichloroethene	8.071	61	233021	10.33 ppb(v	99
41) Di-isopropyl Ether	8.279	87	135373	9.82 ppb(v	69
42) Ethyl Acetate	8.322	61	63208	12.28 ppb(v	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17192.D
Acq On : 22 Mar 2016 10:29 am
Operator : THOMASH
Sample : BSD
Misc : MS99577,v5w687,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 13:16:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
43) Methyl Acrylate	8.310	55	350494	10.82 ppb(v	97
44) Chloroform	8.389	83	375567	9.93 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	318871	10.48 ppb(v	98
46) Tetrahydrofuran	8.848	72	80199	10.87 ppb(v	86
47) 1,1,1-Trichloroethane	9.484	97	344418	9.47 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	216111	10.51 ppb(v	99
49) Benzene	10.017	78	517726	9.39 ppb(v	99
50) Carbon Tetrachloride	10.188	117	344915	9.21 ppb(v	99
51) Cyclohexane	10.323	56	260925	10.22 ppb(v	95
52) 2,3-Dimethylpentane	10.610	71	109950	9.65 ppb(v	90
54) 2,2,4-Trimethylpentane	11.301	57	883746	11.00 ppb(v	99
55) Heptane	11.644	71	165841	10.11 ppb(v	97
56) Trichloroethene	11.277	95	239360	9.39 ppb(v	99
57) 1,2-Dichloropropane	10.989	63	215764	11.30 ppb(v	96
58) Dibromomethane	10.965	174	242942	9.70 ppb(v	93
59) Ethyl Acrylate	11.026	55	417399	11.19 ppb(v	99
60) Methyl Methacrylate	11.558	69	179941	9.84 ppb(v	89
61) 1,4-Dioxane	11.307	88	123932	9.69 ppb(v	90
62) Bromodichloromethane	11.234	83	392965	9.79 ppb(v	100
63) cis-1,3-Dichloropropene	12.366	75	310973	9.59 ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	170711	11.60 ppb(v	90
65) trans-1,3-Dichloropropene	13.045	75	273453	10.21 ppb(v	100
66) Toluene	13.614	91	613794	9.43 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	228383	9.82 ppb(v	98
68) 1,3-Dichloropropane	13.657	76	303315	10.29 ppb(v	93
69) 2-Hexanone	13.993	58	236499	11.68 ppb(v	92
70) Ethyl Methacrylate	14.024	69	332447	10.73 ppb(v	98
71) Dibromochloromethane	14.171	129	432155	10.07 ppb(v	99
72) Tetrachloroethene	15.131	166	320210	9.41 ppb(v	97
73) 1,2-Dibromoethane	14.489	107	372193	9.76 ppb(v	99
74) Octane	14.960	43	463035	12.83 ppb(v	89
75) 1,1,1,2-Tetrachloroethane	16.055	131	286976	9.72 ppb(v	96
77) Chlorobenzene	16.079	112	492213	8.81 ppb(v	98
78) Ethylbenzene	16.624	91	767742	8.82 ppb(v	99
79) m,p-Xylene	16.875	91	1194980	17.85 ppb(v	99
80) Styrene	17.419	104	441181	8.85 ppb(v	99
81) Nonane	17.945	43	466003	12.10 ppb(v	92
82) o-Xylene	17.572	91	614789	9.02 ppb(v	98
83) Bromoform	16.972	173	448642	9.66 ppb(v	98
84) 1,1,2,2-Tetrachloroethane	17.572	83	539285	9.87 ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	373458	9.70 ppb(v	98
86) Isopropylbenzene	18.477	105	863587	9.02 ppb(v	100
87) Bromobenzene	18.594	156	299377	8.83 ppb(v	94
88) 2-Chlorotoluene	19.199	126	210970	8.69 ppb(v	93
89) n-Propylbenzene	19.267	120	223322	8.91 ppb(v	99
91) 4-Ethyltoluene	19.493	105	804714	9.00 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	666081	8.64 ppb(v	100
93) alpha-Methylstyrene	19.842	118	344042	8.89 ppb(v	98
94) tert-Butylbenzene	20.178	134	141765	8.70 ppb(v	97
95) 1,2,4-Trimethylbenzene	20.190	105	677197	8.77 ppb(v	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17192.D
Acq On : 22 Mar 2016 10:29 am
Operator : THOMASH
Sample : BSD
Misc : MS99577,v5w687,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 22 13:16:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.380	146	479076	8.86	ppb(v	97
97) Benzyl Chloride	20.374	91	611389	9.09	ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	467212	8.36	ppb(v	96
99) sec-Butylbenzene	20.564	134	177730	8.68	ppb(v	98
100) p-Isopropyltoluene	20.790	134	211787	9.35	ppb(v	97
101) 1,2-Dichlorobenzene	20.943	146	448364	8.71	ppb(v	97
102) n-Butylbenzene	21.359	134	180940	9.01	ppb(v	98
103) Hexachloroethane	21.824	201	305388	10.02	ppb(v	91
104) 1,2,4-Trichlorobenzene	23.145	180	253497	8.00	ppb(v	99
105) Naphthalene	23.274	128	521722	7.46	ppb(v	100
106) Hexachlorobutadiene	23.720	225	274745	8.98	ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	1177442	12.82	ppb(v	100

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

7.3.24
7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17192.D
Acq On    : 22 Mar 2016  10:29 am
Operator  : THOMASH
Sample    : BSD
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 22 13:16:08 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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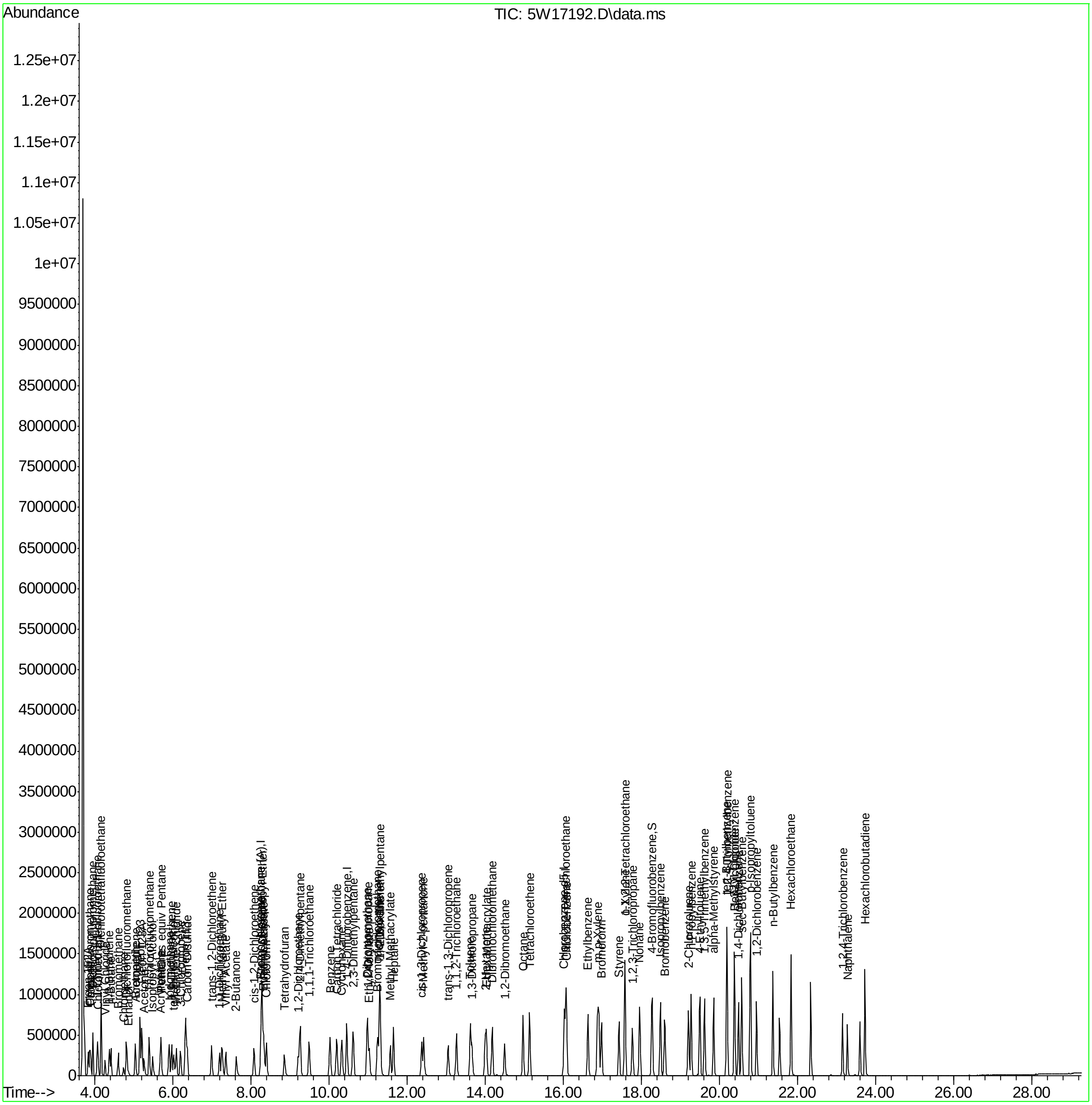


m5w637.M Tue Mar 22 13:17:48 2016 GCMS5W

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54371.D Vial: 3
Acq On : 22 Mar 2016 1:05 pm Operator: YOUMINH
Sample : BS Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:35 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	114106	10.00	PPBV	-0.02
49) 1,4-DIFLUOROBENZENE	10.86	114	626548	10.00	PPBV	-0.01
68) CHLOROBENZENE-D5	15.13	82	282905	10.00	PPBV	-0.01

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.75	95	308822	9.95	PPBV	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 99.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	4.98	65	83218	11.44	PPBV	96
4) CHLORODIFLUOROMETHANE	5.02	67	29178	9.62	PPBV	98
5) DICHLORODIFLUOROMETHANE	5.13	85	309289	9.13	PPBV	100
6) PROPYLENE	5.06	41	109711	10.56	PPBV	98
7) FREON 114	5.36	85	340442	9.57	PPBV	94
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.26	65	220839	9.26	PPBV	98
9) CHLOROMETHANE	5.29	52	38769	12.42	PPBV	96
10) VINYL CHLORIDE	5.49	62	141114	11.68	PPBV	99
11) 1,3-BUTADIENE	5.60	54	111195	11.62	PPBV	97
12) n-BUTANE	5.65	58	32460	11.84	PPBV	99
13) BROMOMETHANE	5.85	94	119812	10.20	PPBV	98
14) CHLOROETHANE	6.00	64	74404	11.01	PPBV	99
15) DICHLOROFLUOROMETHANE	6.06	67	272206	9.48	PPBV	99
16) ACROLEIN	6.38	56	53993	8.93	PPBV	99
17) TRICHLOROFLUOROMETHANE	6.64	101	279505	8.67	PPBV	99
18) ISOPROPYL ALCOHOL	6.68	45	279795	8.90	PPBV	98
19) ACETONE	6.50	58	62677	9.94	PPBV	99
20) 1,1-DICHLORO-1-FLUOROETHAN	6.74	81	249754	8.69	PPBV	99
21) ACRYLONITRILE	6.88	53	99665	10.18	PPBV	99
22) PENTANE	6.93	57	37620	8.41	PPBV	99
23) IODOMETHANE	7.14	142	323646	9.06	PPBV	98
24) 1,1-DICHLOROETHYLENE	7.18	96	131284	8.82	PPBV	95
25) CARBON DISULFIDE	7.58	76	387262	11.56	PPBV	98
26) ETHANOL	6.07	45	53128	9.33	PPBV	98
27) ACETONITRILE	6.27	41	96532	9.69	PPBV	100
28) BROMOETHENE	6.30	106	122569	9.48	PPBV	100
29) METHYLENE CHLORIDE	7.27	84	116423	10.31	PPBV	94
30) 3-CHLOROPROPENE	7.38	76	64850	11.58	PPBV	92
31) FREON 113	7.49	151	220071	9.47	PPBV	92
32) TRANS-1,2-DICHLOROETHYLENE	8.08	96	129129	9.55	PPBV	94
33) TERTIARY BUTYL ALCOHOL	7.20	59	292688	10.77	PPBV	98
34) METHYL TERTIARY BUTYL ETHE	8.30	73	355613	9.85	PPBV	98
35) TETRAHYDROFURAN	9.64	72	64100	12.11	PPBV	95
36) HEXANE	9.14	57	224219	11.31	PPBV	94
37) VINYL ACETATE	8.35	86	36020	11.92	PPBV #	95
38) 1,1-DICHLOROETHANE	8.26	63	240106	11.65	PPBV	99
39) METHYL ETHYL KETONE	8.60	72	64498	12.01	PPBV	95
40) cis-1,2-DICHLOROETHYLENE	8.99	96	135456	9.77	PPBV	95
41) DI-ISOPROPYL ETHER	9.13	87	116669	10.83	PPBV	94
42) ETHYL ACETATE	9.15	61	44346	12.04	PPBV #	68
43) METHYL ACRYLATE	9.15	55	245065	11.29	PPBV	99

(#) = qualifier out of range (m) = manual integration
W54371.D MW2167.M Wed Mar 23 10:00:29 2016 MSW Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54371.D Vial: 3
Acq On : 22 Mar 2016 1:05 pm Operator: YOUMINH
Sample : BS Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:35 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.25	83	251150	10.18	PPBV		100
45)	2,4-DIMETHYLPENTANE	9.94	57	262134	11.71	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.15	97	249597	9.34	PPBV		98
47)	CARBON TETRACHLORIDE	10.71	117	251693	8.94	PPBV		100
48)	1,2-DICHLOROETHANE	9.92	62	146912	10.29	PPBV		99
50)	BENZENE	10.58	78	436070	10.84	PPBV		100
51)	CYCLOHEXANE	10.83	84	186482	9.75	PPBV		94
52)	2,3-DIMETHYLPENTANE	11.01	71	97799	10.96	PPBV		97
53)	TRICHLOROETHYLENE	11.55	95	169440	9.13	PPBV		98
54)	DIBROMOMETHANE	11.32	174	160636	9.03	PPBV		97
55)	1,2-DICHLOROPROPANE	11.33	63	155504	10.49	PPBV		94
56)	ETHYL ACRYLATE	11.28	55	280591	10.69	PPBV		98
57)	BROMODICHLOROMETHANE	11.51	83	277088	9.26	PPBV		98
58)	2,2,4-TRIMETHYLPENTANE	11.55	57	699782	10.21	PPBV		98
59)	1,4-DIOXANE	11.55	88	88670	10.32	PPBV		96
60)	METHYL METHACRYLATE	11.69	69	149236	10.71	PPBV		96
61)	HEPTANE	11.78	43	244463	10.51	PPBV		97
62)	METHYL ISOBUTYL KETONE	12.38	43	278361	10.53	PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.36	75	231836	10.54	PPBV		93
64)	TOLUENE	13.33	92	307648	10.66	PPBV		100
65)	1,3-DICHLOROPROPANE	13.34	76	230227	11.09	PPBV		98
66)	trans-1,3-DICHLOROPROPENE	12.86	75	169168	10.87	PPBV		96
67)	1,1,2-TRICHLOROETHANE	13.05	83	137490	11.21	PPBV		97
69)	ETHYL METHACRYLATE	13.54	69	236692	10.48	PPBV		98
70)	2-HEXANONE	13.55	58	155412	11.15	PPBV		97
71)	TETRACHLOROETHYLENE	14.47	164	197408	9.20	PPBV		99
72)	DIBROMOCHLOROMETHANE	13.76	129	272043	9.28	PPBV		100
73)	1,2-DIBROMOETHANE	14.02	107	208466	10.28	PPBV		100
74)	OCTANE	14.27	43	341014	10.84	PPBV		97
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	210193	9.21	PPBV		90
76)	CHLOROBENZENE	15.17	112	377799	9.88	PPBV		98
77)	ETHYLBENZENE	15.55	91	583885	9.58	PPBV		99
78)	m,p-XYLENE	15.75	106	481756	19.37	PPBV		100
79)	o-XYLENE	16.26	106	225331	9.55	PPBV		100
80)	STYRENE	16.14	104	348554	10.30	PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.39	75	224110	8.99	PPBV		95
82)	NONANE	16.44	43	345114	11.07	PPBV		98
83)	BROMOFORM	15.86	173	257951	9.66	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.25	83	317474	9.86	PPBV		100
86)	ISOPROPYLBENZENE	16.88	105	668450	9.05	PPBV		100
87)	BROMOBENZENE	17.00	156	188654	9.68	PPBV		96
88)	2-CHLOROTOLUENE	17.41	126	153384	9.43	PPBV	#	87
89)	n-PROPYLBENZENE	17.43	120	173115	9.38	PPBV		94
90)	4-ETHYLTOLUENE	17.59	105	534818	8.91	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.67	105	535088	9.01	PPBV		100
92)	ALPHA-METHYLSTYRENE	17.85	118	229781	9.32	PPBV		99
93)	TERT-BUTYLBENZENE	18.12	134	131770	9.24	PPBV		97
94)	1,2,4-TRIMETHYLBENZENE	18.12	105	474917	8.68	PPBV		99
95)	m-DICHLOROBENZENE	18.31	146	244531	8.81	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54371.D Vial: 3
Acq On : 22 Mar 2016 1:05 pm Operator: YOUMINH
Sample : BS Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:35 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

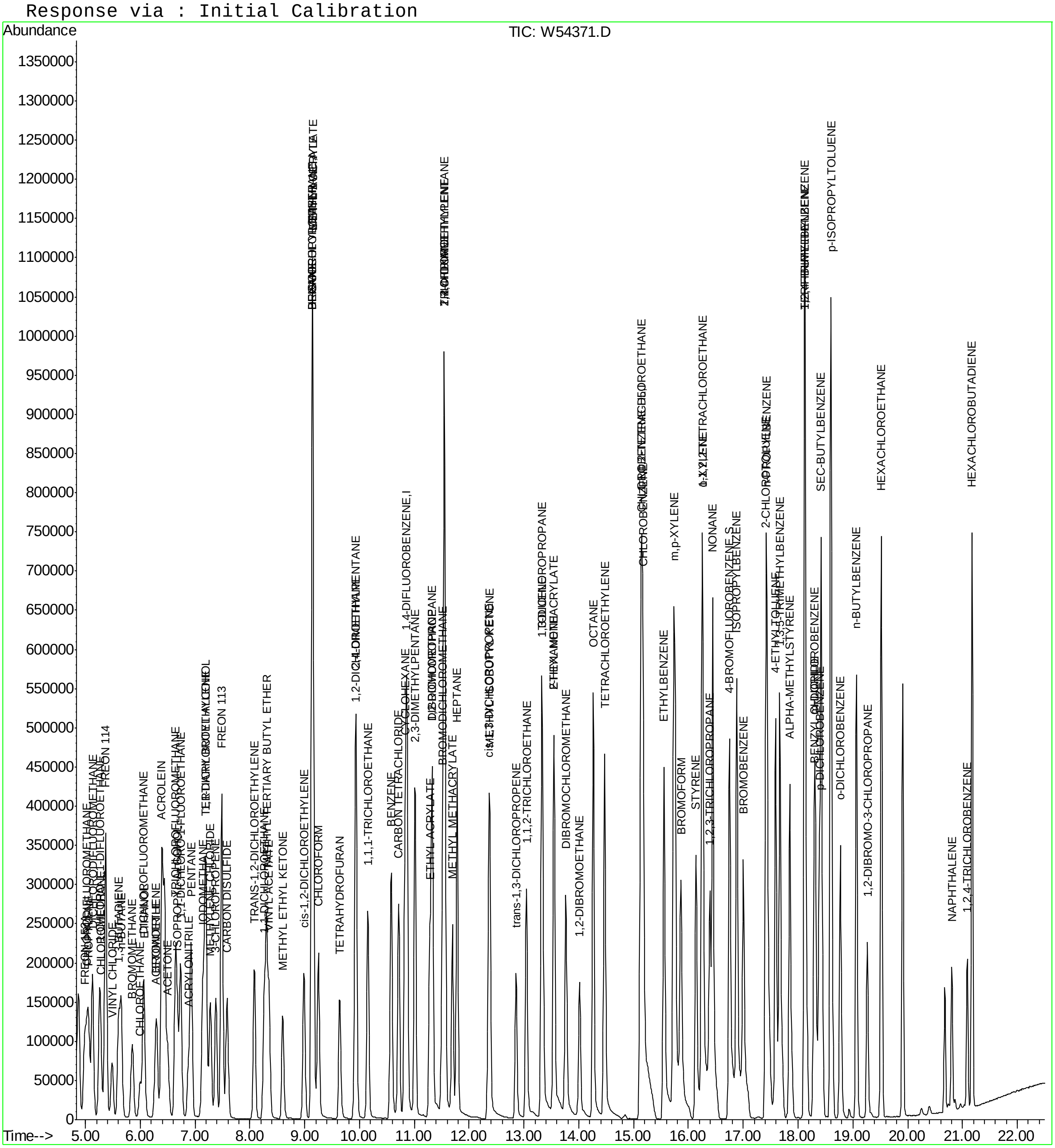
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.29	91	281172	9.32	PPBV	99
97)	p-DICHLOROBENZENE	18.39	146	249213	9.64	PPBV	100
98)	SEC-BUTYLBENZENE	18.42	134	151216	8.88	PPBV	98
99)	p-ISOPROPYLTOLUENE	18.59	134	157848	8.69	PPBV	99
100)	o-DICHLOROBENZENE	18.77	146	245577	8.62	PPBV	100
101)	n-BUTYLBENZENE	19.06	134	125630	9.03	PPBV	93
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.26	157	103635	7.88	PPBV	99
103)	HEXACHLOROETHANE	19.52	201	206474	9.02	PPBV	98
104)	HEXACHLOROBUTADIENE	21.17	225	188429	7.51	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	81800	7.82	PPBV	98
106)	NAPHTHALENE	20.81	128	194202	7.54	PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54371.D MW2167.M Wed Mar 23 10:00:30 2016 MSW Page 3

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54371.D                 Vial: 3
Acq On    : 22 Mar 2016   1:05 pm                  Operator: YOUMINH
Sample    : BS                                     Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 10:00 2016              Quant Results File: MW2167.RES

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 09:44:17 2016
Response via  : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54372.D                  Vial: 3
Acq On    : 22 Mar 2016   1:46 pm                   Operator: YOUMINH
Sample    : BSD                                     Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:39 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	118574	10.00 PPBV	-0.01
49) 1,4-DIFLUOROBENZENE	10.86	114	653435	10.00 PPBV	-0.01
68) CHLOROBENZENE-D5	15.13	82	292553	10.00 PPBV	-0.01

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.75	95	326997	10.19 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 101.90%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	4.99	65	82986	10.98 PPBV	97
4) CHLORODIFLUOROMETHANE	5.03	67	28970	9.20 PPBV	96
5) DICHLORODIFLUOROMETHANE	5.13	85	308511	8.76 PPBV	100
6) PROPYLENE	5.05	41	110902	10.27 PPBV	97
7) FREON 114	5.37	85	335540	9.08 PPBV	94
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.26	65	218659	8.83 PPBV	98
9) CHLOROMETHANE	5.28	52	37868	11.67 PPBV	95
10) VINYL CHLORIDE	5.49	62	137209	10.93 PPBV	99
11) 1,3-BUTADIENE	5.61	54	109116	10.98 PPBV	98
12) n-BUTANE	5.65	58	31676	11.12 PPBV	97
13) BROMOMETHANE	5.85	94	118968	9.75 PPBV	99
14) CHLOROETHANE	6.00	64	76030	10.83 PPBV	100
15) DICHLOROFLUOROMETHANE	6.07	67	278495	9.34 PPBV	99
16) ACROLEIN	6.39	56	54448	8.66 PPBV	96
17) TRICHLOROFLUOROMETHANE	6.65	101	279352	8.33 PPBV	100
18) ISOPROPYL ALCOHOL	6.68	45	288486	8.83 PPBV	98
19) ACETONE	6.50	58	64219	9.80 PPBV	98
20) 1,1-DICHLORO-1-FLUOROETHAN	6.74	81	251346	8.41 PPBV	98
21) ACRYLONITRILE	6.88	53	101088	9.94 PPBV	99
22) PENTANE	6.93	57	38211	8.22 PPBV	99
23) IODOMETHANE	7.14	142	317350	8.55 PPBV	98
24) 1,1-DICHLOROETHYLENE	7.19	96	132611	8.58 PPBV	98
25) CARBON DISULFIDE	7.58	76	382614	11.00 PPBV	98
26) ETHANOL	6.08	45	56068	9.47 PPBV	99
27) ACETONITRILE	6.28	41	99673	9.62 PPBV	99
28) BROMOETHENE	6.30	106	122427	9.12 PPBV	100
29) METHYLENE CHLORIDE	7.28	84	116949	9.96 PPBV	96
30) 3-CHLOROPROPENE	7.38	76	67563	11.61 PPBV #	90
31) FREON 113	7.49	151	219048	9.07 PPBV	92
32) TRANS-1,2-DICHLOROETHYLENE	8.08	96	130036	9.26 PPBV	95
33) TERTIARY BUTYL ALCOHOL	7.20	59	298597	10.58 PPBV	97
34) METHYL TERTIARY BUTYL ETHE	8.30	73	366521	9.77 PPBV	98
35) TETRAHYDROFURAN	9.64	72	66158	12.03 PPBV	95
36) HEXANE	9.14	57	225903	10.96 PPBV	95
37) VINYL ACETATE	8.35	86	36347	11.57 PPBV #	93
38) 1,1-DICHLOROETHANE	8.26	63	240813	11.25 PPBV	99
39) METHYL ETHYL KETONE	8.60	72	66517	11.92 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	8.99	96	138416	9.61 PPBV	96
41) DI-ISOPROPYL ETHER	9.13	87	119204	10.64 PPBV	94
42) ETHYL ACETATE	9.15	61	44772	11.69 PPBV #	80
43) METHYL ACRYLATE	9.15	55	249831	11.08 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54372.D                      Vial: 3
Acq On    : 22 Mar 2016   1:46 pm                       Operator: YOUMINH
Sample    : BSD                                         Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:39 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.25	83	252291	9.84	PPBV		99
45)	2,4-DIMETHYLPENTANE	9.94	57	264142	11.36	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.15	97	251647	9.06	PPBV		98
47)	CARBON TETRACHLORIDE	10.72	117	253664	8.67	PPBV		100
48)	1,2-DICHLOROETHANE	9.92	62	147443	9.94	PPBV		99
50)	BENZENE	10.58	78	439494	10.48	PPBV		100
51)	CYCLOHEXANE	10.83	84	189805	9.51	PPBV		93
52)	2,3-DIMETHYLPENTANE	11.02	71	99531	10.69	PPBV		97
53)	TRICHLOROETHYLENE	11.55	95	169936	8.78	PPBV		98
54)	DIBROMOMETHANE	11.32	174	160452	8.65	PPBV		97
55)	1,2-DICHLOROPROPANE	11.33	63	156725	10.14	PPBV		94
56)	ETHYL ACRYLATE	11.28	55	291971	10.67	PPBV		98
57)	BROMODICHLOROMETHANE	11.52	83	278032	8.91	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.55	57	716054	10.02	PPBV		98
59)	1,4-DIOXANE	11.56	88	90367	10.09	PPBV		97
60)	METHYL METHACRYLATE	11.69	69	153768	10.58	PPBV		98
61)	HEPTANE	11.78	43	249824	10.30	PPBV		98
62)	METHYL ISOBUTYL KETONE	12.38	43	295463	10.72	PPBV		97
63)	cis-1,3-DICHLOROPROPENE	12.36	75	229777	10.02	PPBV		94
64)	TOLUENE	13.33	92	307321	10.22	PPBV		99
65)	1,3-DICHLOROPROPANE	13.35	76	229901	10.61	PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.86	75	166420	10.25	PPBV		96
67)	1,1,2-TRICHLOROETHANE	13.05	83	137856	10.78	PPBV		97
69)	ETHYL METHACRYLATE	13.55	69	249619	10.69	PPBV		98
70)	2-HEXANONE	13.56	58	164682	11.43	PPBV		97
71)	TETRACHLOROETHYLENE	14.47	164	197319	8.90	PPBV		100
72)	DIBROMOCHLOROMETHANE	13.77	129	270487	8.92	PPBV		99
73)	1,2-DIBROMOETHANE	14.02	107	204816	9.76	PPBV		100
74)	OCTANE	14.27	43	342365	10.52	PPBV		96
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	210989	8.94	PPBV		95
76)	CHLOROBENZENE	15.18	112	378983	9.59	PPBV		98
77)	ETHYLBENZENE	15.56	91	599387	9.51	PPBV		99
78)	m,p-XYLENE	15.75	106	491838	19.13	PPBV		99
79)	o-XYLENE	16.26	106	231795	9.50	PPBV		100
80)	STYRENE	16.14	104	356272	10.18	PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.39	75	231433	8.98	PPBV		96
82)	NONANE	16.44	43	348649	10.82	PPBV		97
83)	BROMOFORM	15.86	173	256560	9.29	PPBV		99
85)	1,1,2,2-TETRACHLOROETHANE	16.25	83	328861	9.88	PPBV		99
86)	ISOPROPYLBENZENE	16.88	105	685897	8.98	PPBV		99
87)	BROMOBENZENE	17.00	156	190206	9.43	PPBV		95
88)	2-CHLOROTOLUENE	17.41	126	157676	9.37	PPBV	#	79
89)	n-PROPYLBENZENE	17.44	120	177818	9.31	PPBV		94
90)	4-ETHYLTOLUENE	17.59	105	567412	9.14	PPBV		98
91)	1,3,5-TRIMETHYLBENZENE	17.67	105	536623	8.74	PPBV		98
92)	ALPHA-METHYLSTYRENE	17.85	118	237193	9.30	PPBV		99
93)	TERT-BUTYLBENZENE	18.12	134	135141	9.16	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.13	105	493798	8.73	PPBV		99
95)	m-DICHLOROBENZENE	18.31	146	257156	8.96	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54372.D Vial: 3
Acq On : 22 Mar 2016 1:46 pm Operator: YOUMINH
Sample : BSD Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:39 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

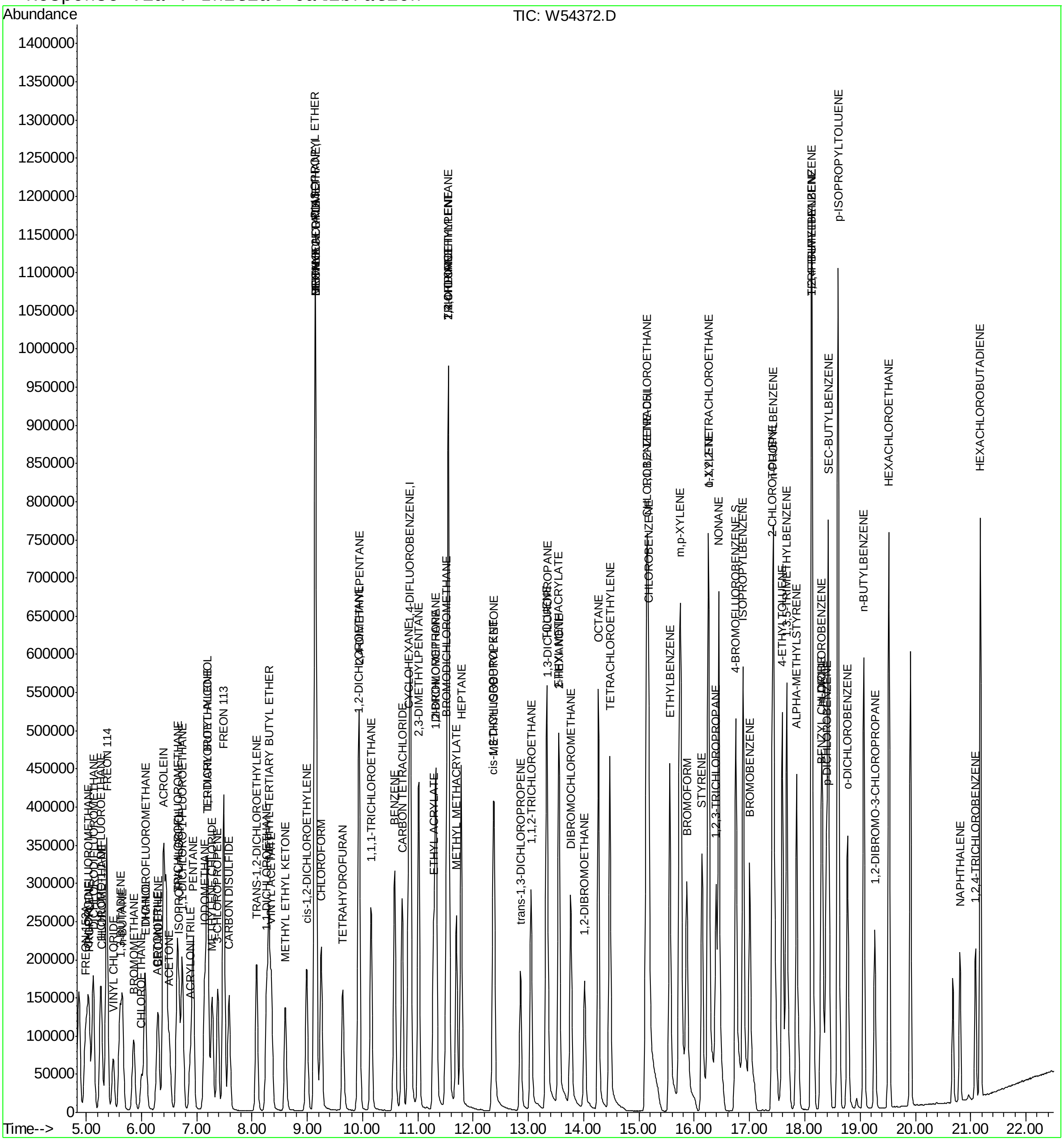
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.29	91	288079	9.23	PPBV	99
97)	p-DICHLOROBENZENE	18.39	146	243524	9.11	PPBV	100
98)	SEC-BUTYLBENZENE	18.42	134	155533	8.83	PPBV	96
99)	p-ISOPROPYLTOLUENE	18.59	134	164760	8.77	PPBV	99
100)	o-DICHLOROBENZENE	18.77	146	253126	8.59	PPBV	100
101)	n-BUTYLBENZENE	19.07	134	131509	9.14	PPBV	93
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.26	157	107243	7.89	PPBV	100
103)	HEXACHLOROETHANE	19.52	201	206546	8.73	PPBV	97
104)	HEXACHLOROBUTADIENE	21.17	225	195196	7.52	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	84792	7.84	PPBV	99
106)	NAPHTHALENE	20.81	128	204399	7.67	PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54372.D MW2167.M Wed Mar 23 10:00:53 2016 MSW Page 3

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54372.D                  Vial: 3
Acq On    : 22 Mar 2016   1:46 pm                    Operator: YOUMINH
Sample    : BSD                                      Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 10:00 2016              Quant Results File: MW2167.RES

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 09:44:17 2016
Response via  : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 08:53

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52945.D   Vial: 3
Acq On    : 24 Mar 2016  11:58 am                      Operator: YOUMINH
Sample    : BS                                         Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:14 2016             Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.10	128	112995	10.00	PPBV	-0.01
52) 1,4-DIFLUOROBENZENE	10.73	114	553713	10.00	PPBV	-0.01
71) CHLOROBENZENE-D5	14.73	82	291343	10.00	PPBV	-0.01

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.28	95	305641	9.88	PPBV	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 98.80%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	44753	12.37	PPBV	99
4) FREON 152A	4.98	65	96923	11.52	PPBV	100
5) CHLORODIFLUOROMETHANE	5.02	67	41715	11.44	PPBV	99
6) DICHLORODIFLUOROMETHANE	5.13	85	412974	11.10	PPBV	100
7) PROPYLENE	5.05	41	132294	11.24	PPBV	97
9) FREON 114	5.38	85	434205	11.43	PPBV	99
10) CHLOROMETHANE	5.30	50	147622m	11.16	PPBV	
11) VINYL CHLORIDE	5.50	62	178293	11.70	PPBV	99
12) 1,3-BUTADIENE	5.62	54	138617	11.25	PPBV	100
13) n-BUTANE	5.67	43	276264	11.20	PPBV	100
14) BROMOMETHANE	5.89	94	153628	11.09	PPBV	99
15) CHLOROETHANE	6.03	64	87135	11.74	PPBV	100
16) DICHLOROFLUOROMETHANE	6.10	67	359179	11.38	PPBV	100
17) ACETONITRILE	6.34	41	126853	11.05	PPBV	99
18) FREON 123	6.45	83	376247	10.66	PPBV	99
19) FREON 123A	6.49	117	203423	10.15	PPBV	96
20) TRICHLOROFLUOROMETHANE	6.69	101	381419	10.64	PPBV	100
22) ISOPROPYL ALCOHOL	6.76	45	296786	9.57	PPBV	99
23) ACETONE	6.56	58	75014	10.61	PPBV	99
24) PENTANE	6.97	42	193207	11.32	PPBV	98
26) IODOMETHANE	7.18	142	408285	10.92	PPBV	99
27) 1,1-DICHLOROETHYLENE	7.22	96	159328	10.56	PPBV	100
28) CARBON DISULFIDE	7.61	76	473064	11.21	PPBV	99
29) ETHANOL	6.14	45	61088	8.90	PPBV	99
30) BROMOETHENE	6.34	106	155709	10.93	PPBV	99
31) ACRYLONITRILE	6.94	52	99415	11.50	PPBV	99
32) METHYLENE CHLORIDE	7.32	84	141987	10.98	PPBV	96
33) 3-CHLOROPROPENE	7.41	76	76393	11.37	PPBV	99
34) FREON 113	7.52	151	261558	11.09	PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.09	96	159226	10.73	PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.28	59	376333	10.37	PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.33	73	406473	10.04	PPBV	99
38) TETRAHYDROFURAN	9.59	72	70816m	10.33	PPBV	
39) HEXANE	9.10	57	244071	10.58	PPBV	100
40) VINYL ACETATE	8.36	86	36400	11.37	PPBV	98
41) 1,1-DICHLOROETHANE	8.26	63	284638	10.92	PPBV	100
42) METHYL ETHYL KETONE	8.61	72	69591	10.15	PPBV	96
43) cis-1,2-DICHLOROETHYLENE	8.96	96	158071	10.54	PPBV	99
44) DIISOPROPYL ETHER	9.10	59	67800	10.33	PPBV	96
45) ETHYL ACETATE	9.13	61	47074	10.68	PPBV #	95
46) METHYL ACRYLATE	9.13	55	264337	9.83	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52945.D   Vial: 3
Acq On    : 24 Mar 2016  11:58 am                       Operator: YOUMINH
Sample    : BS                                          Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:14 2016         Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.21	83	327499	11.00 PPBV		99
48)	2,4-DIMETHYLPENTANE	9.85	57	289836	10.78 PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.05	97	329710	10.80 PPBV		99
50)	CARBON TETRACHLORIDE	10.58	117	340282	10.80 PPBV		100
51)	1,2-DICHLOROETHANE	9.84	62	204319	10.82 PPBV		100
53)	BENZENE	10.46	78	475820	10.93 PPBV		100
54)	CYCLOHEXANE	10.69	84	212316	10.81 PPBV		98
55)	2,3-DIMETHYLPENTANE	10.86	71	108850	11.13 PPBV		99
56)	TRICHLOROETHYLENE	11.36	95	207642	10.72 PPBV		99
57)	1,2-DICHLOROPROPANE	11.16	63	173422	10.84 PPBV		100
58)	DIBROMOMETHANE	11.15	174	192798	10.87 PPBV		98
59)	ETHYL ACRYLATE	11.13	55	328640	10.18 PPBV		100
60)	BROMODICHLOROMETHANE	11.34	83	348757	10.63 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	776977	10.60 PPBV		100
62)	1,4-DIOXANE	11.39	88	107348	10.54 PPBV	#	58
63)	HEPTANE	11.58	43	276396	10.35 PPBV		98
64)	METHYL METHACRYLATE	11.52	69	157370	10.08 PPBV		99
65)	METHYL ISOBUTYL KETONE	12.16	58	138415	10.45 PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.13	75	277308	10.32 PPBV		99
67)	TOLUENE	13.03	92	321257	10.88 PPBV		99
68)	1,3-DICHLOROPROPANE	13.05	76	260740	10.98 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.60	75	254440	11.09 PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.77	83	162698	11.21 PPBV		99
72)	2-HEXANONE	13.27	58	195068	10.67 PPBV		100
73)	ETHYL METHACRYLATE	13.25	69	280798	10.79 PPBV		100
74)	TETRACHLOROETHYLENE	14.11	164	216892	10.71 PPBV		99
75)	DIBROMOCHLOROMETHANE	13.44	129	355305	11.15 PPBV		100
76)	1,2-DIBROMOETHANE	13.68	107	295279	10.97 PPBV		99
77)	OCTANE	13.92	43	375323	10.98 PPBV		98
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	251719	11.29 PPBV		99
79)	CHLOROBENZENE	14.77	112	430457	10.87 PPBV		99
80)	ETHYLBENZENE	15.13	91	666315	10.97 PPBV		100
81)	m,p-XYLENE	15.32	106	528269	22.09 PPBV		100
82)	o-XYLENE	15.80	106	259184	11.40 PPBV		99
83)	STYRENE	15.69	104	394042	11.21 PPBV		100
84)	NONANE	15.99	43	412422	10.83 PPBV		99
85)	BROMOFORM	15.42	173	344810	11.38 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.80	83	406392	11.44 PPBV		98
88)	1,2,3-TRICHLOROPROPANE	15.94	75	295401	10.97 PPBV		100
89)	ISOPROPYLBENZENE	16.41	105	780798	11.33 PPBV		100
90)	BROMOBENZENE	16.53	77	362730	10.82 PPBV		99
91)	2-CHLOROTOLUENE	16.93	126	185809	11.32 PPBV		99
92)	n-PROPYLBENZENE	16.96	120	208247	11.49 PPBV		100
93)	4-ETHYLTOLUENE	17.11	105	704598	11.29 PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	614491	11.44 PPBV		100
95)	ALPHA-METHYLSTYRENE	17.37	118	310276	12.05 PPBV		100
96)	tert-BUTYLBENZENE	17.63	134	149470	11.45 PPBV		100
97)	1,2,4-TRIMETHYLBENZENE	17.64	105	586523	11.21 PPBV		99
98)	m-DICHLOROBENZENE	17.81	146	374050	11.11 PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52945.D Vial: 3
Acq On : 24 Mar 2016 11:58 am Operator: YOUMINH
Sample : BS Inst : MS3W
Misc : MS99296,V3W1999,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:14 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

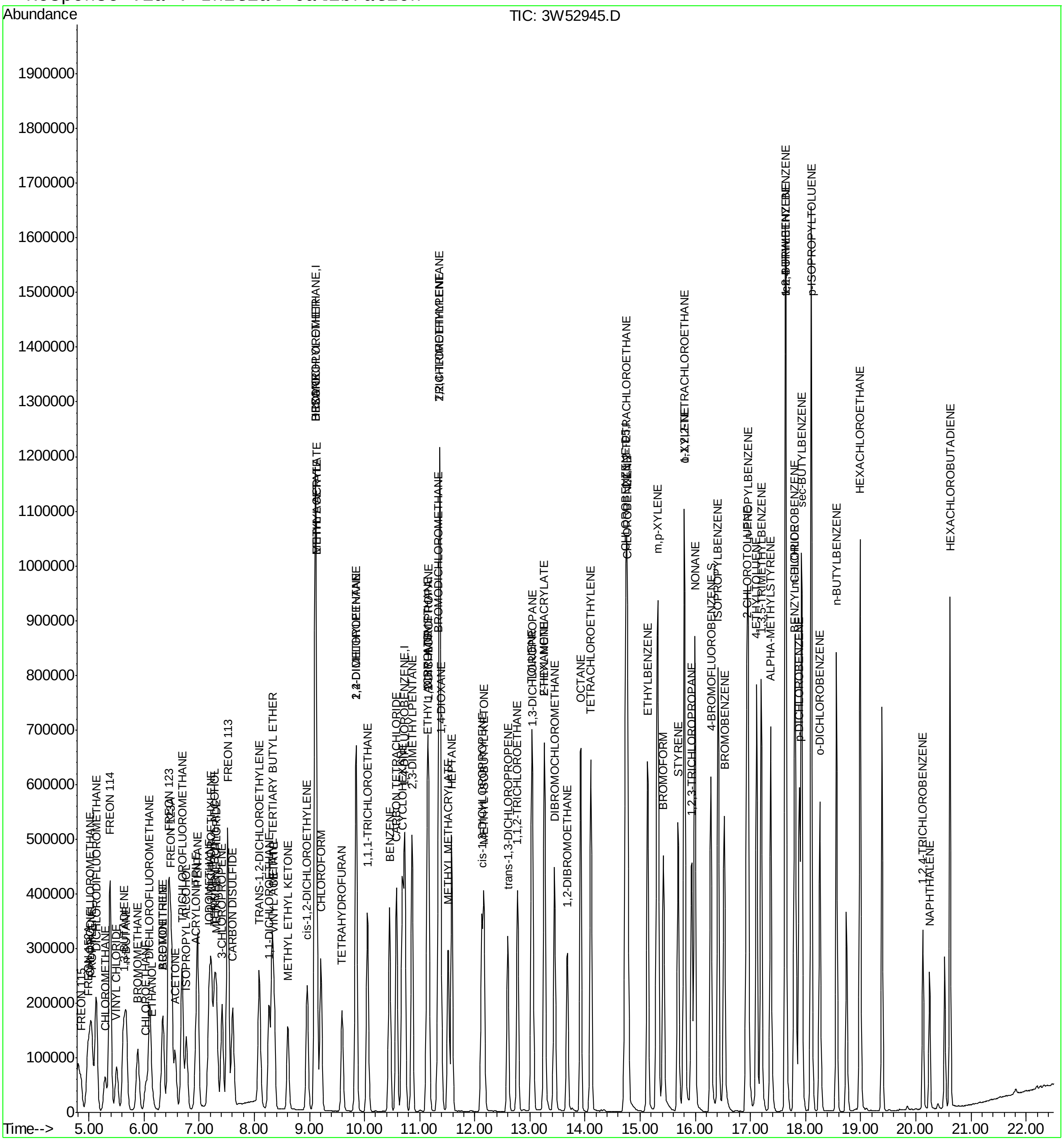
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.79	91	473697	11.10	PPBV	100
100)	p-DICHLOROBENZENE	17.88	146	366886	10.81	PPBV	99
101)	sec-BUTYLBENZENE	17.93	134	180512	11.60	PPBV	98
102)	p-ISOPROPYLTOLUENE	18.10	134	194374	11.70	PPBV	100
103)	o-DICHLOROBENZENE	18.26	146	337450	11.17	PPBV	100
104)	n-BUTYLBENZENE	18.56	134	160696	11.68	PPBV	98
105)	HEXACHLOROETHANE	18.99	117	275988	11.65	PPBV	99
106)	HEXACHLOROBUTADIENE	20.62	225	209283	11.34	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	129503	11.00	PPBV	100
108)	NAPHTHALENE	20.25	128	242719	10.54	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52945.D   Vial: 3
Acq On    : 24 Mar 2016  11:58 am                        Operator: YOUMINH
Sample    : BS                                           Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                        Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:46 2016                  Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

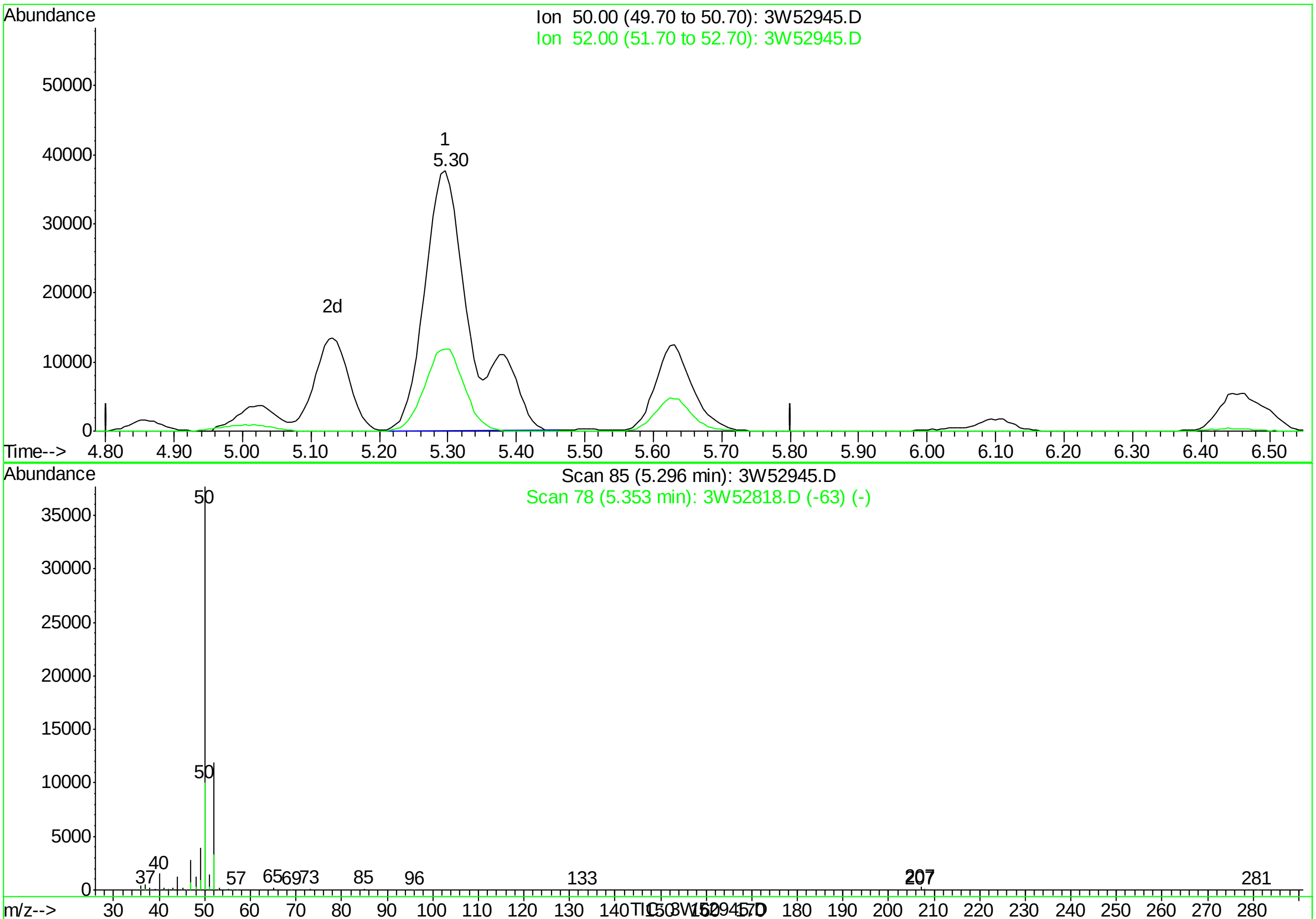
Sample Number:	V3W1999-BS	**Method:**	TO-15
Lab FileID:	3W52945.D	**Analyst approved:**	04/01/16 08:49 Dana Tryon
Injection Time:	03/24/16 11:58	**Supervisor approved:**	04/01/16 08:53 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Poor instrument integration
Tetrahydrofuran	109-99-9		9.59	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52945.D                Vial: 3
Acq On    : 24 Mar 2016   11:58 am                 Operator: YOUMINH
Sample    : BS                                     Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25  9:54 2016           Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 12:29:59 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 13.55PPBV

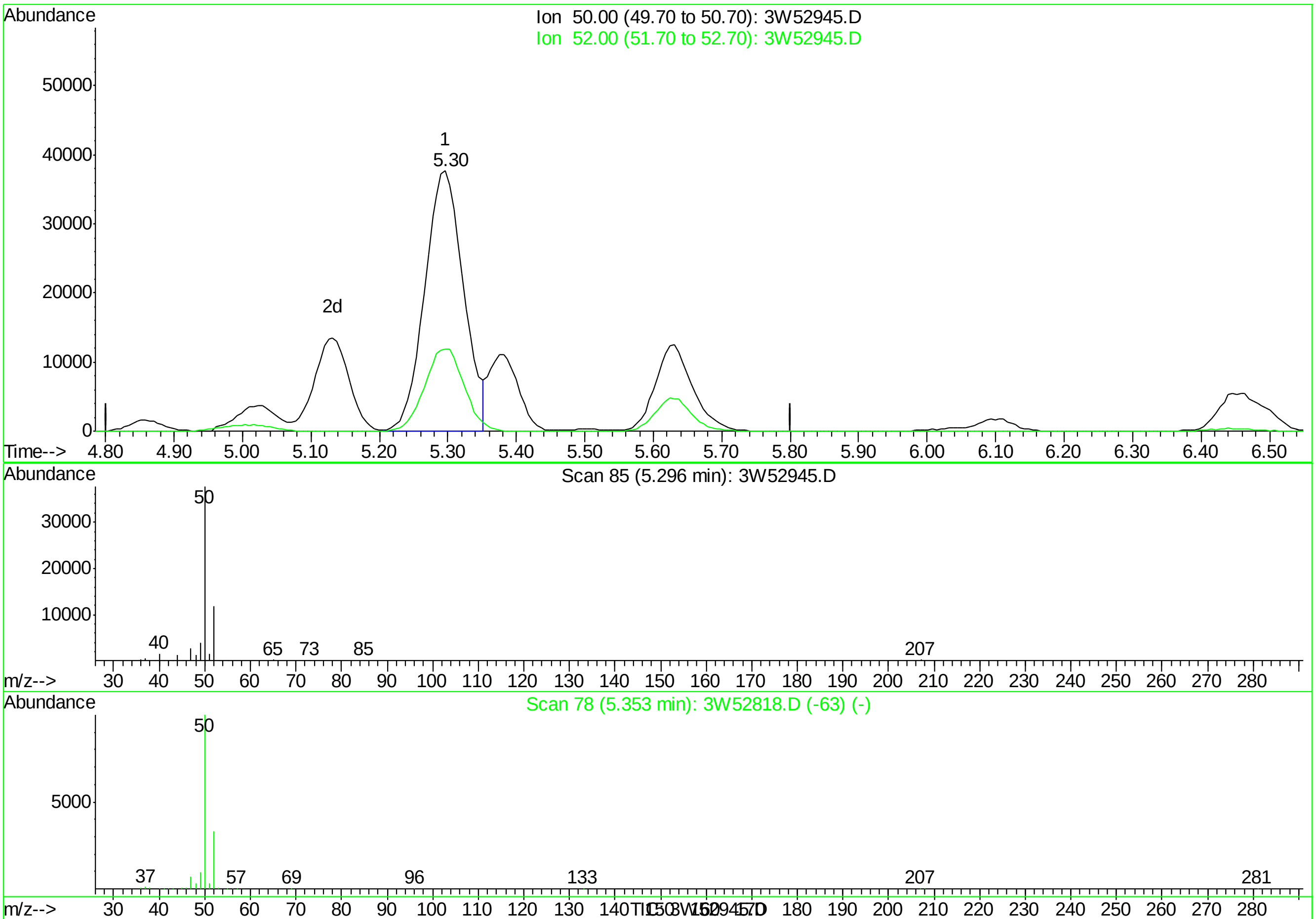
response 179276

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52945.D                    Vial: 3
Acq On    : 24 Mar 2016  11:58 am                      Operator: YOUMINH
Sample    : BS                                         Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 11:58 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 11.16PPBV m

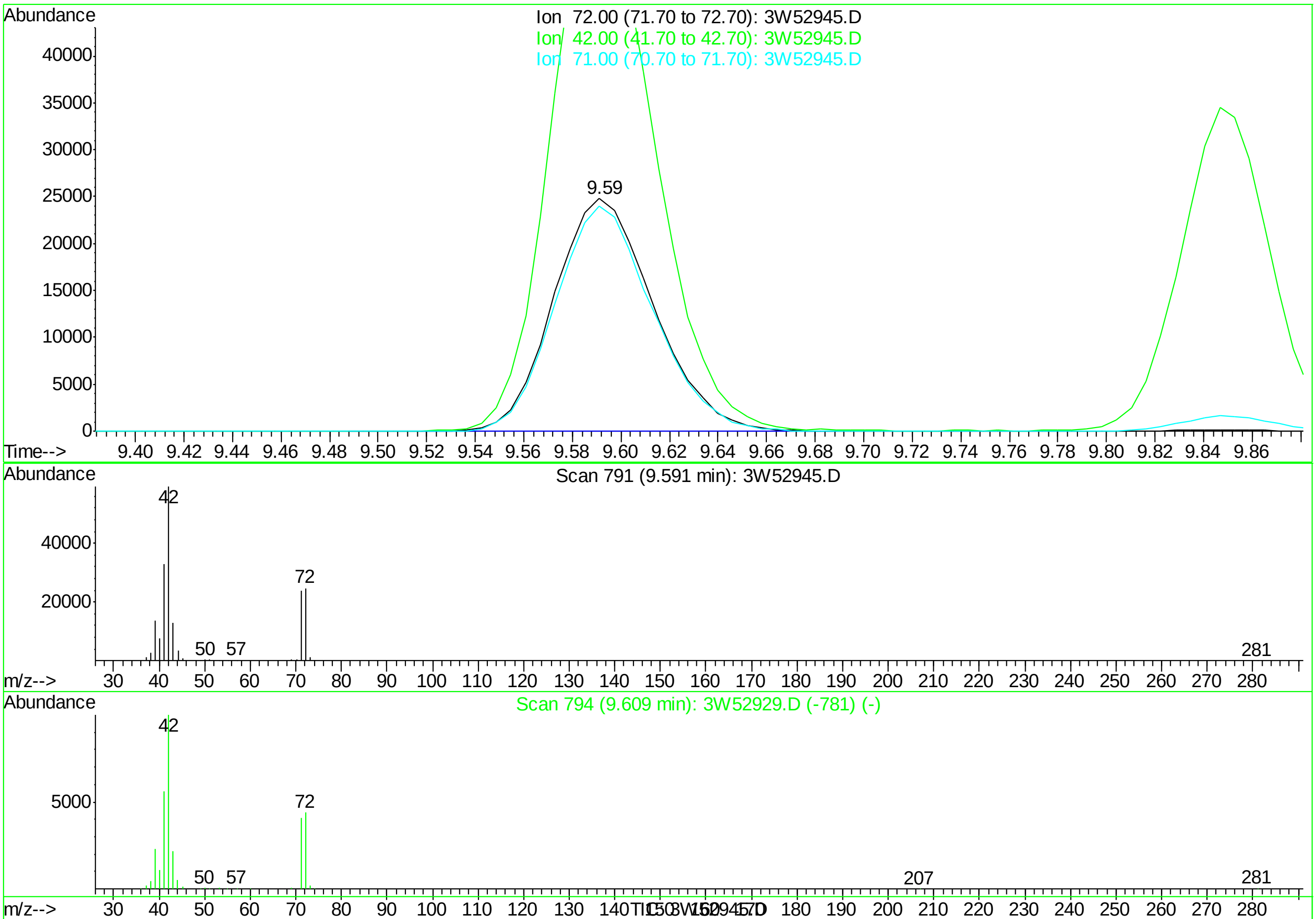
response 147622

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52945.D   Vial: 3
Acq On    : 24 Mar 2016  11:58 am                       Operator: YOUMINH
Sample    : BS                                          Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:46 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:29:33 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.59min 10.33PPBV m

response 70816

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	25.69
71.00	3.90	3.92
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 08:53

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52946.D   Vial: 3
Acq On    : 24 Mar 2016  12:39 pm                        Operator: YOUMINH
Sample    : BSD                                          Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                        Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:17 2016              Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.10	128	117573	10.00 PPBV	-0.01
52) 1,4-DIFLUOROBENZENE	10.73	114	577304	10.00 PPBV	-0.01
71) CHLOROBENZENE-D5	14.73	82	299775	10.00 PPBV	-0.01

System Monitoring Compounds

86) 4-BROMOFLUOROBENZENE	16.28	95	322217	10.12 PPBV	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.20%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 115	4.85	85	40594	10.79 PPBV	98
4) FREON 152A	4.97	65	96773	11.06 PPBV	100
5) CHLORODIFLUOROMETHANE	5.01	67	41917	11.05 PPBV	99
6) DICHLORODIFLUOROMETHANE	5.13	85	414779	10.71 PPBV	100
7) PROPYLENE	5.05	41	126961	10.37 PPBV	99
9) FREON 114	5.38	85	433893	10.98 PPBV	100
10) CHLOROMETHANE	5.30	50	149746m	10.88 PPBV	
11) VINYL CHLORIDE	5.50	62	177803	11.22 PPBV	100
12) 1,3-BUTADIENE	5.62	54	137261	10.71 PPBV	99
13) n-BUTANE	5.67	43	273661	10.66 PPBV	99
14) BROMOMETHANE	5.88	94	154512	10.72 PPBV	99
15) CHLOROETHANE	6.03	64	87023	11.27 PPBV	99
16) DICHLOROFLUOROMETHANE	6.10	67	360864	10.99 PPBV	100
17) ACETONITRILE	6.33	41	128497	10.76 PPBV	100
18) FREON 123	6.45	83	382187	10.41 PPBV	99
19) FREON 123A	6.49	117	207596	9.96 PPBV	97
20) TRICHLOROFLUOROMETHANE	6.68	101	384311	10.30 PPBV	100
22) ISOPROPYL ALCOHOL	6.76	45	296735	9.20 PPBV	100
23) ACETONE	6.56	58	76079	10.34 PPBV	100
24) PENTANE	6.97	42	189451	10.67 PPBV	100
26) IODOMETHANE	7.18	142	418533	10.76 PPBV	100
27) 1,1-DICHLOROETHYLENE	7.22	96	162150	10.33 PPBV	99
28) CARBON DISULFIDE	7.61	76	478191	10.89 PPBV	100
29) ETHANOL	6.14	45	61252	8.57 PPBV	99
30) BROMOETHENE	6.34	106	158226	10.68 PPBV	100
31) ACRYLONITRILE	6.93	52	101099	11.24 PPBV	99
32) METHYLENE CHLORIDE	7.32	84	143572	10.67 PPBV	99
33) 3-CHLOROPROPENE	7.41	76	76938	11.01 PPBV	99
34) FREON 113	7.52	151	266995	10.88 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.09	96	163109	10.56 PPBV	98
36) TERTIARY BUTYL ALCOHOL	7.27	59	380780	10.08 PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.32	73	417132	9.90 PPBV	99
38) TETRAHYDROFURAN	9.59	72	73633m	10.33 PPBV	
39) HEXANE	9.10	57	247445	10.31 PPBV	99
40) VINYL ACETATE	8.36	86	37484	11.25 PPBV	96
41) 1,1-DICHLOROETHANE	8.26	63	289435	10.67 PPBV	100
42) METHYL ETHYL KETONE	8.61	72	72844	10.22 PPBV	98
43) cis-1,2-DICHLOROETHYLENE	8.96	96	161579	10.35 PPBV	99
44) DIISOPROPYL ETHER	9.10	59	70500	10.33 PPBV	98
45) ETHYL ACETATE	9.13	61	48372	10.54 PPBV #	97
46) METHYL ACRYLATE	9.12	55	271686	9.71 PPBV	99

(#) = qualifier out of range (m) = manual integration

7.3.28
7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52946.D Vial: 3
Acq On : 24 Mar 2016 12:39 pm Operator: YOUMINH
Sample : BSD Inst : MS3W
Misc : MS99296,V3W1999,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:17 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.21	83	334181	10.79 PPBV		98
48)	2,4-DIMETHYLPENTANE	9.85	57	294102	10.51 PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.05	97	335863	10.57 PPBV		100
50)	CARBON TETRACHLORIDE	10.58	117	349659	10.67 PPBV		100
51)	1,2-DICHLOROETHANE	9.84	62	207318	10.55 PPBV		100
53)	BENZENE	10.45	78	486792	10.72 PPBV		100
54)	CYCLOHEXANE	10.69	84	216555	10.57 PPBV		99
55)	2,3-DIMETHYLPENTANE	10.86	71	110711	10.86 PPBV		98
56)	TRICHLOROETHYLENE	11.36	95	213346	10.56 PPBV		99
57)	1,2-DICHLOROPROPANE	11.16	63	176699	10.60 PPBV		99
58)	DIBROMOMETHANE	11.15	174	197665	10.69 PPBV		99
59)	ETHYL ACRYLATE	11.13	55	337110	10.02 PPBV		100
60)	BROMODICHLOROMETHANE	11.34	83	353622	10.34 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	789481	10.33 PPBV		100
62)	1,4-DIOXANE	11.39	88	112078	10.55 PPBV	#	65
63)	HEPTANE	11.58	43	276831	9.94 PPBV		100
64)	METHYL METHACRYLATE	11.52	69	161740	9.94 PPBV		98
65)	METHYL ISOBUTYL KETONE	12.16	58	143295	10.38 PPBV		100
66)	cis-1,3-DICHLOROPROPENE	12.13	75	282918	10.10 PPBV		100
67)	TOLUENE	13.03	92	325715	10.58 PPBV		99
68)	1,3-DICHLOROPROPANE	13.05	76	260135	10.51 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.60	75	260861	10.90 PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.77	83	164833	10.89 PPBV		100
72)	2-HEXANONE	13.27	58	196548	10.45 PPBV		100
73)	ETHYL METHACRYLATE	13.25	69	285320	10.66 PPBV		99
74)	TETRACHLOROETHYLENE	14.10	164	223784	10.74 PPBV		100
75)	DIBROMOCHLOROMETHANE	13.44	129	361074	11.02 PPBV		100
76)	1,2-DIBROMOETHANE	13.68	107	301596	10.89 PPBV		100
77)	OCTANE	13.92	43	379992	10.81 PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	256671	11.19 PPBV		99
79)	CHLOROBENZENE	14.77	112	437963	10.74 PPBV		100
80)	ETHYLBENZENE	15.13	91	679575	10.87 PPBV		100
81)	m,p-XYLENE	15.31	106	538380	21.88 PPBV		99
82)	o-XYLENE	15.80	106	260517	11.14 PPBV		99
83)	STYRENE	15.69	104	399415	11.04 PPBV		100
84)	NONANE	15.99	43	413156	10.54 PPBV		100
85)	BROMOFORM	15.42	173	353085	11.32 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.80	83	410145	11.22 PPBV		98
88)	1,2,3-TRICHLOROPROPANE	15.94	75	299410	10.81 PPBV		100
89)	ISOPROPYLBENZENE	16.42	105	792408	11.17 PPBV		100
90)	BROMOBENZENE	16.53	77	367628	10.65 PPBV		99
91)	2-CHLOROTOLUENE	16.93	126	187189	11.08 PPBV		100
92)	n-PROPYLBENZENE	16.96	120	210509	11.29 PPBV		100
93)	4-ETHYLTOLUENE	17.11	105	710191	11.06 PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	619005	11.20 PPBV		100
95)	ALPHA-METHYLSTYRENE	17.37	118	313065	11.82 PPBV		100
96)	tert-BUTYLBENZENE	17.63	134	150503	11.20 PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.64	105	591978	10.99 PPBV		99
98)	m-DICHLOROBENZENE	17.81	146	377646	10.90 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52946.D Vial: 3
Acq On : 24 Mar 2016 12:39 pm Operator: YOUMINH
Sample : BSD Inst : MS3W
Misc : MS99296,V3W1999,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:17 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

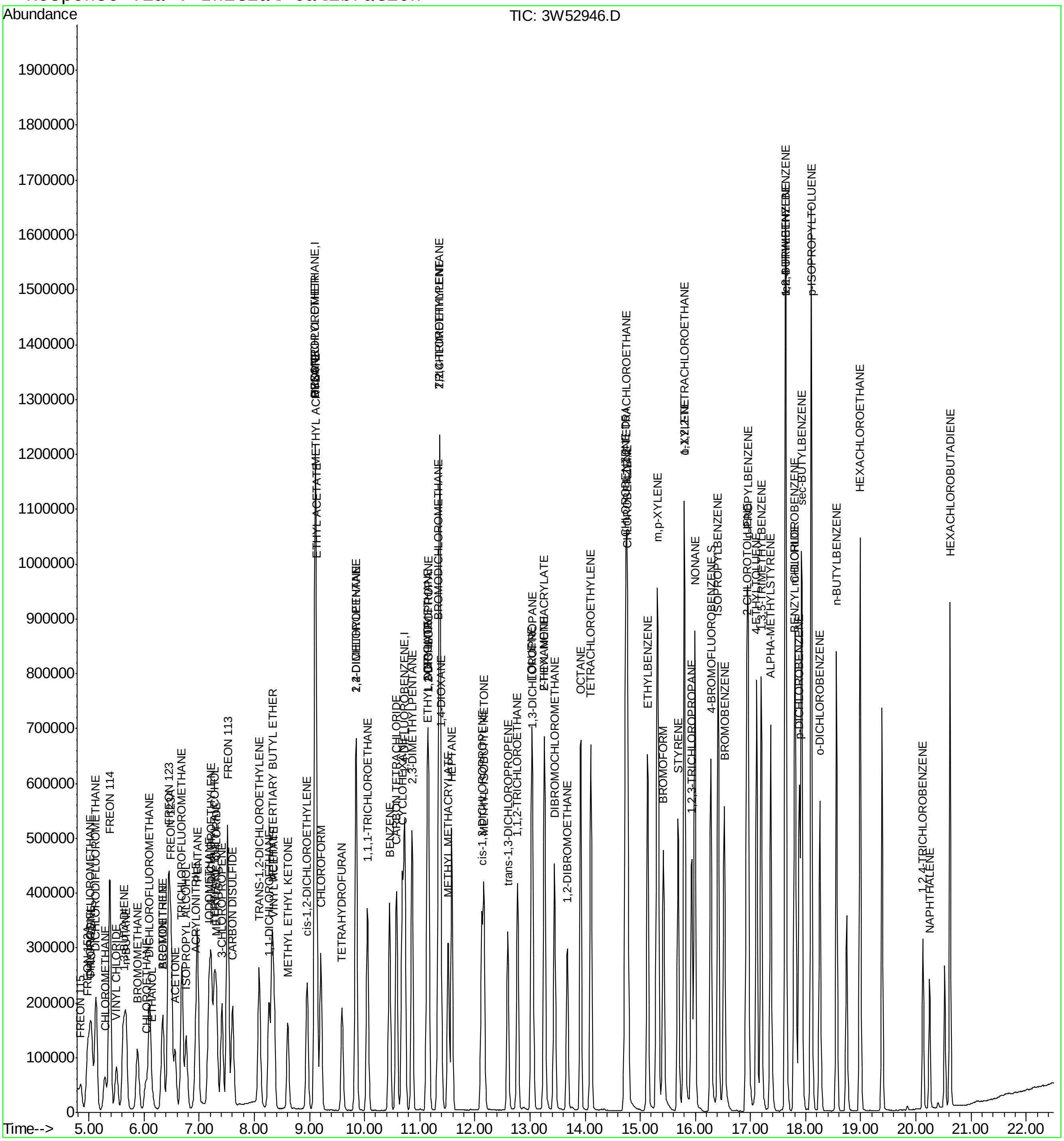
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.79	91	478992	10.91	PPBV	100
100)	p-DICHLOROBENZENE	17.88	146	369768	10.59	PPBV	98
101)	sec-BUTYLBENZENE	17.93	134	180882	11.29	PPBV	97
102)	p-ISOPROPYLTOLUENE	18.10	134	195941	11.46	PPBV	100
103)	o-DICHLOROBENZENE	18.26	146	340415	10.95	PPBV	100
104)	n-BUTYLBENZENE	18.56	134	161920	11.44	PPBV	99
105)	HEXACHLOROETHANE	18.99	117	276041	11.32	PPBV	99
106)	HEXACHLOROBUTADIENE	20.62	225	205283	10.81	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	124138	10.24	PPBV	100
108)	NAPHTHALENE	20.25	128	227468	9.60	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52946.D   Vial: 3
Acq On    : 24 Mar 2016  12:39 pm                       Operator: YOUMINH
Sample    : BSD                                         Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:46 2016               Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

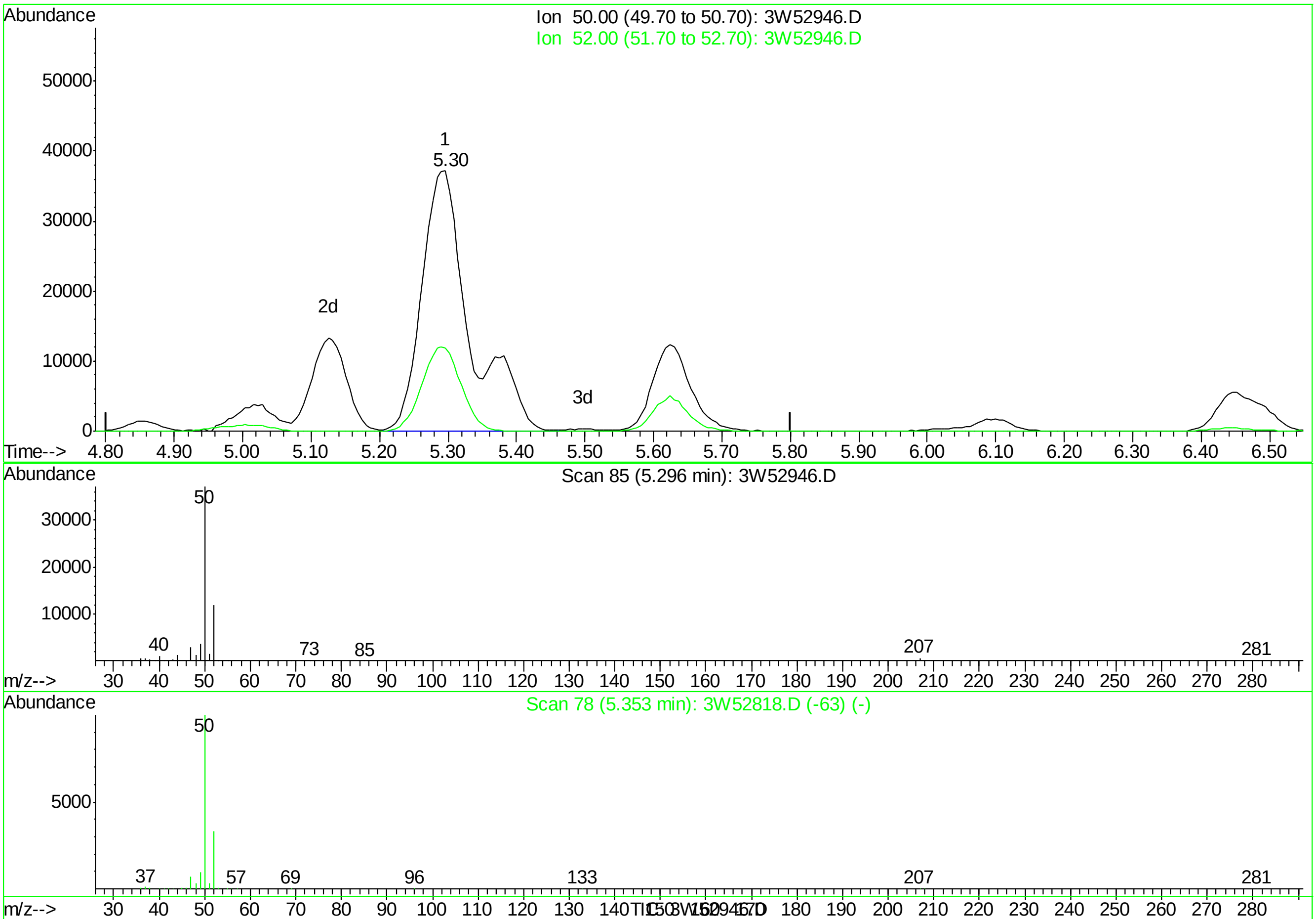
Sample Number:	V3W1999-BSD	**Method:**	TO-15	
Lab FileID:	3W52946.D	**Analyst approved:**	04/01/16 08:49	Dana Tryon
Injection Time:	03/24/16 12:39	**Supervisor approved:**	04/01/16 08:53	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Poor instrument integration
Tetrahydrofuran	109-99-9		9.59	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52946.D                 Vial: 3
Acq On    : 24 Mar 2016  12:39 pm                    Operator: YOUMINH
Sample    : BSD                                      Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25  9:54 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 12:29:59 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 13.13PPBV

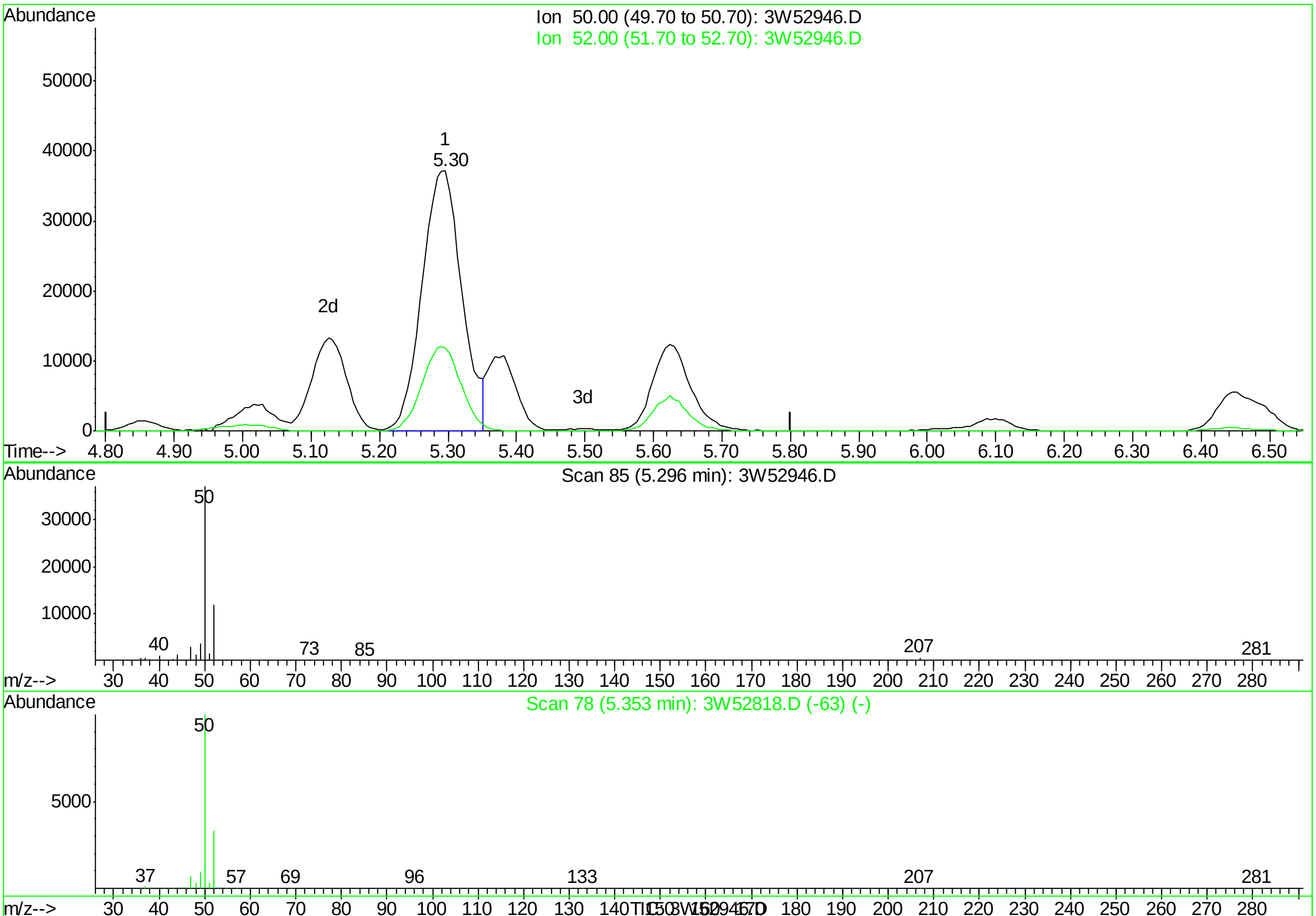
response 180759

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.20
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52946.D                  Vial: 3
Acq On    : 24 Mar 2016  12:39 pm                    Operator: YOUMINH
Sample    : BSD                                      Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 11:58 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```

(10) CHLOROMETHANE

5.30min 10.88PPBV m

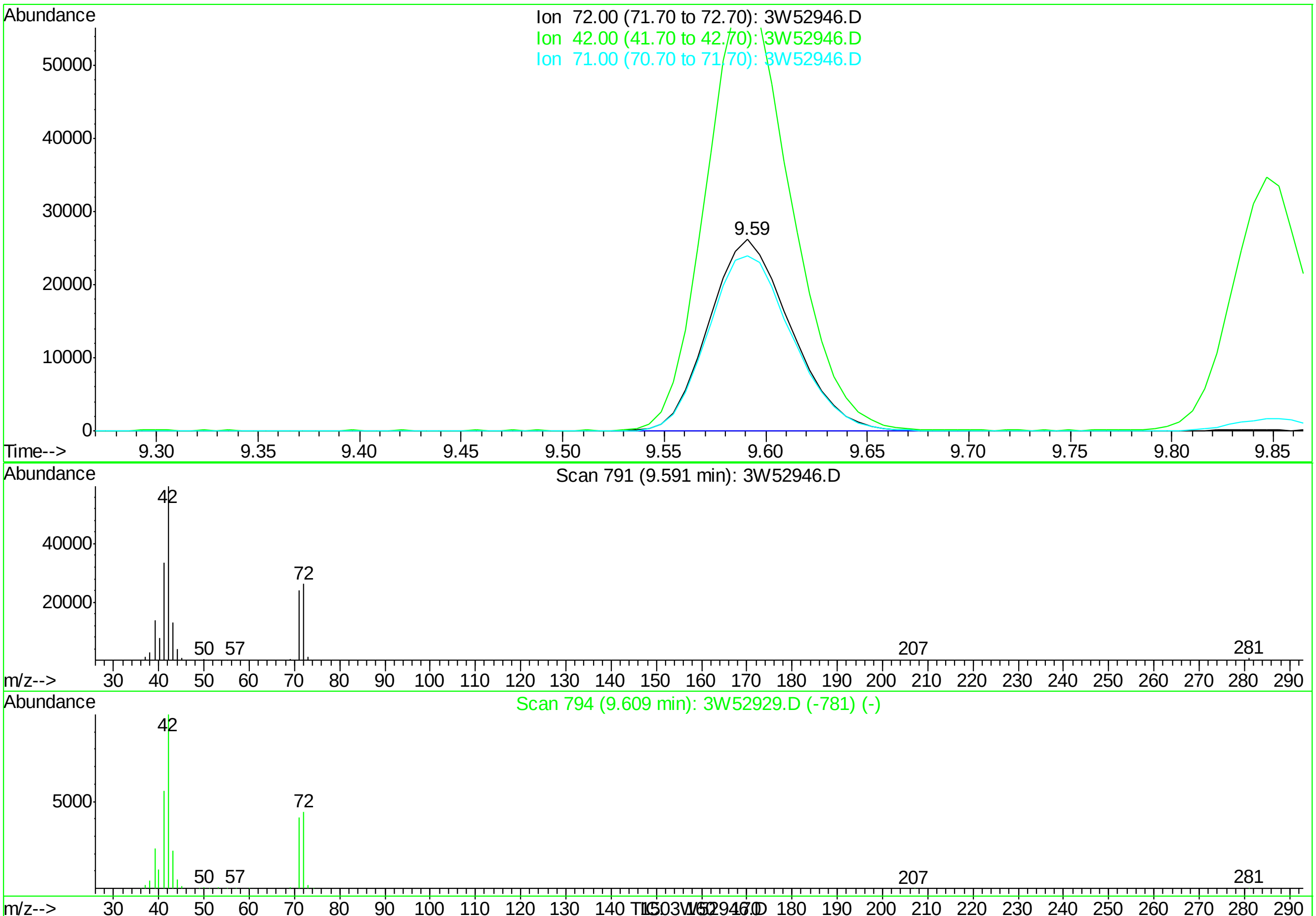
response 149746

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52946.D   Vial: 3
Acq On    : 24 Mar 2016  12:39 pm                      Operator: YOUMINH
Sample    : BSD                                        Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:46 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.59min 10.33PPBV m

response 73633

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	25.21
71.00	3.90	3.79
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/07/16 11:18

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17511.D
Acq On    :  5 Apr 2016   7:49 pm
Operator  : THOMASH
Sample    : JC17015-3DUP
Misc      : MS192,v5w698,400,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 06 14:48:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

       Compound                       R.T. QIon  Response  Conc Units Dev(Min)
--------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane             8.402  130   141481    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene           10.531  114   503778    10.00 ppb(v    0.09
  76) Chlorobenzene-d5              16.012   82   256781    10.00 ppb(v    0.00
 107) Bromochloromethane (A)         8.402  130   141481    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene          18.245   95   338338     9.62 ppb(v  -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   96.20%

 Target Compounds                                                   Qvalue
   4) Chlorodifluoromethane          4.107   67     1393     0.40 ppb(v     99
   5) Propene                        4.138   41    17563     2.39 ppb(v#    71
   6) Dichlorodifluoromethane        4.186   85    16862     0.52 ppb(v     99
   8) Chloromethane                  4.321   50     7069     0.70 ppb(v     99
  12) n-Butane                       4.651   58     3042m    1.67 ppb(v
  20) Trichlorofluoromethane         5.618  101    10907     0.32 ppb(v     99
  21) Acetone                        5.502   58    36933     6.72 ppb(v     98
  22) Pentane                        5.918   57      901     0.33 ppb(v     87
  25) Isopropyl Alcohol              5.716   43     6571     1.54 ppb(v     57
  28) Methylene Chloride             6.297   84    10320     0.87 ppb(v     93
  30) Ethanol                        5.092   45   737486   157.83 ppb(v     99
  38) 2-Butanone                     7.808   72     1414     0.26 ppb(v     81
  39) Hexane                         8.420   57     9936     0.52 ppb(v#    56
  42) Ethyl Acetate                  8.469   61    11254     3.01 ppb(v     94
  44) Chloroform                     8.530   83     4477     0.16 ppb(v     97
  49) Benzene                       10.121   78     8641     0.22 ppb(v     98
  66) Toluene                       13.638   91    25143     0.52 ppb(v     96
  72) Tetrachloroethene             15.137  166     1057     0.04 ppb(v     96
  79) m,p-Xylene                    16.856   91     5735     0.11 ppb(v     93
--------------------------------------------------------------------------

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

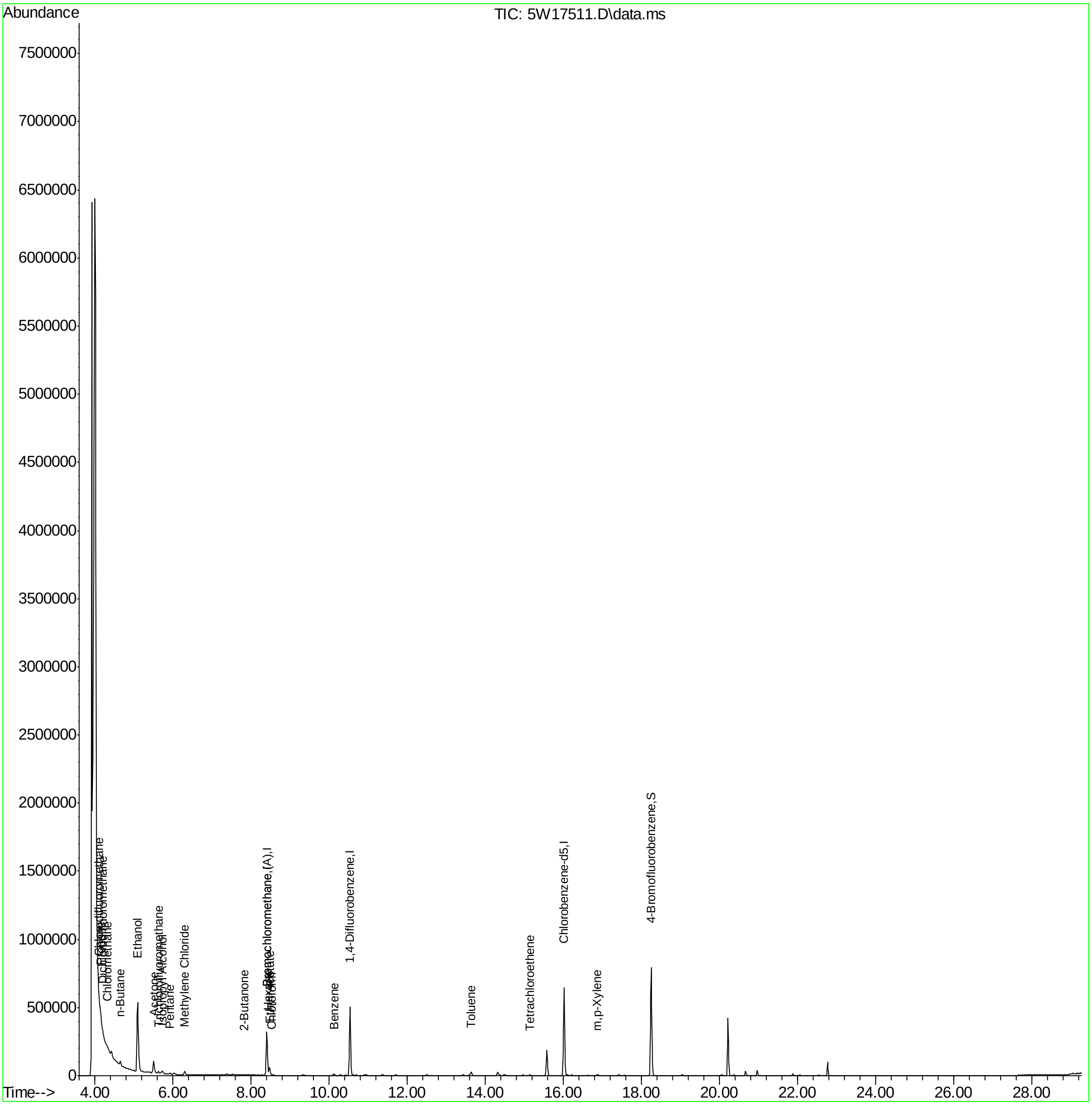
7.4.1

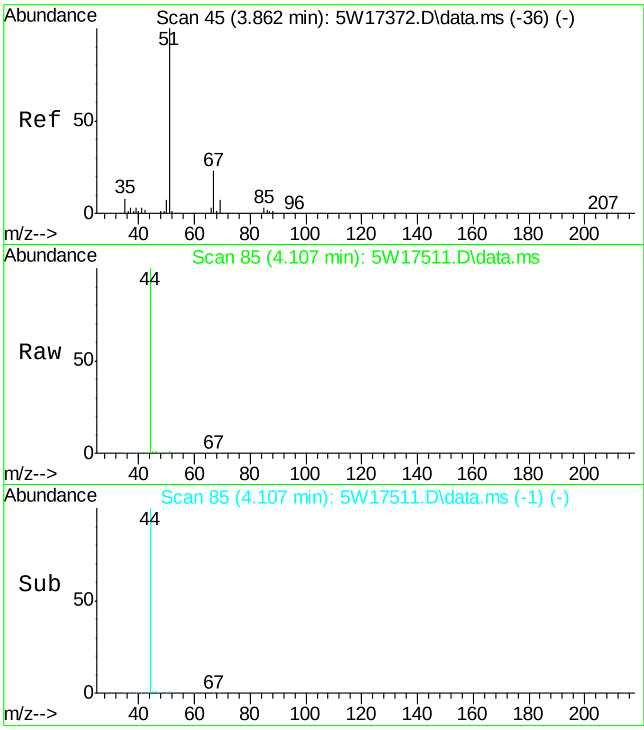
7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17511.D
Acq On    :  5 Apr 2016   7:49 pm
Operator  : THOMASH
Sample    : JC17015-3DUP
Misc      : MS192,v5w698,400,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 06 14:48:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

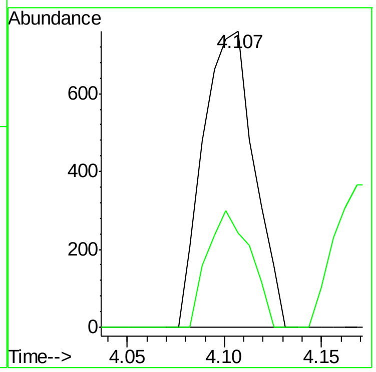


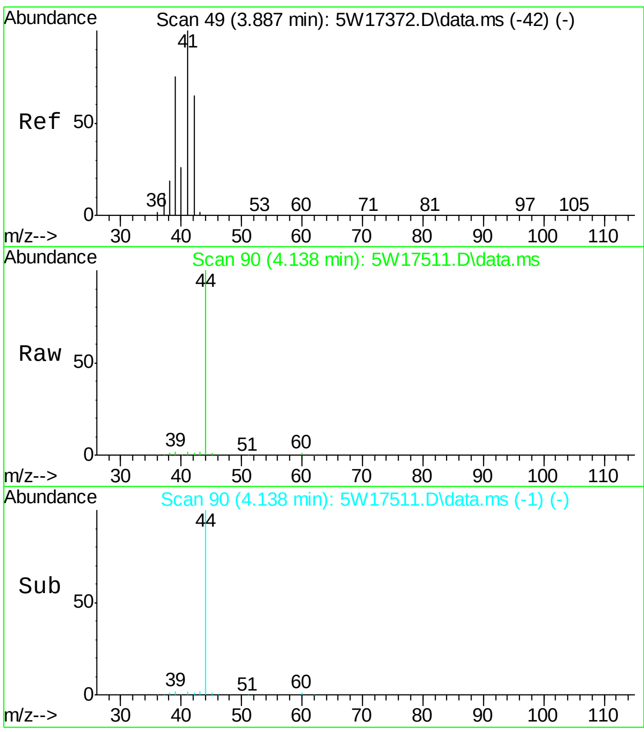


#4
Chlorodifluoromethane
Concen: 0.40 ppb(v)
RT: 4.107 min Scan# 85
Delta R.T. 0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 67 Resp: 1393

Ion	Ratio	Lower	Upper
67	100		
69	31.7	22.7	42.1

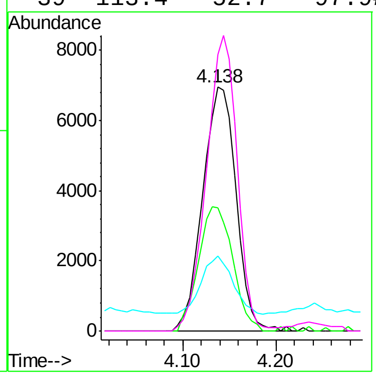


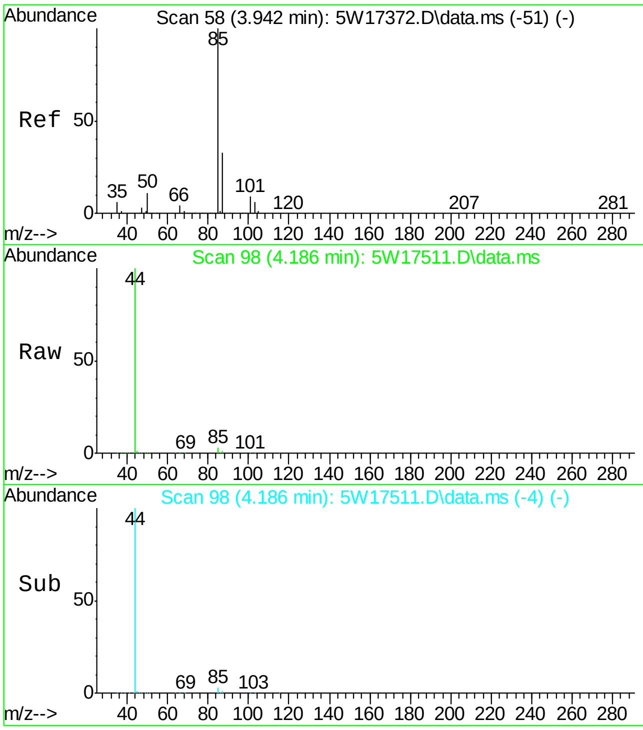


#5
Propene
Concen: 2.39 ppb(v)
RT: 4.138 min Scan# 90
Delta R.T. 0.251 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 41 Resp: 17563

Ion	Ratio	Lower	Upper
41	100		
42	50.4	45.7	84.9
40	30.6	18.5	34.3
39	113.4	52.7	97.9#

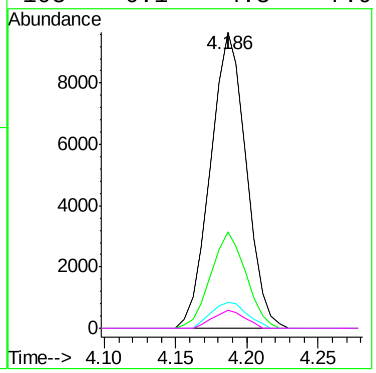


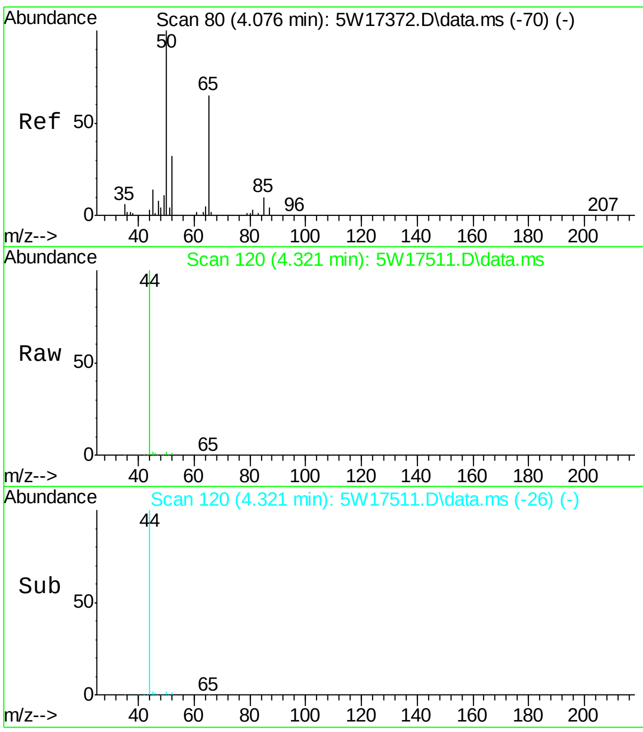


#6
Dichlorodifluoromethane
Concen: 0.52 ppb(v)
RT: 4.186 min   Scan# 98
Delta R.T.   0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016   7:49 pm

Tgt Ion: 85 Resp: 16862

Ion	Ratio	Lower	Upper
85	100		
87	32.6	22.7	42.3
101	8.7	6.6	12.2
103	6.1	4.3	7.9

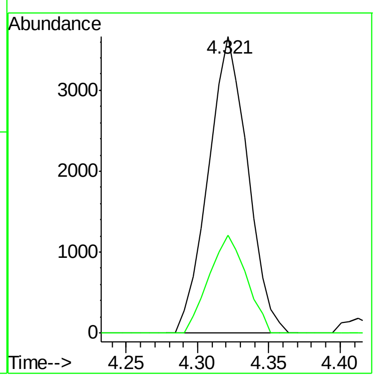


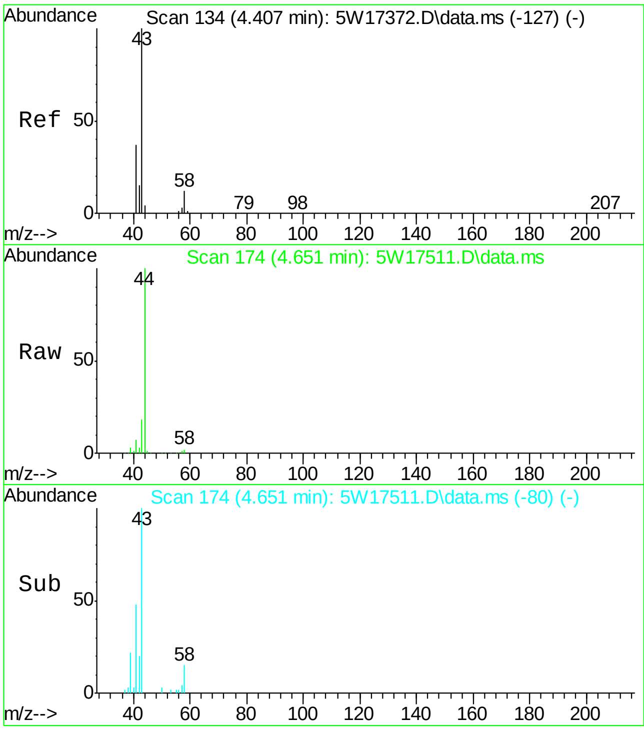


#8
Chloromethane
Concen: 0.70 ppb(v)
RT: 4.321 min   Scan# 120
Delta R.T.   0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016   7:49 pm

Tgt Ion: 50 Resp: 7069

Ion	Ratio	Lower	Upper
50	100		
52	32.8	22.7	42.1

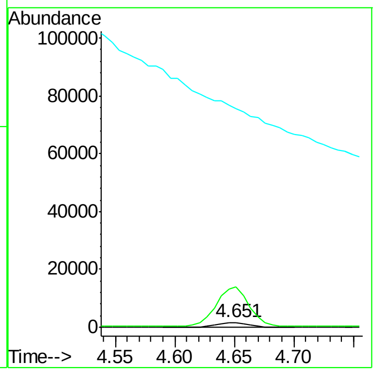


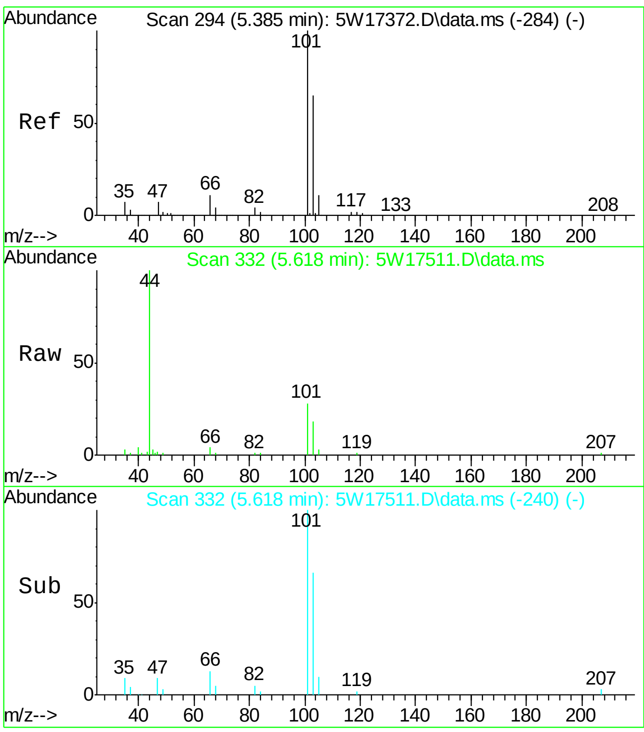


#12
n-Butane
Concen: 1.67 ppb(v) m
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 58 Resp: 3042

Ion	Ratio	Lower	Upper
58	100		
43	845.9	576.3	1070.3
44	4629.8	34.4	64.0#

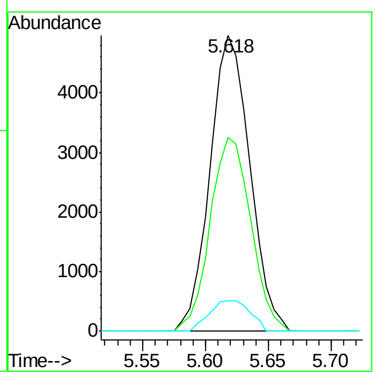


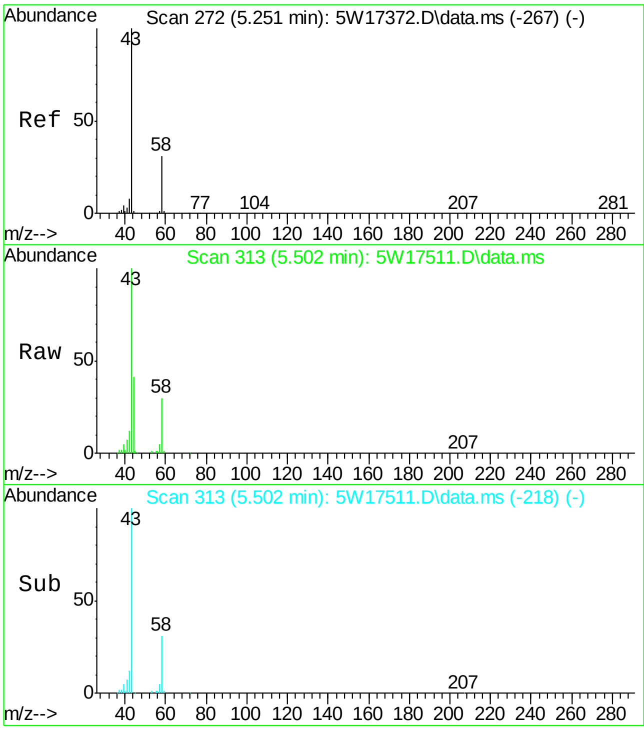


#20
Trichlorofluoromethane
Concen: 0.32 ppb(v)
RT: 5.618 min Scan# 332
Delta R.T. 0.233 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion:101 Resp: 10907

Ion	Ratio	Lower	Upper
101	100		
103	65.6	45.1	83.9
105	10.3	7.5	13.9

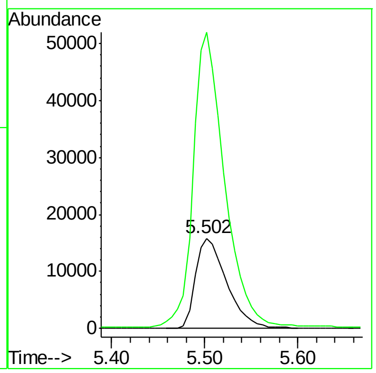


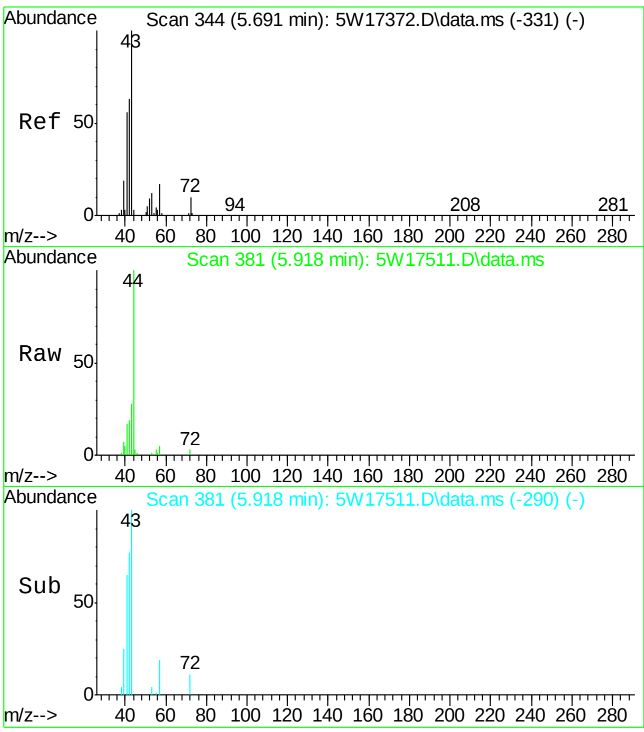


#21
Acetone
Concen: 6.72 ppb(v)
RT: 5.502 min Scan# 313
Delta R.T. 0.251 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 58 Resp: 36933

Ion	Ratio	Lower	Upper
58	100		
43	328.8	227.9	423.3

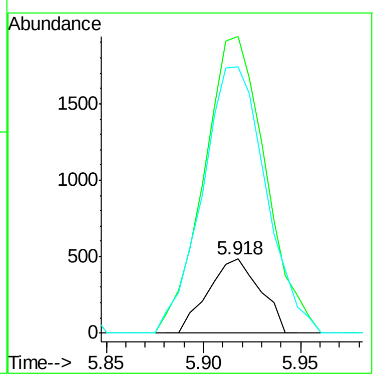


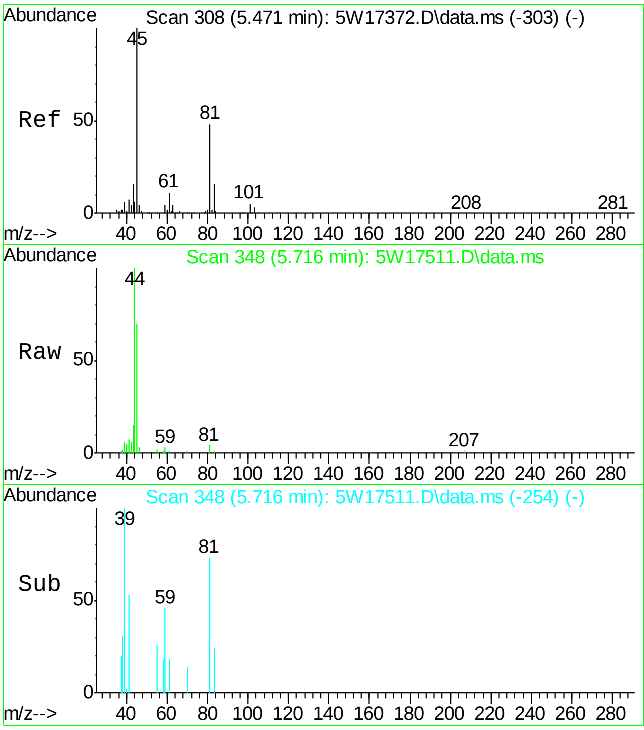


#22
Pentane
Concen: 0.33 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 57 Resp: 901

Ion	Ratio	Lower	Upper
57	100		
42	400.0	258.3	479.7
41	359.0	233.4	433.5

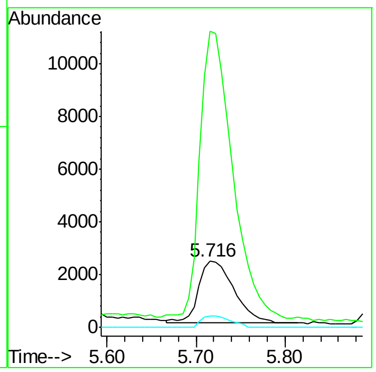


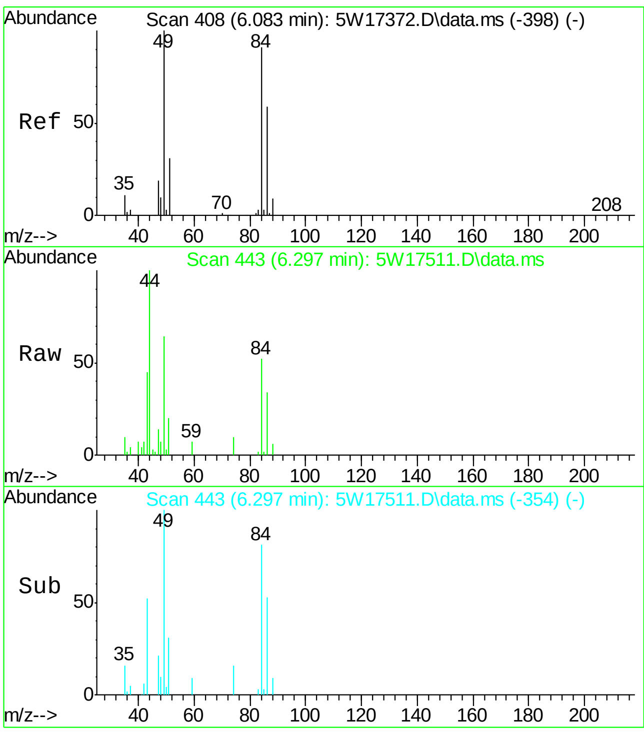


#25
Isopropyl Alcohol
Concen: 1.54 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 43 Resp: 6571

Ion	Ratio	Lower	Upper
43	100		
45	450.2	409.4	760.2
59	17.8	16.8	31.2

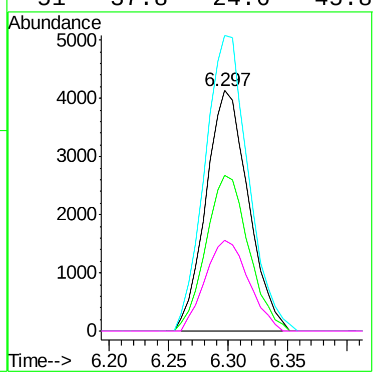


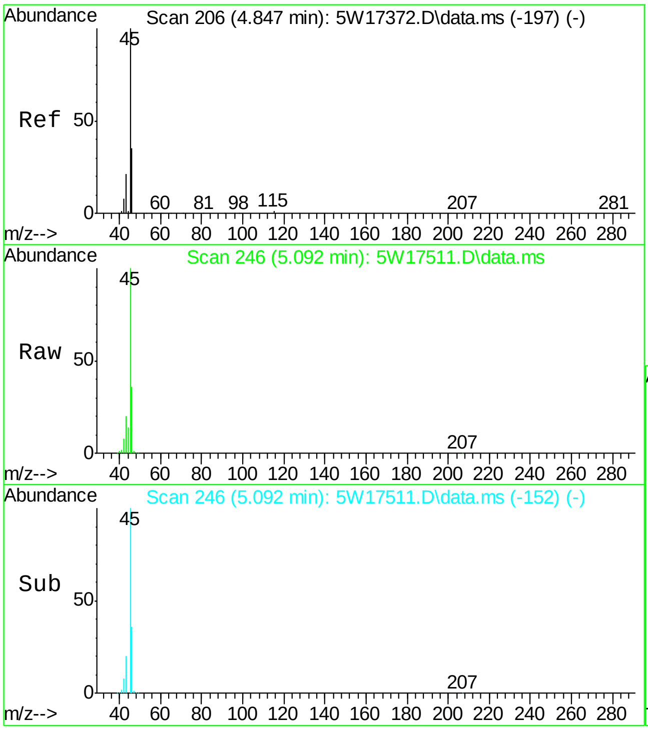


#28
Methylene Chloride
Concen: 0.87 ppb(v)
RT: 6.297 min Scan# 443
Delta R.T. 0.214 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 84 Resp: 10320

Ion	Ratio	Lower	Upper
84	100		
86	65.0	45.8	85.0
49	123.0	77.6	144.2
51	37.8	24.6	45.8

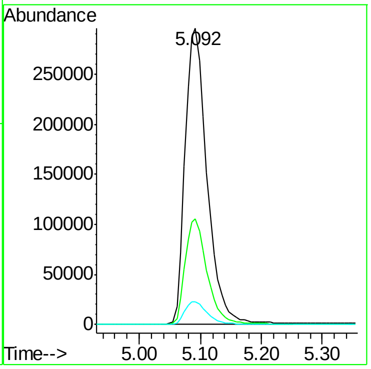


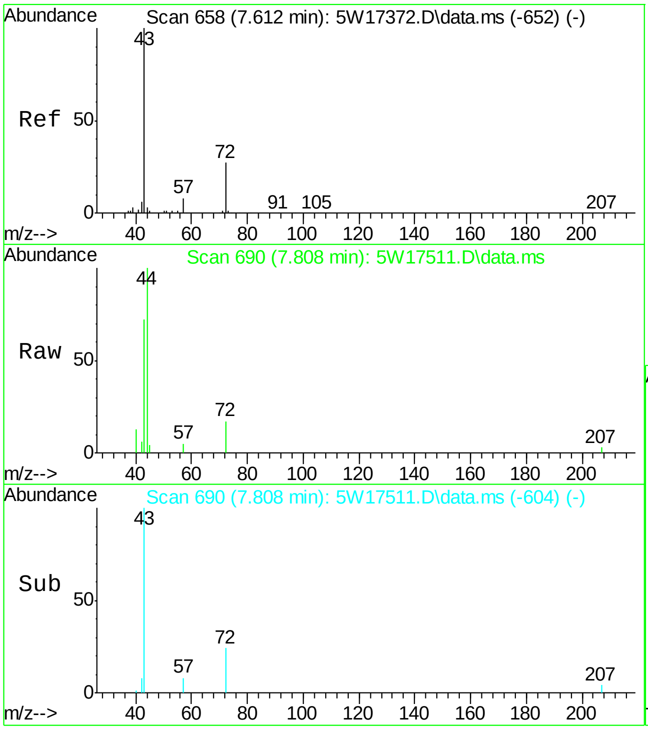


#30
Ethanol
Concen: 157.83 ppb(v)
RT: 5.092 min Scan# 246
Delta R.T. 0.245 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 45 Resp: 737486

Ion	Ratio	Lower	Upper
45	100		
46	35.5	24.6	45.8
42	7.6	6.5	12.1

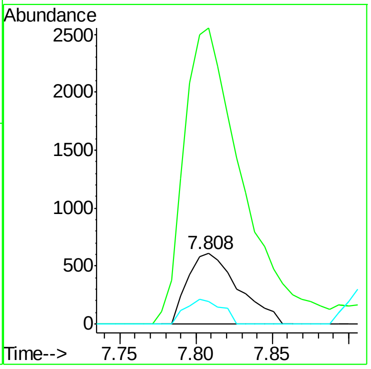




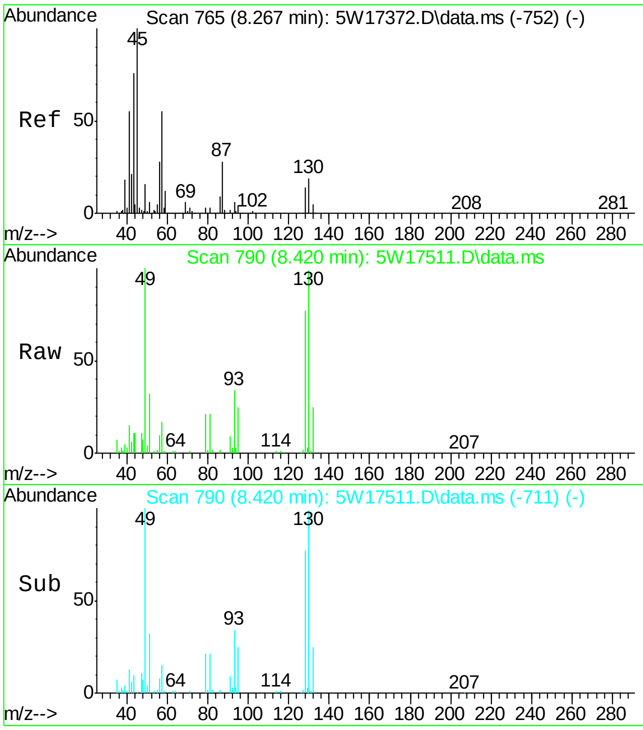
#38
2-Butanone
Concen: 0.26 ppb(v)
RT: 7.808 min Scan# 690
Delta R.T. 0.196 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 72 Resp: 1414

Ion	Ratio	Lower	Upper
72	100		
43	421.1	262.9	488.3
57	31.8	21.3	39.6



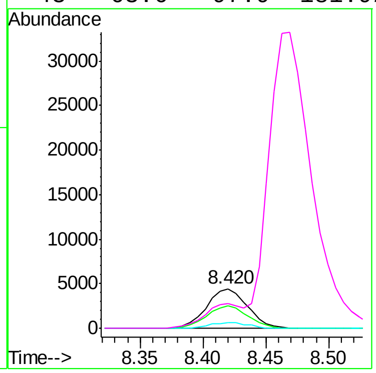
7.4.1
7

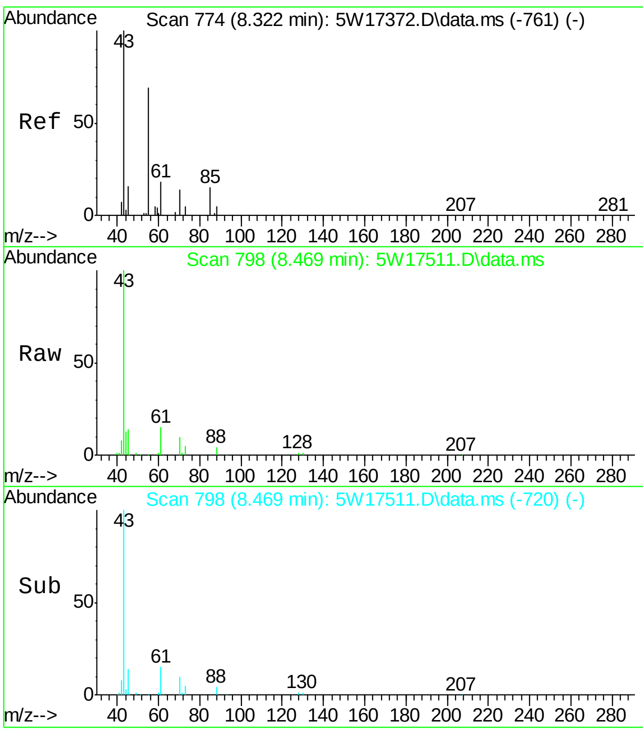


#39
Hexane
Concen: 0.52 ppb(v)
RT: 8.420 min Scan# 790
Delta R.T. 0.153 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 57 Resp: 9936

Ion	Ratio	Lower	Upper
57	100		
56	57.0	36.5	67.9
86	13.8	11.1	20.7
43	63.6	97.9	181.9#

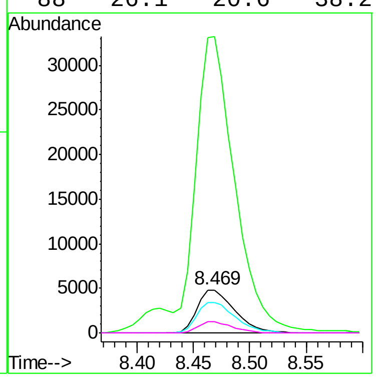


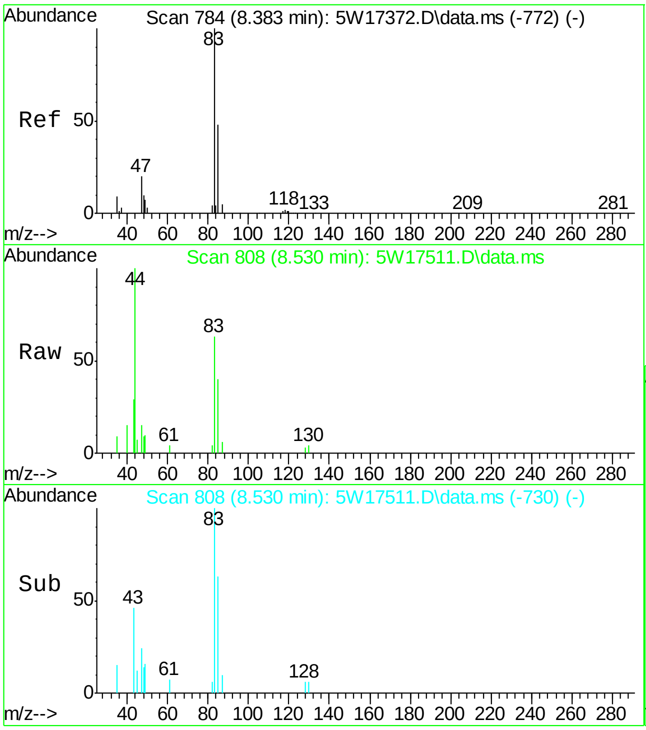


#42
Ethyl Acetate
Concen: 3.01 ppb(v)
RT: 8.469 min Scan# 798
Delta R.T. 0.147 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 61 Resp: 11254

Ion	Ratio	Lower	Upper
61	100		
43	684.4	466.1	865.7
70	71.2	56.3	104.5
88	26.1	20.6	38.2

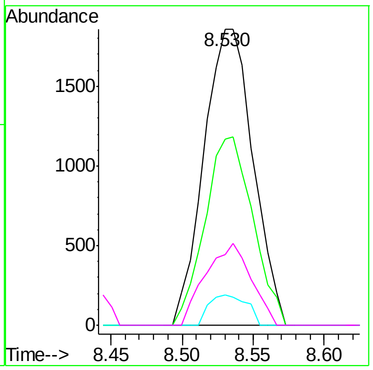


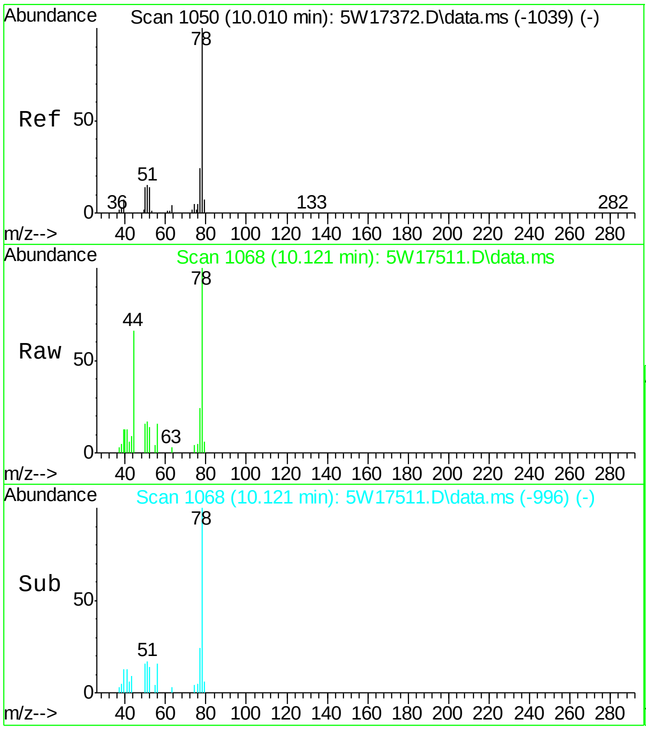


#44
Chloroform
Concen: 0.16 ppb(v)
RT: 8.530 min Scan# 808
Delta R.T. 0.147 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 83 Resp: 4477

Ion	Ratio	Lower	Upper
83	100		
85	63.1	45.4	84.2
87	10.3	7.3	13.5
47	23.9	14.4	26.8

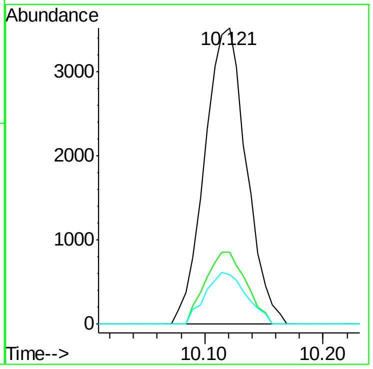


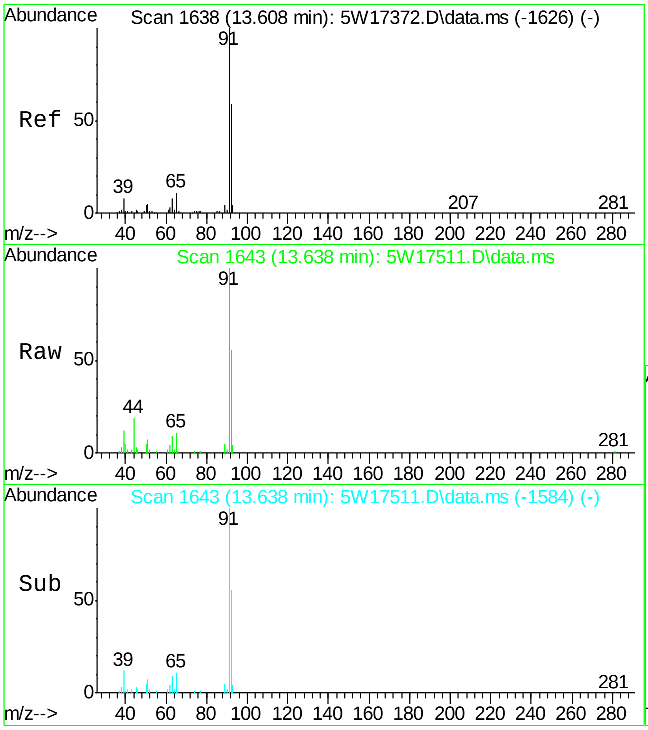


#49
Benzene
Concen: 0.22 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 78 Resp: 8641

Ion	Ratio	Lower	Upper
78	100		
77	24.3	16.5	30.7
51	16.6	10.5	19.5

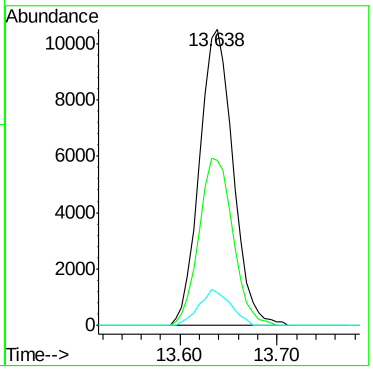


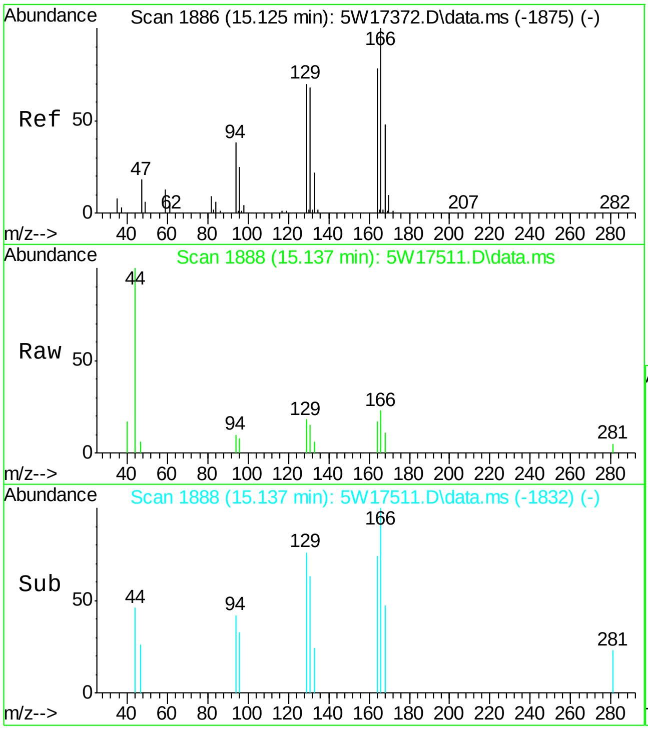


#66
Toluene
Concen: 0.52 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 91 Resp: 25143

Ion	Ratio	Lower	Upper
91	100		
92	55.8	41.2	76.6
65	11.0	7.3	13.7

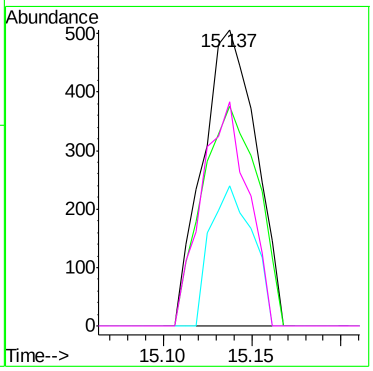




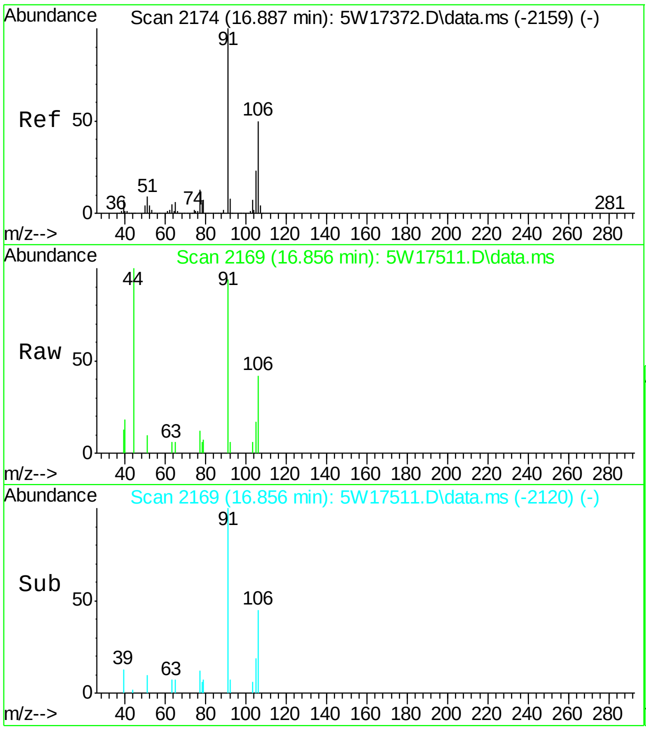
#72
Tetrachloroethene
Concen: 0.04 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion:166 Resp: 1057

Ion	Ratio	Lower	Upper
166	100		
164	74.3	54.6	101.4
168	47.2	33.5	62.3
129	75.7	49.1	91.3



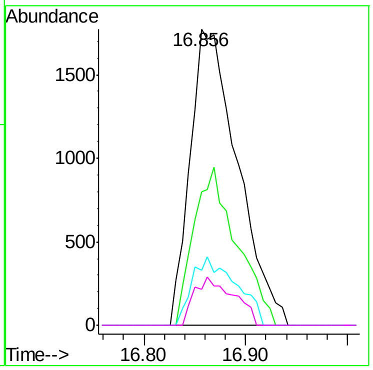
7.4.1
7



#79
m,p-Xylene
Concen: 0.11 ppb(v)
RT: 16.856 min Scan# 2169
Delta R.T. -0.030 min
Lab File: 5W17511.D
Acq: 5 Apr 2016 7:49 pm

Tgt Ion: 91 Resp: 5735

Ion	Ratio	Lower	Upper
91	100		
106	44.9	35.3	65.5
105	18.6	16.2	30.0
77	12.3	9.0	16.8



7.4.1
7

Manual Integration Approval Summary

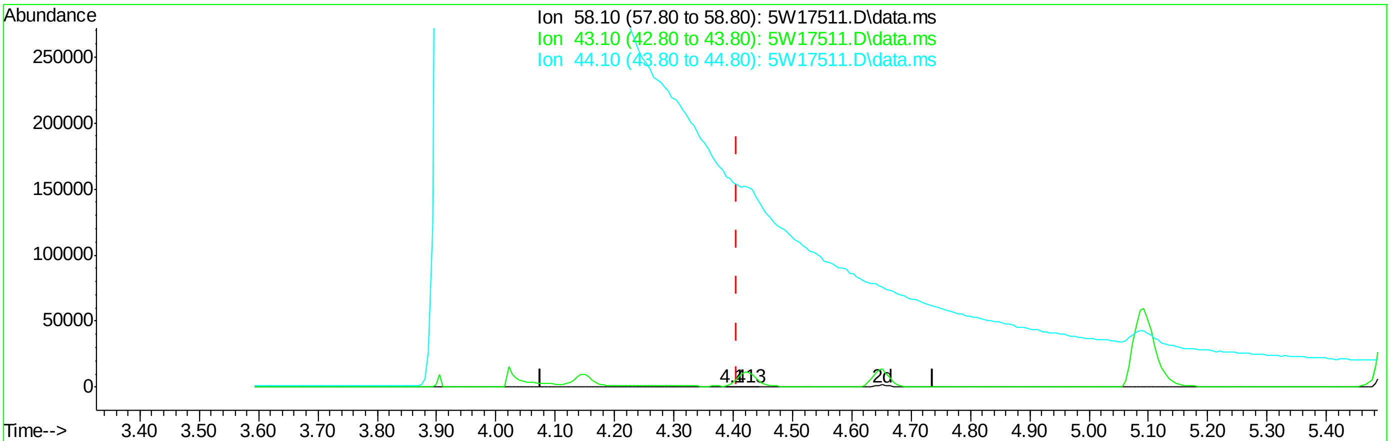
Sample Number:	JC17015-3DUP	**Method:**	TO-15
Lab FileID:	5W17511.D	**Analyst approved:**	04/06/16 15:49 Thomas Hilbig
Injection Time:	04/05/16 19:49	**Supervisor approved:**	04/07/16 11:18 Dana Tryon

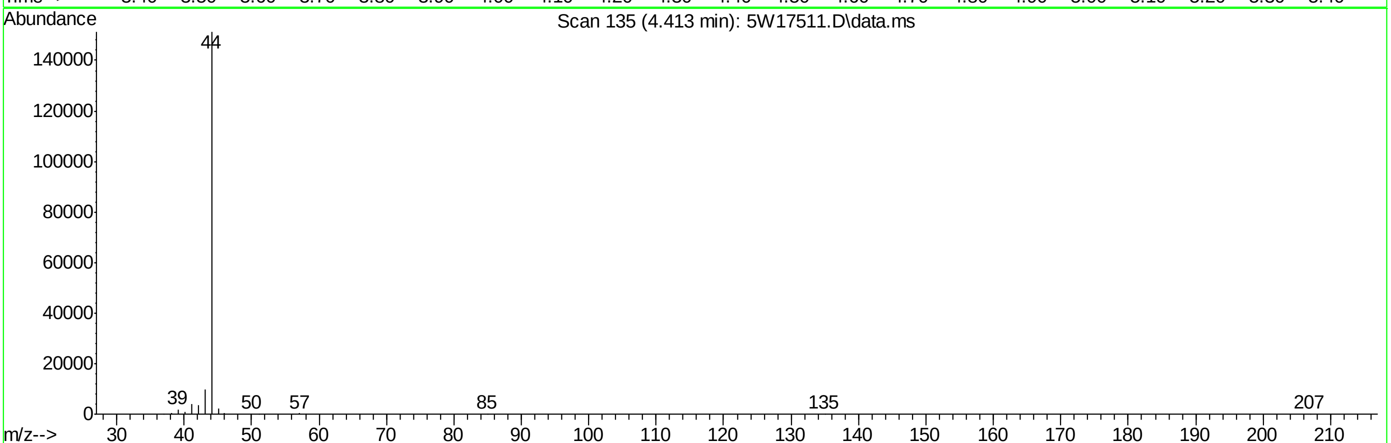
Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17511.D
Acq On    :  5 Apr 2016   7:49 pm
Operator  : THOMASH
Sample    : JC17015-3DUP
Misc      : MS192,v5w698,400,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 06 07:39:42 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17511.D\data.ms

(12) n-Butane

4.413min (+0.006) 0.18ppb(v)

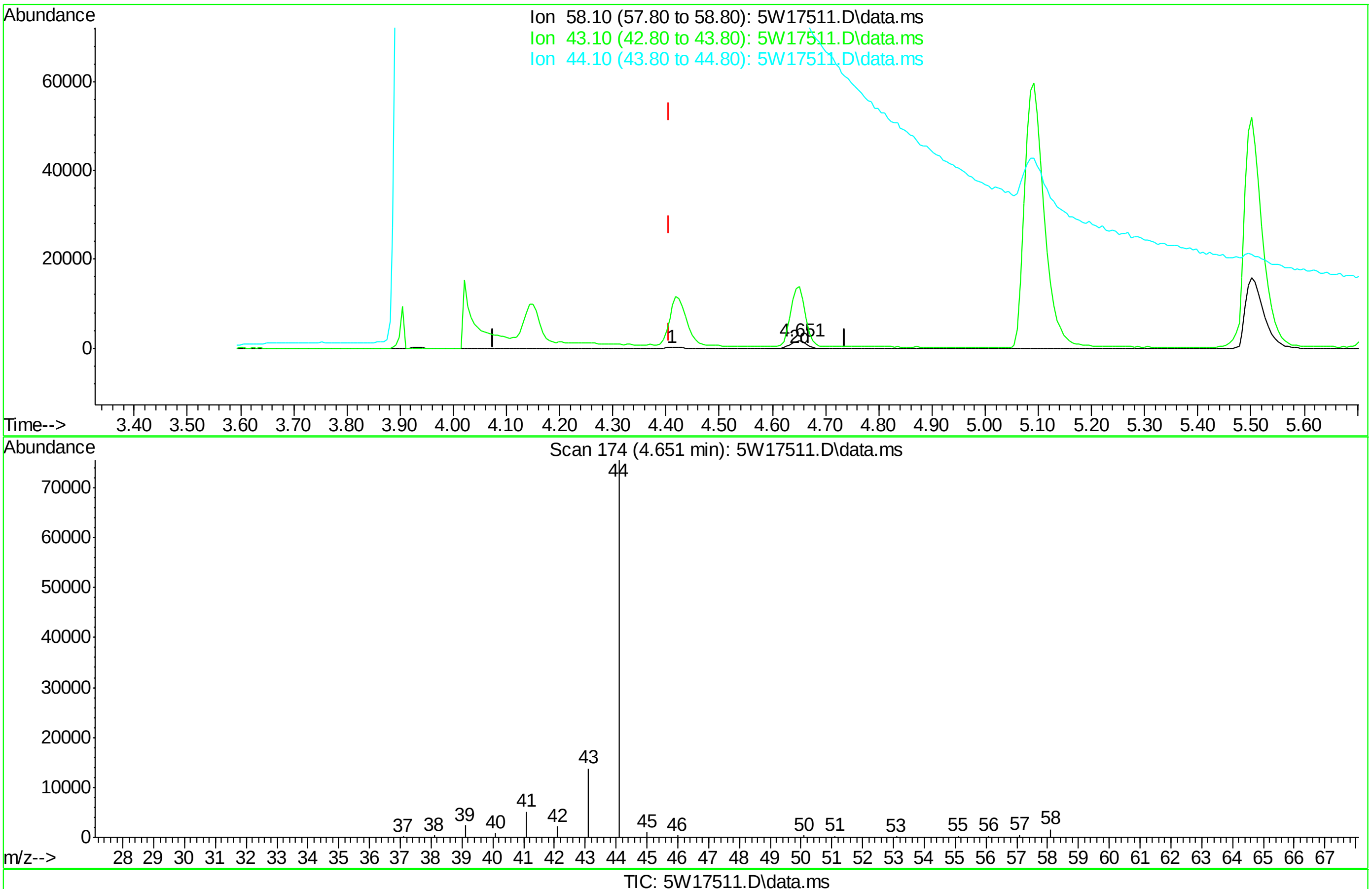
response 337

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	5079.47#
44.10	49.20	79629.47#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17511.D
Acq On    :  5 Apr 2016   7:49 pm
Operator  : THOMASH
Sample    : JC17015-3DUP
Misc      : MS192,v5w698,400,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Apr 06 07:39:42 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(12) n-Butane

4.651min (+0.245) 1.67ppb(v) m

response 3042

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	845.92
44.10	49.20	4629.80#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 15:31

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17540.D
Acq On    :  6 Apr 2016   8:49 pm
Operator  : THOMASH
Sample    : JC17438-8DUP
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:29:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.408	130	215562	10.00	ppb(v	0.16
53) 1,4-Difluorobenzene	10.537	114	804906	10.00	ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	377529	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.408	130	215562	10.00	ppb(v	0.16
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.245	95	517936	10.02	ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.20%			
Target Compounds						Qvalue
8) Chloromethane	4.315	50	12748	0.83	ppb(v	95
12) n-Butane	4.651	58	9568m	3.45	ppb(v	
20) Trichlorofluoromethane	5.624	101	71481	1.38	ppb(v	99
21) Acetone	5.508	58	151868	18.13	ppb(v	85
22) Pentane	5.918	57	15044	3.61	ppb(v	97
25) Isopropyl Alcohol	5.716	43	124768	19.19	ppb(v	89
26) 1,1-Dichloroethene	6.181	61	5908m	0.21	ppb(v	
28) Methylene Chloride	6.297	84	5846	0.32	ppb(v	98
29) Carbon Disulfide	6.566	76	26107	0.49	ppb(v	99
30) Ethanol	5.104	45	1720537	241.66	ppb(v	98
38) 2-Butanone	7.802	72	7337	0.89	ppb(v	89
39) Hexane	8.426	57	205612	7.11	ppb(v#	55
40) cis-1,2-Dichloroethene	8.236	61	90590	3.71	ppb(v	98
42) Ethyl Acetate	8.469	61	66596	11.70	ppb(v	90
44) Chloroform	8.542	83	439108	10.00	ppb(v	98
45) 2,4-Dimethylpentane	9.380	57	74710	2.27	ppb(v	97
46) Tetrahydrofuran	9.032	72	1501	0.18	ppb(v#	62
47) 1,1,1-Trichloroethane	9.607	97	13499	0.30	ppb(v	97
49) Benzene	10.121	78	27677	0.47	ppb(v	100
51) Cyclohexane	10.420	56	135503	4.92	ppb(v	94
52) 2,3-Dimethylpentane	10.696	71	70485	5.54	ppb(v	98
54) 2,2,4-Trimethylpentane	11.375	57	924665	10.32	ppb(v#	85
55) Heptane	11.705	71	150228	7.83	ppb(v	98
56) Trichloroethene	11.356	95	3527097	114.94	ppb(v	95
66) Toluene	13.644	91	33587	0.44	ppb(v	98
72) Tetrachloroethene	15.137	166	224287	5.12	ppb(v	100
74) Octane	14.966	43	114318	2.77	ppb(v	96
78) Ethylbenzene	16.618	91	124490	1.26	ppb(v	99
79) m,p-Xylene	16.862	91	34150	0.46	ppb(v	98
80) Styrene	17.407	104	14511	0.25	ppb(v	98
81) Nonane	17.933	43	11100	0.27	ppb(v	96
82) o-Xylene	17.560	91	10286	0.13	ppb(v	97
86) Isopropylbenzene	18.459	105	30165	0.27	ppb(v	98
89) n-Propylbenzene	19.248	120	19935	0.70	ppb(v	88
91) 4-Ethyltoluene	19.468	105	10557	0.10	ppb(v	97
95) 1,2,4-Trimethylbenzene	20.172	105	14948	0.17	ppb(v#	58
102) n-Butylbenzene	21.340	134	5687	0.24	ppb(v	84
105) Naphthalene	23.255	128	7176	0.09	ppb(v#	90

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17540.D
Acq On    :  6 Apr 2016   8:49 pm
Operator  : THOMASH
Sample    : JC17438-8DUP
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:29:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

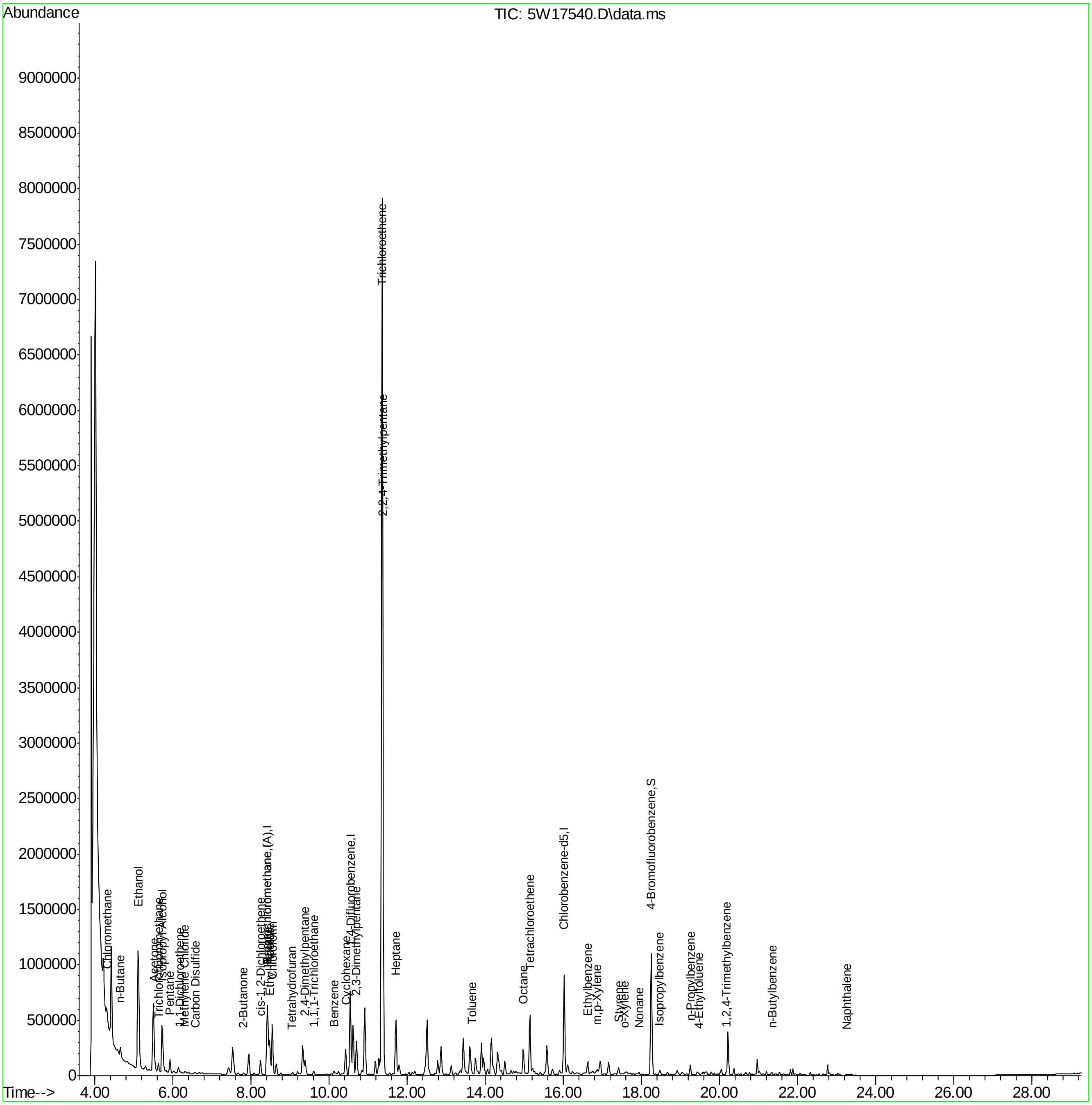
        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 -----------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

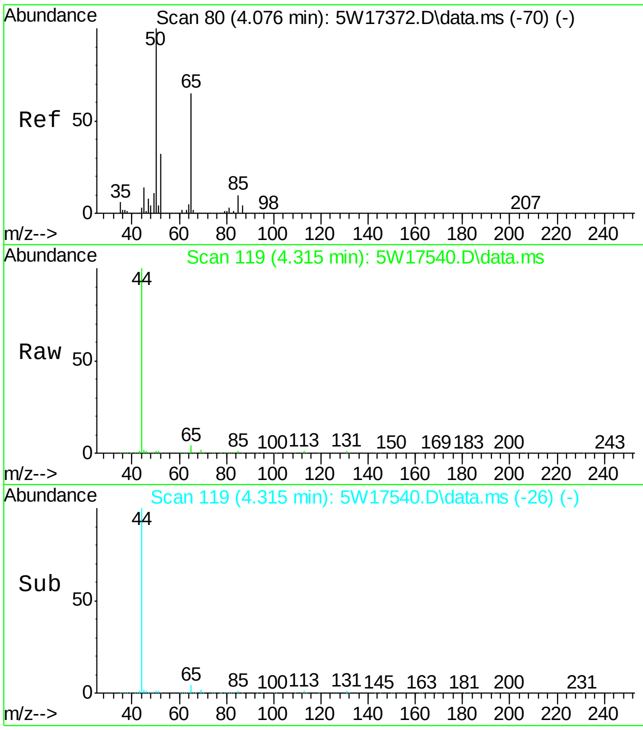
```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17540.D
Acq On    :  6 Apr 2016   8:49 pm
Operator  : THOMASH
Sample    : JC17438-8DUP
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 11:29:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



m5w693.M Thu Apr 07 11:29:32 2016 GCMS5W   Page: 3

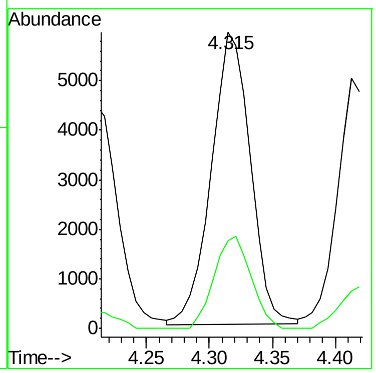
7.4.2
7

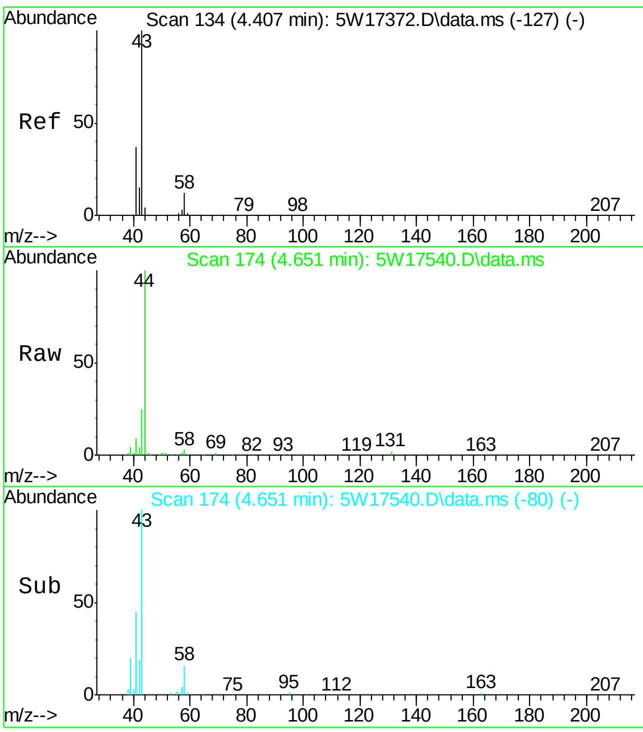


#8
Chloromethane
Concen: 0.83 ppb(v)
RT: 4.315 min Scan# 119
Delta R.T. 0.239 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 50 Resp: 12748

Ion	Ratio	Lower	Upper
50	100		
52	29.5	22.7	42.1

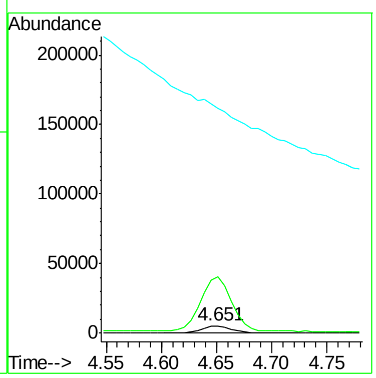


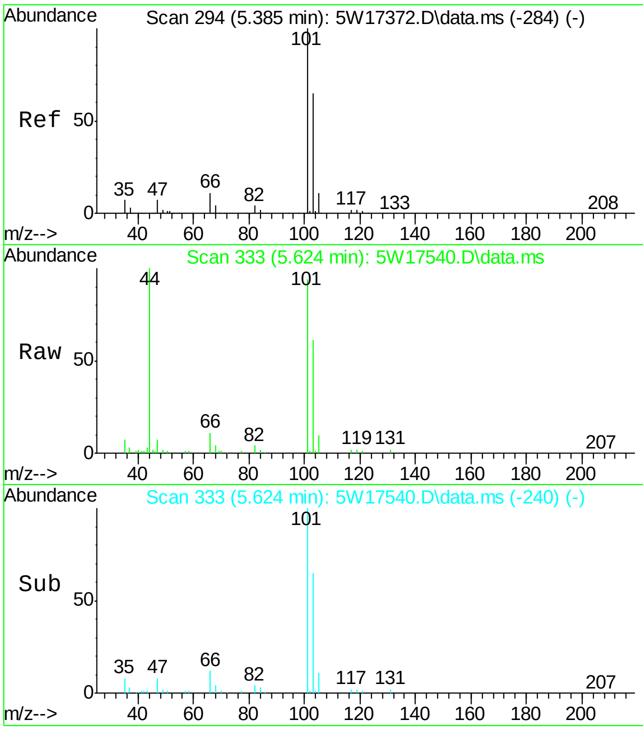


#12
n-Butane
Concen: 3.45 ppb(v) m
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 58 Resp: 9568

Ion	Ratio	Lower	Upper
58	100		
43	813.3	576.3	1070.3
44	3235.8	34.4	64.0#

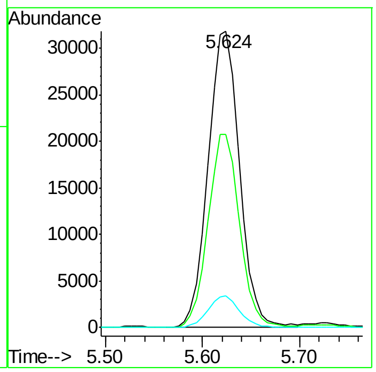


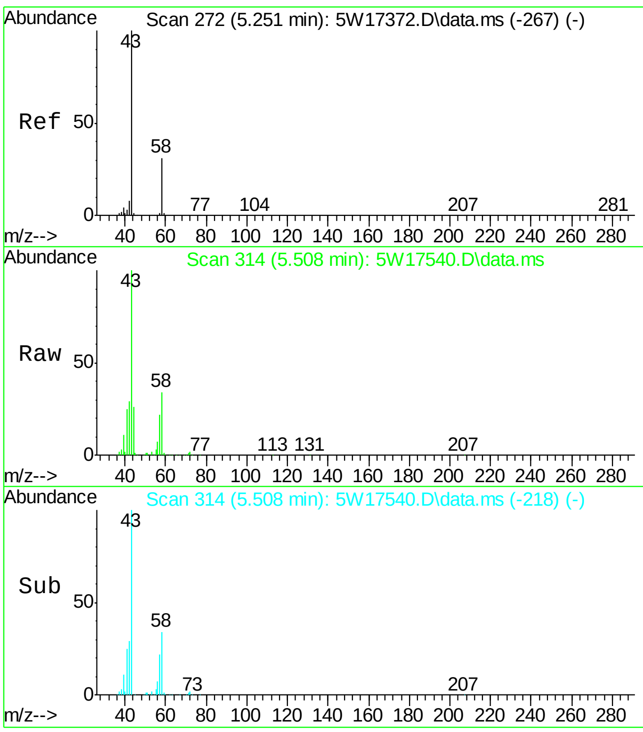


#20
Trichlorofluoromethane
Concen: 1.38 ppb(v)
RT: 5.624 min Scan# 333
Delta R.T. 0.239 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:101 Resp: 71481

Ion	Ratio	Lower	Upper
101	100		
103	65.2	45.1	83.9
105	10.8	7.5	13.9

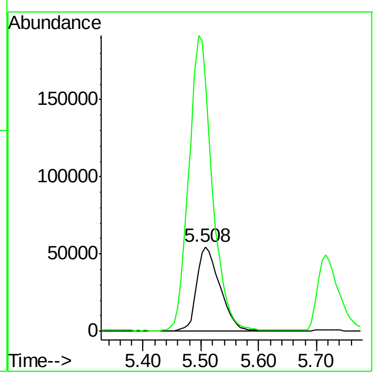


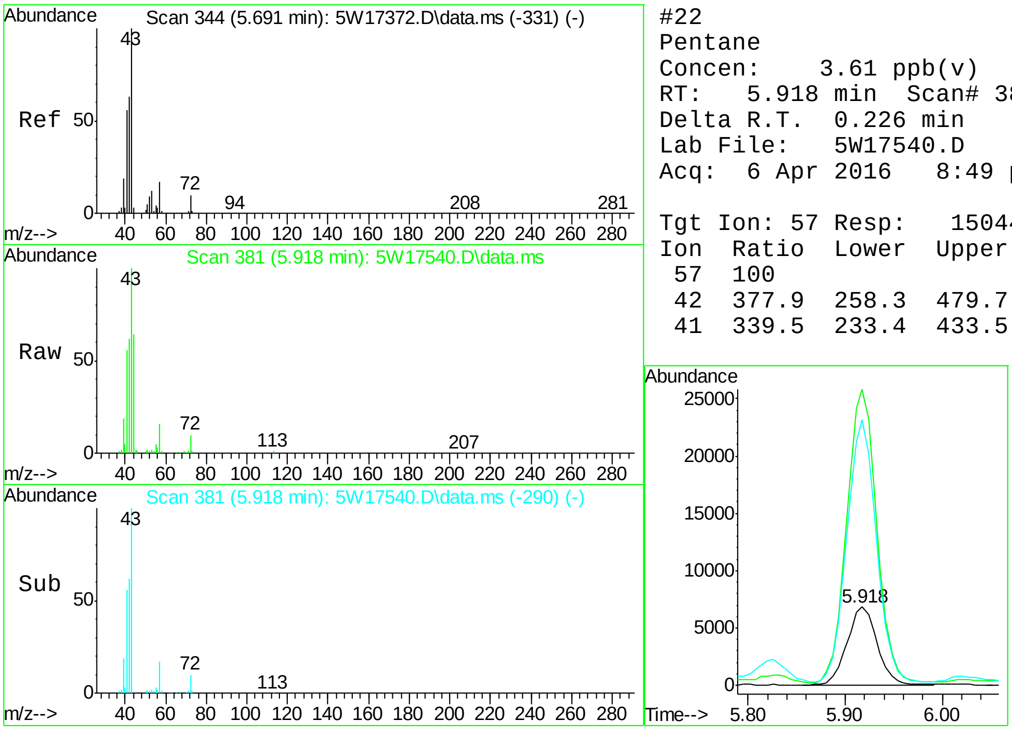


#21
Acetone
Concen: 18.13 ppb(v)
RT: 5.508 min Scan# 314
Delta R.T. 0.257 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 58 Resp: 151868

Ion	Ratio	Lower	Upper
58	100		
43	293.7	227.9	423.3

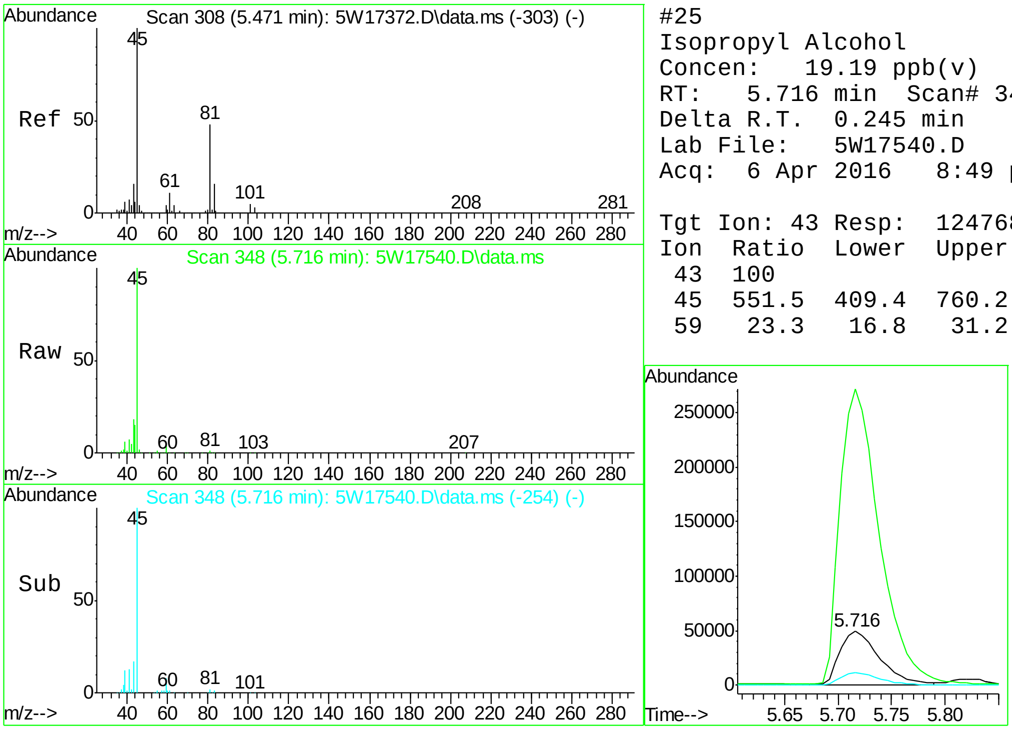




#22
Pentane
Concen: 3.61 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 57 Resp: 15044

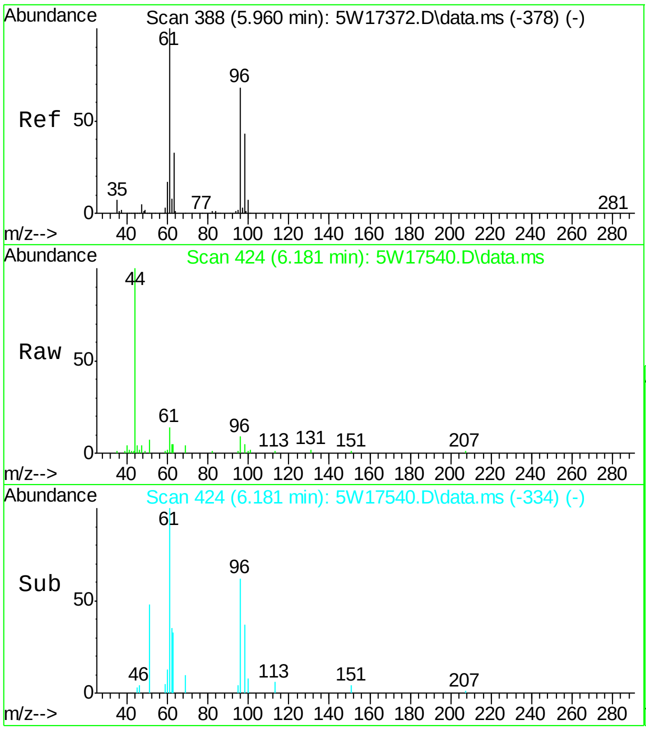
Ion	Ratio	Lower	Upper
57	100		
42	377.9	258.3	479.7
41	339.5	233.4	433.5



#25
Isopropyl Alcohol
Concen: 19.19 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 43 Resp: 124768

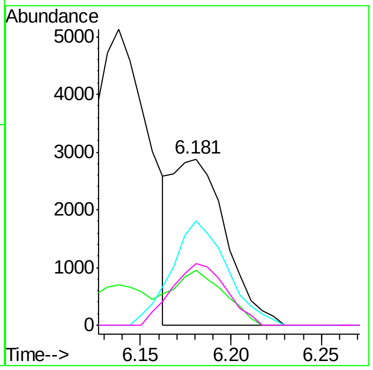
Ion	Ratio	Lower	Upper
43	100		
45	551.5	409.4	760.2
59	23.3	16.8	31.2

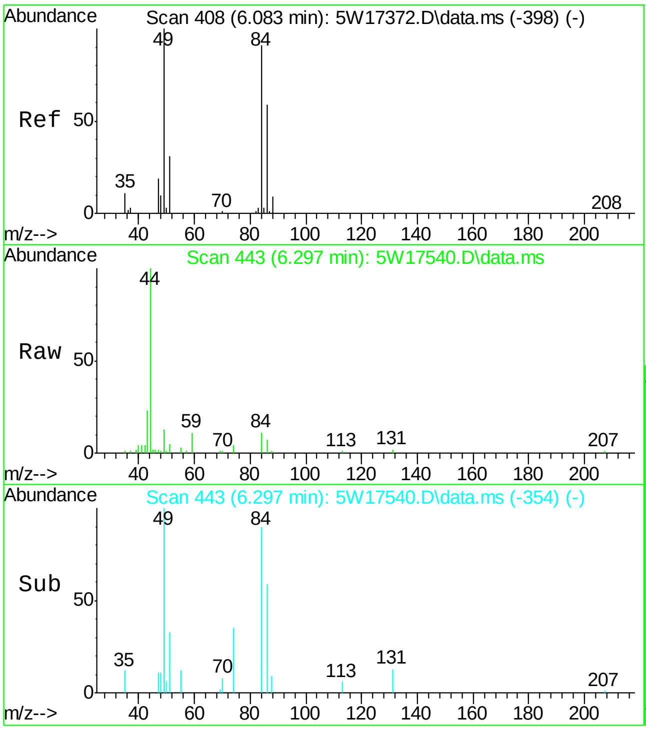


#26
1,1-Dichloroethene
Concen: 0.21 ppb(v) m
RT: 6.181 min Scan# 424
Delta R.T. 0.220 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 61 Resp: 5908

Ion	Ratio	Lower	Upper
61	100		
63	32.9	22.8	42.4
96	62.5	47.7	88.7
98	37.1	30.2	56.0

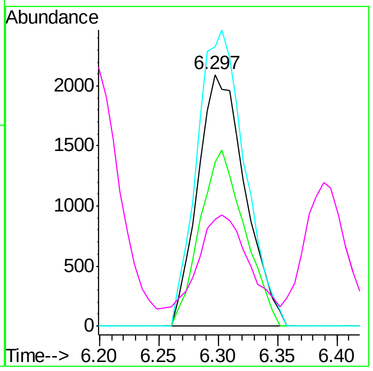


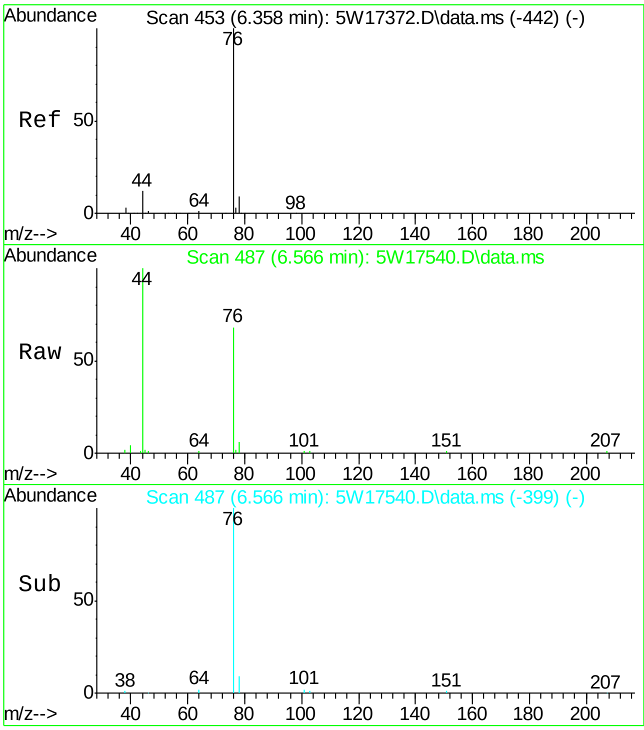


#28
Methylene Chloride
Concen: 0.32 ppb(v)
RT: 6.297 min Scan# 443
Delta R.T. 0.214 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 84 Resp: 5846

Ion	Ratio	Lower	Upper
84	100		
86	65.0	45.8	85.0
49	110.9	77.6	144.2
51	42.5	24.6	45.8

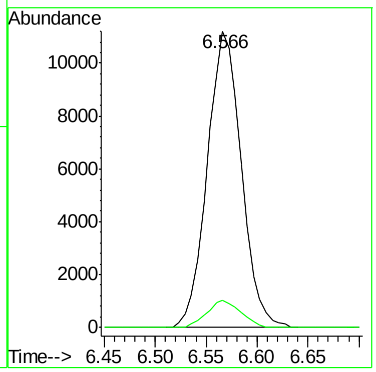


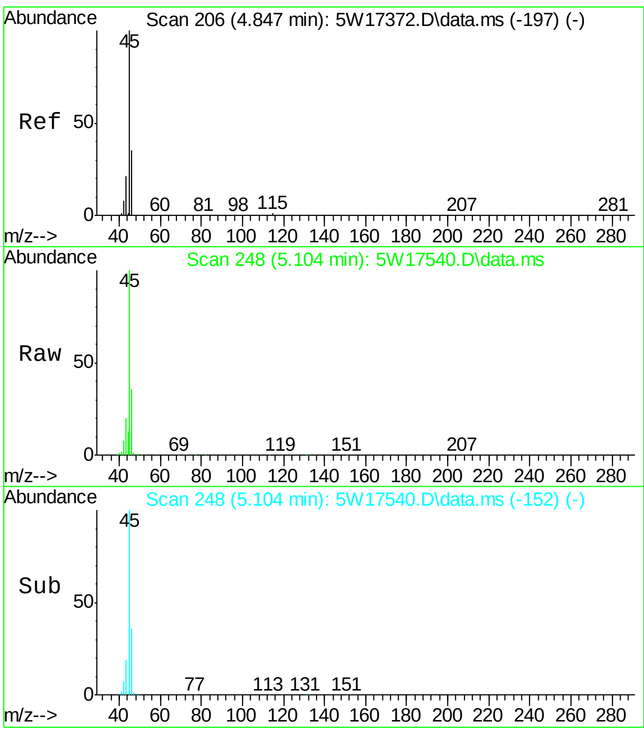


#29
Carbon Disulfide
Concen: 0.49 ppb(v)
RT: 6.566 min   Scan# 487
Delta R.T.   0.208 min
Lab File: 5W17540.D
Acq: 6 Apr 2016   8:49 pm

Tgt Ion: 76 Resp: 26107

Ion	Ratio	Lower	Upper
76	100		
78	9.0	6.5	12.1

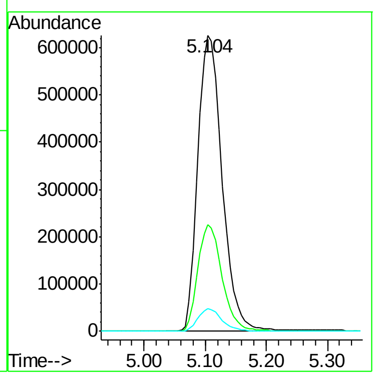


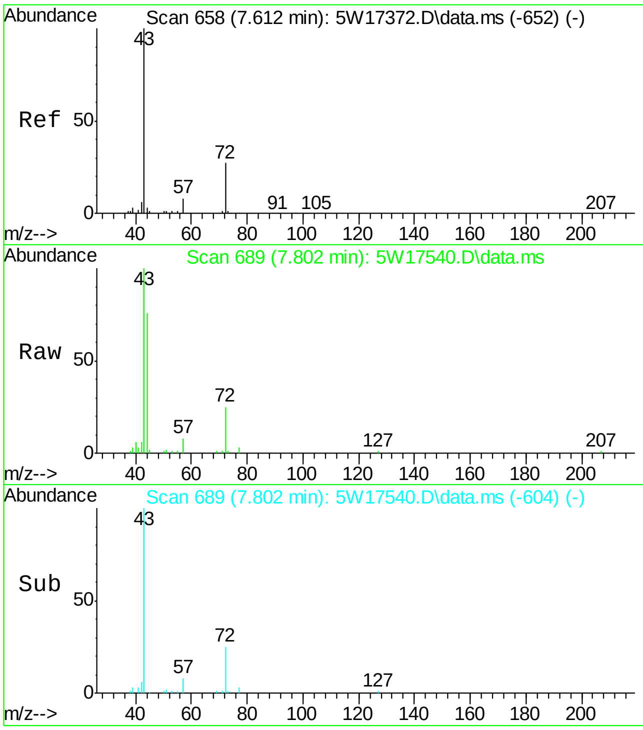


#30
Ethanol
Concen: 241.66 ppb(v)
RT: 5.104 min   Scan# 248
Delta R.T.   0.257 min
Lab File: 5W17540.D
Acq: 6 Apr 2016   8:49 pm

Tgt Ion: 45 Resp: 1720537

Ion	Ratio	Lower	Upper
45	100		
46	35.8	24.6	45.8
42	7.5	6.5	12.1

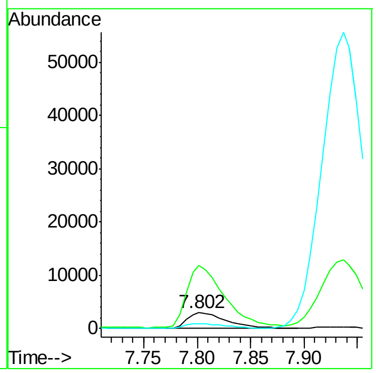


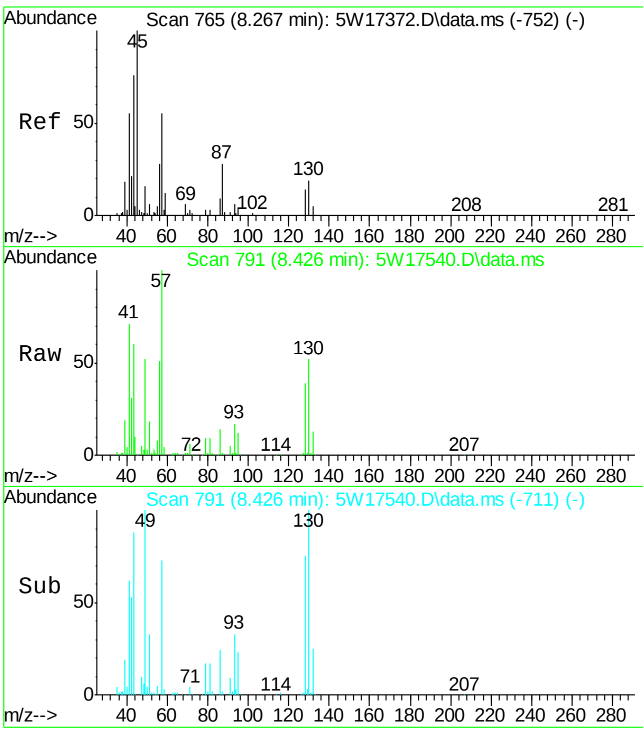


#38
2-Butanone
Concen: 0.89 ppb(v)
RT: 7.802 min Scan# 689
Delta R.T. 0.190 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 72 Resp: 7337

Ion	Ratio	Lower	Upper
72	100		
43	400.8	262.9	488.3
57	33.1	21.3	39.6

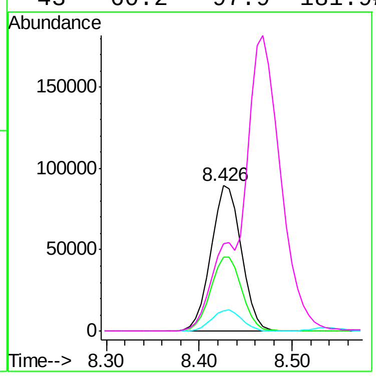


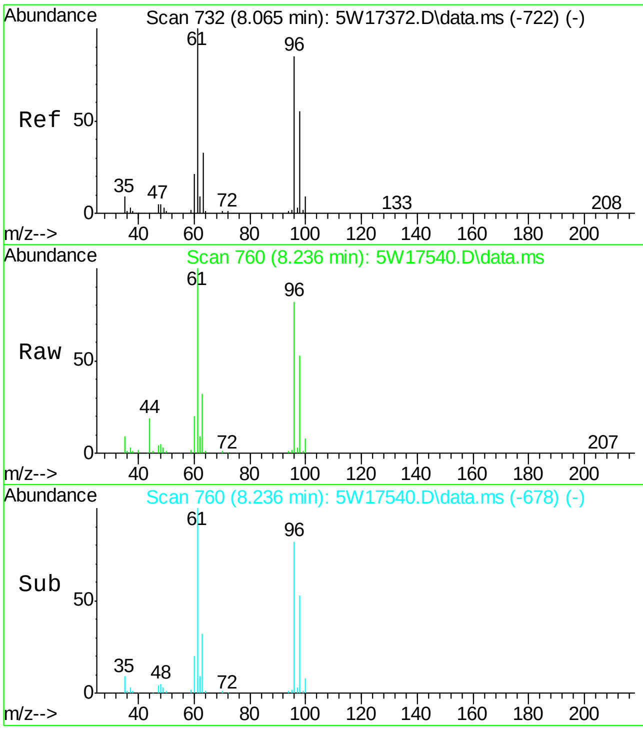


#39
Hexane
Concen: 7.11 ppb(v)
RT: 8.426 min Scan# 791
Delta R.T. 0.159 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 57 Resp: 205612

Ion	Ratio	Lower	Upper
57	100		
56	51.2	36.5	67.9
86	14.3	11.1	20.7
43	60.2	97.9	181.9#

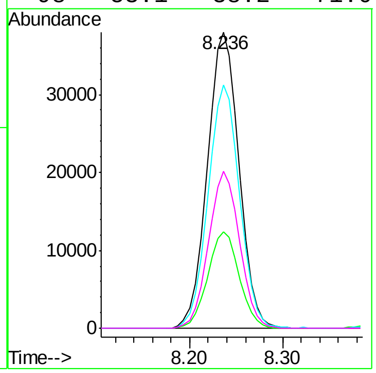


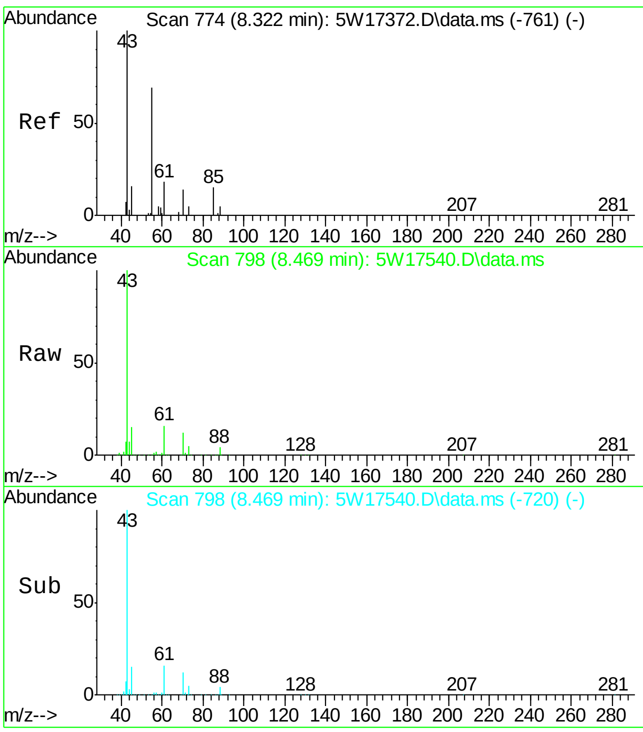


#40
cis-1,2-Dichloroethene
Concen: 3.71 ppb(v)
RT: 8.236 min Scan# 760
Delta R.T. 0.171 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 61 Resp: 90590

Ion	Ratio	Lower	Upper
61	100		
63	32.4	23.0	42.8
96	82.1	59.3	110.1
98	53.1	38.2	71.0

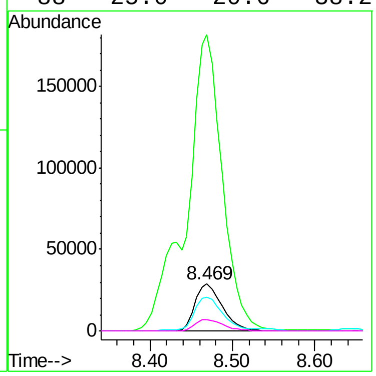


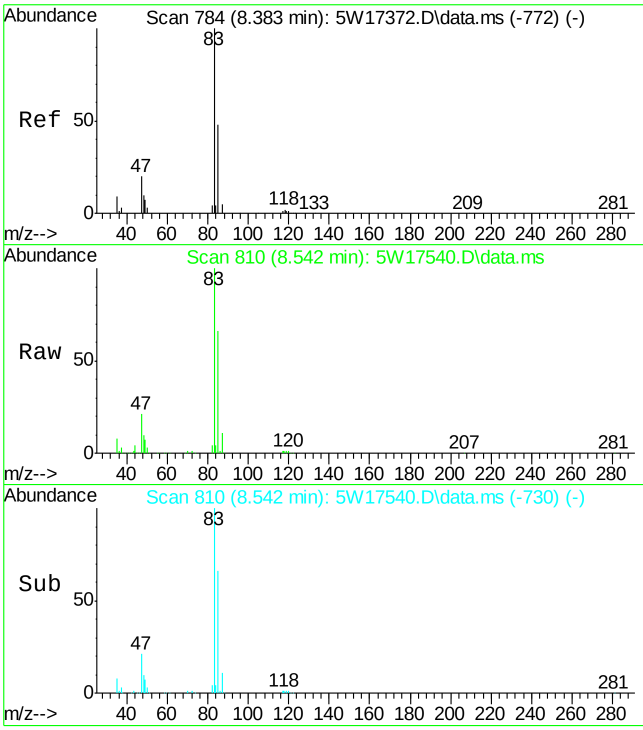


#42
Ethyl Acetate
Concen: 11.70 ppb(v)
RT: 8.469 min Scan# 798
Delta R.T. 0.147 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 61 Resp: 66596

Ion	Ratio	Lower	Upper
61	100		
43	632.7	466.1	865.7
70	73.2	56.3	104.5
88	25.0	20.6	38.2

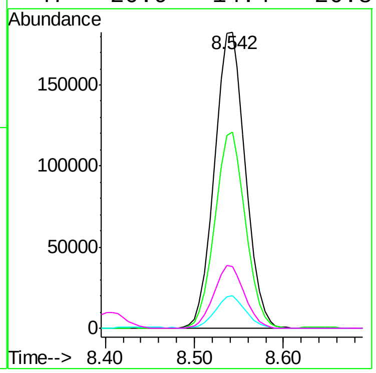


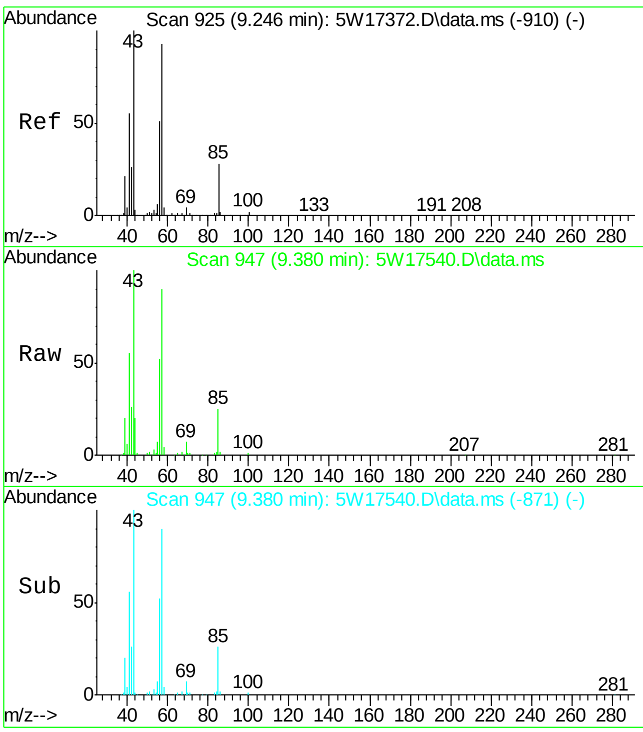


#44
Chloroform
Concen: 10.00 ppb(v)
RT: 8.542 min Scan# 810
Delta R.T. 0.159 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 83 Resp: 439108

Ion	Ratio	Lower	Upper
83	100		
85	66.4	45.4	84.2
87	11.0	7.3	13.5
47	20.9	14.4	26.8

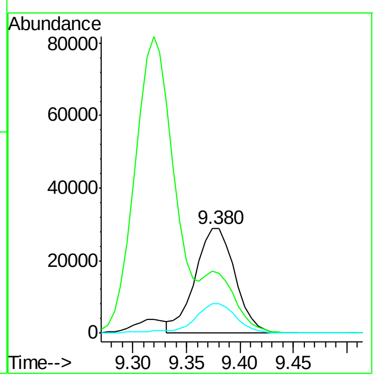


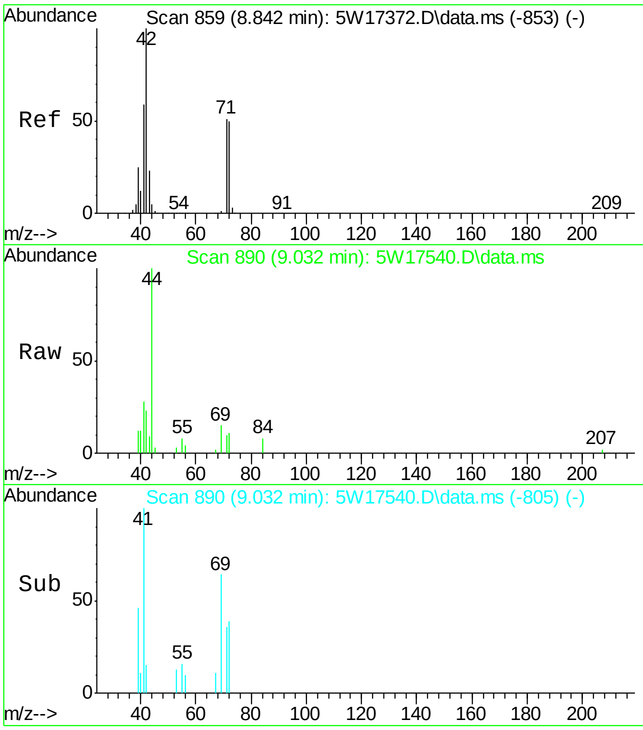


#45
2,4-Dimethylpentane
Concen: 2.27 ppb(v)
RT: 9.380 min Scan# 947
Delta R.T. 0.135 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 57 Resp: 74710

Ion	Ratio	Lower	Upper
57	100		
56	57.5	38.9	72.2
85	28.3	21.0	39.0

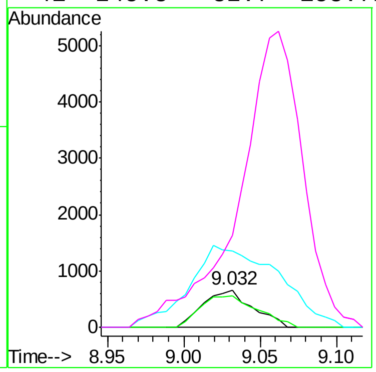


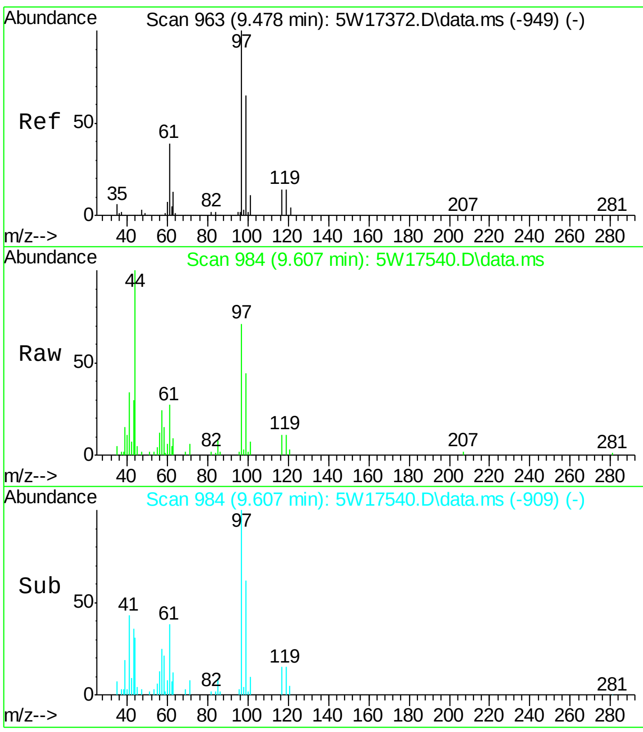


#46
Tetrahydrofuran
Concen: 0.18 ppb(v)
RT: 9.032 min Scan# 890
Delta R.T. 0.190 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 72 Resp: 1501

Ion	Ratio	Lower	Upper
72	100		
71	85.3	70.7	131.3
42	203.6	139.4	259.0
41	245.8	82.7	153.7#

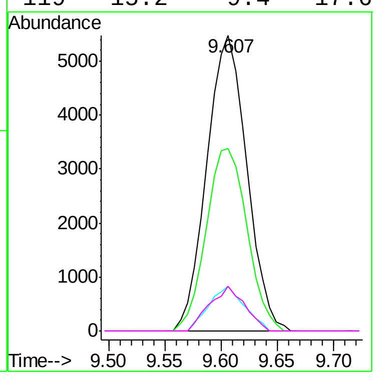




#47
1,1,1-Trichloroethane
Concen: 0.30 ppb(v)
RT: 9.607 min Scan# 984
Delta R.T. 0.128 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

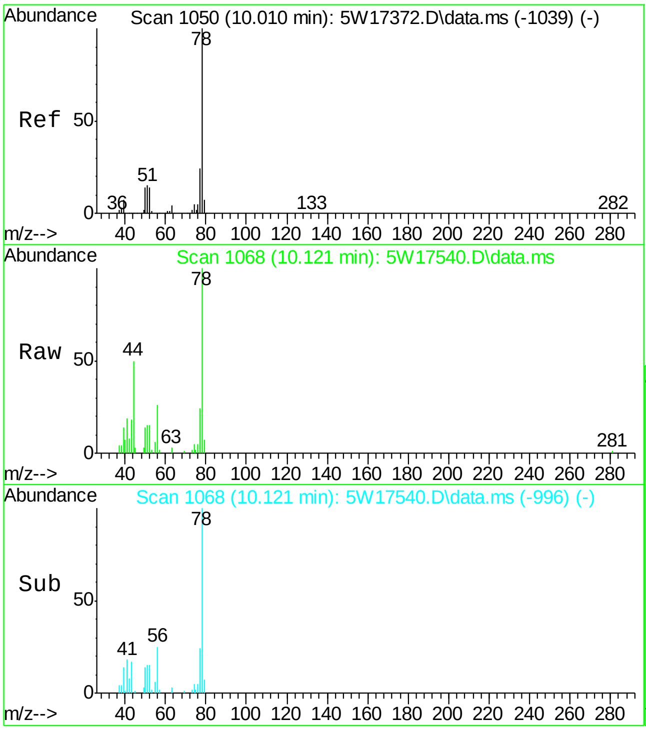
Tgt Ion: 97 Resp: 13499

Ion	Ratio	Lower	Upper
97	100		
99	61.8	45.3	84.1
117	15.0	10.0	18.6
119	15.2	9.4	17.6



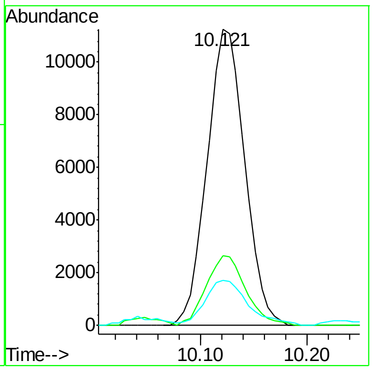
7.4.2

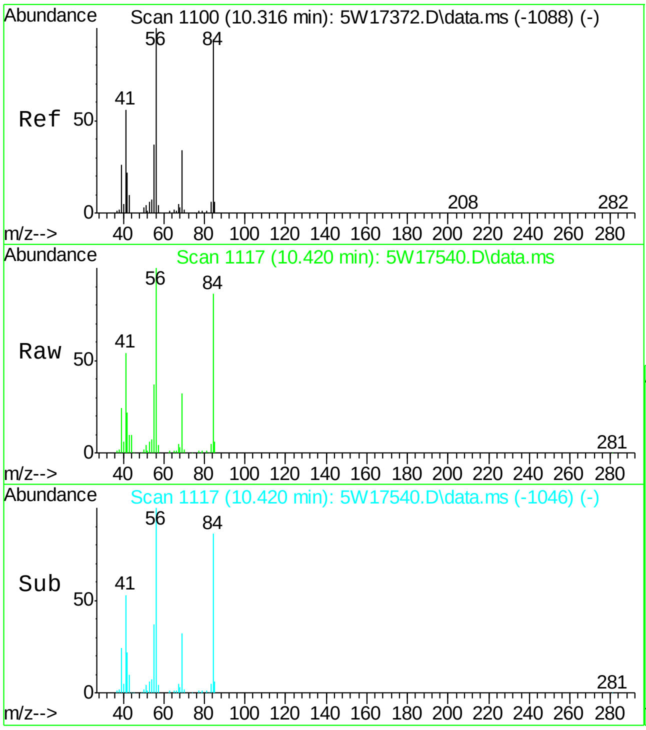
7



#49
Benzene
Concen: 0.47 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

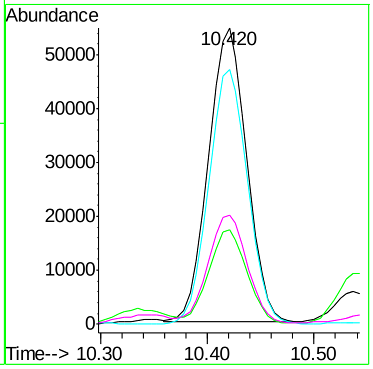
Tgt Ion:	78	Resp:	27677
Ion	Ratio	Lower	Upper
78	100		
77	23.6	16.5	30.7
51	15.0	10.5	19.5

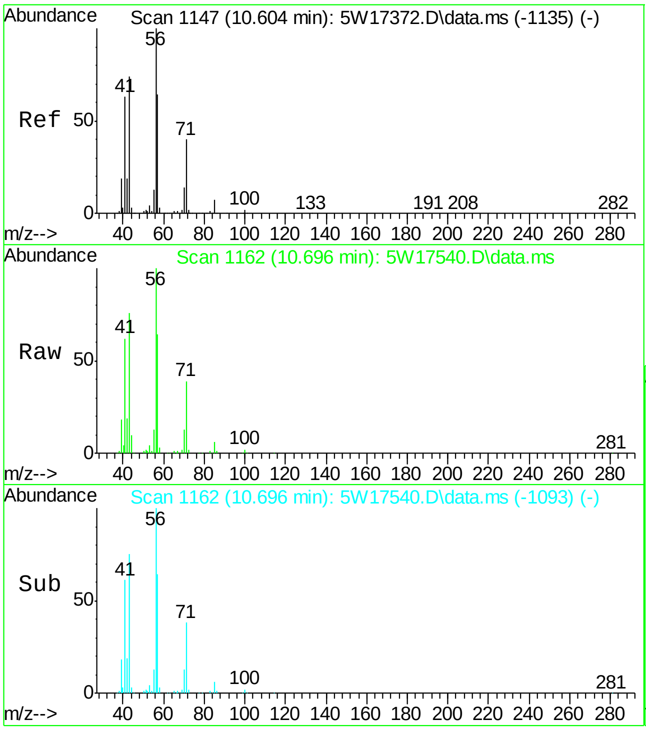




#51
Cyclohexane
Concen: 4.92 ppb(v)
RT: 10.420 min Scan# 1117
Delta R.T. 0.104 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:	56	Resp:	135503
Ion	Ratio	Lower	Upper
56	100		
69	31.7	23.7	44.1
84	86.1	65.6	121.8
55	36.8	26.4	49.0

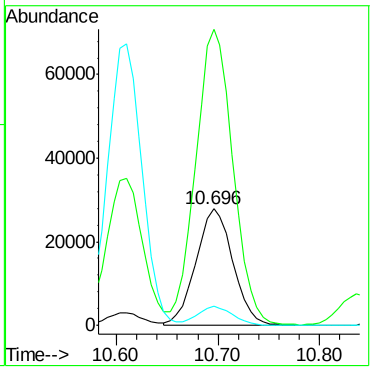


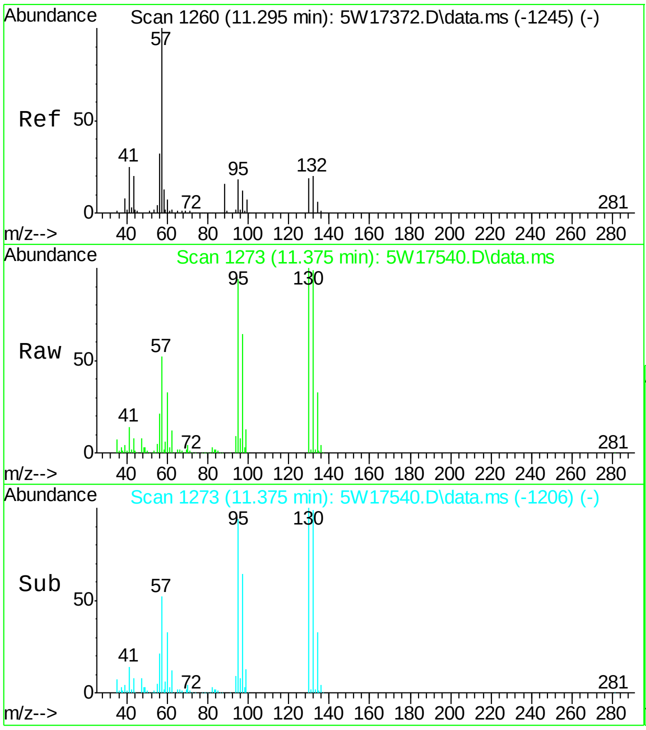


#52
2,3-Dimethylpentane
Concen: 5.54 ppb(v)
RT: 10.696 min Scan# 1162
Delta R.T. 0.092 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 71 Resp: 70485

Ion	Ratio	Lower	Upper
71	100		
56	254.5	175.3	325.5
85	16.1	12.0	22.2

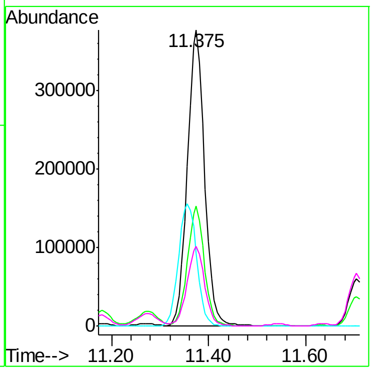


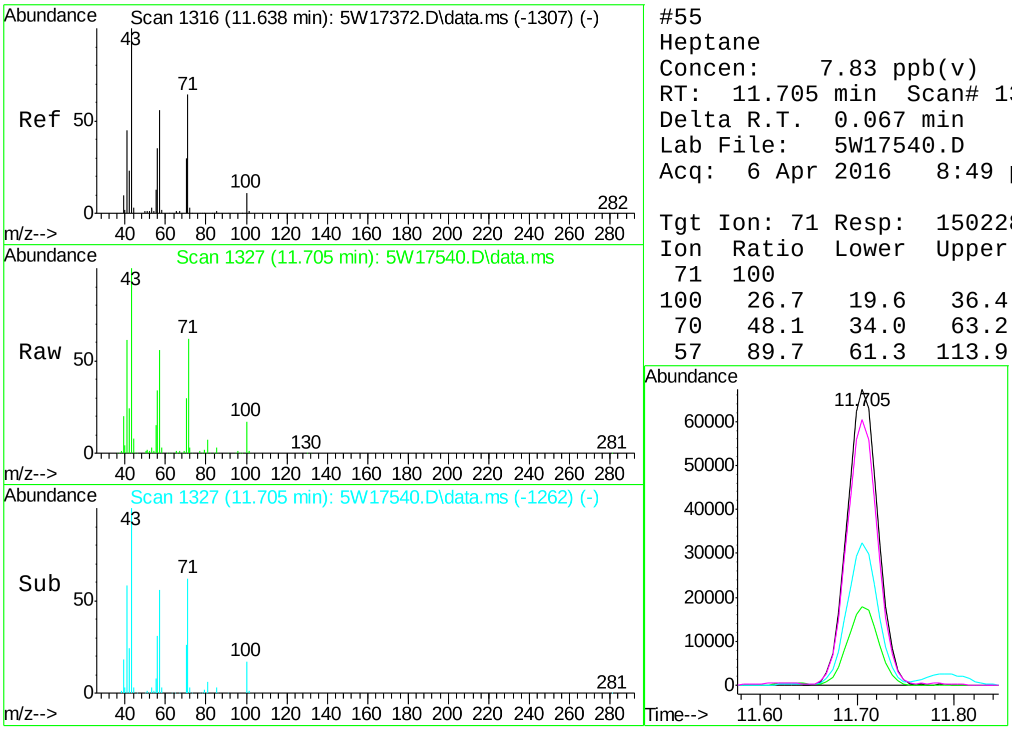


#54
2,2,4-Trimethylpentane
Concen: 10.32 ppb(v)
RT: 11.375 min Scan# 1273
Delta R.T. 0.080 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 57 Resp: 924665

Ion	Ratio	Lower	Upper
57	100		
56	40.4	22.4	41.6
99	24.7	4.9	9.1#
41	27.0	17.4	32.4

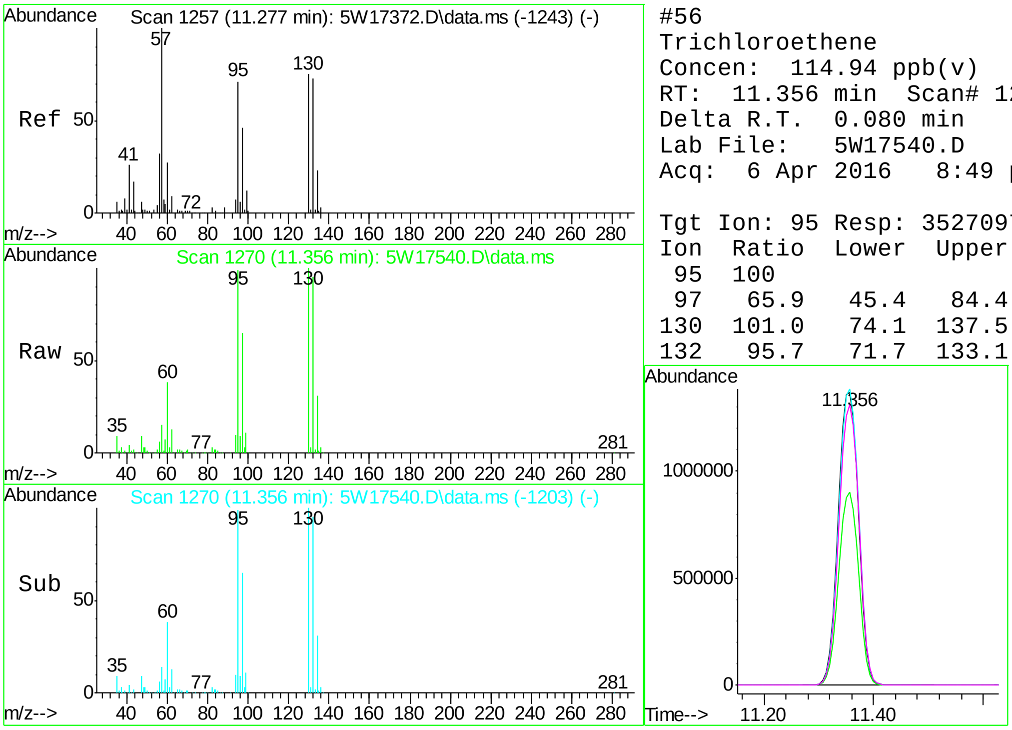




#55
Heptane
Concen: 7.83 ppb(v)
RT: 11.705 min Scan# 1327
Delta R.T. 0.067 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 71 Resp: 150228

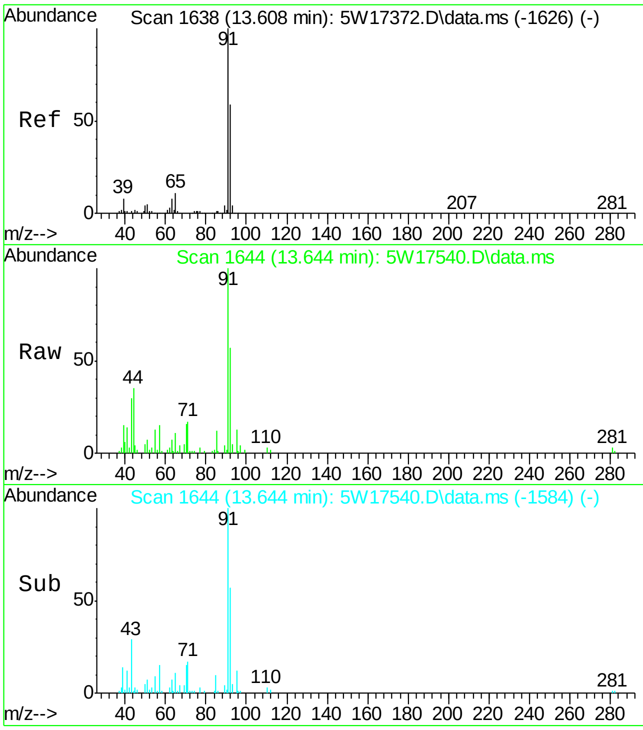
Ion	Ratio	Lower	Upper
71	100		
100	26.7	19.6	36.4
70	48.1	34.0	63.2
57	89.7	61.3	113.9



#56
Trichloroethene
Concen: 114.94 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.080 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 95 Resp: 3527097

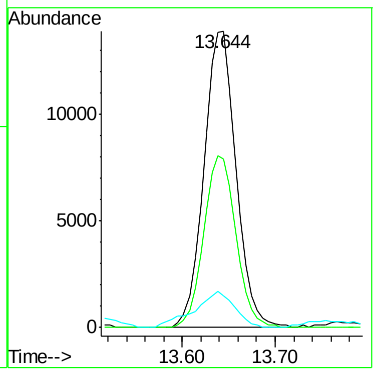
Ion	Ratio	Lower	Upper
95	100		
97	65.9	45.4	84.4
130	101.0	74.1	137.5
132	95.7	71.7	133.1

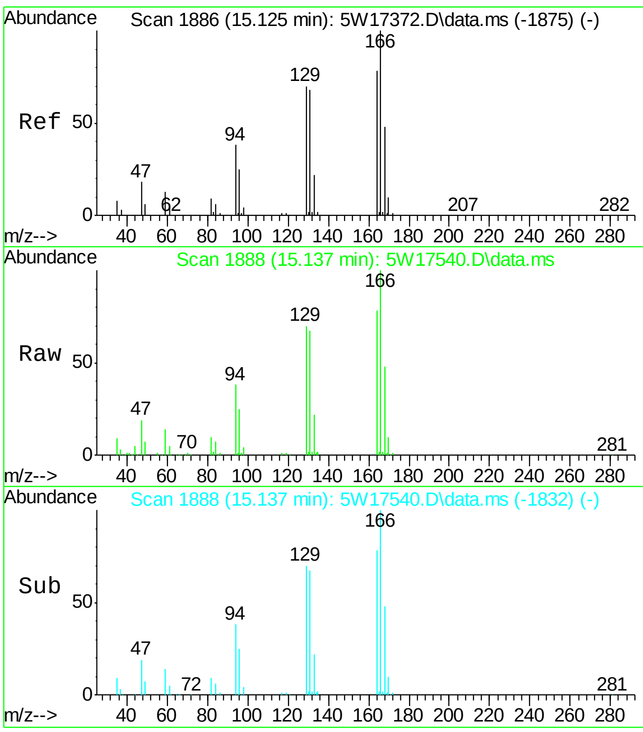


#66
Toluene
Concen: 0.44 ppb(v)
RT: 13.644 min Scan# 1644
Delta R.T. 0.037 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 91 Resp: 33587

Ion	Ratio	Lower	Upper
91	100		
92	57.0	41.2	76.6
65	10.7	7.3	13.7

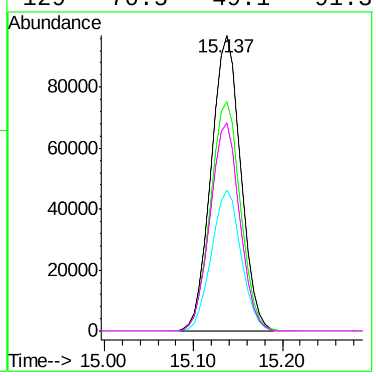


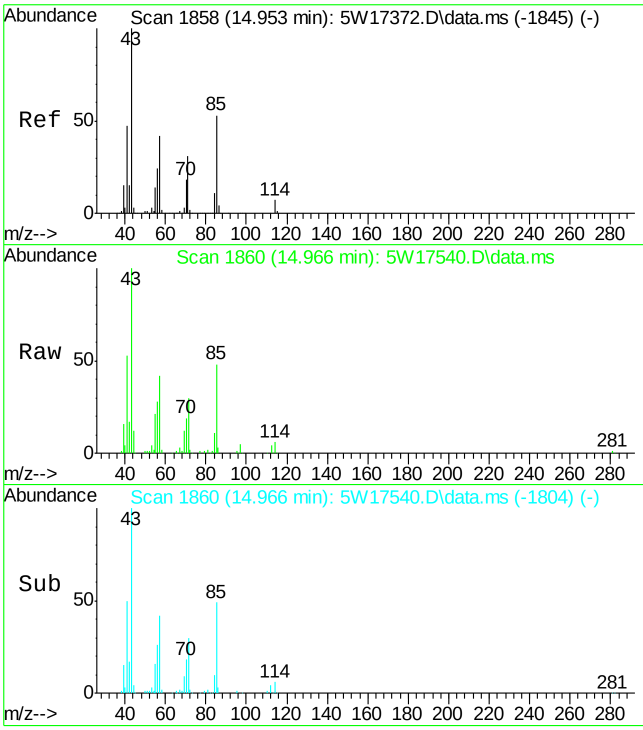


#72
Tetrachloroethene
Concen: 5.12 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:166 Resp: 224287

Ion	Ratio	Lower	Upper
166	100		
164	77.8	54.6	101.4
168	47.7	33.5	62.3
129	70.5	49.1	91.3

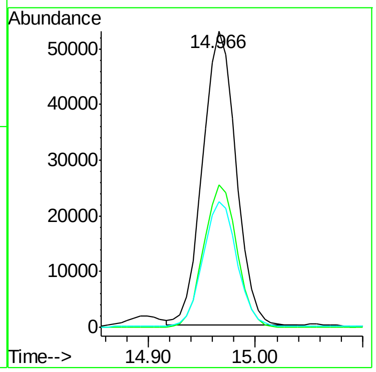


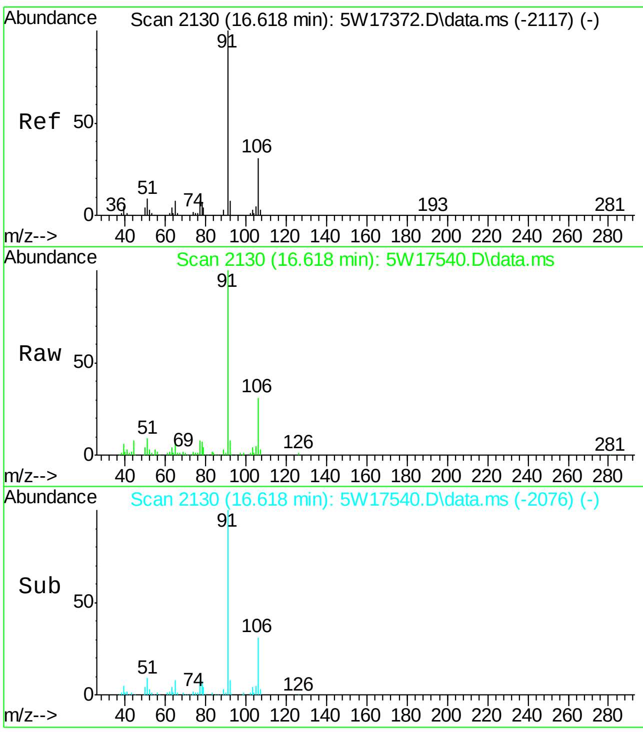


#74
Octane
Concen: 2.77 ppb(v)
RT: 14.966 min Scan# 1860
Delta R.T. 0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 43 Resp: 114318

Ion	Ratio	Lower	Upper
43	100		
85	48.2	37.1	68.9
57	42.5	29.6	55.0

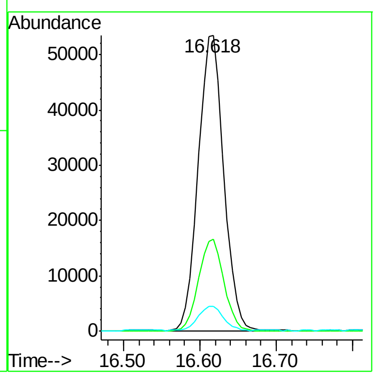


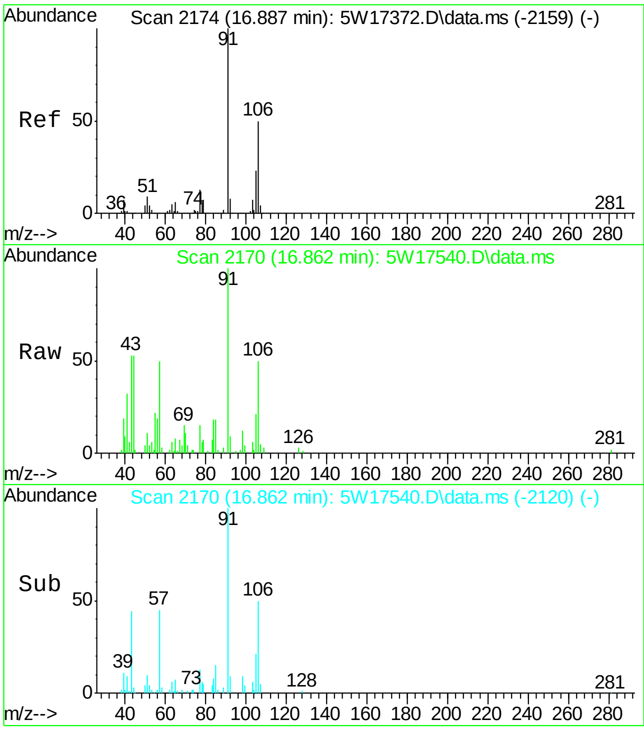


#78
Ethylbenzene
Concen: 1.26 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 91 Resp: 124490

Ion	Ratio	Lower	Upper
91	100		
106	31.0	22.0	40.8
77	8.5	5.9	10.9

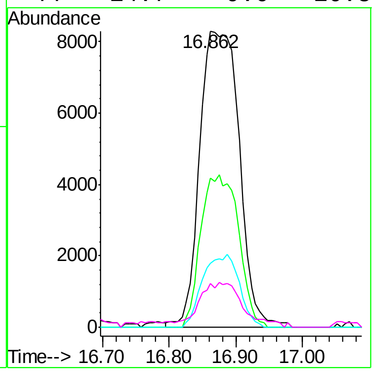


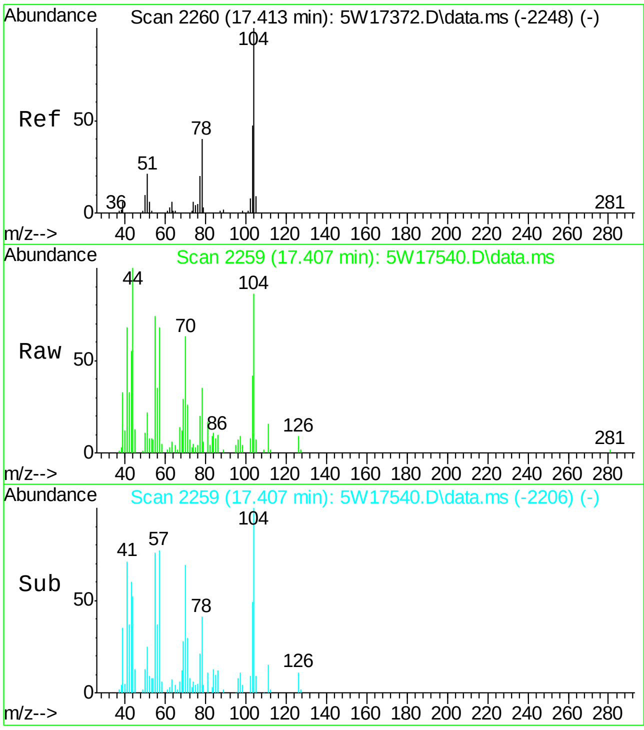


#79
m,p-Xylene
Concen: 0.46 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 91 Resp: 34150

Ion	Ratio	Lower	Upper
91	100		
106	50.3	35.3	65.5
105	21.5	16.2	30.0
77	14.7	9.0	16.8

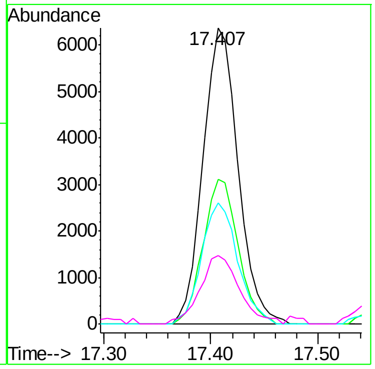


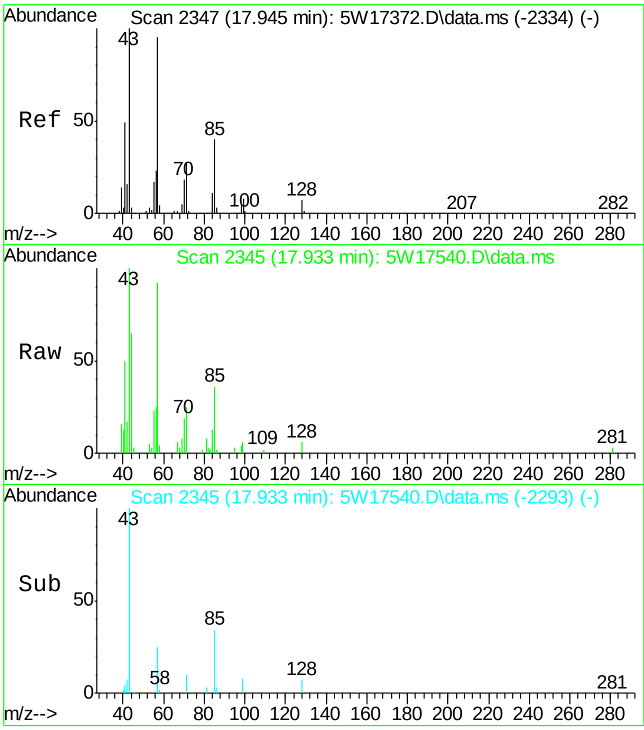


#80
Styrene
Concen: 0.25 ppb(v)
RT: 17.407 min Scan# 2259
Delta R.T. -0.006 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:104 Resp: 14511

Ion	Ratio	Lower	Upper
104	100		
103	48.8	33.2	61.6
78	40.9	28.2	52.4
77	23.1	14.3	26.5

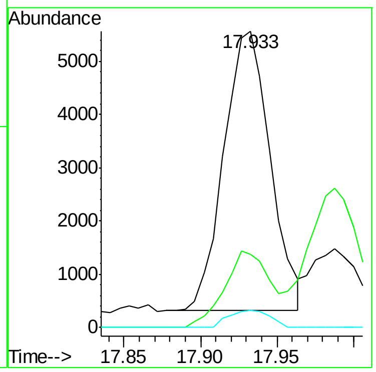


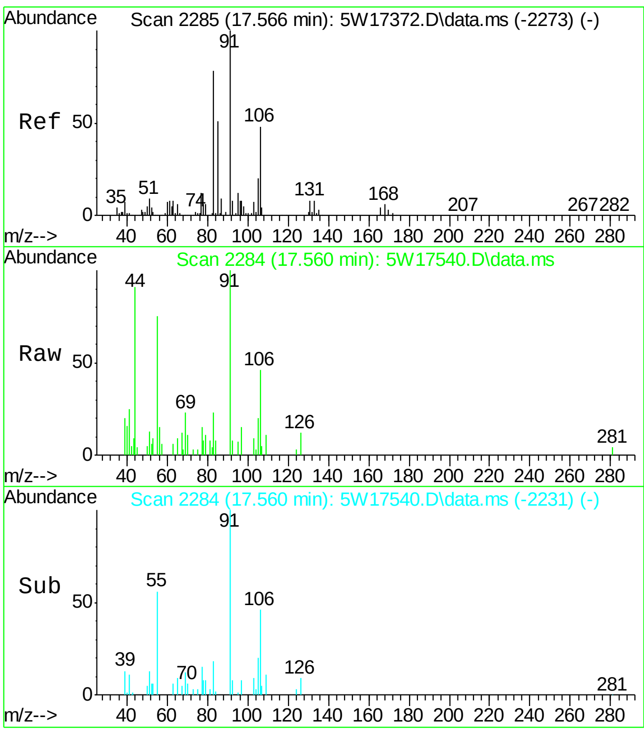


#81
Nonane
Concen: 0.27 ppb(v)
RT: 17.933 min Scan# 2345
Delta R.T. -0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion: 43 Resp: 11100

Ion	Ratio	Lower	Upper
43	100		
71	24.6	18.9	35.1
128	5.8	4.6	8.6

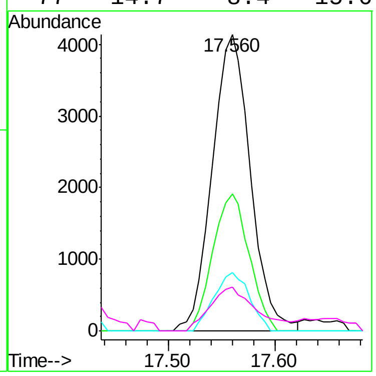




#82
o-Xylene
Concen: 0.13 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

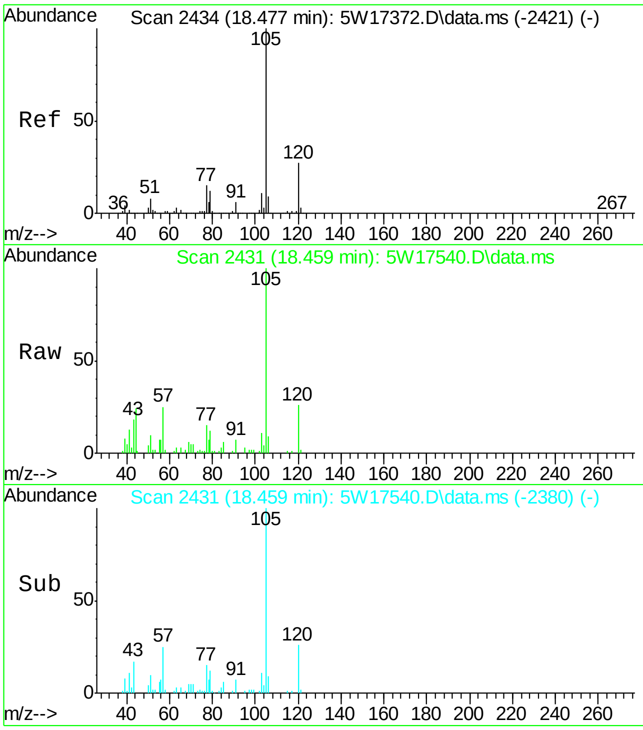
Tgt Ion: 91 Resp: 10286

Ion	Ratio	Lower	Upper
91	100		
106	46.2	33.5	62.3
105	19.7	13.7	25.5
77	14.7	8.4	15.6



7.4.2

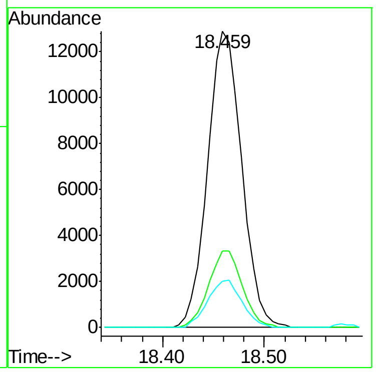
7

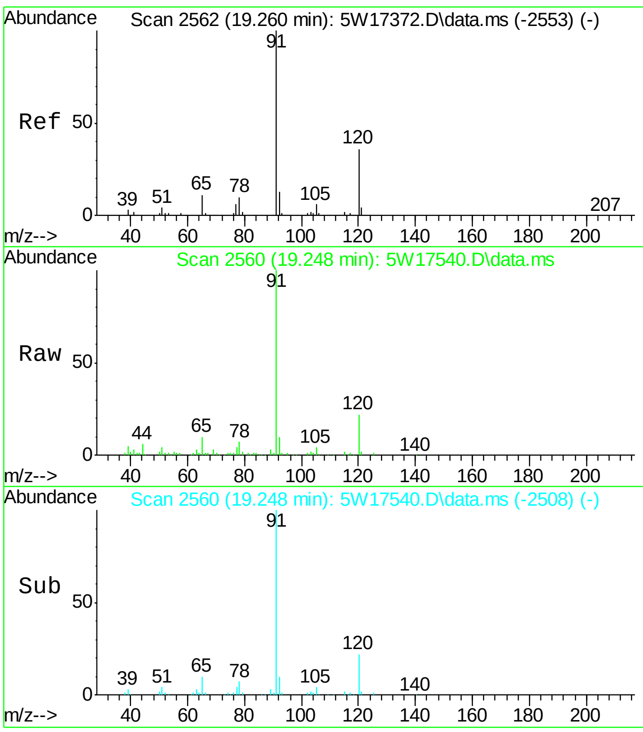


#86
Isopropylbenzene
Concen: 0.27 ppb(v)
RT: 18.459 min Scan# 2431
Delta R.T. -0.018 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:105 Resp: 30165

Ion	Ratio	Lower	Upper
105	100		
120	25.7	18.6	34.6
77	15.5	10.4	19.2

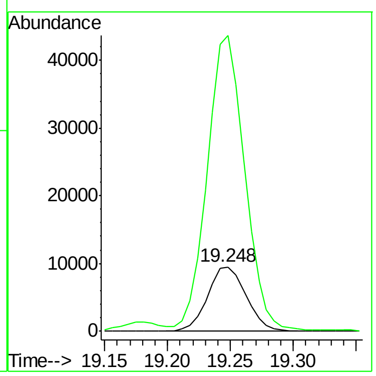


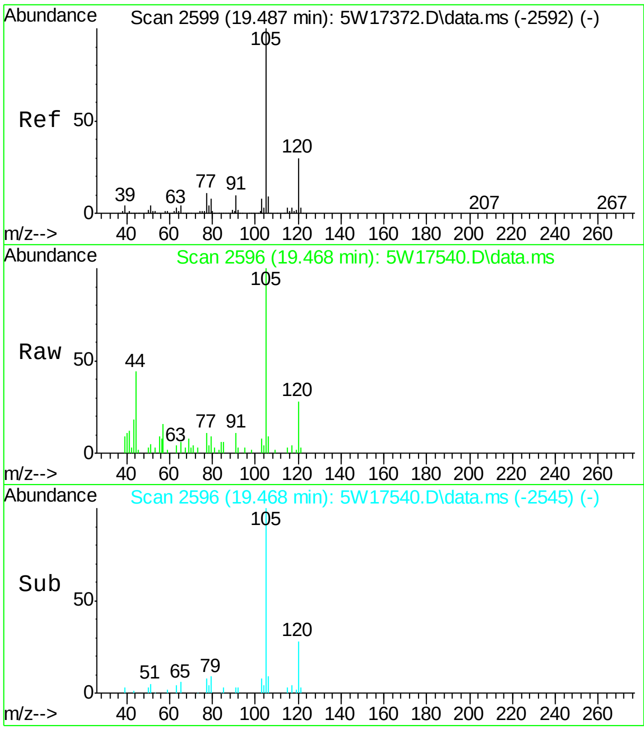


#89
n-Propylbenzene
Concen: 0.70 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:120 Resp: 19935

Ion	Ratio	Lower	Upper
120	100		
91	460.4	300.7	558.5

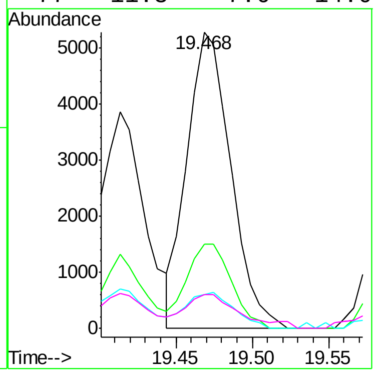


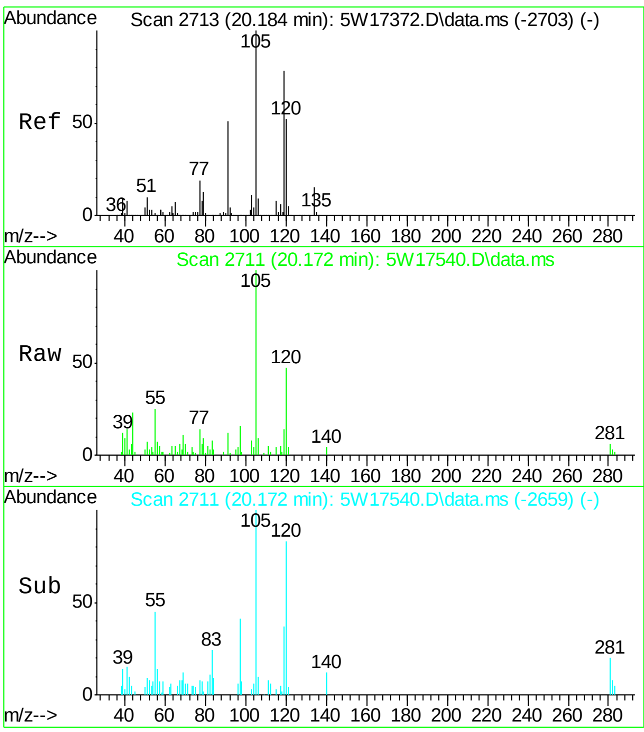


#91
4-Ethyltoluene
Concen: 0.10 ppb(v)
RT: 19.468 min Scan# 2596
Delta R.T. -0.018 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:105 Resp: 10557

Ion	Ratio	Lower	Upper
105	100		
120	28.2	20.9	38.9
91	11.4	7.3	13.7
77	11.3	7.6	14.0

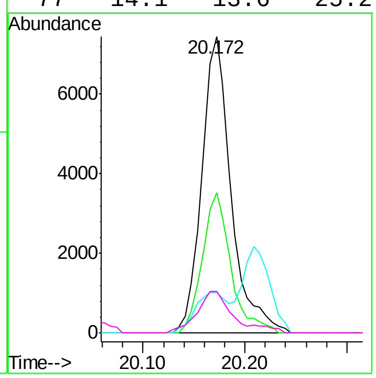




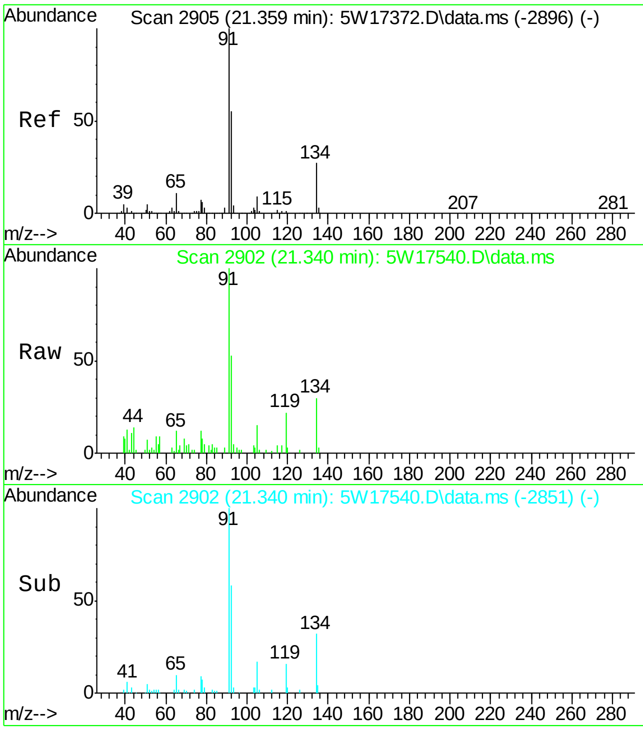
#95
1,2,4-Trimethylbenzene
Concen: 0.17 ppb(v)
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:105 Resp: 14948

Ion	Ratio	Lower	Upper
105	100		
120	47.4	36.6	68.0
119	13.6	54.4	101.0#
77	14.1	13.6	25.2



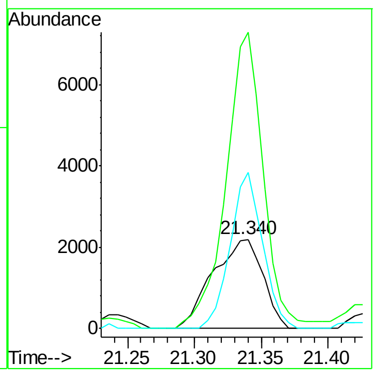
7.4.2
7

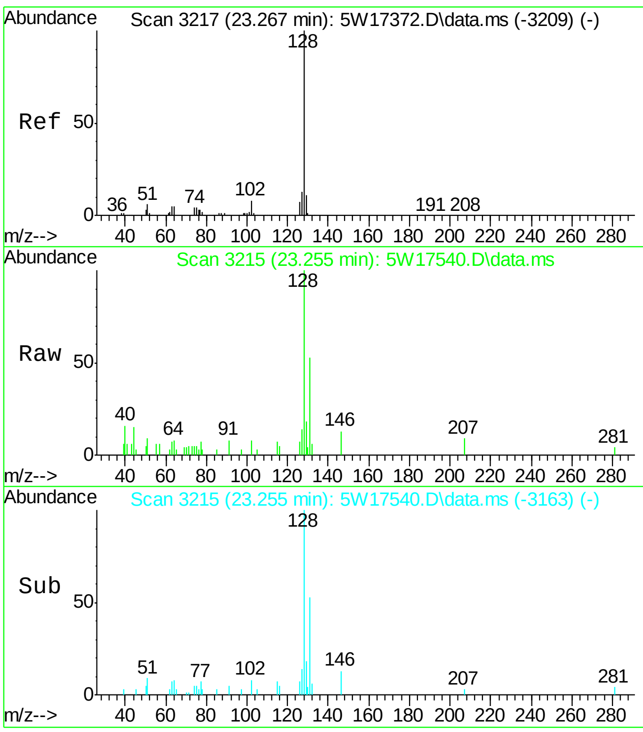


#102
n-Butylbenzene
Concen: 0.24 ppb(v)
RT: 21.340 min Scan# 2902
Delta R.T. -0.018 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:134 Resp: 5687

Ion	Ratio	Lower	Upper
134	100		
91	332.9	256.7	476.7
92	175.4	141.5	262.9

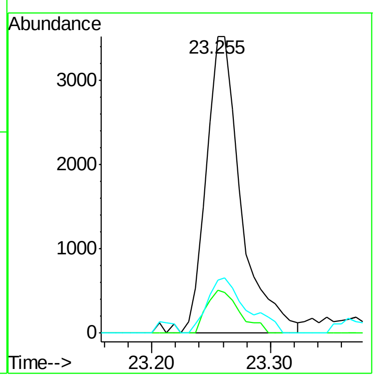




#105
Naphthalene
Concen: 0.09 ppb(v)
RT: 23.255 min Scan# 3215
Delta R.T. -0.012 min
Lab File: 5W17540.D
Acq: 6 Apr 2016 8:49 pm

Tgt Ion:128 Resp: 7176

Ion	Ratio	Lower	Upper
128	100		
127	14.4	9.0	16.8
129	17.8	7.7	14.3#



Manual Integration Approval Summary

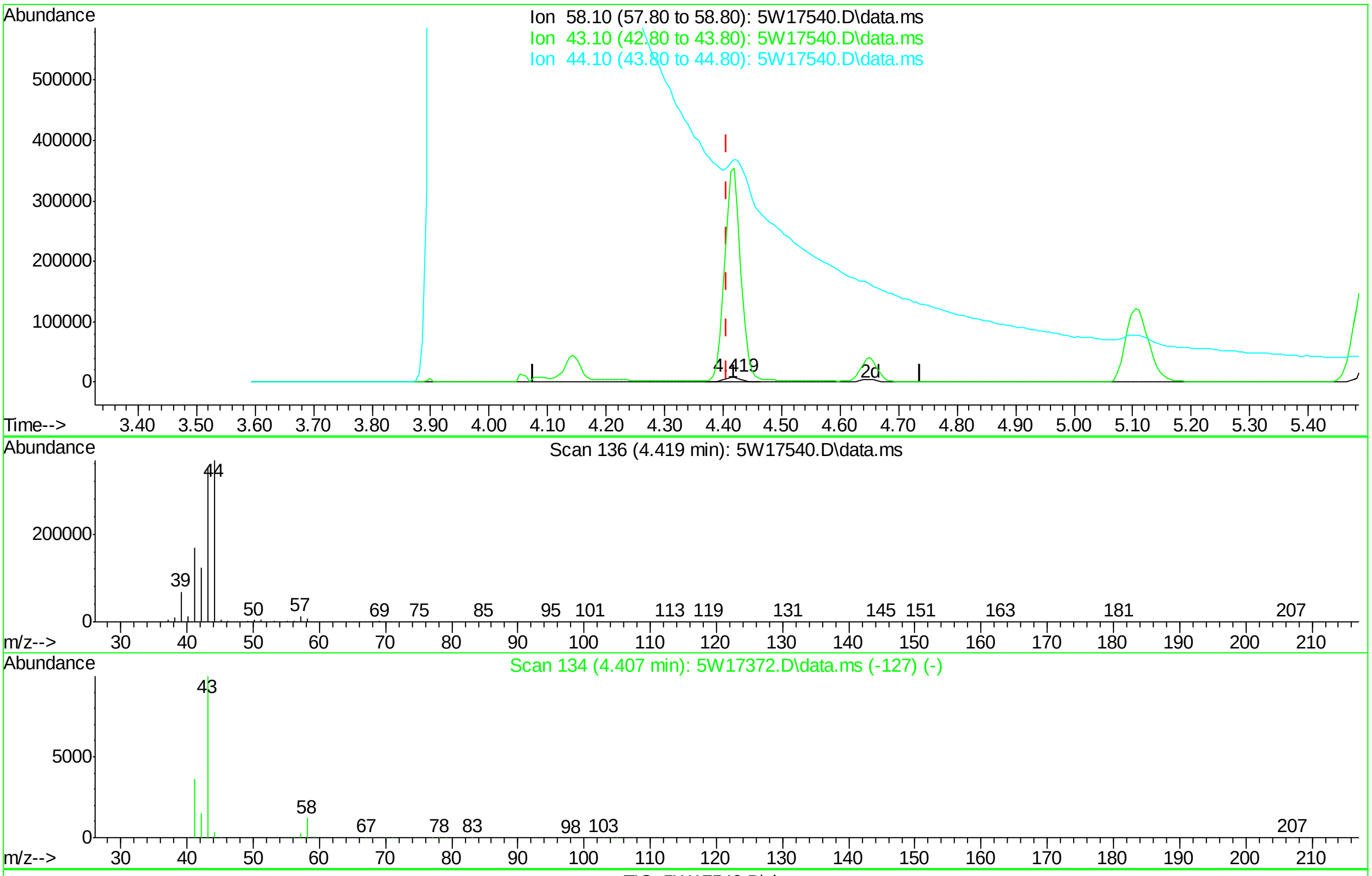
Sample Number:	JC17438-8DUP	**Method:**	TO-15
Lab FileID:	5W17540.D	**Analyst approved:**	04/08/16 15:30 Kanya Veerawat
Injection Time:	04/06/16 20:49	**Supervisor approved:**	04/08/16 15:31 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
n-Butane	106-97-8		4.65	Missed peak
1,1-Dichloroethylene	75-35-4		6.18	Overlapping peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17540.D
Acq On    :  6 Apr 2016   8:49 pm
Operator  : THOMASH
Sample    : JC17438-8DUP
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 07:10:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17540.D\data.ms

(12) n-Butane

4.419min (+0.012) 5.75ppb(v)

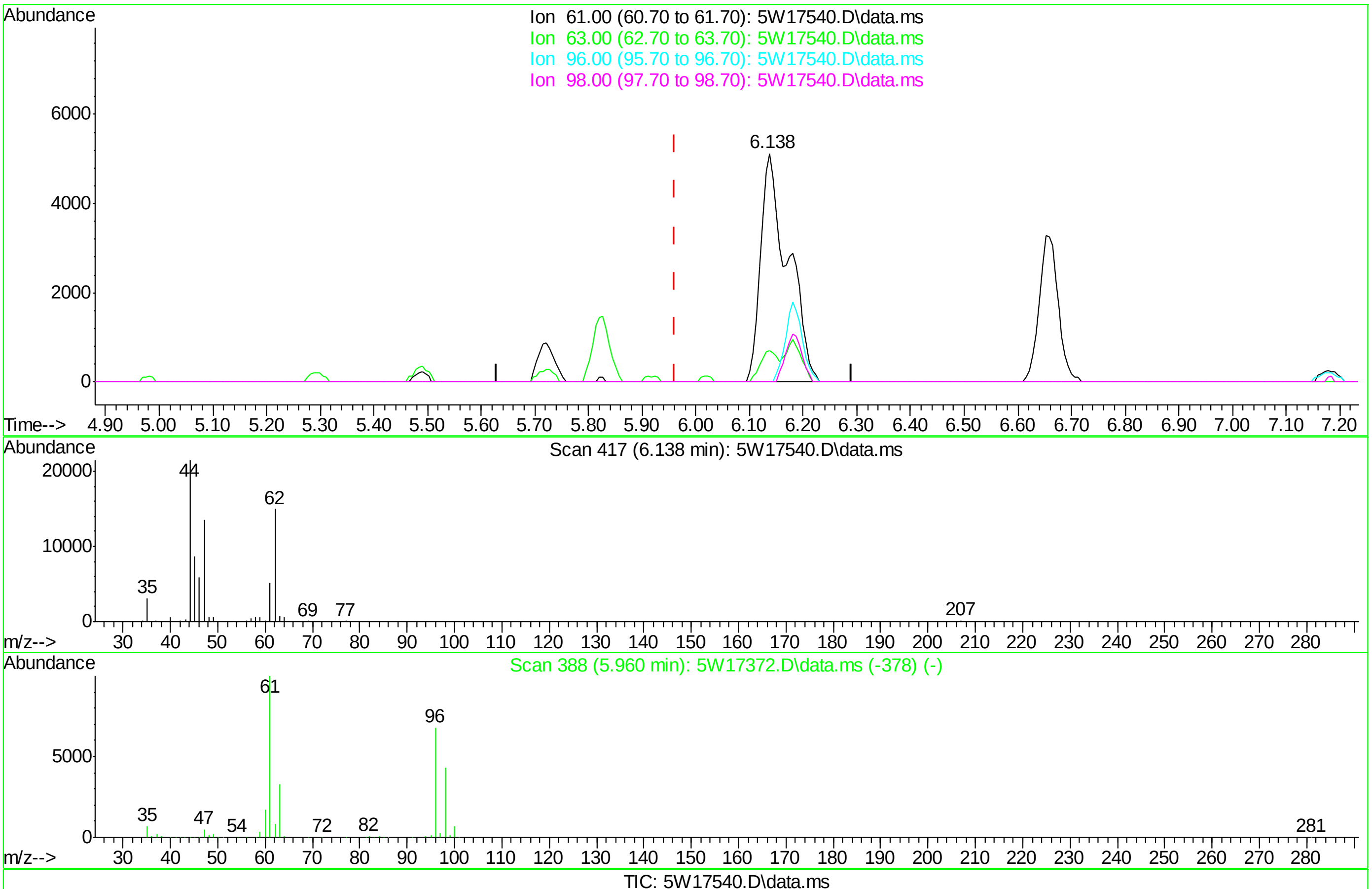
response 15970

Ion	Exp%	Act%
58.10	100	100
43.10	823.30	4071.05#
44.10	49.20	4245.78#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17540.D
Acq On    :  6 Apr 2016   8:49 pm
Operator  : THOMASH
Sample    : JC17438-8DUP
Misc      : MS107,v5w699,400,,,,1
ALS Vial  : 11   Sample Multiplier: 1

Quant Time: Apr 07 07:10:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(26) 1,1-Dichloroethene

6.138min (+0.177) 0.62ppb(v)

response 17816

Ion	Exp%	Act%
61.00	100	100
63.00	32.60	13.56#
96.00	68.20	0.00#
98.00	43.10	0.00#

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 16:56

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17563.D
Acq On    :  7 Apr 2016   5:29 pm
Operator  : THOMASH
Sample    : JC17438-12DUP
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 15:41:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                        R.T. QIon  Response  Conc Units Dev(Min)
--------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane              8.401  130    178513    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene            10.530  114    657260    10.00 ppb(v    0.09
  76) Chlorobenzene-d5               16.012   82    310163    10.00 ppb(v    0.00
 107) Bromochloromethane (A)          8.401  130    178513    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene           18.245   95    422460     9.95 ppb(v  -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   99.50%

 Target Compounds                                                     Qvalue
   4) Chlorodifluoromethane           3.929   67       678     0.15 ppb(v#    67
   6) Dichlorodifluoromethane         4.186   85     22223     0.55 ppb(v     99
   8) Chloromethane                   4.321   50      8407     0.66 ppb(v     97
  12) n-Butane                        4.651   58      1104     0.48 ppb(v#     1
  20) Trichlorofluoromethane          5.618  101     10547     0.25 ppb(v     97
  21) Acetone                         5.520   58     13824     1.99 ppb(v     72
  22) Pentane                         5.912   57       746     0.22 ppb(v     91
  25) Isopropyl Alcohol               5.734   43      1437m    0.27 ppb(v
  30) Ethanol                         5.104   45     27307     4.63 ppb(v     99
  38) 2-Butanone                      7.814   72      1818     0.27 ppb(v     95
  40) cis-1,2-Dichloroethene          8.230   61     15843     0.78 ppb(v     97
  42) Ethyl Acetate                   8.475   61     10874     2.31 ppb(v     94
  44) Chloroform                      8.536   83      9031     0.25 ppb(v     99
  46) Tetrahydrofuran                 9.007   72      3557     0.53 ppb(v     75
  49) Benzene                        10.121   78      6836     0.14 ppb(v     97
  56) Trichloroethene                11.356   95      3018     0.12 ppb(v     96
  66) Toluene                        13.638   91     85763     1.37 ppb(v     99
  72) Tetrachloroethene              15.137  166     15075     0.42 ppb(v     96
  78) Ethylbenzene                   16.618   91     11598     0.14 ppb(v     99
  79) m,p-Xylene                     16.862   91     40077     0.65 ppb(v     98
  82) o-Xylene                       17.560   91     15129     0.24 ppb(v     98
  95) 1,2,4-Trimethylbenzene         20.172  105     17238     0.24 ppb(v#    56
--------------------------------------------------------------------------

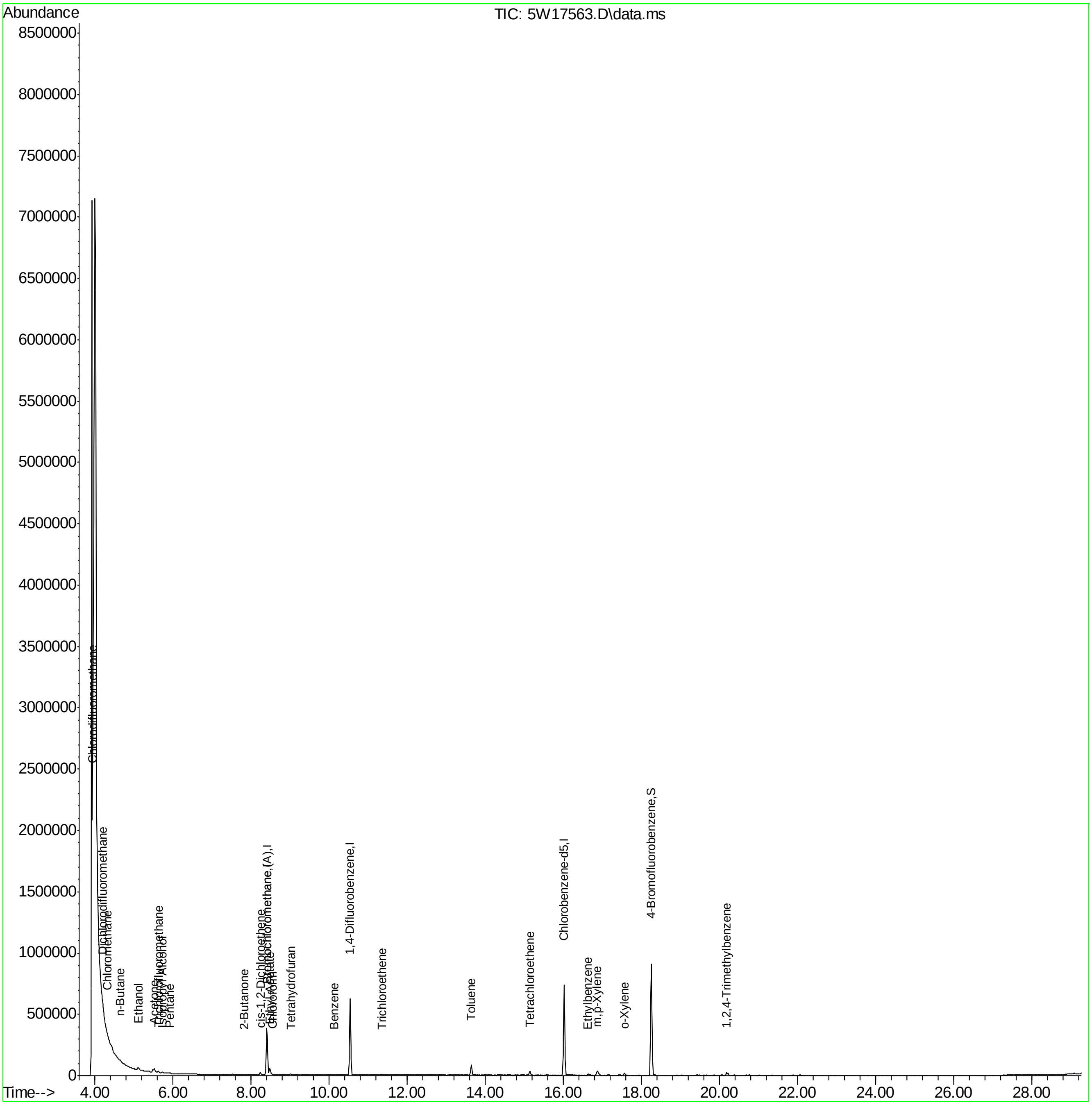
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
```

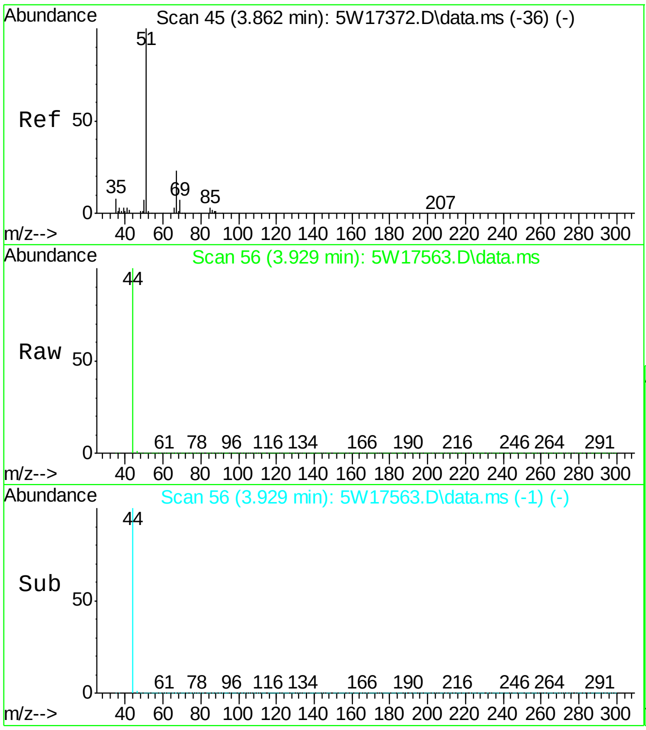

7.4.3
7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17563.D
Acq On    :  7 Apr 2016   5:29 pm
Operator  : THOMASH
Sample    : JC17438-12DUP
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 15:41:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

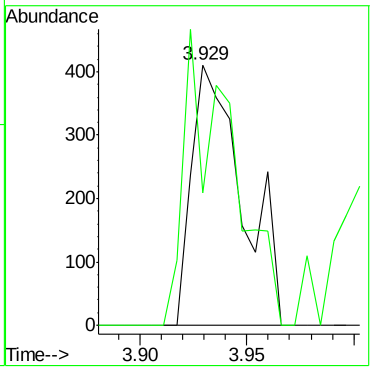


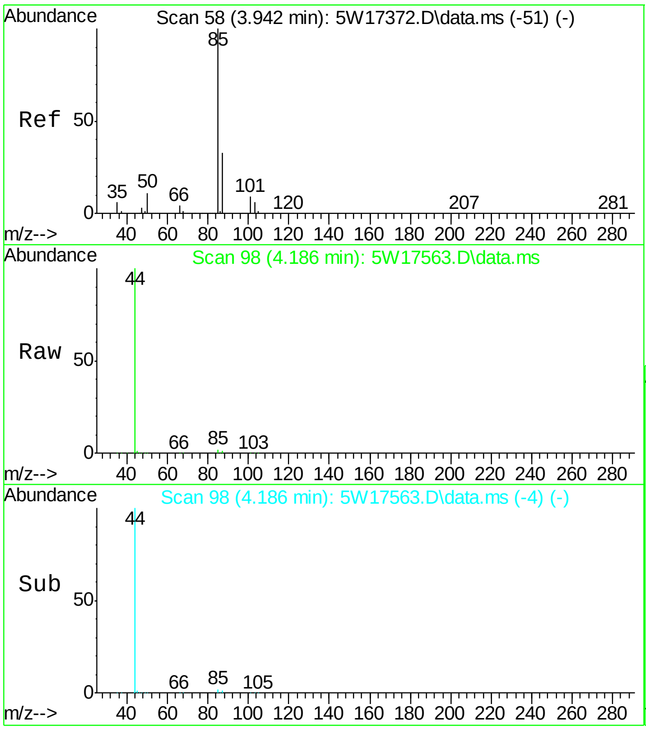


#4
Chlorodifluoromethane
Concen: 0.15 ppb(v)
RT: 3.929 min Scan# 56
Delta R.T. 0.067 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 67 Resp: 678

Ion	Ratio	Lower	Upper
67	100		
69	50.9	22.7	42.1#

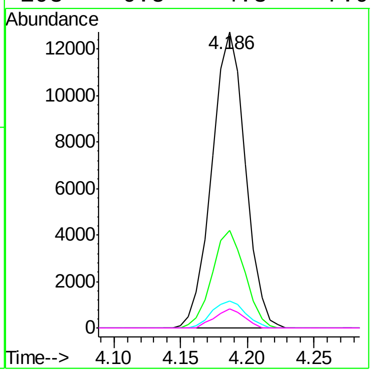


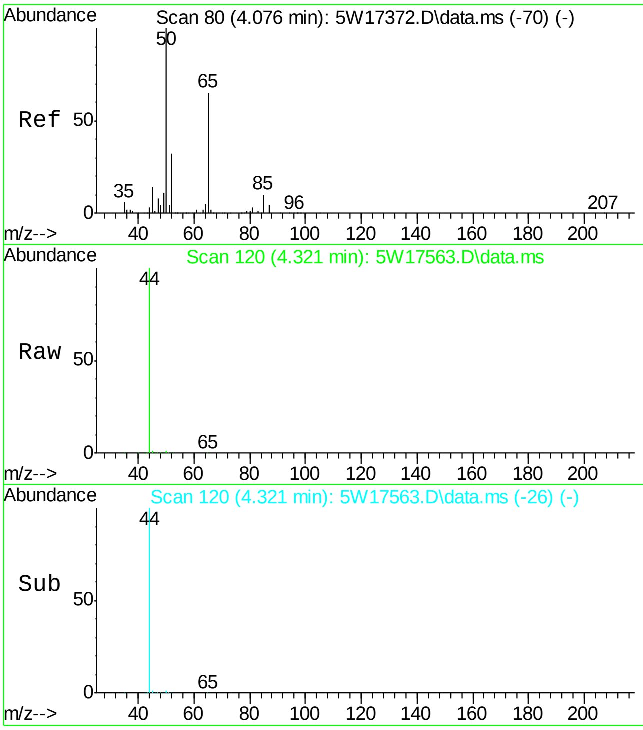


#6
Dichlorodifluoromethane
Concen: 0.55 ppb(v)
RT: 4.186 min Scan# 98
Delta R.T. 0.245 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 85 Resp: 22223

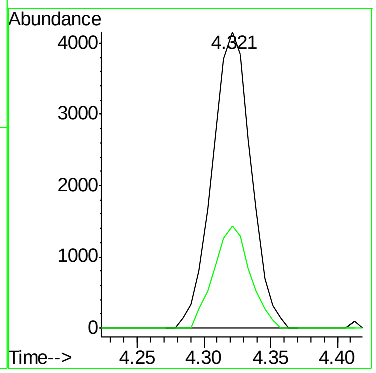
Ion	Ratio	Lower	Upper
85	100		
87	32.9	22.7	42.3
101	9.2	6.6	12.2
103	6.5	4.3	7.9

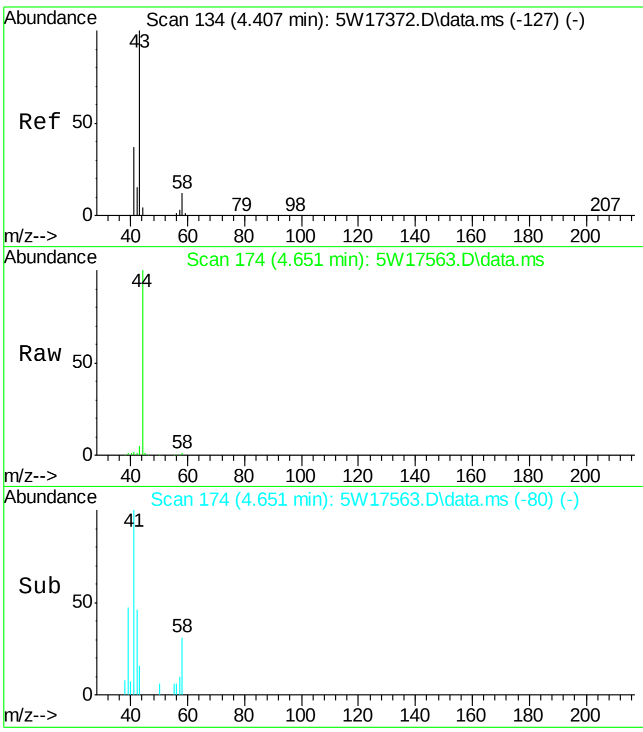




#8
Chloromethane
Concen: 0.66 ppb(v)
RT: 4.321 min Scan# 120
Delta R.T. 0.245 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

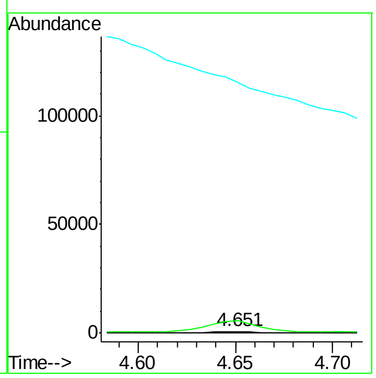
Tgt Ion: 50	Resp:	8407	
Ion	Ratio	Lower	Upper
50	100		
52	34.4	22.7	42.1

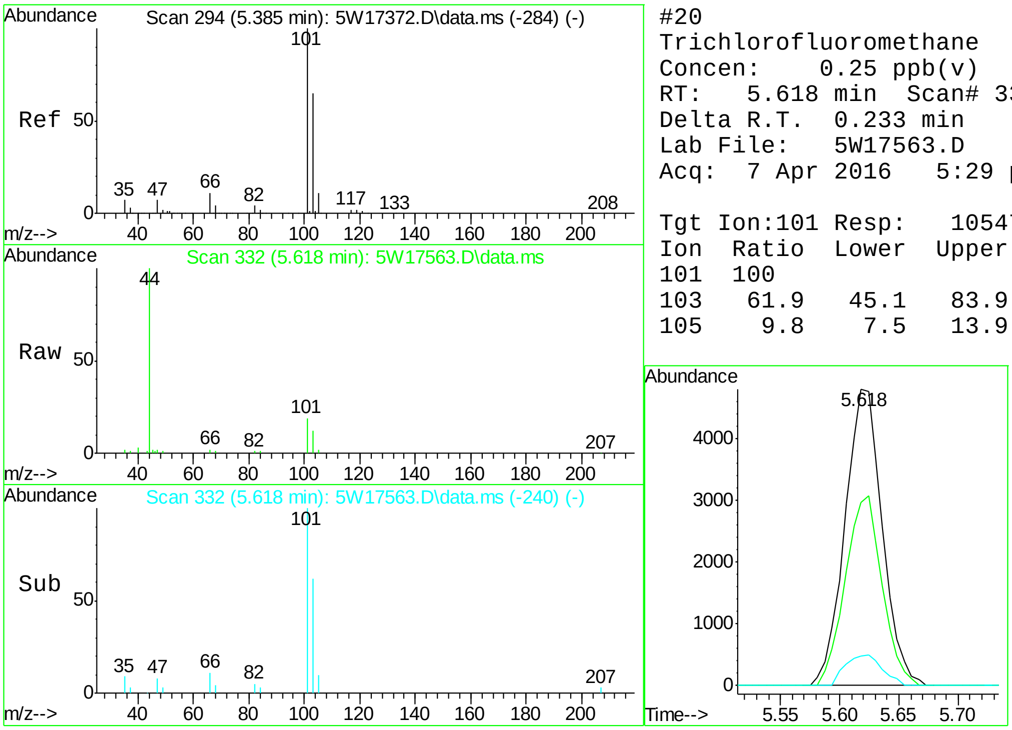




#12
n-Butane
Concen: 0.48 ppb(v)
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 58	Resp:	1104	
Ion	Ratio	Lower	Upper
58	100		
43	949.1	576.3	1070.3
44	19660.6	34.4	64.0#

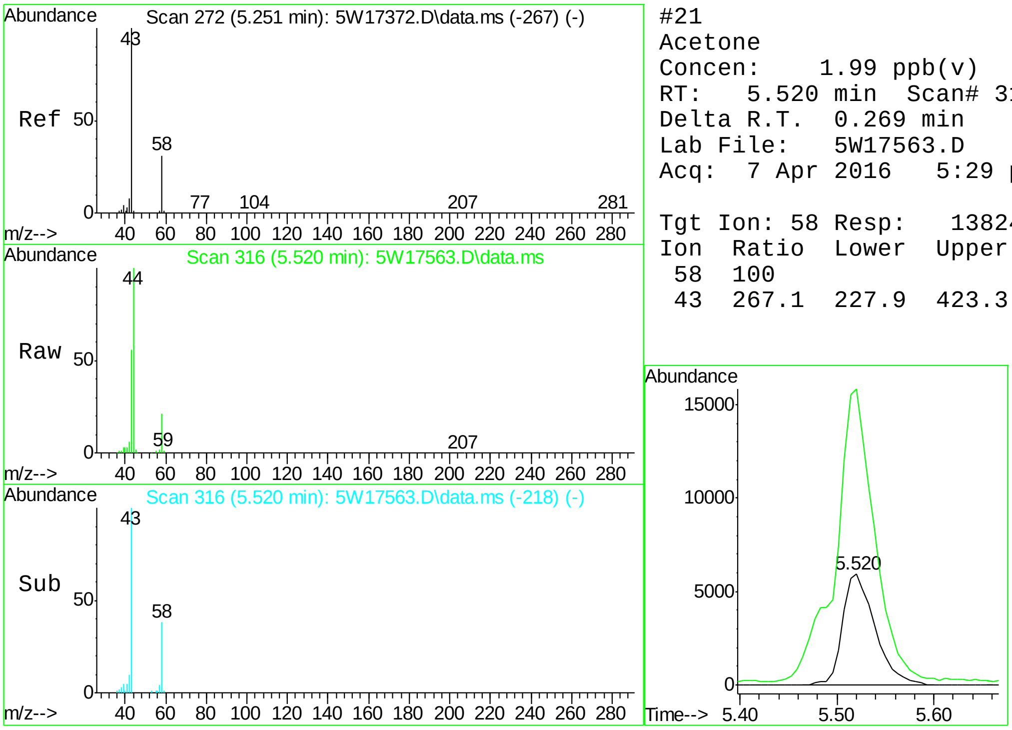




#20
Trichlorofluoromethane
Concen: 0.25 ppb(v)
RT: 5.618 min Scan# 332
Delta R.T. 0.233 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion:101 Resp: 10547

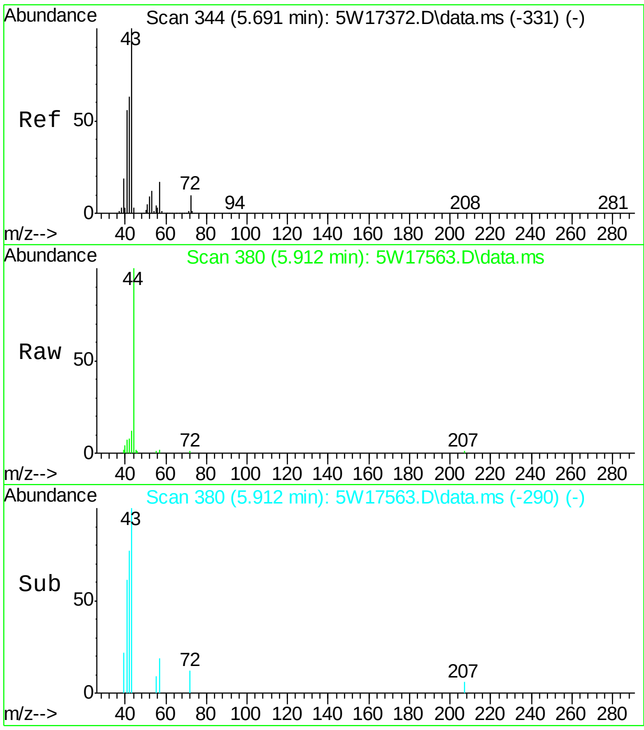
Ion	Ratio	Lower	Upper
101	100		
103	61.9	45.1	83.9
105	9.8	7.5	13.9



#21
Acetone
Concen: 1.99 ppb(v)
RT: 5.520 min Scan# 316
Delta R.T. 0.269 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

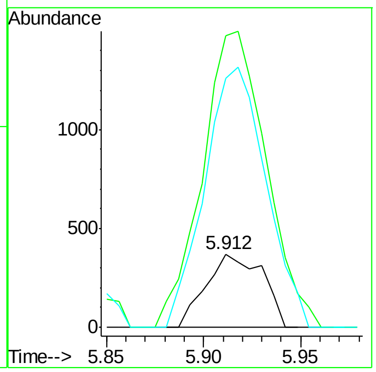
Tgt Ion: 58 Resp: 13824

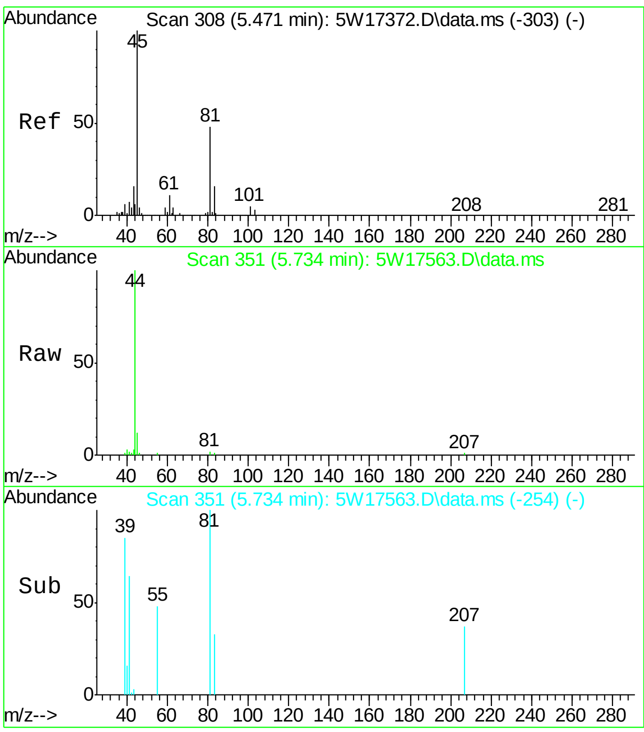
Ion	Ratio	Lower	Upper
58	100		
43	267.1	227.9	423.3




```
#22
Pentane
Concen:    0.22 ppb(v)
RT:    5.912 min   Scan# 380
Delta R.T.  0.220 min
Lab File:   5W17563.D
Acq:  7 Apr 2016    5:29 pm

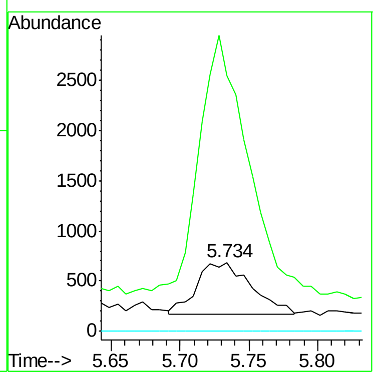
Tgt Ion: 57 Resp:      746
Ion  Ratio   Lower   Upper
 57  100
 42  399.2   258.3   479.7
 41  340.5   233.4   433.5
```

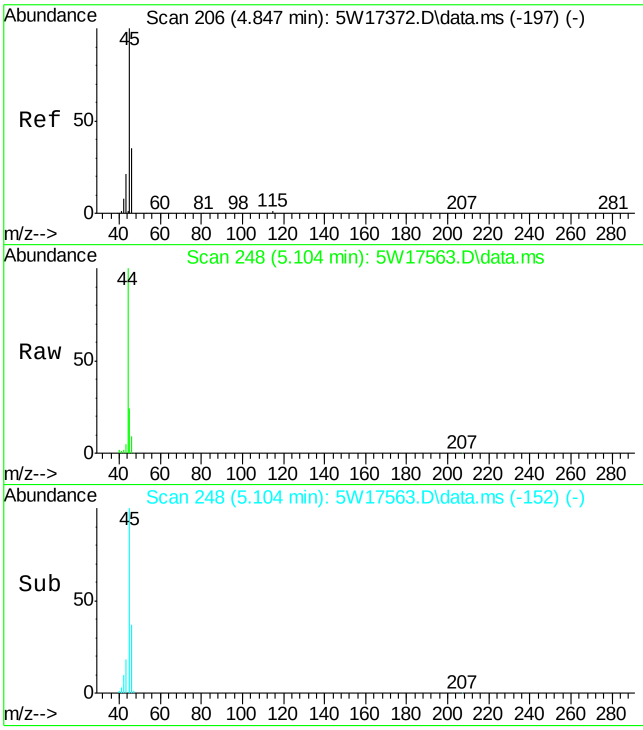





```
#25
Isopropyl Alcohol
Concen:    0.27 ppb(v) m
RT:    5.734 min   Scan# 351
Delta R.T.  0.263 min
Lab File:   5W17563.D
Acq:  7 Apr 2016    5:29 pm

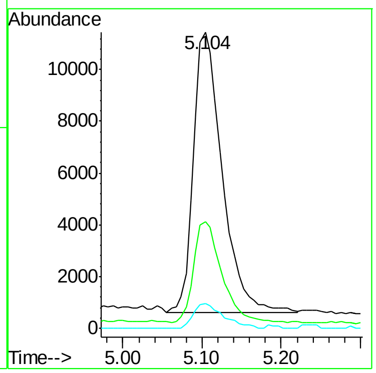
Tgt Ion: 43 Resp:     1437
Ion  Ratio   Lower   Upper
 43  100
 45  372.1   409.4   760.2#
 59    0.0    16.8    31.2#
```

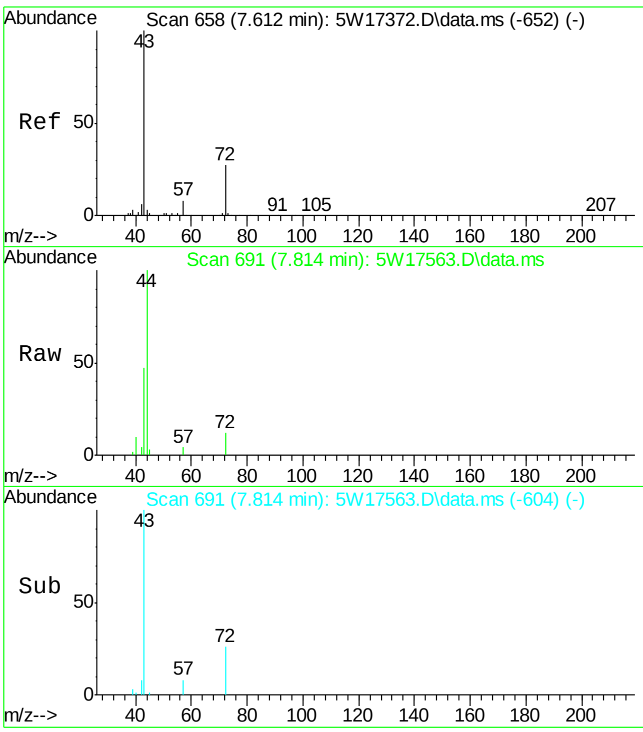





```
#30
Ethanol
Concen:     4.63 ppb(v)
RT:    5.104 min   Scan# 248
Delta R.T.   0.257 min
Lab File:    5W17563.D
Acq:  7 Apr 2016    5:29 pm

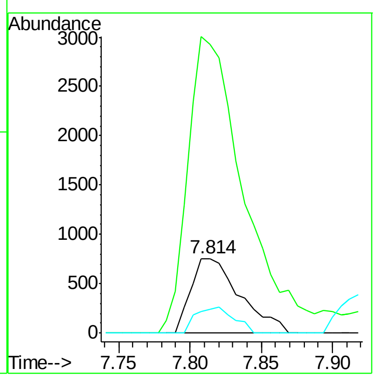
Tgt Ion: 45 Resp:    27307
Ion  Ratio   Lower   Upper
 45   100
 46    35.8    24.6    45.8
 42     8.3     6.5    12.1
```





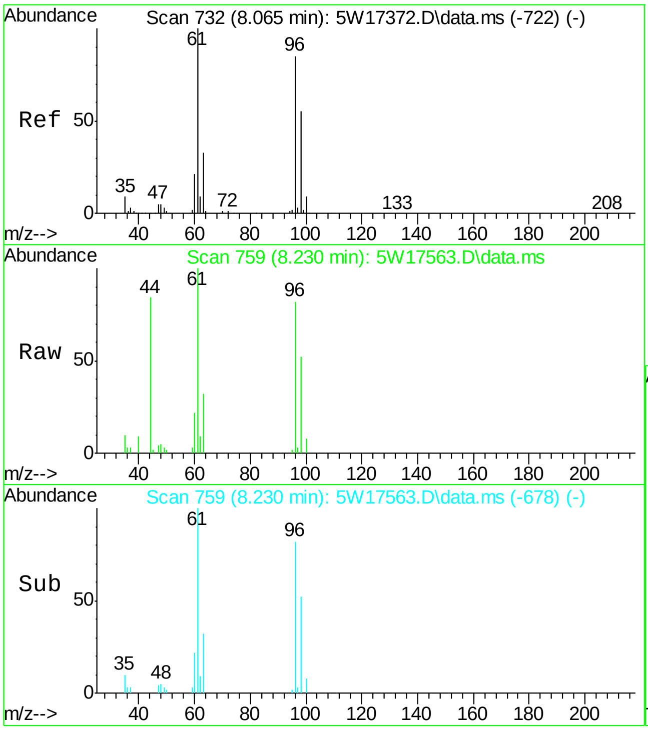

```
#38
2-Butanone
Concen:     0.27 ppb(v)
RT:    7.814 min   Scan# 691
Delta R.T.   0.202 min
Lab File:    5W17563.D
Acq:  7 Apr 2016    5:29 pm

Tgt Ion: 72 Resp:     1818
Ion  Ratio   Lower   Upper
 72   100
 43   386.1   262.9   488.3
 57    32.5    21.3    39.6
```



7.4.3

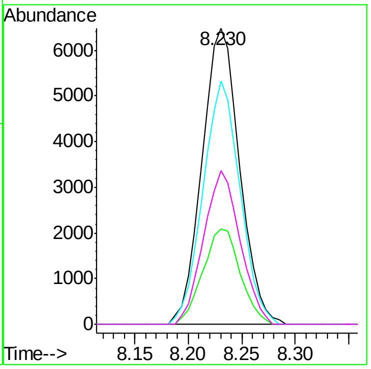
7

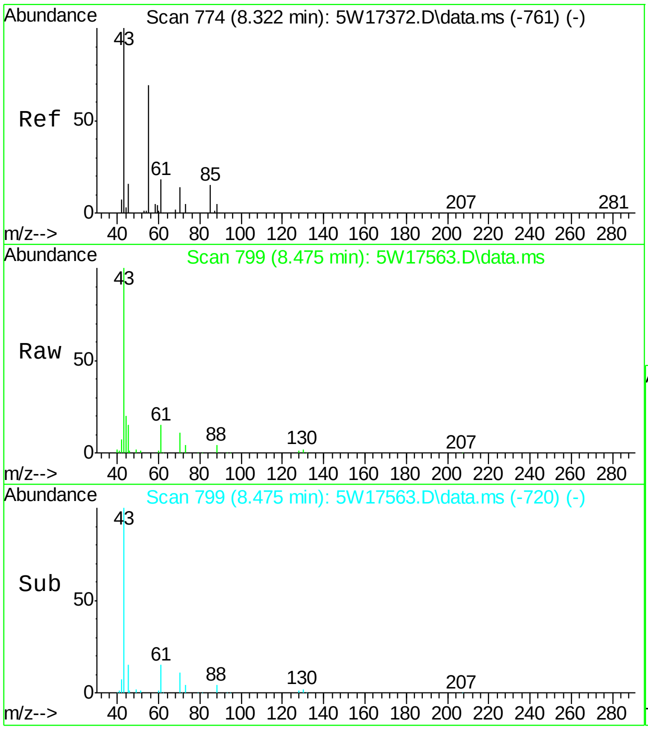


#40
cis-1,2-Dichloroethene
Concen: 0.78 ppb(v)
RT: 8.230 min Scan# 759
Delta R.T. 0.165 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 61 Resp: 15843

Ion	Ratio	Lower	Upper
61	100		
63	32.3	23.0	42.8
96	82.4	59.3	110.1
98	51.8	38.2	71.0

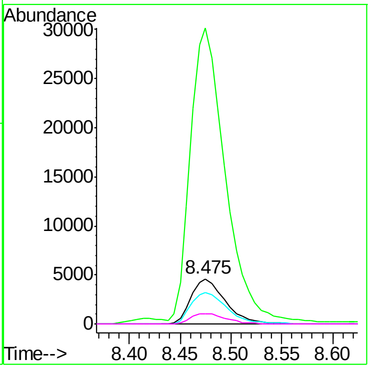


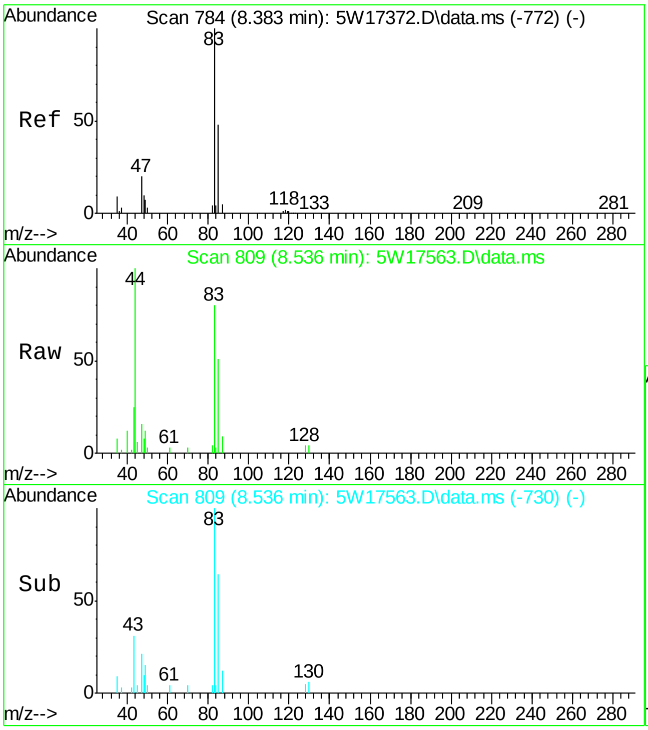


#42
Ethyl Acetate
Concen: 2.31 ppb(v)
RT: 8.475 min Scan# 799
Delta R.T. 0.153 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 61 Resp: 10874

Ion	Ratio	Lower	Upper
61	100		
43	651.2	466.1	865.7
70	68.6	56.3	104.5
88	23.6	20.6	38.2

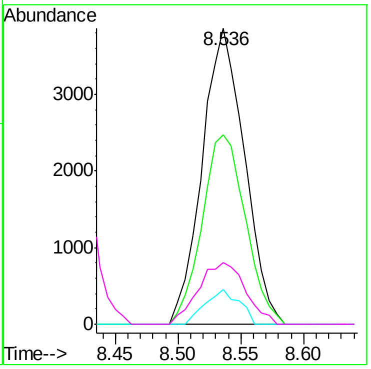


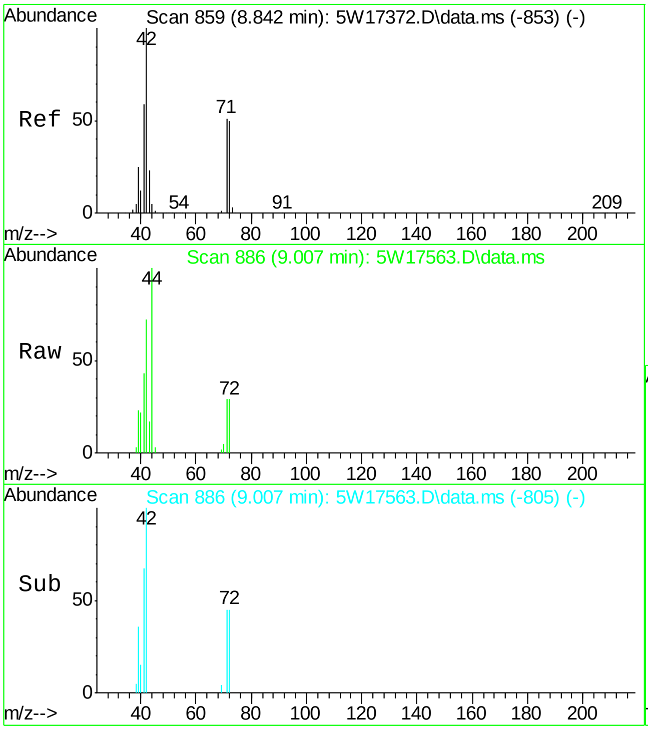


#44
Chloroform
Concen: 0.25 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 83 Resp: 9031

Ion	Ratio	Lower	Upper
83	100		
85	64.1	45.4	84.2
87	11.8	7.3	13.5
47	20.7	14.4	26.8

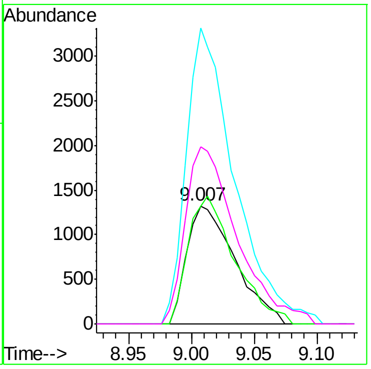




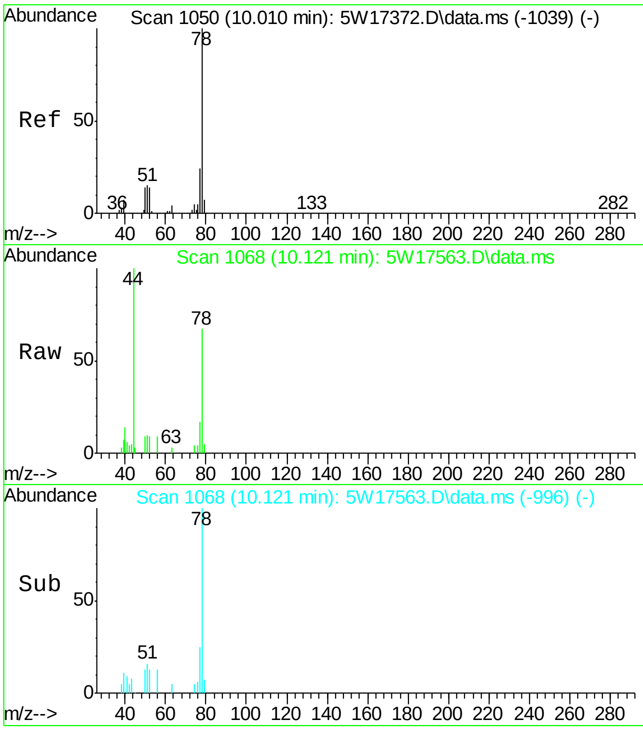
#46
Tetrahydrofuran
Concen: 0.53 ppb(v)
RT: 9.007 min Scan# 886
Delta R.T. 0.165 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 72 Resp: 3557

Ion	Ratio	Lower	Upper
72	100		
71	99.5	70.7	131.3
42	250.5	139.4	259.0
41	149.6	82.7	153.7



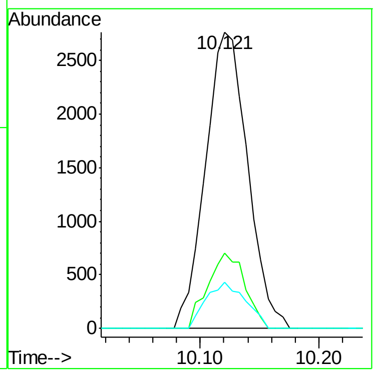
7.4.3
7

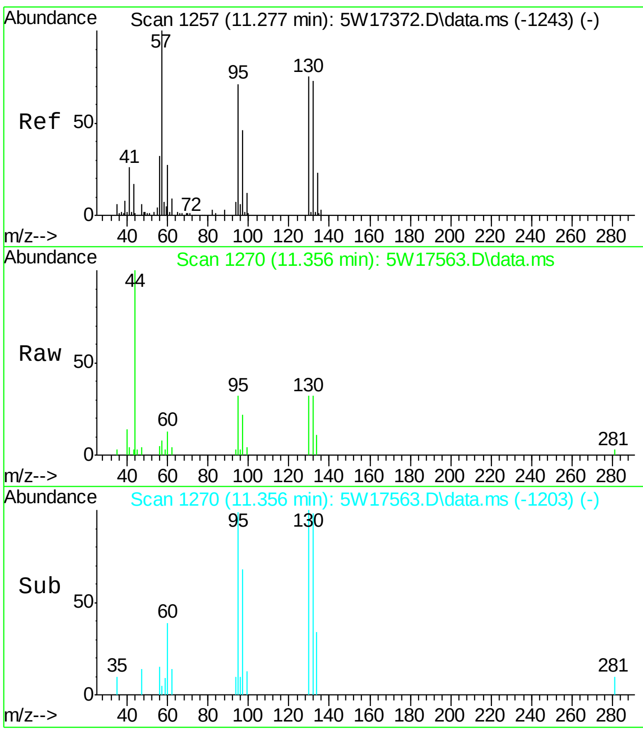


#49
Benzene
Concen: 0.14 ppb(v)
RT: 10.121 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 78 Resp: 6836

Ion	Ratio	Lower	Upper
78	100		
77	25.4	16.5	30.7
51	15.6	10.5	19.5

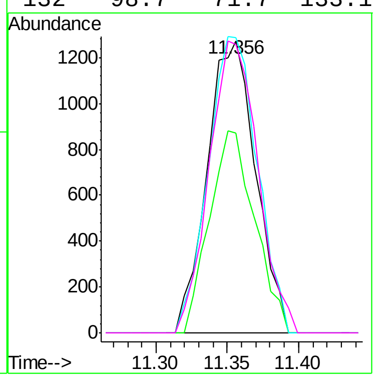




#56
Trichloroethene
Concen: 0.12 ppb(v)
RT: 11.356 min Scan# 1270
Delta R.T. 0.080 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

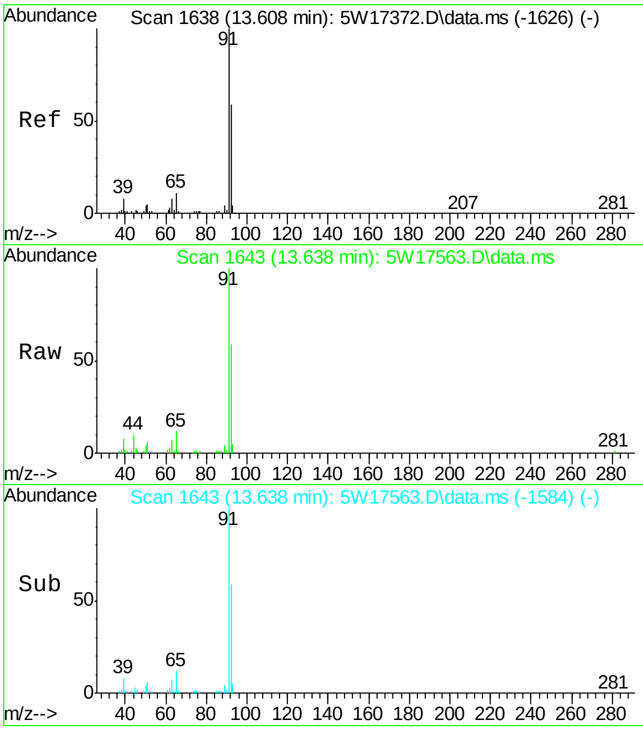
Tgt Ion: 95 Resp: 3018

Ion	Ratio	Lower	Upper
95	100		
97	68.5	45.4	84.4
130	100.8	74.1	137.5
132	98.7	71.7	133.1



7.4.3

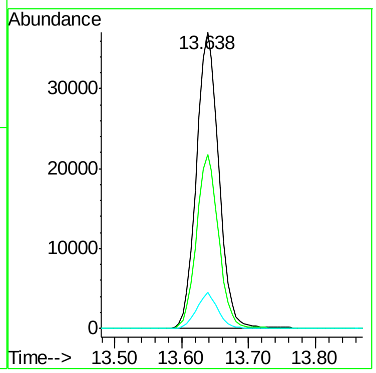
7

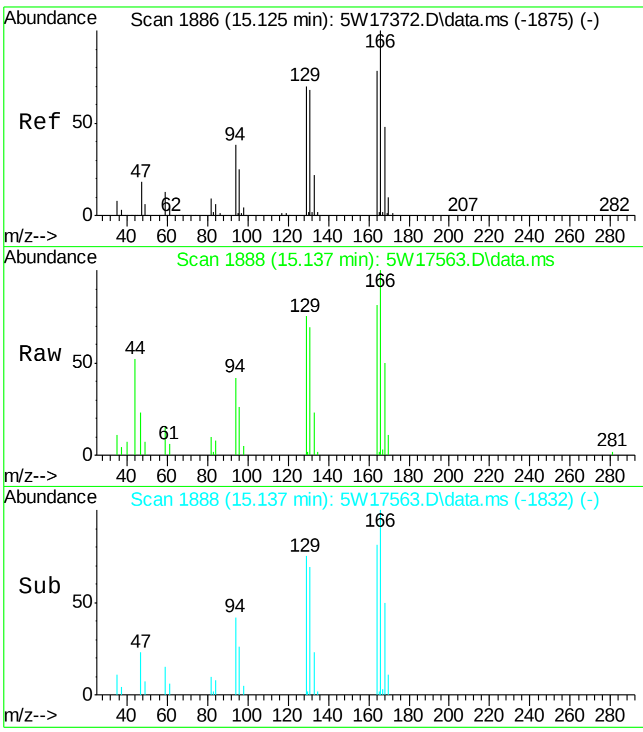


#66
Toluene
Concen: 1.37 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 91 Resp: 85763

Ion	Ratio	Lower	Upper
91	100		
92	58.9	41.2	76.6
65	12.0	7.3	13.7

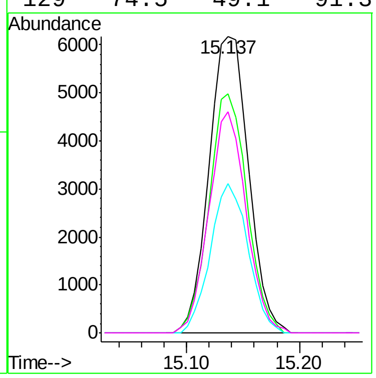


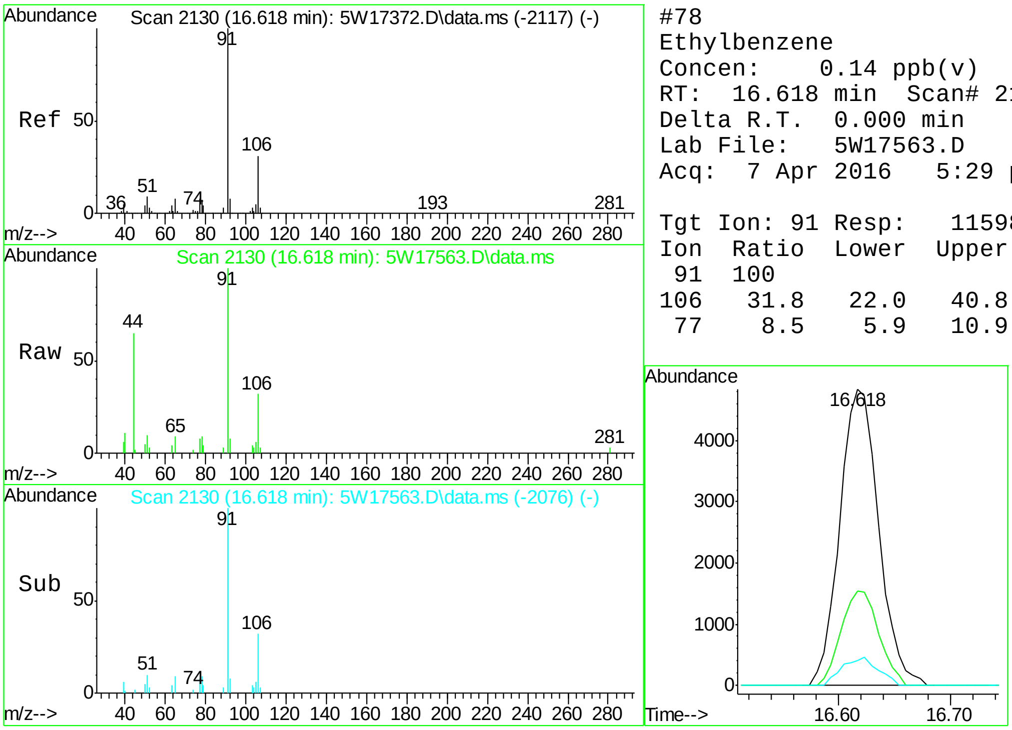


#72
Tetrachloroethene
Concen: 0.42 ppb(v)
RT: 15.137 min Scan# 1888
Delta R.T. 0.012 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion:166 Resp: 15075

Ion	Ratio	Lower	Upper
166	100		
164	80.6	54.6	101.4
168	50.2	33.5	62.3
129	74.5	49.1	91.3

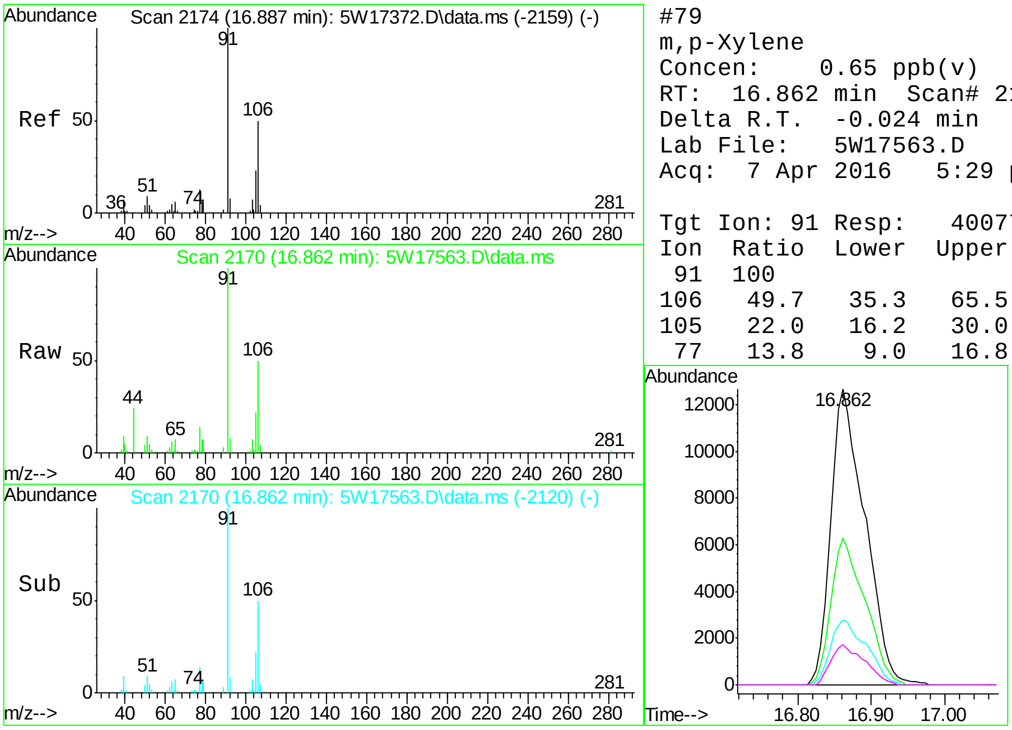




#78
Ethylbenzene
Concen: 0.14 ppb(v)
RT: 16.618 min Scan# 2130
Delta R.T. 0.000 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 91 Resp: 11598

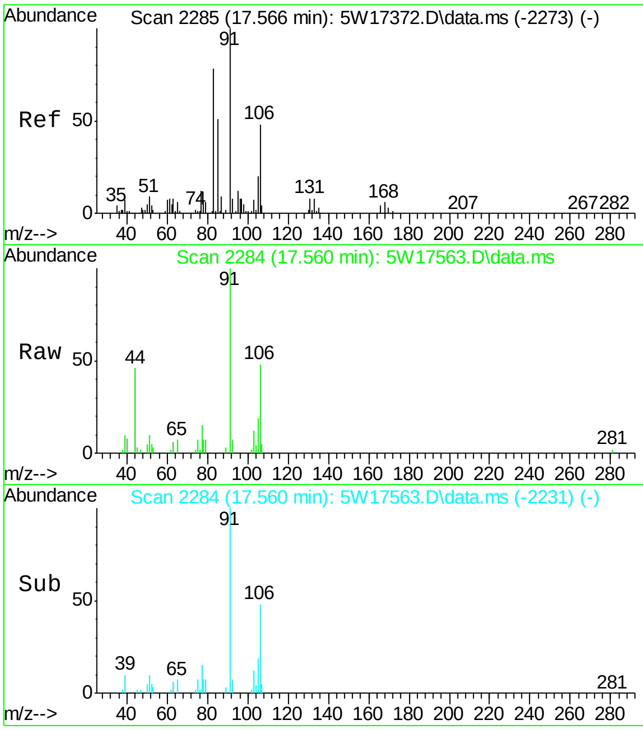
Ion	Ratio	Lower	Upper
91	100		
106	31.8	22.0	40.8
77	8.5	5.9	10.9



#79
m,p-Xylene
Concen: 0.65 ppb(v)
RT: 16.862 min Scan# 2170
Delta R.T. -0.024 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 91 Resp: 40077

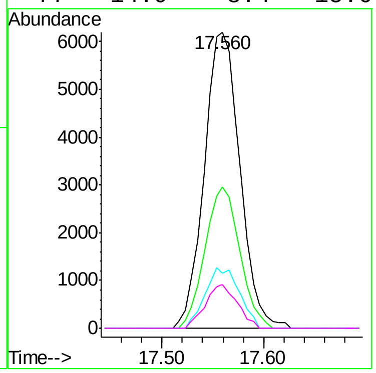
Ion	Ratio	Lower	Upper
91	100		
106	49.7	35.3	65.5
105	22.0	16.2	30.0
77	13.8	9.0	16.8

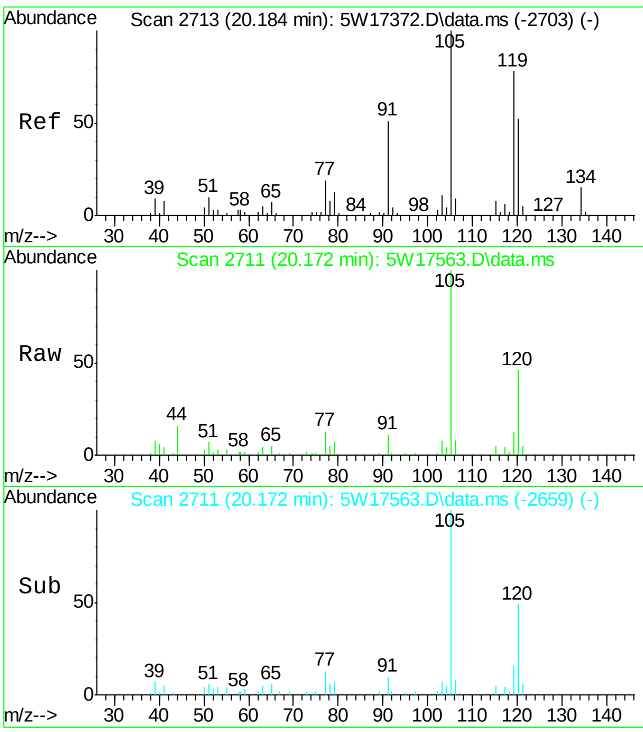


#82
o-Xylene
Concen: 0.24 ppb(v)
RT: 17.560 min Scan# 2284
Delta R.T. -0.006 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion: 91 Resp: 15129

Ion	Ratio	Lower	Upper
91	100		
106	47.6	33.5	62.3
105	18.5	13.7	25.5
77	14.9	8.4	15.6

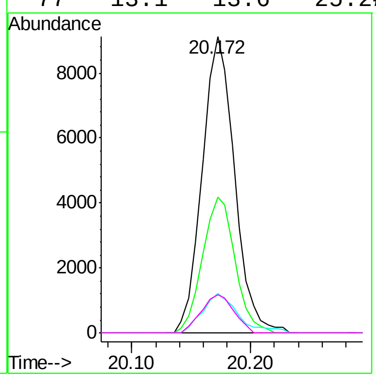




#95
1,2,4-Trimethylbenzene
Concen: 0.24 ppb(v)
RT: 20.172 min Scan# 2711
Delta R.T. -0.012 min
Lab File: 5W17563.D
Acq: 7 Apr 2016 5:29 pm

Tgt Ion:105 Resp: 17238

Ion	Ratio	Lower	Upper
105	100		
120	45.9	36.6	68.0
119	13.1	54.4	101.0#
77	13.1	13.6	25.2#



Manual Integration Approval Summary

Sample Number: JC17438-12DUP
Lab FileID: 5W17563.D
Injection Time: 04/07/16 17:29

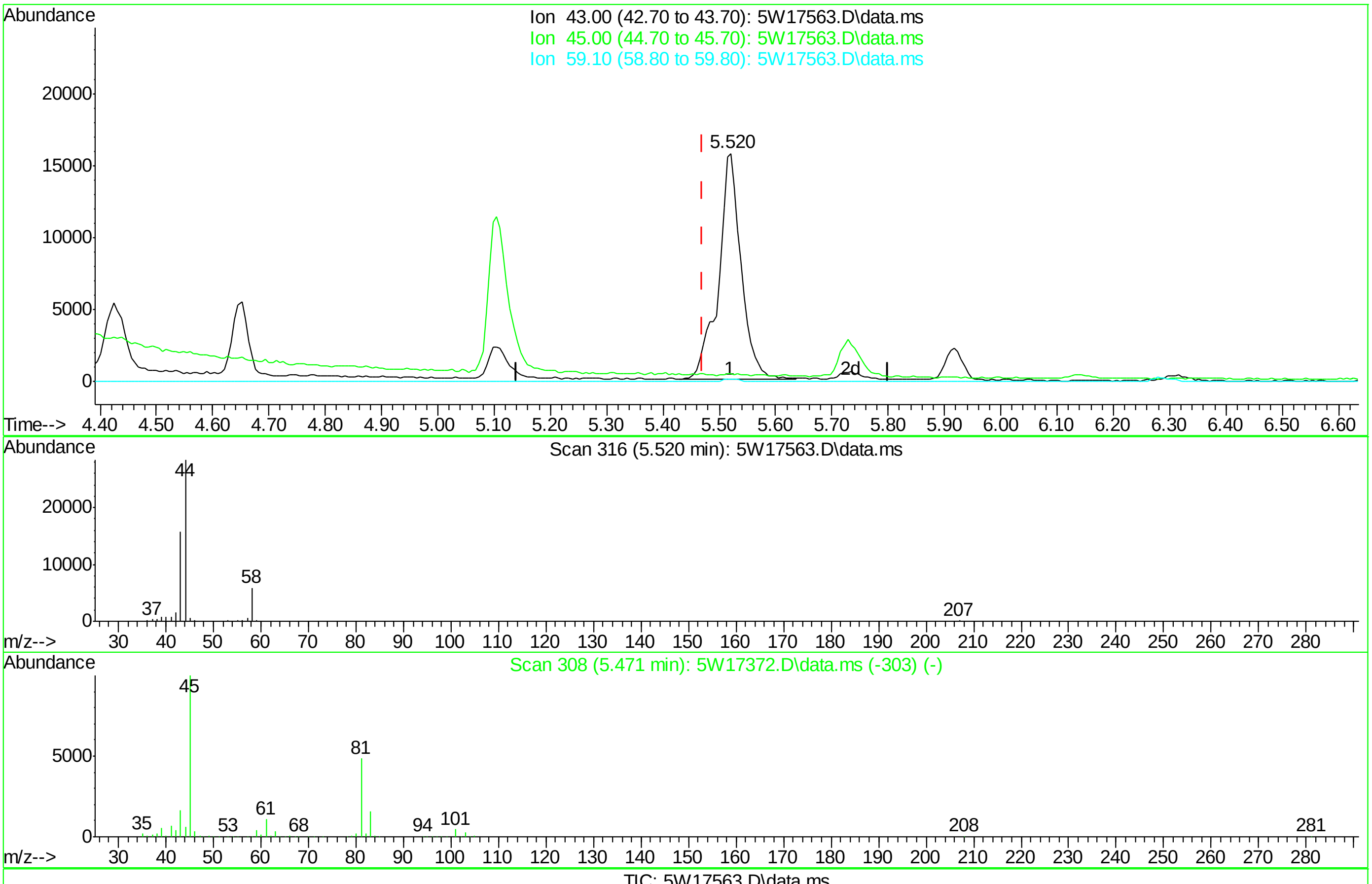
Method: TO-15
Analyst approved: 04/08/16 14:58 Dana Tryon
Supervisor approved: 04/08/16 16:56 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isopropyl Alcohol	67-63-0		5.73	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17563.D
Acq On    :  7 Apr 2016   5:29 pm
Operator  : THOMASH
Sample    : JC17438-12DUP
Misc      : MS107,v5w700,400,,,,1
ALS Vial  : 10   Sample Multiplier: 1

Quant Time: Apr 08 09:16:28 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(25) Isopropyl Alcohol

5.520min (+0.049) 8.18ppb(v)

response 44055

Ion	Exp%	Act%
43.00	100	100
45.00	584.80	3.45#
59.10	24.00	1.36#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/11/16 13:46

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17600.D
Acq On    :  8 Apr 2016  10:20 pm
Operator  : THOMASH
Sample    : JC17199-5DUP
Misc      : MS305,v5w701,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 11 11:48:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.401	130	176226	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	653948	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	312127	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.401	130	176225	10.00 ppb(v	0.15
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.245	95	436186	10.21 ppb(v	-0.01
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.10%		
Target Compounds					Qvalue
4) Chlorodifluoromethane	4.107	67	4910	1.13 ppb(v	99
6) Dichlorodifluoromethane	4.186	85	22628	0.56 ppb(v	99
8) Chloromethane	4.321	50	8738m	0.70 ppb(v	
12) n-Butane	4.651	58	33115	14.59 ppb(v#	58
20) Trichlorofluoromethane	5.618	101	85017	2.00 ppb(v	99
21) Acetone	5.489	58	273429	39.92 ppb(v	92
22) Pentane	5.918	57	10295	3.03 ppb(v	99
25) Isopropyl Alcohol	5.716	43	1000147	188.16 ppb(v	94
28) Methylene Chloride	6.309	84	245538	16.55 ppb(v	97
30) Ethanol	5.104	45	562238	96.60 ppb(v	99
38) 2-Butanone	7.777	72	49743	7.41 ppb(v	97
39) Hexane	8.420	57	6050	0.26 ppb(v#	58
42) Ethyl Acetate	8.469	61	9076	1.95 ppb(v	89
44) Chloroform	8.536	83	55310	1.54 ppb(v	100
46) Tetrahydrofuran	9.001	72	4827	0.73 ppb(v#	1
49) Benzene	10.120	78	7740	0.16 ppb(v	96
50) Carbon Tetrachloride	10.286	117	11181	0.29 ppb(v	99
55) Heptane	11.699	71	3930	0.25 ppb(v	98
56) Trichloroethene	11.350	95	44176	1.77 ppb(v	97
66) Toluene	13.638	91	55853	0.89 ppb(v	99
72) Tetrachloroethene	15.137	166	6853	0.19 ppb(v	96
74) Octane	14.966	43	16413	0.49 ppb(v	91
78) Ethylbenzene	16.617	91	20346	0.25 ppb(v	98
79) m,p-Xylene	16.862	91	73650	1.19 ppb(v	98
81) Nonane	17.927	43	16395	0.49 ppb(v	97
82) o-Xylene	17.553	91	33672	0.52 ppb(v	98
88) 2-Chlorotoluene	19.181	126	7421	0.32 ppb(v	98
89) n-Propylbenzene	19.248	120	7275	0.31 ppb(v	97
91) 4-Ethyltoluene	19.468	105	44906	0.53 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.591	105	42683	0.57 ppb(v	100
93) alpha-Methylstyrene	19.823	118	5152	0.14 ppb(v	93
95) 1,2,4-Trimethylbenzene	20.166	105	161173	2.20 ppb(v#	56
100) p-Isopropyltoluene	20.771	134	7415	0.34 ppb(v	97

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17600.D
Acq On    :  8 Apr 2016  10:20 pm
Operator  : THOMASH
Sample    : JC17199-5DUP
Misc      : MS305,v5w701,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 11 11:48:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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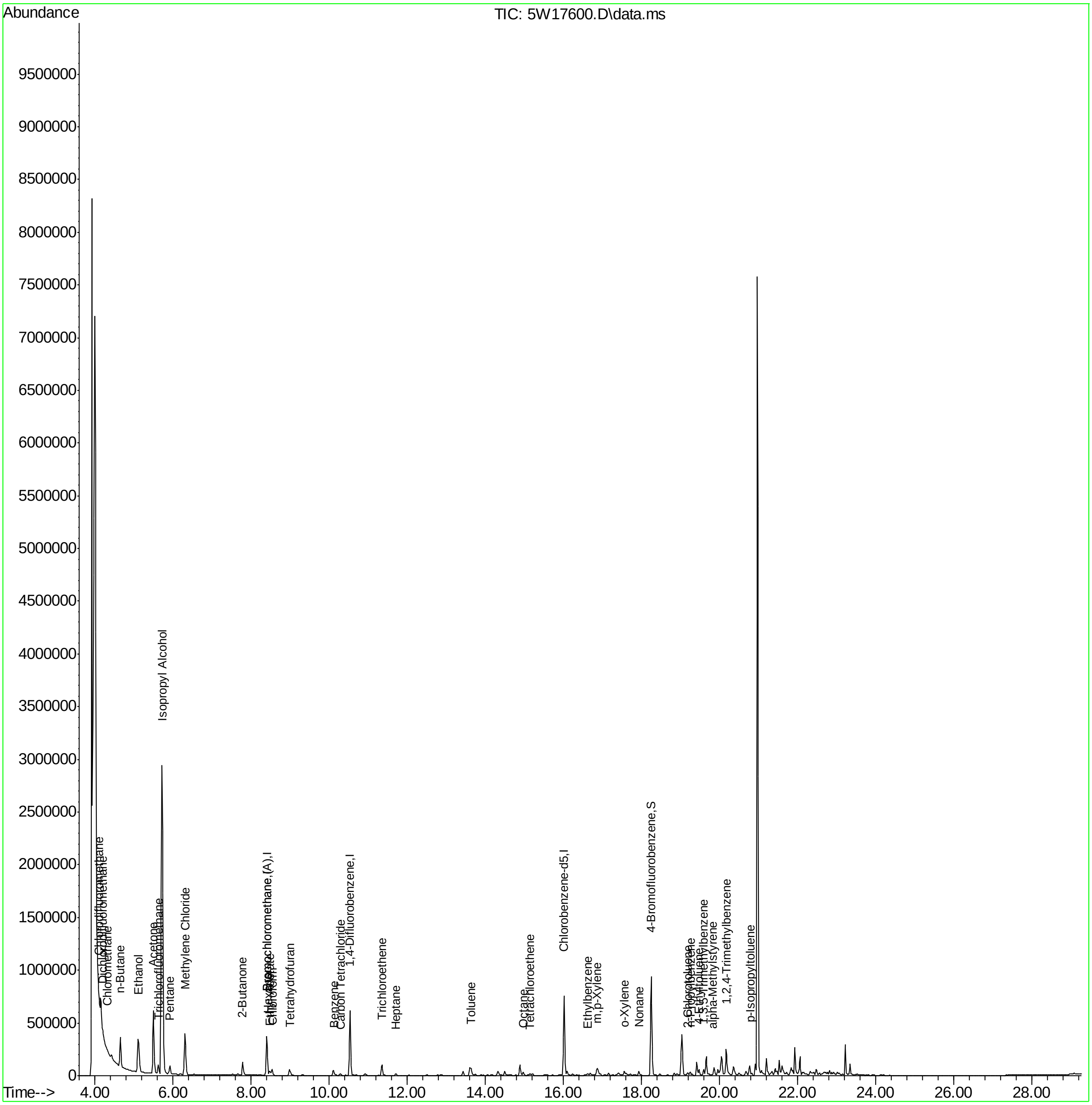
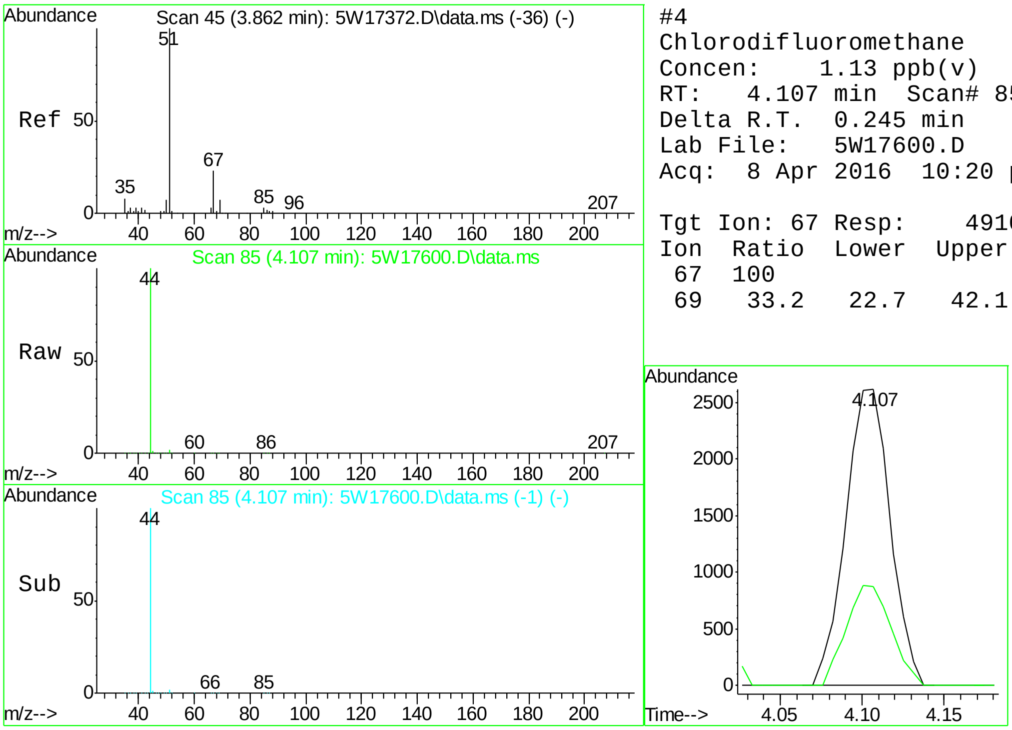


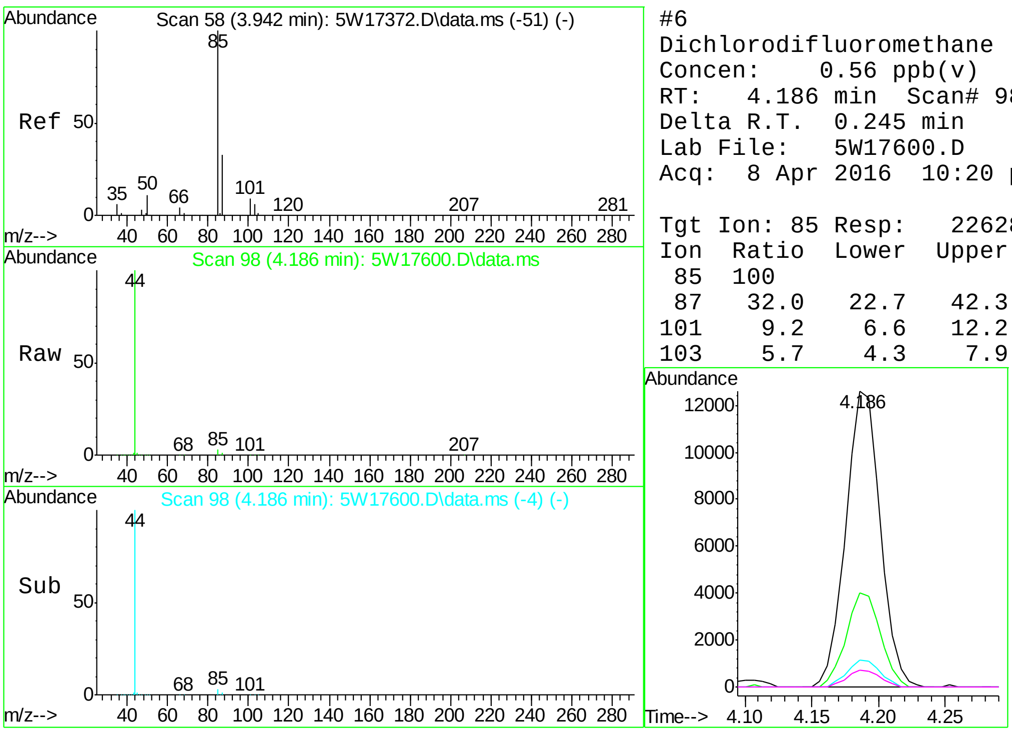
m5w693.M Mon Apr 11 11:48:50 2016 GCMS5W Page: 2



#4
Chlorodifluoromethane
Concen: 1.13 ppb(v)
RT: 4.107 min Scan# 85
Delta R.T. 0.245 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 67 Resp: 4910

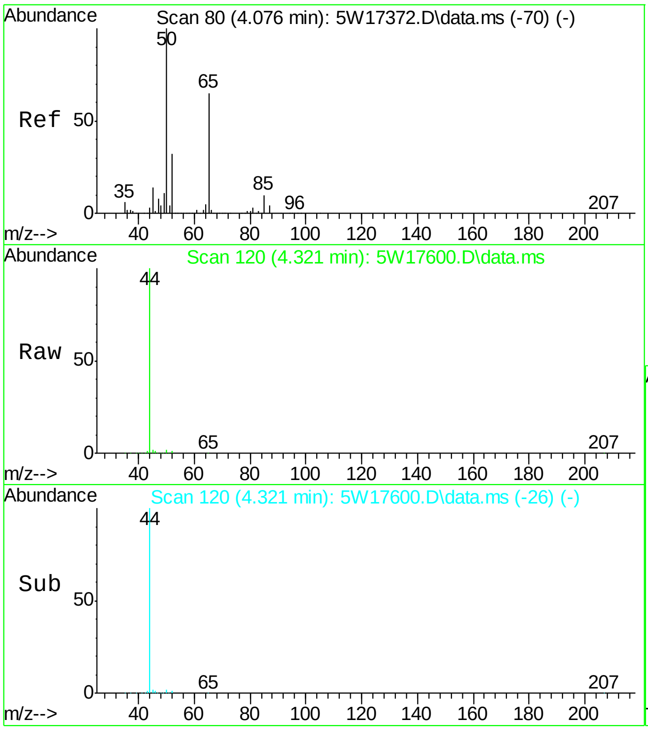
Ion	Ratio	Lower	Upper
67	100		
69	33.2	22.7	42.1



#6
Dichlorodifluoromethane
Concen: 0.56 ppb(v)
RT: 4.186 min Scan# 98
Delta R.T. 0.245 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 85 Resp: 22628

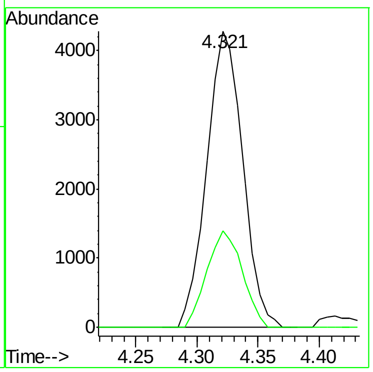
Ion	Ratio	Lower	Upper
85	100		
87	32.0	22.7	42.3
101	9.2	6.6	12.2
103	5.7	4.3	7.9

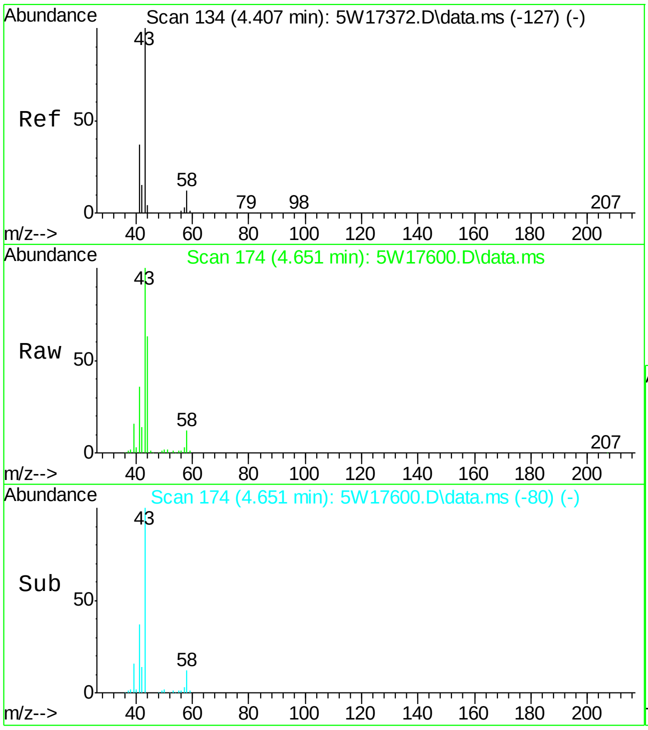


#8
Chloromethane
Concen: 0.70 ppb(v) m
RT: 4.321 min Scan# 120
Delta R.T. 0.245 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 50 Resp: 8738

Ion	Ratio	Lower	Upper
50	100		
52	32.5	22.7	42.1

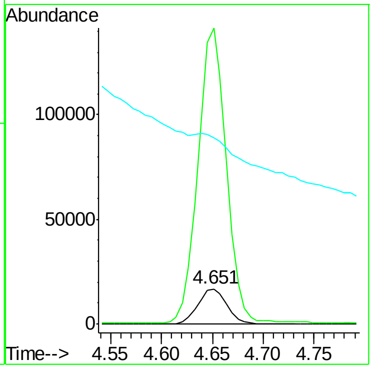


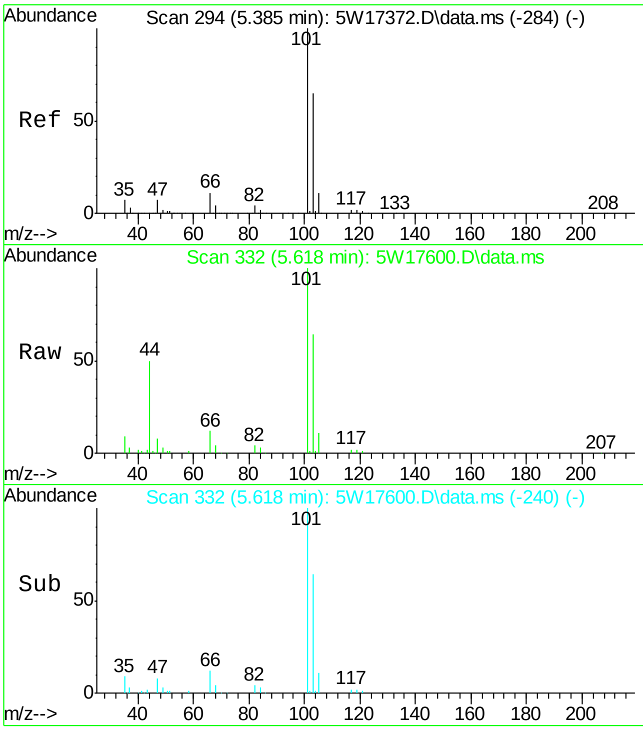


#12
n-Butane
Concen: 14.59 ppb(v)
RT: 4.651 min Scan# 174
Delta R.T. 0.245 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 58 Resp: 33115

Ion	Ratio	Lower	Upper
58	100		
43	835.5	576.3	1070.3
44	525.1	34.4	64.0#

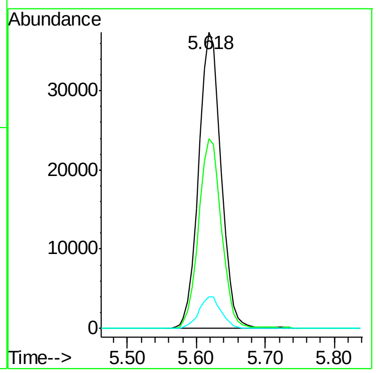


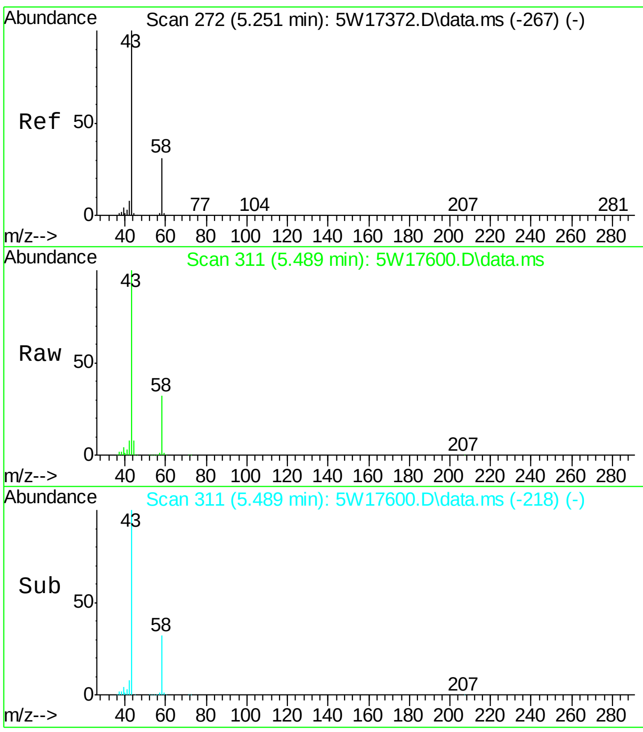


#20
Trichlorofluoromethane
Concen: 2.00 ppb(v)
RT: 5.618 min Scan# 332
Delta R.T. 0.232 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:101 Resp: 85017

Ion	Ratio	Lower	Upper
101	100		
103	64.0	45.1	83.9
105	10.5	7.5	13.9

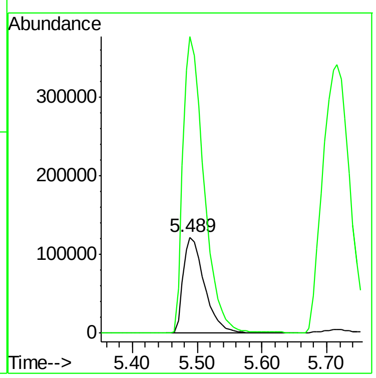




#21
Acetone
Concen: 39.92 ppb(v)
RT: 5.489 min Scan# 311
Delta R.T. 0.239 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

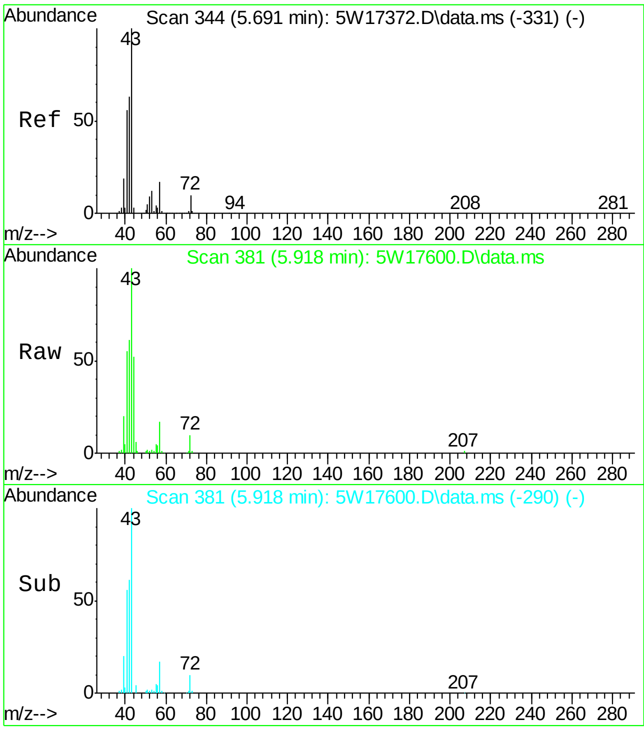
Tgt Ion: 58 Resp: 273429

Ion	Ratio	Lower	Upper
58	100		
43	309.5	227.9	423.3



7.4.4

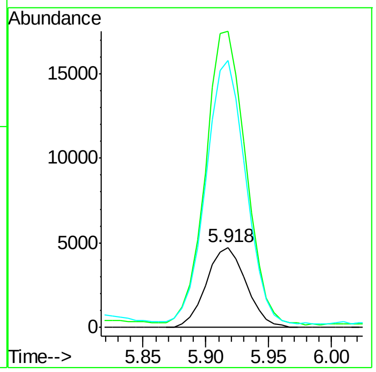
7

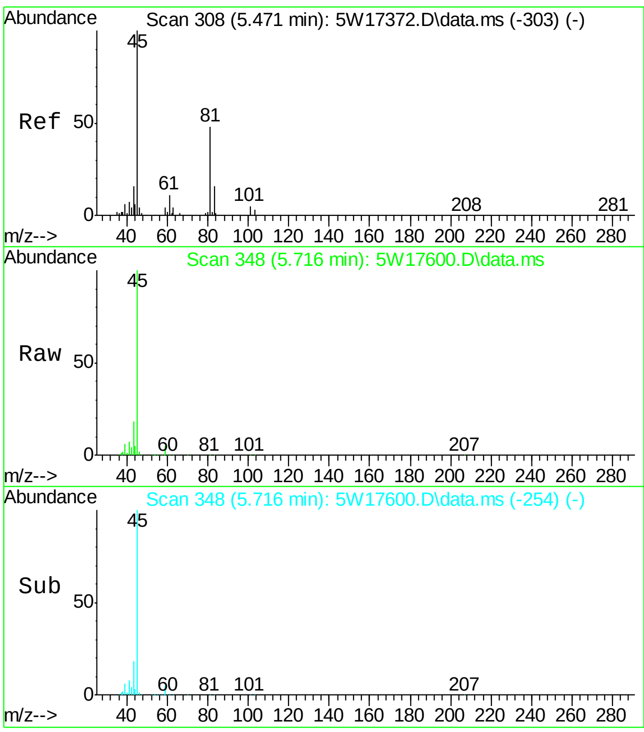


#22
Pentane
Concen: 3.03 ppb(v)
RT: 5.918 min Scan# 381
Delta R.T. 0.226 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 57 Resp: 10295

Ion	Ratio	Lower	Upper
57	100		
42	371.2	258.3	479.7
41	334.8	233.4	433.5

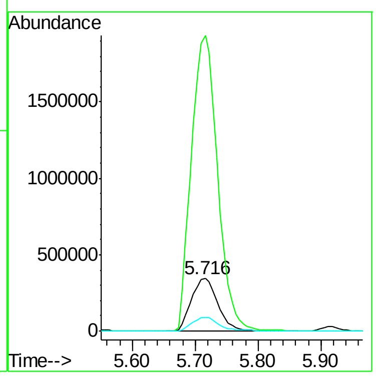


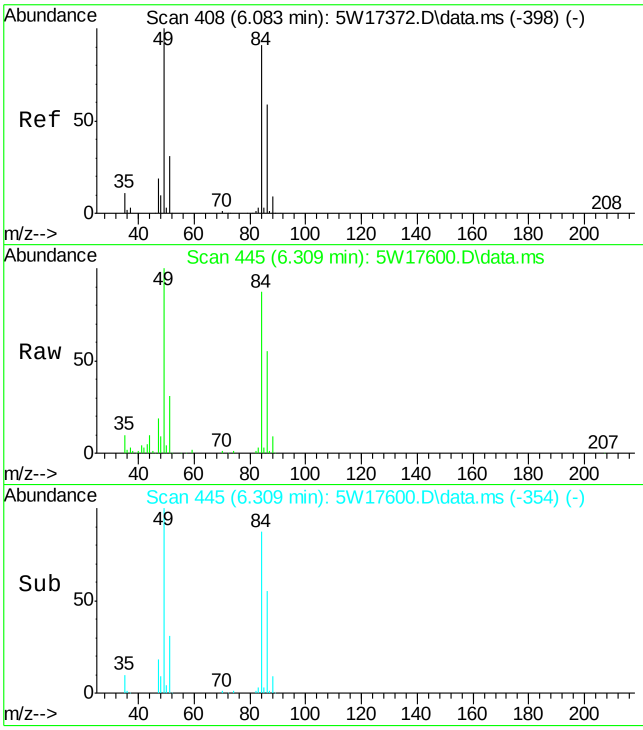


#25
Isopropyl Alcohol
Concen: 188.16 ppb(v)
RT: 5.716 min Scan# 348
Delta R.T. 0.245 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 43 Resp: 1000147

Ion	Ratio	Lower	Upper
43	100		
45	566.4	409.4	760.2
59	26.8	16.8	31.2

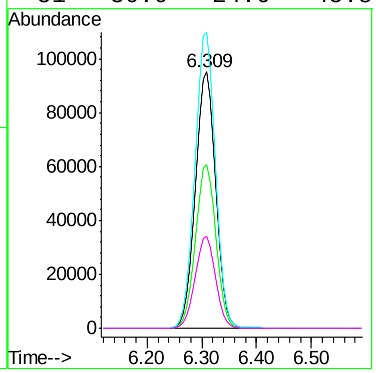


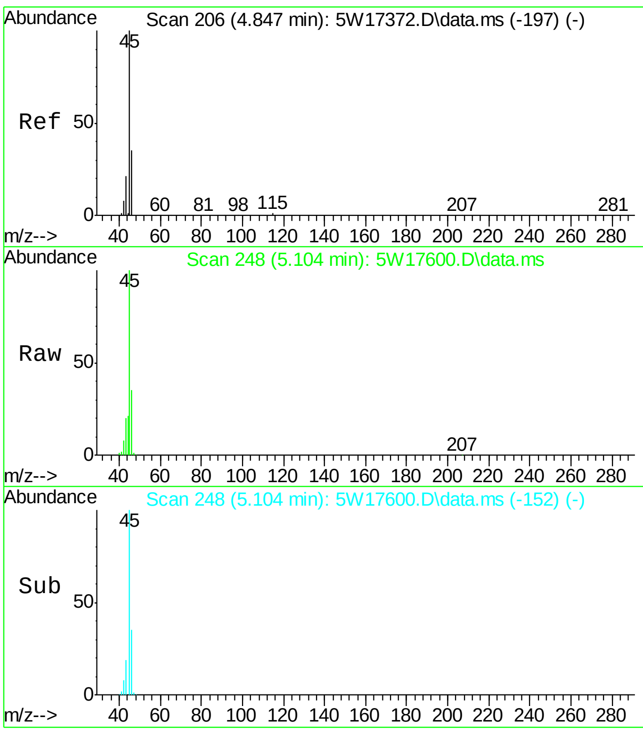


#28
Methylene Chloride
Concen: 16.55 ppb(v)
RT: 6.309 min   Scan# 445
Delta R.T.   0.226 min
Lab File: 5W17600.D
Acq: 8 Apr 2016   10:20 pm

Tgt Ion: 84 Resp: 245538

Ion	Ratio	Lower	Upper
84	100		
86	64.0	45.8	85.0
49	115.4	77.6	144.2
51	36.0	24.6	45.8

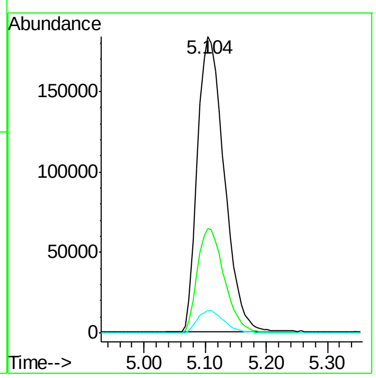


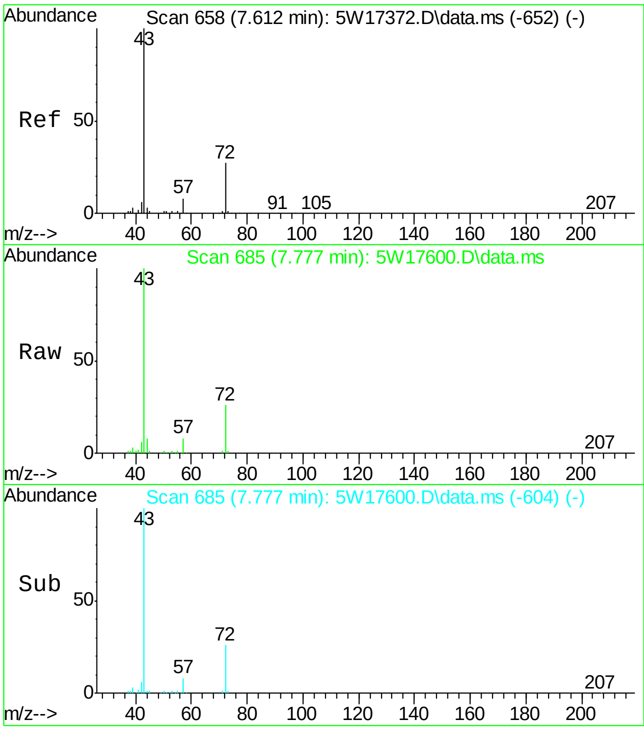


#30
Ethanol
Concen: 96.60 ppb(v)
RT: 5.104 min   Scan# 248
Delta R.T.   0.257 min
Lab File: 5W17600.D
Acq: 8 Apr 2016   10:20 pm

Tgt Ion: 45 Resp: 562238

Ion	Ratio	Lower	Upper
45	100		
46	35.2	24.6	45.8
42	7.6	6.5	12.1

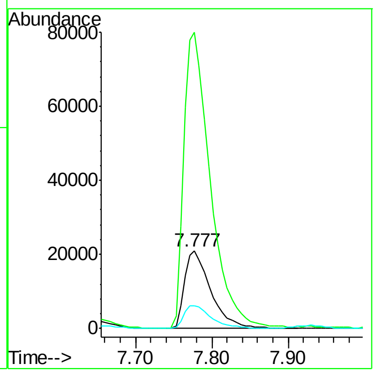


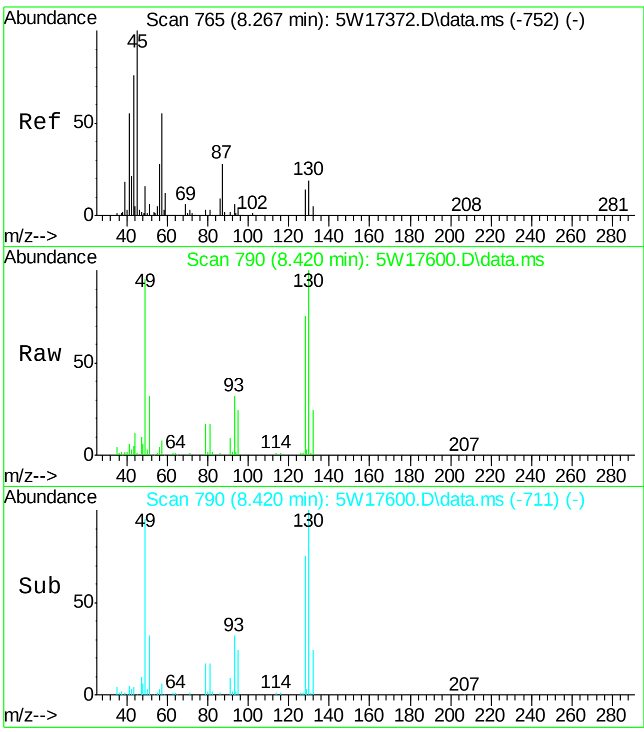


#38
2-Butanone
Concen: 7.41 ppb(v)
RT: 7.777 min Scan# 685
Delta R.T. 0.165 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 72 Resp: 49743

Ion	Ratio	Lower	Upper
72	100		
43	382.9	262.9	488.3
57	29.8	21.3	39.6

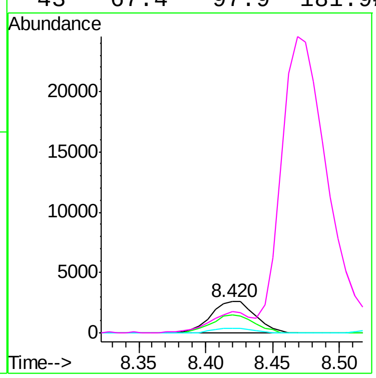


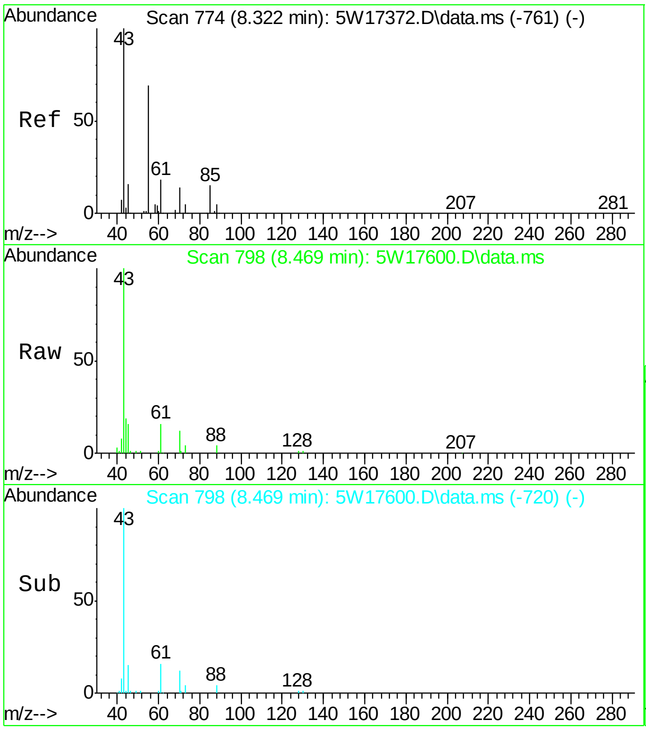


#39
Hexane
Concen: 0.26 ppb(v)
RT: 8.420 min Scan# 790
Delta R.T. 0.153 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 57 Resp: 6050

Ion	Ratio	Lower	Upper
57	100		
56	57.0	36.5	67.9
86	15.3	11.1	20.7
43	67.4	97.9	181.9#

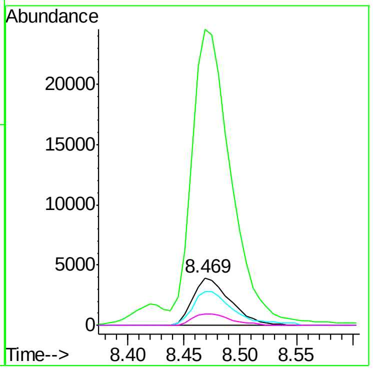




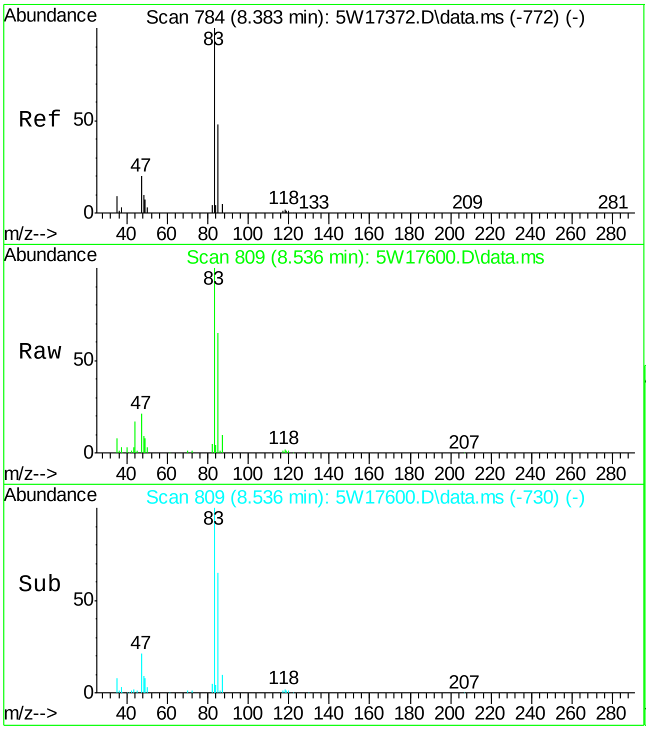
#42
Ethyl Acetate
Concen: 1.95 ppb(v)
RT: 8.469 min Scan# 798
Delta R.T. 0.147 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 61 Resp: 9076

Ion	Ratio	Lower	Upper
61	100		
43	627.1	466.1	865.7
70	72.5	56.3	104.5
88	23.3	20.6	38.2



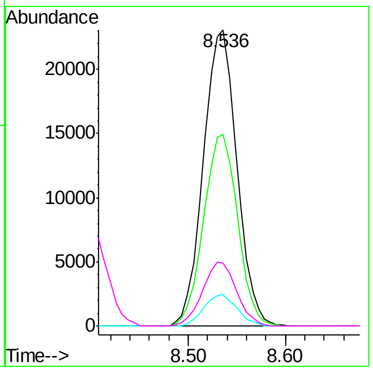
7.4.4
7

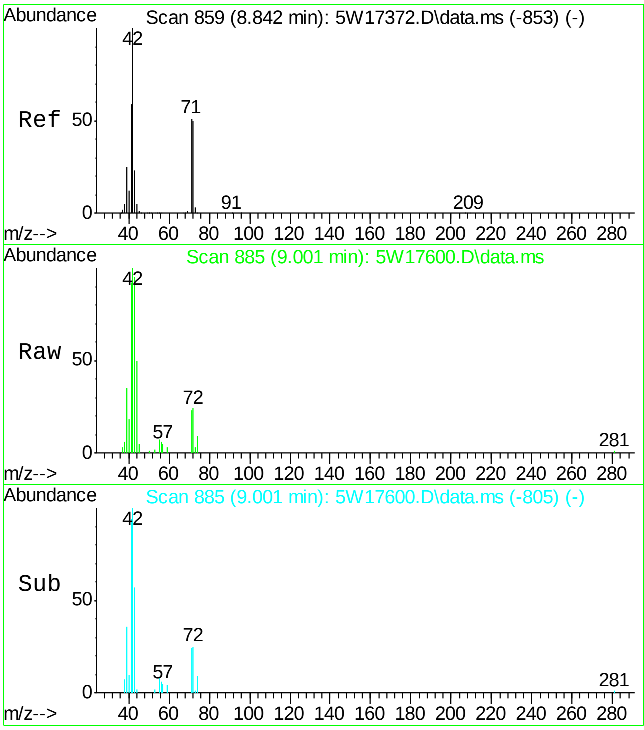


#44
Chloroform
Concen: 1.54 ppb(v)
RT: 8.536 min Scan# 809
Delta R.T. 0.153 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 83 Resp: 55310

Ion	Ratio	Lower	Upper
83	100		
85	64.7	45.4	84.2
87	10.5	7.3	13.5
47	21.2	14.4	26.8

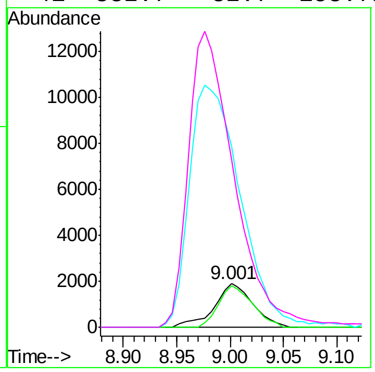


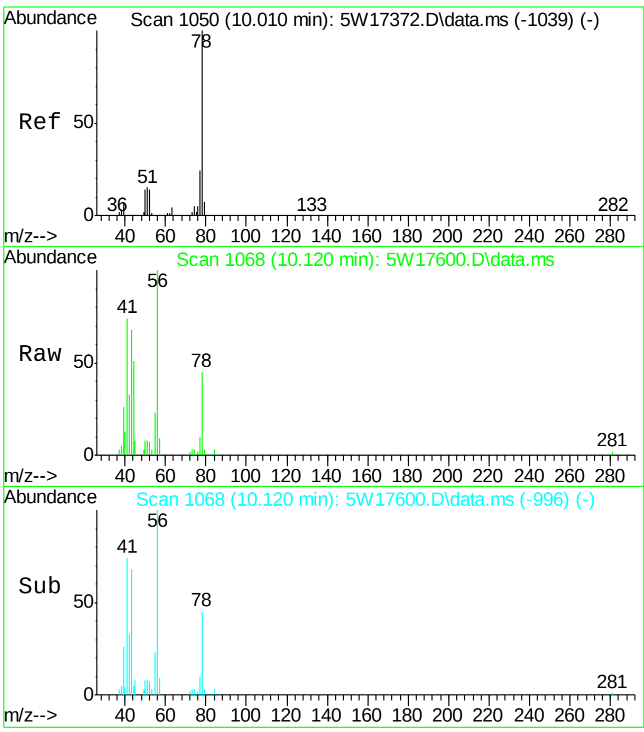


#46
Tetrahydrofuran
Concen: 0.73 ppb(v)
RT: 9.001 min Scan# 885
Delta R.T. 0.159 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 72 Resp: 4827

Ion	Ratio	Lower	Upper
72	100		
71	95.2	70.7	131.3
42	413.9	139.4	259.0#
41	382.7	82.7	153.7#

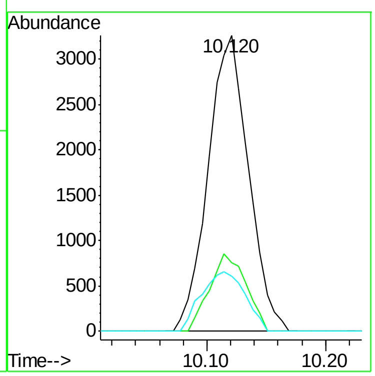




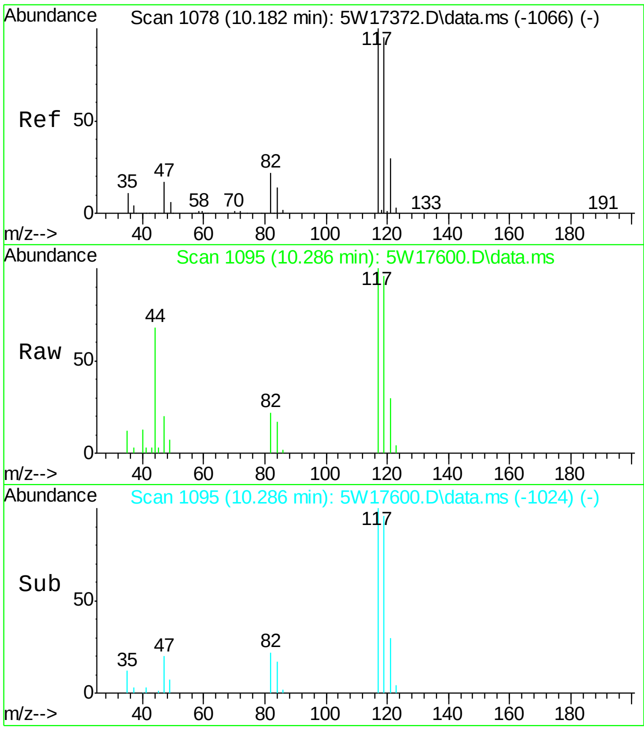
#49
Benzene
Concen: 0.16 ppb(v)
RT: 10.120 min Scan# 1068
Delta R.T. 0.110 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 78 Resp: 7740

Ion	Ratio	Lower	Upper
78	100		
77	23.0	16.5	30.7
51	18.6	10.5	19.5



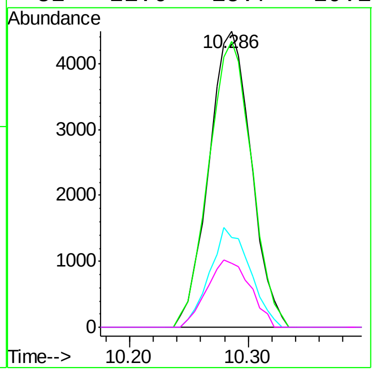
7.4.4
7

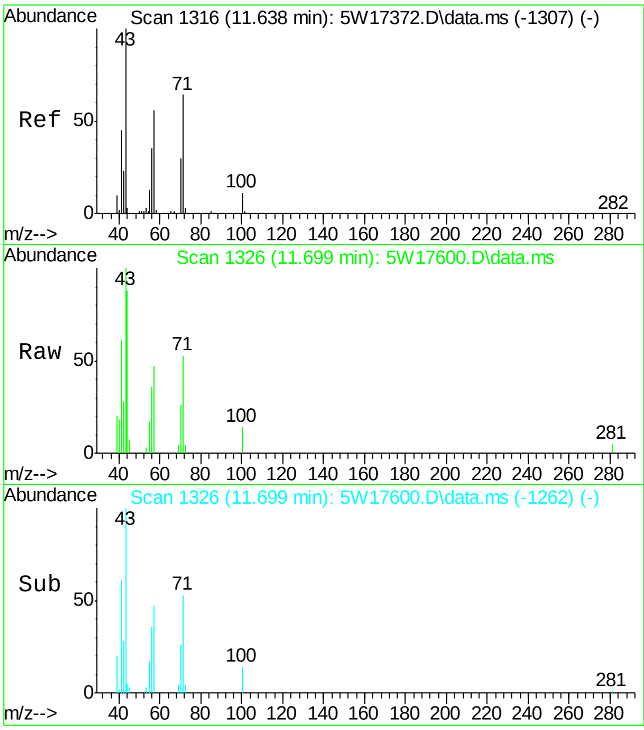


#50
Carbon Tetrachloride
Concen: 0.29 ppb(v)
RT: 10.286 min Scan# 1095
Delta R.T. 0.104 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:117 Resp: 11181

Ion	Ratio	Lower	Upper
117	100		
119	96.5	66.7	123.9
121	30.5	21.3	39.5
82	21.6	15.7	29.1

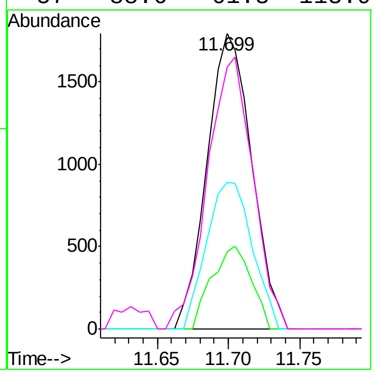




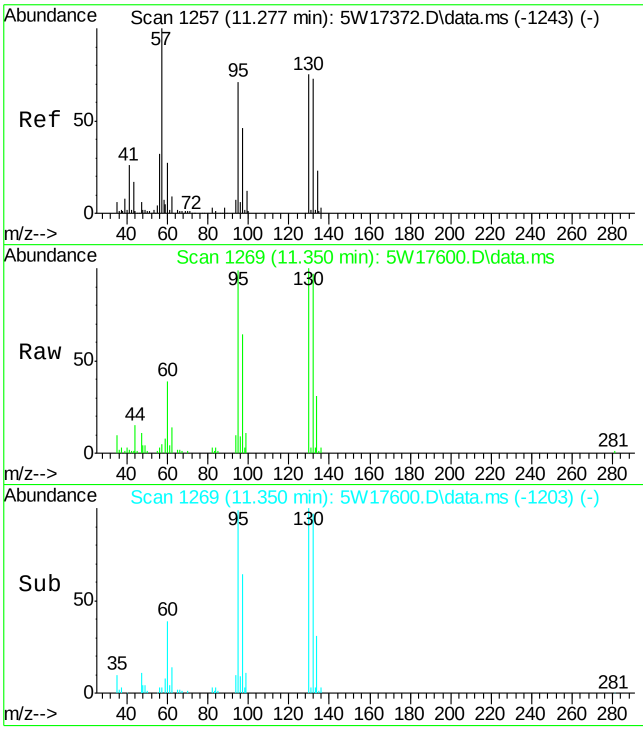
#55
Heptane
Concen: 0.25 ppb(v)
RT: 11.699 min Scan# 1326
Delta R.T. 0.061 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 71 Resp: 3930

Ion	Ratio	Lower	Upper
71	100		
100	26.3	19.6	36.4
70	49.8	34.0	63.2
57	88.6	61.3	113.9



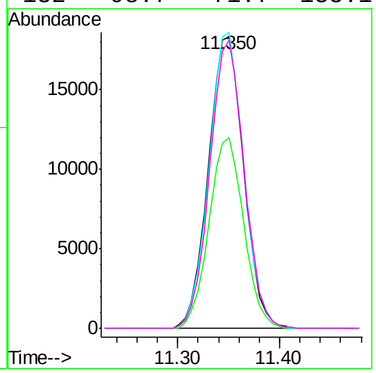
7.4.4
7



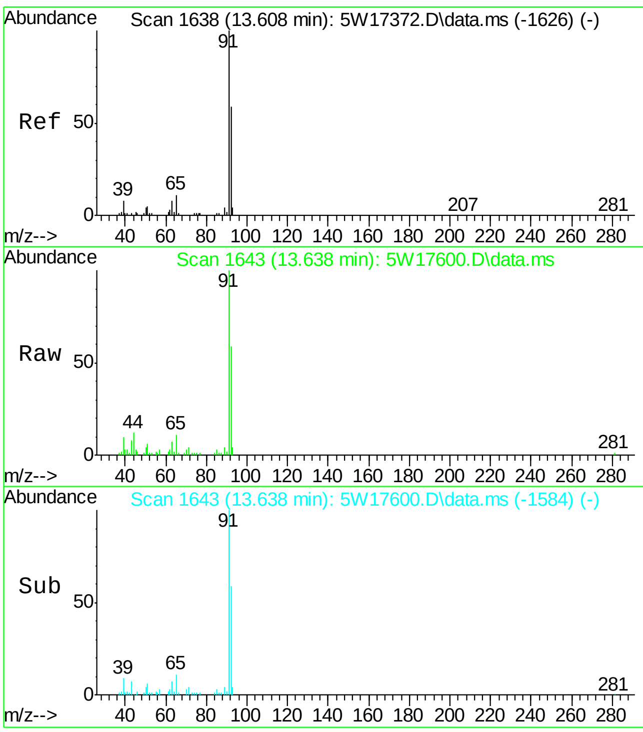
#56
Trichloroethene
Concen: 1.77 ppb(v)
RT: 11.350 min Scan# 1269
Delta R.T. 0.073 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 95 Resp: 44176

Ion	Ratio	Lower	Upper
95	100		
97	65.3	45.4	84.4
130	101.4	74.1	137.5
132	98.7	71.7	133.1



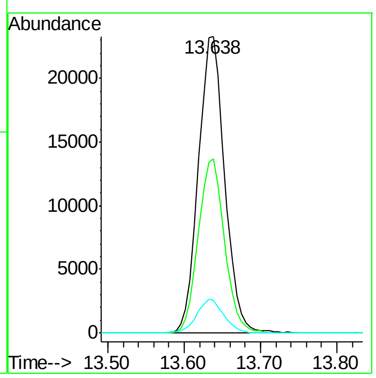
7.4.4
7

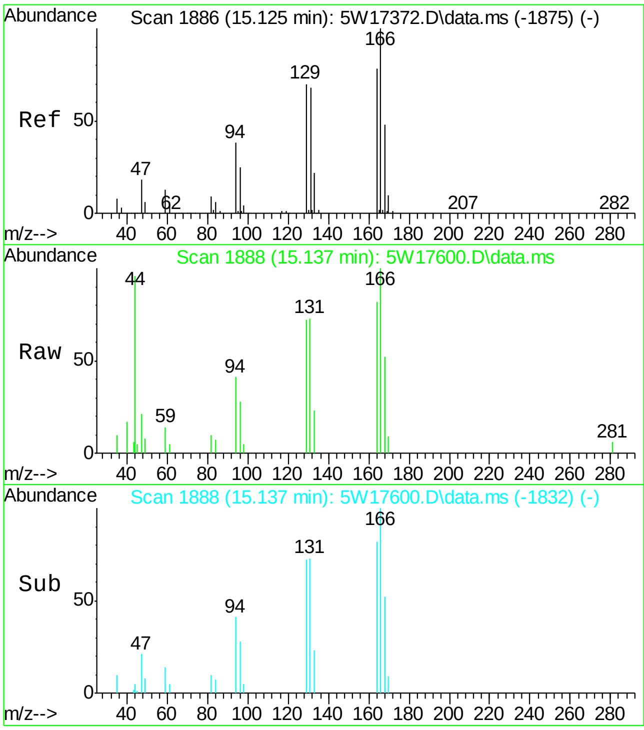


#66
Toluene
Concen: 0.89 ppb(v)
RT: 13.638 min Scan# 1643
Delta R.T. 0.031 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 91 Resp: 55853

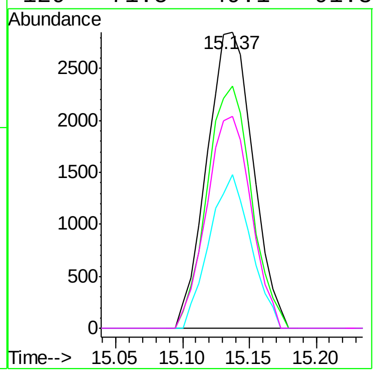
Ion	Ratio	Lower	Upper
91	100		
92	58.6	41.2	76.6
65	11.0	7.3	13.7

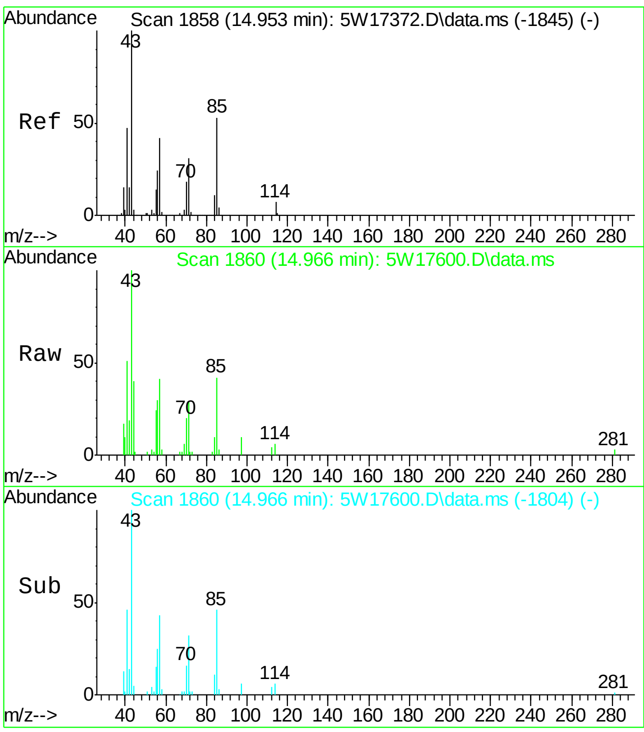





```
#72
Tetrachloroethene
Concen:     0.19 ppb(v)
RT:   15.137 min   Scan# 1888
Delta R.T.   0.012 min
Lab File:    5W17600.D
Acq:  8 Apr 2016   10:20 pm

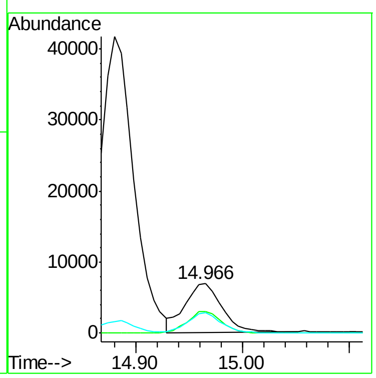
Tgt Ion:166 Resp:     6853
Ion  Ratio   Lower   Upper
166  100
164   81.7    54.6   101.4
168   52.0    33.5    62.3
129   71.5    49.1    91.3
```

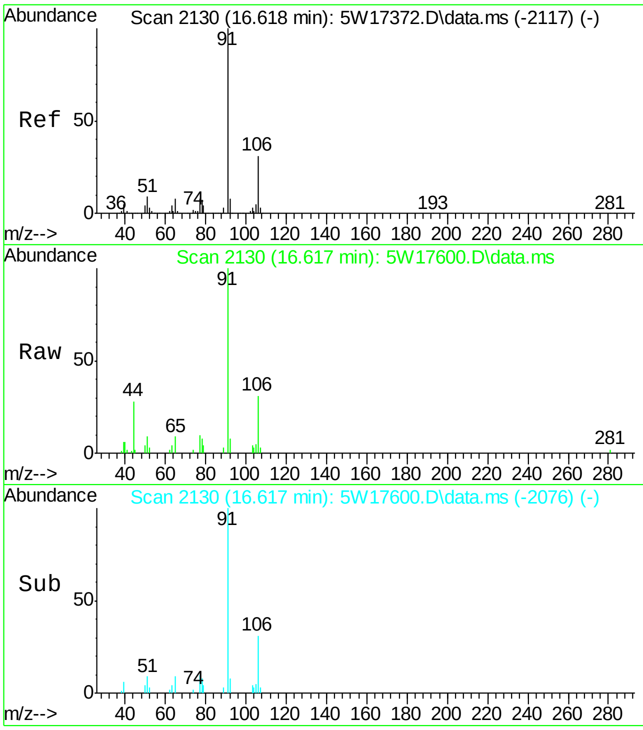





```
#74
Octane
Concen:     0.49 ppb(v)
RT:   14.966 min   Scan# 1860
Delta R.T.   0.012 min
Lab File:    5W17600.D
Acq:  8 Apr 2016   10:20 pm

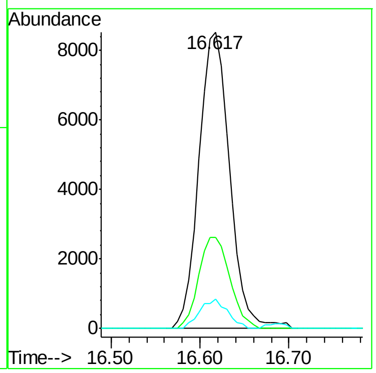
Tgt Ion: 43 Resp:    16413
Ion  Ratio   Lower   Upper
 43  100
 85   42.5    37.1    68.9
 57   41.2    29.6    55.0
```

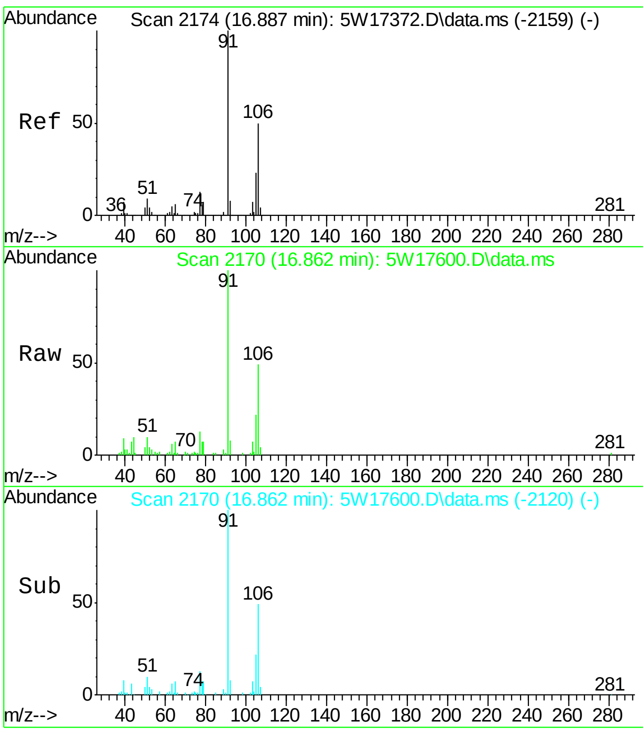




#78
Ethylbenzene
Concen: 0.25 ppb(v)
RT: 16.617 min   Scan# 2130
Delta R.T.   -0.000 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

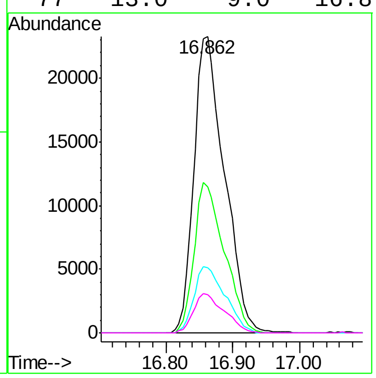
Tgt Ion: 91	Resp:		20346
Ion	Ratio	Lower	Upper
91	100		
106	30.7	22.0	40.8
77	9.8	5.9	10.9

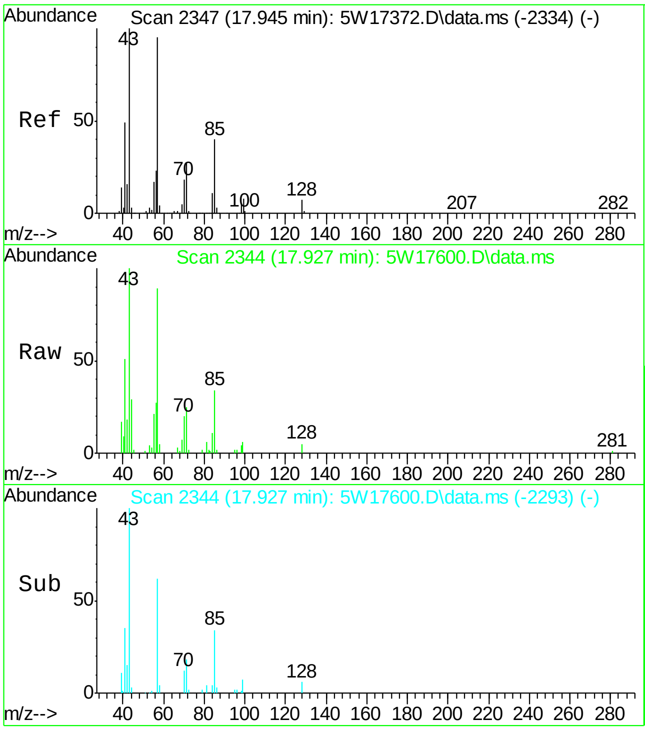




#79
m,p-Xylene
Concen: 1.19 ppb(v)
RT: 16.862 min   Scan# 2170
Delta R.T.   -0.025 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 91	Resp:		73650
Ion	Ratio	Lower	Upper
91	100		
106	49.3	35.3	65.5
105	21.9	16.2	30.0
77	13.0	9.0	16.8

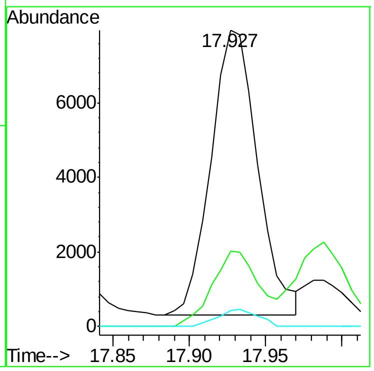


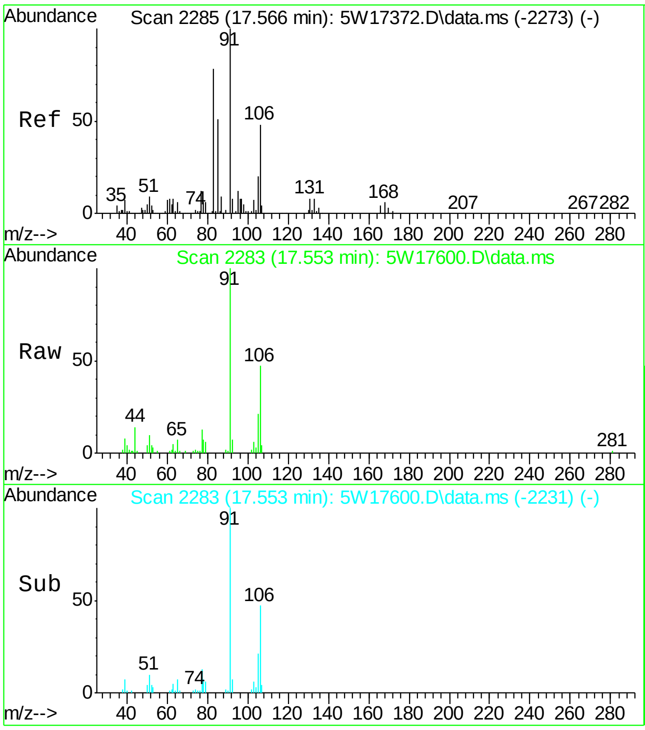


#81
Nonane
Concen: 0.49 ppb(v)
RT: 17.927 min Scan# 2344
Delta R.T. -0.018 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 43 Resp: 16395

Ion	Ratio	Lower	Upper
43	100		
71	25.3	18.9	35.1
128	5.4	4.6	8.6

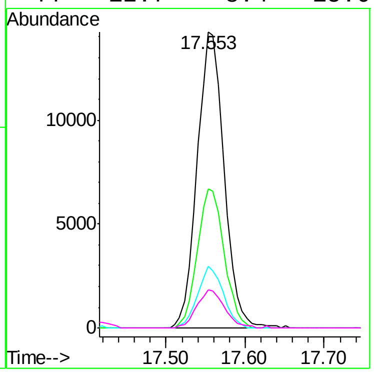


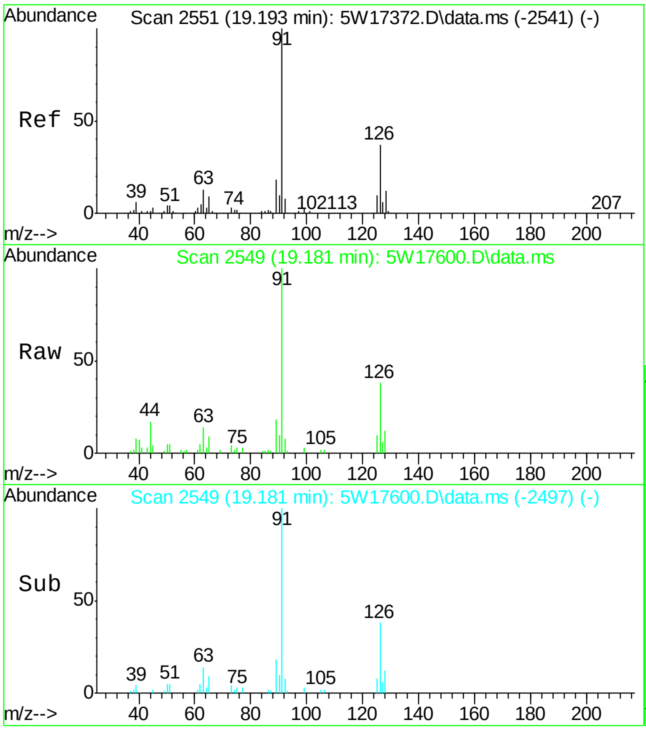


#82
o-Xylene
Concen: 0.52 ppb(v)
RT: 17.553 min Scan# 2283
Delta R.T. -0.012 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion: 91 Resp: 33672

Ion	Ratio	Lower	Upper
91	100		
106	46.9	33.5	62.3
105	20.8	13.7	25.5
77	12.7	8.4	15.6

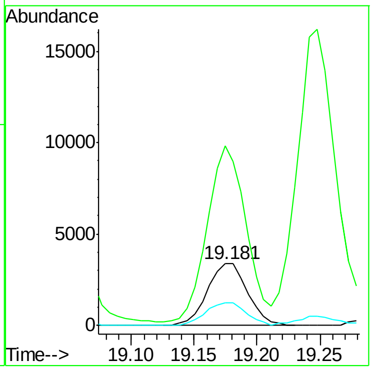


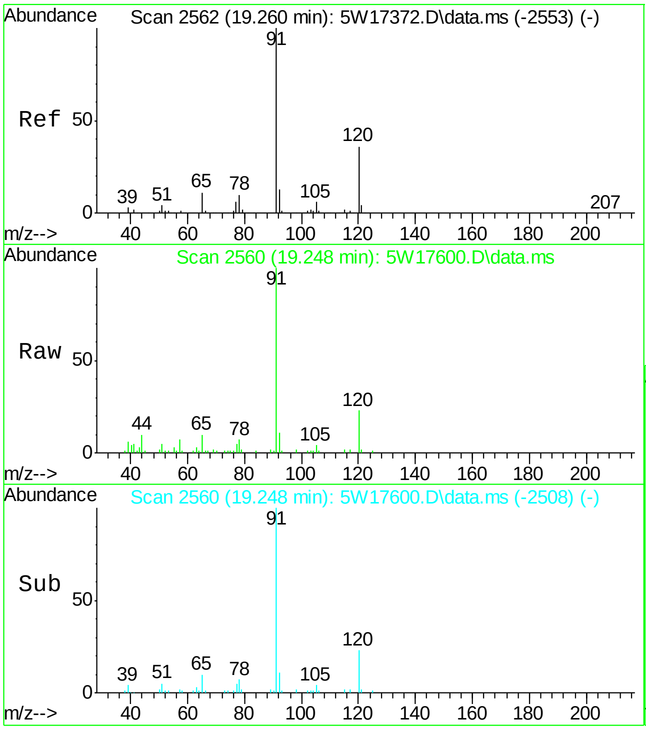


#88
2-Chlorotoluene
Concen: 0.32 ppb(v)
RT: 19.181 min Scan# 2549
Delta R.T. -0.012 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:126 Resp: 7421

Ion	Ratio	Lower	Upper
126	100		
91	265.7	187.6	348.4
63	37.0	23.5	43.7

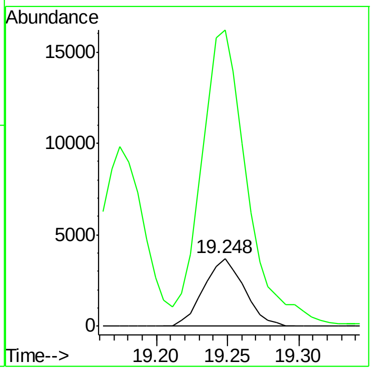


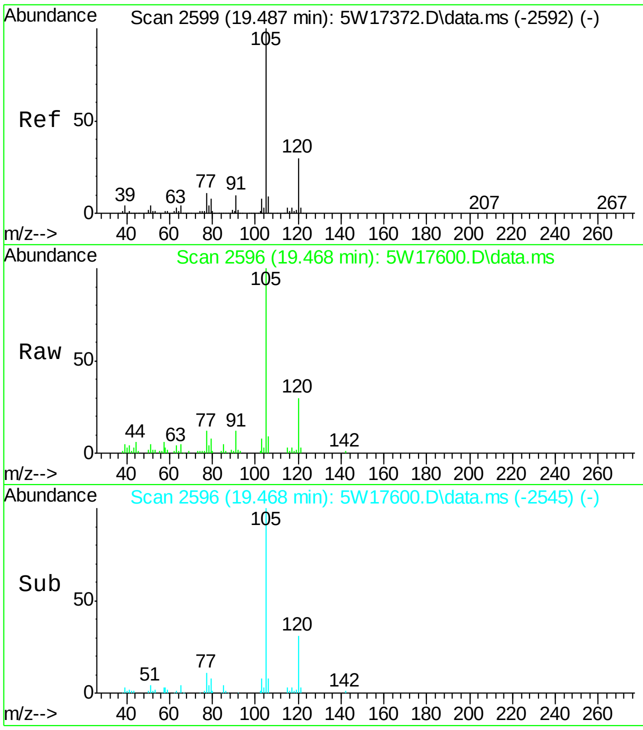


#89
n-Propylbenzene
Concen: 0.31 ppb(v)
RT: 19.248 min Scan# 2560
Delta R.T. -0.012 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:120 Resp: 7275

Ion	Ratio	Lower	Upper
120	100		
91	436.8	300.7	558.5

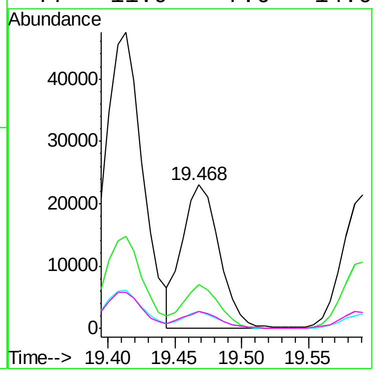




#91
4-Ethyltoluene
Concen: 0.53 ppb(v)
RT: 19.468 min Scan# 2596
Delta R.T. -0.018 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

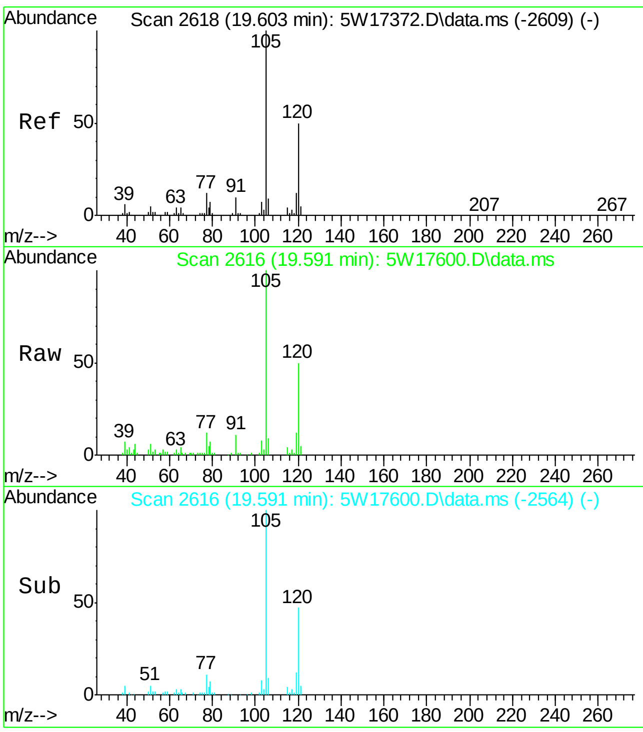
Tgt Ion:105 Resp: 44906

Ion	Ratio	Lower	Upper
105	100		
120	30.3	20.9	38.9
91	11.8	7.3	13.7
77	11.9	7.6	14.0



7.4.4

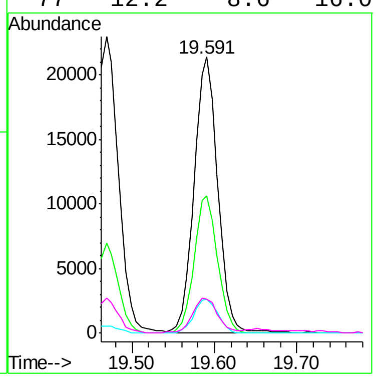
7

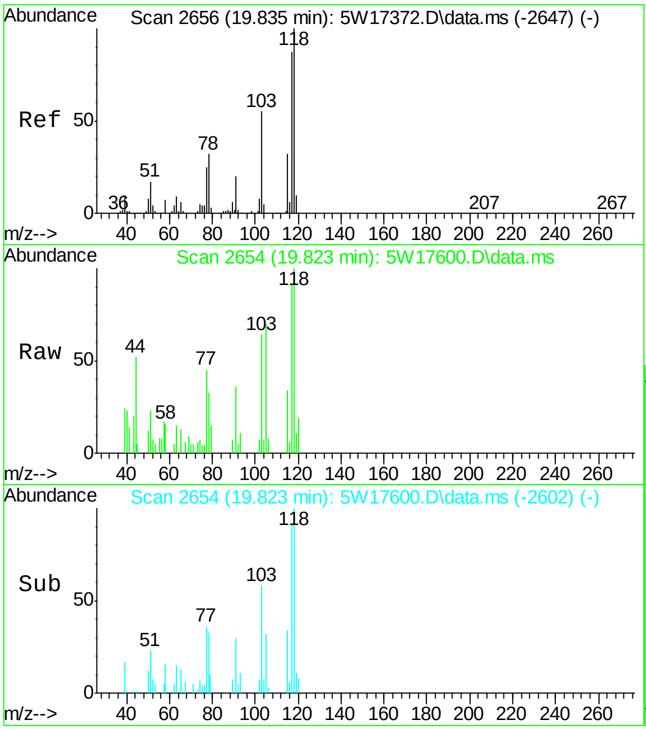


#92
1,3,5-Trimethylbenzene
Concen: 0.57 ppb(v)
RT: 19.591 min Scan# 2616
Delta R.T. -0.012 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:105 Resp: 42683

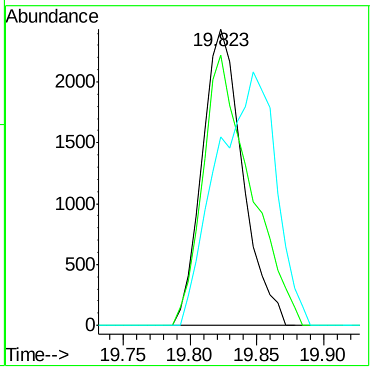
Ion	Ratio	Lower	Upper
105	100		
120	49.8	34.9	64.7
119	12.3	8.8	16.3
77	12.2	8.6	16.0

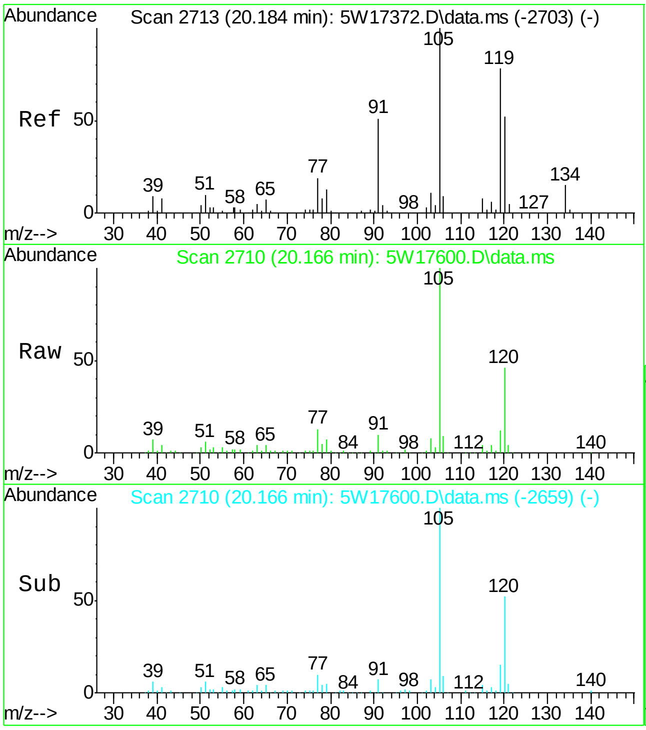




#93
alpha-Methylstyrene
Concen: 0.14 ppb(v)
RT: 19.823 min Scan# 2654
Delta R.T. -0.012 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

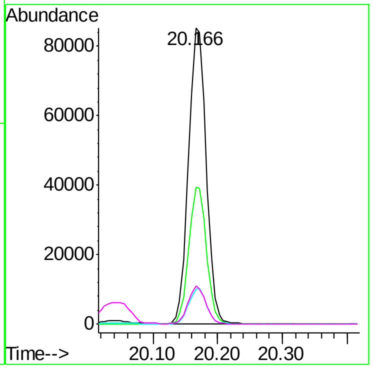
Tgt Ion:118	Resp:	5152	
Ion	Ratio	Lower	Upper
118	100		
117	91.4	60.8	113.0
103	63.5	38.7	71.9

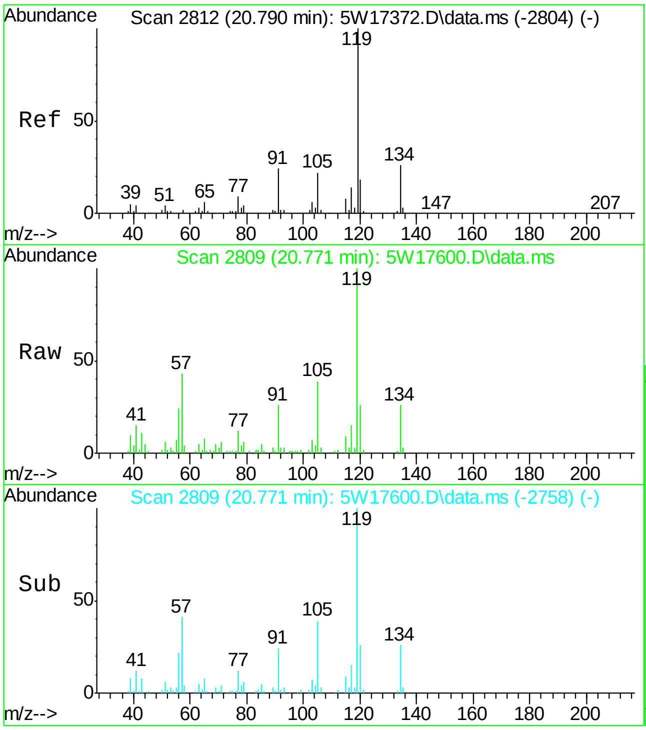




#95
1,2,4-Trimethylbenzene
Concen: 2.20 ppb(v)
RT: 20.166 min Scan# 2710
Delta R.T. -0.018 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:105	Resp:	161173	
Ion	Ratio	Lower	Upper
105	100		
120	46.3	36.6	68.0
119	11.9	54.4	101.0#
77	12.8	13.6	25.2#

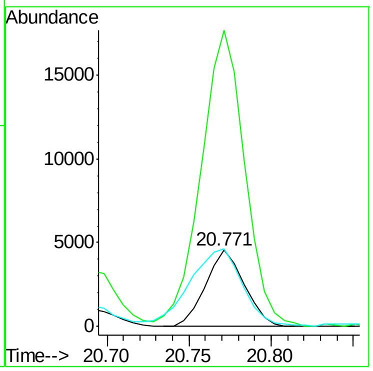




#100
p-Isopropyltoluene
Concen: 0.34 ppb(v)
RT: 20.771 min Scan# 2809
Delta R.T. -0.018 min
Lab File: 5W17600.D
Acq: 8 Apr 2016 10:20 pm

Tgt Ion:134 Resp: 7415

Ion	Ratio	Lower	Upper
134	100		
119	390.6	275.2	511.0
91	101.6	65.3	121.3



Manual Integration Approval Summary

Sample Number: JC17199-5DUP
Lab FileID: 5W17600.D
Injection Time: 04/08/16 22:20
Method: TO-15
Analyst approved: 04/11/16 12:53 Thomas Hilbig
Supervisor approved: 04/11/16 13:46 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		4.32	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17600.D
Acq On    :  8 Apr 2016  10:20 pm
Operator  : THOMASH
Sample    : JC17199-5DUP
Misc      : MS305,v5w701,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 11 10:07:58 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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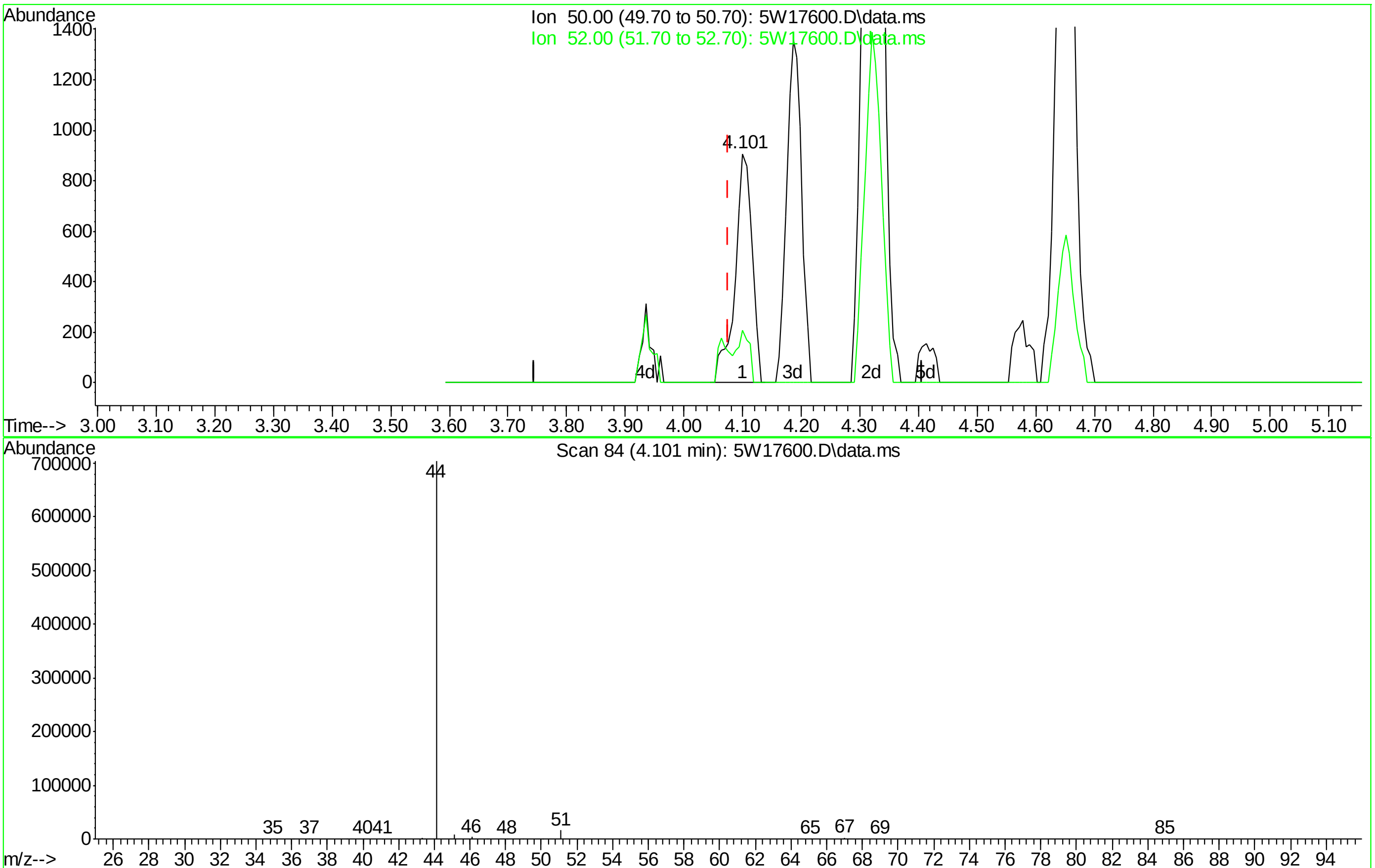

TIC: 5W17600.D\data.ms

(8) Chloromethane

4.101min (+0.024) 0.15ppb(v)

response 1828

Ion	Exp%	Act%
50.00	100	100
52.00	32.40	22.93
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

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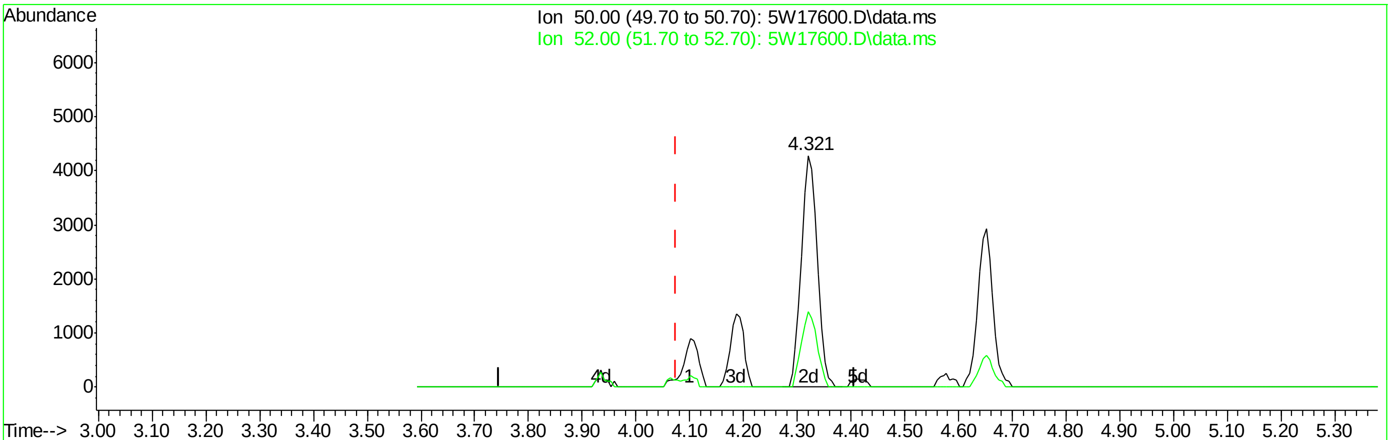
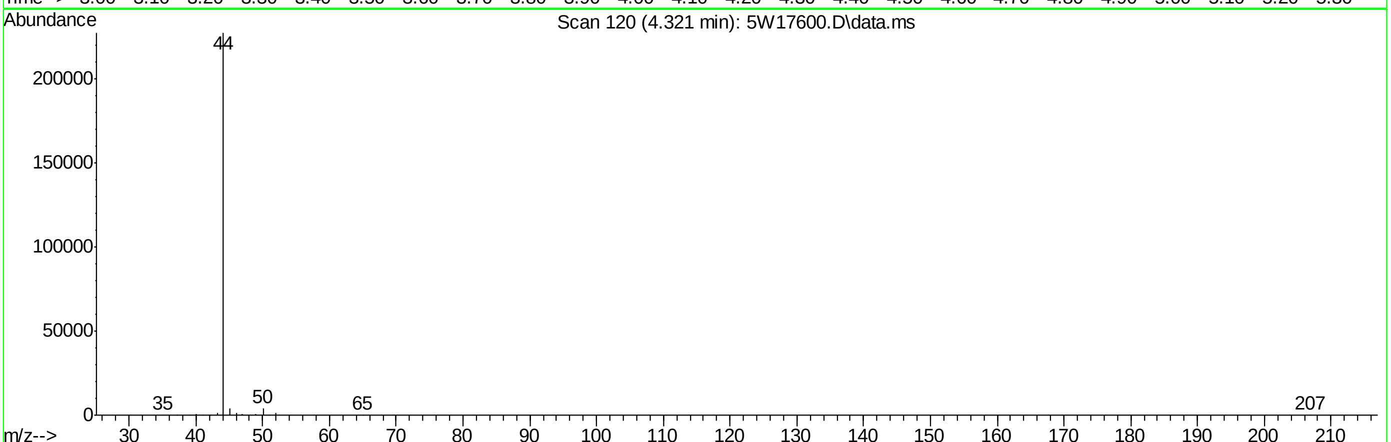
Data Path : C:\msdchem\1\DATA\
Data File : 5W17600.D
Acq On    :  8 Apr 2016  10:20 pm
Operator  : THOMASH
Sample    : JC17199-5DUP
Misc      : MS305,v5w701,400,,,,1
ALS Vial  : 15   Sample Multiplier: 1

Quant Time: Apr 11 11:48:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17600.D\data.ms

(8) Chloromethane

4.321min (+0.245) 0.70ppb(v) m

response 8738

Ion	Exp%	Act%
50.00	100	100
52.00	32.40	32.47
0.00	0.00	0.00
0.00	0.00	0.00

5W17600.D edits: Chloromethane

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17096.D
Acq On    : 18 Mar 2016   1:28 am
Operator  : THOMASH
Sample    : SCC(A300)
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 18 09:26:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.242  130   133416    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.451  114   428940    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.018   82   207871    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)      8.242  130   133416    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.269   95   272617     9.94 ppb(v  -0.03
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   99.40%

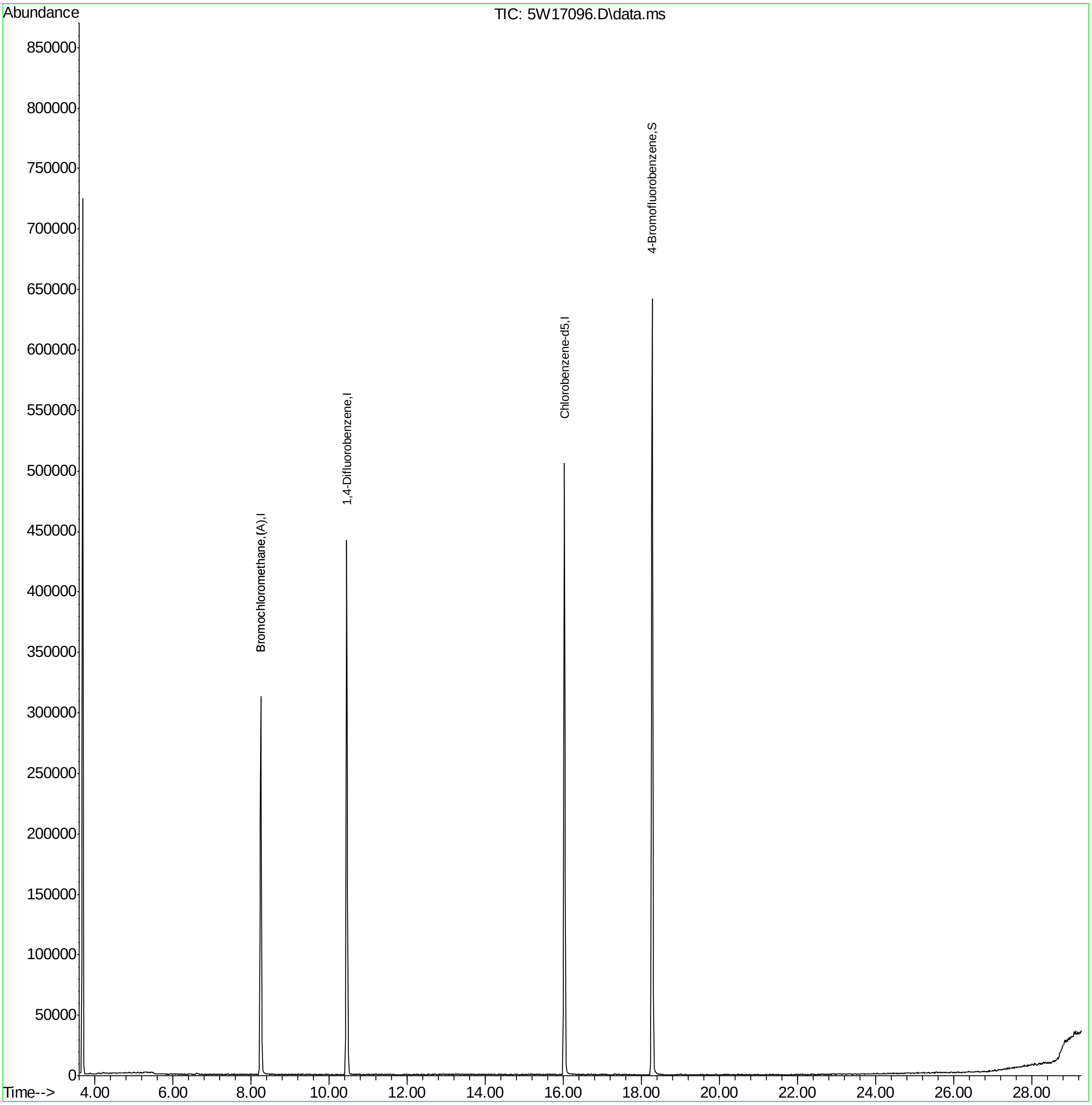
 Target Compounds                                                   Qvalue
 --------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17096.D
Acq On    : 18 Mar 2016   1:28 am
Operator  : THOMASH
Sample    : SCC(A300)
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 18 09:26:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



m5w637.M Fri Mar 18 09:41:54 2016 GCMS5W Page: 2

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17111.D
Acq On    : 18 Mar 2016   1:05 pm
Operator  : THOMASH
Sample    : SCC(A987)
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Mar 22 09:31:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                       R.T. QIon  Response  Conc Units Dev(Min)
 ----------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane             8.248  130   132587    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene           10.445  114   442705    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5              16.018   82   214549    10.00 ppb(v   -0.03
 107) Bromochloromethane (A)         8.248  130   132587    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene          18.269   95   280442     9.91 ppb(v  -0.03
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   99.10%

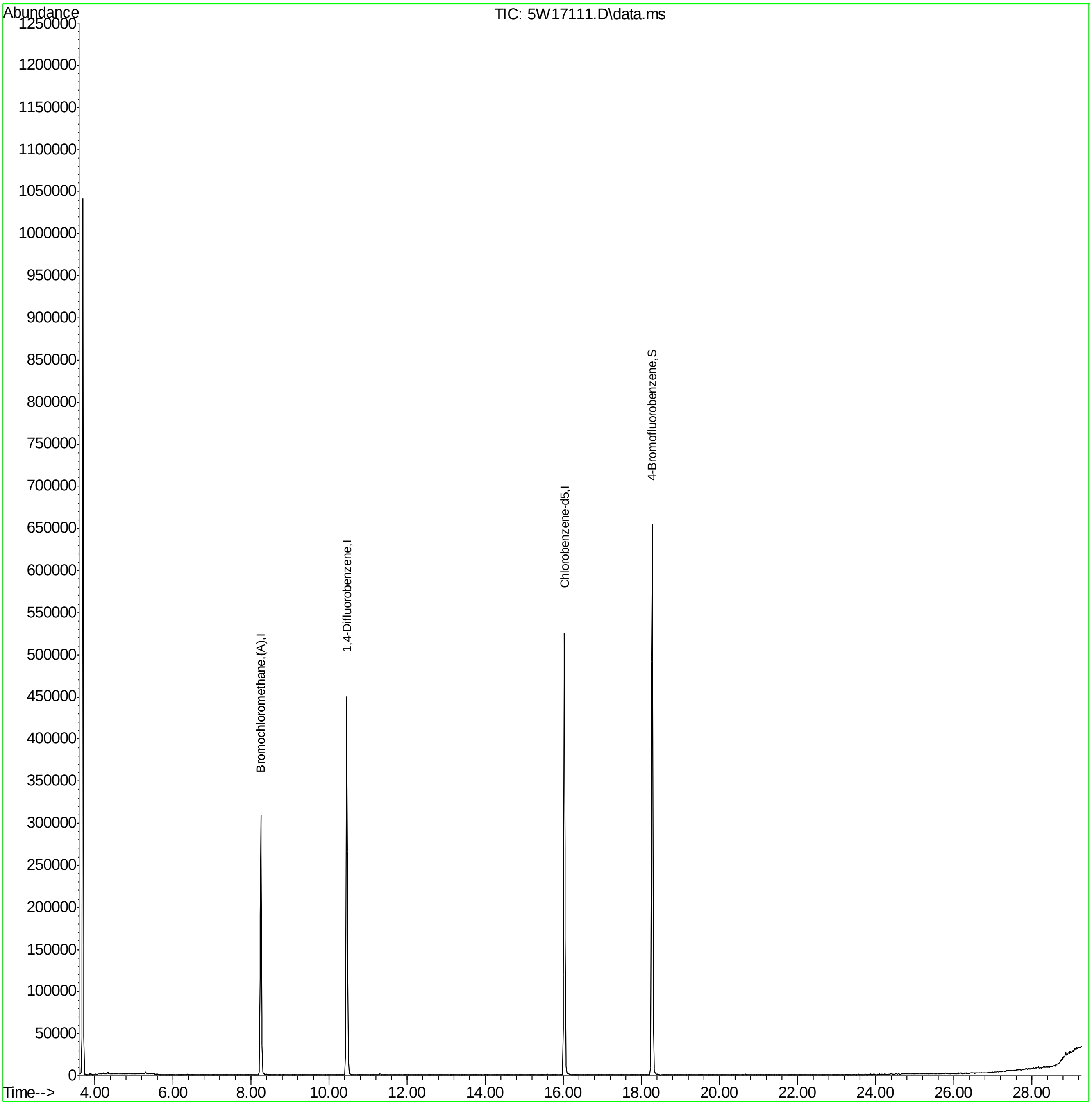
 Target Compounds                                                    Qvalue
 ----------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17111.D
Acq On    : 18 Mar 2016   1:05 pm
Operator  : THOMASH
Sample    : SCC(A987)
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 5   Sample Multiplier: 1

Quant Time: Mar 22 09:31:47 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



m5w637.M Tue Mar 22 13:20:42 2016 GCMS5W Page: 2

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54291.D                  Vial: 7
Acq On    : 18 Mar 2016   2:37 pm                   Operator: YOUMINH
Sample    : scc (m037)                              Inst    : MSW
Misc      : MS99296,VW2168,400,,,,1                 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 15:19:12 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	76465	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	400427	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	159625	10.00	PPBV	0.00
System Monitoring Compounds						
84) 4-BROMOFLUOROBENZENE	16.76	95	144319	8.24	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 82.40%

Target Compounds Qvalue

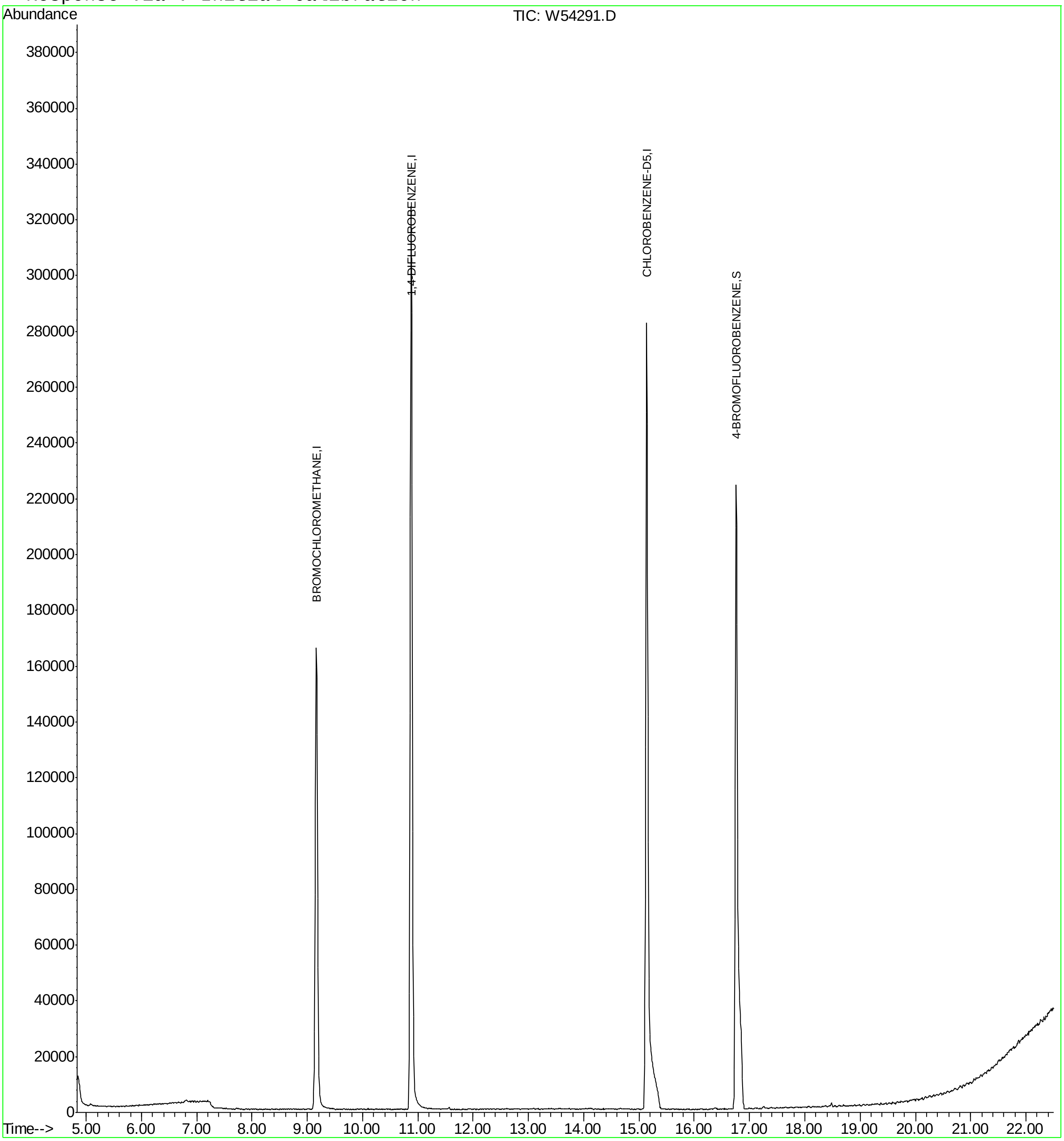
(#) = qualifier out of range (m) = manual integration (+) = signals summed

W54291.D MW2167.M Fri Mar 18 15:19:48 2016 MSW Page 1

```
                    Quantitation Report    (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54291.D                 Vial: 7
Acq On    : 18 Mar 2016   2:37 pm                  Operator: YOUMINH
Sample    : scc (m037)                             Inst     : MSW
Misc      : MS99296,VW2168,400,,,,1                Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 15:19 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52863.D                    Vial: 10
Acq On    : 18 Mar 2016   4:53 pm                      Operator: YOUMINH
Sample    : SCC(A463)                                  Inst    : MS3W
Misc      : MS99637,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21 09:52:58 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
 -------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.14  128     78178    10.00 PPBV    0.00
  52) 1,4-DIFLUOROBENZENE           10.76  114    343923    10.00 PPBV   -0.01
  71) CHLOROBENZENE-D5              14.76   82    155494    10.00 PPBV   -0.01

 System Monitoring Compounds
  86) 4-BROMOFLUOROBENZENE          16.31   95    141069     9.18 PPBV    0.00
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   91.80%

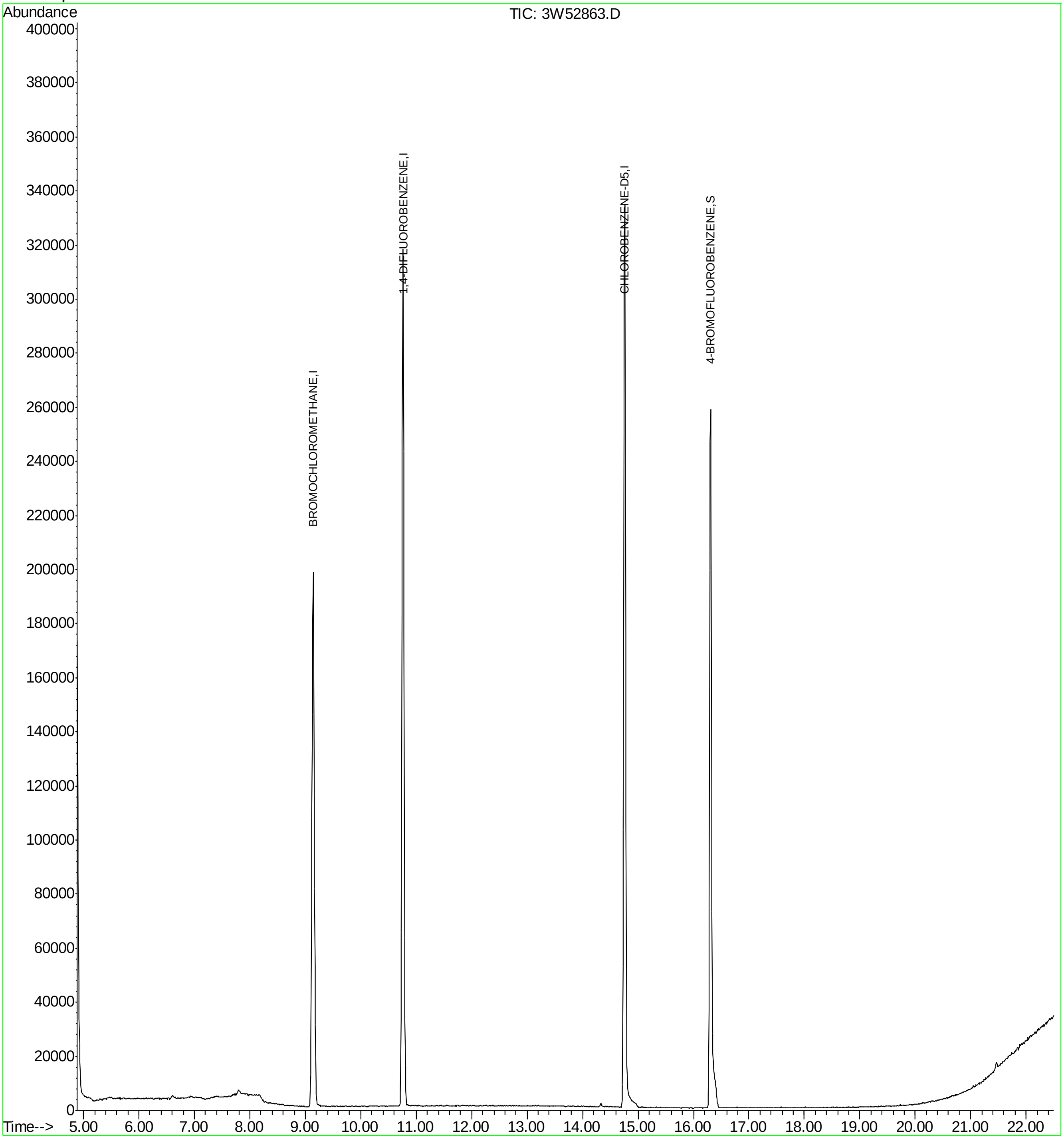
 Target Compounds                                                     Qvalue

 -------------------------------------------------------------------------
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 3W52863.D  M3W1994.M      Mon Mar 21 13:07:18 2016      MS3W
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52863.D                 Vial: 10
Acq On    : 18 Mar 2016   4:53 pm                   Operator: YOUMINH
Sample    : SCC(A463)                               Inst    : MS3W
Misc      : MS99637,V3W1996,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21 10:05 2016             Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\Old-V5W\V5W685\
Data File : 5W17145.D
Acq On    : 19 Mar 2016   5:40 pm
Operator  : THOMASH
Sample    : SCC (a373)
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Mar 21 13:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```

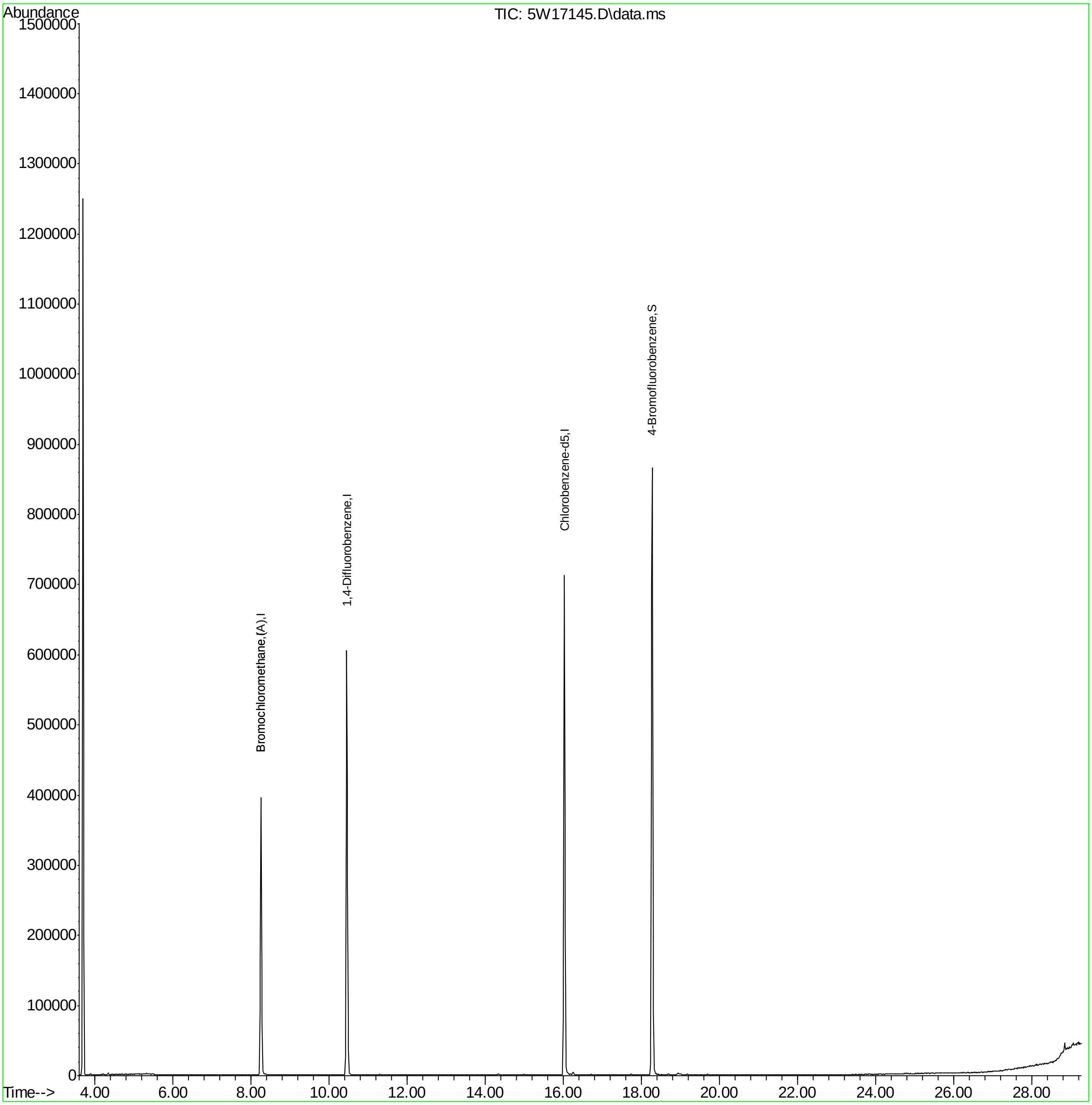
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.248	130	181579	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	617529	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	295873	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.248	130	181579	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	390552	10.00 ppb(v	-0.04
Spiked Amount 10.000 Range 65 - 128 Recovery = 100.00%					
Target Compounds					Qvalue

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

Quantitation Report   (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\Old-V5W\V5W685\
Data File : 5W17145.D
Acq On    : 19 Mar 2016   5:40 pm
Operator  : THOMASH
Sample    : SCC (a373)
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 9   Sample Multiplier: 1

Quant Time: Mar 21 13:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17170.D
Acq On    : 21 Mar 2016   3:10 pm
Operator  : THOMASH
Sample    : SCC(A478)
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Mar 22 08:04:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.242  130   146174    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.445  114   526654    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.012   82   263227    10.00 ppb(v   -0.04
 107) Bromochloromethane (A)      8.242  130   146174    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.263   95   338362     9.74 ppb(v  -0.04
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   97.40%

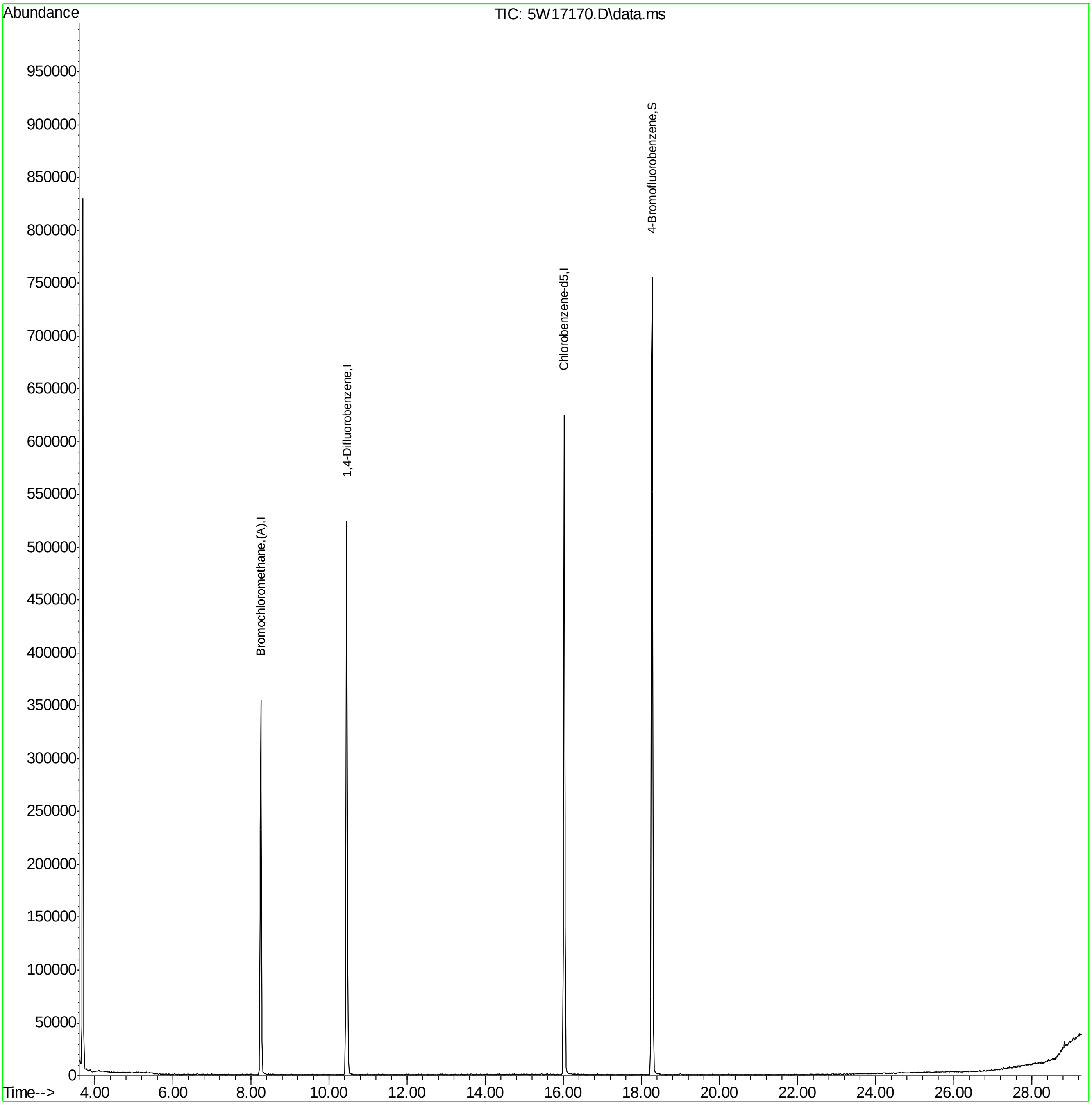
 Target Compounds                                                  Qvalue
 --------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17170.D
Acq On    : 21 Mar 2016   3:10 pm
Operator  : THOMASH
Sample    : SCC(A478)
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 6   Sample Multiplier: 1

Quant Time: Mar 22 08:04:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17179.D
Acq On    : 21 Mar 2016  10:05 pm
Operator  : THOMASH
Sample    : SCC(LA 2962)
Misc      : MS99577,v5w686,,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Mar 22 08:03:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.242  130   129397    10.00 ppb(v  #-0.04
  53) 1,4-Difluorobenzene        10.445  114   441284    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.012   82   228906    10.00 ppb(v   -0.04
 107) Bromochloromethane (A)      8.242  130   129397    10.00 ppb(v  #-0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.263   95   290767     9.63 ppb(v  -0.04
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   96.30%

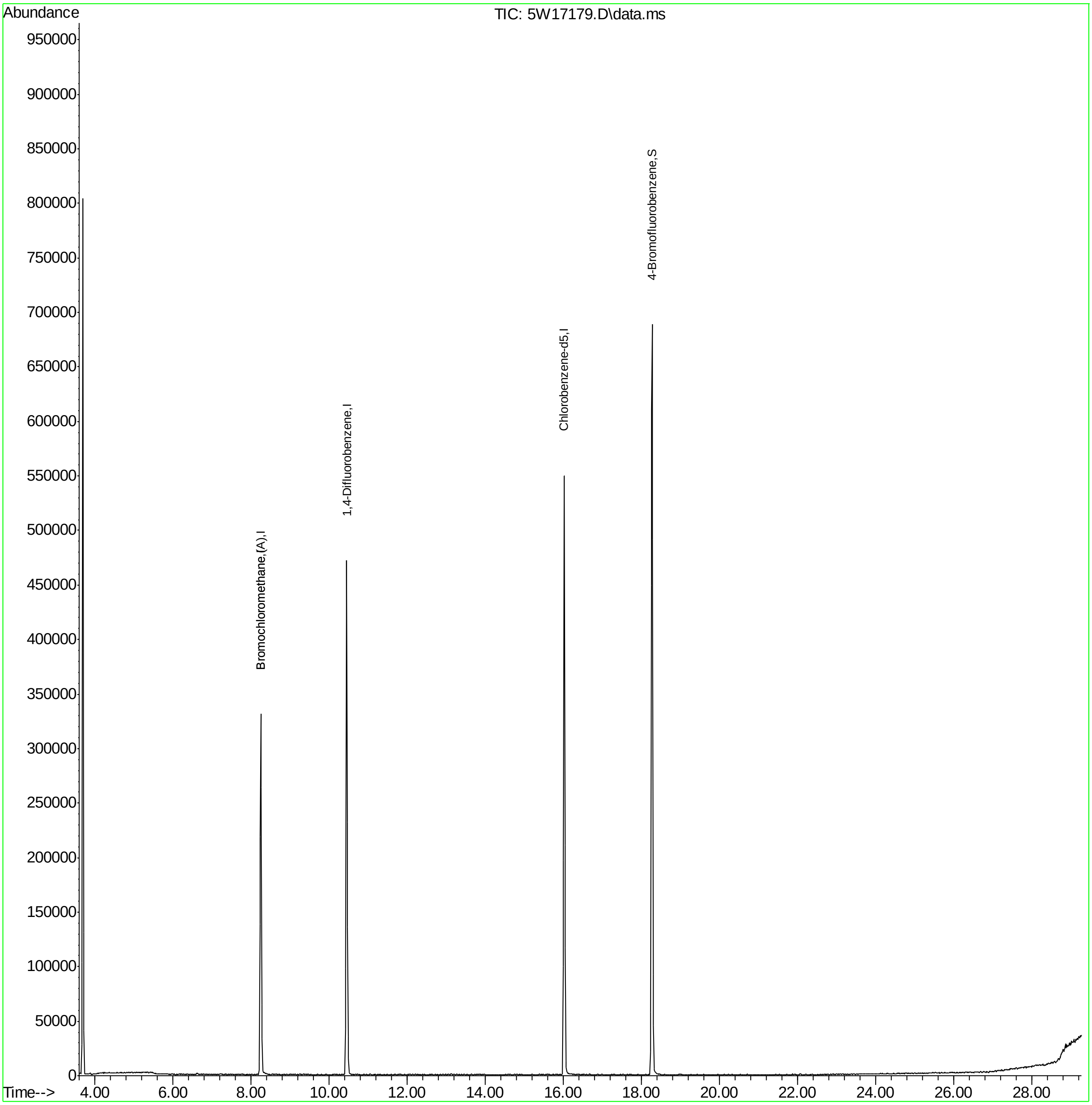
 Target Compounds                                                   Qvalue
 ---------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17179.D
Acq On    : 21 Mar 2016  10:05 pm
Operator  : THOMASH
Sample    : SCC(LA 2962)
Misc      : MS99577,v5w686,,,,,1
ALS Vial  : 14   Sample Multiplier: 1

Quant Time: Mar 22 08:03:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54354.D                  Vial: 9
Acq On    : 21 Mar 2016  10:46 pm                   Operator: YOUMINH
Sample    : SCC(LA 2135)                            Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:47:01 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	106324	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.87	114	575188	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.13	82	214471	10.00	PPBV	-0.01
System Monitoring Compounds						
84) 4-BROMOFLUOROBENZENE	16.75	95	188286	8.01	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 80.10%

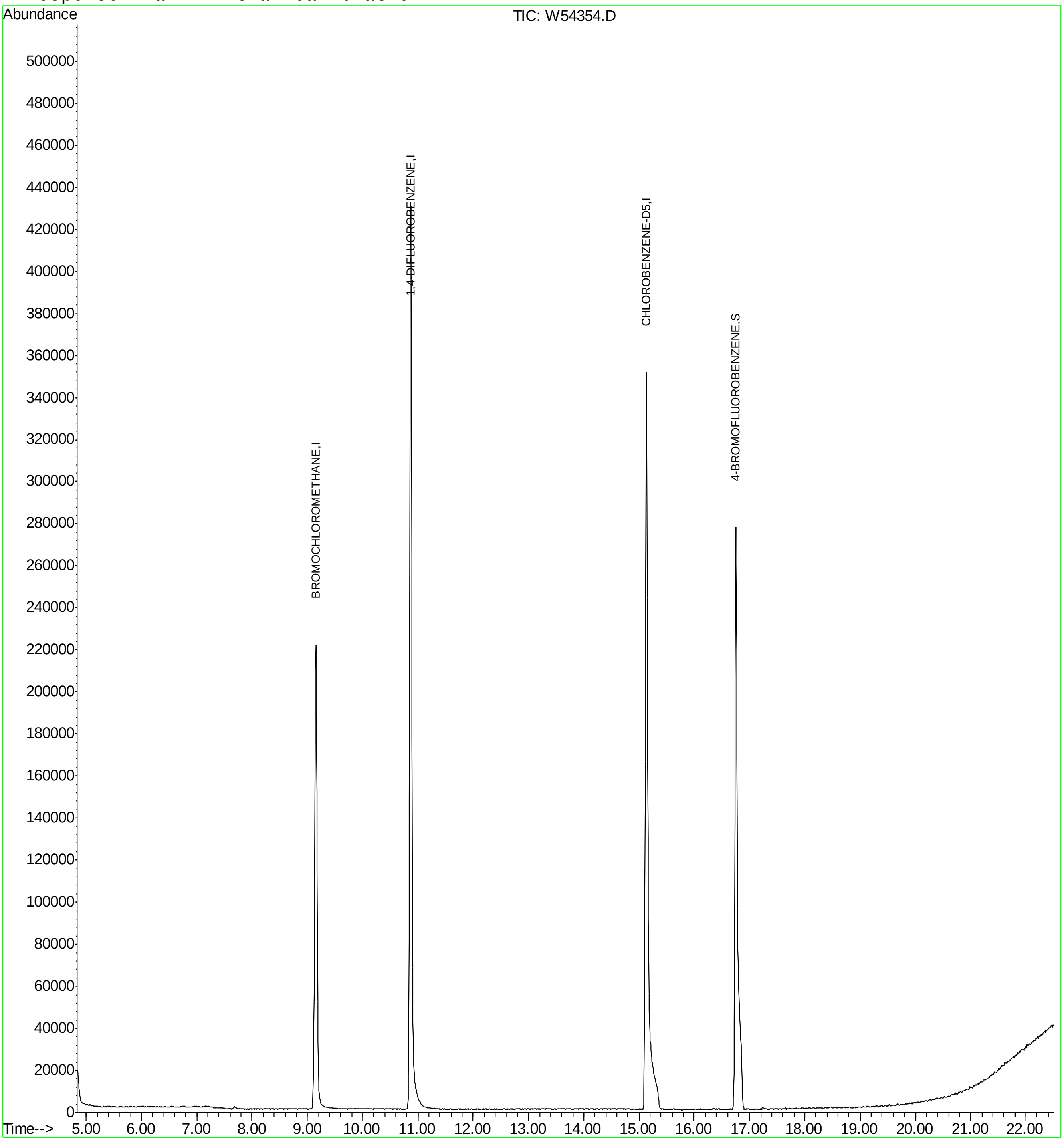
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54354.D                    Vial: 9
Acq On    : 21 Mar 2016  10:46 pm                     Operator: YOUMINH
Sample    : SCC(LA 2135)                              Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 10:09 2016               Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54380.D                     Vial: 10
Acq On    : 22 Mar 2016   7:54 pm                       Operator: YOUMINH
Sample    : SCC(M122)                                   Inst     : MSW
Misc      : MS99636,VW2171,,,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:51:06 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.17  128    107117    10.00 PPBV    0.01
  49) 1,4-DIFLUOROBENZENE           10.88  114    578672    10.00 PPBV    0.00
  68) CHLOROBENZENE-D5              15.14   82    220283    10.00 PPBV    0.00

 System Monitoring Compounds
  84) 4-BROMOFLUOROBENZENE          16.76   95    171868     7.12 PPBV    0.00
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   71.20%

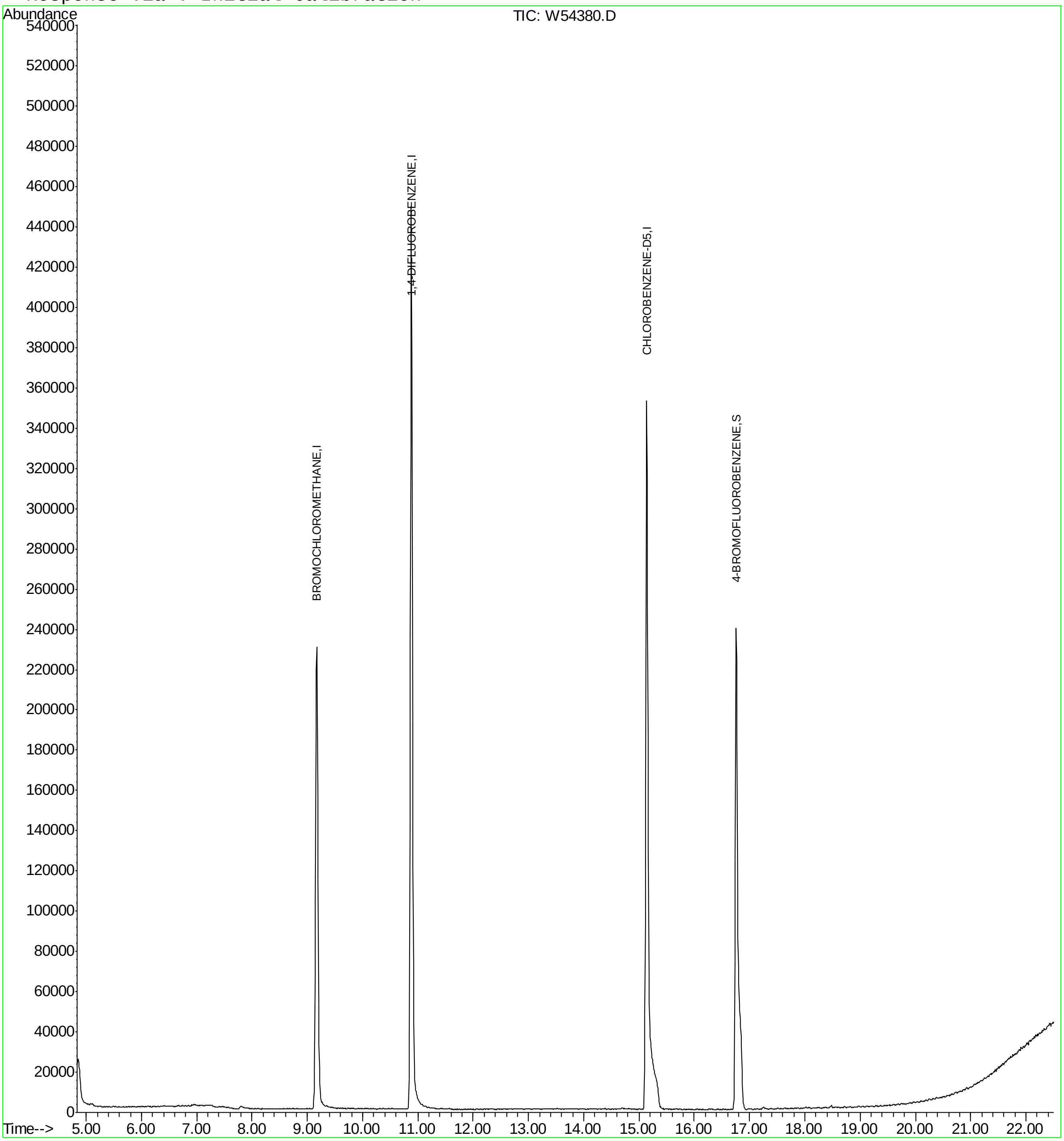
 Target Compounds                                                      Qvalue

 --------------------------------------------------------------------------
 (#) = qualifier out of range (m) = manual integration (+) = signals summed
 W54380.D  MW2167.M      Wed Mar 23 10:57:54 2016      MSW                      Page 1
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54380.D                Vial: 10
Acq On    : 22 Mar 2016   7:54 pm                 Operator: YOUMINH
Sample    : SCC(M122)                             Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 10:03 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



W54380.D MW2167.M Wed Mar 23 10:57:55 2016 MSW Page 2

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17214.D
Acq On    : 23 Mar 2016   2:24 am
Operator  : THOMASH
Sample    : SCC(M076)
Misc      : MS99636,v5w687,400,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Mar 23 07:45:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
-------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane          8.242  130    166649    10.00 ppb(v   -0.04
  53) 1,4-Difluorobenzene        10.445  114    556696    10.00 ppb(v   -0.04
  76) Chlorobenzene-d5           16.012   82    275134    10.00 ppb(v   -0.04
 107) Bromochloromethane (A)      8.242  130    166649    10.00 ppb(v   -0.04

 System Monitoring Compounds
  90) 4-Bromofluorobenzene       18.263   95    353474     9.74 ppb(v  -0.04
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   97.40%

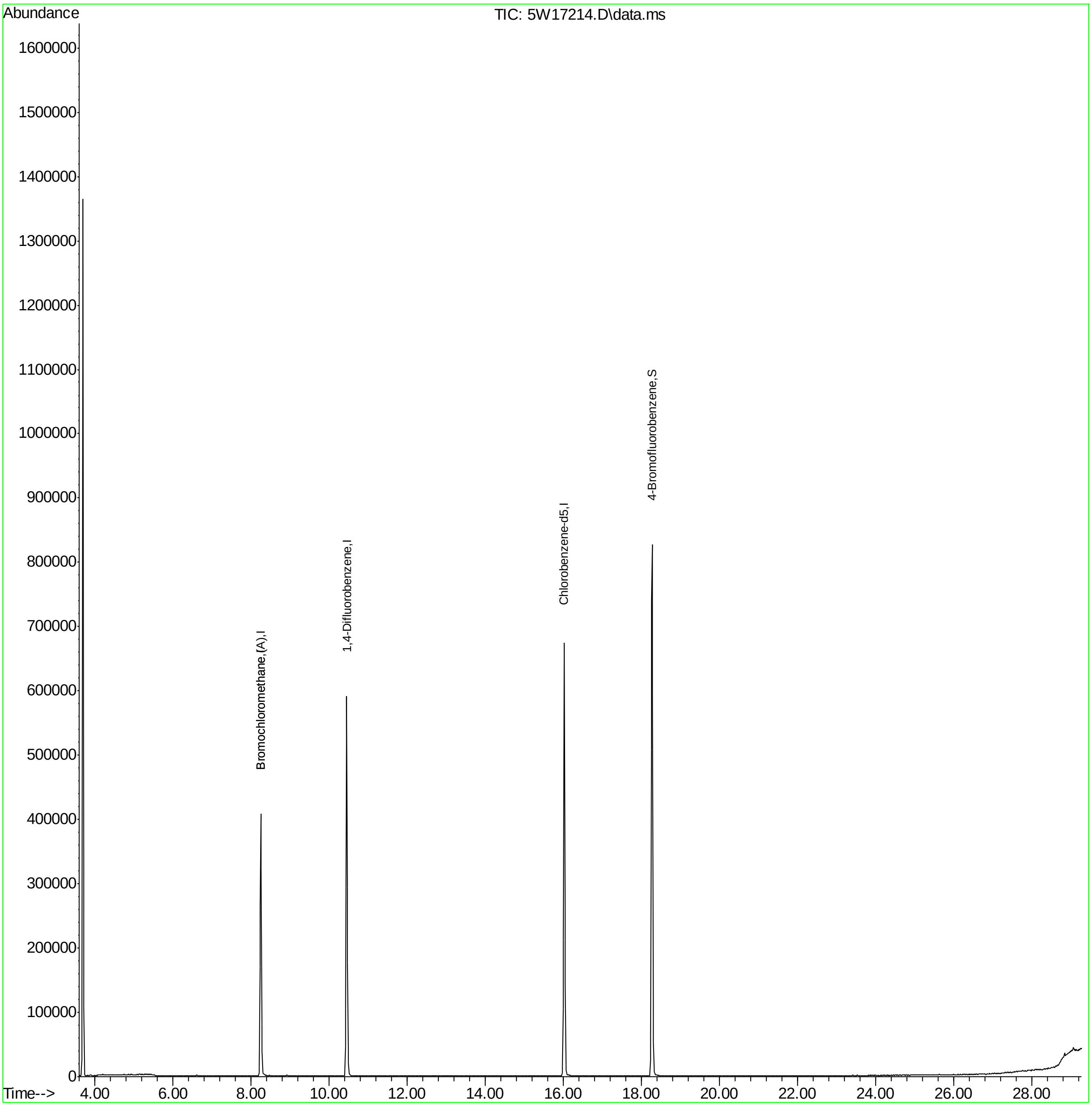
 Target Compounds                                                 Qvalue
-------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17214.D
Acq On    : 23 Mar 2016   2:24 am
Operator  : THOMASH
Sample    : SCC(M076)
Misc      : MS99636,v5w687,400,,,,1
ALS Vial  : 7   Sample Multiplier: 1

Quant Time: Mar 23 07:45:40 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52954.D                    Vial: 9
Acq On    : 24 Mar 2016   6:32 pm                      Operator: YOUMINH
Sample    : SCC(A1177)                                 Inst    : MS3W
Misc      : MS96,V3W1999,,,,,1                         Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:33 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

 Internal Standards                 R.T. QIon  Response  Conc Units Dev(Min)
--------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.10  128   117110    10.00 PPBV   -0.01
  52) 1,4-DIFLUOROBENZENE           10.73  114   555501    10.00 PPBV   -0.01
  71) CHLOROBENZENE-D5              14.73   82   263150    10.00 PPBV   -0.02

 System Monitoring Compounds
  86) 4-BROMOFLUOROBENZENE          16.28   95   260518     9.32 PPBV   -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   93.20%

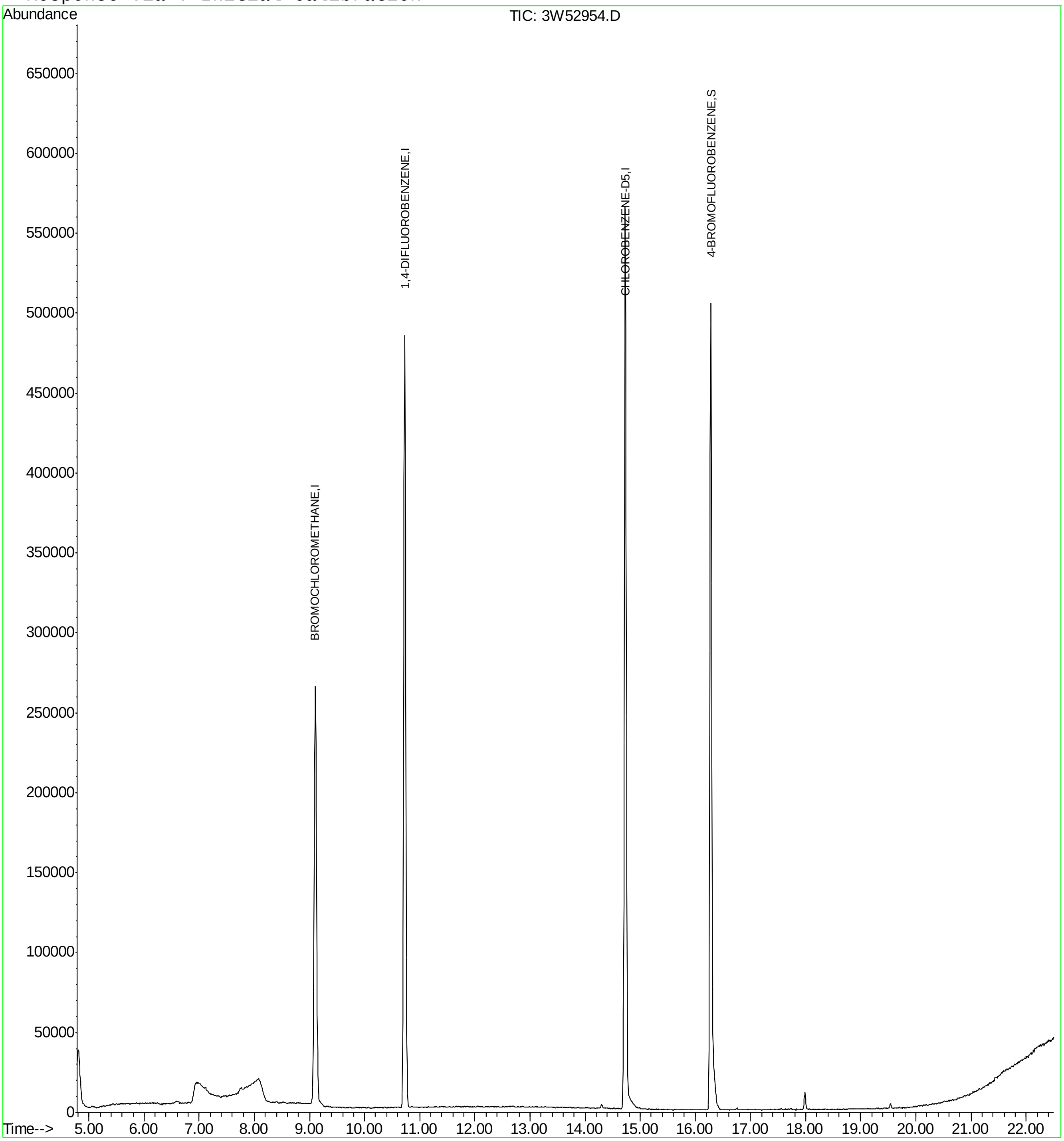
 Target Compounds                                                    Qvalue

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52954.D                 Vial: 9
Acq On    : 24 Mar 2016   6:32 pm                   Operator: YOUMINH
Sample    : SCC(A1177)                              Inst    : MS3W
Misc      : MS96,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 10:30 2016             Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\3W52963.D                   Vial: 1
Acq On    : 25 Mar 2016  12:50 am                      Operator: YOUMINH
Sample    : SCC(A016)                                  Inst    : MS3W
Misc      : MS99942,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:56 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

 Internal Standards                R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE           9.10  128     97789    10.00 PPBV   -0.01
  52) 1,4-DIFLUOROBENZENE         10.73  114    465172    10.00 PPBV   -0.01
  71) CHLOROBENZENE-D5            14.73   82    232399    10.00 PPBV   -0.02

 System Monitoring Compounds
  86) 4-BROMOFLUOROBENZENE        16.28   95    212560     8.61 PPBV   -0.02
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   86.10%

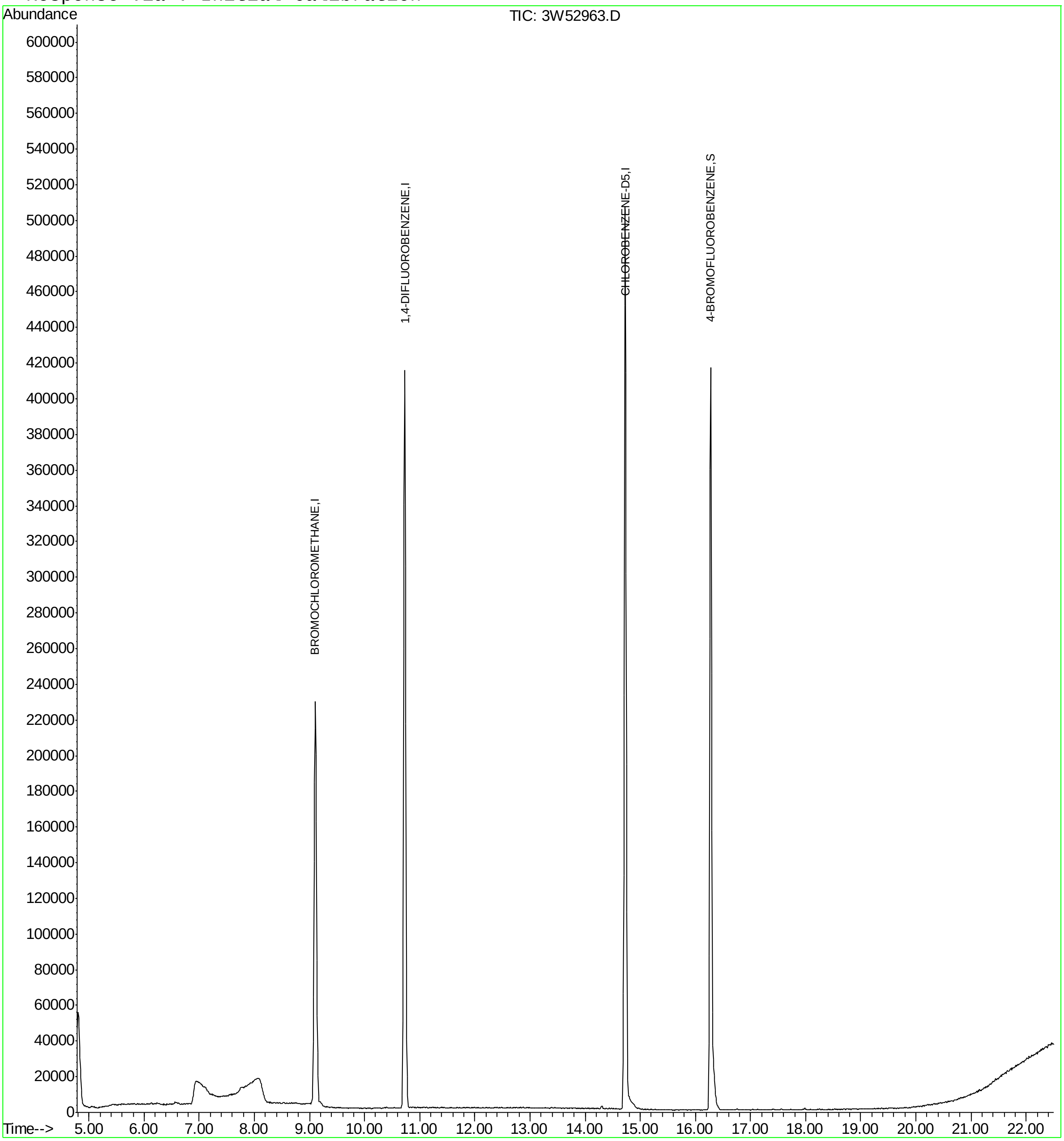
 Target Compounds                                                     Qvalue

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

Quantitation Report (QT Reviewed)

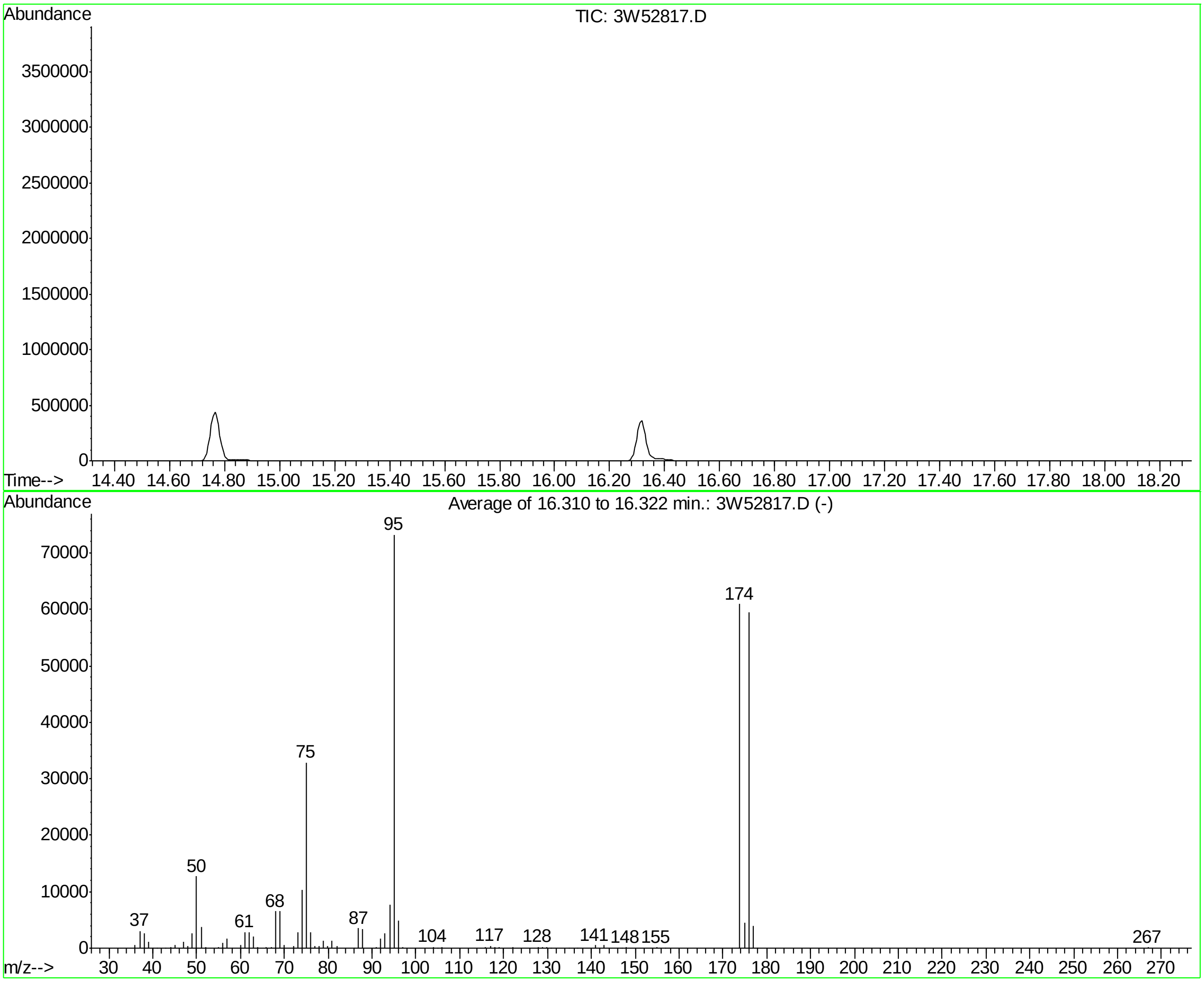
```
Data File : C:\MSDCHEM\1\DATA\3W52963.D                    Vial: 1
Acq On    : 25 Mar 2016  12:50 am                      Operator: YOUMINH
Sample    : SCC(A016)                                  Inst    : MS3W
Misc      : MS99942,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 11:42 2016                Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
```



BFB

```
Data File : C:\MSDCHEM\1\DATA\3W52817.D                 Vial: 5
Acq On    : 16 Mar 2016   9:29 pm                   Operator: YOUMINH
Sample    : BFB                                     Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1868

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.3	12688	PASS
75	95	30	66	44.9	32941	PASS
95	95	100	100	100.0	73306	PASS
96	95	5	9	6.8	4983	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	83.2	61005	PASS
175	174	4	9	7.5	4554	PASS
176	174	93	101	97.5	59482	PASS
177	176	5	9	6.6	3929	PASS

3W52817.D M3W1994.M   Thu Mar 17 12:14:46 2016   MS3W

Average of 16.310 to 16.322 min.: 3W52817.D
BFB
Modified:subtracted

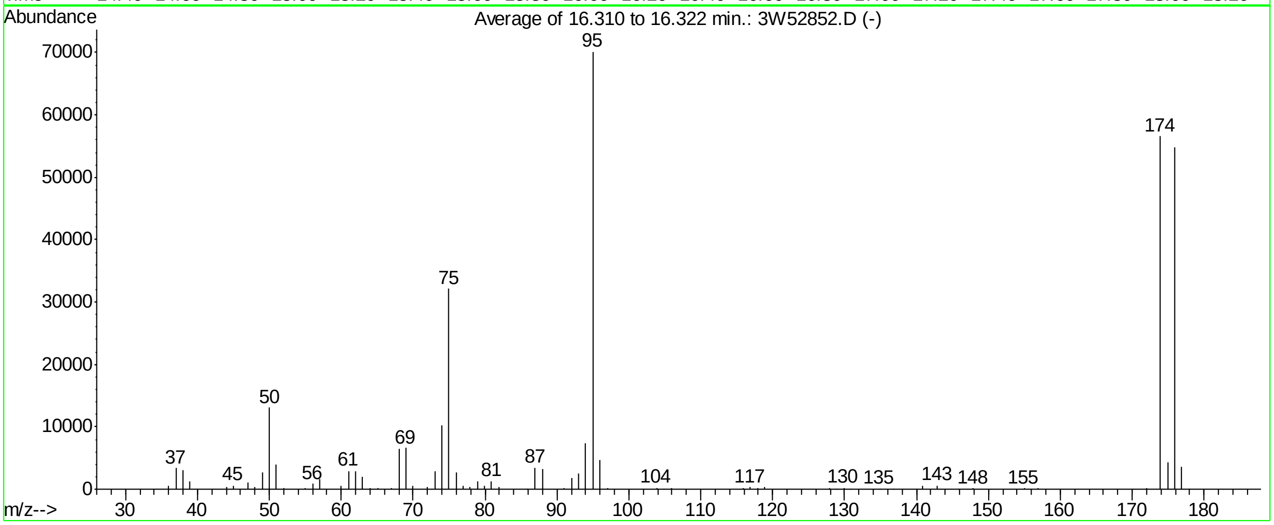
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	580	49.00	2636	63.00	2043	76.00	2821
37.00	3103	50.00	12688	64.00	209	77.00	473
38.00	2715	51.00	3833	65.95	129	77.95	331
39.00	1118	52.05	163	67.00	202	78.90	1247
40.00	76	54.95	207	68.00	6523	79.95	412
41.00	37	56.00	878	69.00	6574	80.90	1336
43.00	39	57.00	1636	70.00	508	81.90	304
44.00	256	58.00	34	72.00	360	86.00	33
45.00	617	60.00	599	73.00	2857	86.95	3552
47.00	1088	61.00	2857	74.00	10404	87.90	3386
47.95	363	62.00	2852	75.00	32941	90.95	211

Average of 16.310 to 16.322 min.: 3W52817.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	1688	117.90	205	145.90	36	266.95	134
93.00	2575	118.90	286	146.90	38		
94.00	7713	122.00	161	147.85	150		
95.00	73306	127.85	220	154.90	161		
96.00	4983	128.85	116	156.90	70		
97.00	185	129.90	216	172.05	93		
103.90	228	130.90	39	173.90	61005		
104.90	33	134.90	69	174.90	4554		
105.90	224	136.85	71	175.90	59482		
115.90	178	140.90	516	176.90	3929		
116.95	376	142.90	514	177.90	42		

BFB

```
Data File : C:\MSDCHEM\1\DATA\3W52852.D                    Vial: 1
Acq On    : 18 Mar 2016   8:57 am                      Operator: YOUMINH
Sample    : BFB                                        Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```



AutoFind: Scans 1879, 1880, 1881; Background Corrected with Scan 1868

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.7	13112	PASS
75	95	30	66	45.7	32088	PASS
95	95	100	100	100.0	70168	PASS
96	95	5	9	6.8	4751	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	80.6	56573	PASS
175	174	4	9	7.6	4323	PASS
176	174	93	101	96.7	54725	PASS
177	176	5	9	6.5	3538	PASS

3W52852.D M3W1994.M   Mon Mar 21 13:07:03 2016 MS3W

Average of 16.310 to 16.322 min.: 3W52852.D
BFB
Modified:subtracted

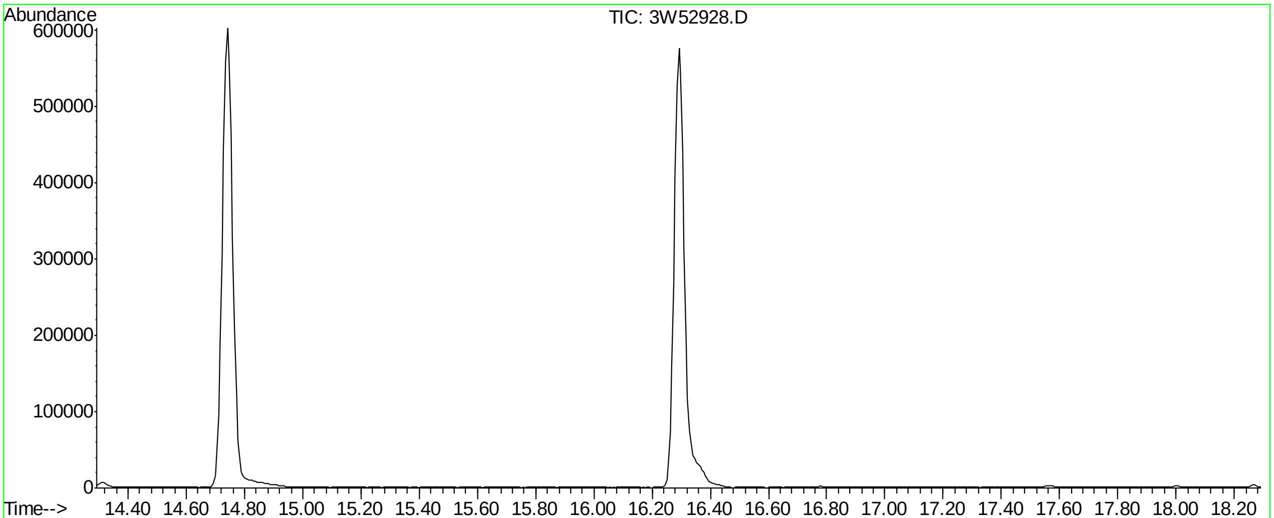
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	619	51.00	3990	67.00	189	78.90	1347
37.00	3369	52.05	175	68.00	6508	79.90	479
38.00	3032	55.00	209	69.00	6576	80.90	1350
39.00	1239	56.00	872	70.00	527	81.90	370
40.00	77	57.00	1636	72.00	367	85.90	39
44.00	332	60.00	573	73.00	2894	86.95	3444
45.00	634	61.00	2894	74.00	10268	87.95	3330
47.00	1157	62.00	2825	75.00	32088	90.95	220
48.00	371	63.00	2029	76.00	2748	92.00	1721
49.00	2757	64.00	230	77.00	486	93.00	2587
50.00	13112	65.05	161	77.95	325	94.00	7398

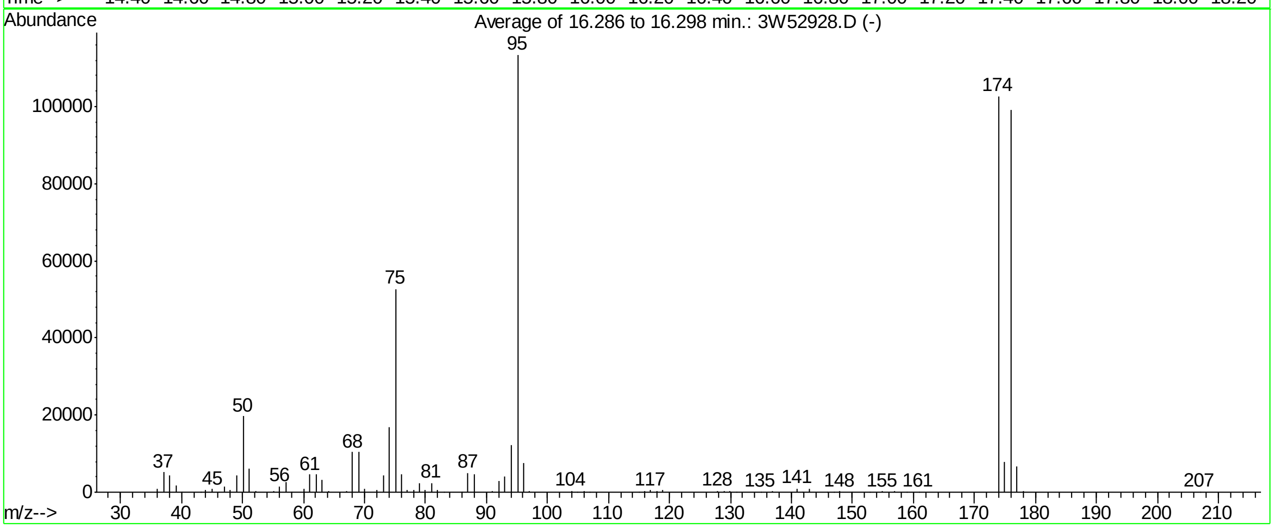
Average of 16.310 to 16.322 min.: 3W52852.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	70168	128.90	37	171.95	270		
96.00	4751	129.90	230	173.90	56573		
97.05	139	130.90	34	174.95	4323		
103.90	231	134.90	33	175.90	54725		
104.90	40	136.80	33	176.90	3538		
105.90	201	140.90	512	177.90	72		
115.85	199	142.90	546				
116.90	325	145.90	36				
117.90	187	147.90	133				
118.90	276	154.95	153				
127.90	212	156.90	121				

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52928.D   Vial: 5
Acq On    : 22 Mar 2016   7:06 pm                    Operator: YOUMINH
Sample    : BFB                                      Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 445, 446, 447; Background Corrected with Scan 434

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.4	19690	PASS
75	95	30	66	46.5	52722	PASS
95	95	100	100	100.0	113482	PASS
96	95	5	9	6.6	7523	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.4	102605	PASS
175	174	4	9	7.6	7808	PASS
176	174	93	101	96.6	99165	PASS
177	176	5	9	6.7	6635	PASS

3W52928.D   M3W1998.M   Thu Mar 31 12:34:00 2016   MS3W

Average of 16.286 to 16.298 min.: 3W52928.D
BFB
Modified:subtracted

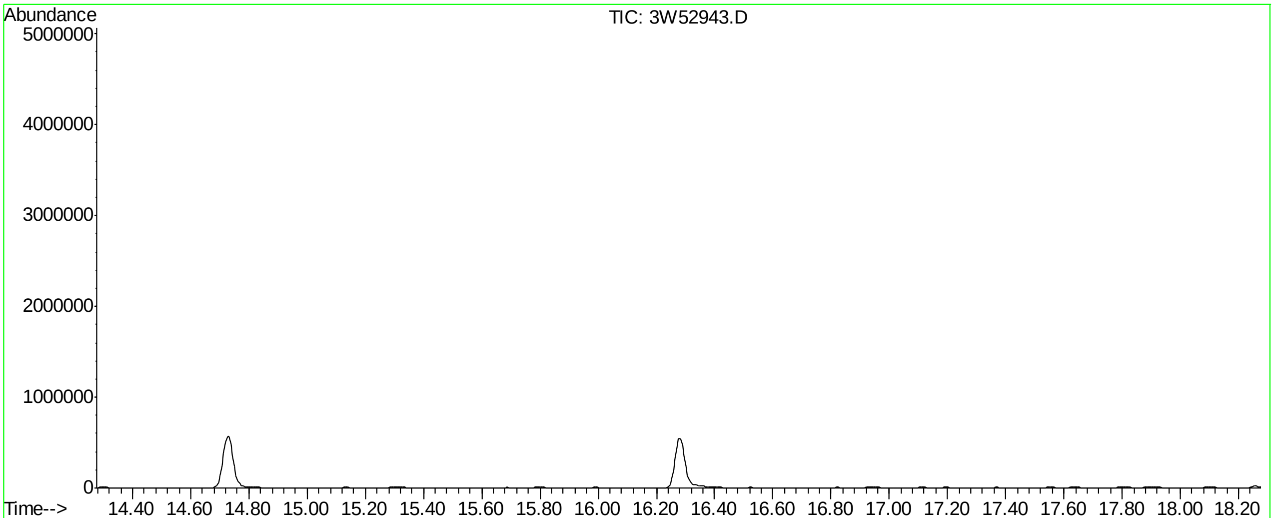
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	971	49.05	4268	63.05	3232	77.05	628
37.10	5142	50.10	19690	64.10	313	78.00	465
38.10	4430	51.10	6099	67.05	298	79.00	2258
39.10	1766	52.10	242	68.05	10408	79.95	677
40.00	139	55.05	285	69.10	10367	81.00	2363
43.10	137	56.10	1501	70.05	789	81.95	491
44.00	458	57.10	2677	72.05	587	83.00	36
45.10	820	58.10	45	73.05	4318	86.00	42
46.10	43	60.05	994	74.10	16873	87.00	4993
47.10	1425	61.05	4596	75.10	52722	88.00	4605
48.00	631	62.10	4558	76.10	4554	91.00	360

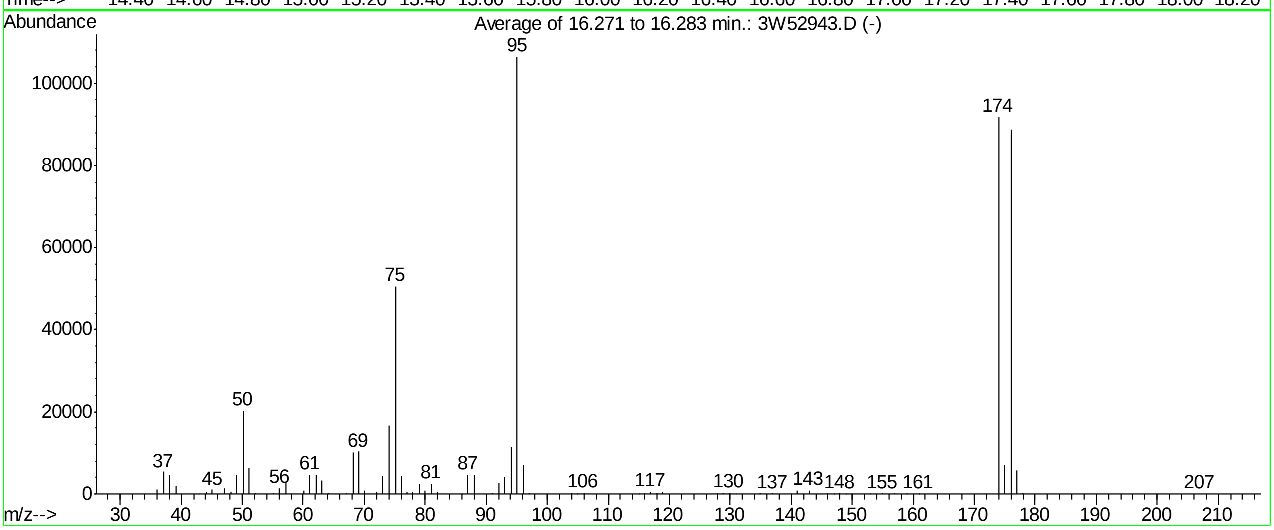
Average of 16.286 to 16.298 min.: 3W52928.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.00	2813	115.95	343	141.90	87	174.00	102605
93.05	4124	116.95	577	143.00	952	175.00	7808
94.10	12159	117.95	345	145.90	141	176.00	99165
95.10	113482	118.95	469	146.90	37	177.00	6635
96.10	7523	127.95	380	147.95	227	178.00	196
97.05	215	129.00	163	149.90	34	207.00	34
103.95	418	129.95	359	152.90	38		
105.00	144	130.95	143	154.95	264		
105.95	377	135.00	155	156.95	200		
107.00	34	136.95	177	158.90	85		
115.00	43	140.95	956	160.95	125		

BFB

```
Data File : C:\MSDCHEM\1\DATA\3W52943.D                 Vial: 1
Acq On    : 24 Mar 2016   10:04 am                  Operator: YOUMINH
Sample    : BFB                                     Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 1889, 1890, 1891; Background Corrected with Scan 1879

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.0	20242	PASS
75	95	30	66	47.5	50610	PASS
95	95	100	100	100.0	106552	PASS
96	95	5	9	6.7	7146	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.1	91778	PASS
175	174	4	9	7.8	7169	PASS
176	174	93	101	96.7	88712	PASS
177	176	5	9	6.6	5835	PASS

3W52943.D   M3W1998.M   Fri Mar 25 12:01:37 2016   MS3W

Average of 16.271 to 16.283 min.: 3W52943.D
BFB
Modified:subtracted

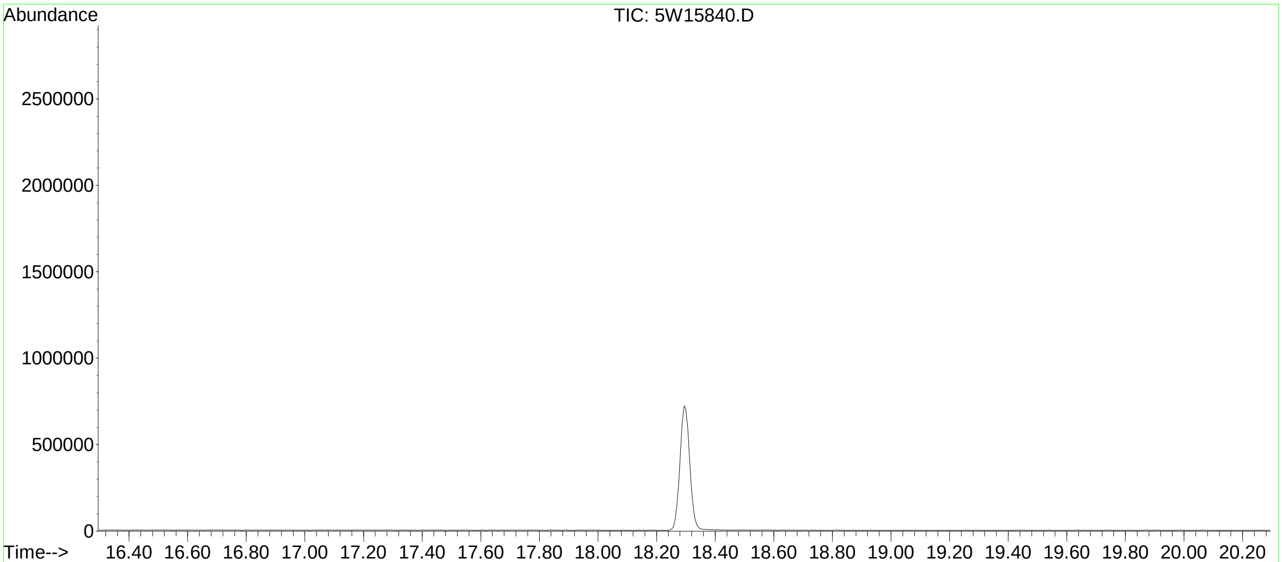
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	992	50.10	20242	64.10	317	78.00	425
37.10	5407	51.10	6222	67.10	321	78.95	2351
38.10	4704	52.10	248	68.10	10212	80.00	715
39.10	1834	55.05	282	69.10	10264	81.00	2498
40.00	17	56.10	1499	70.05	775	82.00	508
43.05	111	57.10	2642	72.05	587	85.95	128
44.05	451	58.00	68	73.05	4506	87.00	4689
45.10	978	60.05	928	74.10	16692	88.00	4545
47.10	1438	61.10	4703	75.10	50610	91.00	362
48.10	620	62.10	4549	76.10	4398	92.05	2718
49.10	4539	63.10	3366	77.00	612	93.00	4030

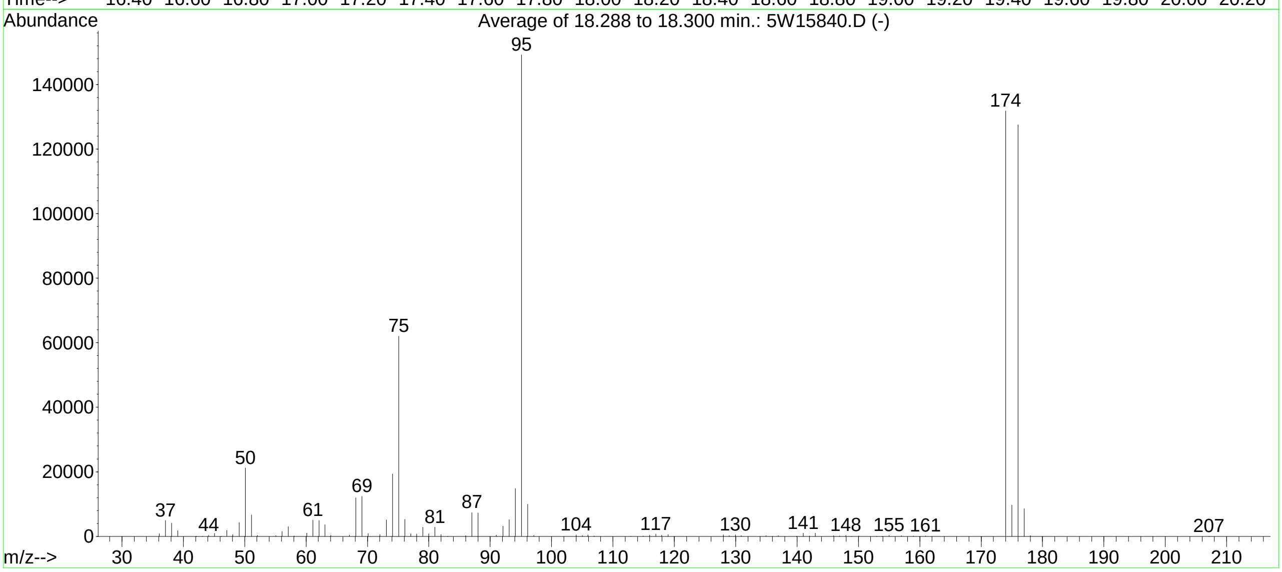
Average of 16.271 to 16.283 min.: 3W52943.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.10	11492	118.95	448	144.90	34	160.95	81
95.10	106552	127.95	325	145.95	156	172.10	65
96.10	7146	128.90	176	147.00	34	174.00	91778
97.05	214	129.90	337	147.95	221	175.00	7169
104.00	377	130.95	141	149.00	35	176.00	88712
105.00	138	134.95	159	149.95	86	177.00	5835
105.95	409	136.95	168	152.90	37	177.90	169
115.00	76	140.00	35	154.95	229	207.05	75
115.95	335	140.90	915	156.95	189		
116.95	570	141.95	125	158.80	38		
117.95	353	142.95	955	159.00	41		

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W15840.D          Vial: 5
Acq On    : 22 Jan 2016   9:05 pm                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS97607,v5w637,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1967.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2403, 2404, 2405; Background Corrected with Scan 2393

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.2	21160	PASS
75	95	30	66	41.6	62069	PASS
95	95	100	100	100.0	149226	PASS
96	95	5	9	6.7	9967	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.4	131890	PASS
175	174	4	9	7.4	9709	PASS
176	174	93	101	96.7	127597	PASS
177	176	5	9	6.7	8559	PASS

5W15840.D M3W1967.M   Mon Jan 25 12:16:58 2016   MS3W

Average of 18.288 to 18.300 min.: 5W15840.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	872	49.10	4327	63.10	3619	77.05	849
37.10	4911	50.10	21160	64.05	324	78.00	737
38.10	4151	51.10	6658	67.05	359	79.00	2832
39.10	1760	52.05	320	68.10	12007	80.00	809
42.05	3	55.10	248	69.10	12427	81.00	2865
43.10	26	56.10	1563	70.10	957	82.00	570
44.10	322	57.10	2996	72.05	615	83.10	38
45.10	936	58.05	147	73.10	5061	86.00	195
46.20	35	60.10	997	74.10	19349	87.00	7397
47.10	1865	61.10	5023	75.10	62069	88.00	7298
48.05	574	62.10	4916	76.10	5274	91.00	434

Average of 18.288 to 18.300 min.: 5W15840.D
BFB
Modified:subtracted

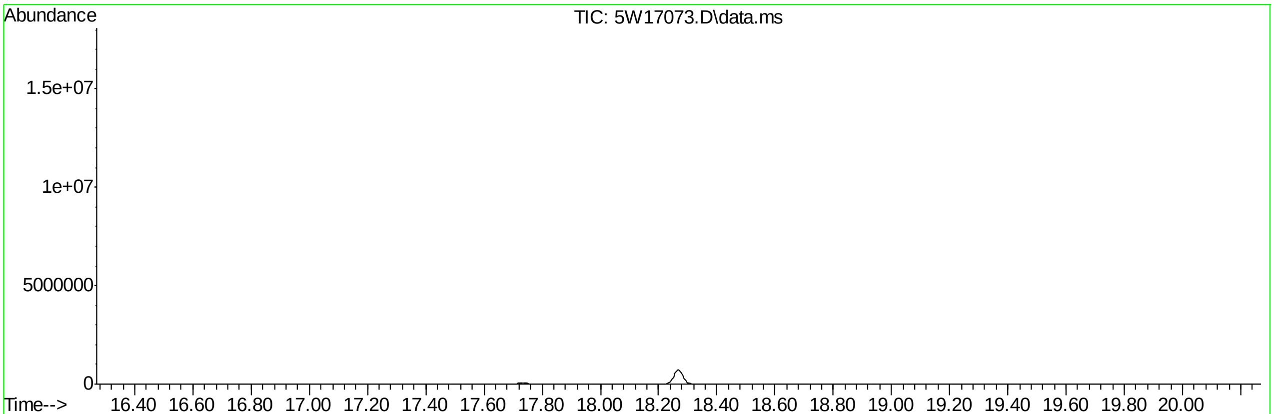
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	3205	114.95	131	139.90	33	155.00	305
93.10	5186	116.00	406	141.00	1040	157.00	249
94.10	14787	117.00	737	142.00	144	158.95	167
95.10	149226	117.95	426	143.00	1000	160.95	153
96.10	9967	119.00	596	145.95	186	174.00	131890
97.10	324	128.00	451	146.95	117	175.00	9709
104.00	511	128.95	218	147.95	304	176.00	127597
105.00	197	129.95	475	148.90	44	177.00	8559
105.95	495	130.90	189	150.05	132	178.00	237
106.95	140	134.95	208	153.00	70	207.10	33
112.90	35	136.95	189	153.90	79		

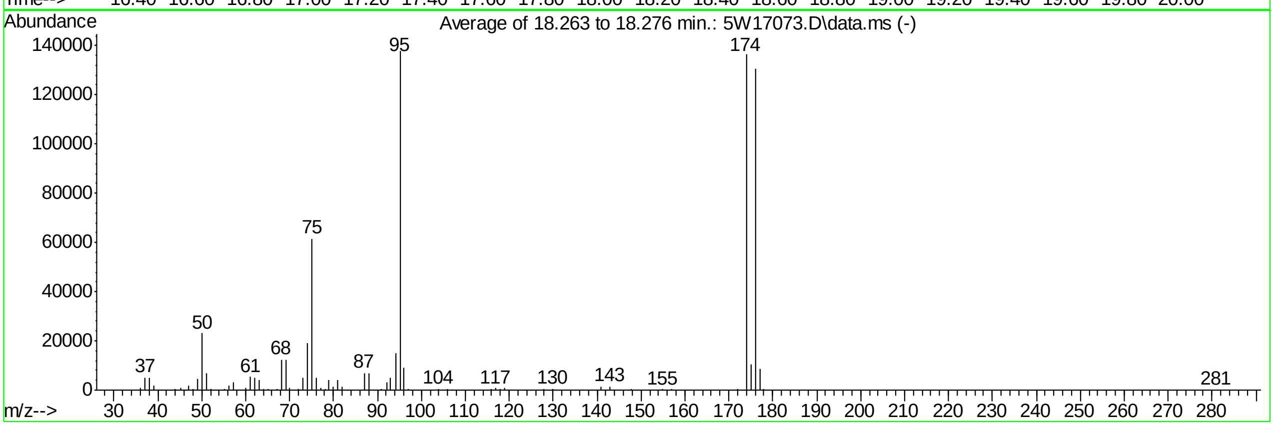
BFB

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17073.D
Acq On    : 17 Mar 2016   8:17 am
Operator  : THOMASH
Sample    : BFB
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Integration File: Rteint.p

Method    : C:\msdchem\1\METHODS\m5w637.M
Title     : TO-15 Full Scan Mode
Last Update  : Mon Jan 25 09:32:20 2016
```

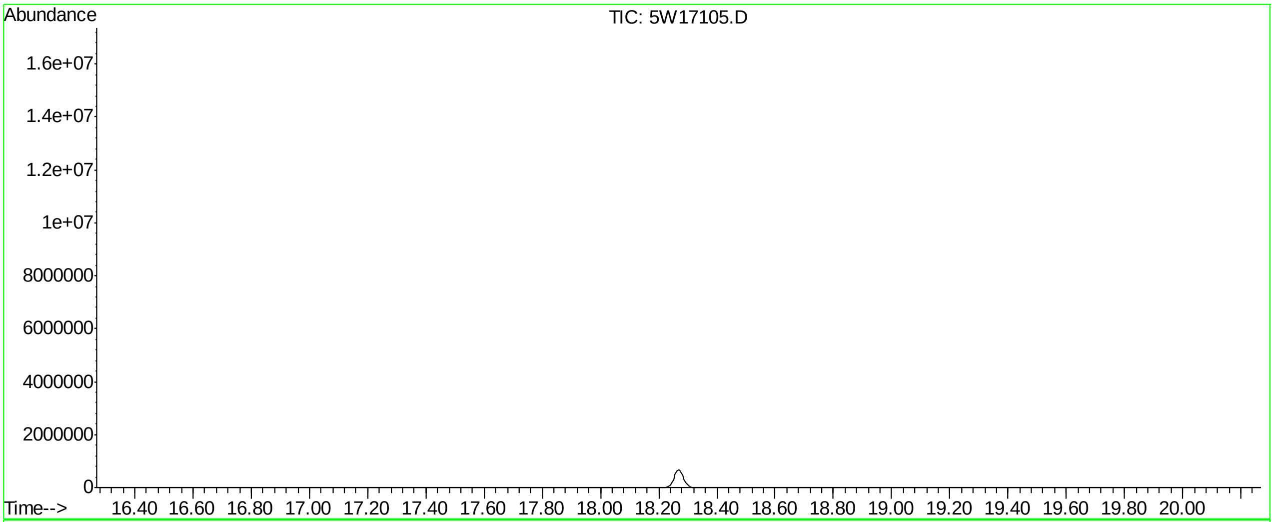


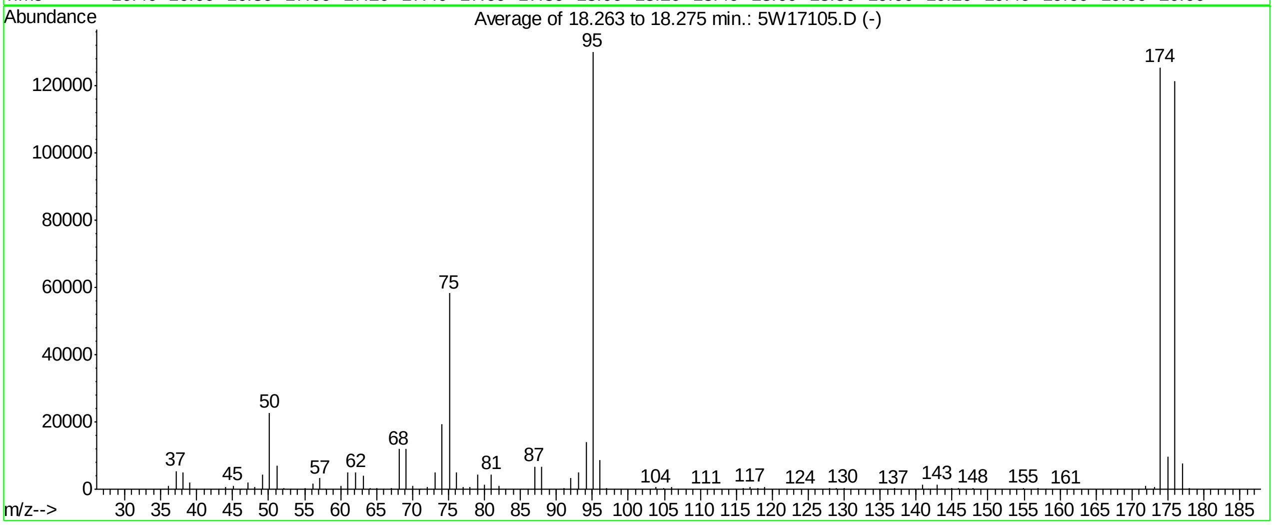
AutoFind: Scans 2399, 2400, 2401; Background Corrected with Scan 2388

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.7	23024	PASS
75	95	30	66	44.7	61592	PASS
95	95	100	100	100.0	137797	PASS
96	95	5	9	6.7	9284	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.2	136640	PASS
175	174	4	9	7.7	10486	PASS
176	174	93	101	95.6	130677	PASS
177	176	5	9	6.6	8581	PASS

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W17105.D          Vial: 1
Acq On    : 18 Mar 2016   8:34 am                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS99296,v5w684,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2399, 2400, 2401; Background Corrected with Scan 2388

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.5	22746	PASS
75	95	30	66	44.8	58256	PASS
95	95	100	100	100.0	130173	PASS
96	95	5	9	6.6	8550	PASS
173	174	0.00	2	0.6	695	PASS
174	95	50	120	96.4	125472	PASS
175	174	4	9	7.8	9768	PASS
176	174	93	101	96.6	121224	PASS
177	176	5	9	6.3	7675	PASS

5W17105.D   M3W1994.M   Mon Mar 21 12:38:19 2016   MS3W

Average of 18.263 to 18.275 min.: 5W17105.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1029	48.05	657	61.05	5125	72.10	608
37.10	5427	49.10	4501	62.10	5181	73.10	5079
38.10	5041	50.10	22746	63.10	4053	74.10	19464
39.10	2086	51.10	6986	64.15	388	75.10	58256
40.00	120	52.10	307	65.10	437	76.10	4952
41.05	85	53.10	33	66.00	77	77.05	789
43.05	123	55.00	368	67.05	322	77.95	585
44.00	574	56.10	1646	68.10	12001	79.00	4305
45.05	1084	57.10	3297	69.10	11883	80.00	1275
46.20	34	57.95	144	70.10	926	81.00	4444
47.10	2005	60.05	1075	71.10	40	81.95	1091

Average of 18.263 to 18.275 min.: 5W17105.D
BFB
Modified:subtracted

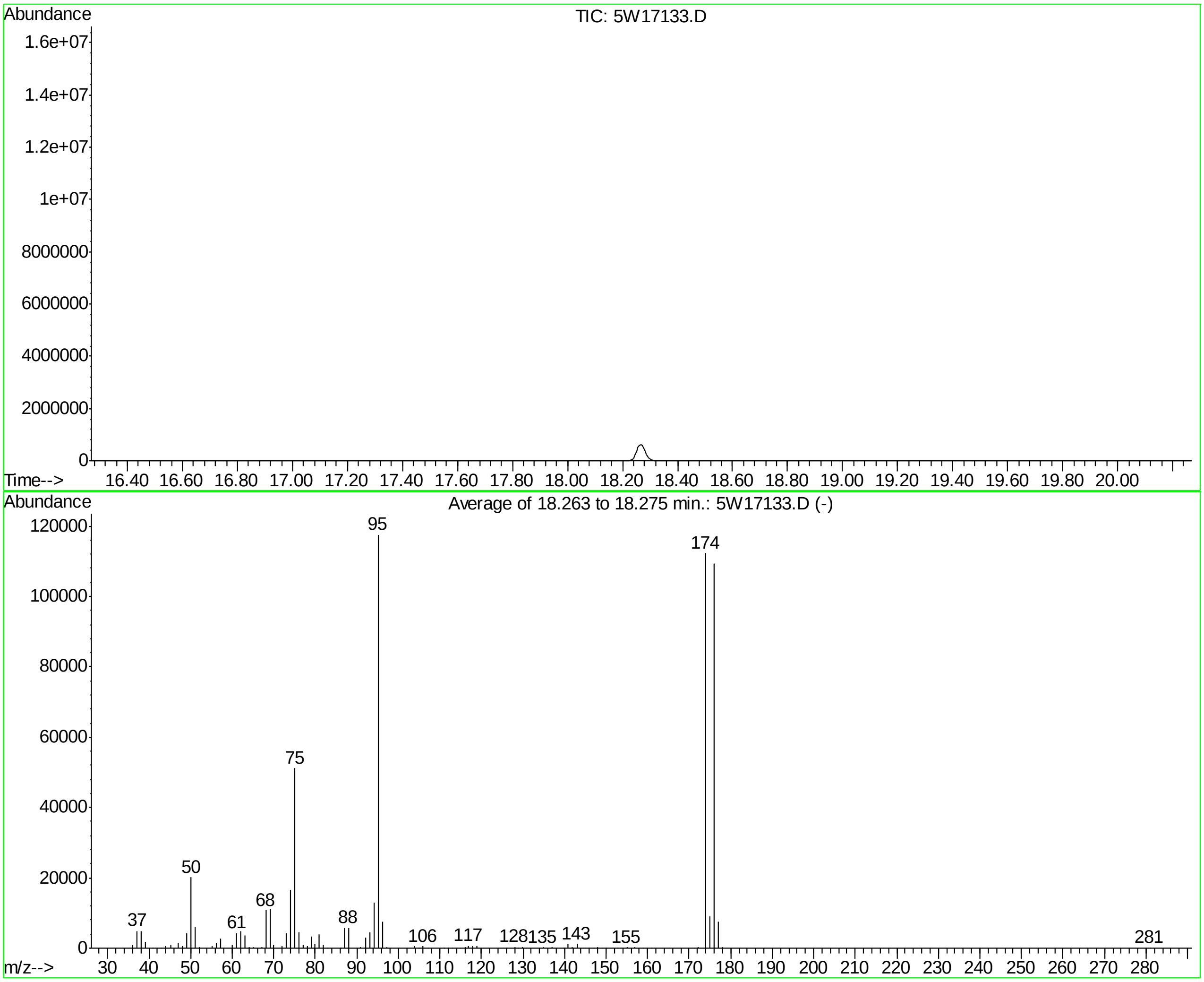
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
83.00	39	103.90	542	118.95	641	140.30	45
86.10	172	104.85	214	122.00	37	140.90	1189
87.00	6726	106.00	514	123.95	124	141.75	92
88.00	6592	106.90	120	127.90	483	142.00	36
91.00	458	110.95	173	128.95	211	142.95	1461
92.05	3366	111.95	79	129.95	508	144.00	49
93.10	5027	112.90	89	130.90	162	144.95	204
94.10	14055	114.95	161	134.90	147	145.85	223
95.10	130173	115.95	466	135.10	87	147.95	361
96.10	8550	116.95	826	136.95	197	149.95	139
97.05	261	117.95	466	139.85	79	154.00	72

Average of 18.263 to 18.275 min.: 5W17105.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.95	358	177.00	7675				
156.95	248	177.95	225				
158.10	38						
159.00	159						
160.95	118						
170.90	122						
171.95	877						
173.10	695						
174.00	125472						
175.00	9768						
176.00	121224						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLD_W\5W17133.D          Vial: 1
Acq On    : 19 Mar 2016   8:47 am                  Operator: THOMASH
Sample    : BFB                                    Inst    : GCMS5W
Misc      : MS99296,v5w685,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```



AutoFind: Scans 2399, 2400, 2401; Background Corrected with Scan 2388

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.1	20146	PASS
75	95	30	66	43.5	51178	PASS
95	95	100	100	100.0	117600	PASS
96	95	5	9	6.4	7567	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	95.5	112328	PASS
175	174	4	9	8.0	8953	PASS
176	174	93	101	97.5	109482	PASS
177	176	5	9	6.9	7525	PASS

5W17133.D MW2167.M   Mon Mar 21 12:57:07 2016   MSW

Average of 18.263 to 18.275 min.: 5W17133.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	904	49.10	4102	63.10	3701	76.10	4551
37.10	4843	50.10	20146	64.05	456	77.05	887
38.10	4696	51.10	6006	65.05	172	78.00	595
39.10	1835	52.05	323	67.10	288	79.00	3426
40.00	19	55.05	468	68.10	10741	80.00	1198
41.00	86	56.10	1544	69.10	11005	81.00	3838
43.00	60	57.10	2776	70.05	903	81.95	921
44.05	574	58.05	109	72.05	591	82.90	34
45.10	931	60.05	918	73.05	4221	85.95	142
47.10	1565	61.10	4360	74.10	16584	86.20	42
48.05	601	62.10	4734	75.10	51178	87.05	5641

Average of 18.263 to 18.275 min.: 5W17133.D
BFB
Modified:subtracted

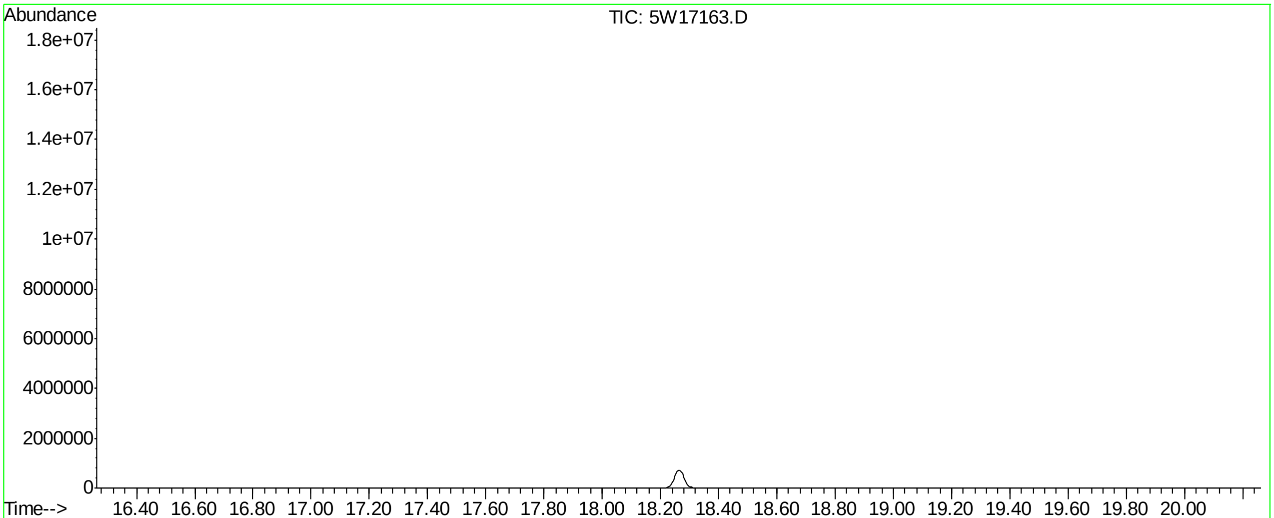
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
88.00	5747	105.95	521	126.10	41	143.00	1207
90.95	436	107.05	81	127.95	447	144.95	115
92.05	3030	110.90	52	128.90	152	145.90	89
93.10	4568	111.10	45	129.85	441	147.10	37
94.10	12900	111.95	73	130.95	116	147.90	293
95.10	117600	113.10	34	134.95	206	148.90	35
96.10	7567	114.85	132	136.95	253	149.90	100
97.15	374	116.00	375	139.80	33	152.90	34
103.95	476	116.95	720	140.00	38	155.00	281
104.90	126	117.95	475	140.95	1069	156.95	193
105.10	51	119.00	622	141.95	173	158.95	100

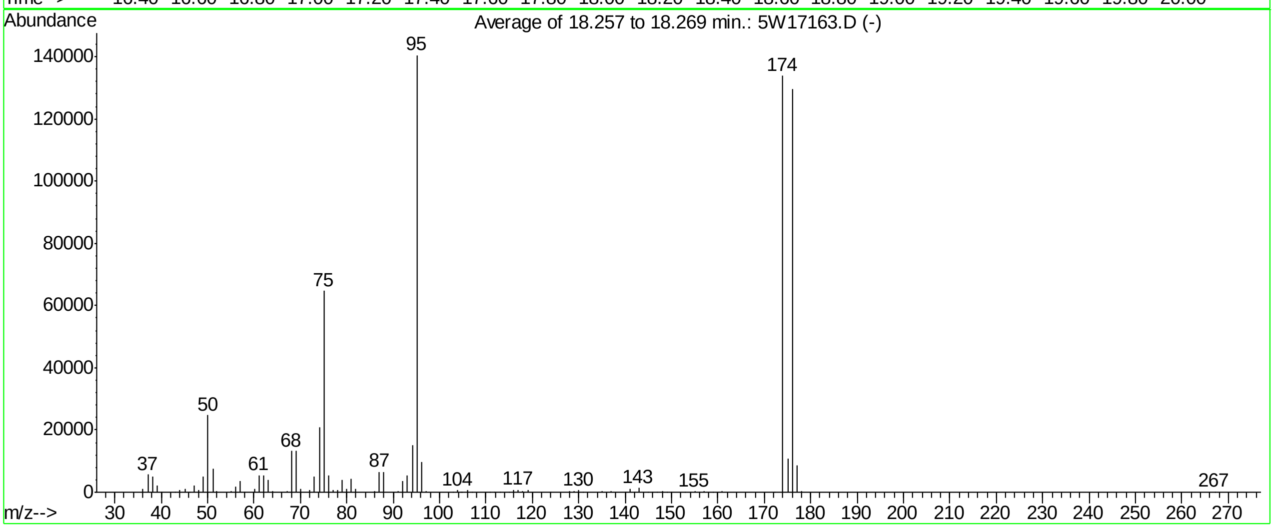
Average of 18.263 to 18.275 min.: 5W17133.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
160.95	132						
171.10	45						
172.00	146						
172.20	245						
174.00	112328						
175.00	8953						
176.00	109482						
177.00	7525						
177.95	231						
281.00	48						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLD_W\5W17163.D          Vial: 1
Acq On    : 21 Mar 2016   7:57 am                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS99296,v5w686,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2398, 2399, 2400; Background Corrected with Scan 2387

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.6	24674	PASS
75	95	30	66	46.0	64728	PASS
95	95	100	100	100.0	140565	PASS
96	95	5	9	6.9	9681	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	95.2	133802	PASS
175	174	4	9	8.0	10721	PASS
176	174	93	101	96.8	129554	PASS
177	176	5	9	6.6	8590	PASS

5W17163.D MW2167.M   Mon Mar 21 12:57:43 2016   MSW

Average of 18.257 to 18.269 min.: 5W17163.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1191	49.10	5117	63.10	4126	77.05	892
37.10	5745	50.10	24674	64.10	306	78.05	660
38.10	5192	51.10	7593	67.05	379	78.95	4140
39.10	2244	52.05	274	68.10	13301	80.00	1239
40.00	191	55.10	352	69.10	13192	81.00	4385
43.10	41	56.05	1719	70.05	1037	82.00	1007
44.05	608	57.10	3625	72.05	717	86.05	238
45.10	1197	58.05	89	73.05	5134	87.00	6669
46.10	41	60.05	1131	74.10	20904	88.00	6589
47.10	2001	61.10	5580	75.10	64728	90.95	550
48.05	611	62.10	5459	76.10	5399	92.05	3555

Average of 18.257 to 18.269 min.: 5W17163.D
BFB
Modified:subtracted

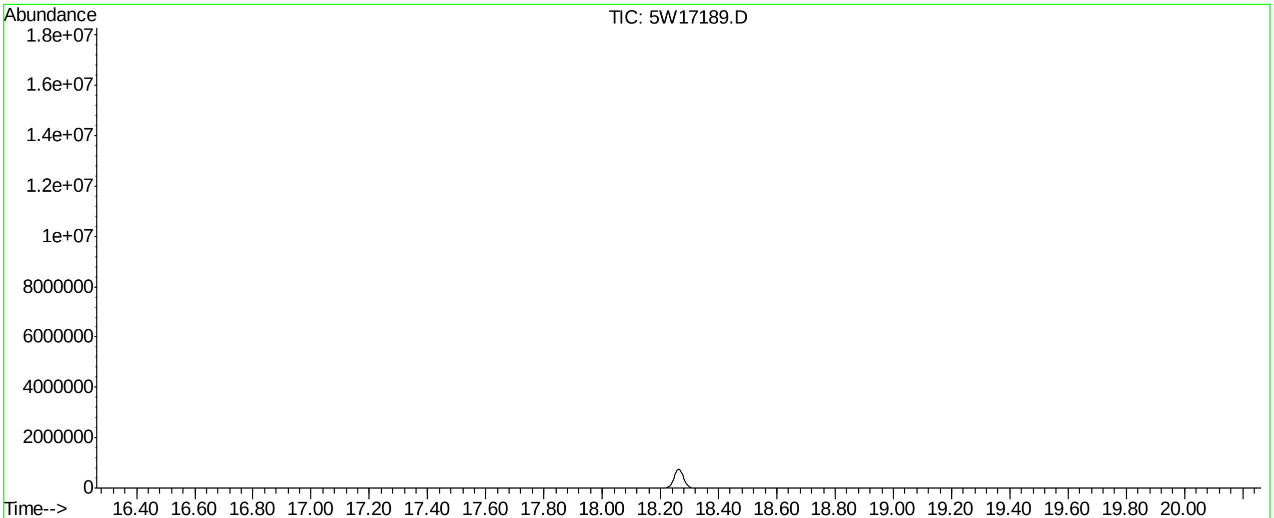
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.05	5251	110.95	150	130.00	563	148.00	278
94.10	14973	111.90	35	130.95	175	149.00	44
95.10	140565	112.95	115	134.95	254	149.95	152
96.10	9681	114.95	123	136.90	204	152.90	40
97.10	304	115.95	577	140.10	65	154.00	55
102.90	37	116.95	859	140.95	1219	155.00	351
103.95	615	117.95	485	141.95	148	156.00	69
104.70	44	119.00	668	143.00	1363	156.95	194
104.95	175	123.80	36	144.90	37	158.95	170
105.95	588	128.00	472	145.90	161	160.95	206
106.95	131	128.95	193	146.95	116	172.30	160

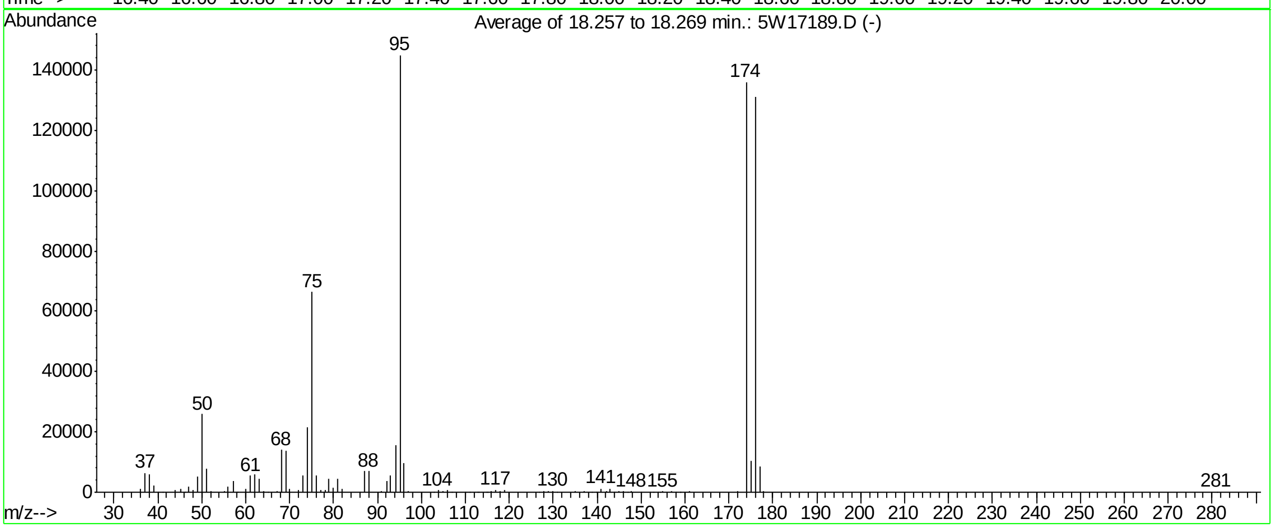
Average of 18.257 to 18.269 min.: 5W17163.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	133802						
175.00	10721						
176.00	129554						
177.00	8590						
178.00	309						
267.05	73						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W17189.D          Vial: 1
Acq On    : 22 Mar 2016   8:14 am                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS99577,v5w687,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2398, 2399, 2400; Background Corrected with Scan 2387

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.9	25925	PASS
75	95	30	66	45.8	66440	PASS
95	95	100	100	100.0	144960	PASS
96	95	5	9	6.7	9697	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.8	136008	PASS
175	174	4	9	7.8	10551	PASS
176	174	93	101	96.3	131002	PASS
177	176	5	9	6.6	8690	PASS

5W17189.D   M3W1994.M   Tue Mar 22 14:49:16 2016   MS3W

Average of 18.257 to 18.269 min.: 5W17189.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1202	49.10	5243	62.10	5829	75.10	66440
37.10	6340	50.10	25925	63.10	4381	76.10	5762
38.10	5789	51.10	7743	64.05	411	77.05	883
39.10	2394	52.10	352	65.05	158	78.05	656
40.00	26	55.10	328	67.05	414	79.00	4473
41.10	33	56.05	1925	68.10	14031	80.00	1410
44.00	701	57.10	3644	69.10	13582	81.00	4640
45.10	1141	58.00	52	70.05	1086	81.95	1106
46.20	93	58.15	104	72.10	667	85.95	179
47.10	1951	60.05	1301	73.10	5733	87.05	6929
48.05	743	61.10	5564	74.10	21370	88.00	7020

Average of 18.257 to 18.269 min.: 5W17189.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	529	106.95	142	126.90	37	142.05	212
92.10	3683	110.00	37	127.95	484	142.95	1123
93.05	5551	110.95	157	129.00	225	143.90	39
94.10	15509	112.90	111	129.95	513	144.95	200
95.10	144960	113.10	41	130.95	190	145.90	212
96.10	9697	114.80	37	134.90	289	146.90	33
97.05	266	115.00	63	136.95	298	147.90	339
102.95	70	115.85	440	138.90	37	149.95	152
103.90	674	117.00	812	139.80	62	152.10	41
104.85	201	118.00	425	140.00	49	152.95	141
105.95	612	119.00	688	140.95	1254	153.90	37

Average of 18.257 to 18.269 min.: 5W17189.D
BFB
Modified:subtracted

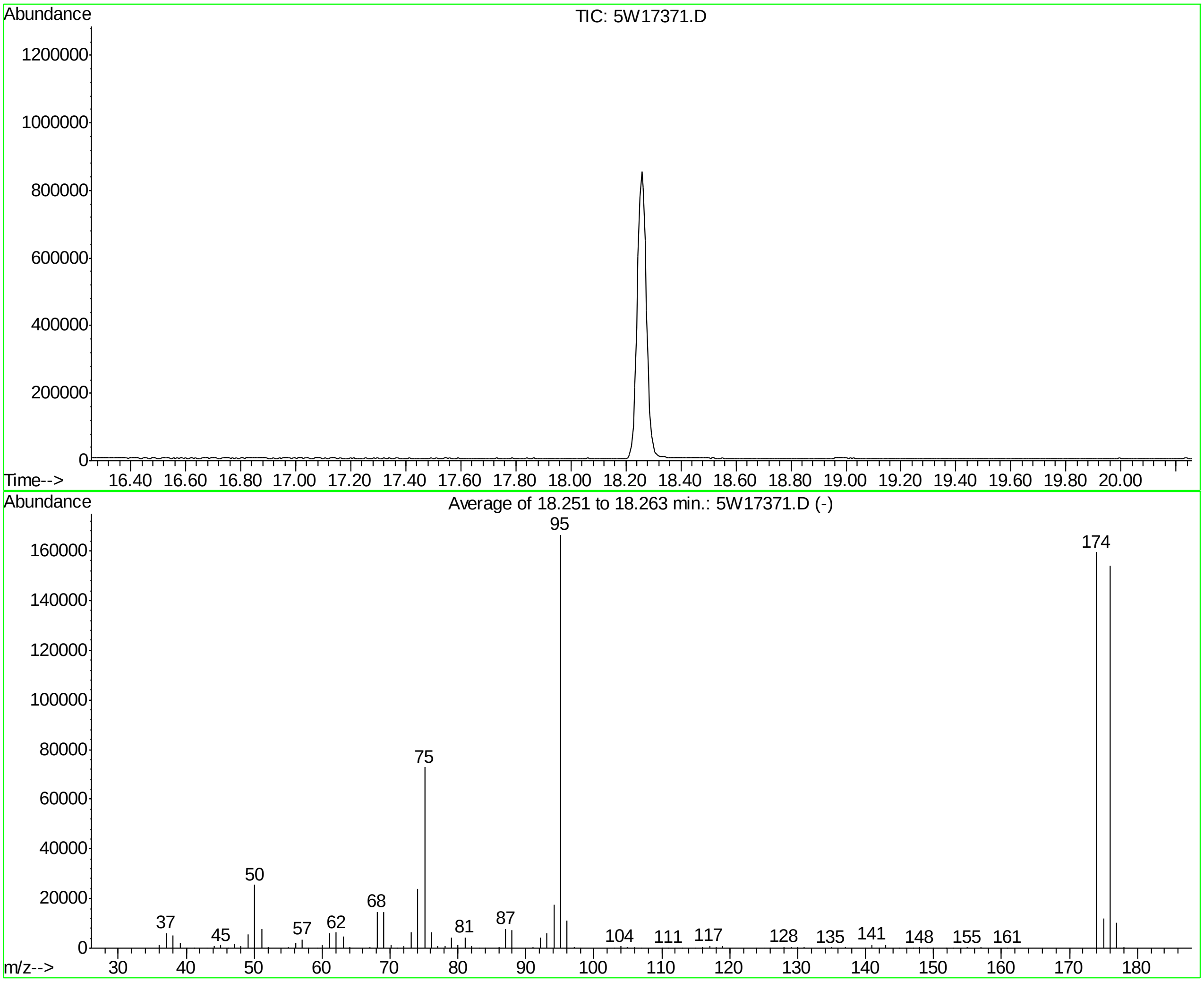
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.30	35	177.00	8690				
155.00	333	177.95	221				
157.00	243	281.15	87				
157.90	79						
158.90	58						
159.05	112						
160.95	201						
171.95	499						
174.00	136008						
175.00	10551						
176.00	131002						

7.6.10

7

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W17371.D          Vial: 5
Acq On    : 29 Mar 2016   7:32 pm                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS99822,v5w693,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```



AutoFind: Scans 2397, 2398, 2399; Background Corrected with Scan 2386

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.4	25594	PASS
75	95	30	66	43.8	72960	PASS
95	95	100	100	100.0	166634	PASS
96	95	5	9	6.6	11042	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	95.7	159466	PASS
175	174	4	9	7.4	11879	PASS
176	174	93	101	96.5	153920	PASS
177	176	5	9	6.7	10360	PASS

5W17371.D   M3W1998.M   Wed Mar 30 09:13:35 2016   MS3W

Average of 18.251 to 18.263 min.: 5W17371.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1241	48.05	785	61.10	6176	74.10	23869
37.10	6039	49.10	5559	62.10	6362	75.10	72960
38.05	5188	50.10	25594	63.10	4697	76.10	6253
39.10	2016	51.10	7753	64.10	461	77.00	808
40.00	98	52.10	361	67.10	502	78.05	673
41.10	8	55.10	364	68.10	14676	79.00	4116
43.10	23	56.10	2028	69.10	14598	80.00	1202
44.10	694	57.10	3495	70.10	1107	81.00	4287
45.10	1178	58.05	208	71.10	51	82.00	949
46.10	85	59.20	34	72.10	794	83.10	174
47.10	1769	60.10	1172	73.10	6223	84.10	34

Average of 18.251 to 18.263 min.: 5W17371.D
BFB
Modified:subtracted

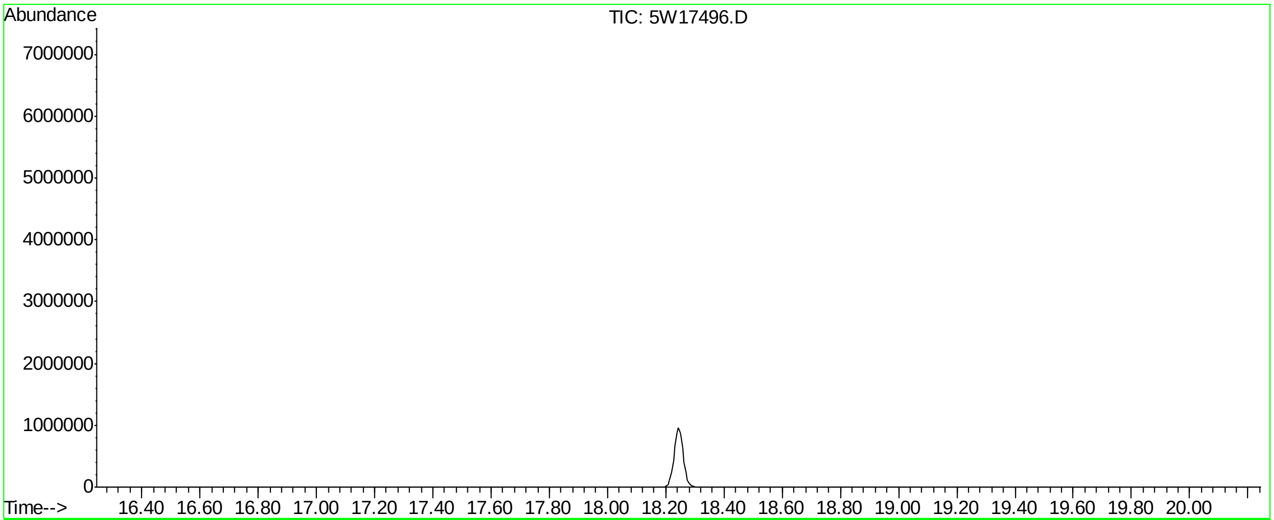
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
86.10	234	103.00	114	117.00	960	137.00	274
87.00	7727	103.95	692	118.00	537	139.95	127
88.00	7338	104.95	279	119.00	797	141.00	1430
91.00	544	105.95	636	124.00	83	141.95	194
92.10	4108	106.95	168	125.00	33	143.00	1426
93.10	6141	110.00	80	126.00	38	144.95	142
94.10	17664	111.00	149	128.00	593	145.95	231
95.10	166634	112.00	83	129.00	327	146.95	143
96.10	11042	112.95	133	129.95	590	147.95	421
97.05	302	114.95	206	130.95	238	148.95	168
98.10	38	115.95	498	134.95	282	149.95	185

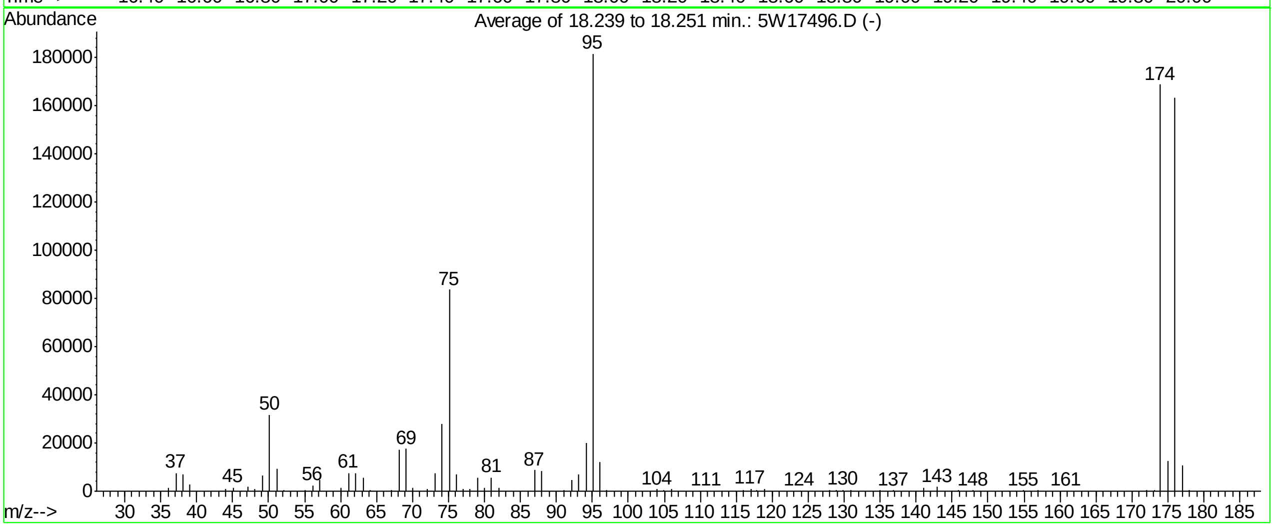
Average of 18.251 to 18.263 min.: 5W17371.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
151.90	38	178.00	294				
153.00	130						
154.00	120						
155.00	394						
157.00	337						
158.95	201						
160.90	179						
174.00	159466						
175.00	11879						
176.00	153920						
177.00	10360						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLD_W\5W17496.D          Vial: 1
Acq On    :  5 Apr 2016   7:39 am                  Operator: THOMASH
Sample    : BFB                                    Inst    : GCMS5W
Misc      : MS107,v5w698,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2180.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2395, 2396, 2397; Background Corrected with Scan 2384

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.5	31709	PASS
75	95	30	66	46.0	83512	PASS
95	95	100	100	100.0	181568	PASS
96	95	5	9	6.6	12071	PASS
173	174	0.00	2	0.4	680	PASS
174	95	50	120	92.9	168725	PASS
175	174	4	9	7.5	12598	PASS
176	174	93	101	96.6	163050	PASS
177	176	5	9	6.5	10624	PASS

5W17496.D MW2180.M Tue Apr 05 12:12:10 2016 MSW

Average of 18.239 to 18.251 min.: 5W17496.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1436	49.10	6746	63.10	5580	76.10	6989
37.10	7617	50.10	31709	64.05	489	77.05	1064
38.10	6858	51.10	9519	65.10	83	78.00	763
39.10	2693	52.10	411	67.05	464	79.00	5658
40.00	146	55.05	431	68.10	17133	80.00	1632
43.05	111	56.10	2518	69.10	17567	81.00	5762
44.05	1099	57.10	4524	70.10	1283	82.00	1273
45.10	1530	58.10	179	72.05	860	83.00	124
46.15	148	60.05	1469	73.10	7366	86.05	204
47.10	2011	61.10	7520	74.10	27858	87.00	8729
48.10	949	62.10	7420	75.10	83512	88.00	8307

Average of 18.239 to 18.251 min.: 5W17496.D
BFB
Modified:subtracted

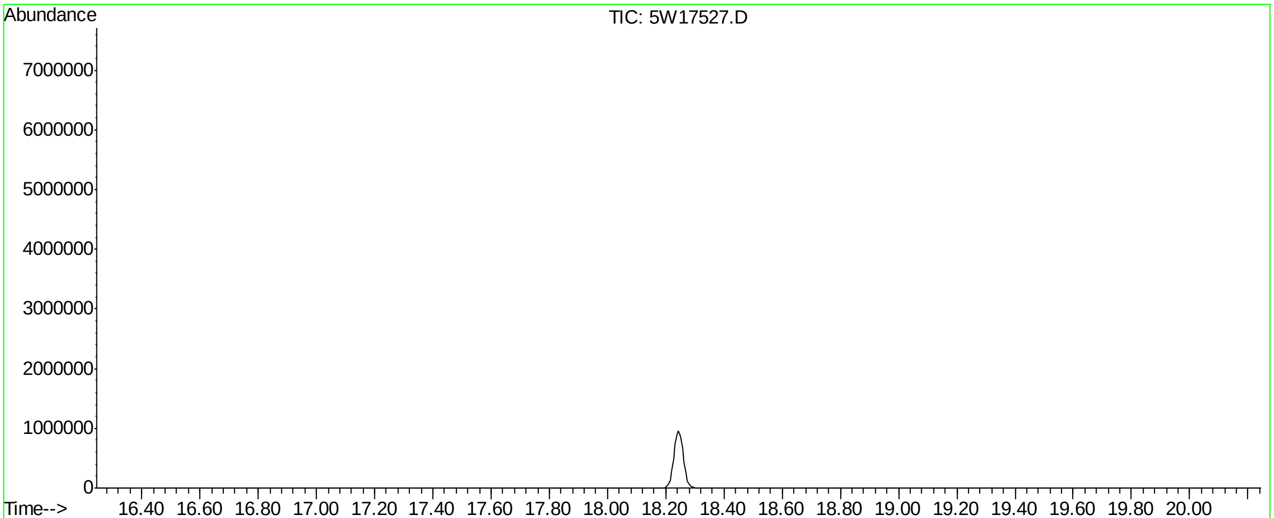
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	658	106.95	161	127.95	630	144.95	138
92.10	4653	109.90	37	128.90	292	145.90	263
93.10	6966	110.90	163	129.90	663	146.90	114
94.10	19922	111.95	126	130.95	253	147.95	449
95.10	181568	112.95	154	134.95	305	148.90	111
96.10	12071	114.95	192	136.90	344	149.90	188
97.05	329	115.95	629	140.00	133	152.90	118
103.00	39	117.00	1138	141.00	1633	153.90	81
104.00	795	117.90	633	141.95	206	154.95	468
104.95	271	119.00	915	143.00	1767	155.90	38
105.95	774	123.90	78	144.00	38	157.00	322

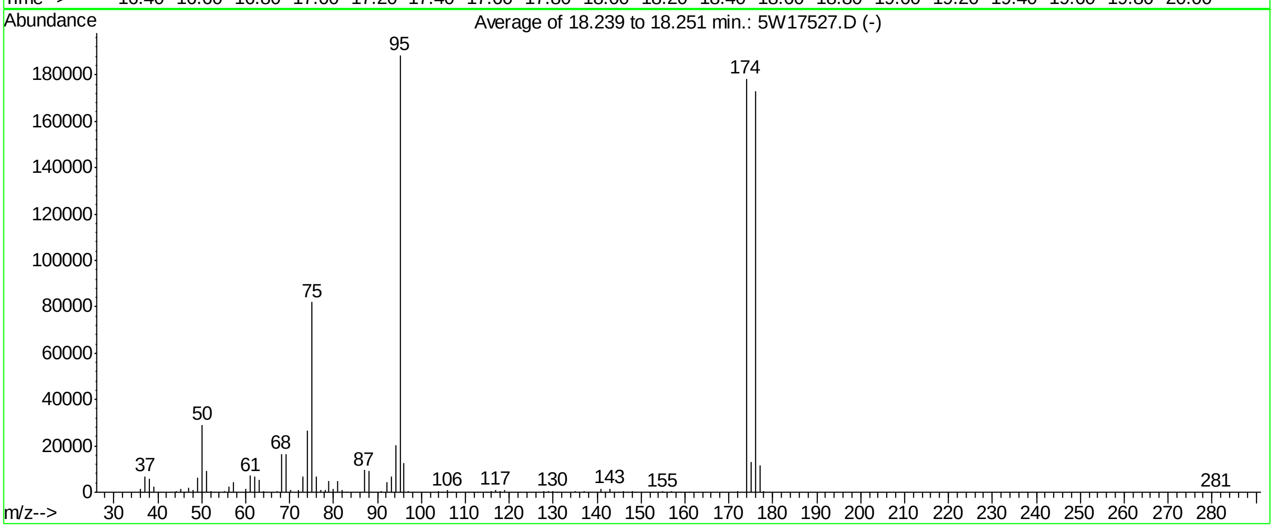
Average of 18.239 to 18.251 min.: 5W17496.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
158.95	189						
160.95	200						
172.05	315						
173.20	680						
174.00	168725						
175.00	12598						
176.00	163050						
177.00	10624						
177.95	291						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLD_W\5W17527.D          Vial: 1
Acq On    :  6 Apr 2016  10:29 am                   Operator: THOMASH
Sample    : BFB                                     Inst    : GCMS5W
Misc      : MS107,v5w699,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2180.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2395, 2396, 2397; Background Corrected with Scan 2384

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.4	29056	PASS
75	95	30	66	43.5	81973	PASS
95	95	100	100	100.0	188586	PASS
96	95	5	9	6.6	12465	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	94.5	178282	PASS
175	174	4	9	7.4	13279	PASS
176	174	93	101	97.1	173056	PASS
177	176	5	9	6.6	11462	PASS

5W17527.D MW2180.M   Wed Apr 06 14:55:16 2016   MSW

Average of 18.239 to 18.251 min.: 5W17527.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1280	49.10	6085	63.10	5280	77.05	1104
37.10	6947	50.10	29056	64.10	491	78.05	770
38.10	6015	51.10	8999	67.05	427	79.00	4652
39.10	2422	52.10	403	68.10	16584	80.00	1359
40.00	44	55.10	391	69.10	16617	81.00	4796
43.05	109	56.10	2248	70.10	1195	82.00	1022
44.10	722	57.10	4196	72.05	867	83.05	108
45.10	1365	58.05	191	73.10	6977	86.05	220
46.15	140	60.10	1433	74.10	26621	87.00	9615
47.10	2143	61.10	7054	75.10	81973	88.00	8991
48.05	924	62.10	6928	76.10	6999	91.00	616

Average of 18.239 to 18.251 min.: 5W17527.D
BFB
Modified:subtracted

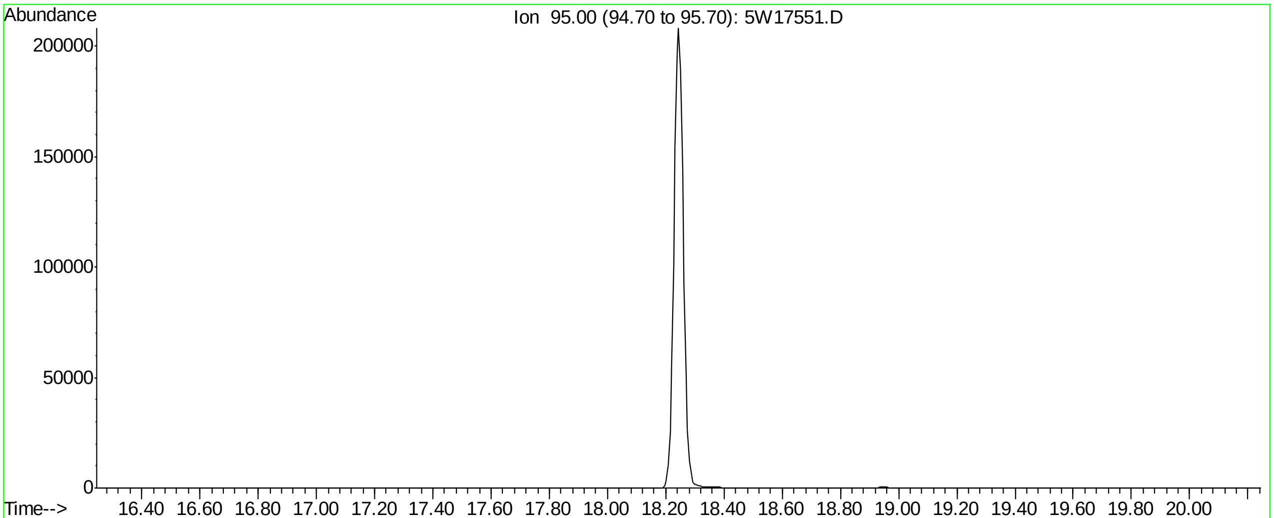
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.10	4502	110.90	132	129.95	681	146.95	119
93.10	6984	111.90	37	130.95	243	147.95	443
94.10	20122	112.95	114	134.95	295	148.90	71
95.10	188586	114.90	196	136.95	299	149.95	179
96.10	12465	115.95	528	140.00	132	152.90	150
97.10	371	117.00	1034	141.00	1540	153.95	113
103.95	677	117.95	578	141.95	213	155.00	483
104.95	254	119.00	902	143.00	1584	157.00	377
106.00	764	123.90	34	143.95	72	159.00	226
107.00	176	128.00	611	145.00	148	160.95	195
109.90	34	129.00	292	145.95	268	172.05	270

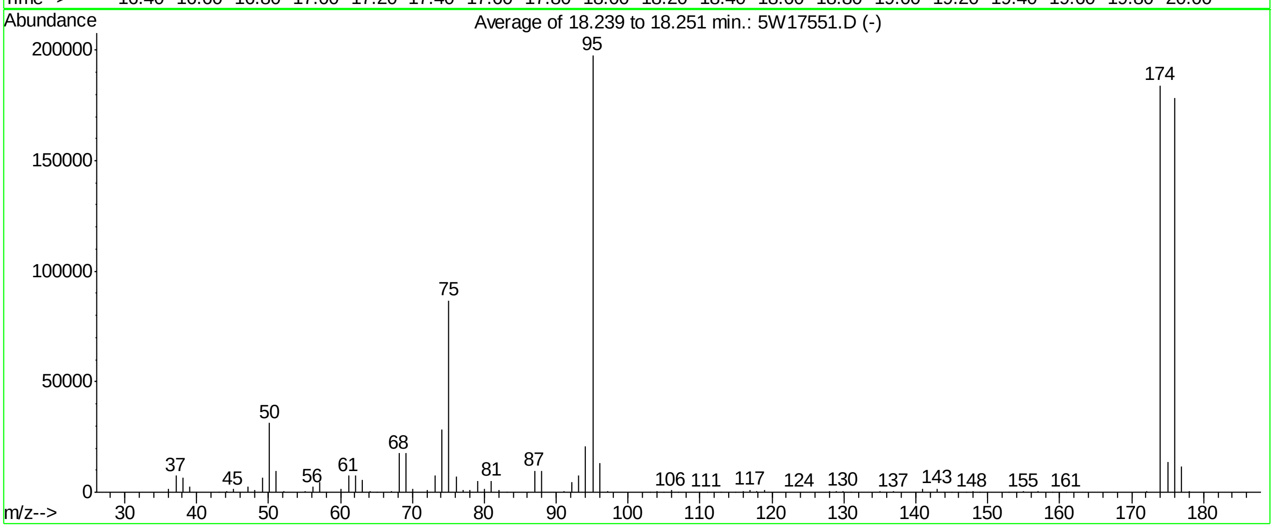
Average of 18.239 to 18.251 min.: 5W17527.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	178282						
175.00	13279						
176.00	173056						
177.00	11462						
177.95	326						
281.15	78						

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W17551.D          Vial: 1
Acq On    :  7 Apr 2016   7:55 am                   Operator: THOMASH
Sample    : BFB                                     Inst     : GCMS5W
Misc      : MS514,v5w700,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2395, 2396, 2397; Background Corrected with Scan 2384

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.8	31245	PASS
75	95	30	66	43.8	86733	PASS
95	95	100	100	100.0	197866	PASS
96	95	5	9	6.6	13103	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	93.0	183978	PASS
175	174	4	9	7.3	13519	PASS
176	174	93	101	97.0	178410	PASS
177	176	5	9	6.6	11801	PASS

5W17551.D   M3W1998.M   Fri Apr 08 16:05:58 2016   MS3W

Average of 18.239 to 18.251 min.: 5W17551.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1401	49.10	6725	63.10	5561	76.10	7324
37.10	7502	50.10	31245	64.05	528	77.05	1192
38.10	6493	51.10	9580	65.05	117	78.00	885
39.10	2608	52.10	398	67.10	500	79.00	5030
40.00	37	55.10	433	68.10	17658	80.00	1494
43.15	83	56.10	2387	69.10	17637	81.00	5167
44.10	748	57.10	4368	70.10	1306	82.00	1148
45.05	1331	58.05	179	72.10	865	83.05	121
46.10	127	60.10	1520	73.10	7455	86.10	236
47.10	2371	61.10	7428	74.10	28152	87.00	9743
48.05	921	62.10	7411	75.10	86733	88.00	9450

Average of 18.239 to 18.251 min.: 5W17551.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	606	106.95	181	127.95	629	145.00	171
92.10	4753	109.95	68	128.90	299	145.90	262
93.10	7374	110.95	147	129.95	695	147.00	126
94.10	20893	111.90	68	130.95	244	147.95	465
95.10	197866	112.90	152	134.95	325	148.95	139
96.10	13103	114.95	203	136.90	334	149.95	183
97.10	364	115.95	623	139.95	140	152.95	160
103.00	33	117.00	1102	141.00	1616	153.95	96
103.95	762	117.95	602	142.00	207	155.00	497
104.95	260	119.00	865	143.00	1724	156.00	81
106.00	776	123.95	105	143.95	70	156.95	355

Average of 18.239 to 18.251 min.: 5W17551.D
BFB
Modified:subtracted

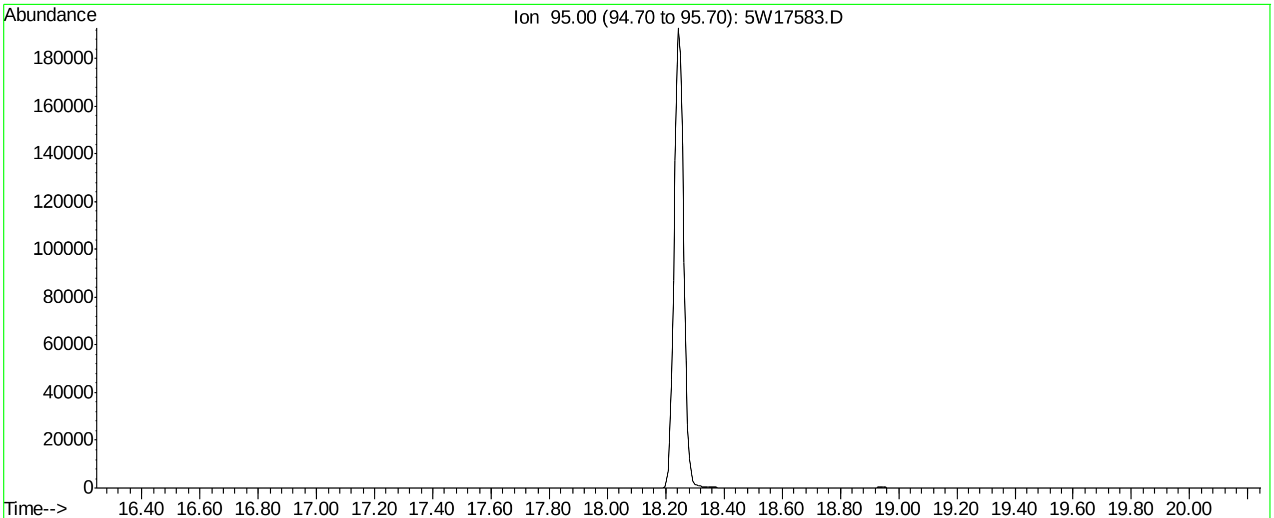
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
158.95	214						
160.90	220						
172.05	315						
174.00	183978						
175.00	13519						
176.00	178410						
177.00	11801						
178.00	334						

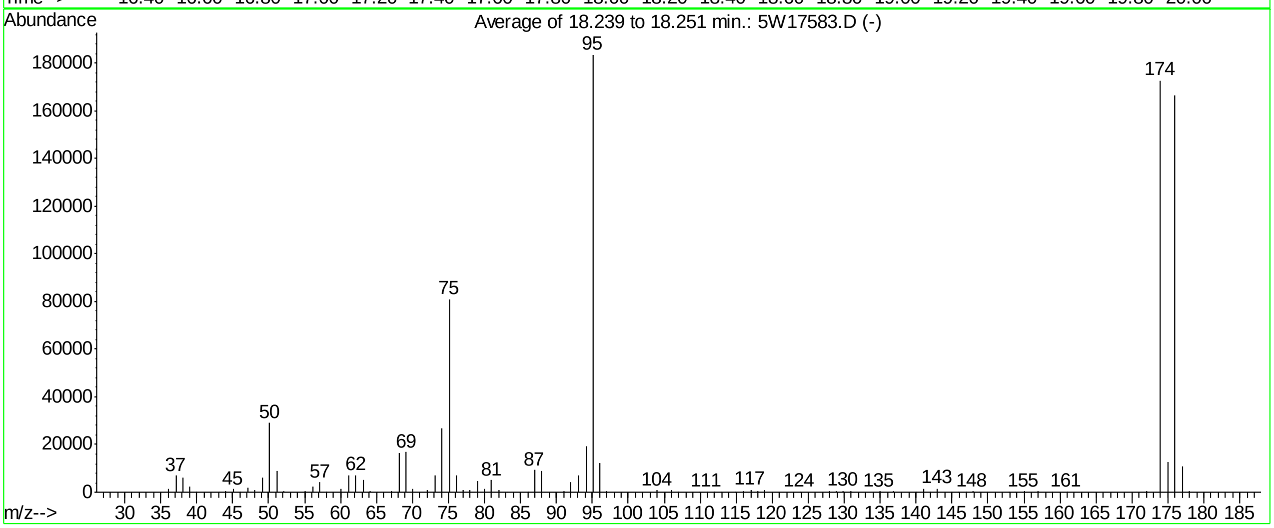
7.6.14

7

BFB

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\5W17583.D          Vial: 1
Acq On    :  8 Apr 2016   9:20 am                    Operator: THOMASH
Sample    : BFB                                      Inst    : GCMS5W
Misc      : MS676,v5w701,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Method    : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
```





AutoFind: Scans 2395, 2396, 2397; Background Corrected with Scan 2384

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.8	29034	PASS
75	95	30	66	44.1	81021	PASS
95	95	100	100	100.0	183616	PASS
96	95	5	9	6.6	12155	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	94.0	172629	PASS
175	174	4	9	7.4	12737	PASS
176	174	93	101	96.5	166549	PASS
177	176	5	9	6.6	11032	PASS

5W17583.D M3W1998.M Fri Apr 08 16:06:28 2016 MS3W

Average of 18.239 to 18.251 min.: 5W17583.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1310	49.10	6259	63.10	5282	76.10	6982
37.10	6905	50.10	29034	64.10	516	77.00	1136
38.10	6140	51.10	8898	65.10	171	78.00	768
39.10	2416	52.10	392	67.05	431	79.00	4934
40.00	56	55.05	410	68.10	16507	80.00	1399
43.05	124	56.10	2282	69.10	16857	81.00	5009
44.00	648	57.10	4238	70.10	1250	82.00	1094
45.10	1367	58.05	191	72.05	849	83.05	70
46.05	134	60.10	1375	73.10	7004	86.00	228
47.10	2109	61.10	7087	74.10	26605	87.00	9276
48.05	835	62.10	7106	75.10	81021	88.00	8892

Average of 18.239 to 18.251 min.: 5W17583.D
BFB
Modified:subtracted

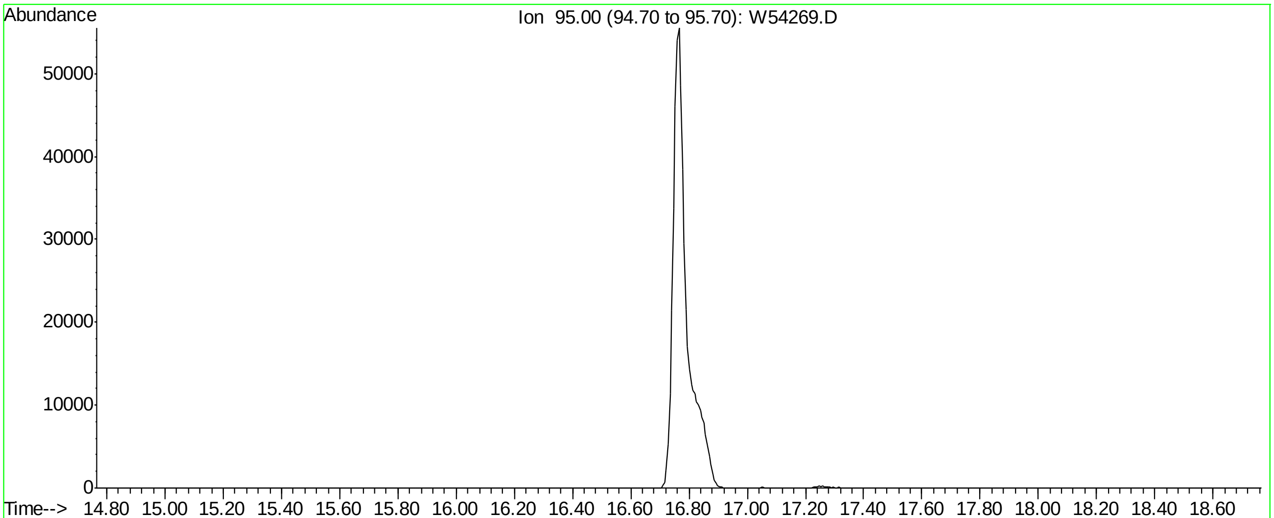
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
91.00	620	109.90	34	128.95	279	146.95	123
92.05	4403	110.95	133	129.90	640	147.90	424
93.10	6860	111.90	33	130.95	258	148.90	129
94.10	19512	112.85	133	134.95	287	149.90	192
95.10	183616	114.95	168	136.90	282	152.95	140
96.10	12155	115.95	581	140.00	136	153.90	124
97.05	363	117.00	1062	141.00	1468	155.00	445
104.00	753	117.95	590	142.00	205	157.00	332
104.95	249	119.00	866	143.00	1636	158.90	194
105.95	735	123.90	115	145.00	156	160.95	199
106.95	176	127.95	599	145.95	252	172.00	431

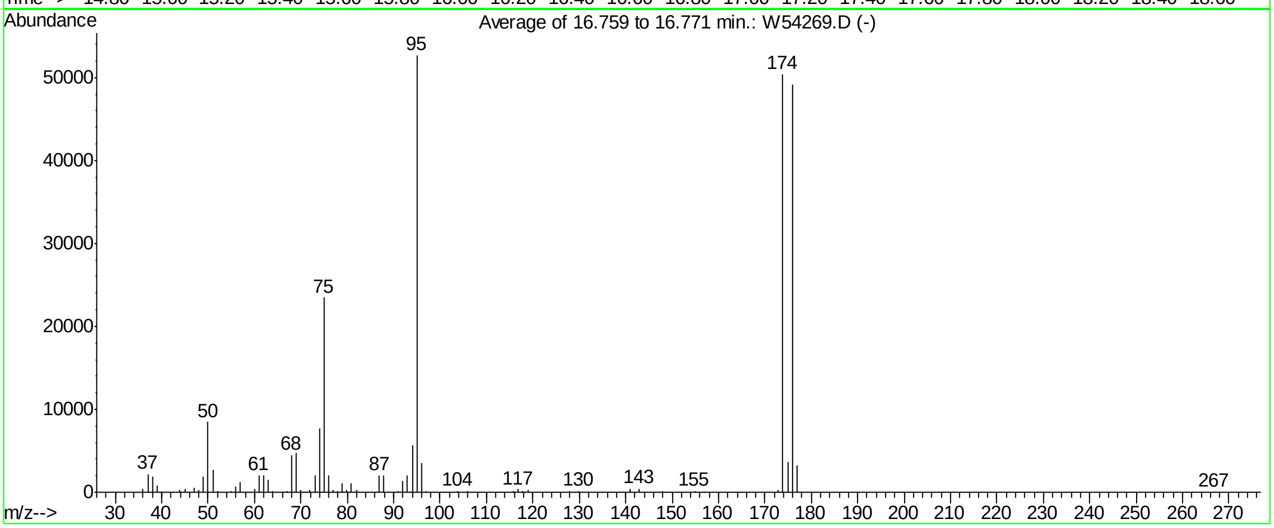
Average of 18.239 to 18.251 min.: 5W17583.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.00	172629						
175.00	12737						
176.00	166549						
177.00	11032						
177.95	300						

BFB

```
Data File : C:\MSDCHEM\1\DATA\W54269.D                    Vial: 5
Acq On    : 17 Mar 2016  10:17 pm                     Operator: YOUMINH
Sample    : BFB                                       Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 1957, 1958, 1959; Background Corrected with Scan 1946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.1	8498	PASS
75	95	30	66	44.5	23458	PASS
95	95	100	100	100.0	52725	PASS
96	95	5	9	6.5	3451	PASS
173	174	0.00	2	0.4	223	PASS
174	95	50	120	95.6	50421	PASS
175	174	4	9	7.1	3605	PASS
176	174	93	101	97.4	49122	PASS
177	176	5	9	6.6	3263	PASS

W54269.D MW2167.M   Fri Mar 18 09:07:01 2016 MSW

Average of 16.759 to 16.771 min.: W54269.D
BFB
Modified:subtracted

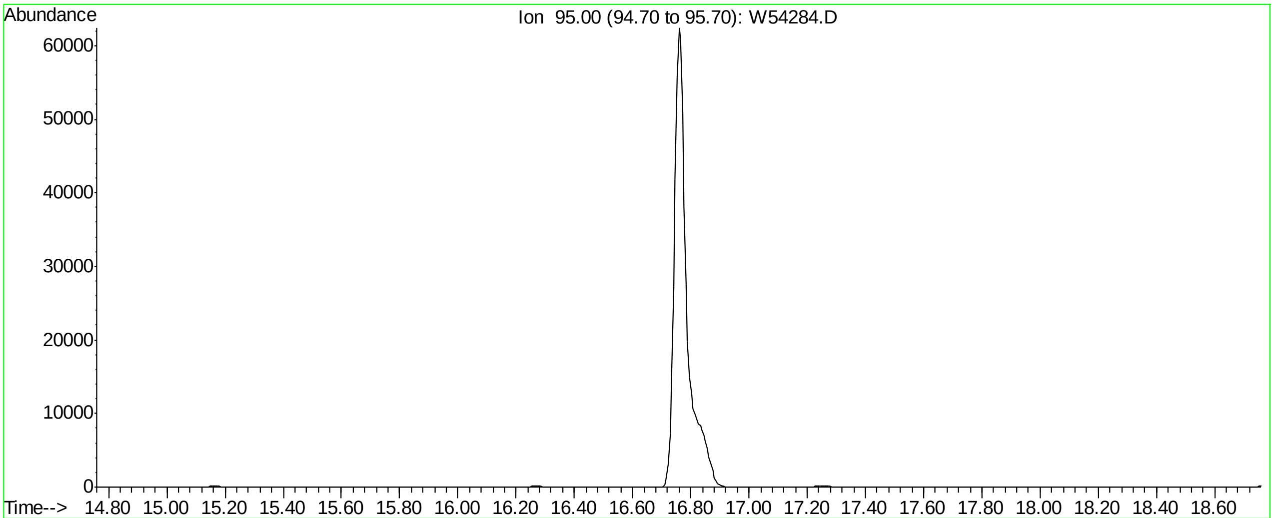
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	426	51.00	2651	68.00	4517	78.90	1030
37.00	2201	52.00	120	69.00	4749	79.90	328
38.00	1949	54.95	154	69.95	332	80.90	1115
39.00	767	56.00	668	71.95	263	81.90	218
39.90	17	57.00	1224	73.00	2044	86.90	2068
43.90	241	59.95	428	74.00	7725	87.90	2020
45.00	463	61.00	2027	75.00	23458	90.90	168
47.00	551	62.00	1976	76.00	1981	91.90	1344
47.95	253	63.00	1518	77.05	282	93.00	1971
49.00	1850	63.95	159	77.80	63	94.00	5649
50.00	8498	67.00	133	77.95	137	95.00	52725

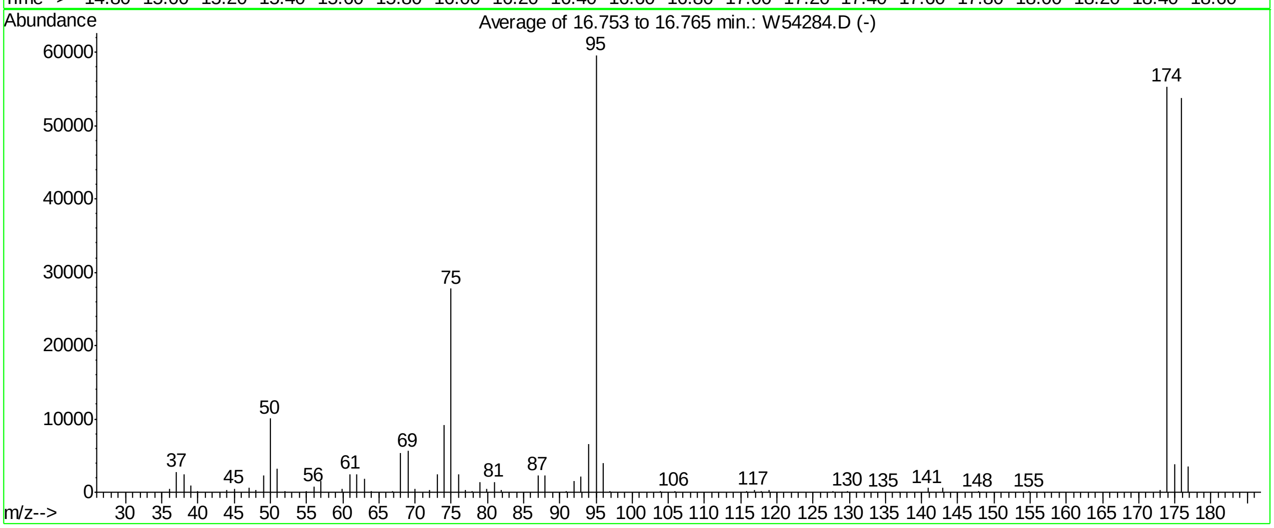
Average of 16.759 to 16.771 min.: W54269.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.00	3451	134.90	33	175.90	49122		
96.95	118	136.80	35	176.90	3263		
103.80	198	140.90	453	177.90	43		
105.85	186	142.90	476	266.95	18		
115.85	161	147.00	27				
116.85	357	147.85	155				
117.85	141	154.85	143				
118.85	244	156.80	34				
127.85	186	172.90	223				
128.80	33	173.90	50421				
129.85	188	174.90	3605				

BFB

```
Data File : C:\MSDCHEM\1\DATA\W54284.D                      Vial: 5
Acq On    : 18 Mar 2016   9:27 am                       Operator: YOUMINH
Sample    : bfb                                         Inst     : MSW
Misc      : MS99296,VW2168,,,,,1                        Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 1956, 1957, 1958; Background Corrected with Scan 1946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	10074	PASS
75	95	30	66	46.5	27749	PASS
95	95	100	100	100.0	59656	PASS
96	95	5	9	6.8	4037	PASS
173	174	0.00	2	0.6	342	PASS
174	95	50	120	92.8	55365	PASS
175	174	4	9	7.0	3876	PASS
176	174	93	101	97.2	53842	PASS
177	176	5	9	6.4	3460	PASS

W54284.D   MW2167.M   Fri Mar 18 12:15:03 2016   MSW

Average of 16.753 to 16.765 min.: W54284.D
bfb
Modified:subtracted

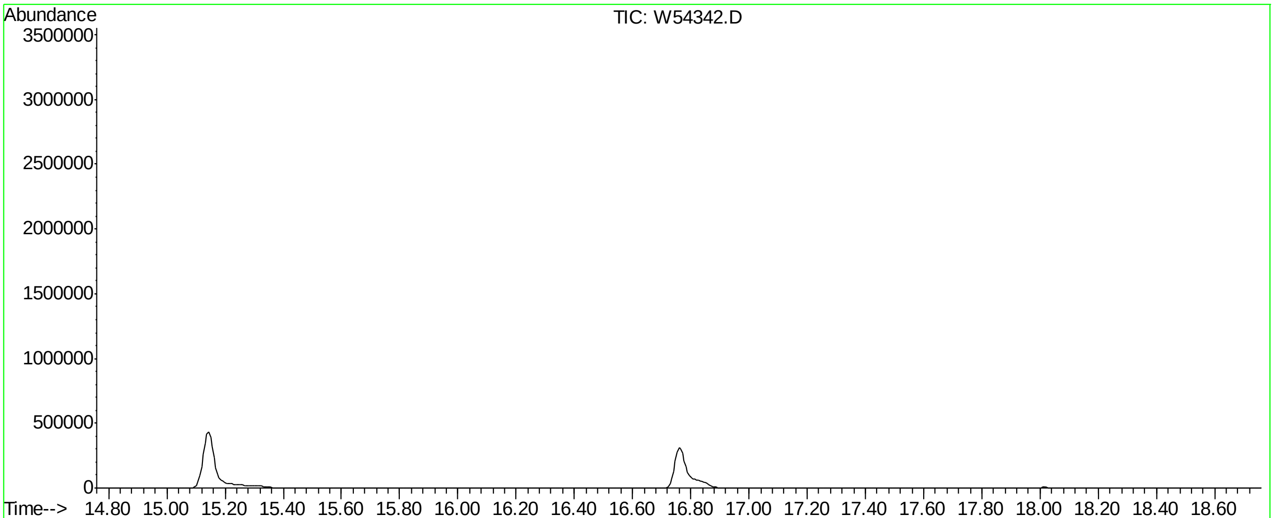
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	538	51.00	3215	68.00	5399	79.90	398
37.00	2777	51.95	145	69.00	5589	80.90	1418
38.00	2389	54.95	138	69.95	435	81.85	342
39.00	925	56.00	803	71.95	280	86.95	2368
39.95	120	57.00	1475	73.00	2383	87.90	2229
43.90	298	59.95	466	74.00	9206	90.90	227
45.00	507	61.00	2486	75.00	27749	91.95	1589
47.00	608	62.00	2471	76.00	2463	92.95	2216
47.95	335	63.00	1863	76.95	302	94.00	6633
49.00	2229	64.00	185	77.85	213	95.00	59656
50.00	10074	66.95	161	78.90	1400	96.00	4037

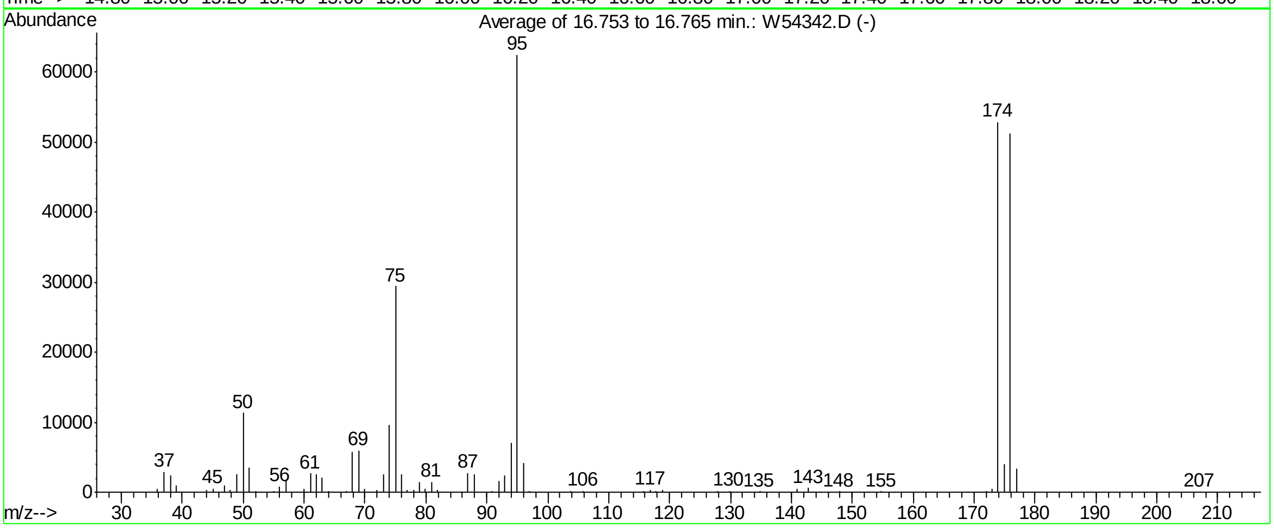
Average of 16.753 to 16.765 min.: W54284.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	125	136.80	73				
103.85	213	140.85	583				
105.85	226	142.90	563				
115.85	192	147.85	142				
116.90	380	154.85	136				
117.85	201	156.85	69				
118.85	284	172.90	342				
127.80	198	173.90	55365				
128.90	77	174.90	3876				
129.80	213	175.90	53842				
134.85	76	176.90	3460				

BFB

```
Data File : C:\MSDCHEM\1\DATA\W54342.D                 Vial: 1
Acq On    : 21 Mar 2016   8:58 am                  Operator: YOUMINH
Sample    : BFB                                    Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 1956, 1957, 1958; Background Corrected with Scan 1946

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.1	11320	PASS
75	95	30	66	47.0	29402	PASS
95	95	100	100	100.0	62533	PASS
96	95	5	9	6.8	4229	PASS
173	174	0.00	2	0.8	442	PASS
174	95	50	120	84.6	52922	PASS
175	174	4	9	7.4	3940	PASS
176	174	93	101	96.8	51229	PASS
177	176	5	9	6.5	3346	PASS

W54342.D   MW2167.M   Tue Mar 22 10:55:35 2016   MSW

7.6.18

7

Average of 16.753 to 16.765 min.: W54342.D
BFB
Modified:subtracted

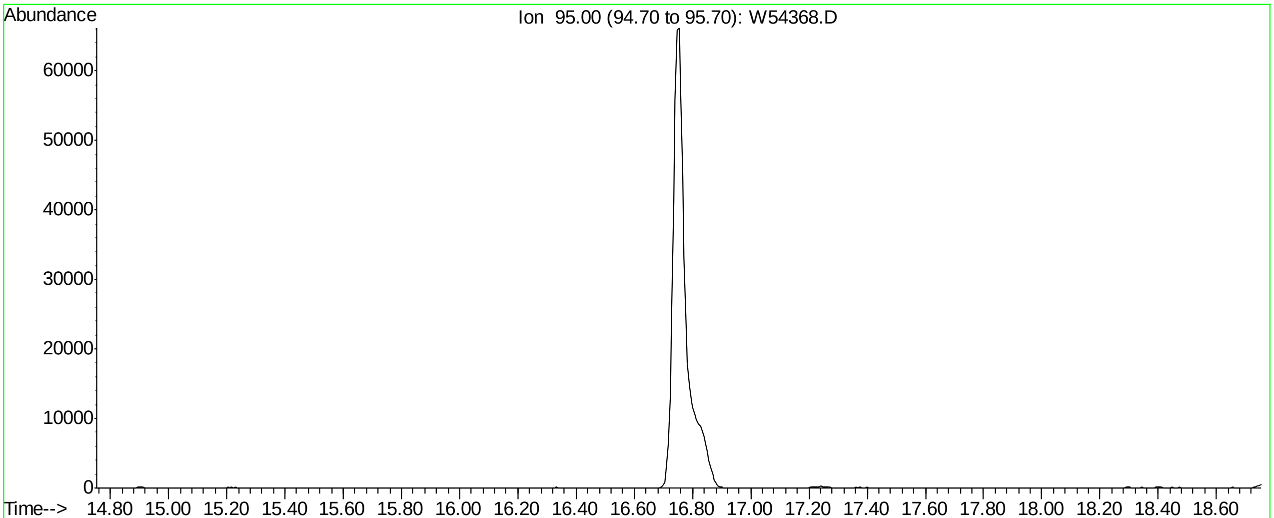
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	530	51.00	3552	66.80	39	77.95	276
37.00	2888	52.00	155	67.00	104	78.85	1412
38.00	2462	54.95	163	67.95	5830	79.85	514
39.00	1038	55.95	843	69.00	5959	80.90	1475
39.90	35	56.95	1578	69.95	463	81.90	389
43.90	282	59.95	567	71.95	316	85.80	80
45.00	550	61.00	2701	73.00	2578	86.90	2727
46.95	890	62.00	2502	73.95	9641	87.90	2640
47.85	337	63.00	2036	75.00	29402	90.85	189
49.00	2497	64.00	243	75.95	2557	91.90	1626
50.00	11320	64.95	74	76.95	390	92.90	2399

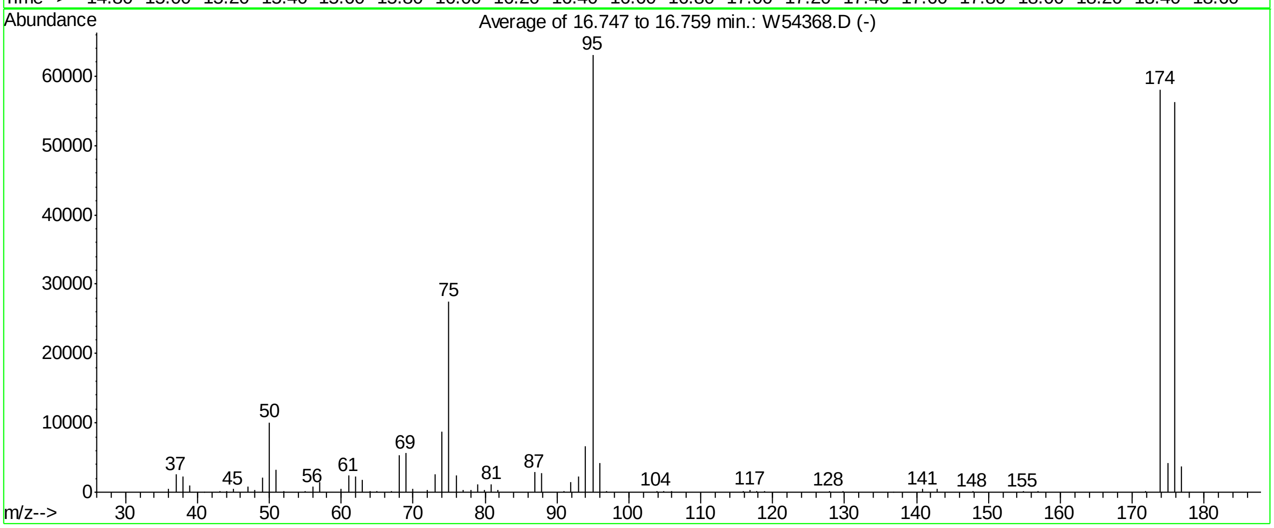
Average of 16.753 to 16.765 min.: W54342.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	7066	127.85	200	171.95	167		
95.00	62533	128.80	35	172.90	442		
96.00	4229	129.85	223	173.90	52922		
96.90	89	134.85	107	174.90	3940		
97.10	55	136.90	73	175.90	51229		
103.85	225	140.90	551	176.90	3346		
105.80	226	142.85	607	207.10	38		
115.80	187	144.80	34				
116.85	366	147.85	127				
117.80	204	154.75	125				
118.85	309	156.90	33				

BFB

```
Data File : C:\MSDCHEM\1\DATA\W54368.D                   Vial: 1
Acq On    : 22 Mar 2016   8:41 am                    Operator: YOUMINH
Sample    : BFB                                      Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title     : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
```





AutoFind: Scans 1955, 1956, 1957; Background Corrected with Scan 1943

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.9	10038	PASS
75	95	30	66	43.6	27528	PASS
95	95	100	100	100.0	63109	PASS
96	95	5	9	6.5	4128	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	92.0	58085	PASS
175	174	4	9	7.4	4275	PASS
176	174	93	101	97.0	56325	PASS
177	176	5	9	6.5	3645	PASS

W54368.D   MW2167.M   Wed Mar 23 10:02:25 2016   MSW

Average of 16.747 to 16.759 min.: W54368.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	527	49.00	2118	64.00	187	76.95	374
37.00	2553	50.00	10038	64.95	115	78.00	250
38.00	2258	51.00	3199	67.05	208	78.90	1094
39.00	959	51.95	131	68.00	5346	79.95	398
39.95	50	55.00	235	69.00	5640	80.90	1143
41.00	76	56.00	742	70.00	469	81.85	298
43.10	188	57.00	1452	72.00	309	86.90	2838
44.00	243	59.95	498	73.00	2515	87.90	2753
45.00	461	61.00	2393	74.00	8688	90.90	206
47.00	834	62.00	2343	75.00	27528	91.95	1444
48.00	311	63.00	1771	76.00	2354	93.00	2292

Average of 16.747 to 16.759 min.: W54368.D
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	6668	127.85	196	175.90	56325		
95.00	63109	129.85	193	176.90	3645		
96.00	4128	136.80	35	177.90	72		
96.95	134	140.90	449				
103.85	191	142.90	448				
104.90	115	147.85	132				
105.90	189	154.85	149				
115.85	180	156.90	116				
116.90	327	171.90	216				
117.85	172	173.90	58085				
118.85	246	174.90	4275				

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52818.D   Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                      Operator: YOUMINH
Sample    : ICC1994-10                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:19 2016              Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	89375	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	456637	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.77	82	250306	10.00	PPBV	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	270620	10.00	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) FREON 152A	5.04	65	94440	10.00	PPBV	100
5) CHLORODIFLUOROMETHANE	5.08	67	34770	10.00	PPBV	100
6) DICHLORODIFLUOROMETHANE	5.19	85	359495	10.00	PPBV	100
7) PROPYLENE	5.11	41	133779	10.00	PPBV	100
9) FREON 114	5.44	85	406743	10.00	PPBV	100
10) CHLOROMETHANE	5.35	50	161206m	10.00	PPBV	
11) VINYL CHLORIDE	5.56	62	185823	10.00	PPBV	100
12) 1,3-BUTADIENE	5.69	54	143005	10.00	PPBV	100
13) n-BUTANE	5.74	43	297358	10.00	PPBV	100
14) BROMOMETHANE	5.94	94	154734	10.00	PPBV	100
15) CHLOROETHANE	6.09	64	91935	10.00	PPBV	100
16) DICHLOROFLUOROMETHANE	6.16	67	341915	10.00	PPBV	100
17) ACETONITRILE	6.39	41	119233	10.00	PPBV	100
18) FREON 123	6.51	83	372744	10.00	PPBV	100
19) FREON 123A	6.55	117	191842	10.00	PPBV	100
20) TRICHLOROFLUOROMETHANE	6.75	101	349088	10.00	PPBV	100
22) ISOPROPYL ALCOHOL	6.82	45	303424	10.00	PPBV	100
23) ACETONE	6.62	58	68551	10.00	PPBV	100
24) PENTANE	7.03	42	193155	10.00	PPBV	100
25) TVHC as EQUIV PENTANE	7.03	TIC	1121602m	10.01	PPBV	
26) IODOMETHANE	7.24	142	365934	10.00	PPBV	100
27) 1,1-DICHLOROETHYLENE	7.28	96	160480	10.00	PPBV	100
28) CARBON DISULFIDE	7.66	76	518874	10.00	PPBV	100
29) ETHANOL	6.19	45	69488	10.00	PPBV	100
30) BROMOETHENE	6.40	106	152266	10.00	PPBV	100
31) ACRYLONITRILE	7.00	52	89295	10.00	PPBV	100
32) METHYLENE CHLORIDE	7.37	84	144445	10.00	PPBV	100
33) 3-CHLOROPROPENE	7.47	76	82321	10.00	PPBV	100
34) FREON 113	7.57	151	228537	10.00	PPBV	100
35) TRANS-1,2-DICHLOROETHYLENE	8.14	96	163859	10.00	PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.33	59	371540	10.00	PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.37	73	385326	10.00	PPBV	100
38) TETRAHYDROFURAN	9.65	72	63724m	9.86	PPBV	
39) HEXANE	9.14	57	250920	10.00	PPBV	100
40) VINYL ACETATE	8.41	86	32526	10.00	PPBV	100
41) 1,1-DICHLOROETHANE	8.31	63	312644	10.00	PPBV	100
42) METHYL ETHYL KETONE	8.66	72	64614	10.00	PPBV	100
43) cis-1,2-DICHLOROETHYLENE	9.00	96	148729	10.00	PPBV	100
44) DIISOPROPYL ETHER	9.16	59	64855	10.00	PPBV	100
45) ETHYL ACETATE	9.18	61	45455	10.00	PPBV	100
46) METHYL ACRYLATE	9.18	55	252291	10.00	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52818.D Vial: 1
Acq On : 16 Mar 2016 10:10 pm Operator: YOUMINH
Sample : ICC1994-10 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:19 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
47)	CHLOROFORM	9.25	83	287640	10.00	PPBV	100
48)	2,4-DIMETHYLPENTANE	9.89	57	289180	10.00	PPBV	100
49)	1,1,1-TRICHLOROETHANE	10.10	97	272125	10.00	PPBV	100
50)	CARBON TETRACHLORIDE	10.62	117	283934	10.00	PPBV	100
51)	1,2-DICHLOROETHANE	9.89	62	180247	10.00	PPBV	100
53)	BENZENE	10.50	78	459863	10.00	PPBV	100
54)	CYCLOHEXANE	10.73	84	206013	10.00	PPBV	100
55)	2,3-DIMETHYLPENTANE	10.91	71	107541	10.00	PPBV	100
56)	TRICHLOROETHYLENE	11.41	95	201776	10.00	PPBV	100
57)	1,2-DICHLOROPROPANE	11.21	63	182549	10.00	PPBV	100
58)	DIBROMOMETHANE	11.19	174	167467	10.00	PPBV	100
59)	ETHYL ACRYLATE	11.18	55	318080	10.00	PPBV	100
60)	BROMODICHLOROMETHANE	11.38	83	324935	10.00	PPBV	100
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	809342	10.00	PPBV	100
62)	1,4-DIOXANE	11.44	88	99650	10.00	PPBV	100
63)	HEPTANE	11.63	43	291727	10.00	PPBV	100
64)	METHYL METHACRYLATE	11.56	69	150307	10.00	PPBV	100
65)	METHYL ISOBUTYL KETONE	12.22	58	135492	10.00	PPBV	100
66)	cis-1,3-DICHLOROPROPENE	12.17	75	289082	10.00	PPBV	100
67)	TOLUENE	13.07	92	316136	10.00	PPBV	100
68)	1,3-DICHLOROPROPANE	13.09	76	260270	10.00	PPBV	100
69)	trans-1,3-DICHLOROPROPENE	12.64	75	244409	10.00	PPBV	100
70)	1,1,2-TRICHLOROETHANE	12.82	83	162429	10.00	PPBV	100
72)	2-HEXANONE	13.32	58	195172	10.00	PPBV	100
73)	ETHYL METHACRYLATE	13.30	69	260199	10.00	PPBV	100
74)	TETRACHLOROETHYLENE	14.14	164	192589	10.00	PPBV	100
75)	DIBROMOCHLOROMETHANE	13.49	129	315958	10.00	PPBV	100
76)	1,2-DIBROMOETHANE	13.72	107	281513	10.00	PPBV	100
77)	OCTANE	13.96	43	400264	10.00	PPBV	100
78)	1,1,1,2-TETRACHLOROETHANE	14.80	131	236817	10.00	PPBV	100
79)	CHLOROBENZENE	14.81	112	429579	10.00	PPBV	100
80)	ETHYLBENZENE	15.17	91	608573	10.00	PPBV	100
81)	m,p-XYLENE	15.35	106	462754	20.00	PPBV	100
82)	o-XYLENE	15.84	106	224988	10.00	PPBV	100
83)	STYRENE	15.73	104	350608	10.00	PPBV	100
84)	NONANE	16.03	43	432543	10.00	PPBV	100
85)	BROMOFORM	15.46	173	316097	10.00	PPBV	100
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	391045	10.00	PPBV	100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	269134	10.00	PPBV	100
89)	ISOPROPYLBENZENE	16.45	105	666089	10.00	PPBV	100
90)	BROMOBENZENE	16.56	77	363115	10.00	PPBV	100
91)	2-CHLOROTOLUENE	16.96	126	173056	10.00	PPBV	100
92)	n-PROPYLBENZENE	16.99	120	177510	10.00	PPBV	100
93)	4-ETHYLTOLUENE	17.14	105	582994	10.00	PPBV	100
94)	1,3,5-TRIMETHYLBENZENE	17.23	105	502860	10.00	PPBV	100
95)	ALPHA-METHYLSTYRENE	17.40	118	252791	10.00	PPBV	100
96)	tert-BUTYLBENZENE	17.66	134	126394	10.00	PPBV	100
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	495777	10.00	PPBV	100
98)	m-DICHLOROBENZENE	17.84	146	326883	10.00	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52818.D Vial: 1
Acq On : 16 Mar 2016 10:10 pm Operator: YOUMINH
Sample : ICC1994-10 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:19 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

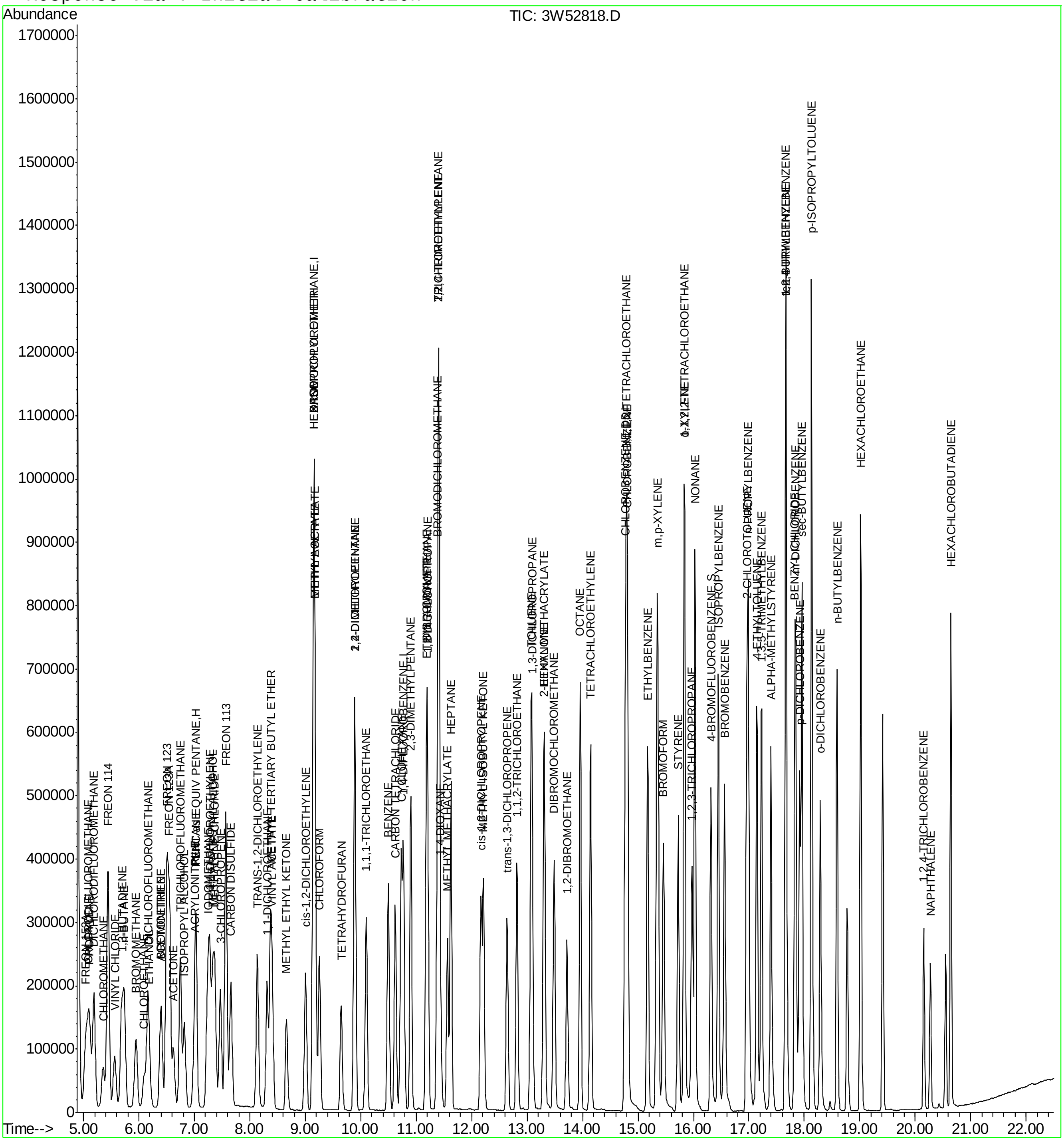
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
99)	BENZYL CHLORIDE	17.82	91	418044	9.87	PPBV	#	80
100)	p-DICHLOROBENZENE	17.92	146	337851	10.00	PPBV		100
101)	sec-BUTYLBENZENE	17.96	134	150129	10.00	PPBV		100
102)	p-ISOPROPYLTOLUENE	18.13	134	161942	9.99	PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	298504	10.00	PPBV		100
104)	n-BUTYLBENZENE	18.59	134	135446	10.00	PPBV		100
105)	HEXACHLOROETHANE	19.02	117	259759	10.00	PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	174628	10.00	PPBV		100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	113675	10.00	PPBV		100
108)	NAPHTHALENE	20.28	128	228493	10.00	PPBV		100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52818.D   Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                    Operator: YOUMINH
Sample    : ICC1994-10                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 11:21 2016              Quant Results File: M3W1994.RES

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Initial Calibration
```



7.7.1

7

Manual Integration Approval Summary

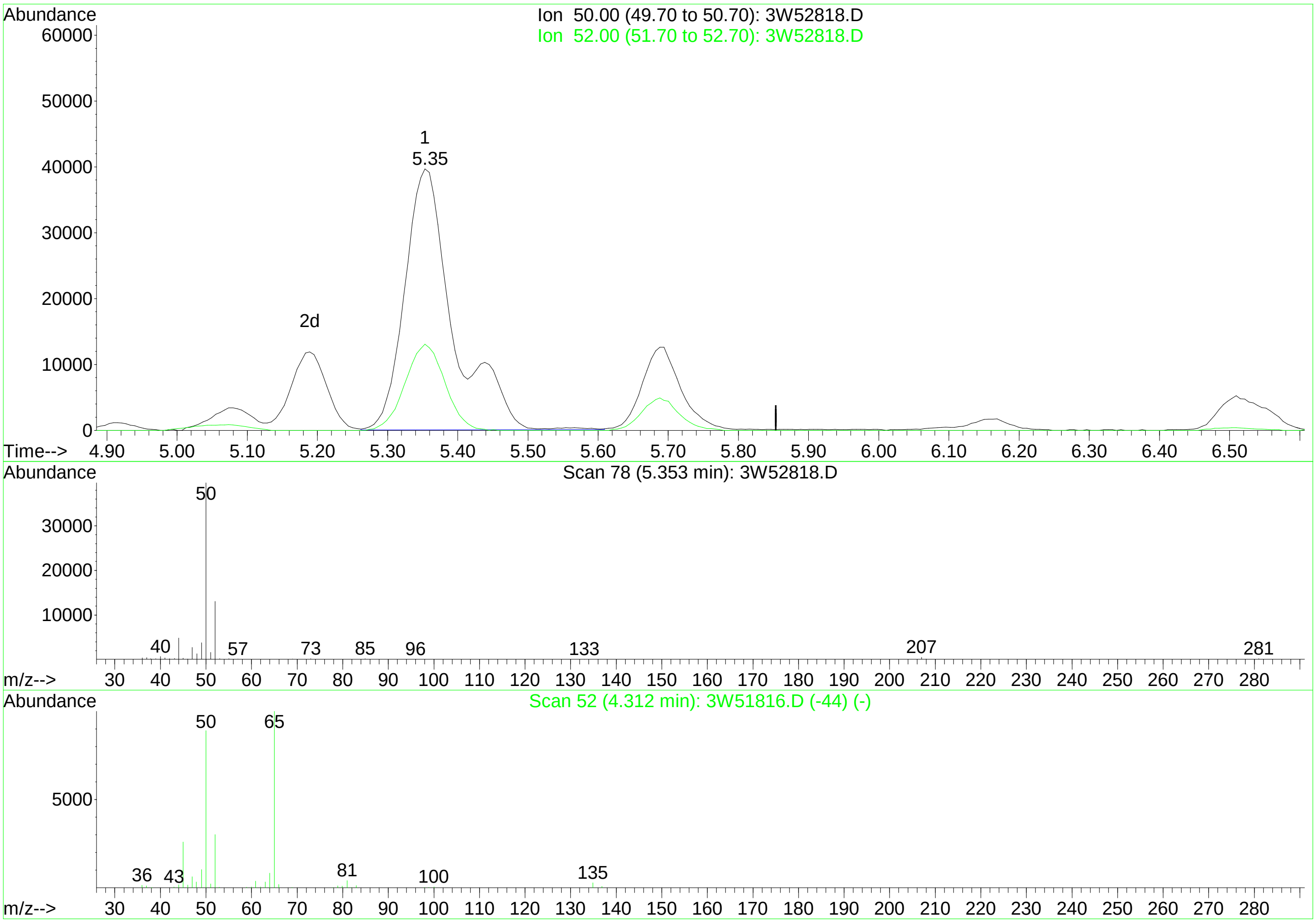
Sample Number:	V3W1994-ICC1994	**Method:**	TO-15
Lab FileID:	3W52818.D	**Analyst approved:**	03/31/16 12:48 Youmin Hu
Injection Time:	03/16/16 22:10	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.65	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52818.D                  Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                    Operator: YOUMINH
Sample    : ICC1994-10                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52818.D

(10) CHLOROMETHANE

5.35min 11.85PPBV

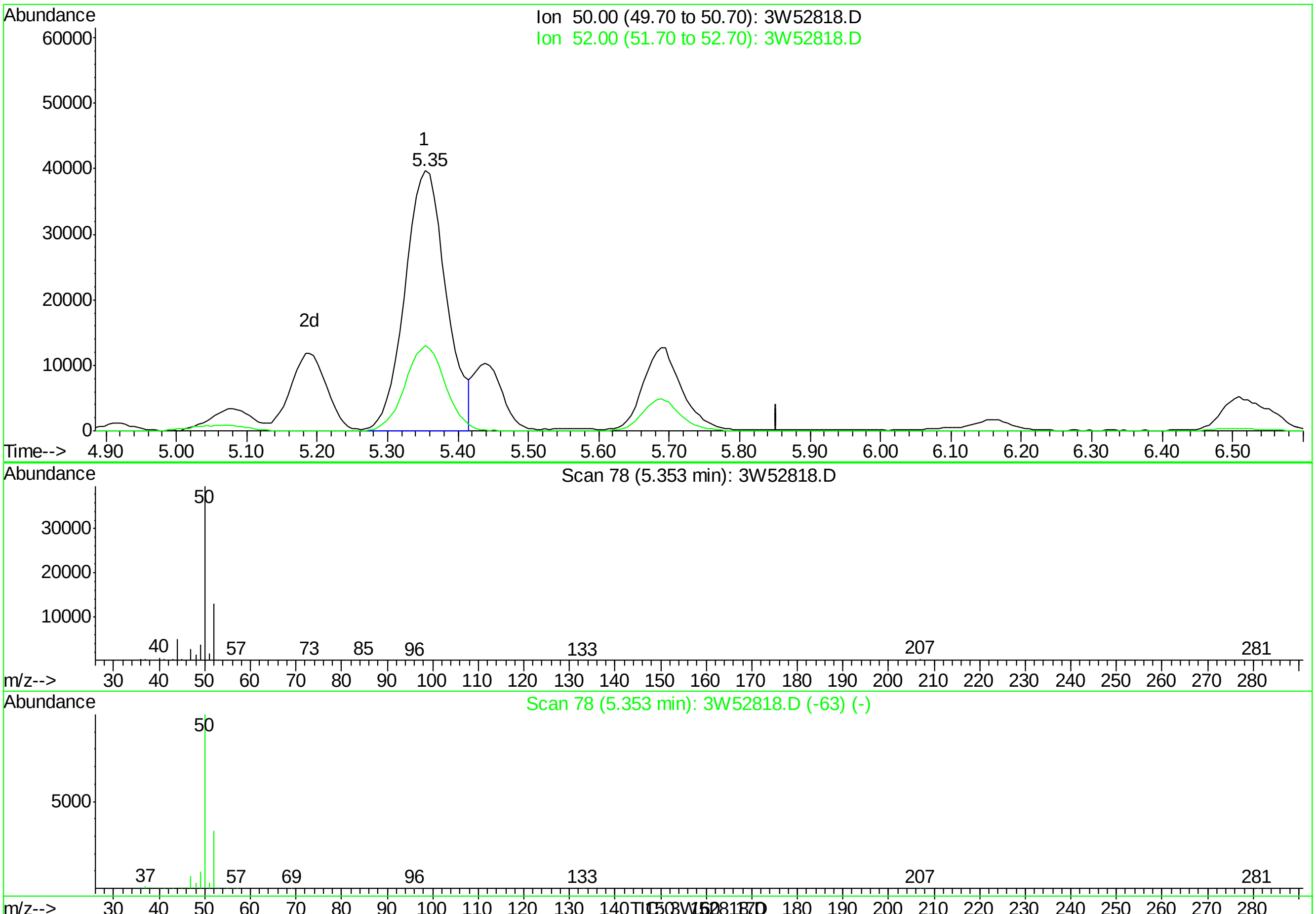
response 191040

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52818.D                    Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                      Operator: YOUMINH
Sample    : ICC1994-10                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:44 2016                 Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 11:00:18 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 10.00PPBV m

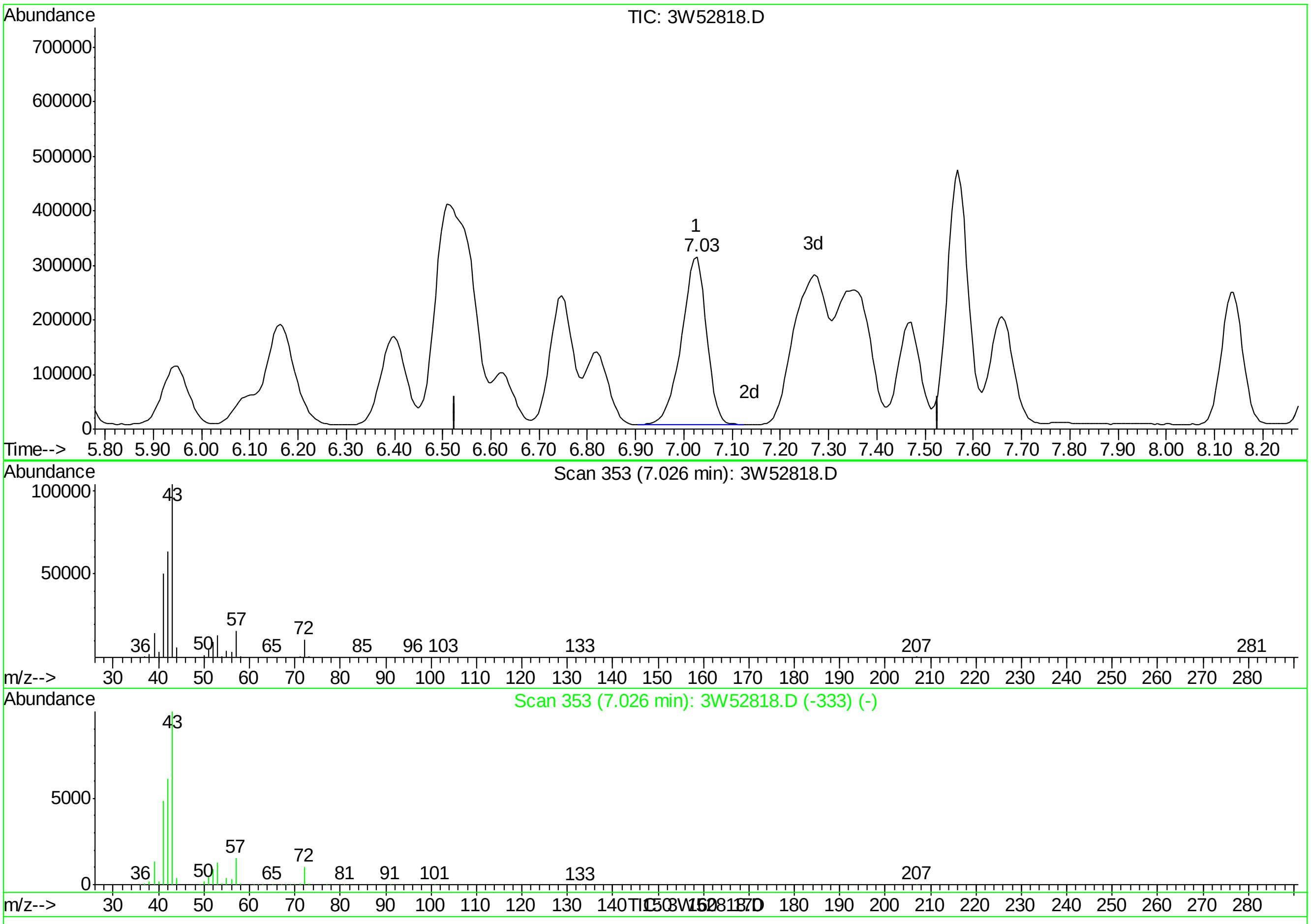
response 161206

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.90
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52818.D                    Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                      Operator: YOUMINH
Sample    : ICC1994-10                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 12:10 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 10.01PPBV m

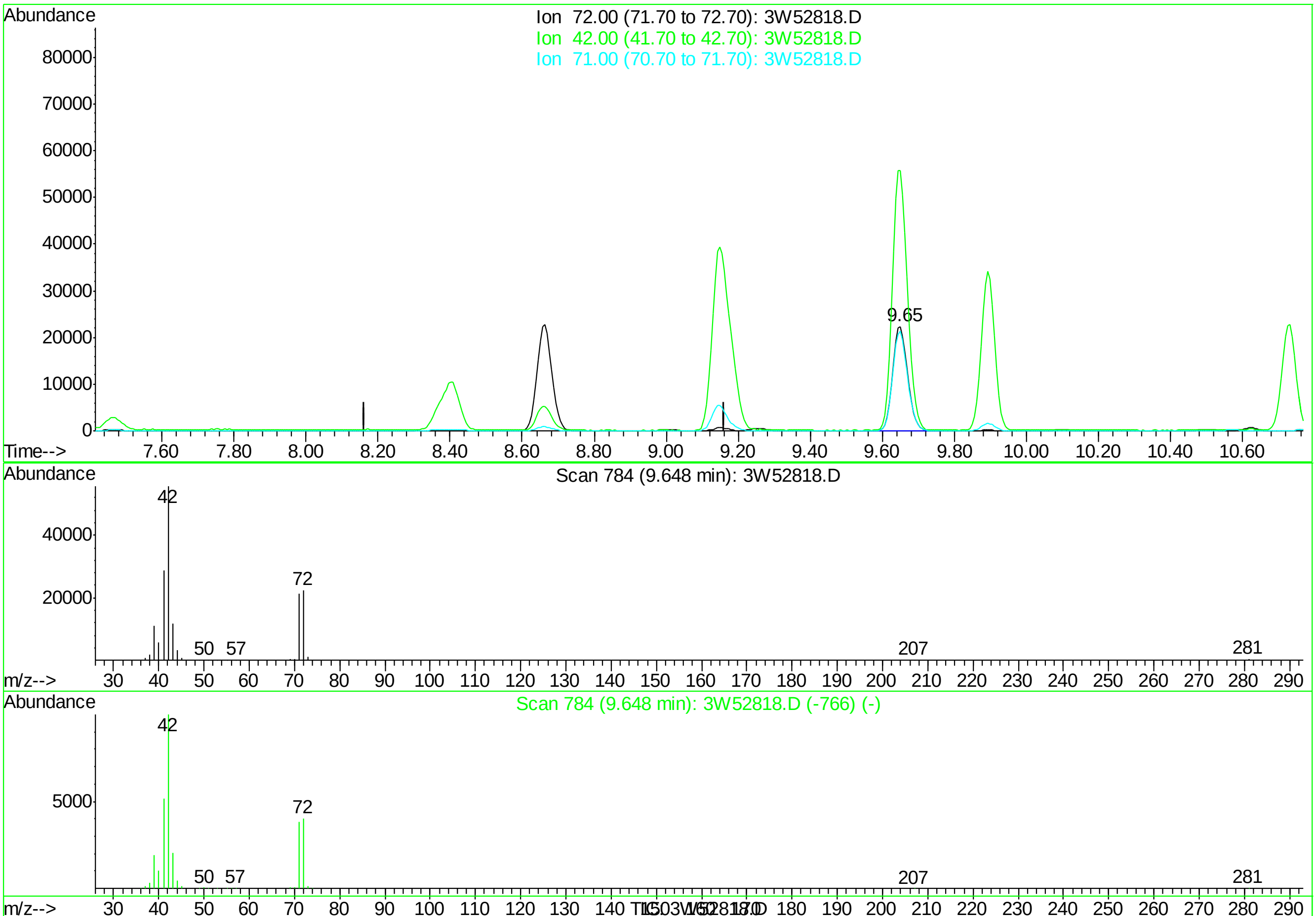
response 1121602

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.58#
0.00	2.20	2.24#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52818.D   Vial: 1
Acq On    : 16 Mar 2016  10:10 pm                       Operator: YOUMINH
Sample    : ICC1994-10                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 11:21 2016                 Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.65min 9.86PPBV m

response 63724

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	26.95
71.00	3.90	3.99
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52819.D   Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                      Operator: YOUMINH
Sample    : IC1994-5                                   Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:20 2016             Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	89738	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	454139	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	232087	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	236348	9.42 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 94.20%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
4) FREON 152A	5.03	65	52780	5.57 PPBV	97
5) CHLORODIFLUOROMETHANE	5.07	67	19222	5.51 PPBV	98
6) DICHLORODIFLUOROMETHANE	5.18	85	200108	5.54 PPBV	100
7) PROPYLENE	5.10	41	71953	5.36 PPBV	98
9) FREON 114	5.43	85	230773	5.65 PPBV	100
10) CHLOROMETHANE	5.35	50	91634m	5.66 PPBV	
11) VINYL CHLORIDE	5.55	62	105286	5.64 PPBV	100
12) 1,3-BUTADIENE	5.68	54	78409	5.46 PPBV	99
13) n-BUTANE	5.72	43	165085	5.53 PPBV	99
14) BROMOMETHANE	5.94	94	86925	5.59 PPBV	100
15) CHLOROETHANE	6.08	64	49523	5.36 PPBV	99
16) DICHLOROFLUOROMETHANE	6.16	67	180717	5.26 PPBV	99
17) ACETONITRILE	6.39	41	56236	4.70 PPBV	99
18) FREON 123	6.50	83	197976	5.29 PPBV	99
19) FREON 123A	6.55	117	102353	5.31 PPBV	98
20) TRICHLOROFLUOROMETHANE	6.74	101	188936	5.39 PPBV	100
22) ISOPROPYL ALCOHOL	6.82	45	151386	4.97 PPBV	99
23) ACETONE	6.62	58	33099	4.81 PPBV	98
24) PENTANE	7.02	42	100718	5.19 PPBV	100
25) TVHC as EQUIV PENTANE	7.01	TIC	580808m	5.16 PPBV	
26) IODOMETHANE	7.23	142	199608	5.43 PPBV	100
27) 1,1-DICHLOROETHYLENE	7.27	96	92103	5.72 PPBV	92
28) CARBON DISULFIDE	7.65	76	286558	5.50 PPBV	99
29) ETHANOL	6.21	45	35343	5.07 PPBV	100
30) BROMOETHENE	6.39	106	84755	5.54 PPBV	100
31) ACRYLONITRILE	6.98	52	43340	4.83 PPBV	97
32) METHYLENE CHLORIDE	7.36	84	79002	5.45 PPBV	95
33) 3-CHLOROPROPENE	7.46	76	44116	5.34 PPBV	98
34) FREON 113	7.56	151	121723	5.30 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	87081	5.29 PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.33	59	189258	5.07 PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.37	73	188474	4.87 PPBV	99
38) TETRAHYDROFURAN	9.65	72	31175m	4.81 PPBV	
39) HEXANE	9.14	57	128219	5.09 PPBV	99
40) VINYL ACETATE	8.40	86	15548	4.76 PPBV #	92
41) 1,1-DICHLOROETHANE	8.30	63	162571	5.18 PPBV	100
42) METHYL ETHYL KETONE	8.66	72	31294	4.82 PPBV	98
43) cis-1,2-DICHLOROETHYLENE	9.00	96	78731	5.27 PPBV	99
44) DIISOPROPYL ETHER	9.16	59	31574	4.85 PPBV	99
45) ETHYL ACETATE	9.18	61	21415	4.69 PPBV #	91
46) METHYL ACRYLATE	9.17	55	119497	4.72 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52819.D Vial: 1
Acq On : 16 Mar 2016 10:50 pm Operator: YOUMINH
Sample : IC1994-5 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:20 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.25	83	149523	5.18	PPBV		99
48)	2,4-DIMETHYLPENTANE	9.89	57	148376	5.11	PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.09	97	141151	5.17	PPBV		99
50)	CARBON TETRACHLORIDE	10.62	117	146147	5.13	PPBV		99
51)	1,2-DICHLOROETHANE	9.88	62	92935	5.14	PPBV		100
53)	BENZENE	10.49	78	237154	5.19	PPBV		100
54)	CYCLOHEXANE	10.73	84	106983	5.22	PPBV		97
55)	2,3-DIMETHYLPENTANE	10.90	71	54670	5.11	PPBV		98
56)	TRICHLOROETHYLENE	11.40	95	101981	5.08	PPBV		99
57)	1,2-DICHLOROPROPANE	11.21	63	92197	5.08	PPBV		100
58)	DIBROMOMETHANE	11.19	174	86883	5.22	PPBV		99
59)	ETHYL ACRYLATE	11.18	55	150108	4.75	PPBV		99
60)	BROMODICHLOROMETHANE	11.38	83	165268	5.11	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	404266	5.02	PPBV		100
62)	1,4-DIOXANE	11.45	88	47213	4.76	PPBV	#	62
63)	HEPTANE	11.62	43	145881	5.03	PPBV		100
64)	METHYL METHACRYLATE	11.56	69	70017	4.68	PPBV		97
65)	METHYL ISOBUTYL KETONE	12.22	58	64083	4.76	PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.17	75	148913	5.18	PPBV		99
67)	TOLUENE	13.07	92	161477	5.14	PPBV		100
68)	1,3-DICHLOROPROPANE	13.09	76	132332	5.11	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	128583	5.29	PPBV		98
70)	1,1,2-TRICHLOROETHANE	12.82	83	84095	5.21	PPBV		99
72)	2-HEXANONE	13.31	58	90341	4.99	PPBV		97
73)	ETHYL METHACRYLATE	13.30	69	121458	5.03	PPBV		99
74)	TETRACHLOROETHYLENE	14.14	164	99410	5.57	PPBV		100
75)	DIBROMOCHLOROMETHANE	13.48	129	161764	5.52	PPBV		100
76)	1,2-DIBROMOETHANE	13.72	107	144578	5.54	PPBV		99
77)	OCTANE	13.96	43	204364	5.51	PPBV		100
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	121325	5.53	PPBV		99
79)	CHLOROBENZENE	14.81	112	219245	5.50	PPBV		100
80)	ETHYLBENZENE	15.17	91	293026	5.19	PPBV		100
81)	m,p-XYLENE	15.35	106	217695	10.15	PPBV		100
82)	o-XYLENE	15.84	106	104840	5.03	PPBV		98
83)	STYRENE	15.73	104	174162	5.36	PPBV		97
84)	NONANE	16.02	43	220796	5.51	PPBV		100
85)	BROMOFORM	15.46	173	158162	5.40	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	185619	5.12	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	127154	5.10	PPBV		100
89)	ISOPROPYLBENZENE	16.45	105	313419	5.07	PPBV		100
90)	BROMOBENZENE	16.56	77	181629	5.39	PPBV		100
91)	2-CHLOROTOLUENE	16.96	126	83647	5.21	PPBV		100
92)	n-PROPYLBENZENE	16.99	120	81550	4.95	PPBV		99
93)	4-ETHYLTOLUENE	17.14	105	269506	4.99	PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	235215	5.04	PPBV		99
95)	ALPHA-METHYLSTYRENE	17.40	118	115245	4.92	PPBV		100
96)	tert-BUTYLBENZENE	17.66	134	57827	4.93	PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	227024	4.94	PPBV		100
98)	m-DICHLOROBENZENE	17.84	146	157001	5.18	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52819.D   Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                     Operator: YOUMINH
Sample    : IC1994-5                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:20 2016           Quant Results File: M3W1994.RES

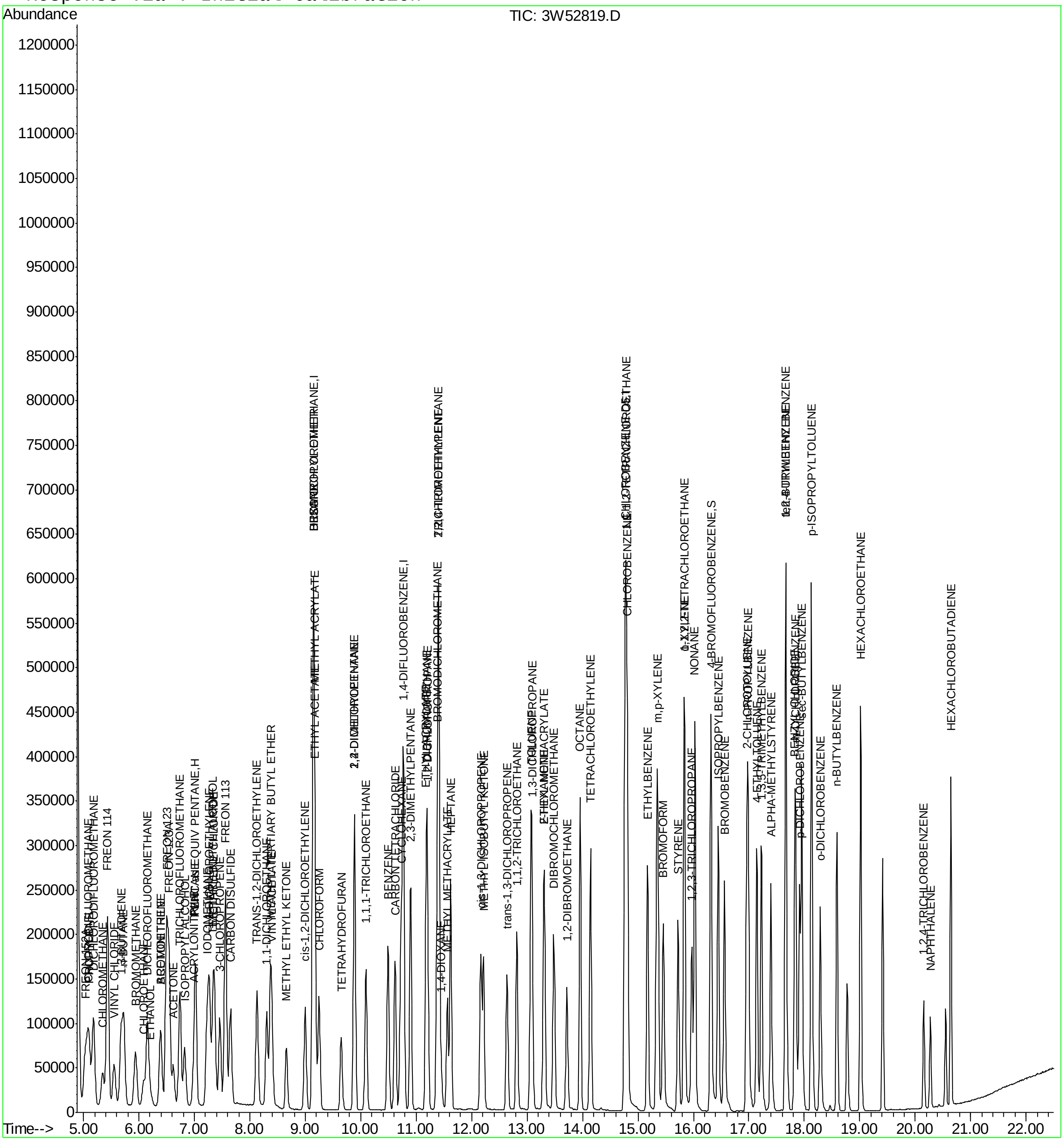
Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
99)	BENZYL CHLORIDE	17.82	91	189199	4.82 PPBV	#	80
100)	p-DICHLOROBENZENE	17.92	146	161852	5.17 PPBV		100
101)	sec-BUTYLBENZENE	17.96	134	69473	4.99 PPBV		100
102)	p-ISOPROPYLTOLUENE	18.13	134	72742	4.84 PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	139901	5.05 PPBV		99
104)	n-BUTYLBENZENE	18.59	134	60748	4.84 PPBV		98
105)	HEXACHLOROETHANE	19.02	117	126911	5.27 PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	81208	5.02 PPBV		100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	48977	4.65 PPBV		99
108)	NAPHTHALENE	20.27	128	99910	4.72 PPBV		100

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52819.D   Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                       Operator: YOUMINH
Sample    : IC1994-5                                    Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016               Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

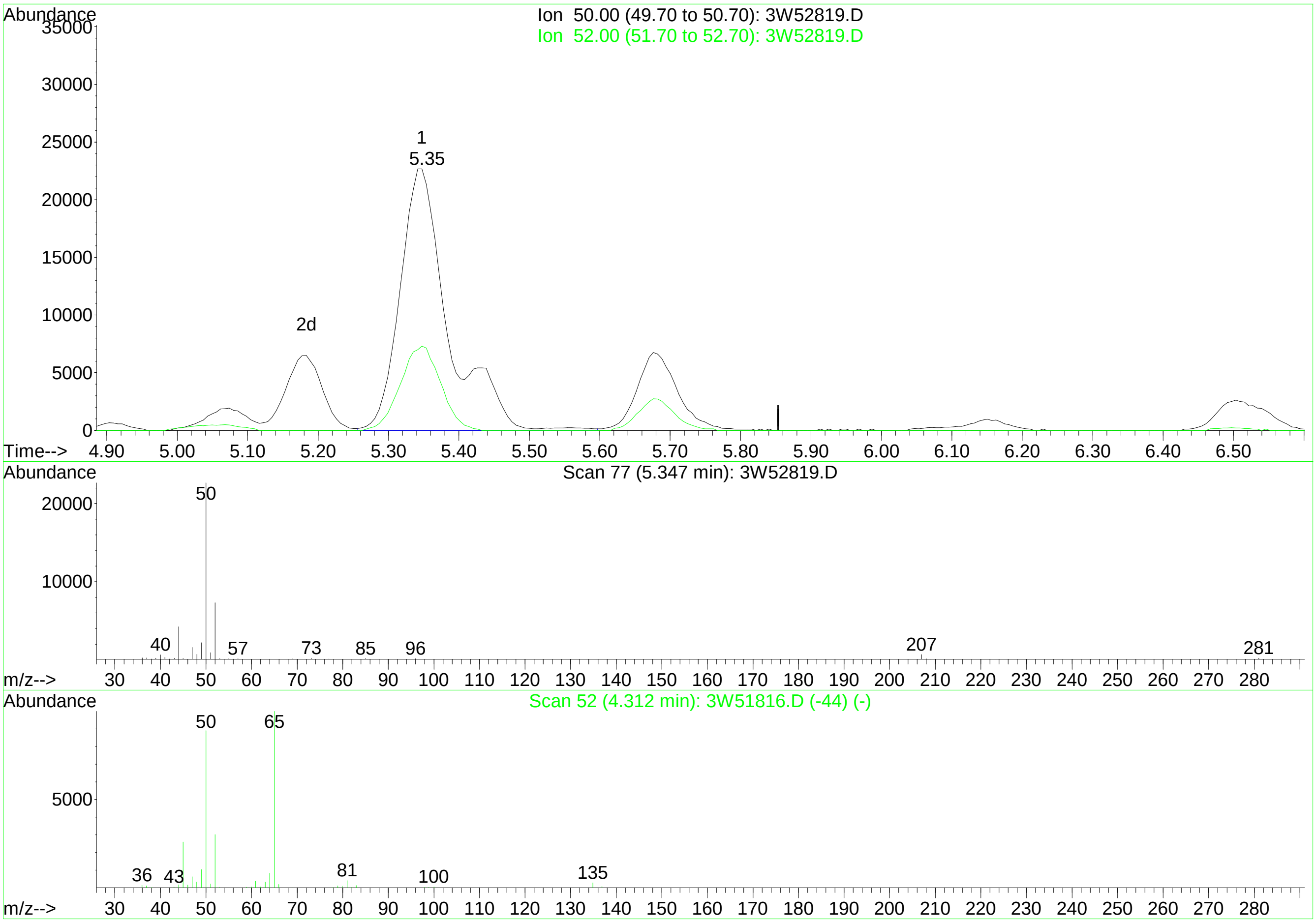
Sample Number:	V3W1994-IC1994	**Method:**	TO-15
Lab FileID:	3W52819.D	**Analyst approved:**	03/31/16 12:48 Youmin Hu
Injection Time:	03/16/16 22:50	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.65	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52819.D                Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                  Operator: YOUMINH
Sample    : IC1994-5                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:44 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 10:38:08 2016
Response via  : Multiple Level Calibration
```



TIC: 3W52819.D

(10) CHLOROMETHANE

5.35min 6.67PPBV

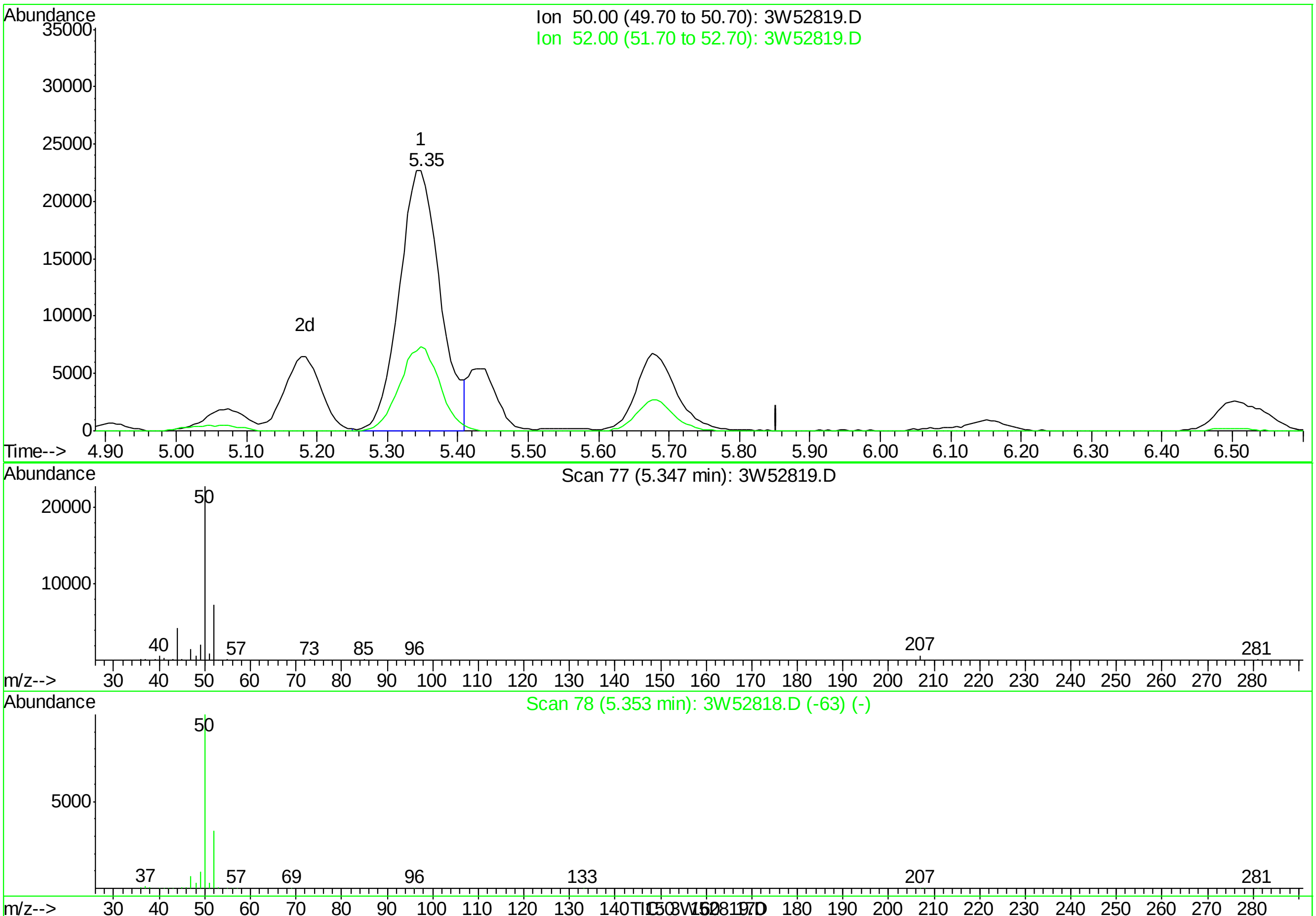
response 107976

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52819.D                    Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                       Operator: YOUMINH
Sample    : IC1994-5                                    Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:45 2016                 Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 5.66PPBV m

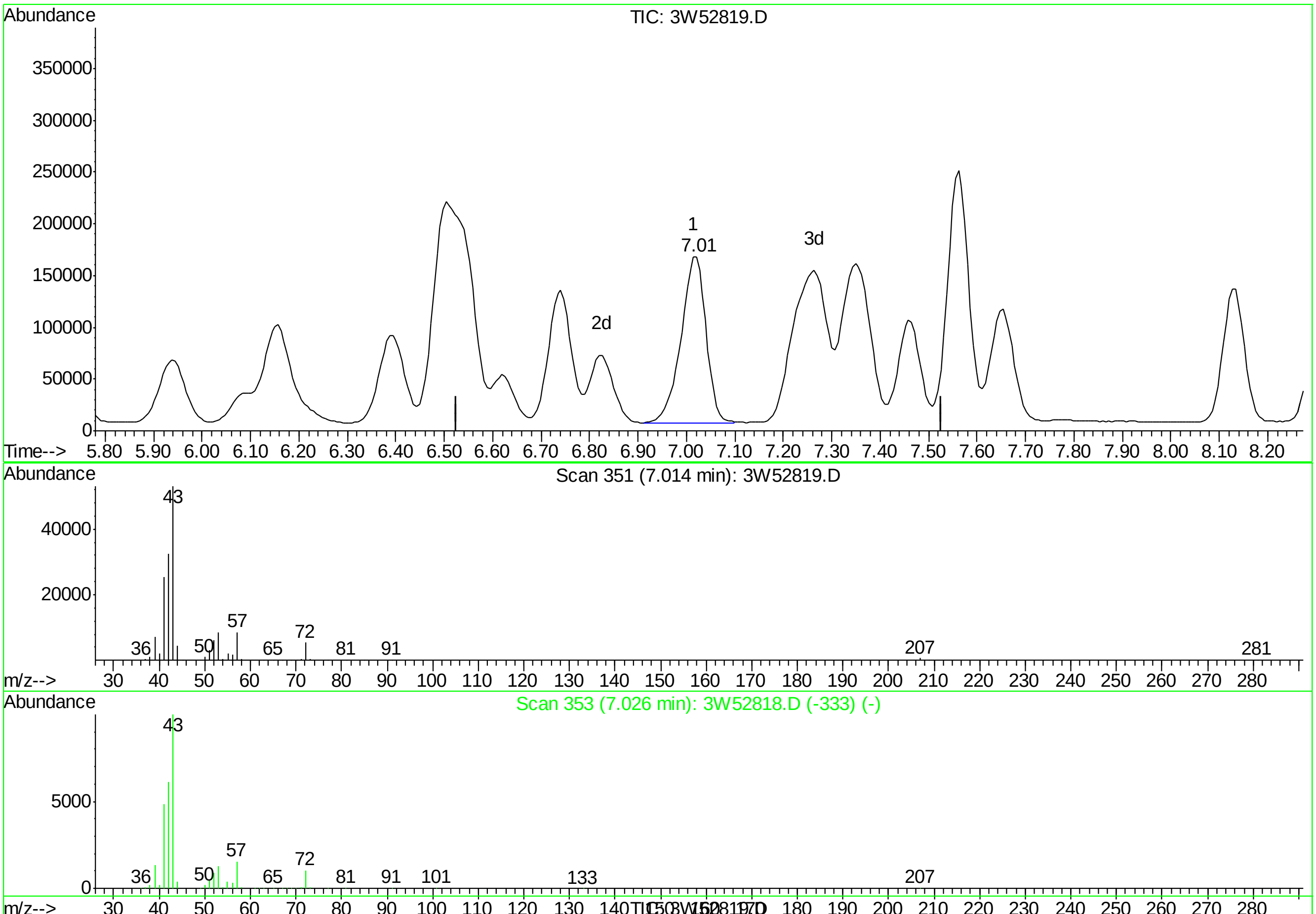
response 91634

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52819.D                     Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                       Operator: YOUMINH
Sample    : IC1994-5                                    Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:45 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.01min 5.16PPBV m

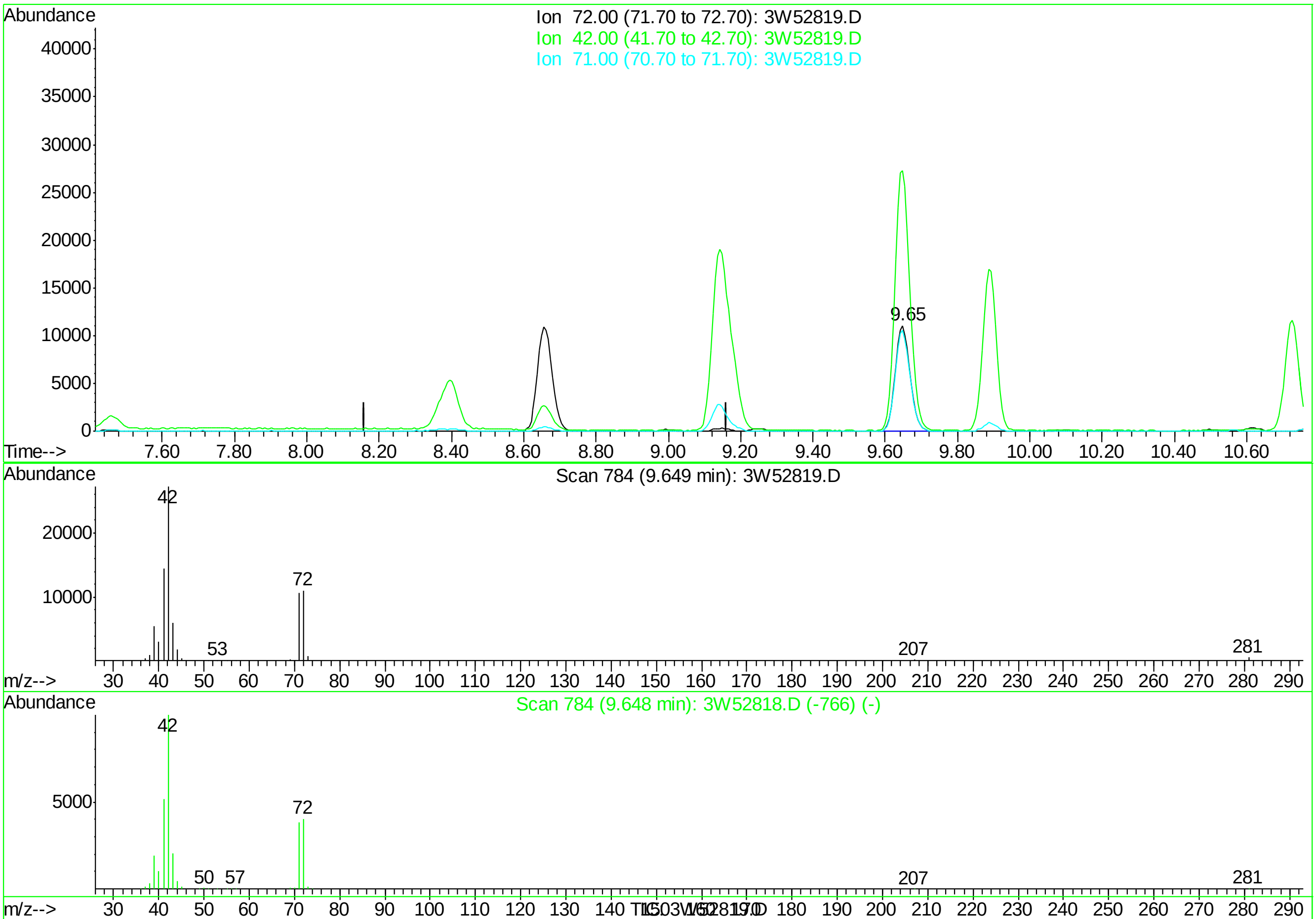
response 580808

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.20#
0.00	2.20	1.86#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52819.D    Vial: 1
Acq On    : 16 Mar 2016  10:50 pm                       Operator: YOUMINH
Sample    : IC1994-5                                    Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016                 Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.65min 4.81PPBV m

response 31175

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	27.42
71.00	3.90	4.30
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52820.D   Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                      Operator: YOUMINH
Sample    : IC1994-0.5                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016             Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	84654	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	388137	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	186725	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	211747	10.49 PPBV	0.00

Spiked Amount 10.000   Range 65 - 128   Recovery = 104.90%

Target Compounds

	R.T.	QIon	Response	Conc Units		Qvalue
4) FREON 152A	5.03	65	4899	0.55 PPBV	#	49
5) CHLORODIFLUOROMETHANE	5.07	67	1964	0.60 PPBV		93
6) DICHLORODIFLUOROMETHANE	5.18	85	17736	0.52 PPBV		100
7) PROPYLENE	5.12	41	6429	0.51 PPBV		89
9) FREON 114	5.44	85	20906	0.54 PPBV		100
10) CHLOROMETHANE	5.35	50	8161m	0.53 PPBV		
11) VINYL CHLORIDE	5.55	62	9509	0.54 PPBV		99
12) 1,3-BUTADIENE	5.68	54	7135	0.53 PPBV		97
13) n-BUTANE	5.73	43	15282	0.54 PPBV	#	93
14) BROMOMETHANE	5.94	94	8086	0.55 PPBV		93
15) CHLOROETHANE	6.08	64	4703	0.54 PPBV		94
16) DICHLOROFLUOROMETHANE	6.15	67	18629	0.58 PPBV	#	98
17) ACETONITRILE	6.39	41	6430	0.57 PPBV		96
18) FREON 123	6.50	83	18072	0.51 PPBV		98
19) FREON 123A	6.54	117	9376	0.52 PPBV		92
20) TRICHLOROFLUOROMETHANE	6.75	101	17292	0.52 PPBV		98
22) ISOPROPYL ALCOHOL	6.84	45	14861	0.52 PPBV		89
23) ACETONE	6.64	58	4046	0.62 PPBV	#	86
24) PENTANE	7.03	42	9835	0.54 PPBV		95
25) TVHC as EQUIV PENTANE	7.01	TIC	61662m	0.58 PPBV		
26) IODOMETHANE	7.23	142	18224	0.53 PPBV		100
27) 1,1-DICHLOROETHYLENE	7.27	96	9186	0.60 PPBV	#	84
28) CARBON DISULFIDE	7.65	76	25595	0.52 PPBV		97
29) ETHANOL	6.22	45	3981	0.60 PPBV	#	96
30) BROMOETHENE	6.40	106	7511	0.52 PPBV		98
31) ACRYLONITRILE	7.00	52	4399	0.52 PPBV	#	89
32) METHYLENE CHLORIDE	7.37	84	8119	0.59 PPBV		98
33) 3-CHLOROPROPENE	7.46	76	3914	0.50 PPBV		98
34) FREON 113	7.57	151	11301	0.52 PPBV		98
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	7910m	0.51 PPBV		
36) TERTIARY BUTYL ALCOHOL	7.36	59	17852	0.51 PPBV		96
37) METHYL TERTIARY BUTYL ETHE	8.39	73	19929	0.55 PPBV		84
38) TETRAHYDROFURAN	9.66	72	3106m	0.51 PPBV		
39) HEXANE	9.14	57	11706	0.49 PPBV	#	84
40) VINYL ACETATE	8.40	86	1586	0.51 PPBV	#	75
41) 1,1-DICHLOROETHANE	8.31	63	15038	0.51 PPBV		95
42) METHYL ETHYL KETONE	8.68	72	3255	0.53 PPBV	#	88
43) cis-1,2-DICHLOROETHYLENE	9.00	96	7457	0.53 PPBV		95
44) DIISOPROPYL ETHER	9.17	59	3242	0.53 PPBV	#	92
45) ETHYL ACETATE	9.19	61	2154	0.50 PPBV	#	77
46) METHYL ACRYLATE	9.18	55	13235	0.55 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52820.D   Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                       Operator: YOUMINH
Sample    : IC1994-0.5                                  Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.25	83	13919	0.51	PPBV		99
48)	2,4-DIMETHYLPENTANE	9.89	57	13282	0.48	PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.09	97	12940	0.50	PPBV		99
50)	CARBON TETRACHLORIDE	10.62	117	13371	0.50	PPBV		99
51)	1,2-DICHLOROETHANE	9.88	62	8003	0.47	PPBV		99
53)	BENZENE	10.49	78	20515	0.52	PPBV		99
54)	CYCLOHEXANE	10.73	84	10159	0.58	PPBV	#	46
55)	2,3-DIMETHYLPENTANE	10.90	71	4985	0.55	PPBV		98
56)	TRICHLOROETHYLENE	11.40	95	9149	0.53	PPBV		97
57)	1,2-DICHLOROPROPANE	11.20	63	7551	0.49	PPBV		99
58)	DIBROMOMETHANE	11.19	174	7677	0.54	PPBV		99
59)	ETHYL ACRYLATE	11.18	55	14578	0.54	PPBV		97
60)	BROMODICHLOROMETHANE	11.38	83	14434	0.52	PPBV		99
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	35288	0.51	PPBV		99
62)	1,4-DIOXANE	11.47	88	2688	0.32	PPBV	#	55
63)	HEPTANE	11.62	43	13956	0.56	PPBV		97
64)	METHYL METHACRYLATE	11.56	69	7114	0.56	PPBV		93
65)	METHYL ISOBUTYL KETONE	12.23	58	5819	0.51	PPBV		93
66)	cis-1,3-DICHLOROPROPENE	12.16	75	12325	0.50	PPBV		93
67)	TOLUENE	13.07	92	11665	0.43	PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	10487	0.47	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	9679	0.47	PPBV		96
70)	1,1,2-TRICHLOROETHANE	12.81	83	6578	0.48	PPBV		99
72)	2-HEXANONE	13.33	58	7421	0.51	PPBV	#	84
73)	ETHYL METHACRYLATE	13.30	69	10810	0.56	PPBV		94
74)	TETRACHLOROETHYLENE	14.14	164	8763	0.61	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.48	129	13213	0.56	PPBV		100
76)	1,2-DIBROMOETHANE	13.71	107	11273	0.54	PPBV		98
77)	OCTANE	13.96	43	18727	0.63	PPBV		97
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	9359	0.53	PPBV		99
79)	CHLOROBENZENE	14.81	112	17402	0.54	PPBV		87
80)	ETHYLBENZENE	15.17	91	25598	0.56	PPBV		98
81)	m,p-XYLENE	15.35	106	19105	1.11	PPBV		97
82)	o-XYLENE	15.84	106	9046	0.54	PPBV		93
83)	STYRENE	15.72	104	14537	0.56	PPBV		97
84)	NONANE	16.02	43	18508	0.57	PPBV		97
85)	BROMOFORM	15.45	173	12210	0.52	PPBV		96
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	16876	0.58	PPBV		99
88)	1,2,3-TRICHLOROPROPANE	15.97	75	11941	0.59	PPBV		97
89)	ISOPROPYLBENZENE	16.44	105	28557	0.57	PPBV		98
90)	BROMOBENZENE	16.55	77	14726	0.54	PPBV		96
91)	2-CHLOROTOLUENE	16.96	126	6861	0.53	PPBV		98
92)	n-PROPYLBENZENE	16.99	120	7261	0.55	PPBV		98
93)	4-ETHYLTOLUENE	17.14	105	24759	0.57	PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	22215	0.59	PPBV		98
95)	ALPHA-METHYLSTYRENE	17.40	118	9670	0.51	PPBV		98
96)	tert-BUTYLBENZENE	17.66	134	5322	0.56	PPBV		96
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	21163	0.57	PPBV		99
98)	m-DICHLOROBENZENE	17.84	146	12805	0.53	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52820.D Vial: 2
Acq On : 16 Mar 2016 11:31 pm Operator: YOUMINH
Sample : IC1994-0.5 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

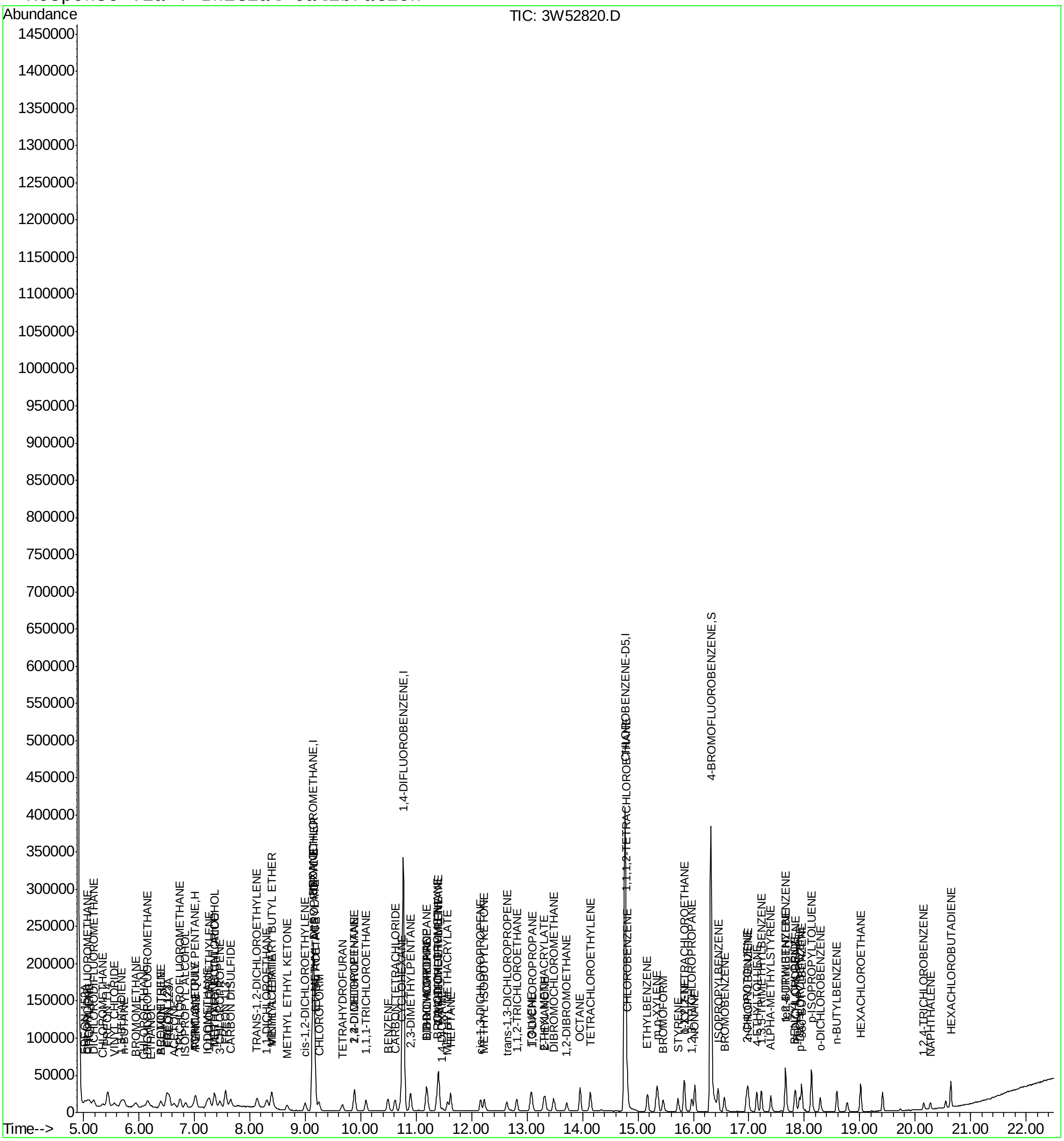
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
99)	BENZYL CHLORIDE	17.82	91	16207	0.51	PPBV	#	80
100)	p-DICHLOROBENZENE	17.92	146	13460	0.53	PPBV		99
101)	sec-BUTYLBENZENE	17.95	134	6439	0.57	PPBV		96
102)	p-ISOPROPYLTOLUENE	18.13	134	6726	0.56	PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	12420	0.56	PPBV		98
104)	n-BUTYLBENZENE	18.59	134	5421	0.54	PPBV		96
105)	HEXACHLOROETHANE	19.01	117	10071	0.52	PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	7826	0.60	PPBV		99
107)	1,2,4-TRICHLOROBENZENE	20.15	180	4184	0.49	PPBV		98
108)	NAPHTHALENE	20.28	128	8514	0.50	PPBV		98

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

```
                         Quantitation Report    (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52820.D   Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                        Operator: YOUMINH
Sample    : IC1994-0.5                                   Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                        Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016                  Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

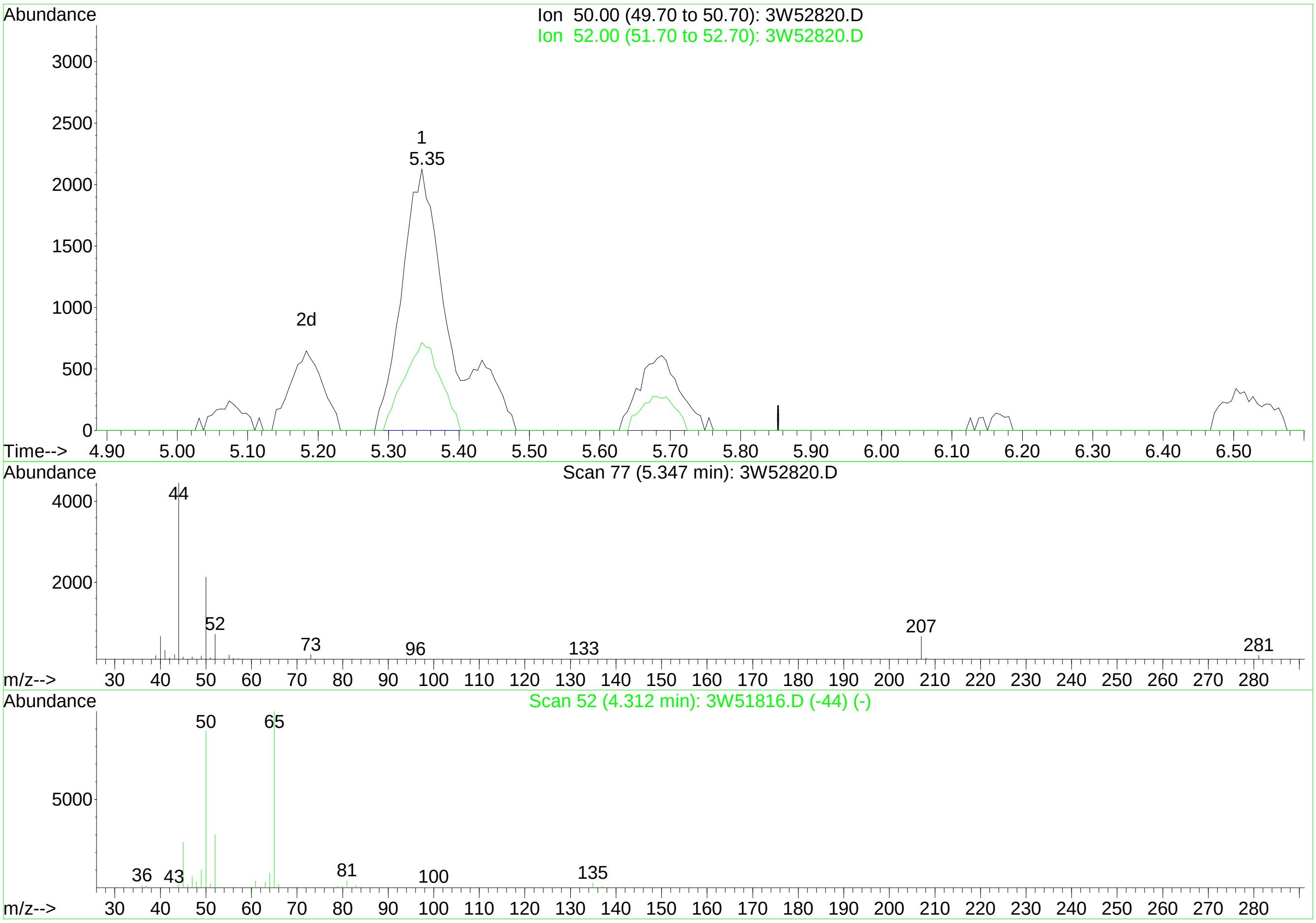
Sample Number: V3W1994-IC1994 **Method:** TO-15
Lab FileID: 3W52820.D **Analyst approved:** 03/31/16 12:48 Youmin Hu
Injection Time: 03/16/16 23:31 **Supervisor approved:** 03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
trans-1,2-Dichloroethylene	156-60-5		8.13	Poor instrument integration
Tetrahydrofuran	109-99-9		9.66	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52820.D                     Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                       Operator: YOUMINH
Sample    : IC1994-0.5                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:46 2016                 Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 10:38:08 2016
Response via  : Multiple Level Calibration
```



TIC: 3W52820.D

(10) CHLOROMETHANE

5.35min 0.65PPBV

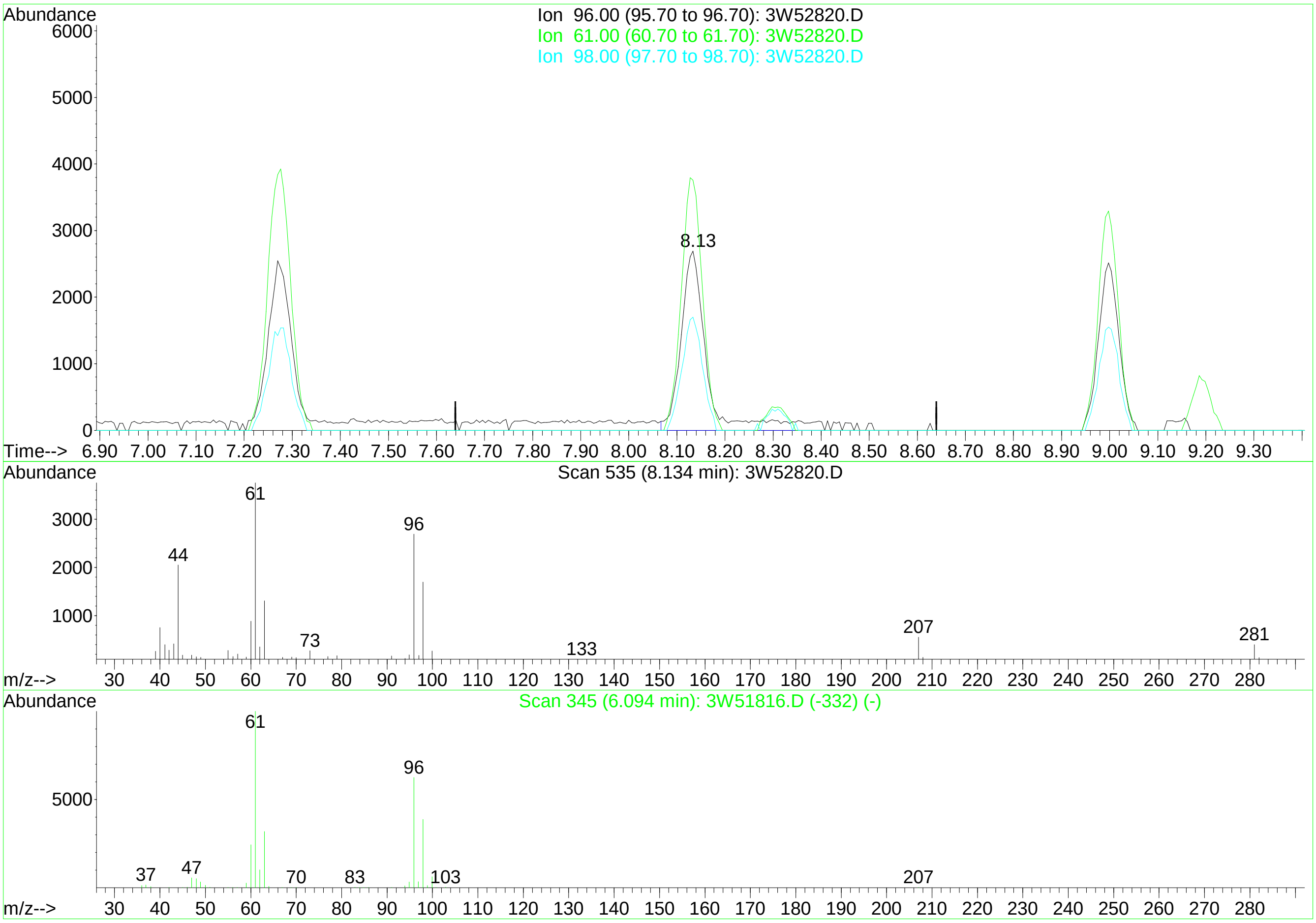
response 9879

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52820.D              Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                 Operator: YOUMINH
Sample    : IC1994-0.5                            Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:46 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52820.D

(35) TRANS-1,2-DICHLOROETHYLENE

8.13min 0.66PPBV

response 10187

Ion	Exp%	Act%
96.00	100	100
61.00	145.50	113.64#
98.00	62.20	49.73
0.00	0.00	0.00

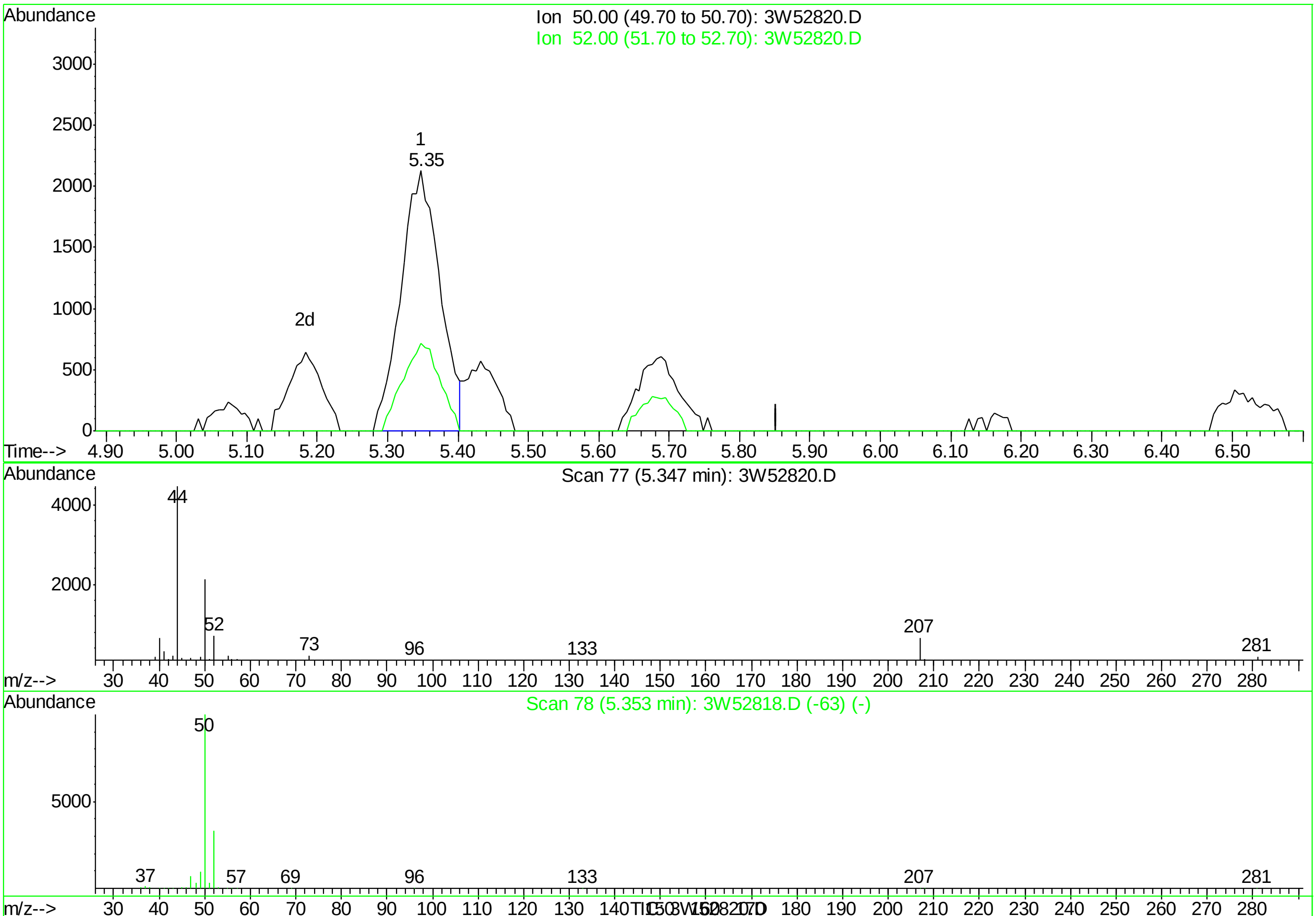
3W52820.D M3W1994.M Thu Mar 17 10:47:06 2016 MS3W

3W52820.D edits: TRANS-1,2-DICHLOROETHYLENE

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52820.D                    Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                      Operator: YOUMINH
Sample    : IC1994-0.5                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:47 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 0.53PPBV m

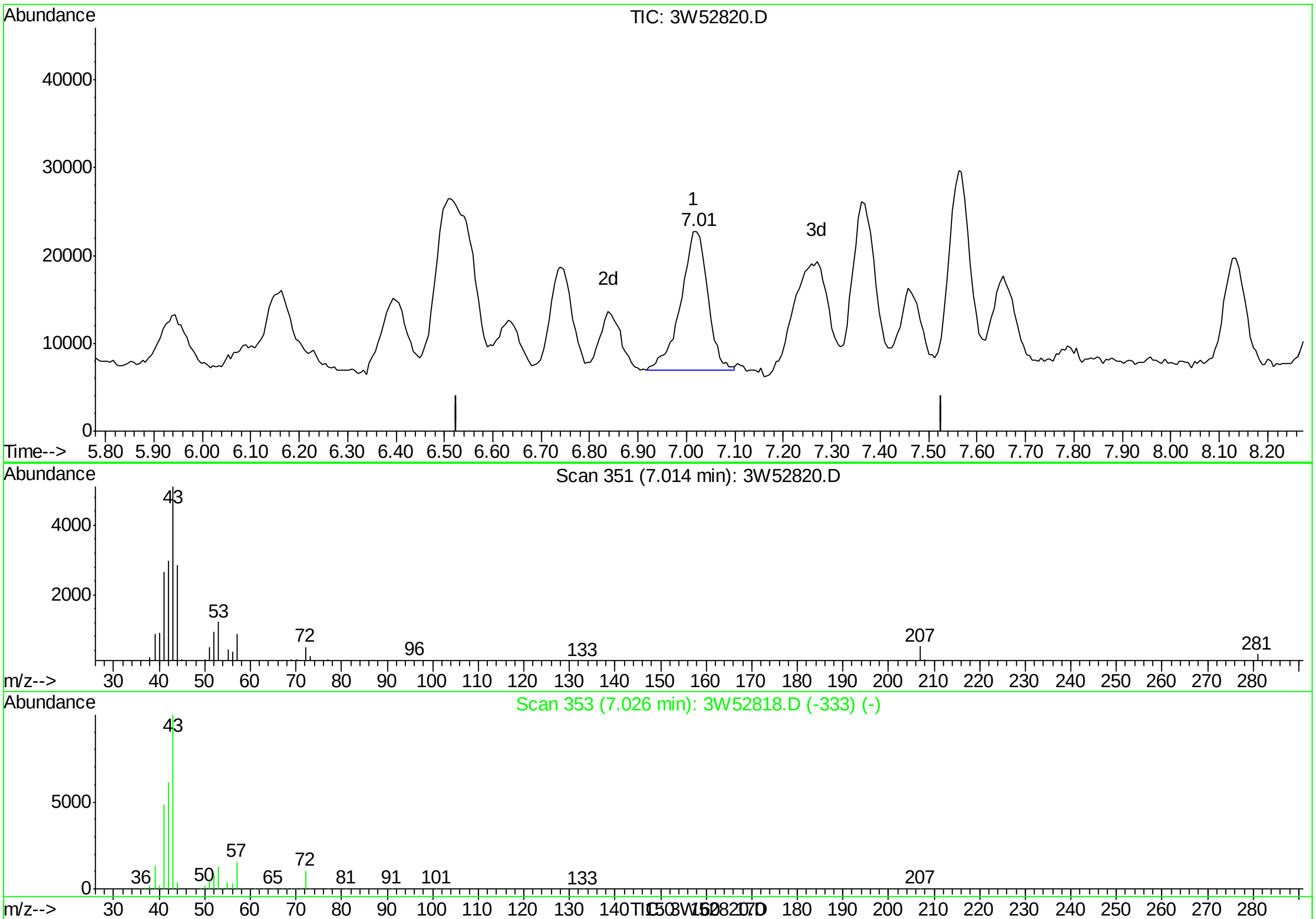
response 8161

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52820.D                    Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                      Operator: YOUMINH
Sample    : IC1994-0.5                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:47 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.01min 0.58PPBV m

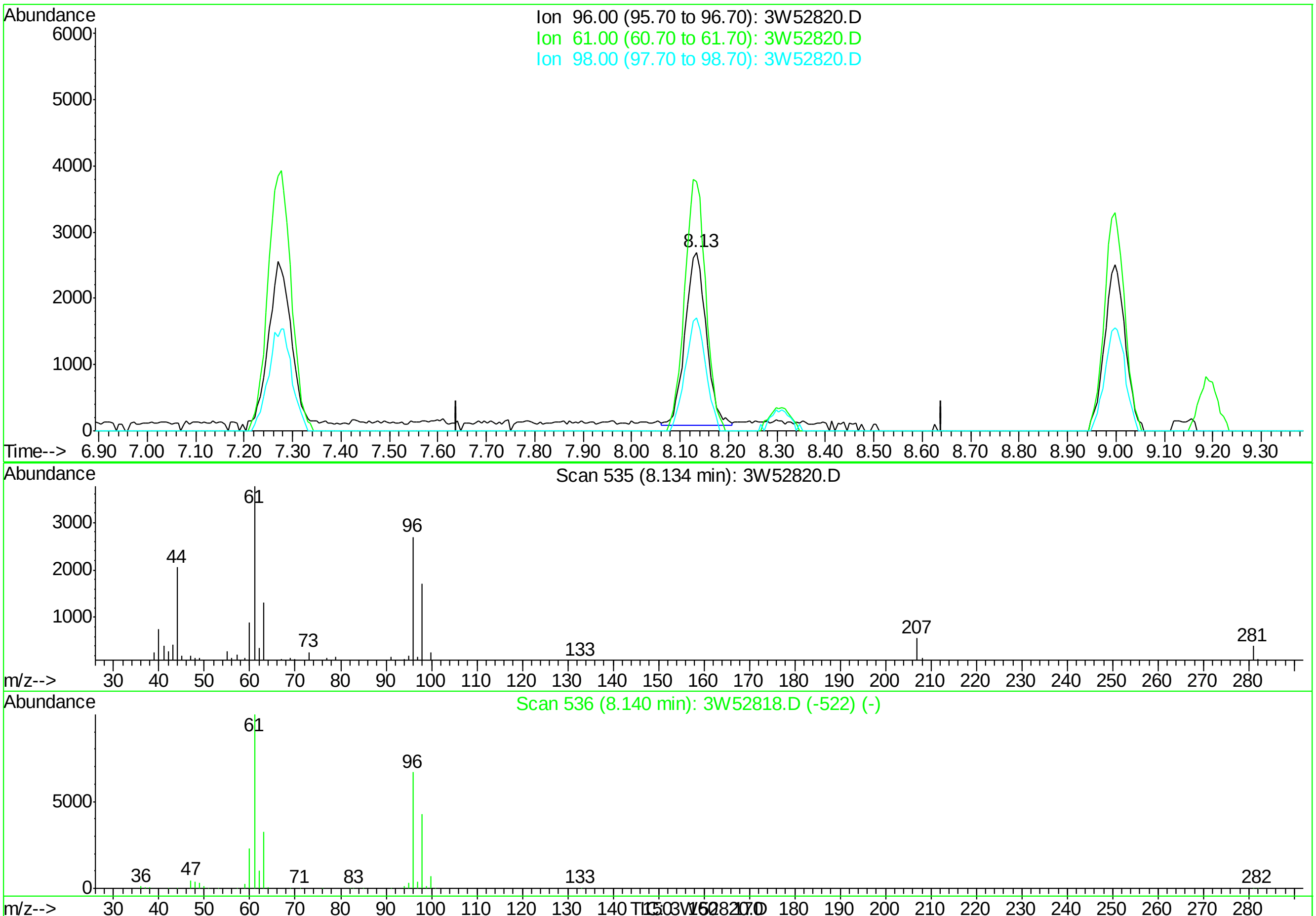
response 61662

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	1.63#
0.00	2.20	1.46#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52820.D                  Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                    Operator: YOUMINH
Sample    : IC1994-0.5                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:47 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(35) TRANS-1,2-DICHLOROETHYLENE

8.13min 0.51PPBV m

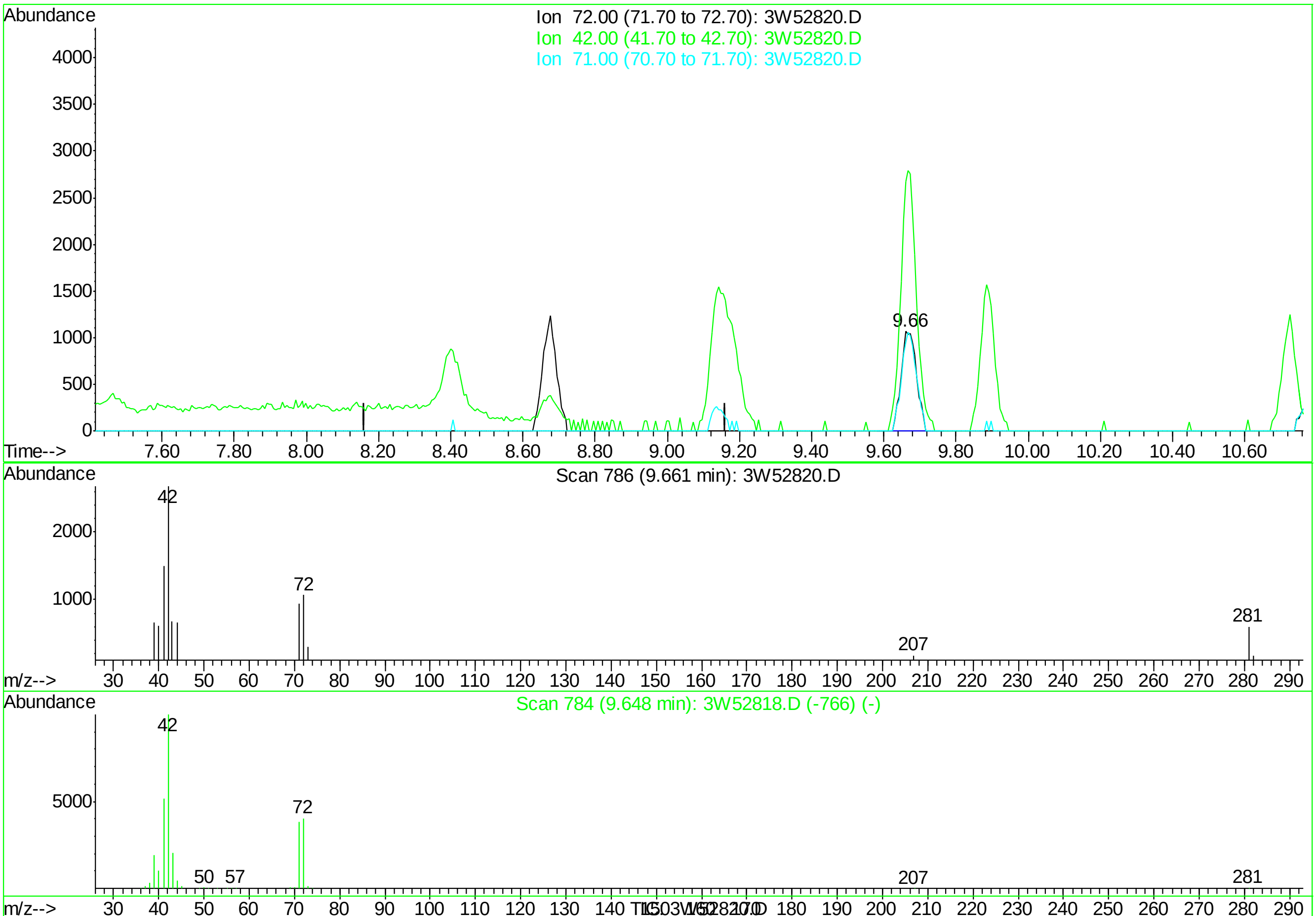
response 7910

Ion	Exp%	Act%
96.00	100	100
61.00	145.50	146.35
98.00	62.20	64.05
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52820.D   Vial: 2
Acq On    : 16 Mar 2016  11:31 pm                     Operator: YOUMINH
Sample    : IC1994-0.5                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.66min 0.51PPBV m

response 3106

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	43.56
71.00	3.90	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52821.D Vial: 2
Acq On : 17 Mar 2016 12:11 am Operator: YOUMINH
Sample : IC1994-0.2 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	89516	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	396748	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	205117	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	236264	10.65 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 106.50%

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
4) FREON 152A	5.03	65	2064	0.22 PPBV	#	49
5) CHLORODIFLUOROMETHANE	5.08	67	936	0.27 PPBV		87
6) DICHLORODIFLUOROMETHANE	5.19	85	7480	0.21 PPBV		99
7) PROPYLENE	5.12	41	2838	0.21 PPBV	#	74
9) FREON 114	5.44	85	8579	0.21 PPBV		99
10) CHLOROMETHANE	5.35	50	3639	0.23 PPBV		97
11) VINYL CHLORIDE	5.56	62	3714	0.20 PPBV	#	95
12) 1,3-BUTADIENE	5.69	54	3112	0.22 PPBV		94
13) n-BUTANE	5.74	43	7056	0.24 PPBV	#	92
14) BROMOMETHANE	5.94	94	3620	0.23 PPBV	#	54
15) CHLOROETHANE	6.08	64	2027	0.22 PPBV		80
16) DICHLOROFLUOROMETHANE	6.15	67	8535	0.25 PPBV	#	84
17) ACETONITRILE	6.40	41	2390	0.20 PPBV	#	87
18) FREON 123	6.50	83	7636	0.20 PPBV		95
19) FREON 123A	6.55	117	3773	0.20 PPBV	#	82
20) TRICHLOROFLUOROMETHANE	6.74	101	7078	0.20 PPBV		95
22) ISOPROPYL ALCOHOL	6.85	45	5646	0.19 PPBV		67
23) ACETONE	6.64	58	1659	0.24 PPBV	#	83
24) PENTANE	7.03	42	3850	0.20 PPBV	#	73
25) TVHC as EQUIV PENTANE	7.01	TIC	29552m	0.26 PPBV		
26) IODOMETHANE	7.23	142	7466	0.20 PPBV		99
27) 1,1-DICHLOROETHYLENE	7.28	96	4316	0.27 PPBV	#	74
28) CARBON DISULFIDE	7.65	76	10470	0.20 PPBV	#	79
29) ETHANOL	6.22	45	1658m	0.24 PPBV		
30) BROMOETHENE	6.40	106	2978	0.20 PPBV		91
31) ACRYLONITRILE	7.00	52	1641	0.18 PPBV	#	79
32) METHYLENE CHLORIDE	7.37	84	3541	0.24 PPBV		97
33) 3-CHLOROPROPENE	7.46	76	1641	0.20 PPBV		89
34) FREON 113	7.56	151	4798	0.21 PPBV		97
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	4227	0.26 PPBV	#	84
36) TERTIARY BUTYL ALCOHOL	7.37	59	6576	0.18 PPBV		95
37) METHYL TERTIARY BUTYL ETHE	8.40	73	7709	0.20 PPBV		70
38) TETRAHYDROFURAN	9.68	72	1076m	0.17 PPBV		
39) HEXANE	9.14	57	5084	0.20 PPBV	#	82
40) VINYL ACETATE	8.41	86	546	0.17 PPBV	#	14
41) 1,1-DICHLOROETHANE	8.31	63	6332	0.20 PPBV		91
42) METHYL ETHYL KETONE	8.68	72	1086	0.17 PPBV	#	86
43) cis-1,2-DICHLOROETHYLENE	9.00	96	3079	0.21 PPBV		94
44) DIISOPROPYL ETHER	9.18	59	1111	0.17 PPBV	#	94
45) ETHYL ACETATE	9.19	61	720	0.16 PPBV	#	34
46) METHYL ACRYLATE	9.18	55	4964	0.20 PPBV		95

(#) = qualifier out of range (m) = manual integration
3W52821.D M3W1994.M Thu Mar 31 12:43:20 2016 MS3W

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52821.D   Vial: 2
Acq On    : 17 Mar 2016  12:11 am                    Operator: YOUMINH
Sample    : IC1994-0.2                               Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.25	83	5479	0.19	PPBV		99
48)	2,4-DIMETHYLPENTANE	9.89	57	5621	0.19	PPBV		97
49)	1,1,1-TRICHLOROETHANE	10.09	97	5267	0.19	PPBV		100
50)	CARBON TETRACHLORIDE	10.62	117	5688	0.20	PPBV		99
51)	1,2-DICHLOROETHANE	9.87	62	3188	0.18	PPBV	#	90
53)	BENZENE	10.49	78	8585	0.21	PPBV		98
54)	CYCLOHEXANE	10.73	84	4559	0.25	PPBV	#	1
55)	2,3-DIMETHYLPENTANE	10.90	71	1941	0.21	PPBV	#	86
56)	TRICHLOROETHYLENE	11.40	95	3837	0.22	PPBV		97
57)	1,2-DICHLOROPROPANE	11.21	63	3004	0.19	PPBV		96
58)	DIBROMOMETHANE	11.18	174	2981	0.20	PPBV		95
59)	ETHYL ACRYLATE	11.19	55	5049	0.18	PPBV	#	95
60)	BROMODICHLOROMETHANE	11.38	83	5789	0.21	PPBV		99
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	15131	0.22	PPBV		99
62)	1,4-DIOXANE	11.47	88	1421	0.16	PPBV	#	59
63)	HEPTANE	11.61	43	5989	0.24	PPBV		93
64)	METHYL METHACRYLATE	11.56	69	2492	0.19	PPBV		87
65)	METHYL ISOBUTYL KETONE	12.23	58	1994	0.17	PPBV	#	81
66)	cis-1,3-DICHLOROPROPENE	12.16	75	4825	0.19	PPBV		96
67)	TOLUENE	13.07	92	4407	0.16	PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	3803	0.17	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	3612	0.17	PPBV		93
70)	1,1,2-TRICHLOROETHANE	12.82	83	2429	0.17	PPBV		97
72)	2-HEXANONE	13.33	58	2490	0.16	PPBV	#	75
73)	ETHYL METHACRYLATE	13.30	69	3612	0.17	PPBV	#	79
74)	TETRACHLOROETHYLENE	14.14	164	3382	0.21	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.48	129	5113	0.20	PPBV		97
76)	1,2-DIBROMOETHANE	13.71	107	4107	0.18	PPBV	#	100
77)	OCTANE	13.95	43	7409	0.23	PPBV		96
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	3410	0.18	PPBV		99
79)	CHLOROBENZENE	14.81	112	6202	0.18	PPBV	#	55
80)	ETHYLBENZENE	15.17	91	9005	0.18	PPBV		97
81)	m,p-XYLENE	15.35	106	6574	0.35	PPBV		92
82)	o-XYLENE	15.84	106	3072	0.17	PPBV		97
83)	STYRENE	15.72	104	4461	0.16	PPBV		99
84)	NONANE	16.02	43	6459	0.18	PPBV		95
85)	BROMOFORM	15.46	173	4128	0.16	PPBV		95
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	5590	0.17	PPBV		97
88)	1,2,3-TRICHLOROPROPANE	15.98	75	4013	0.18	PPBV		95
89)	ISOPROPYLBENZENE	16.44	105	10000	0.18	PPBV		96
90)	BROMOBENZENE	16.56	77	5165	0.17	PPBV		91
91)	2-CHLOROTOLUENE	16.96	126	2234	0.16	PPBV		98
92)	n-PROPYLBENZENE	16.99	120	2343	0.16	PPBV		97
93)	4-ETHYLTOLUENE	17.22	105	7684	0.16	PPBV		68
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	7684	0.19	PPBV		96
95)	ALPHA-METHYLSTYRENE	17.40	118	3117	0.15	PPBV		97
96)	tert-BUTYLBENZENE	17.65	134	1755	0.17	PPBV	#	90
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	6923	0.17	PPBV		96
98)	m-DICHLOROBENZENE	17.84	146	4338	0.16	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52821.D   Vial: 2
Acq On    : 17 Mar 2016  12:11 am                      Operator: YOUMINH
Sample    : IC1994-0.2                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:21 2016            Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

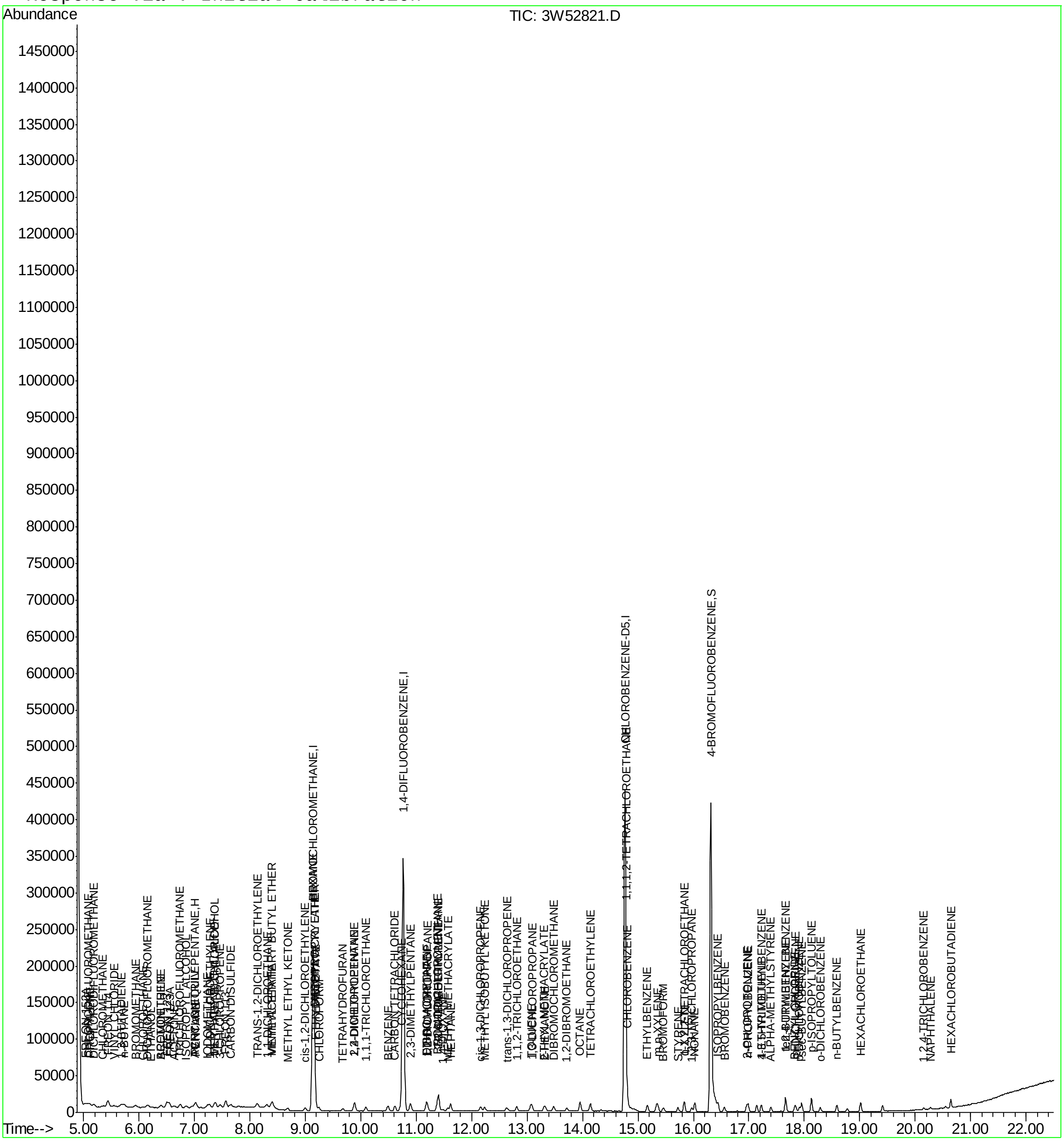
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
99)	BENZYL CHLORIDE	17.82	91	5284	0.15 PPBV		89
100)	p-DICHLOROBENZENE	17.92	146	4380	0.16 PPBV		98
101)	sec-BUTYLBENZENE	17.95	134	2025	0.16 PPBV	#	84
102)	p-ISOPROPYLTOLUENE	18.12	134	2199	0.17 PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	4118	0.17 PPBV		99
104)	n-BUTYLBENZENE	18.59	134	1574	0.14 PPBV	#	77
105)	HEXACHLOROETHANE	19.02	117	3599	0.17 PPBV		97
106)	HEXACHLOROBUTADIENE	20.64	225	2690	0.19 PPBV		97
107)	1,2,4-TRICHLOROBENZENE	20.15	180	1300	0.14 PPBV		92
108)	NAPHTHALENE	20.27	128	2734	0.15 PPBV		91

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52821.D   Vial: 2
Acq On    : 17 Mar 2016  12:11 am                       Operator: YOUMINH
Sample    : IC1994-0.2                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016                 Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

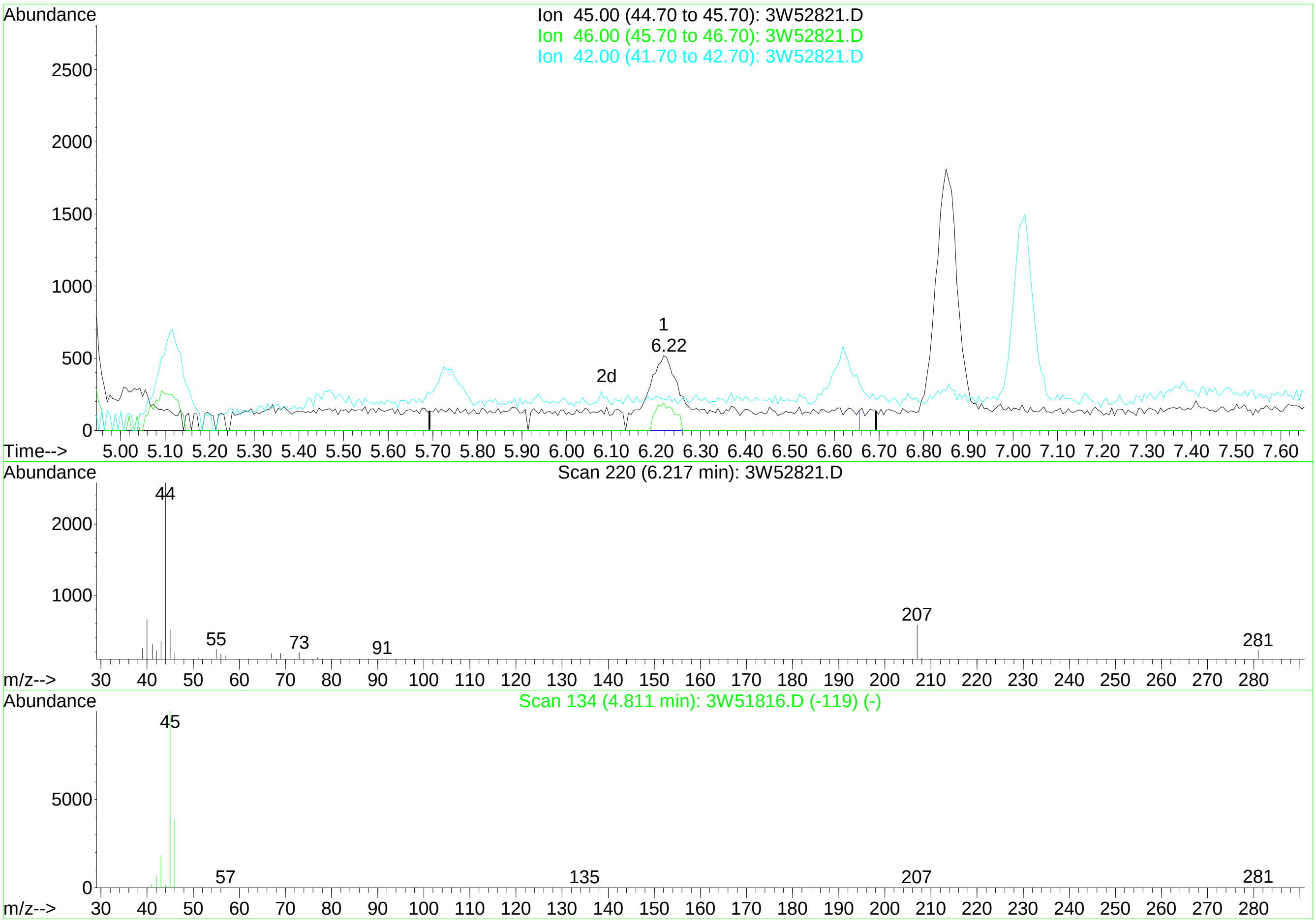
Sample Number:	V3W1994-IC1994	**Method:**	TO-15	
Lab FileID:	3W52821.D	**Analyst approved:**	03/31/16 12:48	Youmin Hu
Injection Time:	03/17/16 00:11	**Supervisor approved:**	03/31/16 14:43	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5		6.22	Poor instrument integration
Tetrahydrofuran	109-99-9		9.68	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52821.D                Vial: 2
Acq On    : 17 Mar 2016  12:11 am                  Operator: YOUMINH
Sample    : IC1994-0.2                             Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:48 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52821.D

(29) ETHANOL

6.22min 0.79PPBV

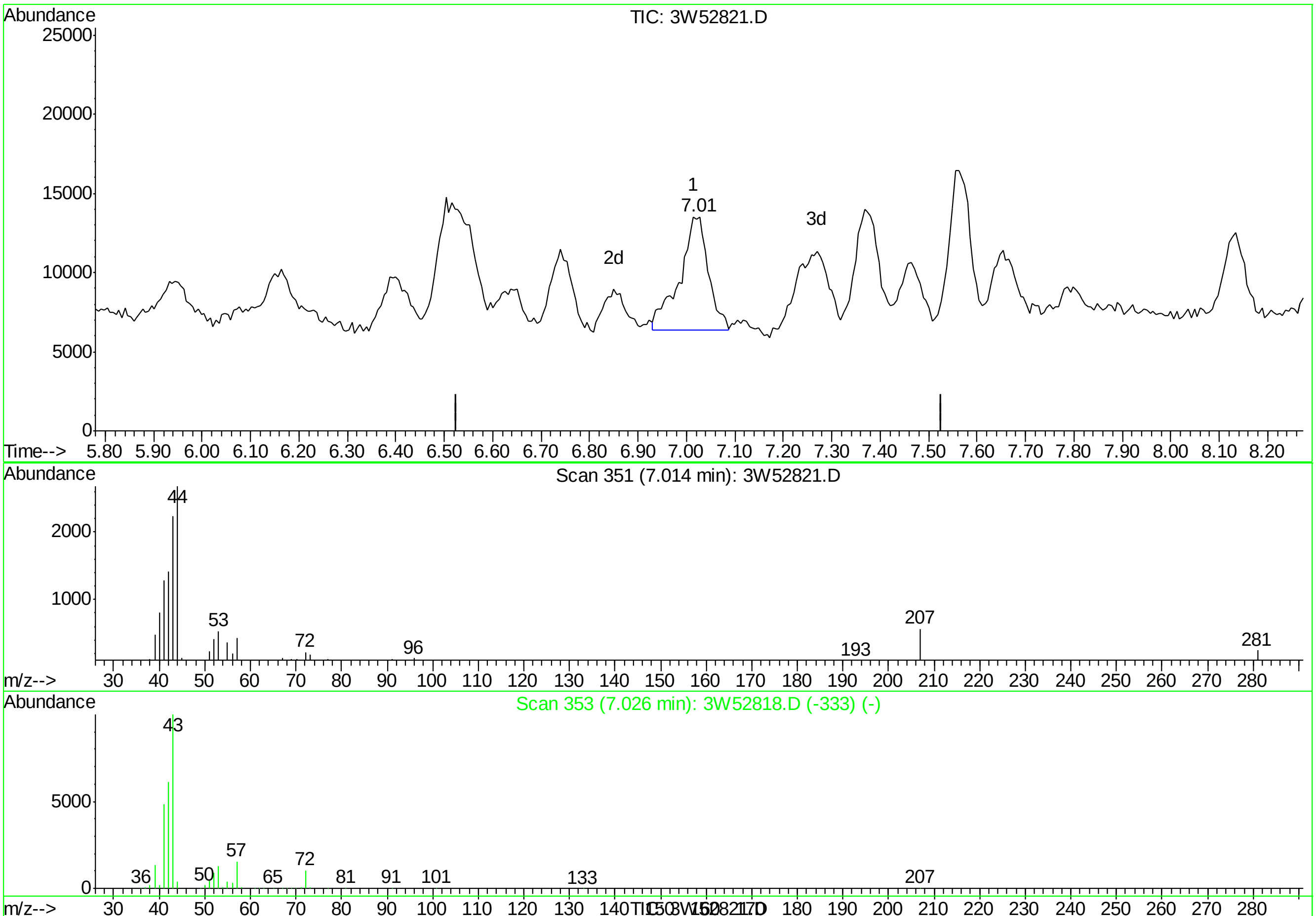
response 5482

Ion	Exp%	Act%
45.00	100	100
46.00	40.20	10.42#
42.00	7.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52821.D                  Vial: 2
Acq On    : 17 Mar 2016  12:11 am                     Operator: YOUMINH
Sample    : IC1994-0.2                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:48 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.01min 0.26PPBV m

response 29552

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	0.87#
0.00	2.20	0.68#
0.00	0.00	0.00

3W52821.D M3W1994.M Thu Mar 17 14:37:31 2016 MS3W

7.7.4.3

7

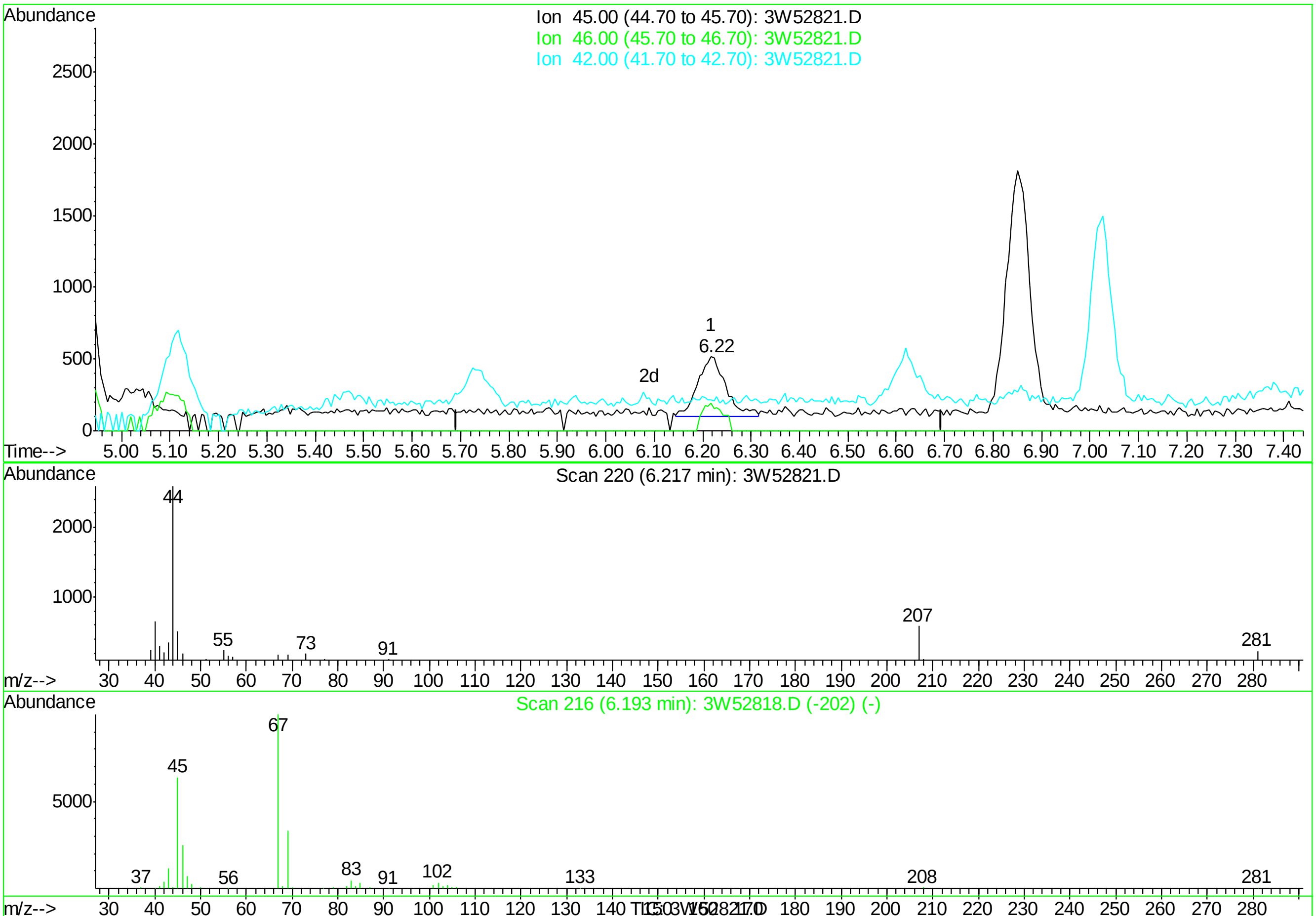
SGS ACCUTEST
JC17438

3W52821.D edits: TVHC as EQUIV PENTANE

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52821.D                    Vial: 2
Acq On    : 17 Mar 2016  12:11 am                      Operator: YOUMINH
Sample    : IC1994-0.2                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:48 2016                Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(29) ETHANOL

6.22min 0.24PPBV m

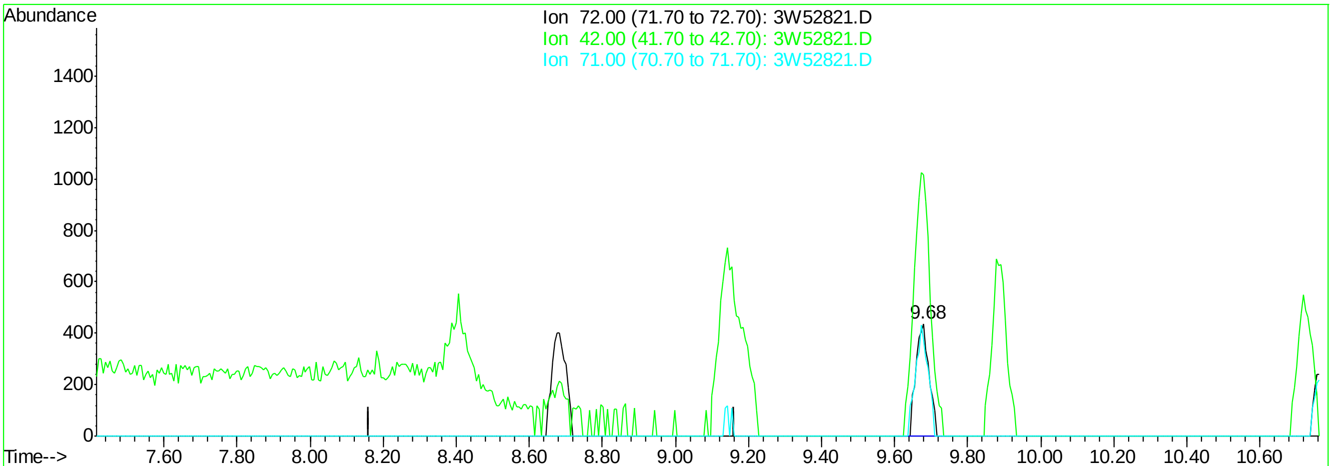
response 1658

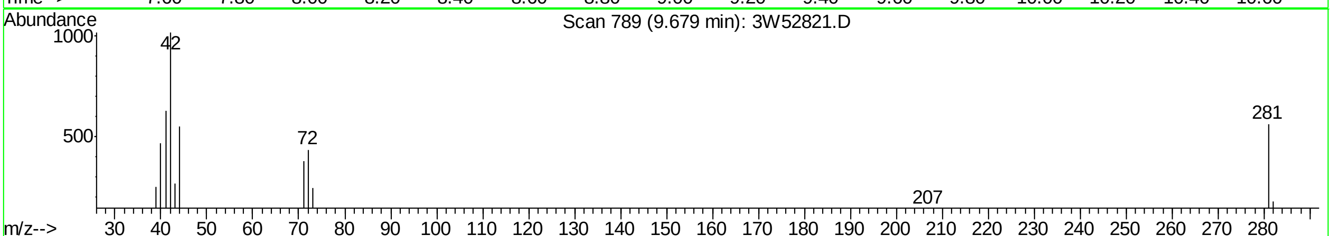
Ion	Exp%	Act%
45.00	100	100
46.00	40.20	34.44
42.00	7.80	0.00
0.00	0.00	0.00

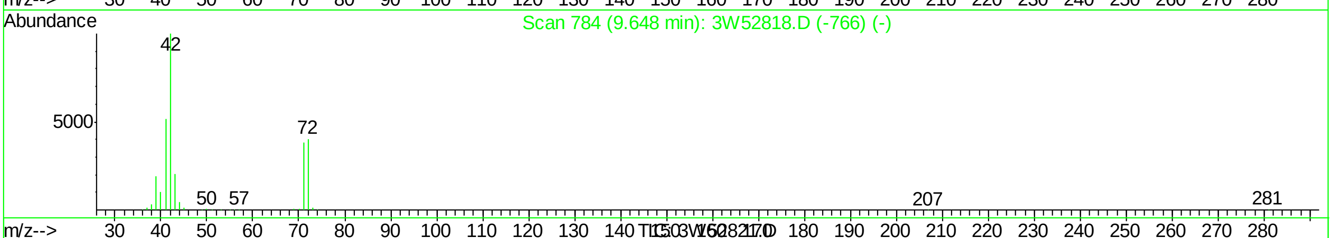
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52821.D   Vial: 2
Acq On    : 17 Mar 2016  12:11 am                      Operator: YOUMINH
Sample    : IC1994-0.2                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:13 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration
```







(38) TETRAHYDROFURAN

9.68min 0.17PPBV m

response 1076

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	65.33#
71.00	3.90	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52822.D   Vial: 1
Acq On    : 17 Mar 2016  12:52 am                      Operator: YOUMINH
Sample    : IC1994-20                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:22 2016           Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	89293	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	445910	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.77	82	255504	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	245759	8.90 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 89.00%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
4) FREON 152A	5.03	65	189123	20.04 PPBV	99
5) CHLORODIFLUOROMETHANE	5.07	67	67288	19.37 PPBV	97
6) DICHLORODIFLUOROMETHANE	5.18	85	691963	19.27 PPBV	100
7) PROPYLENE	5.11	41	259184	19.39 PPBV	100
9) FREON 114	5.43	85	816083	20.08 PPBV	99
10) CHLOROMETHANE	5.35	50	321144m	19.94 PPBV	
11) VINYL CHLORIDE	5.56	62	372635	20.07 PPBV	99
12) 1,3-BUTADIENE	5.68	54	289229	20.24 PPBV	99
13) n-BUTANE	5.73	43	586796	19.75 PPBV	99
14) BROMOMETHANE	5.94	94	306524	19.83 PPBV	99
15) CHLOROETHANE	6.09	64	187280	20.39 PPBV	100
16) DICHLOROFLUOROMETHANE	6.16	67	683289	20.00 PPBV	99
17) ACETONITRILE	6.39	41	269589	22.63 PPBV	99
18) FREON 123	6.50	83	768368	20.63 PPBV	100
19) FREON 123A	6.55	117	396186	20.67 PPBV	100
20) TRICHLOROFLUOROMETHANE	6.74	101	699682	20.06 PPBV	100
22) ISOPROPYL ALCOHOL	6.82	45	665806	21.96 PPBV	99
23) ACETONE	6.62	58	151000	22.05 PPBV	98
24) PENTANE	7.02	42	395855	20.51 PPBV	100
25) TVHC as EQUIV PENTANE	7.02	TIC	2333922m	20.85 PPBV	
26) IODOMETHANE	7.23	142	750099	20.52 PPBV	100
27) 1,1-DICHLOROETHYLENE	7.28	96	329276	20.54 PPBV	99
28) CARBON DISULFIDE	7.65	76	1028339	19.84 PPBV	99
29) ETHANOL	6.21	45	151958	21.89 PPBV	98
30) BROMOETHENE	6.39	106	308897	20.31 PPBV	100
31) ACRYLONITRILE	6.99	52	204844	22.96 PPBV	98
32) METHYLENE CHLORIDE	7.37	84	295265	20.46 PPBV	97
33) 3-CHLOROPROPENE	7.46	76	169678	20.63 PPBV	100
34) FREON 113	7.56	151	476375	20.86 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	325861	19.90 PPBV	97
36) TERTIARY BUTYL ALCOHOL	7.32	59	827063	22.28 PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.36	73	822390	21.36 PPBV	99
38) TETRAHYDROFURAN	9.64	72	138194m	21.41 PPBV	
39) HEXANE	9.14	57	542424	21.64 PPBV	99
40) VINYL ACETATE	8.41	86	75015	23.08 PPBV #	93
41) 1,1-DICHLOROETHANE	8.31	63	635708	20.35 PPBV	100
42) METHYL ETHYL KETONE	8.66	72	141533	21.92 PPBV	97
43) cis-1,2-DICHLOROETHYLENE	9.00	96	307145	20.67 PPBV	99
44) DIISOPROPYL ETHER	9.16	59	143399	22.13 PPBV #	94
45) ETHYL ACETATE	9.18	61	106405	23.43 PPBV #	82
46) METHYL ACRYLATE	9.17	55	578533	22.95 PPBV	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52822.D Vial: 1
Acq On : 17 Mar 2016 12:52 am Operator: YOUMINH
Sample : IC1994-20 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:22 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.25	83	594803	20.70	PPBV		100
48)	2,4-DIMETHYLPENTANE	9.89	57	620856	21.49	PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.10	97	565189	20.79	PPBV		99
50)	CARBON TETRACHLORIDE	10.62	117	592104	20.87	PPBV		100
51)	1,2-DICHLOROETHANE	9.89	62	369466	20.52	PPBV		100
53)	BENZENE	10.49	78	964982	21.49	PPBV		100
54)	CYCLOHEXANE	10.73	84	429434	21.35	PPBV		97
55)	2,3-DIMETHYLPENTANE	10.90	71	227524	21.67	PPBV		100
56)	TRICHLOROETHYLENE	11.41	95	430197	21.83	PPBV		99
57)	1,2-DICHLOROPROPANE	11.21	63	385489	21.63	PPBV		99
58)	DIBROMOMETHANE	11.19	174	359178	21.96	PPBV		99
59)	ETHYL ACRYLATE	11.18	55	715765	23.04	PPBV		100
60)	BROMODICHLOROMETHANE	11.38	83	677592	21.35	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	1733094	21.93	PPBV		99
62)	1,4-DIOXANE	11.44	88	226778	23.30	PPBV	#	70
63)	HEPTANE	11.63	43	612998	21.52	PPBV		99
64)	METHYL METHACRYLATE	11.56	69	338344	23.05	PPBV		99
65)	METHYL ISOBUTYL KETONE	12.21	58	310724	23.48	PPBV		97
66)	cis-1,3-DICHLOROPROPENE	12.17	75	603977	21.40	PPBV		99
67)	TOLUENE	13.07	92	658932	21.34	PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	564093	22.19	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	506889	21.24	PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.82	83	339779	21.42	PPBV		100
72)	2-HEXANONE	13.31	58	456982	22.94	PPBV		98
73)	ETHYL METHACRYLATE	13.30	69	609576	22.95	PPBV		99
74)	TETRACHLOROETHYLENE	14.14	164	416619	21.19	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.49	129	668279	20.72	PPBV		100
76)	1,2-DIBROMOETHANE	13.72	107	591538	20.59	PPBV		100
77)	OCTANE	13.96	43	834423	20.42	PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	499099	20.65	PPBV		99
79)	CHLOROBENZENE	14.81	112	917731	20.93	PPBV		99
80)	ETHYLBENZENE	15.17	91	1348225	21.70	PPBV		99
81)	m,p-XYLENE	15.35	106	1065638	45.12	PPBV		98
82)	o-XYLENE	15.84	106	531226	23.13	PPBV		98
83)	STYRENE	15.73	104	794719	22.21	PPBV		100
84)	NONANE	16.03	43	908660	20.58	PPBV		99
85)	BROMOFORM	15.46	173	671630	20.82	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	907873	22.74	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	625499	22.77	PPBV		100
89)	ISOPROPYLBENZENE	16.45	105	1547276	22.76	PPBV		100
90)	BROMOBENZENE	16.56	77	775787	20.93	PPBV		99
91)	2-CHLOROTOLUENE	16.96	126	393887	22.30	PPBV		100
92)	n-PROPYLBENZENE	16.99	120	429630	23.71	PPBV		99
93)	4-ETHYLTOLUENE	17.14	105	1407866	23.66	PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.23	105	1220106	23.77	PPBV		100
95)	ALPHA-METHYLSTYRENE	17.40	118	614524	23.82	PPBV		100
96)	tert-BUTYLBENZENE	17.67	134	312735	24.24	PPBV		98
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	1240081	24.50	PPBV		98
98)	m-DICHLOROBENZENE	17.84	146	758806	22.74	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52822.D Vial: 1
Acq On : 17 Mar 2016 12:52 am Operator: YOUMINH
Sample : IC1994-20 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:22 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

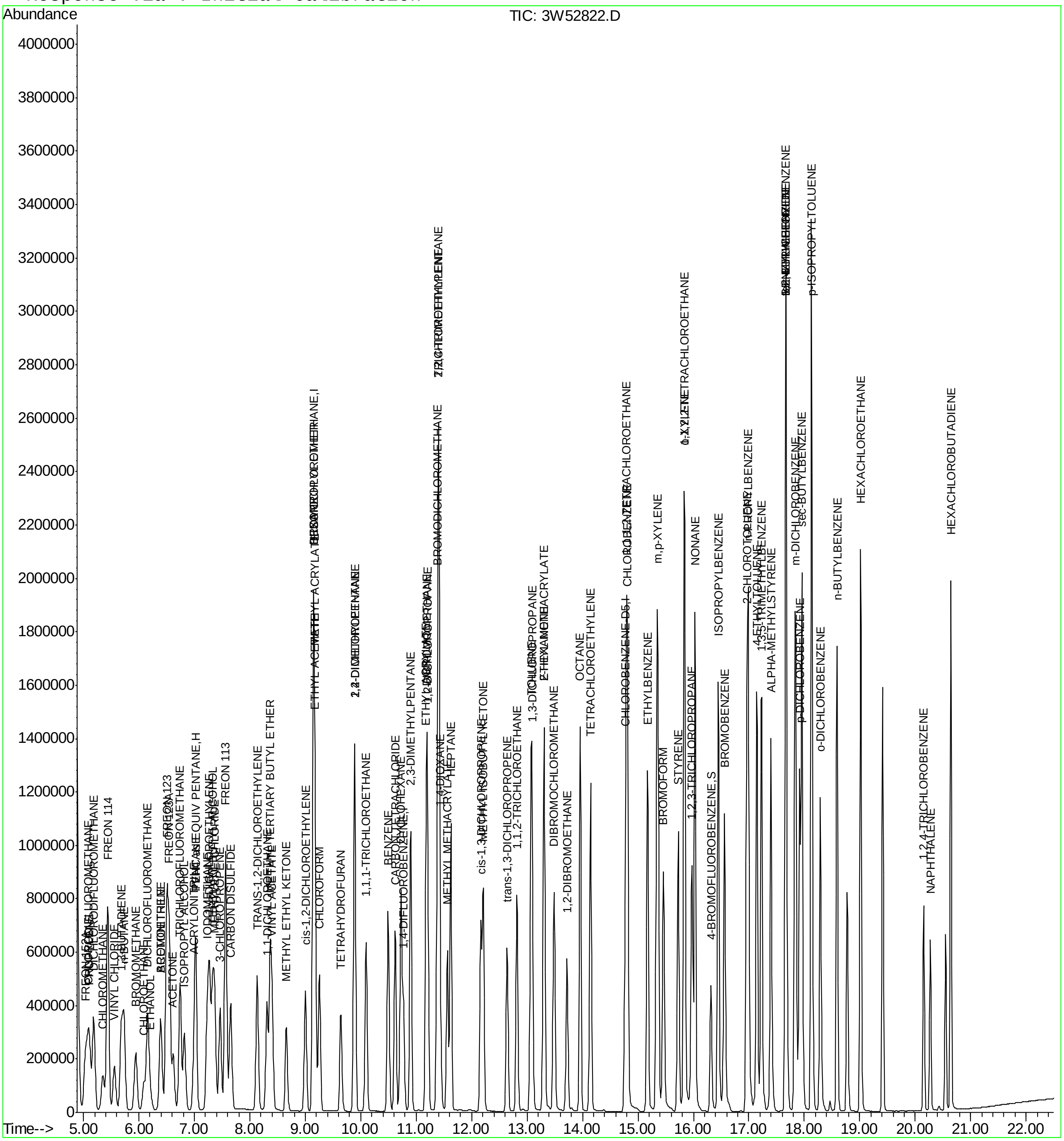
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
99)	BENZYL CHLORIDE	17.67	91	899817	20.82 PPBV		76
100)	p-DICHLOROBENZENE	17.92	146	780363	22.63 PPBV		100
101)	sec-BUTYLBENZENE	17.96	134	370658	24.19 PPBV		96
102)	p-ISOPROPYLTOLUENE	18.13	134	408214	24.67 PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	698104	22.91 PPBV		100
104)	n-BUTYLBENZENE	18.59	134	343562	24.85 PPBV		96
105)	HEXACHLOROETHANE	19.02	117	579406	21.85 PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	434476	24.37 PPBV		99
107)	1,2,4-TRICHLOROBENZENE	20.15	180	311199	26.82 PPBV		100
108)	NAPHTHALENE	20.27	128	614599	26.35 PPBV		100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52822.D   Vial: 1
Acq On    : 17 Mar 2016  12:52 am                     Operator: YOUMINH
Sample    : IC1994-20                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016               Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

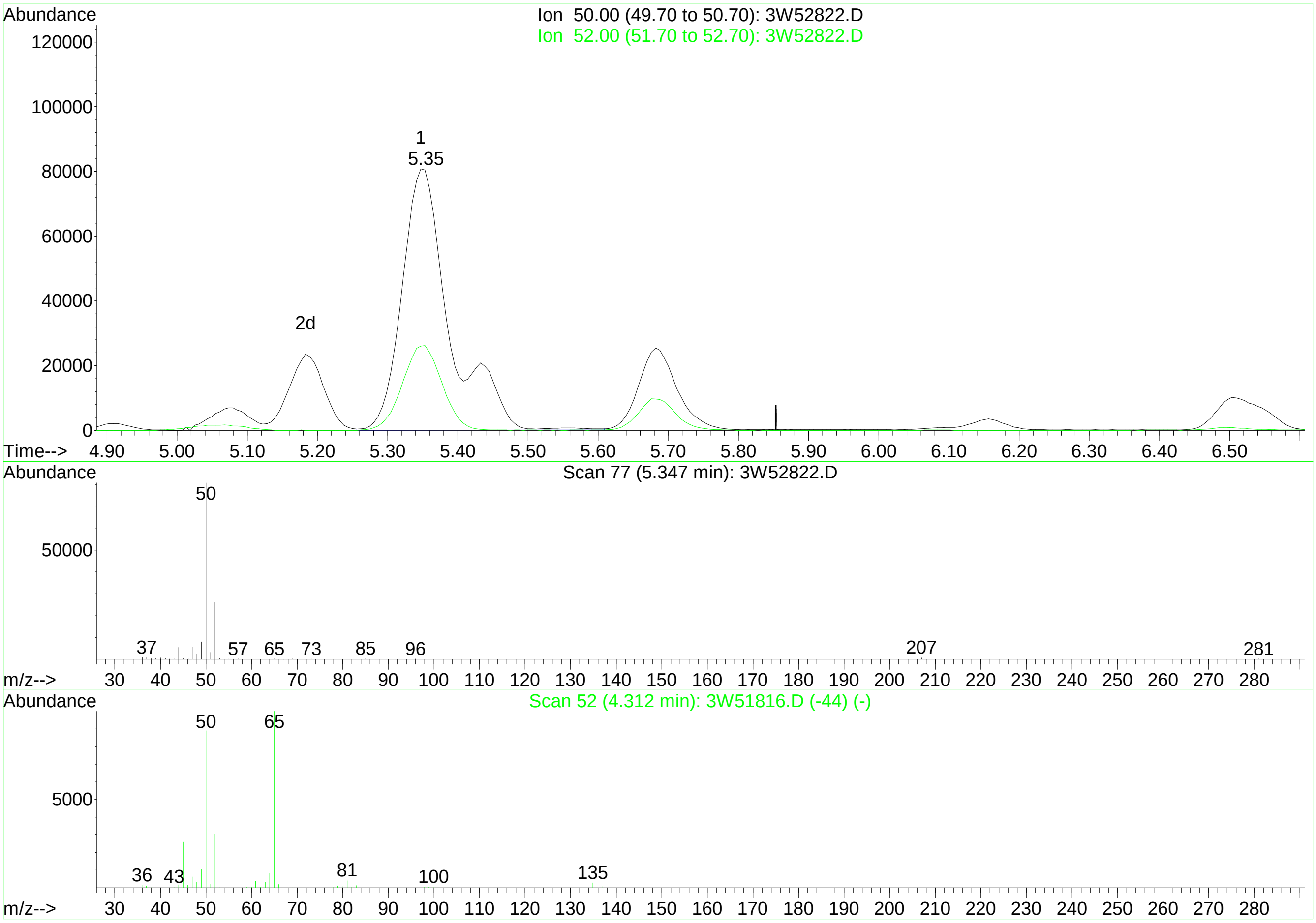
Sample Number:	V3W1994-IC1994	**Method:**	TO-15	
Lab FileID:	3W52822.D	**Analyst approved:**	03/31/16 12:48	Youmin Hu
Injection Time:	03/17/16 00:52	**Supervisor approved:**	03/31/16 14:43	Dana Tryon

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.64	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52822.D              Vial: 1
Acq On    : 17 Mar 2016  12:52 am                 Operator: YOUMINH
Sample    : IC1994-20                             Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:49 2016           Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52822.D

(10) CHLOROMETHANE

5.35min 23.64PPBV

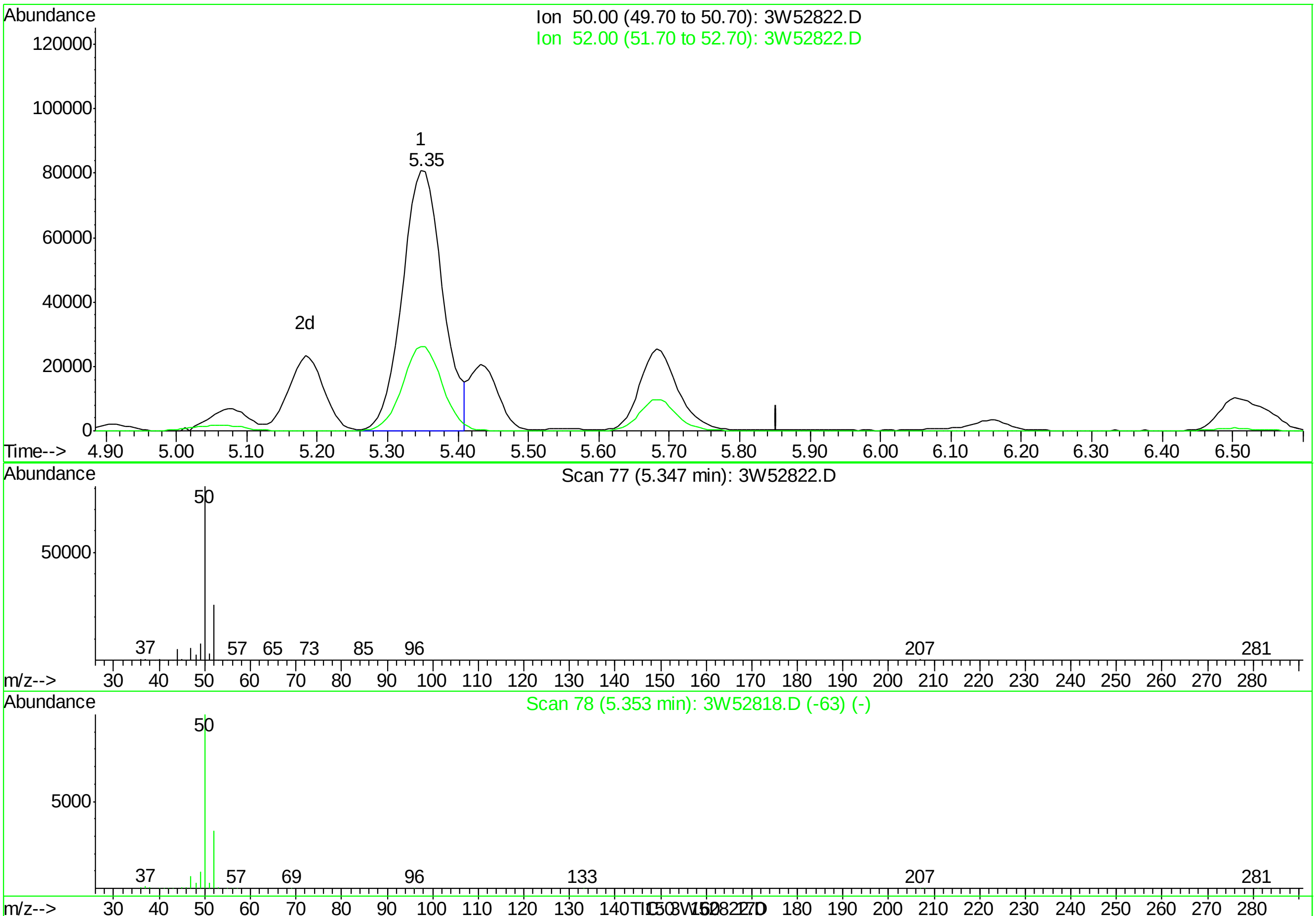
response 380771

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52822.D                    Vial: 1
Acq On    : 17 Mar 2016  12:52 am                      Operator: YOUMINH
Sample    : IC1994-20                                  Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:50 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 19.94PPBV m

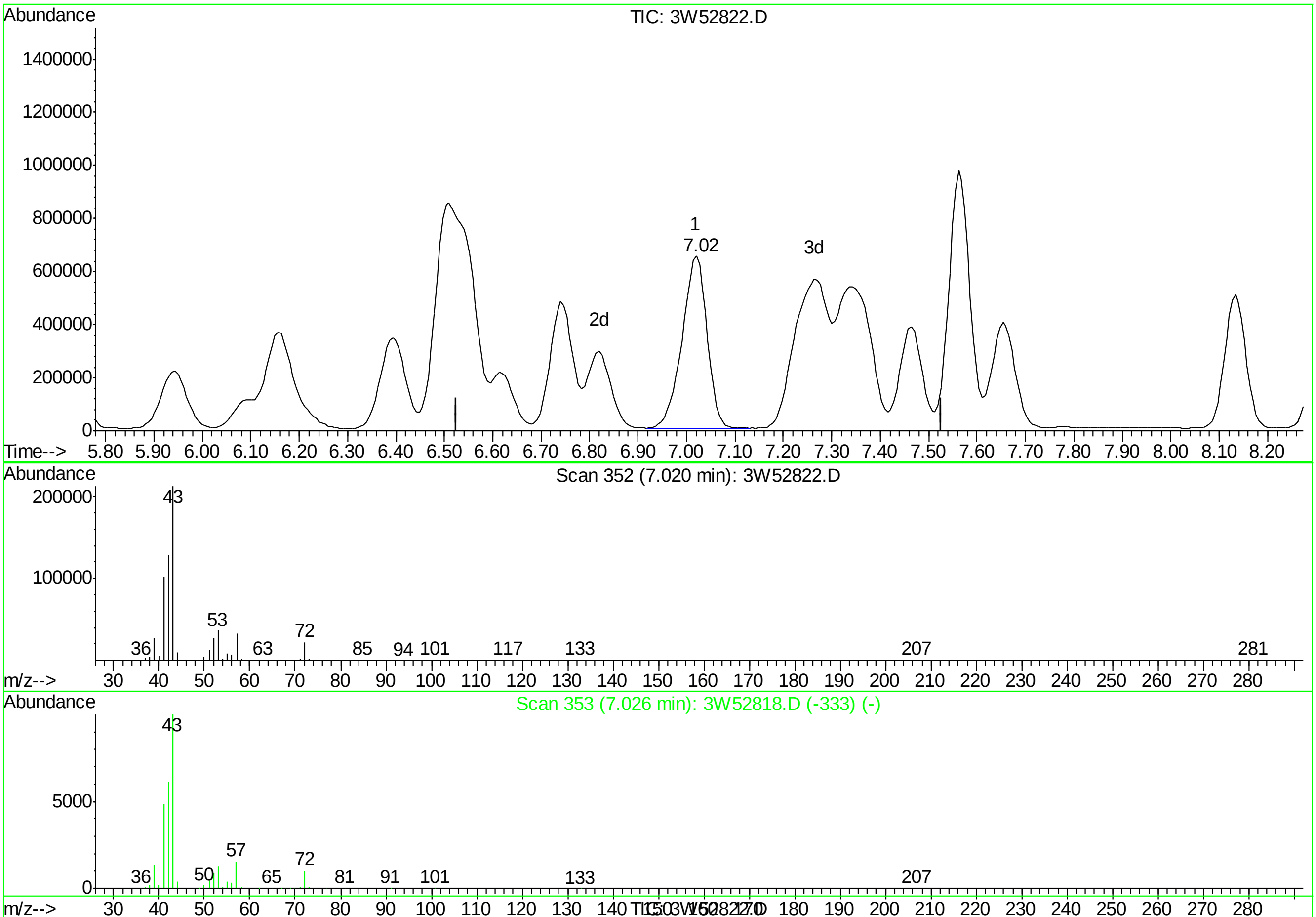
response 321144

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52822.D                  Vial: 1
Acq On    : 17 Mar 2016  12:52 am                    Operator: YOUMINH
Sample    : IC1994-20                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:50 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.02min 20.85PPBV m

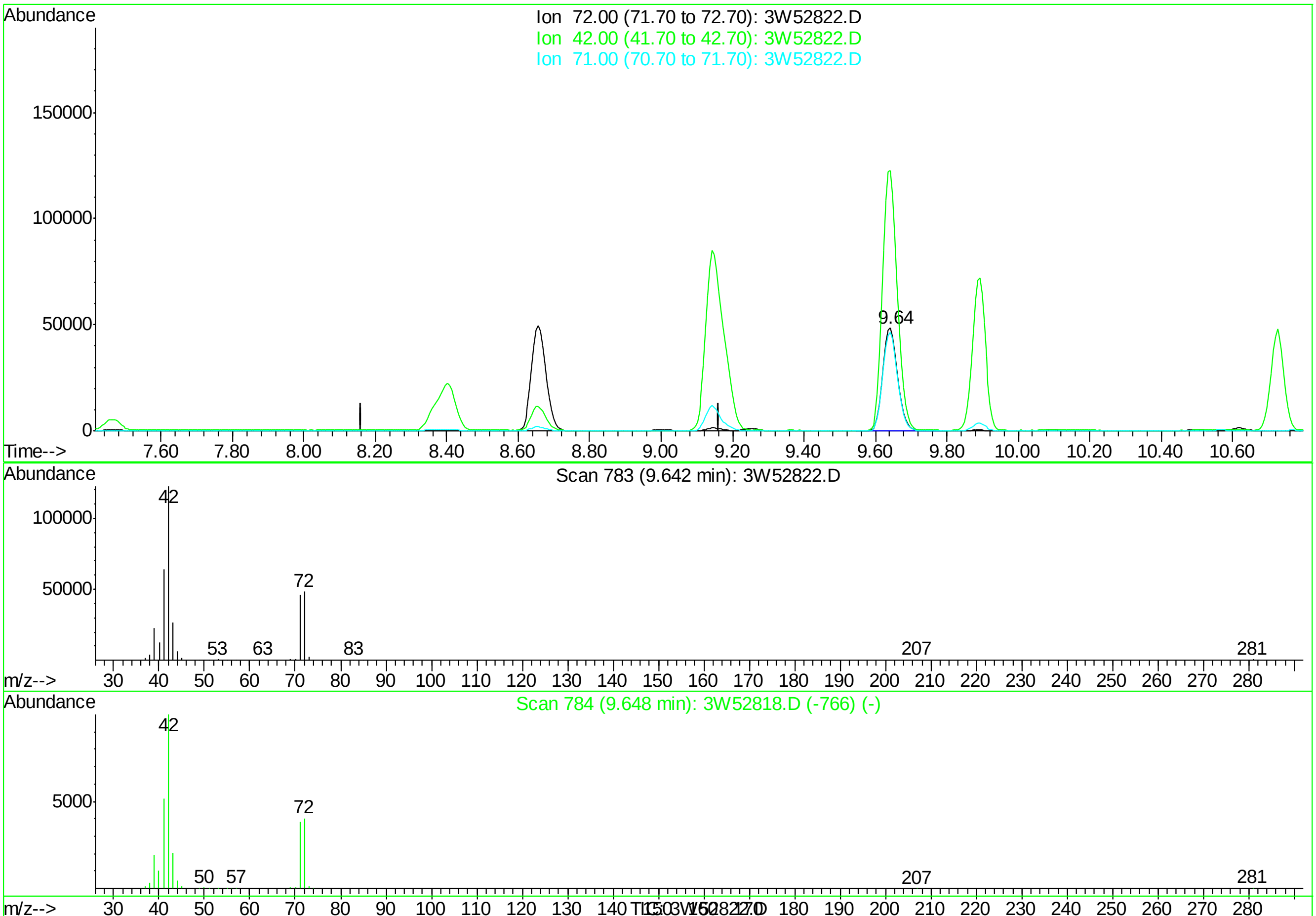
response 2333922

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	3.35#
0.00	2.20	2.92#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52822.D   Vial: 1
Acq On    : 17 Mar 2016  12:52 am                      Operator: YOUMINH
Sample    : IC1994-20                                  Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.64min 21.41PPBV m

response 138194

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	24.67
71.00	3.90	3.98
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52823.D   Vial: 1
Acq On    : 17 Mar 2016   1:32 am                      Operator: YOUMINH
Sample    : IC1994-15                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:23 2016             Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	92498	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	463692	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	257853	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	251500	9.02 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 90.20%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
4) FREON 152A	5.04	65	149107	15.26 PPBV	99
5) CHLORODIFLUOROMETHANE	5.08	67	53381	14.83 PPBV	98
6) DICHLORODIFLUOROMETHANE	5.19	85	553515	14.88 PPBV	99
7) PROPYLENE	5.11	41	202118	14.60 PPBV	99
9) FREON 114	5.44	85	661567	15.72 PPBV	98
10) CHLOROMETHANE	5.35	50	252575m	15.14 PPBV	
11) VINYL CHLORIDE	5.56	62	299508	15.57 PPBV	100
12) 1,3-BUTADIENE	5.68	54	228468	15.44 PPBV	97
13) n-BUTANE	5.73	43	457072	14.85 PPBV	98
14) BROMOMETHANE	5.94	94	252264	15.75 PPBV	97
15) CHLOROETHANE	6.09	64	147394	15.49 PPBV	99
16) DICHLOROFLUOROMETHANE	6.16	67	543056	15.35 PPBV	100
17) ACETONITRILE	6.39	41	199724	16.19 PPBV	100
18) FREON 123	6.50	83	606548	15.72 PPBV	100
19) FREON 123A	6.55	117	315246	15.88 PPBV	98
20) TRICHLOROFLUOROMETHANE	6.74	101	562595	15.57 PPBV	100
22) ISOPROPYL ALCOHOL	6.82	45	512990	16.34 PPBV	98
23) ACETONE	6.62	58	118908	16.76 PPBV	97
24) PENTANE	7.02	42	306435	15.33 PPBV	99
25) TVHC as EQUIV PENTANE	7.02	TIC	1797431m	15.50 PPBV	
26) IODOMETHANE	7.23	142	611200	16.14 PPBV	99
27) 1,1-DICHLOROETHYLENE	7.28	96	264348	15.92 PPBV	97
28) CARBON DISULFIDE	7.65	76	821850	15.30 PPBV	99
29) ETHANOL	6.21	45	117118	16.29 PPBV	100
30) BROMOETHENE	6.40	106	251899	15.98 PPBV	100
31) ACRYLONITRILE	6.99	52	155111	16.78 PPBV	98
32) METHYLENE CHLORIDE	7.37	84	236743	15.84 PPBV	99
33) 3-CHLOROPROPENE	7.46	76	133466	15.67 PPBV	95
34) FREON 113	7.56	151	377173	15.95 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	258090	15.22 PPBV	98
36) TERTIARY BUTYL ALCOHOL	7.33	59	636252	16.55 PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.36	73	644350	16.16 PPBV	99
38) TETRAHYDROFURAN	9.64	72	108490m	16.22 PPBV	
39) HEXANE	9.14	57	407163	15.68 PPBV	99
40) VINYL ACETATE	8.40	86	57028	16.94 PPBV #	89
41) 1,1-DICHLOROETHANE	8.31	63	490908	15.17 PPBV	100
42) METHYL ETHYL KETONE	8.66	72	111754	16.71 PPBV	99
43) cis-1,2-DICHLOROETHYLENE	9.00	96	237527	15.43 PPBV	99
44) DIISOPROPYL ETHER	9.16	59	110246	16.42 PPBV #	94
45) ETHYL ACETATE	9.18	61	81639	17.35 PPBV #	80
46) METHYL ACRYLATE	9.17	55	433658	16.61 PPBV	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52823.D Vial: 1
Acq On : 17 Mar 2016 1:32 am Operator: YOUMINH
Sample : IC1994-15 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:23 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
47) CHLOROFORM	9.25	83	459269	15.43 PPBV	99
48) 2,4-DIMETHYLPENTANE	9.89	57	466309	15.58 PPBV	99
49) 1,1,1-TRICHLOROETHANE	10.09	97	435296	15.46 PPBV	100
50) CARBON TETRACHLORIDE	10.62	117	456000	15.52 PPBV	100
51) 1,2-DICHLOROETHANE	9.89	62	282663	15.15 PPBV	100
53) BENZENE	10.49	78	742453	15.90 PPBV	100
54) CYCLOHEXANE	10.73	84	331566	15.85 PPBV	97
55) 2,3-DIMETHYLPENTANE	10.90	71	173112	15.85 PPBV	99
56) TRICHLOROETHYLENE	11.40	95	325644	15.89 PPBV	98
57) 1,2-DICHLOROPROPANE	11.21	63	290637	15.68 PPBV	100
58) DIBROMOMETHANE	11.19	174	277185	16.30 PPBV	98
59) ETHYL ACRYLATE	11.18	55	551814	17.08 PPBV	100
60) BROMODICHLOROMETHANE	11.38	83	517100	15.67 PPBV	100
61) 2,2,4-TRIMETHYLPENTANE	11.41	57	1294705	15.75 PPBV	100
62) 1,4-DIOXANE	11.44	88	175681	17.36 PPBV #	78
63) HEPTANE	11.62	43	461652	15.58 PPBV	99
64) METHYL METHACRYLATE	11.56	69	261699	17.15 PPBV	99
65) METHYL ISOBUTYL KETONE	12.21	58	239223	17.39 PPBV	97
66) cis-1,3-DICHLOROPROPENE	12.17	75	465081	15.84 PPBV	99
67) TOLUENE	13.07	92	501597	15.63 PPBV	100
68) 1,3-DICHLOROPROPANE	13.09	76	424964	16.08 PPBV	99
69) trans-1,3-DICHLOROPROPENE	12.64	75	390701	15.74 PPBV	99
70) 1,1,2-TRICHLOROETHANE	12.82	83	260116	15.77 PPBV	99
72) 2-HEXANONE	13.31	58	340301	16.93 PPBV	98
73) ETHYL METHACRYLATE	13.30	69	462618	17.26 PPBV	98
74) TETRACHLOROETHYLENE	14.14	164	318130	16.04 PPBV	99
75) DIBROMOCHLOROMETHANE	13.49	129	511738	15.72 PPBV	100
76) 1,2-DIBROMOETHANE	13.72	107	454838	15.68 PPBV	100
77) OCTANE	13.96	43	637814	15.47 PPBV	98
78) 1,1,1,2-TETRACHLOROETHANE	14.79	131	380927	15.61 PPBV	99
79) CHLOROBENZENE	14.81	112	698449	15.78 PPBV	99
80) ETHYLBENZENE	15.17	91	1019192	16.26 PPBV	99
81) m,p-XYLENE	15.35	106	792949	33.27 PPBV	98
82) o-XYLENE	15.84	106	389606	16.81 PPBV	97
83) STYRENE	15.72	104	592625	16.41 PPBV	100
84) NONANE	16.02	43	681532	15.30 PPBV	99
85) BROMOFORM	15.46	173	508202	15.61 PPBV	100
87) 1,1,2,2-TETRACHLOROETHANE	15.84	83	665536	16.52 PPBV	100
88) 1,2,3-TRICHLOROPROPANE	15.97	75	457600	16.51 PPBV	99
89) ISOPROPYLBENZENE	16.45	105	1136759	16.57 PPBV	100
90) BROMOBENZENE	16.56	77	575968	15.40 PPBV	99
91) 2-CHLOROTOLUENE	16.96	126	287119	16.11 PPBV	99
92) n-PROPYLBENZENE	16.99	120	312210	17.07 PPBV	99
93) 4-ETHYLTOLUENE	17.14	105	1025047	17.07 PPBV	100
94) 1,3,5-TRIMETHYLBENZENE	17.22	105	882135	17.03 PPBV	100
95) ALPHA-METHYLSTYRENE	17.40	118	446251	17.14 PPBV	99
96) tert-BUTYLBENZENE	17.66	134	225619	17.33 PPBV	99
97) 1,2,4-TRIMETHYLBENZENE	17.67	105	891251	17.45 PPBV	99
98) m-DICHLOROBENZENE	17.84	146	554605	16.47 PPBV	100

(#) = qualifier out of range (m) = manual integration
3W52823.D M3W1994.M Thu Mar 31 12:43:26 2016 MS3W Page 2

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52823.D   Vial: 1
Acq On    : 17 Mar 2016   1:32 am                    Operator: YOUMINH
Sample    : IC1994-15                                Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:23 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

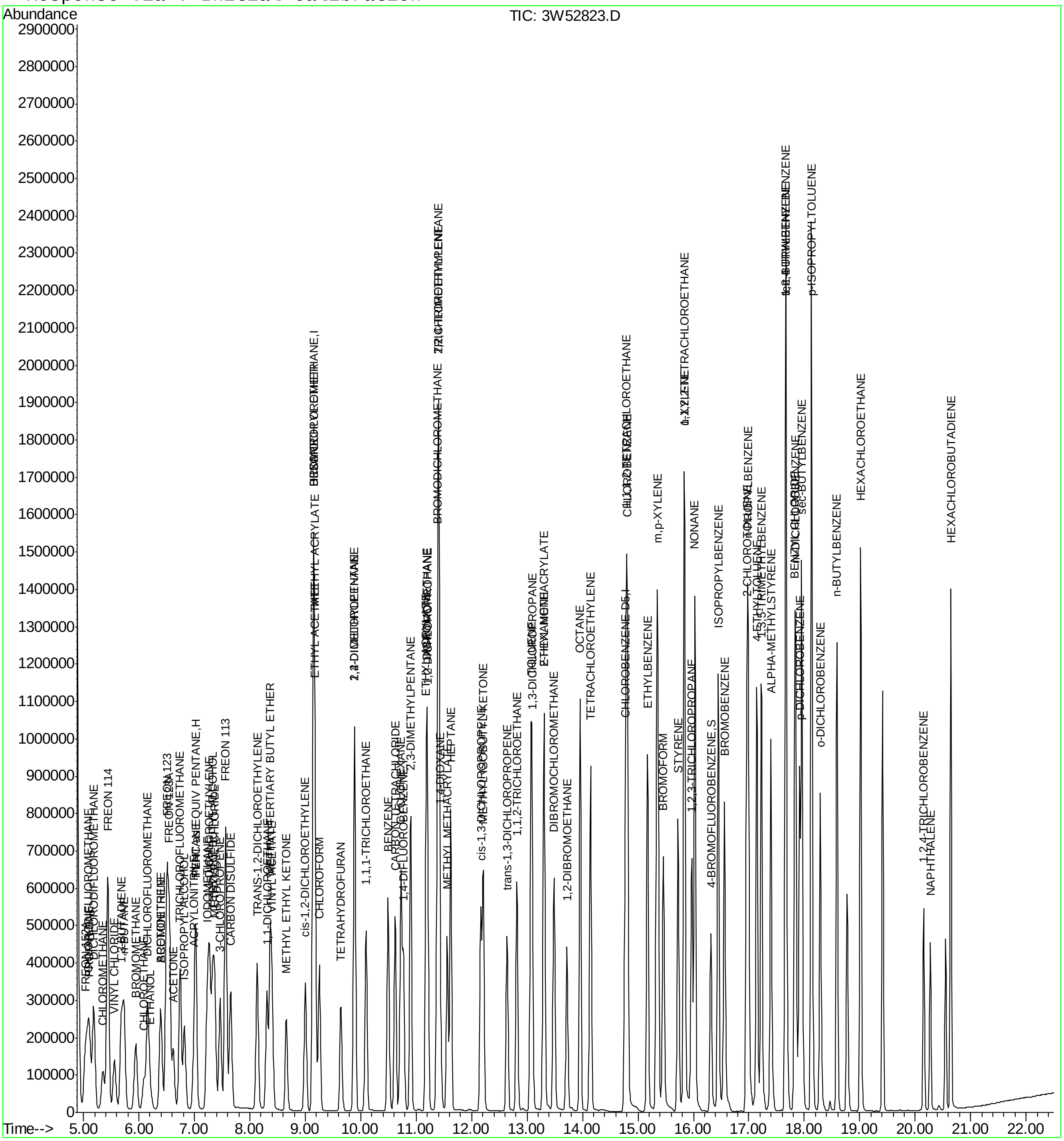
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
99)	BENZYL CHLORIDE	17.82	91	752838	17.26	PPBV	#	81
100)	p-DICHLOROBENZENE	17.92	146	568778	16.34	PPBV		100
101)	sec-BUTYLBENZENE	17.96	134	268226	17.34	PPBV		98
102)	p-ISOPROPYLTOLUENE	18.13	134	290572	17.40	PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	506235	16.46	PPBV		99
104)	n-BUTYLBENZENE	18.59	134	244380	17.51	PPBV		98
105)	HEXACHLOROETHANE	19.02	117	419305	15.67	PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	307591	17.10	PPBV		100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	219235	18.72	PPBV		100
108)	NAPHTHALENE	20.27	128	435196	18.49	PPBV		100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52823.D   Vial: 1
Acq On    : 17 Mar 2016   1:32 am                      Operator: YOUMINH
Sample    : IC1994-15                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016                Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

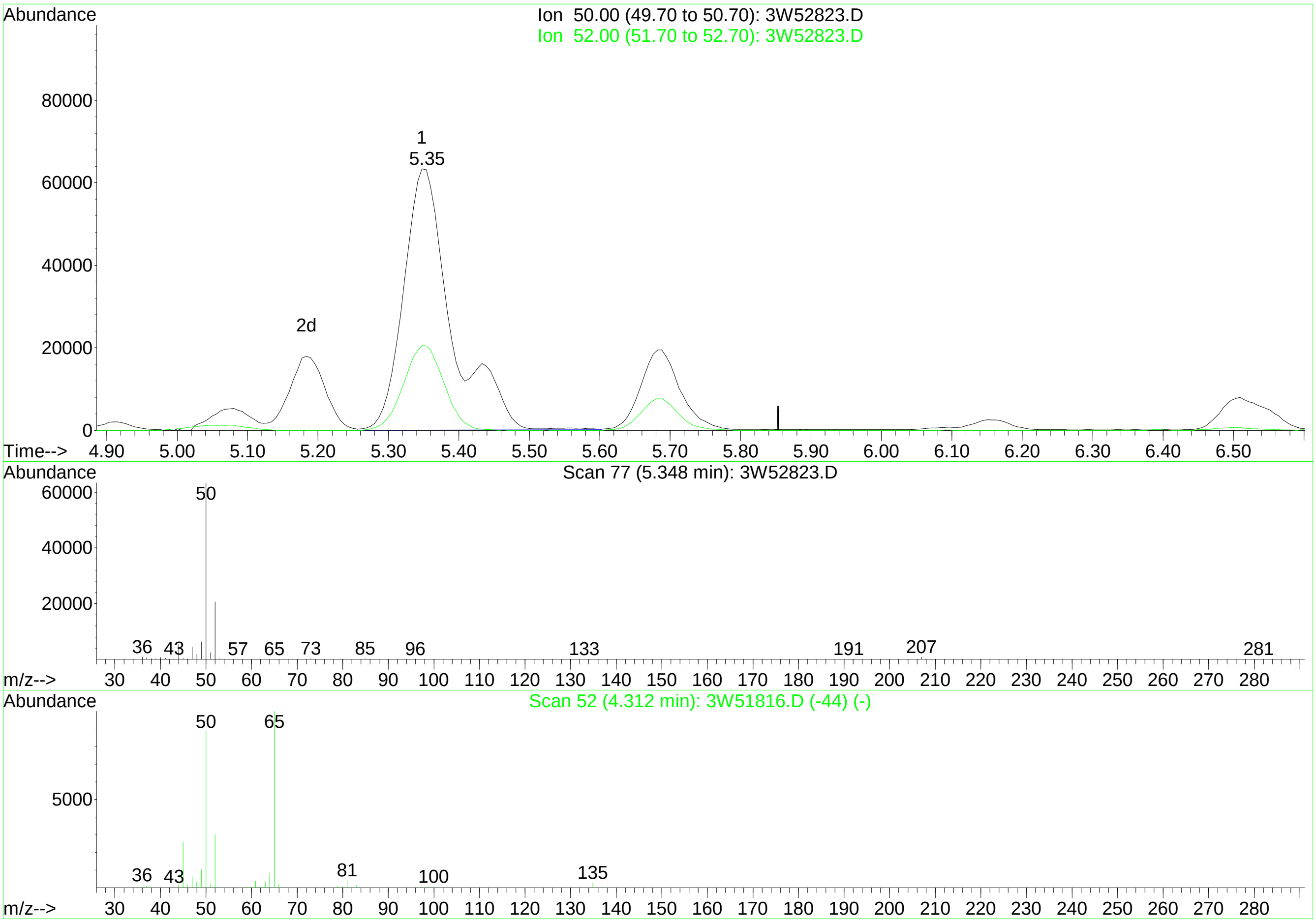
Sample Number:	V3W1994-IC1994	**Method:**	TO-15
Lab FileID:	3W52823.D	**Analyst approved:**	03/31/16 12:48 Youmin Hu
Injection Time:	03/17/16 01:32	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.64	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52823.D              Vial: 1
Acq On    : 17 Mar 2016   1:32 am               Operator: YOUMINH
Sample    : IC1994-15                           Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1               Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:51 2016          Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52823.D

(10) CHLOROMETHANE

5.35min 17.96PPBV

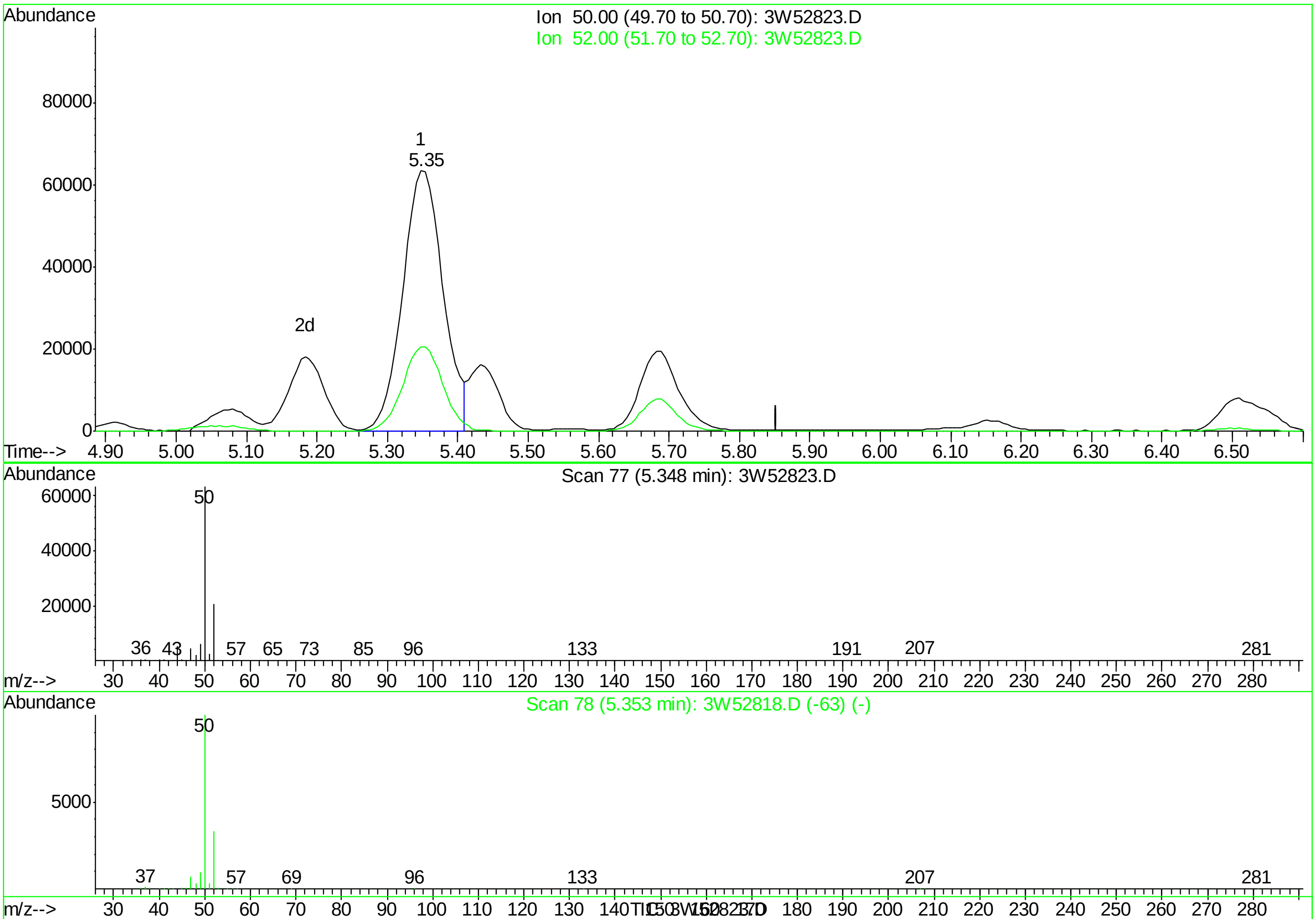
response 299602

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.63
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52823.D                Vial: 1
Acq On    : 17 Mar 2016   1:32 am                  Operator: YOUMINH
Sample    : IC1994-15                              Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:51 2016            Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 15.14PPBV m

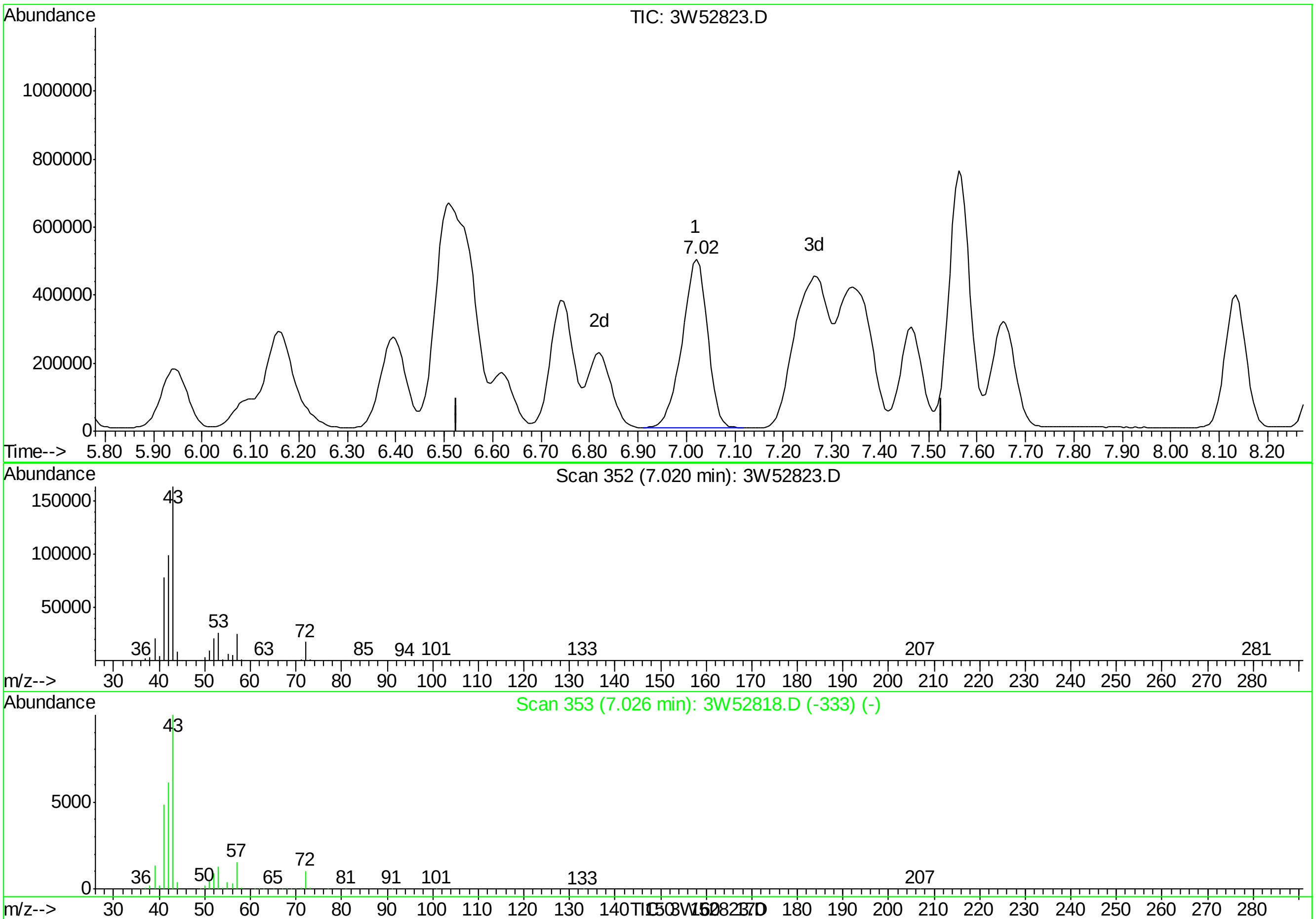
response 252575

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.46
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52823.D                  Vial: 1
Acq On    : 17 Mar 2016   1:32 am                    Operator: YOUMINH
Sample    : IC1994-15                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:51 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.02min 15.50PPBV m

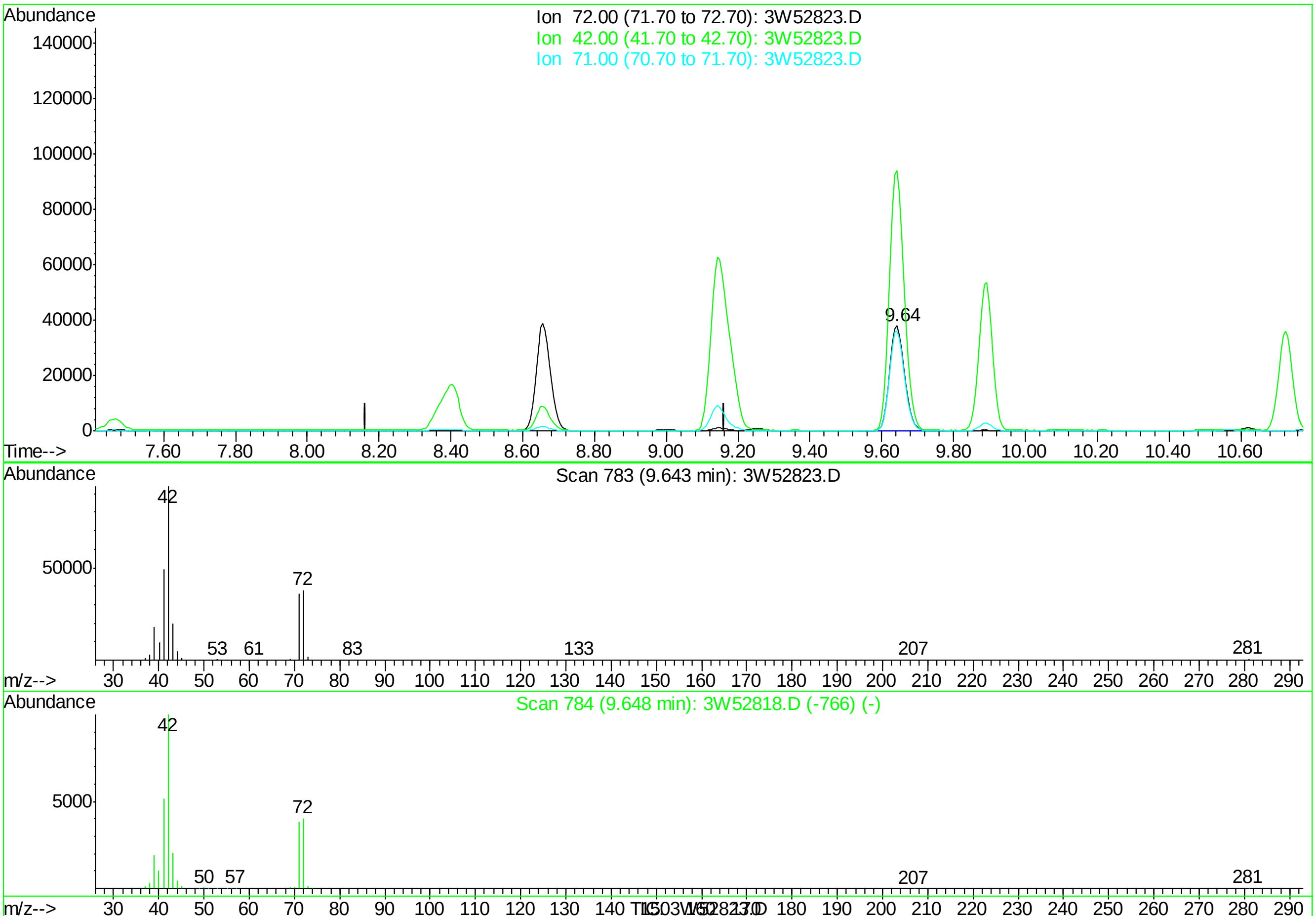
response 1797431

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	3.07#
0.00	2.20	2.66#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52823.D   Vial: 1
Acq On    : 17 Mar 2016   1:32 am                      Operator: YOUMINH
Sample    : IC1994-15                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.64min 16.22PPBV m

response 108490

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	26.97
71.00	3.90	4.13
0.00	0.00	0.00

Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52825.D   Vial: 3
Acq On    : 17 Mar 2016   2:53 am                     Operator: YOUMINH
Sample    : IC1994-0.1                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:24 2016            Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	86110	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.76	114	414644	10.00	PPBV	-0.01
71) CHLOROBENZENE-D5	14.76	82	200773	10.00	PPBV	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.31	95	186016	8.57	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 85.70%

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
4) FREON 152A	5.04	65	1015	0.11	PPBV	#	49
5) CHLORODIFLUOROMETHANE	5.07	67	441	0.13	PPBV	#	42
6) DICHLORODIFLUOROMETHANE	5.18	85	3654	0.11	PPBV		96
7) PROPYLENE	5.12	41	1671	0.13	PPBV	#	57
9) FREON 114	5.44	85	4426	0.11	PPBV		98
10) CHLOROMETHANE	5.35	50	1857m	0.12	PPBV		
11) VINYL CHLORIDE	5.55	62	1874	0.10	PPBV	#	95
12) 1,3-BUTADIENE	5.69	54	1740	0.13	PPBV		93
13) n-BUTANE	5.73	43	3821	0.13	PPBV	#	90
14) BROMOMETHANE	5.93	94	1870	0.13	PPBV	#	73
15) CHLOROETHANE	6.10	64	979	0.11	PPBV	#	55
16) DICHLOROFLUOROMETHANE	6.15	67	4328	0.13	PPBV	#	67
17) ACETONITRILE	6.39	41	1473	0.13	PPBV	#	42
18) FREON 123	6.50	83	3977	0.11	PPBV		90
19) FREON 123A	6.54	117	2002	0.11	PPBV	#	76
20) TRICHLOROFLUOROMETHANE	6.74	101	3551	0.11	PPBV		94
24) PENTANE	7.02	42	2242	0.12	PPBV	#	75
26) IODOMETHANE	7.23	142	3647	0.10	PPBV		100
28) CARBON DISULFIDE	7.65	76	5391	0.11	PPBV	#	80
30) BROMOETHENE	6.39	106	1547	0.11	PPBV		97
31) ACRYLONITRILE	7.00	52	1029	0.12	PPBV	#	76
32) METHYLENE CHLORIDE	7.36	84	1983	0.14	PPBV		86
33) 3-CHLOROPROPENE	7.46	76	765	0.10	PPBV	#	56
34) FREON 113	7.56	151	2197	0.10	PPBV		93
36) TERTIARY BUTYL ALCOHOL	7.39	59	4025	0.11	PPBV		91
37) METHYL TERTIARY BUTYL ETHE	8.40	73	4715	0.13	PPBV	#	65
38) TETRAHYDROFURAN	9.67	72	664m	0.11	PPBV		
39) HEXANE	9.14	57	2556	0.11	PPBV	#	66
40) VINYL ACETATE	8.40	86	246	0.08	PPBV	#	1
41) 1,1-DICHLOROETHANE	8.30	63	3169	0.11	PPBV		86
42) METHYL ETHYL KETONE	8.69	72	696	0.11	PPBV		93
43) cis-1,2-DICHLOROETHYLENE	8.99	96	1558	0.11	PPBV		89
44) DIISOPROPYL ETHER	9.17	59	734	0.12	PPBV	#	88
45) ETHYL ACETATE	9.19	61	381	0.09	PPBV	#	1
47) CHLOROFORM	9.24	83	2893	0.10	PPBV		87
48) 2,4-DIMETHYLPENTANE	9.89	57	2722	0.10	PPBV		95
49) 1,1,1-TRICHLOROETHANE	10.10	97	2557	0.10	PPBV		98
50) CARBON TETRACHLORIDE	10.62	117	2697	0.10	PPBV		98
51) 1,2-DICHLOROETHANE	9.88	62	1631	0.09	PPBV	#	86
53) BENZENE	10.49	78	4349	0.10	PPBV		98
54) CYCLOHEXANE	10.73	84	2412	0.13	PPBV	#	1

(#) = qualifier out of range (m) = manual integration

7.7.7

7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52825.D   Vial: 3
Acq On    : 17 Mar 2016   2:53 am                       Operator: YOUMINH
Sample    : IC1994-0.1                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:24 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
55) 2,3-DIMETHYLPENTANE	10.90	71	950	0.10 PPBV	#	84
56) TRICHLOROETHYLENE	11.39	95	1877	0.10 PPBV		96
57) 1,2-DICHLOROPROPANE	11.19	63	1673	0.10 PPBV		92
58) DIBROMOMETHANE	11.19	174	1612	0.11 PPBV		97
59) ETHYL ACRYLATE	11.19	55	3531	0.12 PPBV	#	90
60) BROMODICHLOROMETHANE	11.37	83	2984	0.10 PPBV		98
61) 2,2,4-TRIMETHYLPENTANE	11.41	57	7337	0.10 PPBV		98
63) HEPTANE	11.61	43	3009	0.11 PPBV		94
64) METHYL METHACRYLATE	11.57	69	1543	0.11 PPBV	#	1
65) METHYL ISOBUTYL KETONE	12.23	58	1209	0.10 PPBV	#	72
66) cis-1,3-DICHLOROPROPENE	12.15	75	2725	0.10 PPBV		95
67) TOLUENE	13.07	92	2553	0.09 PPBV		95
68) 1,3-DICHLOROPROPANE	13.09	76	2345	0.10 PPBV	#	75
69) trans-1,3-DICHLOROPROPENE	12.63	75	2252	0.10 PPBV		88
70) 1,1,2-TRICHLOROETHANE	12.81	83	1473	0.10 PPBV		96
72) 2-HEXANONE	13.32	58	1198	0.08 PPBV	#	54
73) ETHYL METHACRYLATE	13.30	69	2382	0.11 PPBV	#	80
74) TETRACHLOROETHYLENE	14.14	164	1811	0.12 PPBV		99
75) DIBROMOCHLOROMETHANE	13.47	129	2745	0.11 PPBV		96
76) 1,2-DIBROMOETHANE	13.71	107	2482	0.11 PPBV	#	99
77) OCTANE	13.95	43	4215	0.13 PPBV		92
78) 1,1,1,2-TETRACHLOROETHANE	14.78	131	2078	0.11 PPBV		97
79) CHLOROBENZENE	14.81	112	3757	0.11 PPBV	#	49
80) ETHYLBENZENE	15.17	91	5592	0.11 PPBV		97
81) m,p-XYLENE	15.34	106	4116	0.22 PPBV		100
82) o-XYLENE	15.83	106	2042	0.11 PPBV		99
83) STYRENE	15.72	104	2961	0.11 PPBV		99
84) NONANE	16.02	43	4258	0.12 PPBV	#	91
85) BROMOFORM	15.45	173	2510	0.10 PPBV	#	88
87) 1,1,2,2-TETRACHLOROETHANE	15.83	83	3720	0.12 PPBV		97
88) 1,2,3-TRICHLOROPROPANE	15.97	75	2715	0.13 PPBV		94
89) ISOPROPYLBENZENE	16.44	105	6293	0.12 PPBV		97
90) BROMOBENZENE	16.56	77	3303	0.11 PPBV		94
91) 2-CHLOROTOLUENE	16.96	126	1463	0.11 PPBV		87
92) n-PROPYLBENZENE	16.99	120	1542	0.11 PPBV	#	62
93) 4-ETHYLTOLUENE	17.14	105	5516m	0.12 PPBV		
94) 1,3,5-TRIMETHYLBENZENE	17.22	105	5021	0.12 PPBV		96
95) ALPHA-METHYLSTYRENE	17.39	118	2028	0.10 PPBV		92
96) tert-BUTYLBENZENE	17.66	134	1150	0.11 PPBV	#	91
97) 1,2,4-TRIMETHYLBENZENE	17.67	105	4707	0.12 PPBV		98
98) m-DICHLOROBENZENE	17.84	146	3151	0.12 PPBV		98
99) BENZYL CHLORIDE	17.82	91	3816	0.11 PPBV		86
100) p-DICHLOROBENZENE	17.92	146	3168	0.12 PPBV		97
101) sec-BUTYLBENZENE	17.95	134	1406	0.12 PPBV		95
102) p-ISOPROPYLTOLUENE	18.13	134	1499	0.12 PPBV	#	1
103) o-DICHLOROBENZENE	18.29	146	2831	0.12 PPBV		99
104) n-BUTYLBENZENE	18.59	134	1172	0.11 PPBV	#	86
105) HEXACHLOROETHANE	19.01	117	2286	0.11 PPBV		93
106) HEXACHLOROBUTADIENE	20.64	225	1778	0.13 PPBV		95

(#) = qualifier out of range (m) = manual integration

7.7.7

7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52825.D   Vial: 3
Acq On    : 17 Mar 2016   2:53 am                       Operator: YOUMINH
Sample    : IC1994-0.1                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:24 2016         Quant Results File: M3W1994.RES

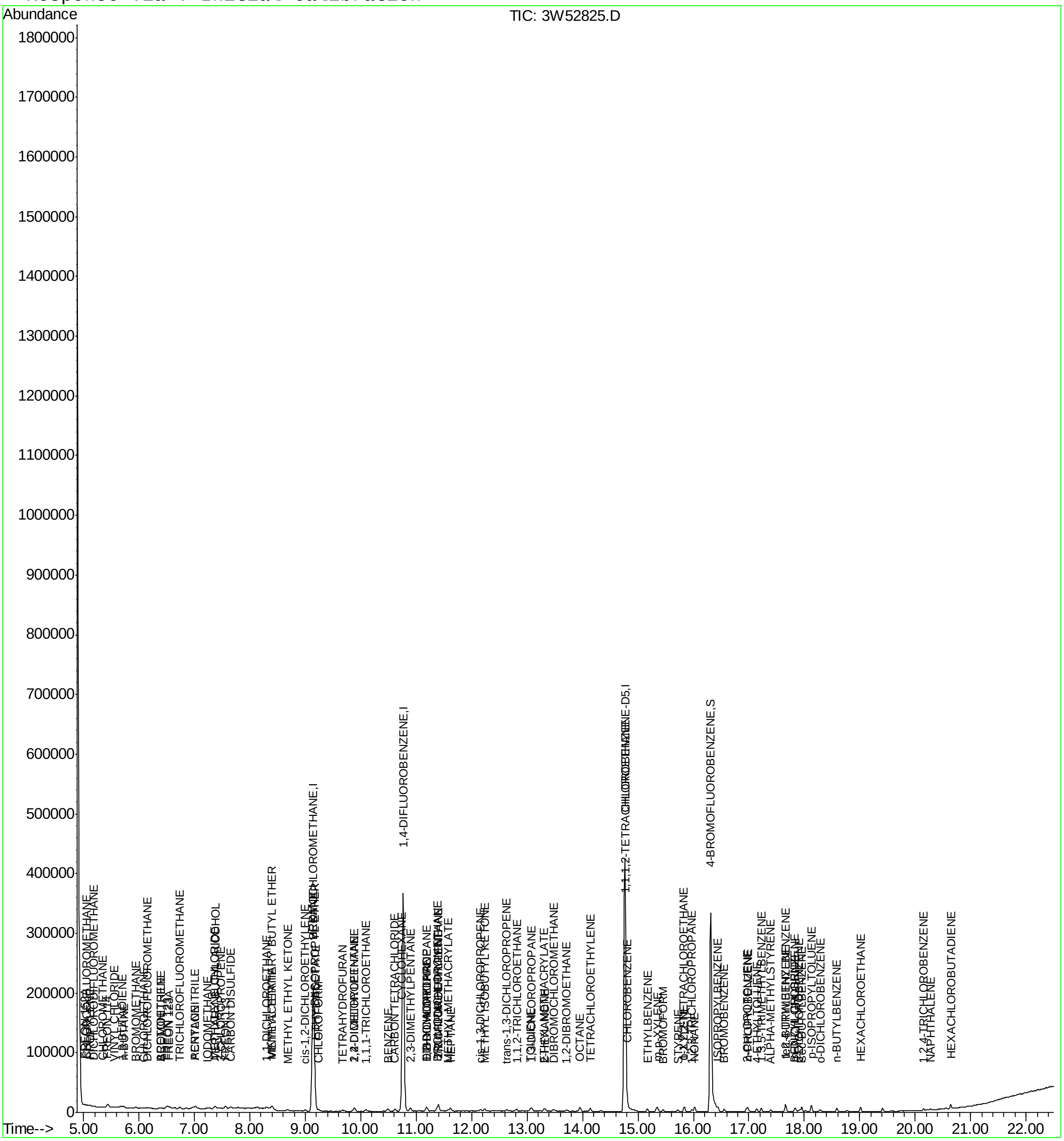
Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
107) 1,2,4-TRICHLOROBENZENE	20.15	180	1030	0.11	PPBV	97
108) NAPHTHALENE	20.28	128	2299	0.13	PPBV #	69

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52825.D   Vial: 3
Acq On    : 17 Mar 2016   2:53 am                     Operator: YOUMINH
Sample    : IC1994-0.1                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016               Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

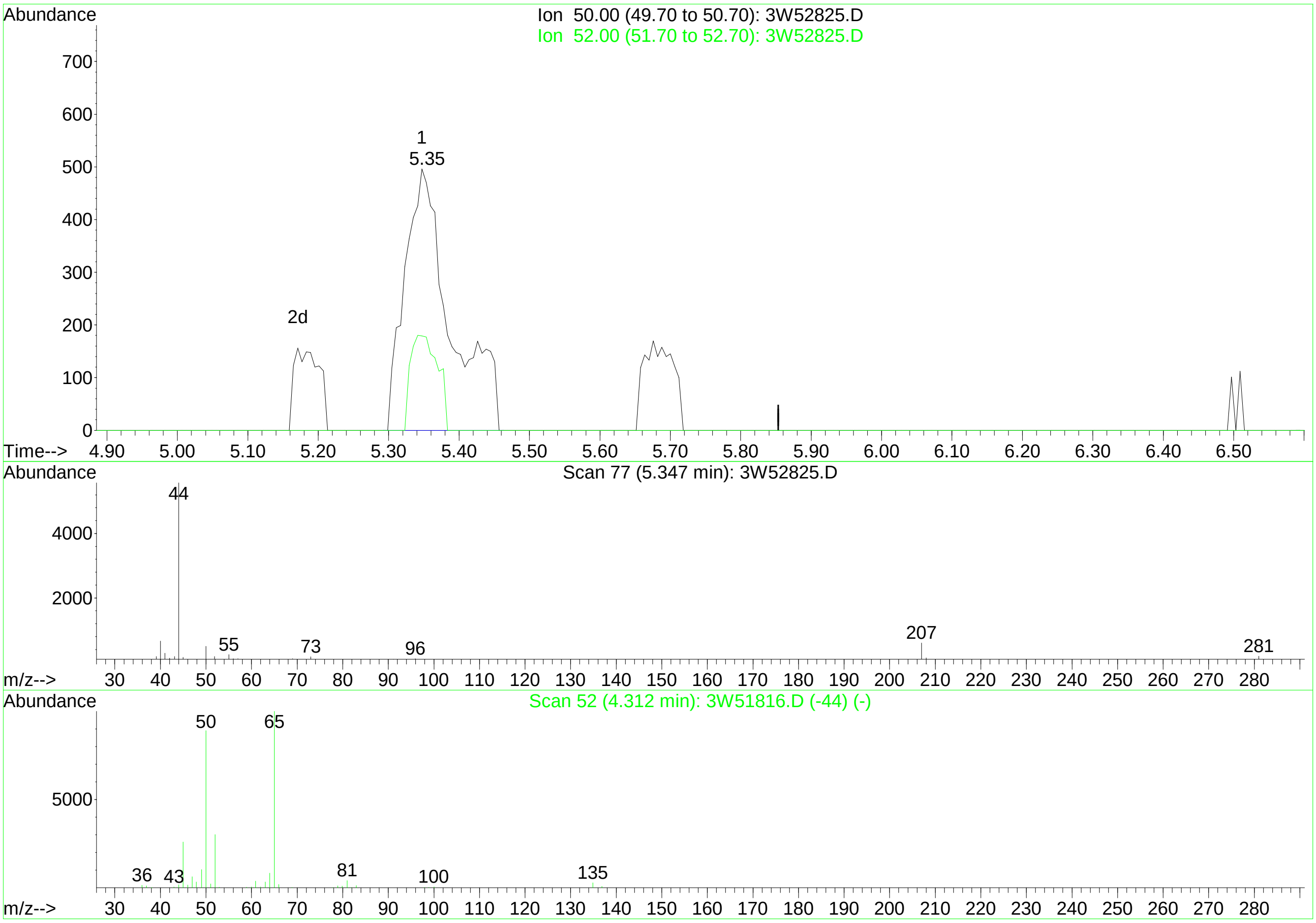
Sample Number: V3W1994-IC1994
Lab FileID: 3W52825.D
Injection Time: 03/17/16 02:53
Method: TO-15
Analyst approved: 03/31/16 12:48 Youmin Hu
Supervisor approved: 03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.67	Poor instrument integration
4-Ethyltoluene	622-96-8		17.14	Overlapping peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52825.D               Vial: 3
Acq On    : 17 Mar 2016   2:53 am                  Operator: YOUMINH
Sample    : IC1994-0.1                             Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:52 2016            Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52825.D

(10) CHLOROMETHANE

5.35min 0.14PPBV

response 2230

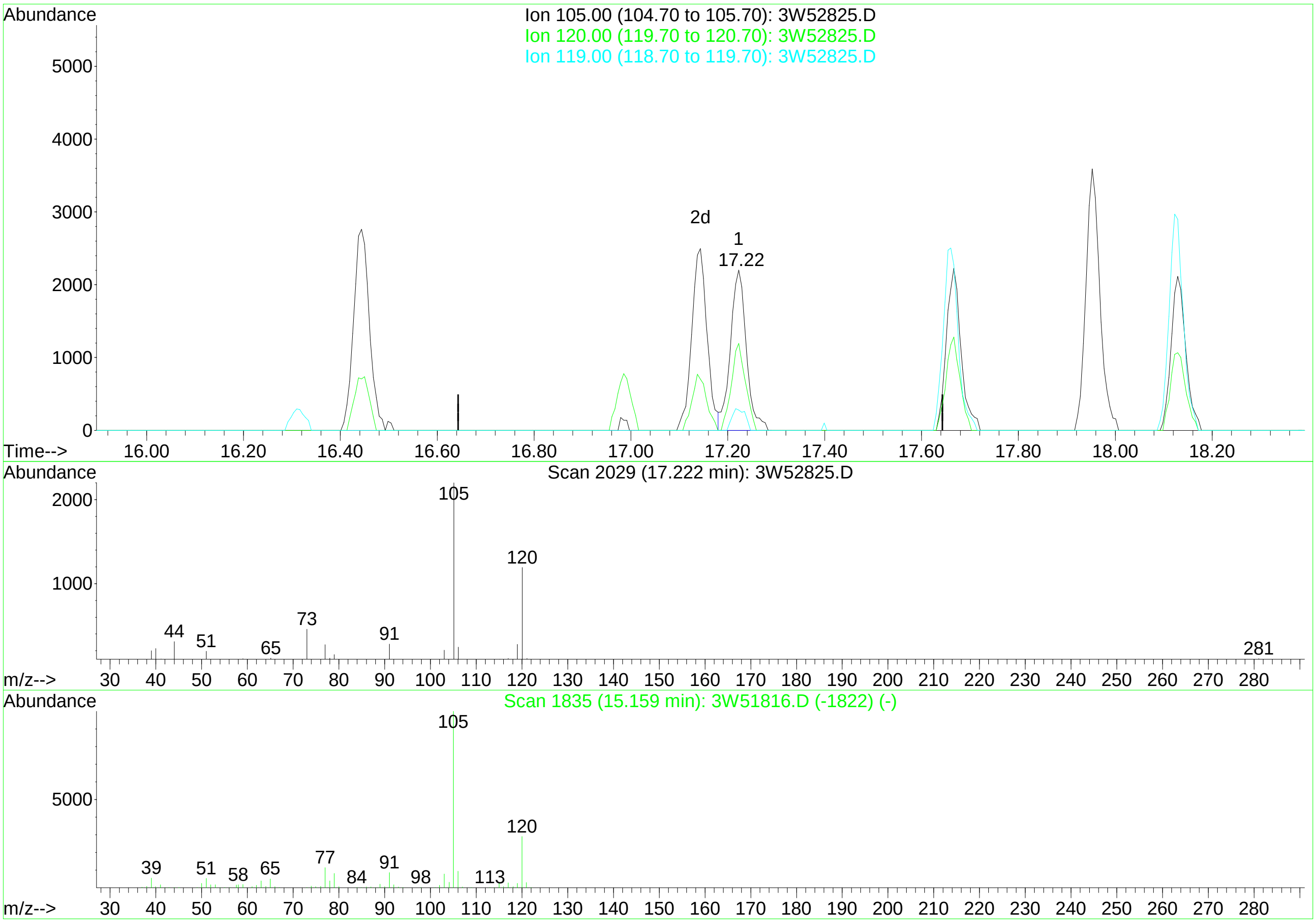
Ion	Exp%	Act%
50.00	100	100
52.00	32.90	36.09
0.00	0.00	0.00
0.00	0.00	0.00

3W52825.D M3W1994.M Thu Mar 17 10:52:25 2016 MS3W

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52825.D                  Vial: 3
Acq On    : 17 Mar 2016   2:53 am                    Operator: YOUMINH
Sample    : IC1994-0.1                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:53 2016               Quant Results File: temp.res

Method         : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title          : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update    : Thu Mar 17 10:38:08 2016
Response via   : Multiple Level Calibration
```



TIC: 3W52825.D

(93) 4-ETHYLTOLUENE

17.22min 0.11PPBV

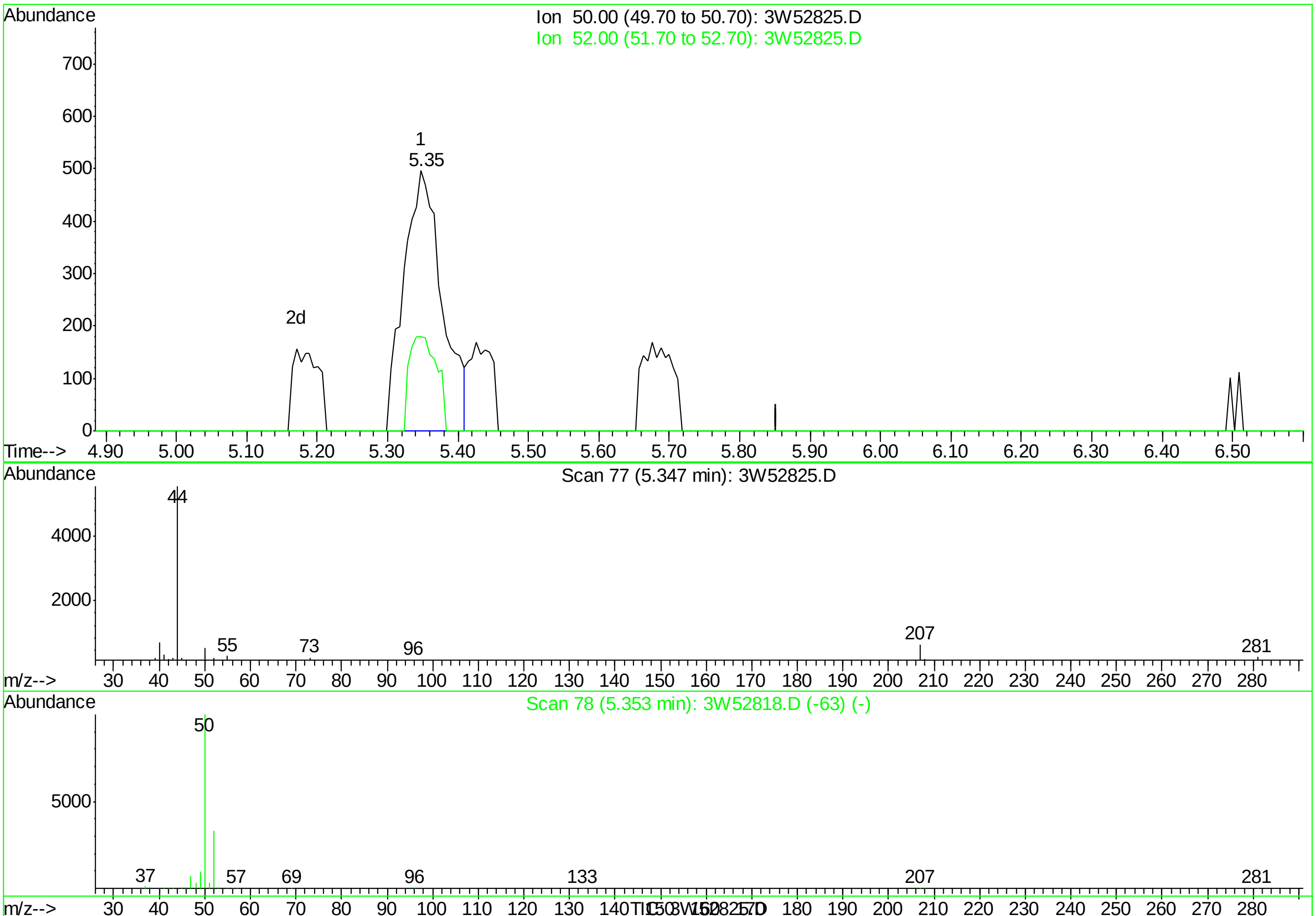
response 5021

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	47.90
119.00	2.30	11.17
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52825.D                  Vial: 3
Acq On    : 17 Mar 2016   2:53 am                    Operator: YOUMINH
Sample    : IC1994-0.1                               Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:53 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 11:00:18 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 0.12PPBV m

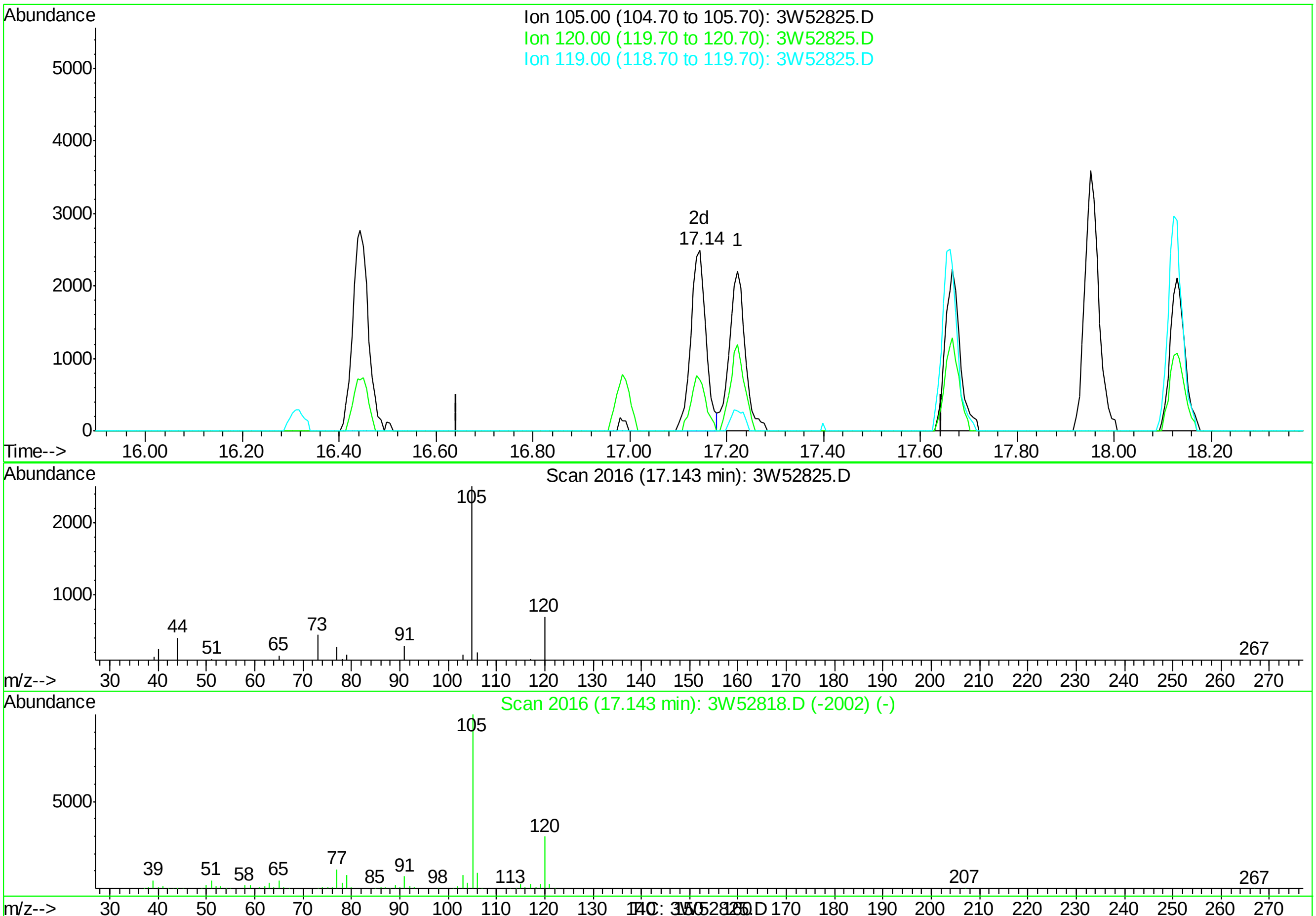
response 1857

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	36.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52825.D              Vial: 3
Acq On    : 17 Mar 2016   2:53 am                Operator: YOUMINH
Sample    : IC1994-0.1                           Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:53 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(93) 4-ETHYLTOLUENE

17.14min 0.12PPBV m

response 5516

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	43.60
119.00	2.30	10.17
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52825.D   Vial: 3
Acq On    : 17 Mar 2016   2:53 am                      Operator: YOUMINH
Sample    : IC1994-0.1                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016                Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Multiple Level Calibration
```

(38) TETRAHYDROFURAN

9.67min 0.11PPBV m

response 664

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	124.10#
71.00	3.90	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52826.D   Vial: 3
Acq On : 17 Mar 2016 3:33 am   Operator: YOUMINH
Sample : IC1994-0.04   Inst : MS3W
Misc : MS98172,V3W1994,,,,,1   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:25 2016   Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	82321	10.00 PPBV	-0.01
52) 1,4-DIFLUOROBENZENE	10.76	114	395615	10.00 PPBV	-0.01
71) CHLOROBENZENE-D5	14.76	82	187840	10.00 PPBV	-0.01

System Monitoring Compounds

86) 4-BROMOFLUOROBENZENE	16.31	95	192616	9.48 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 94.80%

Target Compounds	R.T.	QIon	Response	Conc Units		Qvalue
4) FREON 152A	5.02	65	405	0.05 PPBV	#	49
6) DICHLORODIFLUOROMETHANE	5.16	85	1511	0.05 PPBV	#	91
9) FREON 114	5.42	85	1900	0.05 PPBV		95
10) CHLOROMETHANE	5.33	50	880	0.06 PPBV	#	42
11) VINYL CHLORIDE	5.55	62	791	0.05 PPBV	#	50
15) CHLOROETHANE	6.07	64	299	0.04 PPBV	#	37
18) FREON 123	6.50	83	1632	0.05 PPBV		92
19) FREON 123A	6.53	117	733	0.04 PPBV	#	21
20) TRICHLOROFLUOROMETHANE	6.73	101	1421	0.04 PPBV		87
26) IODOMETHANE	7.22	142	1478	0.04 PPBV		92
28) CARBON DISULFIDE	7.65	76	2361	0.05 PPBV	#	73
30) BROMOETHENE	6.40	106	627	0.04 PPBV	#	94
31) ACRYLONITRILE	7.00	52	357	0.04 PPBV	#	45
33) 3-CHLOROPROPENE	7.46	76	269	0.04 PPBV	#	58
34) FREON 113	7.54	151	934	0.04 PPBV		93
36) TERTIARY BUTYL ALCOHOL	7.38	59	1813	0.05 PPBV		78
37) METHYL TERTIARY BUTYL ETHE	8.40	73	2084	0.06 PPBV	#	52
39) HEXANE	9.14	57	1110	0.05 PPBV	#	35
41) 1,1-DICHLOROETHANE	8.30	63	1438	0.05 PPBV	#	73
44) DIISOPROPYL ETHER	9.17	59	224	0.04 PPBV	#	1
47) CHLOROFORM	9.24	83	1155	0.04 PPBV		95
48) 2,4-DIMETHYLPENTANE	9.88	57	1046	0.04 PPBV	#	81
49) 1,1,1-TRICHLOROETHANE	10.09	97	1068	0.04 PPBV		95
50) CARBON TETRACHLORIDE	10.62	117	1057	0.04 PPBV		89
51) 1,2-DICHLOROETHANE	9.87	62	660	0.04 PPBV	#	49
53) BENZENE	10.49	78	1850	0.05 PPBV	#	81
55) 2,3-DIMETHYLPENTANE	10.89	71	378	0.04 PPBV	#	69
56) TRICHLOROETHYLENE	11.39	95	779	0.04 PPBV		91
57) 1,2-DICHLOROPROPANE	11.19	63	680	0.04 PPBV	#	42
58) DIBROMOMETHANE	11.18	174	688	0.05 PPBV	#	91
59) ETHYL ACRYLATE	11.19	55	1514	0.05 PPBV	#	78
60) BROMODICHLOROMETHANE	11.37	83	1246	0.04 PPBV		96
61) 2,2,4-TRIMETHYLPENTANE	11.39	57	3216	0.05 PPBV	#	96
63) HEPTANE	11.62	43	1416	0.06 PPBV		89
64) METHYL METHACRYLATE	11.57	69	703	0.05 PPBV	#	1
65) METHYL ISOBUTYL KETONE	12.23	58	439	0.04 PPBV	#	28
66) cis-1,3-DICHLOROPROPENE	12.16	75	1118	0.04 PPBV		88
67) TOLUENE	13.07	92	954	0.03 PPBV	#	85
68) 1,3-DICHLOROPROPANE	13.09	76	978	0.04 PPBV	#	68
69) trans-1,3-DICHLOROPROPENE	12.64	75	942	0.04 PPBV	#	69
70) 1,1,2-TRICHLOROETHANE	12.81	83	595	0.04 PPBV		95

(#) = qualifier out of range (m) = manual integration

7.7.8

7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52826.D   Vial: 3
Acq On    : 17 Mar 2016   3:33 am                      Operator: YOUMINH
Sample    : IC1994-0.04                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:25 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

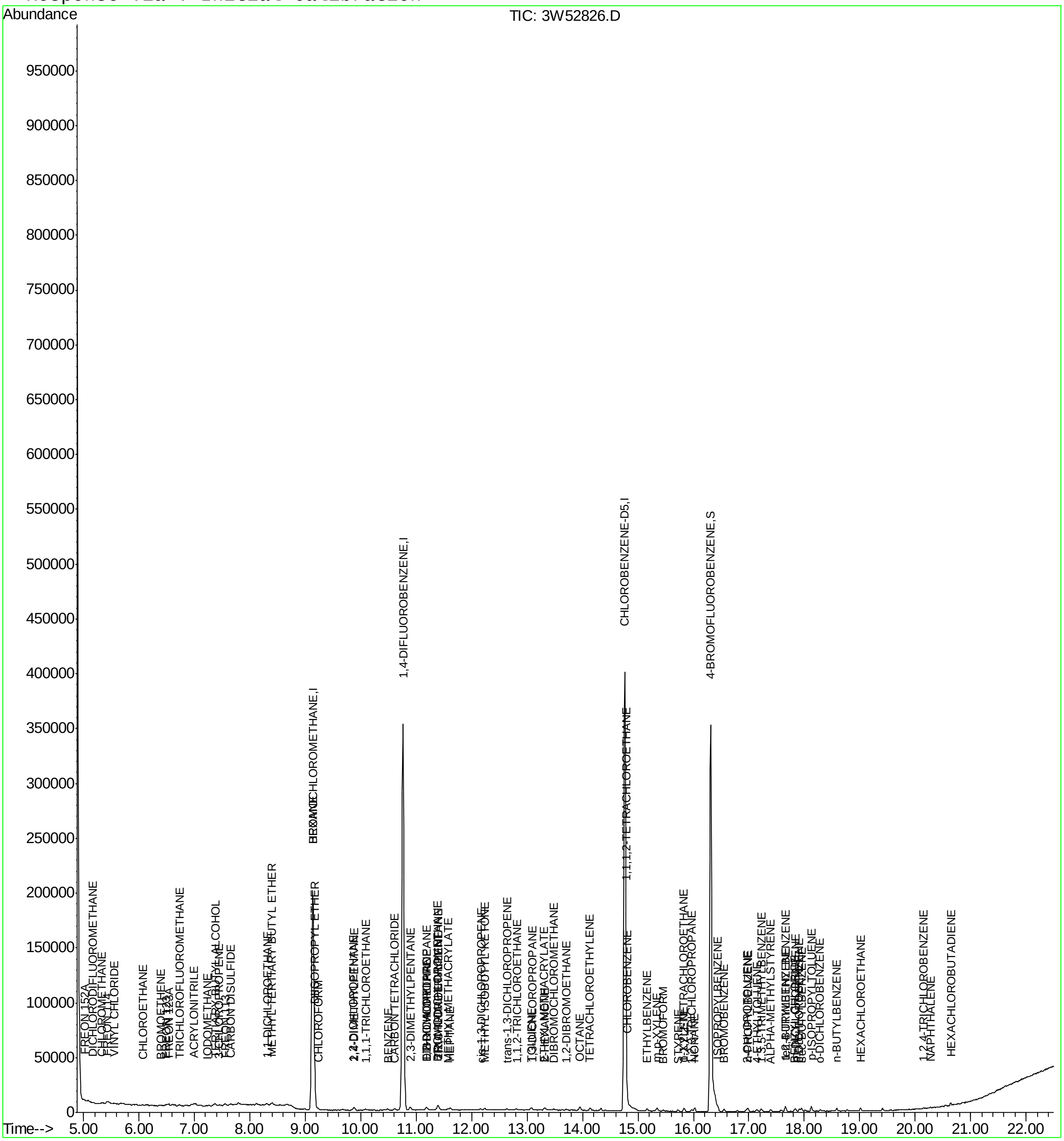
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
72)	2-HEXANONE	13.33	58	681	0.05	PPBV	#	51
73)	ETHYL METHACRYLATE	13.30	69	1036	0.05	PPBV	#	64
74)	TETRACHLOROETHYLENE	14.14	164	754	0.05	PPBV		88
75)	DIBROMOCHLOROMETHANE	13.48	129	1098	0.05	PPBV	#	85
76)	1,2-DIBROMOETHANE	13.71	107	957	0.05	PPBV	#	94
77)	OCTANE	13.95	43	1915	0.06	PPBV		91
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	779	0.04	PPBV	#	39
79)	CHLOROBENZENE	14.81	112	1589	0.05	PPBV	#	47
80)	ETHYLBENZENE	15.17	91	2347m	0.05	PPBV		
81)	m,p-XYLENE	15.35	106	1646	0.09	PPBV		98
82)	o-XYLENE	15.83	106	769	0.05	PPBV	#	80
83)	STYRENE	15.71	104	1206	0.05	PPBV		96
84)	NONANE	16.02	43	1701	0.05	PPBV	#	91
85)	BROMOFORM	15.46	173	980	0.04	PPBV	#	85
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	1548	0.05	PPBV	#	90
88)	1,2,3-TRICHLOROPROPANE	15.96	75	1153	0.06	PPBV		82
89)	ISOPROPYLBENZENE	16.44	105	2587	0.05	PPBV		97
90)	BROMOBENZENE	16.55	77	1464	0.05	PPBV	#	85
91)	2-CHLOROTOLUENE	16.95	126	483	0.04	PPBV	#	43
92)	n-PROPYLBENZENE	16.98	120	574	0.04	PPBV	#	62
93)	4-ETHYLTOLUENE	17.14	105	2243m	0.05	PPBV		
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	1994	0.05	PPBV	#	89
95)	ALPHA-METHYLSTYRENE	17.39	118	767	0.04	PPBV		89
96)	tert-BUTYLBENZENE	17.66	134	438	0.05	PPBV	#	90
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	1828	0.05	PPBV		99
98)	m-DICHLOROBENZENE	17.84	146	1348	0.05	PPBV		91
99)	BENZYL CHLORIDE	17.82	91	1712	0.05	PPBV	#	86
100)	p-DICHLOROBENZENE	17.91	146	1308	0.05	PPBV		93
101)	sec-BUTYLBENZENE	17.95	134	527	0.05	PPBV	#	82
102)	p-ISOPROPYLTOLUENE	18.12	134	504	0.04	PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	1165	0.05	PPBV		96
104)	n-BUTYLBENZENE	18.59	134	422	0.04	PPBV	#	64
105)	HEXACHLOROETHANE	19.02	117	890	0.05	PPBV		98
106)	HEXACHLOROBUTADIENE	20.65	225	677	0.05	PPBV		90
107)	1,2,4-TRICHLOROBENZENE	20.15	180	476	0.06	PPBV	#	80
108)	NAPHTHALENE	20.28	128	1170	0.07	PPBV	#	69

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52826.D   Vial: 3
Acq On    : 17 Mar 2016   3:33 am                      Operator: YOUMINH
Sample    : IC1994-0.04                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:56 2016              Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

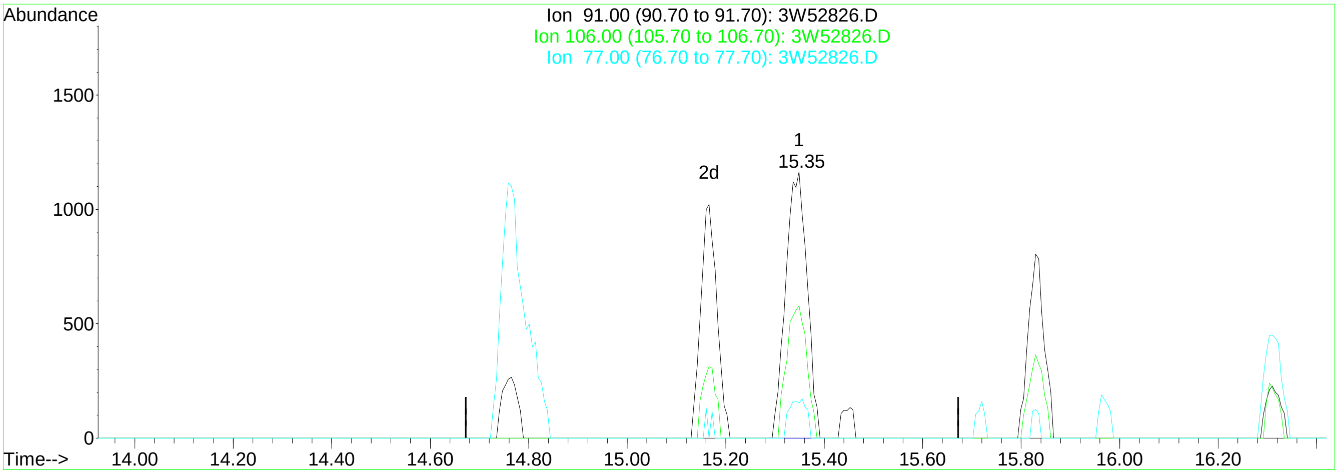
Sample Number:	V3W1994-IC1994	**Method:**	TO-15
Lab FileID:	3W52826.D	**Analyst approved:**	03/31/16 12:48 Youmin Hu
Injection Time:	03/17/16 03:33	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

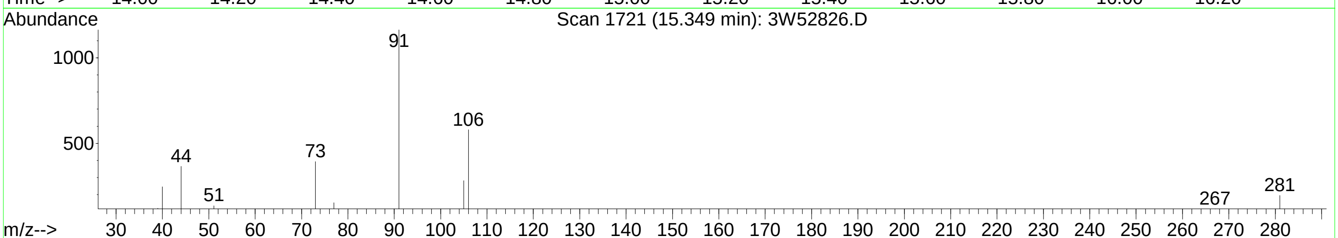
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethylbenzene	100-41-4		15.17	Poor instrument integration
4-Ethyltoluene	622-96-8		17.14	Overlapping peak

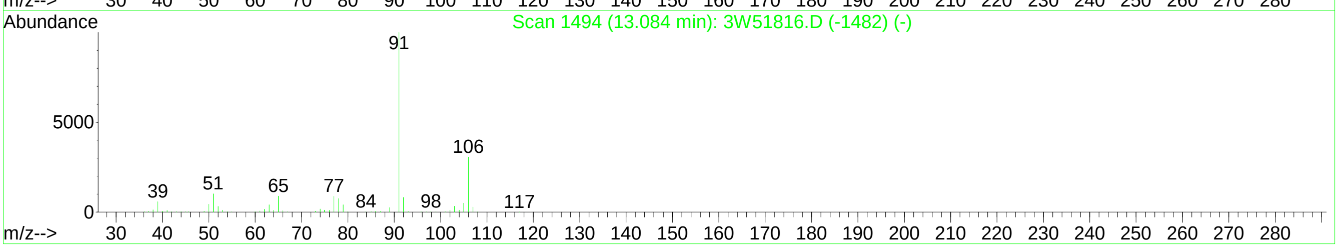
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52826.D                 Vial: 3
Acq On    : 17 Mar 2016   3:33 am                   Operator: YOUMINH
Sample    : IC1994-0.04                             Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:55 2016             Quant Results File: temp.res

Method         : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title          : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update    : Thu Mar 17 10:38:08 2016
Response via   : Multiple Level Calibration
```







TIC: 3W52826.D

(80) ETHYLBENZENE

15.35min 0.08PPBV

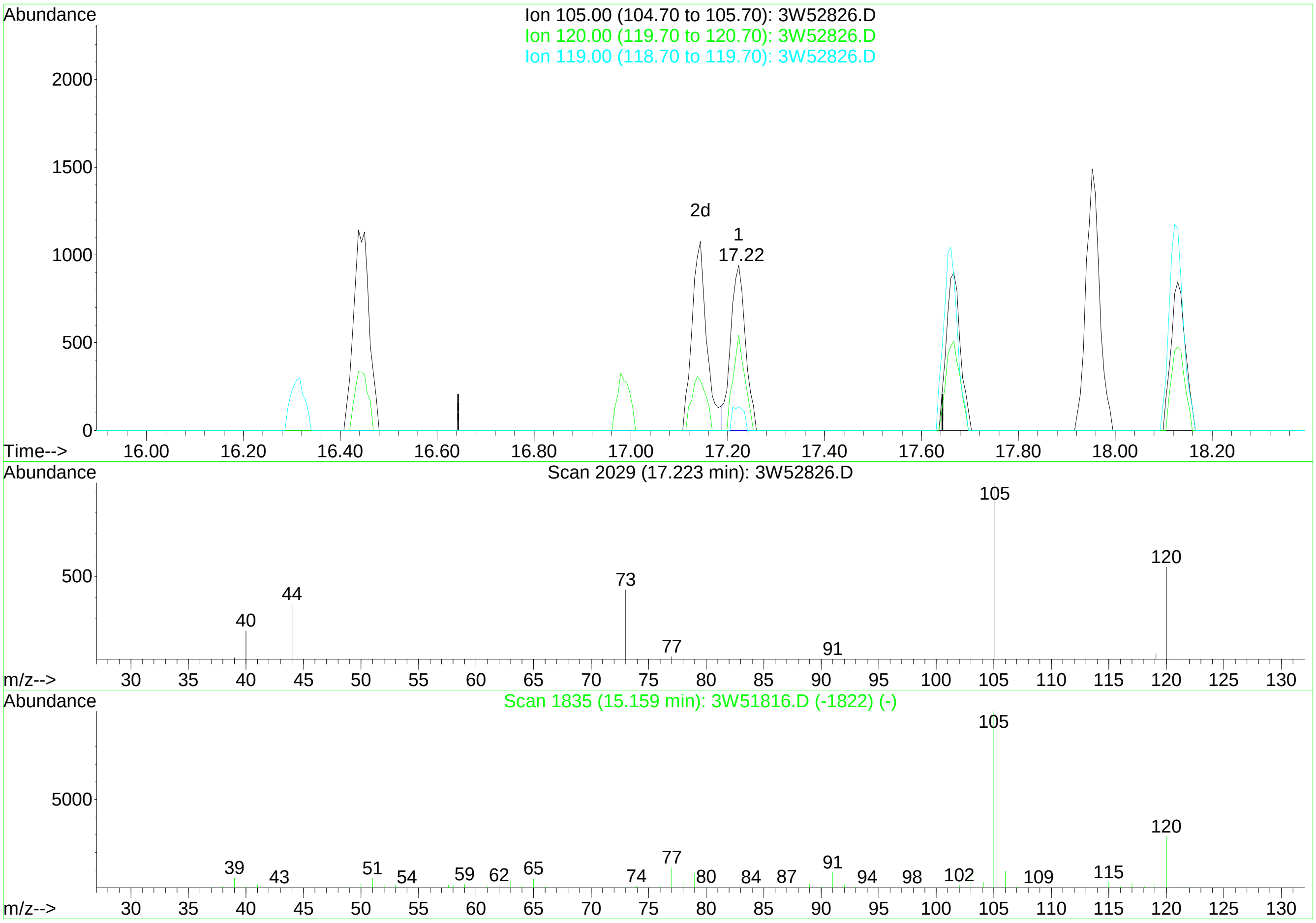
response 3509

Ion	Exp%	Act%
91.00	100	100
106.00	31.00	46.91
77.00	8.50	11.94
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52826.D                 Vial: 3
Acq On    : 17 Mar 2016   3:33 am                   Operator: YOUMINH
Sample    : IC1994-0.04                              Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:56 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:38:08 2016
Response via : Multiple Level Calibration
```



TIC: 3W52826.D

(93) 4-ETHYLTOLUENE

17.22min 0.05PPBV

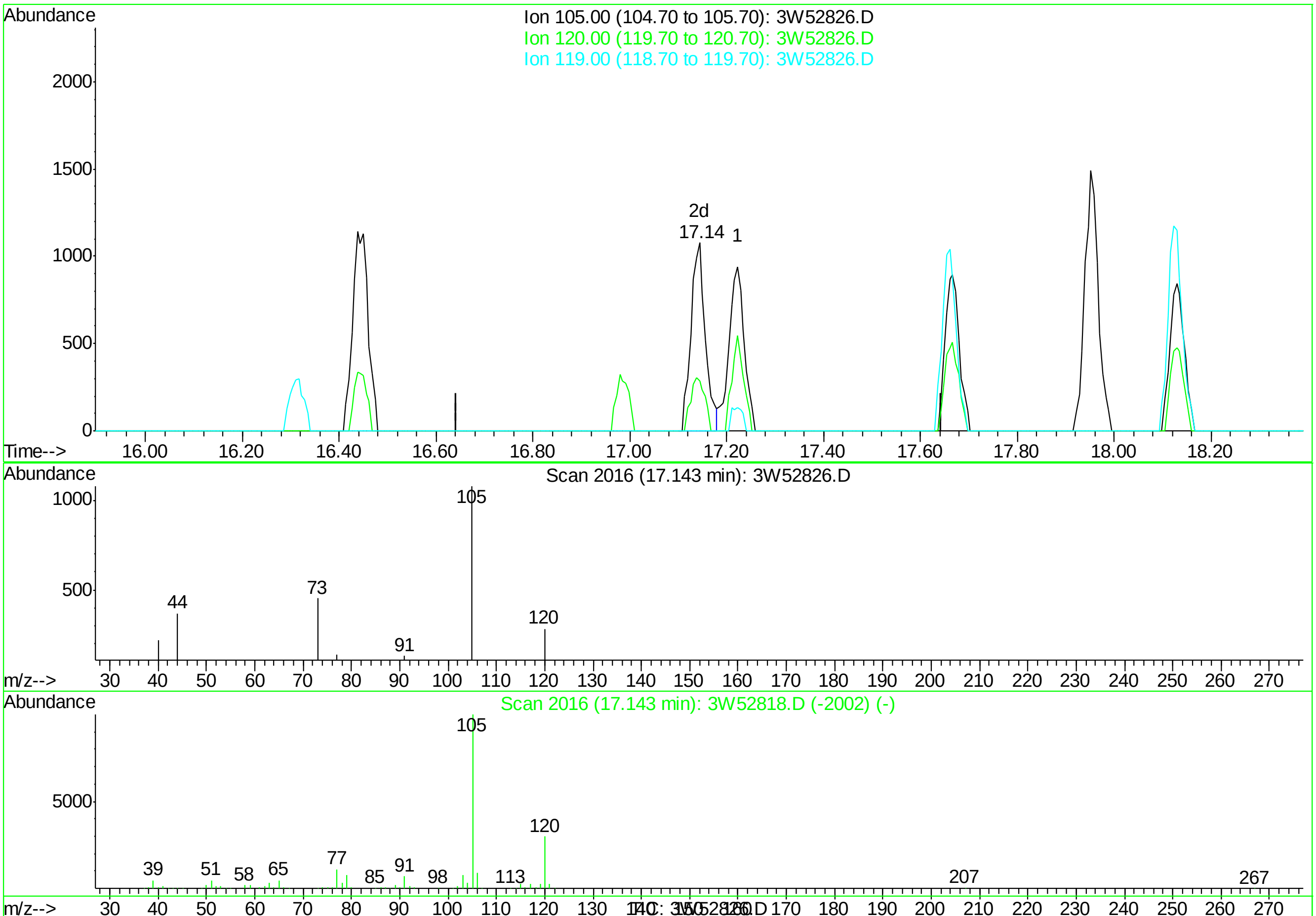
response 1994

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	45.29
119.00	2.30	11.23
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\3W52826.D Vial: 3
Acq On : 17 Mar 2016 3:33 am Operator: YOUMINH
Sample : IC1994-0.04 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:56 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration



(93) 4-ETHYLTOLUENE

17.14min 0.05PPBV m

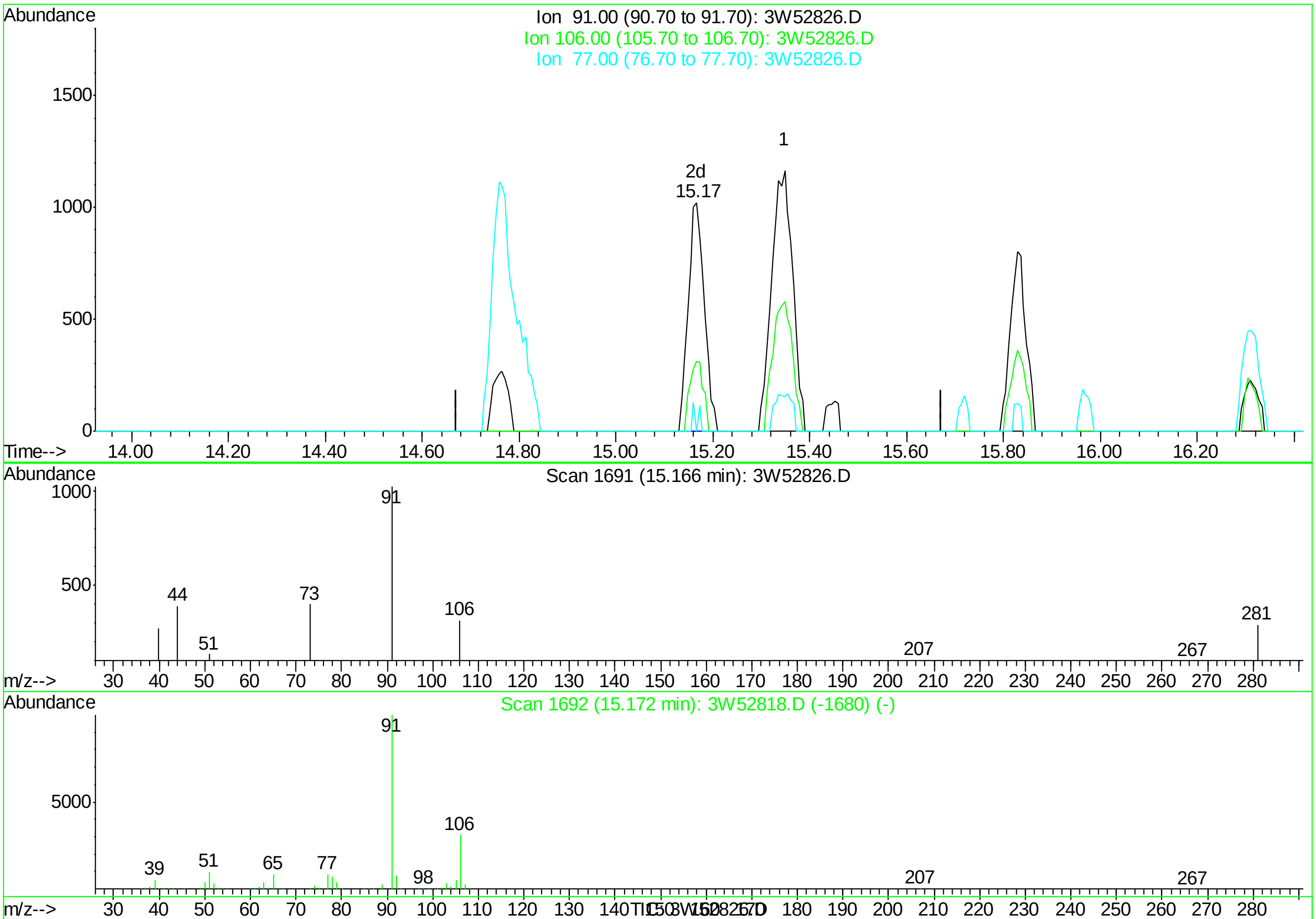
response 2243

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	40.26
119.00	2.30	9.99
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52826.D                  Vial: 3
Acq On    : 17 Mar 2016   3:33 am                    Operator: YOUMINH
Sample    : IC1994-0.04                              Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:56 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(80) ETHYLBENZENE

15.17min 0.05PPBV m

response 2347

Ion	Exp%	Act%
91.00	100	100
106.00	31.00	70.13#
77.00	8.50	17.85
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52827.D   Vial: 1
Acq On    : 17 Mar 2016   4:16 am                       Operator: YOUMINH
Sample    : IC1994-30                                   Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:25 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	91134	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.78	114	450573	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.77	82	282544	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	275207	9.01 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 90.10%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
4) FREON 152A	5.04	65	286469	29.75 PPBV	100
5) CHLORODIFLUOROMETHANE	5.09	67	101489	28.63 PPBV	99
6) DICHLORODIFLUOROMETHANE	5.19	85	1041625	28.42 PPBV	100
7) PROPYLENE	5.12	41	397646	29.15 PPBV	99
9) FREON 114	5.44	85	1253698	30.23 PPBV	100
10) CHLOROMETHANE	5.35	50	488202m	29.70 PPBV	
11) VINYL CHLORIDE	5.57	62	565642	29.85 PPBV	100
12) 1,3-BUTADIENE	5.69	54	442302	30.33 PPBV	99
13) n-BUTANE	5.74	43	894279	29.49 PPBV	98
14) BROMOMETHANE	5.95	94	464590	29.45 PPBV	99
15) CHLOROETHANE	6.10	64	289886	30.92 PPBV	100
16) DICHLOROFLUOROMETHANE	6.16	67	1065666	30.57 PPBV	99
17) ACETONITRILE	6.40	41	433090	35.62 PPBV	100
18) FREON 123	6.51	83	1207953	31.78 PPBV	99
19) FREON 123A	6.55	117	623079	31.85 PPBV	99
20) TRICHLOROFLUOROMETHANE	6.75	101	1072669	30.13 PPBV	100
22) ISOPROPYL ALCOHOL	6.83	45	1030215	33.30 PPBV	99
23) ACETONE	6.62	58	246672	35.29 PPBV	99
24) PENTANE	7.03	42	616118	31.28 PPBV	100
25) TVHC as EQUIV PENTANE	7.03	TIC	3658644m	32.02 PPBV	
26) IODOMETHANE	7.24	142	1159782	31.08 PPBV	99
27) 1,1-DICHLOROETHYLENE	7.28	96	511720	31.27 PPBV	99
28) CARBON DISULFIDE	7.66	76	1568267	29.64 PPBV	100
29) ETHANOL	6.21	45	235574	33.25 PPBV	99
30) BROMOETHENE	6.40	106	470046	30.27 PPBV	100
31) ACRYLONITRILE	7.00	52	331718	36.43 PPBV	97
32) METHYLENE CHLORIDE	7.37	84	460106	31.24 PPBV	96
33) 3-CHLOROPROPENE	7.47	76	264914	31.56 PPBV	99
34) FREON 113	7.57	151	745905	32.01 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.14	96	508745	30.45 PPBV	97
36) TERTIARY BUTYL ALCOHOL	7.34	59	1263890	33.36 PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.38	73	1208132	30.75 PPBV	98
38) TETRAHYDROFURAN	9.64	72	224365m	34.05 PPBV	
39) HEXANE	9.15	57	855443	33.43 PPBV	99
40) VINYL ACETATE	8.41	86	113105	34.10 PPBV #	96
41) 1,1-DICHLOROETHANE	8.32	63	951505	29.85 PPBV	100
42) METHYL ETHYL KETONE	8.67	72	226433	34.37 PPBV	97
43) cis-1,2-DICHLOROETHYLENE	9.01	96	478881	31.58 PPBV	99
44) DIISOPROPYL ETHER	9.16	59	235515	35.61 PPBV #	91
45) ETHYL ACETATE	9.19	61	165666	35.74 PPBV #	90
46) METHYL ACRYLATE	9.19	55	940164	36.55 PPBV	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52827.D Vial: 1
Acq On : 17 Mar 2016 4:16 am Operator: YOUMINH
Sample : IC1994-30 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:25 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47) CHLOROFORM	9.26	83	928586	31.66 PPBV		99
48) 2,4-DIMETHYLPENTANE	9.90	57	1002563	34.00 PPBV		100
49) 1,1,1-TRICHLOROETHANE	10.10	97	883897	31.85 PPBV		99
50) CARBON TETRACHLORIDE	10.63	117	929744	32.11 PPBV		99
51) 1,2-DICHLOROETHANE	9.89	62	580196	31.57 PPBV		99
53) BENZENE	10.50	78	1515740	33.40 PPBV		100
54) CYCLOHEXANE	10.73	84	673774	33.15 PPBV		97
55) 2,3-DIMETHYLPENTANE	10.91	71	365551	34.45 PPBV		98
56) TRICHLOROETHYLENE	11.41	95	701416	35.23 PPBV		98
57) 1,2-DICHLOROPROPANE	11.21	63	628503	34.89 PPBV		99
58) DIBROMOMETHANE	11.20	174	580180	35.11 PPBV		98
59) ETHYL ACRYLATE	11.18	55	1181055	37.63 PPBV		100
60) BROMODICHLOROMETHANE	11.39	83	1089595	33.98 PPBV		100
61) 2,2,4-TRIMETHYLPENTANE	11.41	57	2850324	35.69 PPBV		99
62) 1,4-DIOXANE	11.44	88	368984	37.53 PPBV	#	7
63) HEPTANE	11.63	43	999042	34.71 PPBV		99
64) METHYL METHACRYLATE	11.56	69	552761	37.27 PPBV		99
65) METHYL ISOBUTYL KETONE	12.21	58	499544	37.37 PPBV		98
66) cis-1,3-DICHLOROPROPENE	12.17	75	972859	34.11 PPBV		99
67) TOLUENE	13.07	92	1076956	34.52 PPBV		98
68) 1,3-DICHLOROPROPANE	13.10	76	918369	35.76 PPBV		100
69) trans-1,3-DICHLOROPROPENE	12.64	75	812694	33.70 PPBV		98
70) 1,1,2-TRICHLOROETHANE	12.82	83	545759	34.05 PPBV		99
72) 2-HEXANONE	13.32	58	729430	33.11 PPBV		96
73) ETHYL METHACRYLATE	13.30	69	984583	33.52 PPBV		98
74) TETRACHLOROETHYLENE	14.14	164	680232	31.29 PPBV		99
75) DIBROMOCHLOROMETHANE	13.49	129	1071811	30.05 PPBV		99
76) 1,2-DIBROMOETHANE	13.72	107	949402	29.88 PPBV		100
77) OCTANE	13.96	43	1367604	30.27 PPBV		99
78) 1,1,1,2-TETRACHLOROETHANE	14.79	131	808882	30.26 PPBV		100
79) CHLOROBENZENE	14.81	112	1507123	31.08 PPBV		99
80) ETHYLBENZENE	15.17	91	2199951	32.02 PPBV		99
81) m,p-XYLENE	15.35	106	1762033	67.47 PPBV		97
82) o-XYLENE	15.84	106	877730	34.56 PPBV		96
83) STYRENE	15.73	104	1301998	32.90 PPBV		99
84) NONANE	16.03	43	1451298	29.72 PPBV		98
85) BROMOFORM	15.46	173	1083967	30.38 PPBV		99
87) 1,1,2,2-TETRACHLOROETHANE	15.84	83	1475650	33.43 PPBV		100
88) 1,2,3-TRICHLOROPROPANE	15.98	75	1011112	33.28 PPBV		100
89) ISOPROPYLBENZENE	16.45	105	2507352	33.35 PPBV		99
90) BROMOBENZENE	16.56	77	1258272	30.70 PPBV		99
91) 2-CHLOROTOLUENE	16.96	126	645410	33.04 PPBV		99
92) n-PROPYLBENZENE	16.99	120	705798	35.22 PPBV		99
93) 4-ETHYLTOLUENE	17.14	105	2293307	34.85 PPBV		99
94) 1,3,5-TRIMETHYLBENZENE	17.23	105	1974975	34.79 PPBV		100
95) ALPHA-METHYLSTYRENE	17.40	118	1013057	35.50 PPBV		100
96) tert-BUTYLBENZENE	17.67	134	515205	36.11 PPBV		96
97) 1,2,4-TRIMETHYLBENZENE	17.67	105	2036653	36.39 PPBV		98
98) m-DICHLOROBENZENE	17.84	146	1271793	34.47 PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52827.D Vial: 1
Acq On : 17 Mar 2016 4:16 am Operator: YOUMINH
Sample : IC1994-30 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:25 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

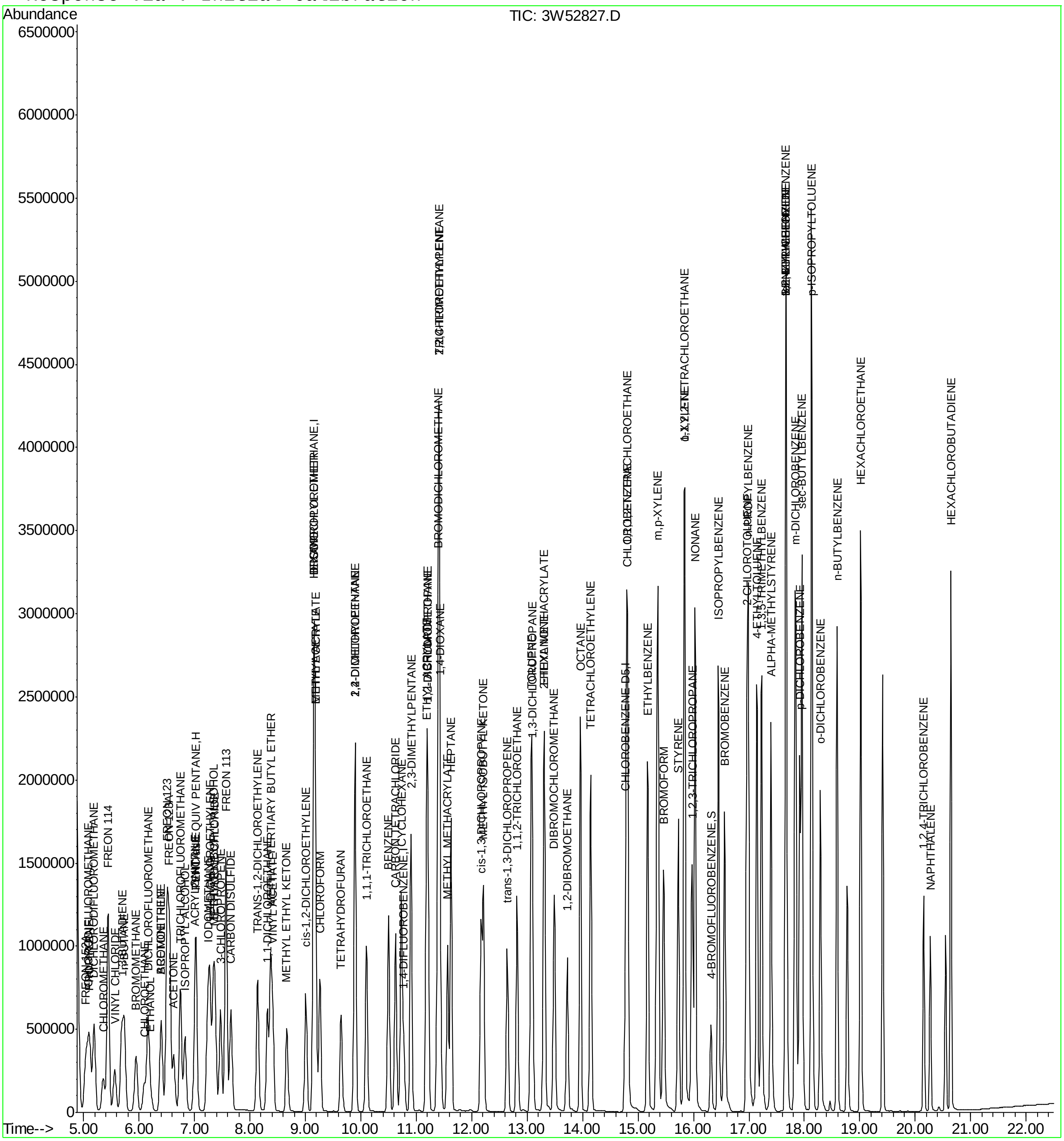
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
99)	BENZYL CHLORIDE	17.67	91	1472374	30.81 PPBV		77
100)	p-DICHLOROBENZENE	17.92	146	1253908	32.88 PPBV		99
101)	sec-BUTYLBENZENE	17.96	134	609423	35.96 PPBV		94
102)	p-ISOPROPYLTOLUENE	18.13	134	671818	36.71 PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	1140758	33.86 PPBV		99
104)	n-BUTYLBENZENE	18.59	134	563524	36.86 PPBV		94
105)	HEXACHLOROETHANE	19.02	117	949574	32.38 PPBV		100
106)	HEXACHLOROBUTADIENE	20.64	225	712012	36.12 PPBV		99
107)	1,2,4-TRICHLOROBENZENE	20.15	180	520440	40.56 PPBV		100
108)	NAPHTHALENE	20.27	128	1001523	38.83 PPBV		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52827.D M3W1994.M Thu Mar 31 12:43:33 2016 MS3W Page 3

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52827.D   Vial: 1
Acq On    : 17 Mar 2016   4:16 am                    Operator: YOUMINH
Sample    : IC1994-30                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016              Quant Results File: M3W1994.RES

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:16:30 2016
Response via  : Initial Calibration
```



3W52827.D   M3W1994.M   Thu Mar 31 12:43:34 2016   MS3W   Page 4

7.7.9

7

Manual Integration Approval Summary

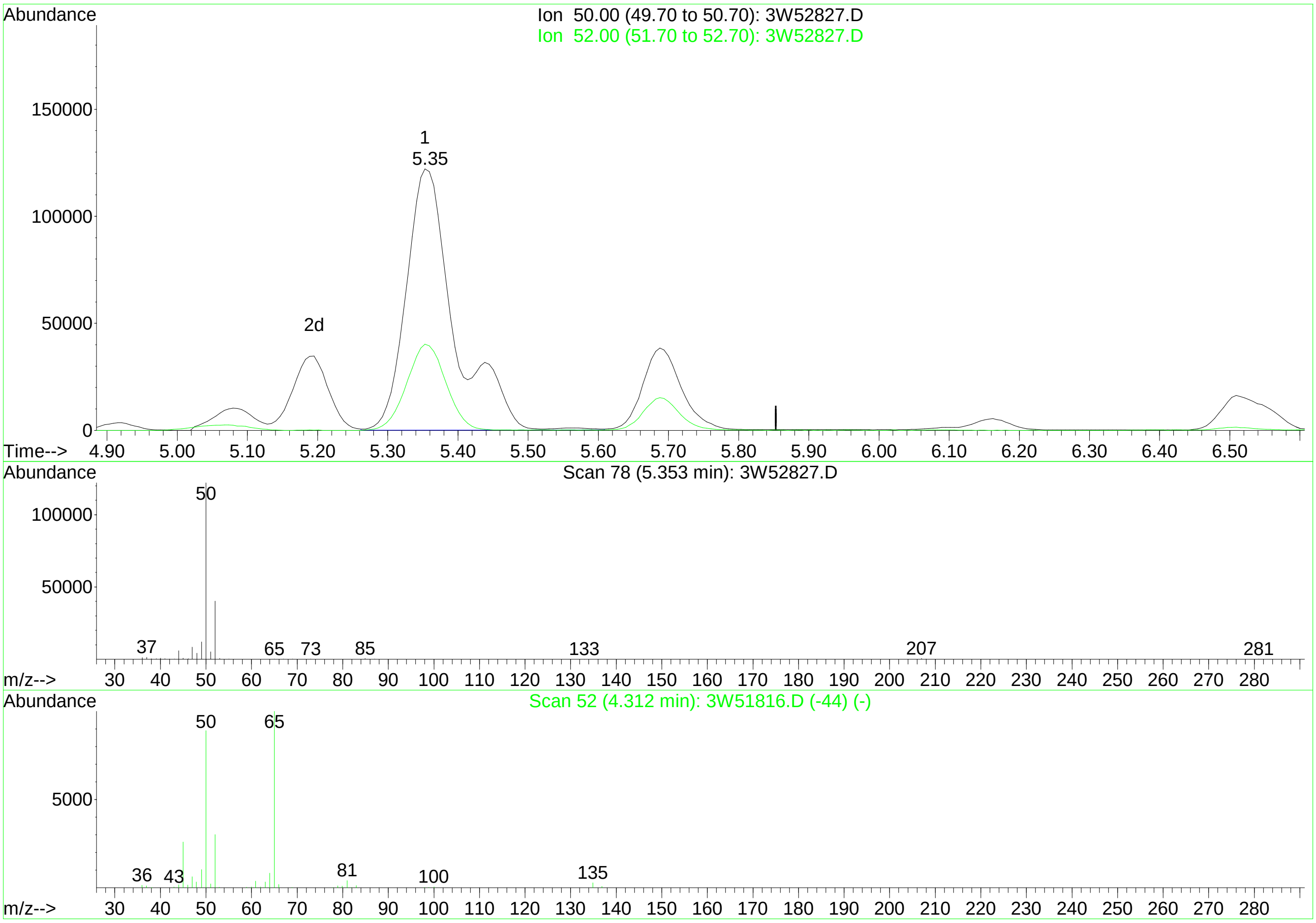
Sample Number:	V3W1994-IC1994	**Method:**	TO-15
Lab FileID:	3W52827.D	**Analyst approved:**	03/31/16 12:48 Youmin Hu
Injection Time:	03/17/16 04:16	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.64	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52827.D                 Vial: 1
Acq On    : 17 Mar 2016   4:16 am                    Operator: YOUMINH
Sample    : IC1994-30                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:56 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 10:38:08 2016
Response via  : Multiple Level Calibration
```



TIC: 3W52827.D

(10) CHLOROMETHANE

5.35min 35.32PPBV

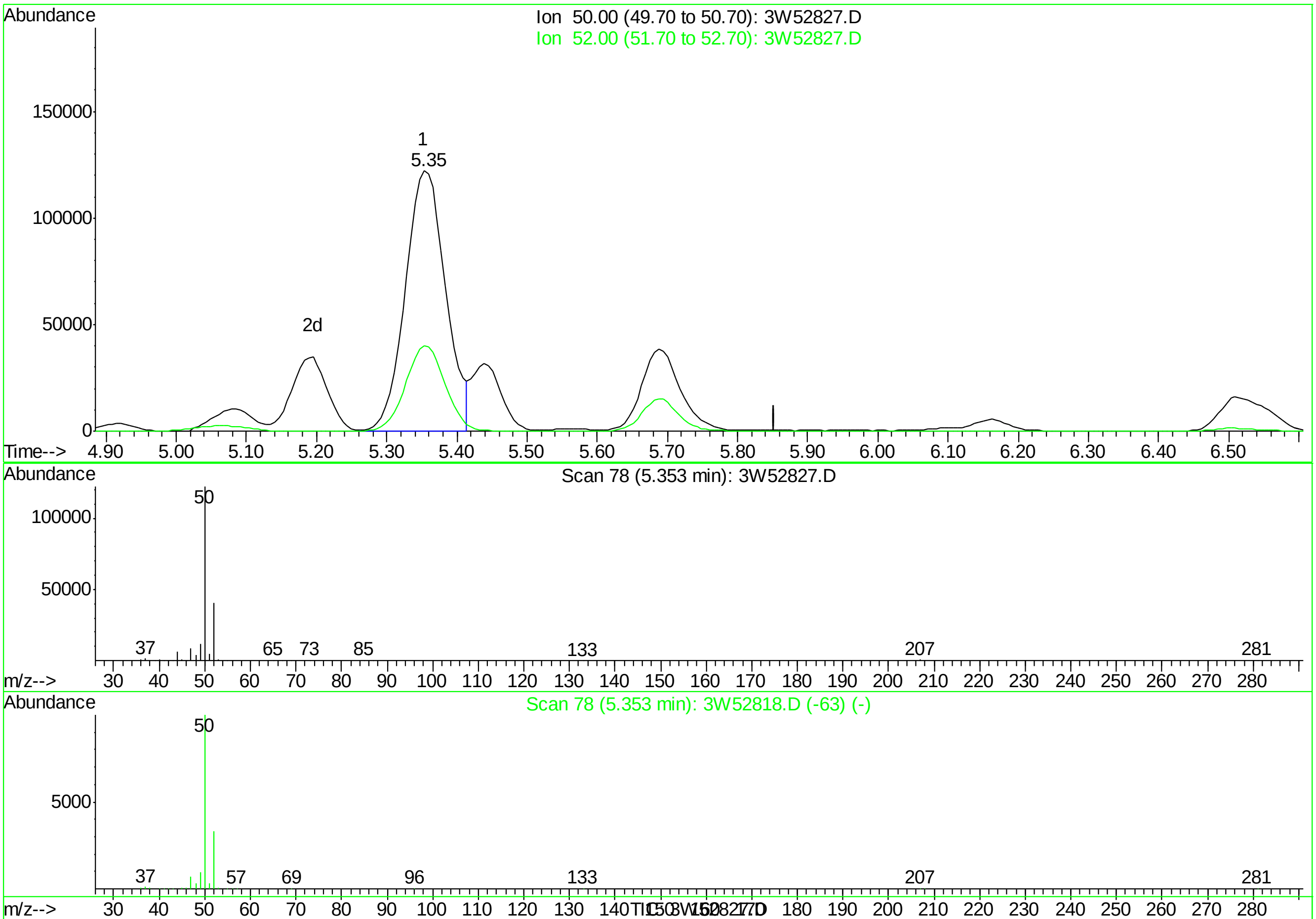
response 580524

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52827.D                Vial: 1
Acq On    : 17 Mar 2016   4:16 am                  Operator: YOUMINH
Sample    : IC1994-30                              Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:57 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 29.70PPBV m

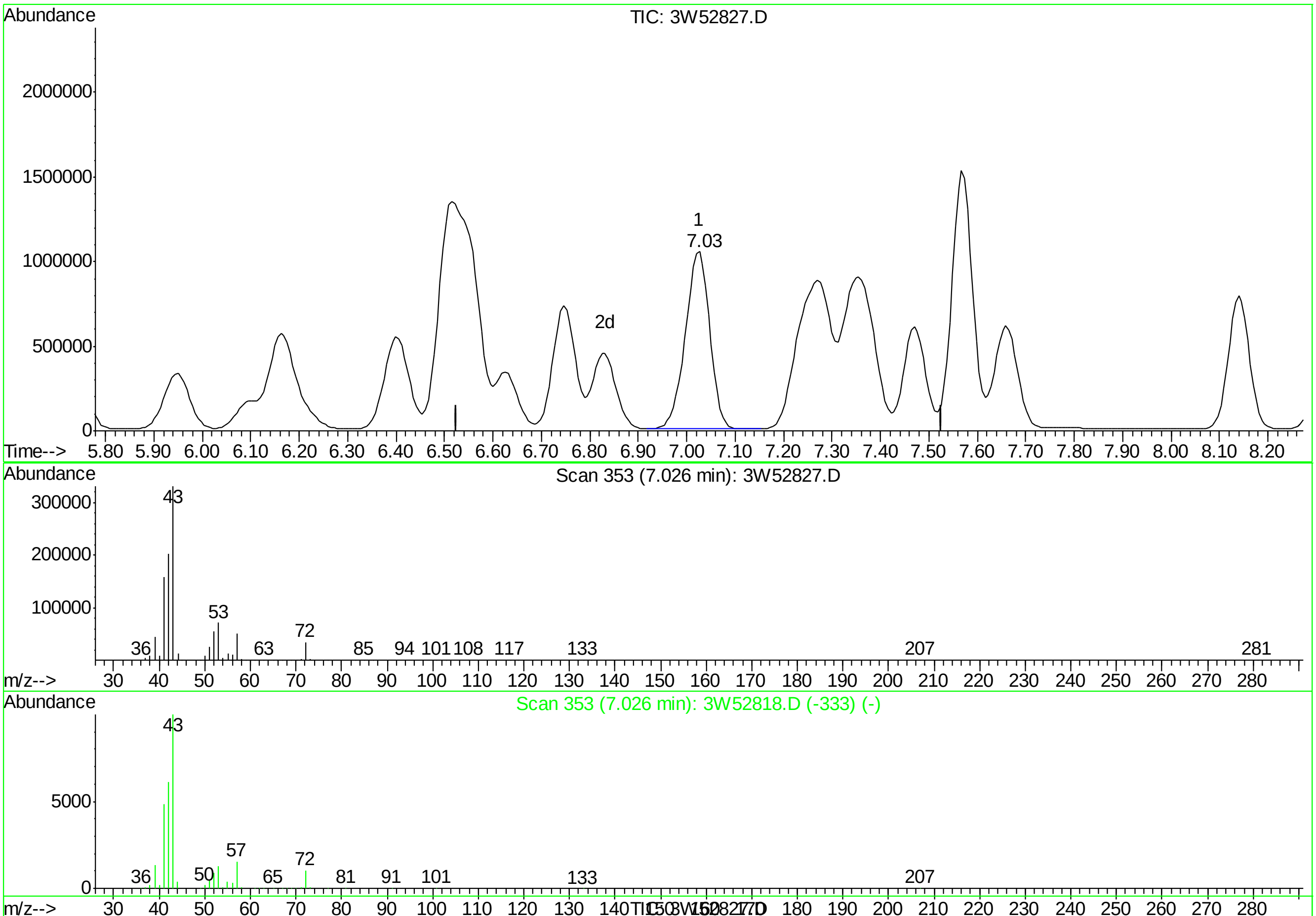
response 488202

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52827.D                   Vial: 1
Acq On    : 17 Mar 2016   4:16 am                     Operator: YOUMINH
Sample    : IC1994-30                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:57 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 32.02PPBV m

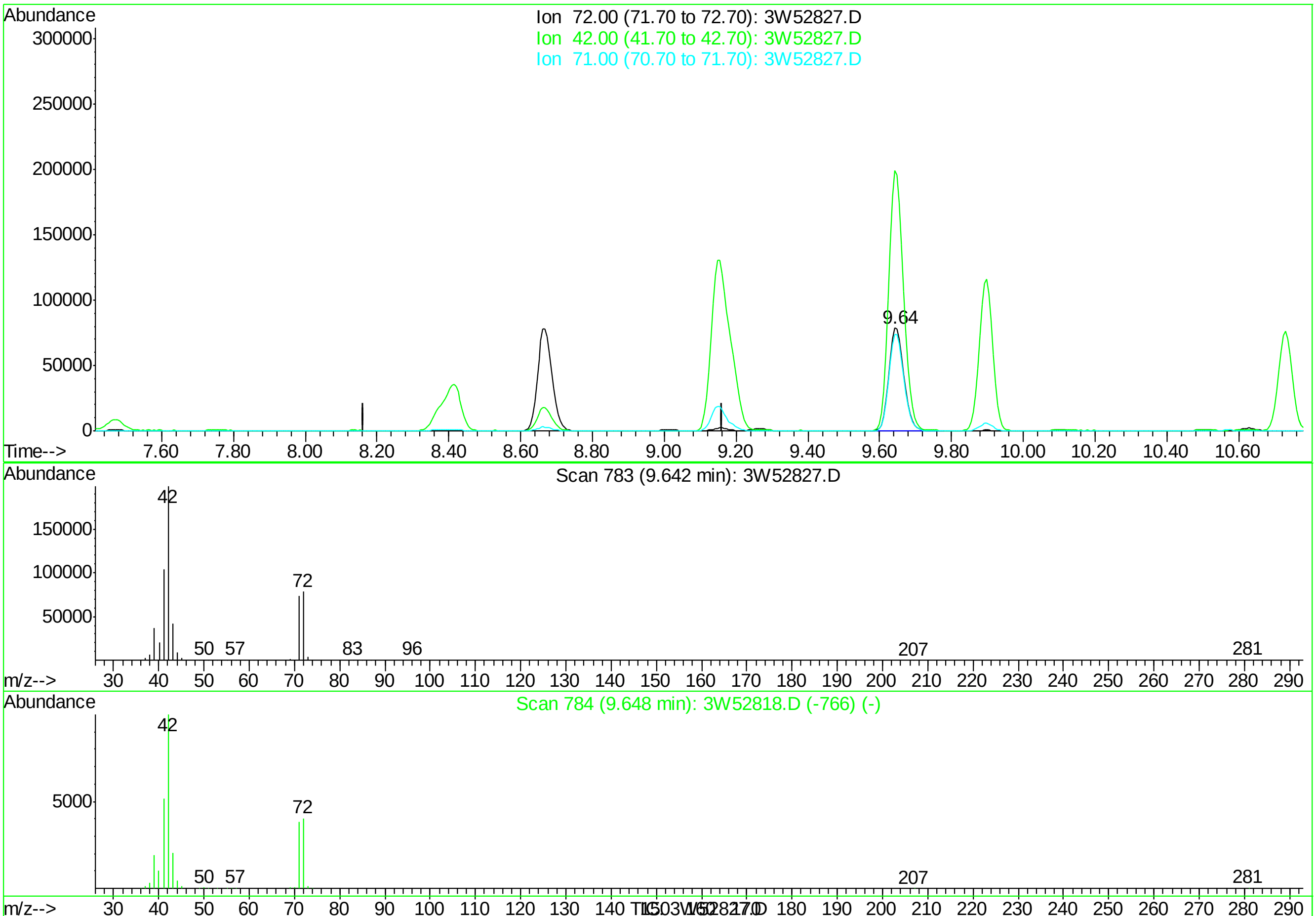
response 3658644

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	3.50#
0.00	2.20	3.04#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52827.D Vial: 1
Acq On : 17 Mar 2016 4:16 am Operator: YOUMINH
Sample : IC1994-30 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:14 2016 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Multiple Level Calibration



(38) TETRAHYDROFURAN

9.64min 34.05PPBV m

response 224365

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	23.56
71.00	3.90	3.92
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 14:43

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52829.D   Vial: 1
Acq On    : 17 Mar 2016   5:40 am                     Operator: YOUMINH
Sample    : IC1994-40                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:27 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	95079	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	461149	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.77	82	305112	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.32	95	292443	8.87	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 88.70%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
4) FREON 152A	5.04	65	394237	39.24	PPBV	99
5) CHLORODIFLUOROMETHANE	5.08	67	138985	37.57	PPBV	99
6) DICHLORODIFLUOROMETHANE	5.19	85	1426949	37.31	PPBV	100
7) PROPYLENE	5.11	41	539791	37.93	PPBV	99
9) FREON 114	5.44	85	1749831	40.44	PPBV	99
10) CHLOROMETHANE	5.35	50	664271m	38.73	PPBV	
11) VINYL CHLORIDE	5.56	62	780658	39.49	PPBV	100
12) 1,3-BUTADIENE	5.69	54	613488	40.33	PPBV	98
13) n-BUTANE	5.73	43	1224846	38.72	PPBV	97
14) BROMOMETHANE	5.94	94	650309	39.51	PPBV	99
15) CHLOROETHANE	6.09	64	402891	41.19	PPBV	99
16) DICHLOROFLUOROMETHANE	6.16	67	1463671	40.24	PPBV	99
17) ACETONITRILE	6.39	41	596727	47.04	PPBV	100
18) FREON 123	6.50	83	1684003	42.47	PPBV	100
19) FREON 123A	6.55	117	871176	42.69	PPBV	99
20) TRICHLOROFLUOROMETHANE	6.75	101	1494319	40.24	PPBV	100
22) ISOPROPYL ALCOHOL	6.83	45	1410600	43.70	PPBV	99
23) ACETONE	6.62	58	341173	46.78	PPBV	99
24) PENTANE	7.03	42	844204	41.08	PPBV	100
25) TVHC as EQUIV PENTANE	7.02	TIC	5029548m	42.19	PPBV	
26) IODOMETHANE	7.24	142	1635933	42.02	PPBV	99
27) 1,1-DICHLOROETHYLENE	7.28	96	719184	42.13	PPBV	98
28) CARBON DISULFIDE	7.66	76	2159785	39.13	PPBV	100
29) ETHANOL	6.21	45	322071	43.57	PPBV	99
30) BROMOETHENE	6.40	106	661997	40.87	PPBV	99
31) ACRYLONITRILE	7.00	52	460249	48.45	PPBV	98
32) METHYLENE CHLORIDE	7.37	84	637625	41.49	PPBV	98
33) 3-CHLOROPROPENE	7.47	76	368393	42.07	PPBV	98
34) FREON 113	7.57	151	1039500	42.76	PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	703407	40.35	PPBV	97
36) TERTIARY BUTYL ALCOHOL	7.34	59	1730290	43.78	PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.37	73	1693054	41.30	PPBV	99
38) TETRAHYDROFURAN	9.64	72	311331m	45.29	PPBV	
39) HEXANE	9.14	57	1193340	44.71	PPBV	98
40) VINYL ACETATE	8.41	86	160279	46.32	PPBV #	96
41) 1,1-DICHLOROETHANE	8.31	63	1300626	39.11	PPBV	99
42) METHYL ETHYL KETONE	8.66	72	316591	46.06	PPBV	99
43) cis-1,2-DICHLOROETHYLENE	9.00	96	670562	42.38	PPBV	100
44) DIISOPROPYL ETHER	9.16	59	329176	47.71	PPBV #	91
45) ETHYL ACETATE	9.19	61	230104	47.59	PPBV #	89
46) METHYL ACRYLATE	9.18	55	1313741	48.95	PPBV	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52829.D   Vial: 1
Acq On    : 17 Mar 2016   5:40 am                       Operator: YOUMINH
Sample    : IC1994-40                                   Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:27 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.26	83	1282157	41.90	PPBV		99
48)	2,4-DIMETHYLPENTANE	9.89	57	1401718	45.56	PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.10	97	1228020	42.42	PPBV		99
50)	CARBON TETRACHLORIDE	10.62	117	1292243	42.78	PPBV		99
51)	1,2-DICHLOROETHANE	9.89	62	802509	41.85	PPBV		99
53)	BENZENE	10.50	78	2118200	45.61	PPBV		100
54)	CYCLOHEXANE	10.73	84	942573	45.31	PPBV		96
55)	2,3-DIMETHYLPENTANE	10.90	71	516158	47.53	PPBV		98
56)	TRICHLOROETHYLENE	11.41	95	991651	48.67	PPBV		98
57)	1,2-DICHLOROPROPANE	11.21	63	884703	47.99	PPBV		99
58)	DIBROMOMETHANE	11.19	174	818549	48.40	PPBV		98
59)	ETHYL ACRYLATE	11.18	55	1647137	51.28	PPBV		99
60)	BROMODICHLOROMETHANE	11.39	83	1519286	46.30	PPBV		99
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	3982107	48.72	PPBV		99
62)	1,4-DIOXANE	11.44	88	519955	51.67	PPBV	#	32
63)	HEPTANE	11.63	43	1394315	47.33	PPBV		98
64)	METHYL METHACRYLATE	11.56	69	766269	50.48	PPBV		97
65)	METHYL ISOBUTYL KETONE	12.21	58	687188	50.22	PPBV		97
66)	cis-1,3-DICHLOROPROPENE	12.17	75	1354917	46.41	PPBV		98
67)	TOLUENE	13.07	92	1527923	47.86	PPBV		97
68)	1,3-DICHLOROPROPANE	13.10	76	1292151	49.16	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	1132539	45.88	PPBV		98
70)	1,1,2-TRICHLOROETHANE	12.82	83	761886	46.45	PPBV		99
72)	2-HEXANONE	13.32	58	1007593	42.35	PPBV		95
73)	ETHYL METHACRYLATE	13.30	69	1357852	42.81	PPBV		97
74)	TETRACHLOROETHYLENE	14.14	164	966633	41.18	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.49	129	1498716	38.91	PPBV		99
76)	1,2-DIBROMOETHANE	13.72	107	1326524	38.66	PPBV		100
77)	OCTANE	13.96	43	1899845	38.94	PPBV		98
78)	1,1,1,2-TETRACHLOROETHANE	14.80	131	1126128	39.01	PPBV		100
79)	CHLOROBENZENE	14.81	112	2114152	40.37	PPBV		98
80)	ETHYLBENZENE	15.17	91	3055135	41.18	PPBV		98
81)	m,p-XYLENE	15.35	106	2466281	87.44	PPBV		96
82)	o-XYLENE	15.84	106	1222872	44.59	PPBV		96
83)	STYRENE	15.73	104	1801864	42.16	PPBV		99
84)	NONANE	16.03	43	1978892	37.53	PPBV		97
85)	BROMOFORM	15.46	173	1502986	39.01	PPBV		99
87)	1,1,2,2-TETRACHLOROETHANE	15.84	83	2031429	42.62	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.98	75	1386564	42.27	PPBV		99
89)	ISOPROPYLBENZENE	16.45	105	3436892	42.33	PPBV		99
90)	BROMOBENZENE	16.56	77	1745495	39.44	PPBV		99
91)	2-CHLOROTOLUENE	16.96	126	898844	42.61	PPBV		99
92)	n-PROPYLBENZENE	16.99	120	980943	45.33	PPBV		99
93)	4-ETHYLTOLUENE	17.14	105	3129221	44.03	PPBV		98
94)	1,3,5-TRIMETHYLBENZENE	17.23	105	2690162	43.89	PPBV		99
95)	ALPHA-METHYLSTYRENE	17.40	118	1383269	44.89	PPBV		99
96)	tert-BUTYLBENZENE	17.67	134	699468	45.40	PPBV		95
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	2765651	45.76	PPBV		97
98)	m-DICHLOROBENZENE	17.85	146	1750699	43.94	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52829.D   Vial: 1
Acq On    : 17 Mar 2016   5:40 am                      Operator: YOUMINH
Sample    : IC1994-40                                  Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:42:27 2016          Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 10:37:54 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

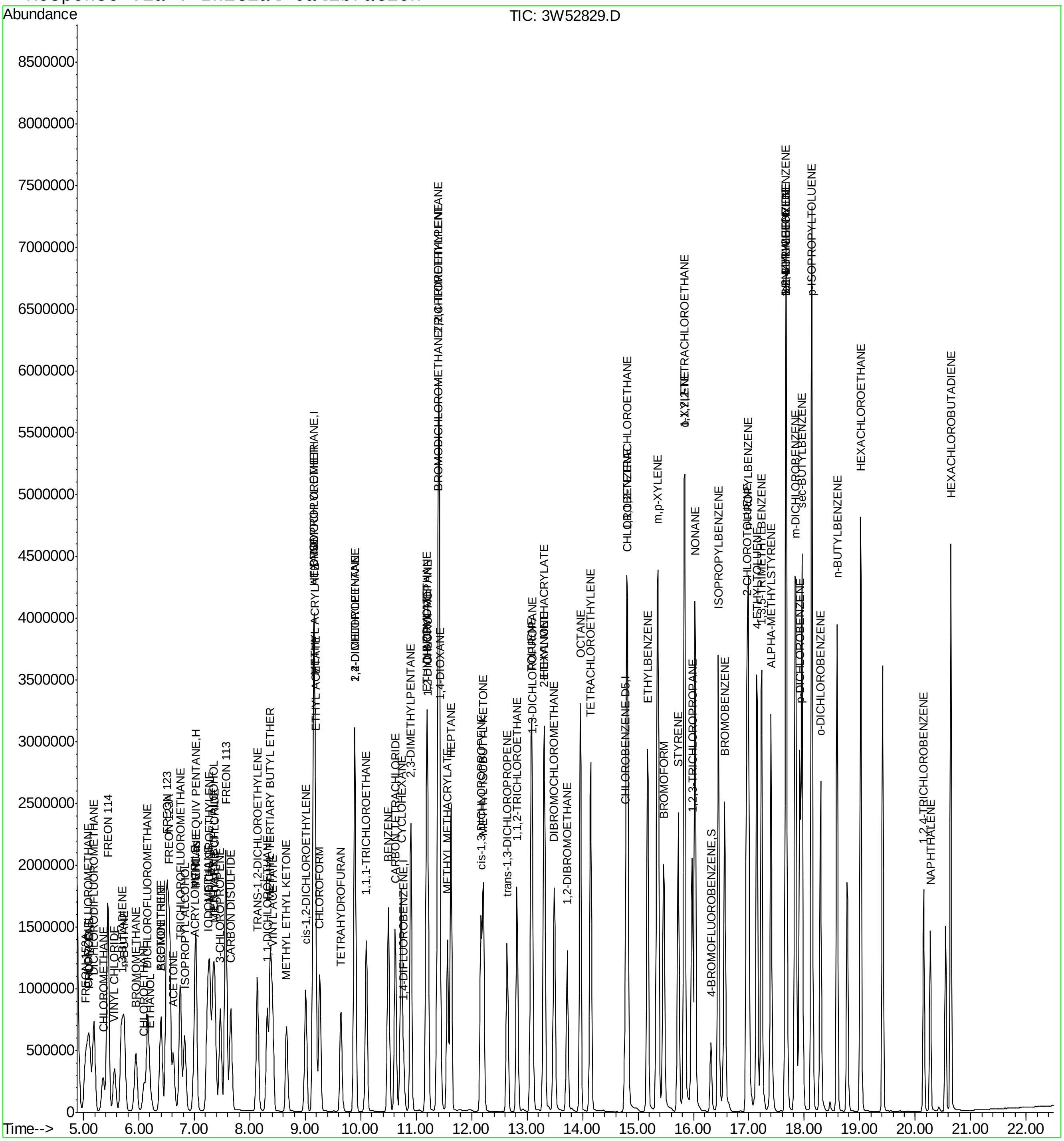
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
99)	BENZYL CHLORIDE	17.67	91	2010860	38.96	PPBV		77
100)	p-DICHLOROBENZENE	17.92	146	1722754	41.83	PPBV		99
101)	sec-BUTYLBENZENE	17.96	134	832409	45.49	PPBV	#	92
102)	p-ISOPROPYLTOLUENE	18.13	134	917289	46.42	PPBV	#	1
103)	o-DICHLOROBENZENE	18.29	146	1553881	42.71	PPBV		99
104)	n-BUTYLBENZENE	18.59	134	768127	46.52	PPBV		93
105)	HEXACHLOROETHANE	19.02	117	1315048	41.53	PPBV		99
106)	HEXACHLOROBUTADIENE	20.64	225	991880	46.60	PPBV		99
107)	1,2,4-TRICHLOROBENZENE	20.15	180	713863	51.52	PPBV		100
108)	NAPHTHALENE	20.27	128	1378412	49.49	PPBV		100

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

```
                        Quantitation Report    (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52829.D   Vial: 1
Acq On    : 17 Mar 2016   5:40 am                     Operator: YOUMINH
Sample    : IC1994-40                                 Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:15 2016               Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

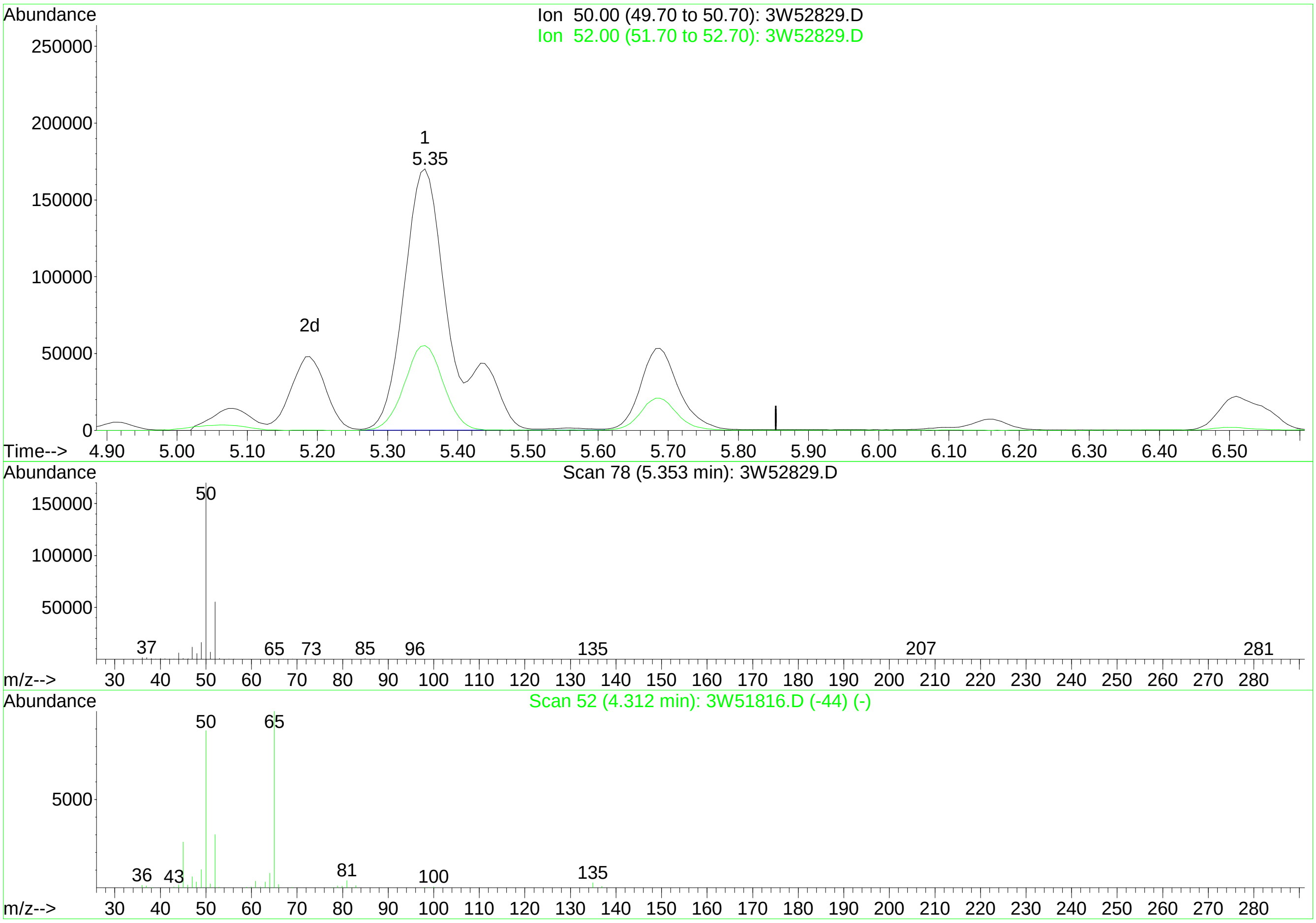
Sample Number:	V3W1994-IC1994	**Method:**	TO-15	
Lab FileID:	3W52829.D	**Analyst approved:**	03/31/16 12:48	Youmin Hu
Injection Time:	03/17/16 05:40	**Supervisor approved:**	03/31/16 14:43	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.35	Overlapping peak
Tetrahydrofuran	109-99-9		9.64	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52829.D                    Vial: 1
Acq On    : 17 Mar 2016   5:40 am                      Operator: YOUMINH
Sample    : IC1994-40                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:58 2016             Quant Results File: temp.res

Method         : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title          : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update    : Thu Mar 17 10:38:08 2016
Response via   : Multiple Level Calibration
```



TIC: 3W52829.D

(10) CHLOROMETHANE

5.35min 46.33PPBV

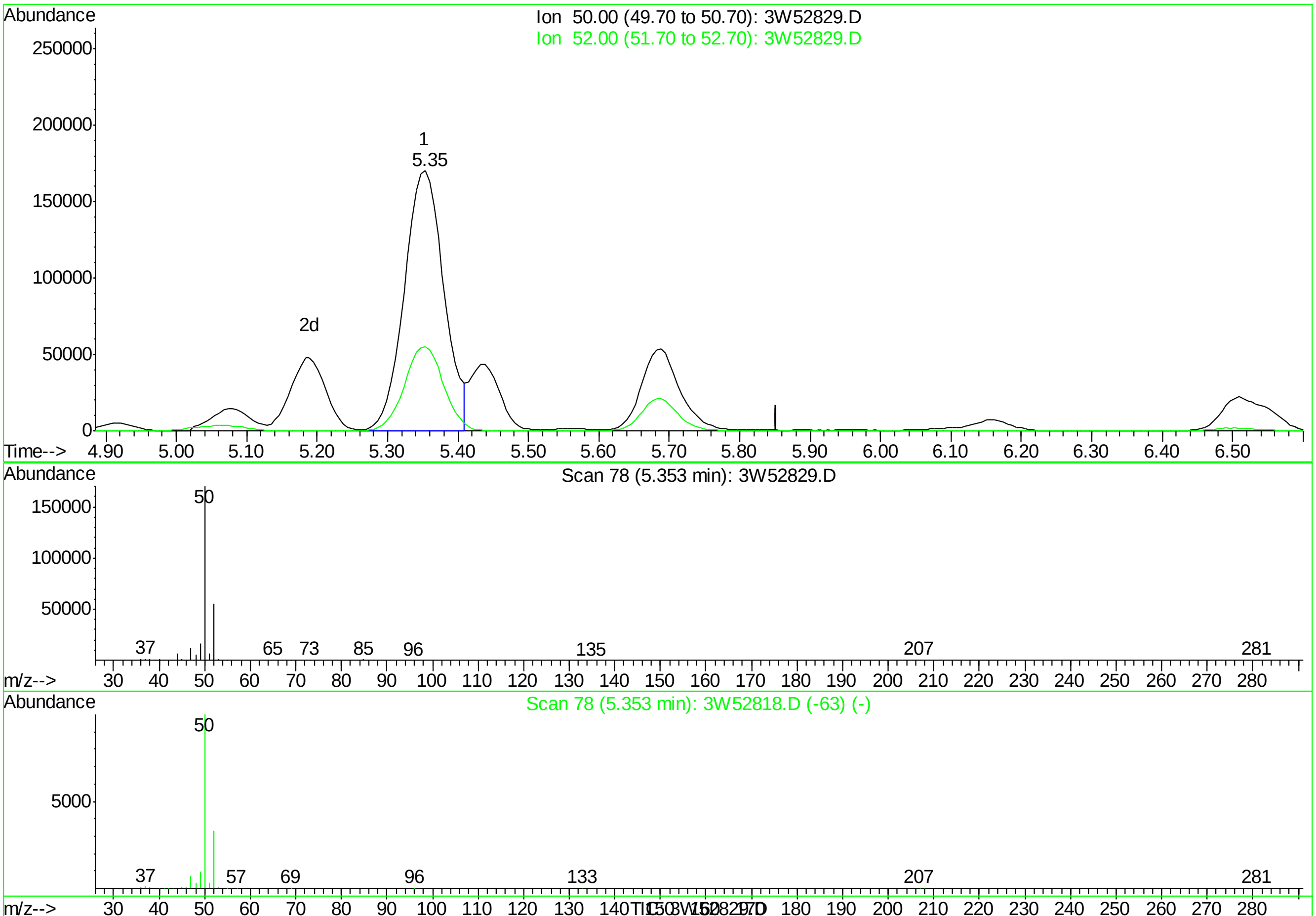
response 794584

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52829.D                  Vial: 1
Acq On    : 17 Mar 2016   5:40 am                    Operator: YOUMINH
Sample    : IC1994-40                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:58 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 38.73PPBV m

response 664271

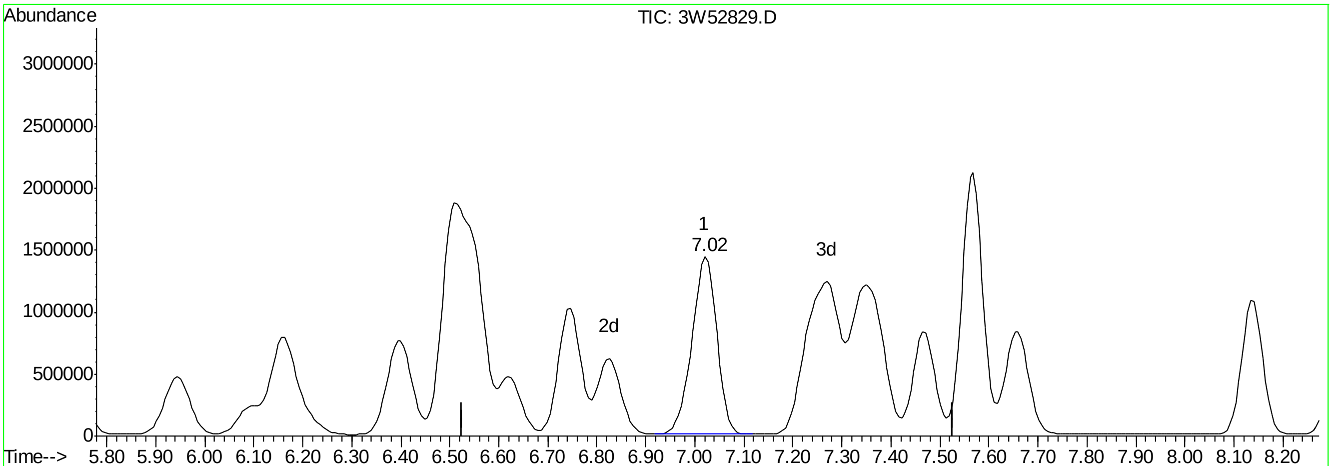
Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.40
0.00	0.00	0.00
0.00	0.00	0.00

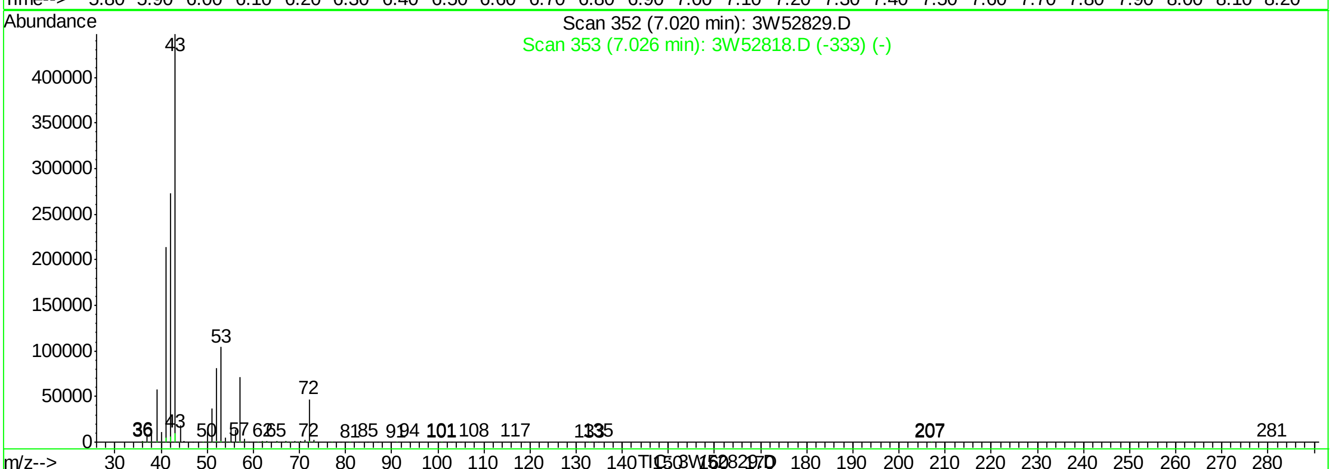
3W52829.D M3W1994.M Thu Mar 17 12:06:50 2016 MS3W

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52829.D                  Vial: 1
Acq On    : 17 Mar 2016   5:40 am                    Operator: YOUMINH
Sample    : IC1994-40                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 10:58 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```





(25) TVHC as EQUIV PENTANE (H)

7.02min 42.19PPBV m

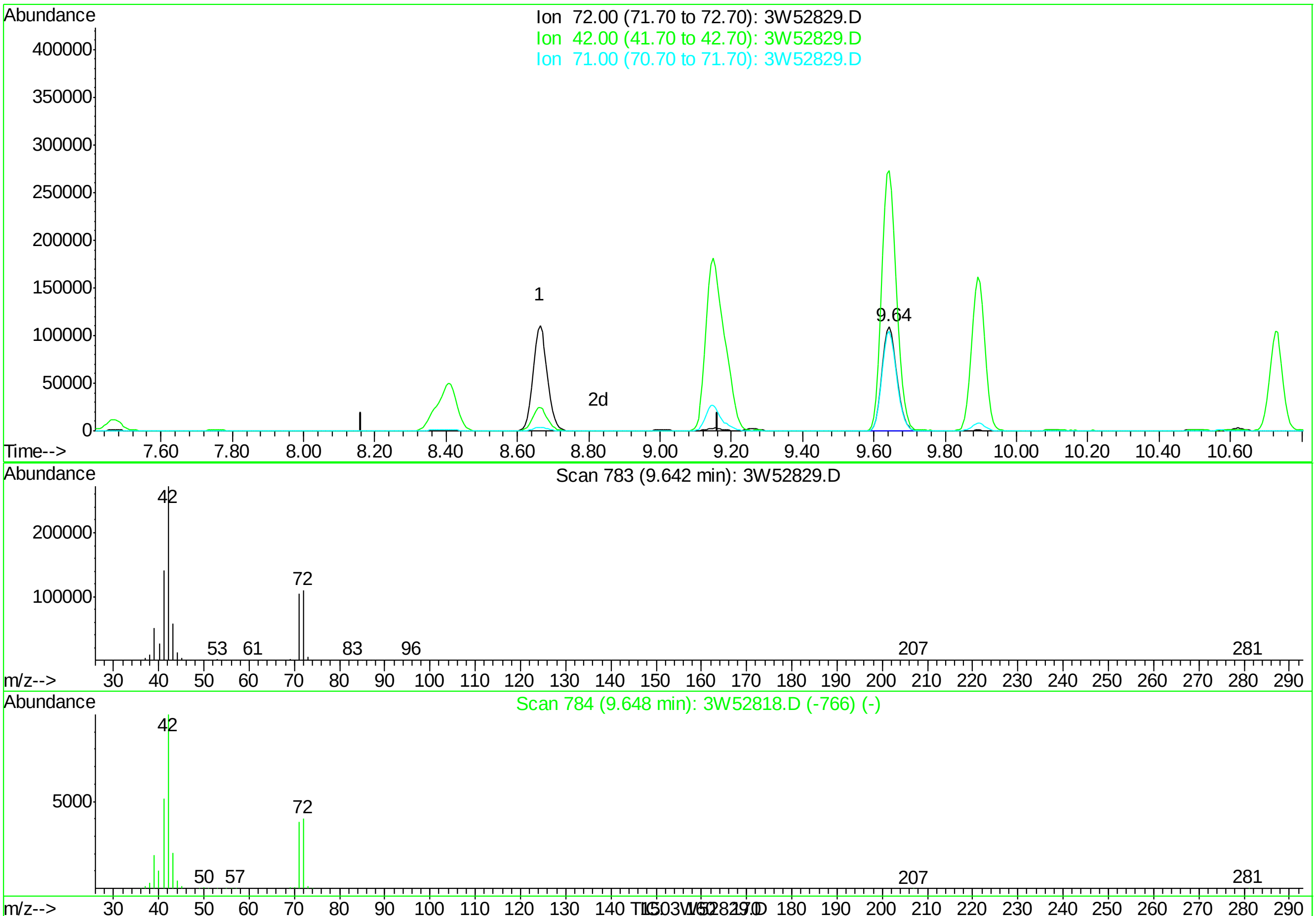
response 5029548

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	3.54#
0.00	2.20	3.05#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52829.D   Vial: 1
Acq On    : 17 Mar 2016   5:40 am                    Operator: YOUMINH
Sample    : IC1994-40                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:15 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.64min 45.29PPBV m

response 311331

Ion	Exp%	Act%
72.00	100	100
42.00	26.60	23.28
71.00	3.90	3.87
0.00	0.00	0.00

Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
03/31/16 14:43

7.7.11

7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52831.D Vial: 4
Acq On : 17 Mar 2016 7:00 am Operator: YOUMINH
Sample : ICV1994-10 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:18:13 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.14	128	83891	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.76	114	427659	10.00	PPBV	-0.01
71) CHLOROBENZENE-D5	14.76	82	234293	10.00	PPBV	-0.01

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.31	95	233930	10.10	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 101.00%

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
4) FREON 152A	5.03	65	101126	10.79	PPBV		100
5) CHLORODIFLUOROMETHANE	5.07	67	36583	10.29	PPBV		100
6) DICHLORODIFLUOROMETHANE	5.18	85	369917	10.73	PPBV		100
7) PROPYLENE	5.10	41	144577	11.14	PPBV		99
9) FREON 114	5.43	85	436625	10.65	PPBV		100
10) CHLOROMETHANE	5.34	50	175375m	10.57	PPBV		
11) VINYL CHLORIDE	5.55	62	201527	11.07	PPBV		100
12) 1,3-BUTADIENE	5.68	54	152212	10.68	PPBV		99
13) n-BUTANE	5.72	43	317598	10.63	PPBV		99
14) BROMOMETHANE	5.93	94	159443	10.23	PPBV		97
15) CHLOROETHANE	6.08	64	95762	10.72	PPBV		100
16) DICHLOROFLUOROMETHANE	6.15	67	354832	10.14	PPBV		100
17) ACETONITRILE	6.38	41	126142	10.21	PPBV		99
18) FREON 123	6.49	83	362092	9.76	PPBV		99
19) FREON 123A	6.54	117	175142	9.34	PPBV		98
20) TRICHLOROFLUOROMETHANE	6.73	101	352354	10.39	PPBV		100
22) ISOPROPYL ALCOHOL	6.81	45	309555	10.42	PPBV		99
23) ACETONE	6.61	58	71190	9.85	PPBV		98
24) PENTANE	7.01	42	215079	11.32	PPBV		99
25) TVHC as EQUIV PENTANE	7.01	TIC	1219215m	10.65	PPBV		
26) IODOMETHANE	7.22	142	377849	10.50	PPBV		100
27) 1,1-DICHLOROETHYLENE	7.27	96	167120	10.00	PPBV		99
28) CARBON DISULFIDE	7.65	76	547121	10.76	PPBV		99
29) ETHANOL	6.19	45	69266	9.66	PPBV		98
30) BROMOETHENE	6.39	106	155037	10.42	PPBV		99
31) ACRYLONITRILE	6.98	52	94787	10.38	PPBV		99
32) METHYLENE CHLORIDE	7.36	84	147889	9.74	PPBV		100
33) 3-CHLOROPROPENE	7.46	76	82002	10.51	PPBV		99
34) FREON 113	7.56	151	232593	10.32	PPBV		99
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	161737	10.02	PPBV		96
36) TERTIARY BUTYL ALCOHOL	7.32	59	374134	9.95	PPBV		99
37) METHYL TERTIARY BUTYL ETHE	8.36	73	345950	8.69	PPBV		98
38) TETRAHYDROFURAN	9.64	72	64246	10.27	PPBV	#	1
39) HEXANE	9.14	57	247729	9.89	PPBV		99
40) VINYL ACETATE	8.40	86	30427	9.77	PPBV	#	92
41) 1,1-DICHLOROETHANE	8.30	63	304176	10.00	PPBV		100
42) METHYL ETHYL KETONE	8.65	72	64376	10.06	PPBV		94
43) cis-1,2-DICHLOROETHYLENE	8.99	96	147509	10.11	PPBV		99
44) DIISOPROPYL ETHER	9.15	59	65481	10.17	PPBV		98
45) ETHYL ACETATE	9.17	61	46700	10.58	PPBV		98
46) METHYL ACRYLATE	9.17	55	244335	9.45	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52831.D Vial: 4
Acq On : 17 Mar 2016 7:00 am Operator: YOUMINH
Sample : ICV1994-10 Inst : MS3W
Misc : MS98172,V3W1994,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:18:13 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.25	83	288705	10.37 PPBV		100
48)	2,4-DIMETHYLPENTANE	9.89	57	291052	10.40 PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.09	97	268743	10.28 PPBV		100
50)	CARBON TETRACHLORIDE	10.62	117	281810	10.33 PPBV		100
51)	1,2-DICHLOROETHANE	9.87	62	175313	10.45 PPBV		100
53)	BENZENE	10.49	78	457823	9.89 PPBV		100
54)	CYCLOHEXANE	10.72	84	207494	9.56 PPBV		100
55)	2,3-DIMETHYLPENTANE	10.90	71	107104	10.02 PPBV		99
56)	TRICHLOROETHYLENE	11.39	95	197411	9.62 PPBV		99
57)	1,2-DICHLOROPROPANE	11.20	63	180802	10.06 PPBV		99
58)	DIBROMOMETHANE	11.18	174	167217	9.73 PPBV		100
59)	ETHYL ACRYLATE	11.17	55	325108	9.60 PPBV		100
60)	BROMODICHLOROMETHANE	11.37	83	309256	9.57 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.40	57	798328	9.75 PPBV		100
62)	1,4-DIOXANE	11.44	88	102161	10.58 PPBV	#	83
63)	HEPTANE	11.61	43	288789	9.35 PPBV		100
64)	METHYL METHACRYLATE	11.55	69	148569	9.35 PPBV		97
65)	METHYL ISOBUTYL KETONE	12.20	58	139597	10.42 PPBV		98
66)	cis-1,3-DICHLOROPROPENE	12.16	75	272917	9.53 PPBV		99
67)	TOLUENE	13.06	92	294868	10.05 PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	246389	9.64 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	242338	10.23 PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.81	83	159168	10.13 PPBV		100
72)	2-HEXANONE	13.30	58	194602	10.48 PPBV		100
73)	ETHYL METHACRYLATE	13.29	69	269188	10.12 PPBV		100
74)	TETRACHLOROETHYLENE	14.14	164	190835	9.55 PPBV		100
75)	DIBROMOCHLOROMETHANE	13.48	129	311315	10.01 PPBV		100
76)	1,2-DIBROMOETHANE	13.71	107	274109	10.06 PPBV		99
77)	OCTANE	13.95	43	404439	9.45 PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.78	131	234963	10.30 PPBV		100
79)	CHLOROBENZENE	14.81	112	419316	9.90 PPBV		100
80)	ETHYLBENZENE	15.17	91	582853	9.50 PPBV		100
81)	m,p-XYLENE	15.34	106	454326	19.54 PPBV		99
82)	o-XYLENE	15.83	106	222471	9.84 PPBV		99
83)	STYRENE	15.72	104	340224	9.86 PPBV		99
84)	NONANE	16.02	43	434649	10.06 PPBV		100
85)	BROMOFORM	15.45	173	301601	10.19 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.83	83	381681	9.50 PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.96	75	269932	9.56 PPBV		100
89)	ISOPROPYLBENZENE	16.44	105	665895	9.74 PPBV		100
90)	BROMOBENZENE	16.55	77	336982	9.36 PPBV		100
91)	2-CHLOROTOLUENE	16.95	126	164688	9.94 PPBV		100
92)	n-PROPYLBENZENE	16.99	120	177497	10.00 PPBV		100
93)	4-ETHYLTOLUENE	17.14	105	585604	9.77 PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	511383	9.64 PPBV		99
95)	ALPHA-METHYLSTYRENE	17.39	118	260142	10.56 PPBV		99
96)	tert-BUTYLBENZENE	17.66	134	128580	9.92 PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	498004	9.63 PPBV		99
98)	m-DICHLOROBENZENE	17.84	146	312253	9.32 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52831.D   Vial: 4
Acq On : 17 Mar 2016 7:00 am   Operator: YOUMINH
Sample : ICV1994-10   Inst : MS3W
Misc : MS98172,V3W1994,,,,,1   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:18:13 2016   Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

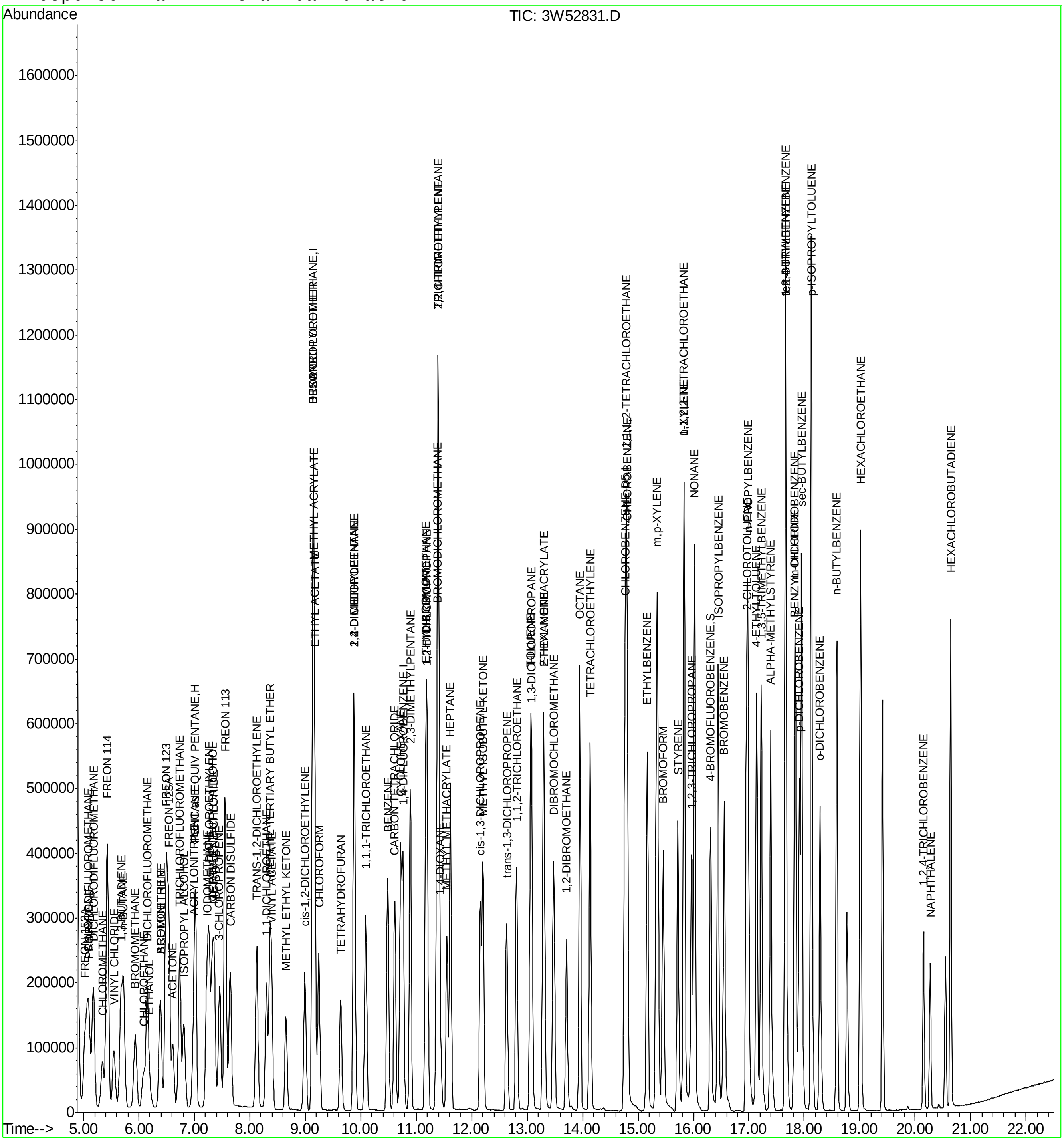
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.82	91	413467	10.03	PPBV	100
100)	p-DICHLOROBENZENE	17.91	146	321772	9.50	PPBV	99
101)	sec-BUTYLBENZENE	17.95	134	154203	9.97	PPBV	99
102)	p-ISOPROPYLTOLUENE	18.12	134	167929	10.18	PPBV	99
103)	o-DICHLOROBENZENE	18.28	146	288078	9.47	PPBV	100
104)	n-BUTYLBENZENE	18.59	134	138656	10.25	PPBV	99
105)	HEXACHLOROETHANE	19.01	117	250910	9.89	PPBV	100
106)	HEXACHLOROBUTADIENE	20.64	225	167689	8.97	PPBV	99
107)	1,2,4-TRICHLOROBENZENE	20.15	180	109078	9.02	PPBV	99
108)	NAPHTHALENE	20.27	128	214144	8.55	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1994\3W52831.D   Vial: 4
Acq On    : 17 Mar 2016   7:00 am                       Operator: YOUMINH
Sample    : ICV1994-10                                  Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:20 2016               Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

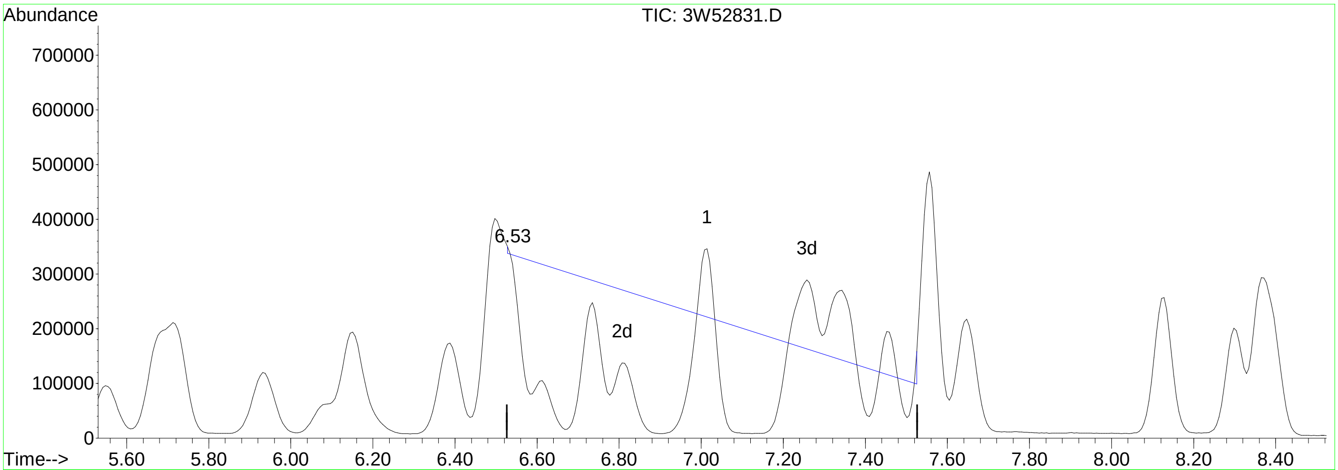
Sample Number:	V3W1994-ICV1994	**Method:**	TO-15
Lab FileID:	3W52831.D	**Analyst approved:**	03/31/16 14:04 Dana Tryon
Injection Time:	03/17/16 07:00	**Supervisor approved:**	03/31/16 14:43 Dana Tryon

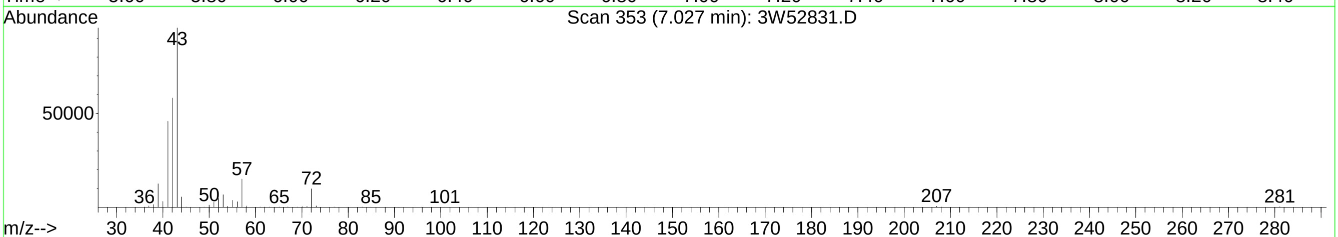
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.34	Poor instrument integration

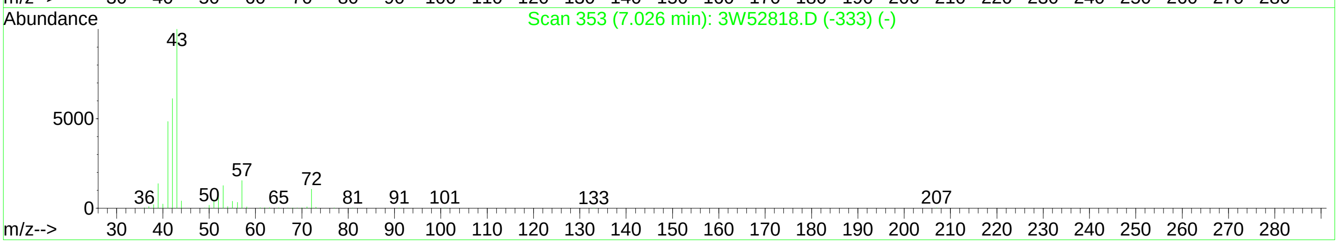
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52831.D                    Vial: 4
Acq On    : 17 Mar 2016   7:00 am                       Operator: YOUMINH
Sample    : ICV1994-10                                  Inst     : MS3W
Misc      : MS98172,V3W1994,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 11:00 2016            Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 11:00:18 2016
Response via : Multiple Level Calibration
```







TIC: 3W52831.D

(25) TVHC as EQUIV PENTANE (H)

7.03min 47.32PPBV m

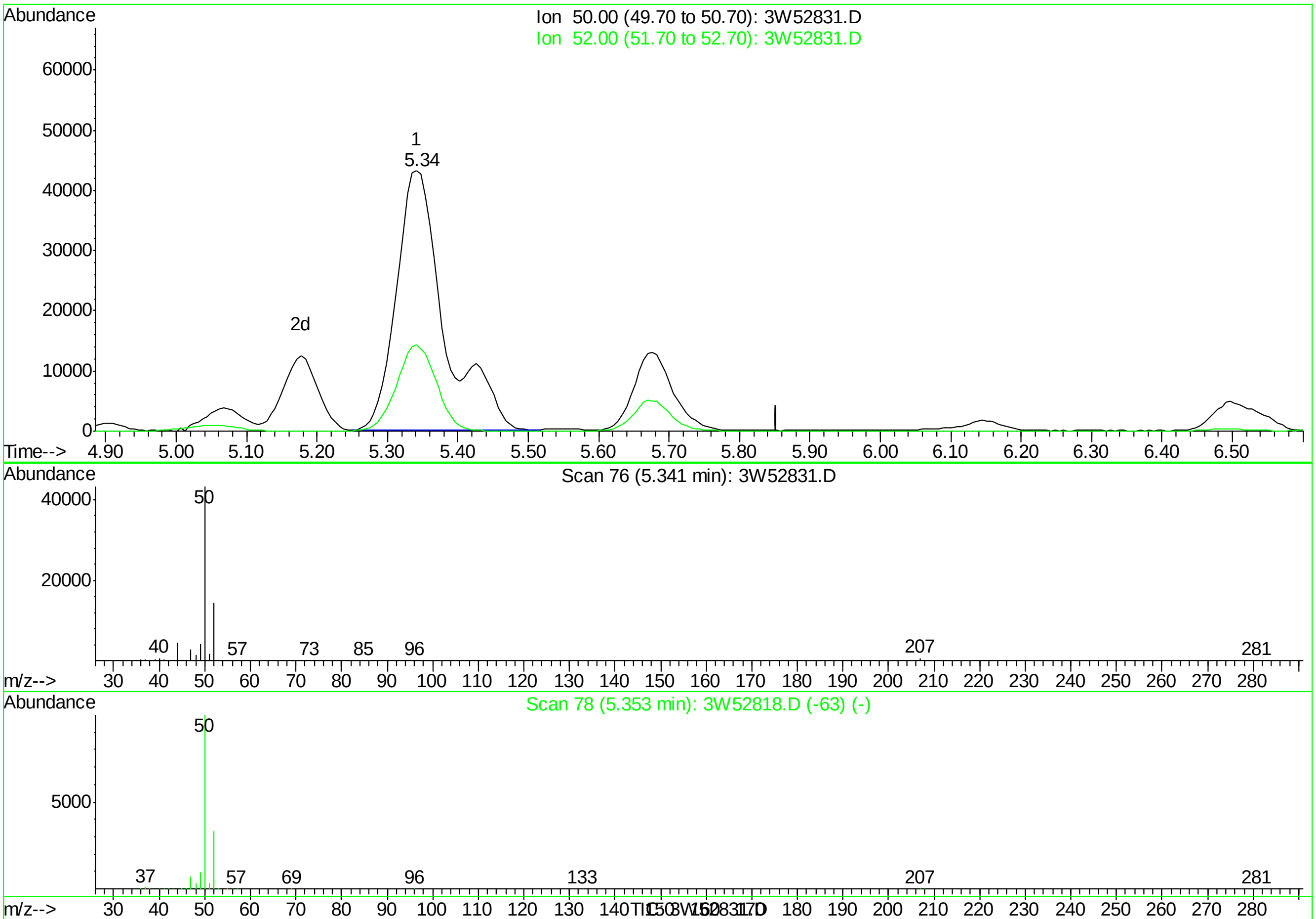
response 5418085

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	0.49#
0.00	2.20	0.43#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52831.D                  Vial: 4
Acq On    : 17 Mar 2016   7:00 am                    Operator: YOUMINH
Sample    : ICV1994-10                               Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 12:11 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.34min 12.28PPBV

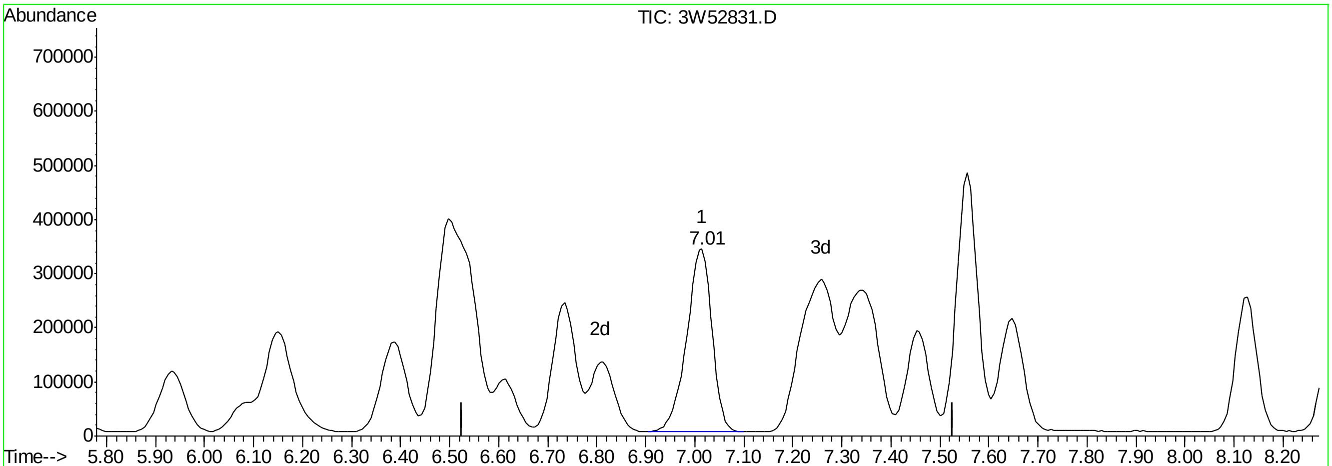
response 203900

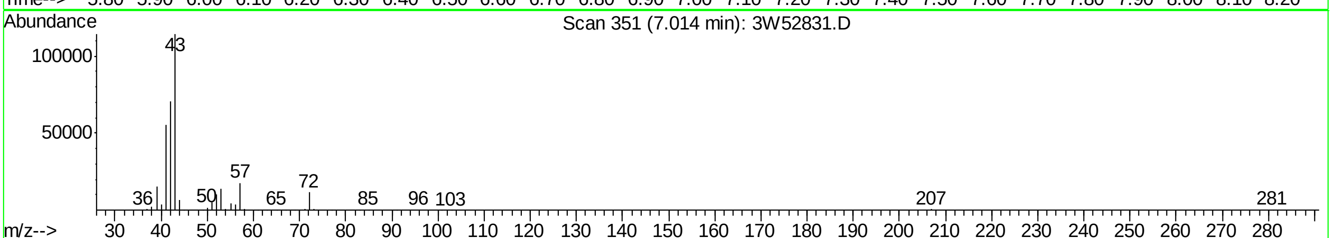
Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.22
0.00	0.00	0.00
0.00	0.00	0.00

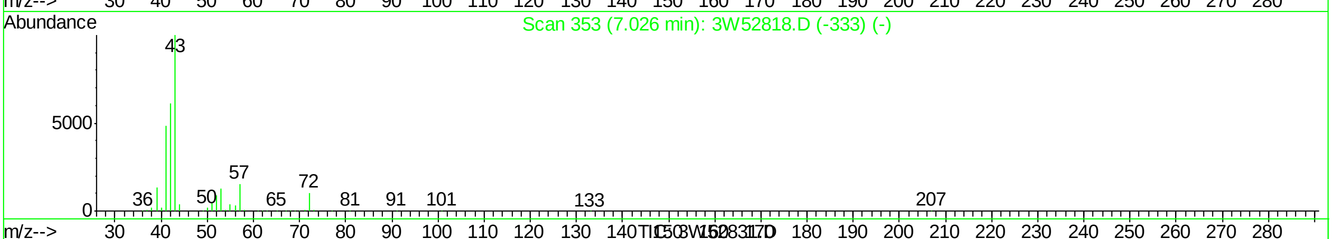
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52831.D                   Vial: 4
Acq On    : 17 Mar 2016   7:00 am                     Operator: YOUMINH
Sample    : ICV1994-10                                Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 12:11 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```







(25) TVHC as EQUIV PENTANE (H)

7.01min 10.66PPBV m

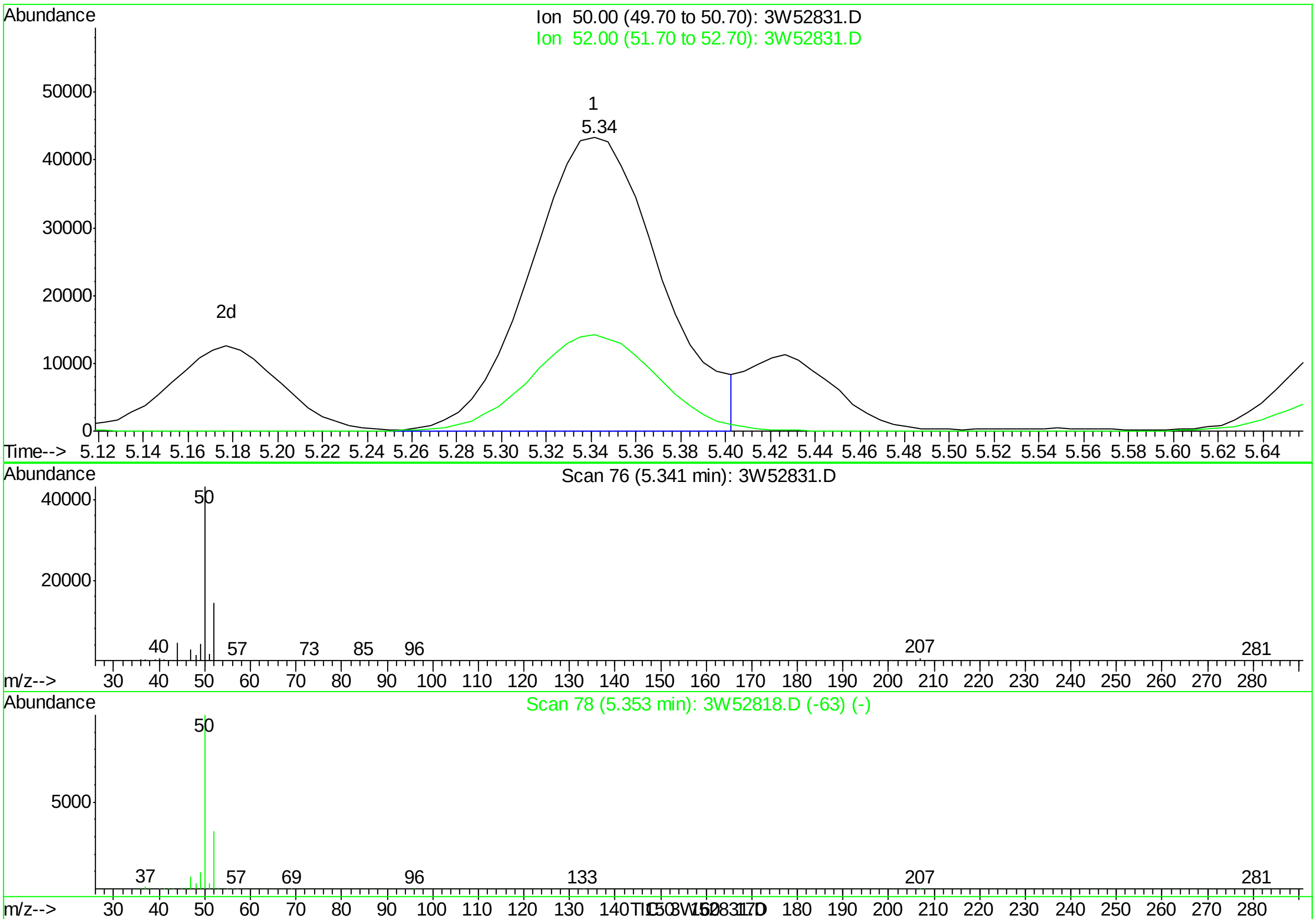
response 1220757

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.19#
0.00	2.20	1.91#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52831.D                 Vial: 4
Acq On    : 17 Mar 2016   7:00 am                   Operator: YOUMINH
Sample    : ICV1994-10                              Inst    : MS3W
Misc      : MS98172,V3W1994,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 17 12:11 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.34min 10.57PPBV m

response 175375

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	33.04
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 11:01

7.7.12

7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52853.D Vial: 2
Acq On : 18 Mar 2016 9:40 am Operator: YOUMINH
Sample : CC1994-10 Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:39 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	76783	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.77	114	390697	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.76	82	218969	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.31	95	214877	9.93	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 99.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
4) FREON 152A	5.03	65	95840	11.17	PPBV	97
5) CHLORODIFLUOROMETHANE	5.08	67	33899	10.42	PPBV	97
6) DICHLORODIFLUOROMETHANE	5.19	85	338924	10.74	PPBV	100
7) PROPYLENE	5.11	41	142345	11.98	PPBV	100
9) FREON 114	5.44	85	385672	10.28	PPBV	97
10) CHLOROMETHANE	5.35	50	165623m	10.90	PPBV	
11) VINYL CHLORIDE	5.56	62	183825	11.04	PPBV	99
12) 1,3-BUTADIENE	5.68	54	143147	10.97	PPBV	95
13) n-BUTANE	5.73	43	312056	11.41	PPBV	98
14) BROMOMETHANE	5.94	94	143596	10.07	PPBV	99
15) CHLOROETHANE	6.09	64	91286	11.16	PPBV	99
16) DICHLOROFLUOROMETHANE	6.16	67	336440	10.51	PPBV	99
17) ACETONITRILE	6.39	41	129927	11.49	PPBV	100
18) FREON 123	6.50	83	350615	10.33	PPBV	99
19) FREON 123A	6.55	117	174192	10.15	PPBV	90
20) TRICHLOROFLUOROMETHANE	6.75	101	331015	10.67	PPBV	99
22) ISOPROPYL ALCOHOL	6.82	45	352234	12.95	PPBV	100
23) ACETONE	6.62	58	68268	10.32	PPBV #	88
24) PENTANE	7.02	42	206297	11.86	PPBV	99
25) TVHC as EQUIV PENTANE	7.02	TIC	1169163m	11.16	PPBV	
26) IODOMETHANE	7.23	142	319433	9.70	PPBV	96
27) 1,1-DICHLOROETHYLENE	7.28	96	148191	9.69	PPBV	93
28) CARBON DISULFIDE	7.65	76	491705	10.56	PPBV	98
29) ETHANOL	6.20	45	76637	11.68	PPBV	100
30) BROMOETHENE	6.40	106	138636	10.18	PPBV	99
31) ACRYLONITRILE	6.99	52	91693	10.97	PPBV	98
32) METHYLENE CHLORIDE	7.37	84	135866	9.77	PPBV	93
33) 3-CHLOROPROPENE	7.46	76	76608	10.73	PPBV #	84
34) FREON 113	7.56	151	203189	9.85	PPBV	95
35) TRANS-1,2-DICHLOROETHYLENE	8.13	96	144758	9.79	PPBV	91
36) TERTIARY BUTYL ALCOHOL	7.33	59	367943	10.69	PPBV	96
37) METHYL TERTIARY BUTYL ETHE	8.37	73	309165	8.49	PPBV	95
38) TETRAHYDROFURAN	9.64	72	57344	10.02	PPBV #	1
39) HEXANE	9.14	57	242031	10.56	PPBV	96
40) VINYL ACETATE	8.41	86	26324	9.23	PPBV #	70
41) 1,1-DICHLOROETHANE	8.31	63	264962	9.52	PPBV	99
42) METHYL ETHYL KETONE	8.66	72	58324	9.96	PPBV #	85
43) cis-1,2-DICHLOROETHYLENE	9.00	96	133792	10.02	PPBV	96
44) DIISOPROPYL ETHER	9.16	59	60457	10.26	PPBV	95
45) ETHYL ACETATE	9.18	61	42671	10.56	PPBV #	87
46) METHYL ACRYLATE	9.17	55	240428	10.16	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52853.D Vial: 2
Acq On : 18 Mar 2016 9:40 am Operator: YOUMINH
Sample : CC1994-10 Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:39 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.25	83	264907	10.40	PPBV		98
48)	2,4-DIMETHYLPENTANE	9.89	57	281441	10.99	PPBV		98
49)	1,1,1-TRICHLOROETHANE	10.10	97	248334	10.38	PPBV		98
50)	CARBON TETRACHLORIDE	10.62	117	258429	10.35	PPBV		99
51)	1,2-DICHLOROETHANE	9.89	62	167970	10.94	PPBV		100
53)	BENZENE	10.49	78	421229	9.96	PPBV		99
54)	CYCLOHEXANE	10.73	84	189125	9.53	PPBV		95
55)	2,3-DIMETHYLPENTANE	10.90	71	99867	10.22	PPBV		94
56)	TRICHLOROETHYLENE	11.40	95	181403	9.68	PPBV		98
57)	1,2-DICHLOROPROPANE	11.21	63	172858	10.53	PPBV		99
58)	DIBROMOMETHANE	11.19	174	143230	9.12	PPBV		96
59)	ETHYL ACRYLATE	11.18	55	297859	9.63	PPBV		99
60)	BROMODICHLOROMETHANE	11.38	83	295880	10.03	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.41	57	802361	10.72	PPBV		99
62)	1,4-DIOXANE	11.44	88	89909	10.20	PPBV	#	68
63)	HEPTANE	11.62	43	285448	10.12	PPBV		96
64)	METHYL METHACRYLATE	11.56	69	136453	9.40	PPBV		95
65)	METHYL ISOBUTYL KETONE	12.21	58	133145	10.88	PPBV		93
66)	cis-1,3-DICHLOROPROPENE	12.17	75	261381	9.99	PPBV		96
67)	TOLUENE	13.07	92	268167	10.00	PPBV		99
68)	1,3-DICHLOROPROPANE	13.09	76	236682	10.13	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.64	75	219991	10.17	PPBV		98
70)	1,1,2-TRICHLOROETHANE	12.81	83	146981	10.24	PPBV		98
72)	2-HEXANONE	13.31	58	189424	10.92	PPBV		93
73)	ETHYL METHACRYLATE	13.29	69	245955	9.89	PPBV		94
74)	TETRACHLOROETHYLENE	14.14	164	164590	8.82	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.48	129	276702	9.52	PPBV		100
76)	1,2-DIBROMOETHANE	13.72	107	245346	9.63	PPBV		100
77)	OCTANE	13.96	43	390556	9.76	PPBV		95
78)	1,1,1,2-TETRACHLOROETHANE	14.79	131	207508	9.73	PPBV		99
79)	CHLOROBENZENE	14.81	112	375825	9.49	PPBV		99
80)	ETHYLBENZENE	15.17	91	538734	9.40	PPBV		99
81)	m,p-XYLENE	15.35	106	412613	18.99	PPBV		100
82)	o-XYLENE	15.84	106	205648	9.74	PPBV		99
83)	STYRENE	15.72	104	307756	9.54	PPBV		99
84)	NONANE	16.02	43	437013	10.82	PPBV		97
85)	BROMOFORM	15.45	173	267810	9.68	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.83	83	368126	9.80	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.97	75	258861	9.81	PPBV		97
89)	ISOPROPYLBENZENE	16.44	105	613211	9.60	PPBV		99
90)	BROMOBENZENE	16.55	77	324407	9.64	PPBV		96
91)	2-CHLOROTOLUENE	16.96	126	153387	9.90	PPBV		100
92)	n-PROPYLBENZENE	16.99	120	165247	9.96	PPBV		100
93)	4-ETHYLTOLUENE	17.14	105	555419	9.91	PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.22	105	478667	9.65	PPBV		100
95)	ALPHA-METHYLSTYRENE	17.39	118	232113	10.08	PPBV		99
96)	tert-BUTYLBENZENE	17.66	134	118441	9.78	PPBV		97
97)	1,2,4-TRIMETHYLBENZENE	17.67	105	476755	9.87	PPBV		99
98)	m-DICHLOROBENZENE	17.84	146	293486	9.37	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52853.D Vial: 2
Acq On : 18 Mar 2016 9:40 am Operator: YOUMINH
Sample : CC1994-10 Inst : MS3W
Misc : MS99296,V3W1996,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:47:39 2016 Quant Results File: M3W1994.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

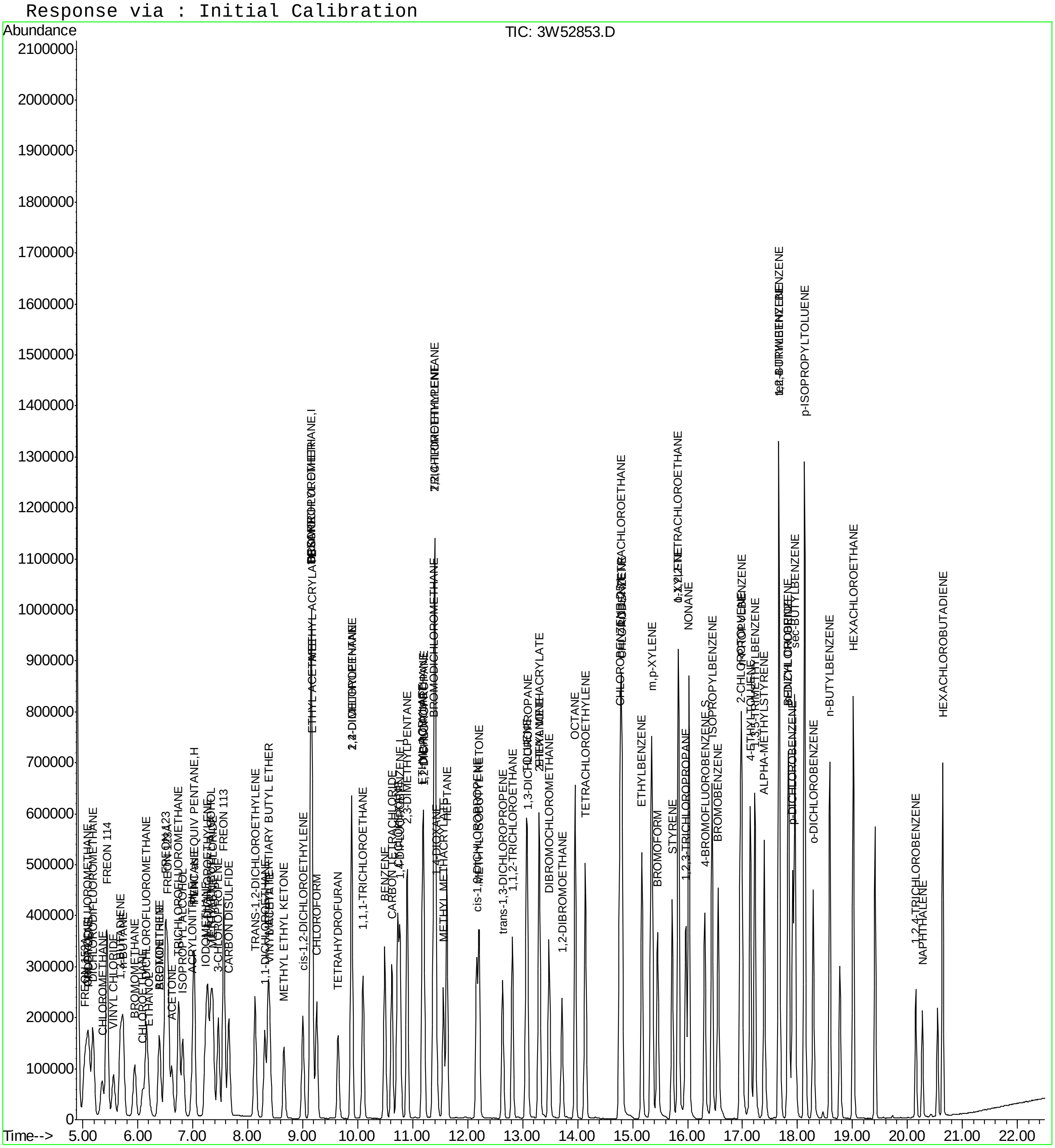
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.82	91	398389	10.34	PPBV	98
100)	p-DICHLOROBENZENE	17.91	146	294051	9.29	PPBV	99
101)	sec-BUTYLBENZENE	17.95	134	141864	9.81	PPBV	96
102)	p-ISOPROPYLTOLUENE	18.12	134	153997	9.99	PPBV	97
103)	o-DICHLOROBENZENE	18.29	146	264585	9.30	PPBV	99
104)	n-BUTYLBENZENE	18.59	134	126521	10.01	PPBV	93
105)	HEXACHLOROETHANE	19.01	117	234488	9.89	PPBV	98
106)	HEXACHLOROBUTADIENE	20.64	225	148739	8.52	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.15	180	97075	8.59	PPBV	99
108)	NAPHTHALENE	20.27	128	195854	8.36	PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52853.D M3W1994.M Thu Mar 31 15:56:53 2016 MS3W Page 3

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1996\3W52853.D   Vial: 2
Acq On    : 18 Mar 2016   9:40 am                    Operator: YOUMINH
Sample    : CC1994-10                                Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 15:54 2016             Quant Results File: M3W1994.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:16:30 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

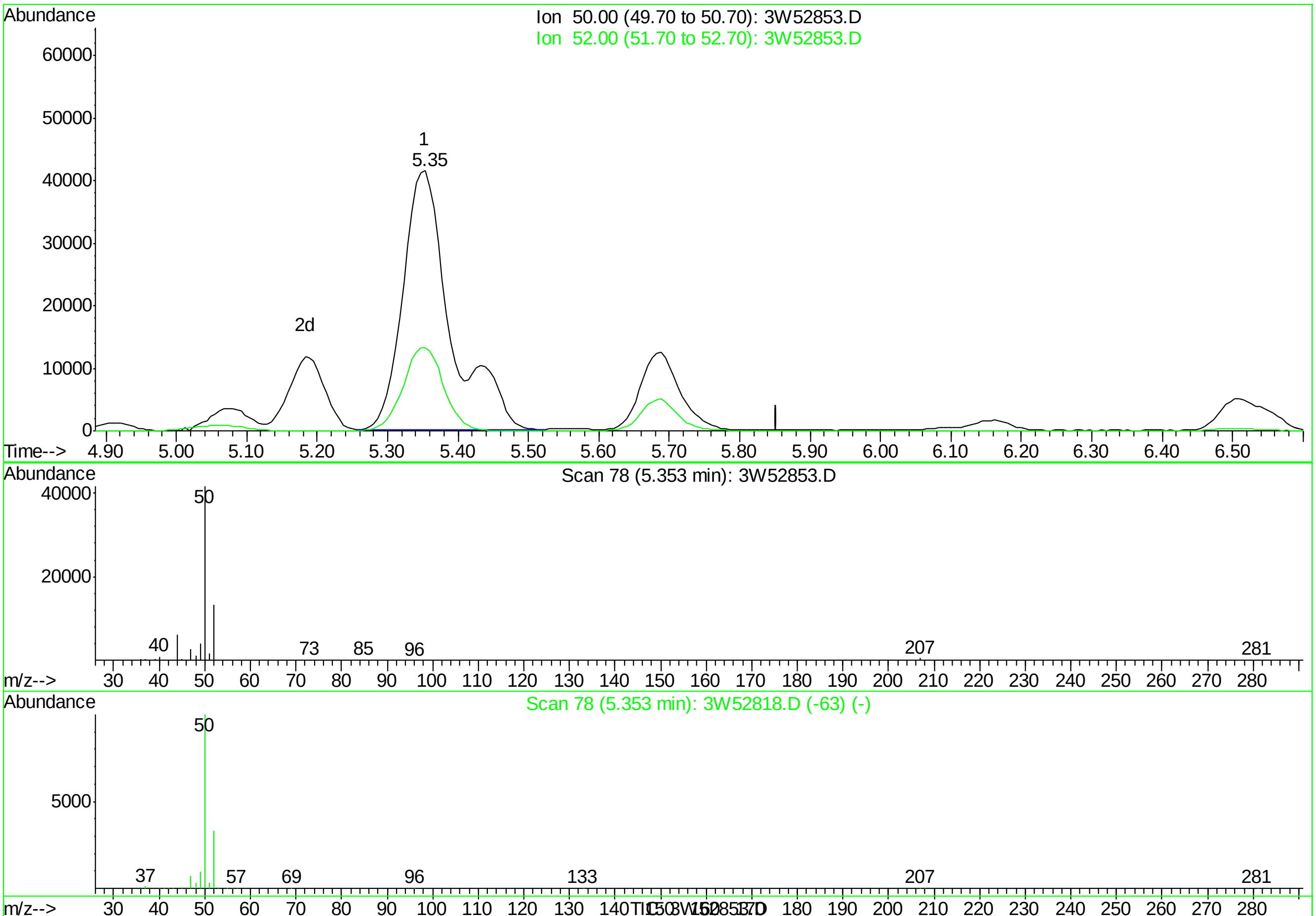
Sample Number:	V3W1996-CC1994	**Method:**	TO-15
Lab FileID:	3W52853.D	**Analyst approved:**	04/01/16 10:52 Dana Tryon
Injection Time:	03/18/16 09:40	**Supervisor approved:**	04/01/16 11:01 Dana Tryon

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Chloromethane	74-87-3		5.35	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52853.D                 Vial: 2
Acq On    : 18 Mar 2016   9:40 am                   Operator: YOUMINH
Sample    : CC1994-10                               Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:48 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.35min 12.81PPBV

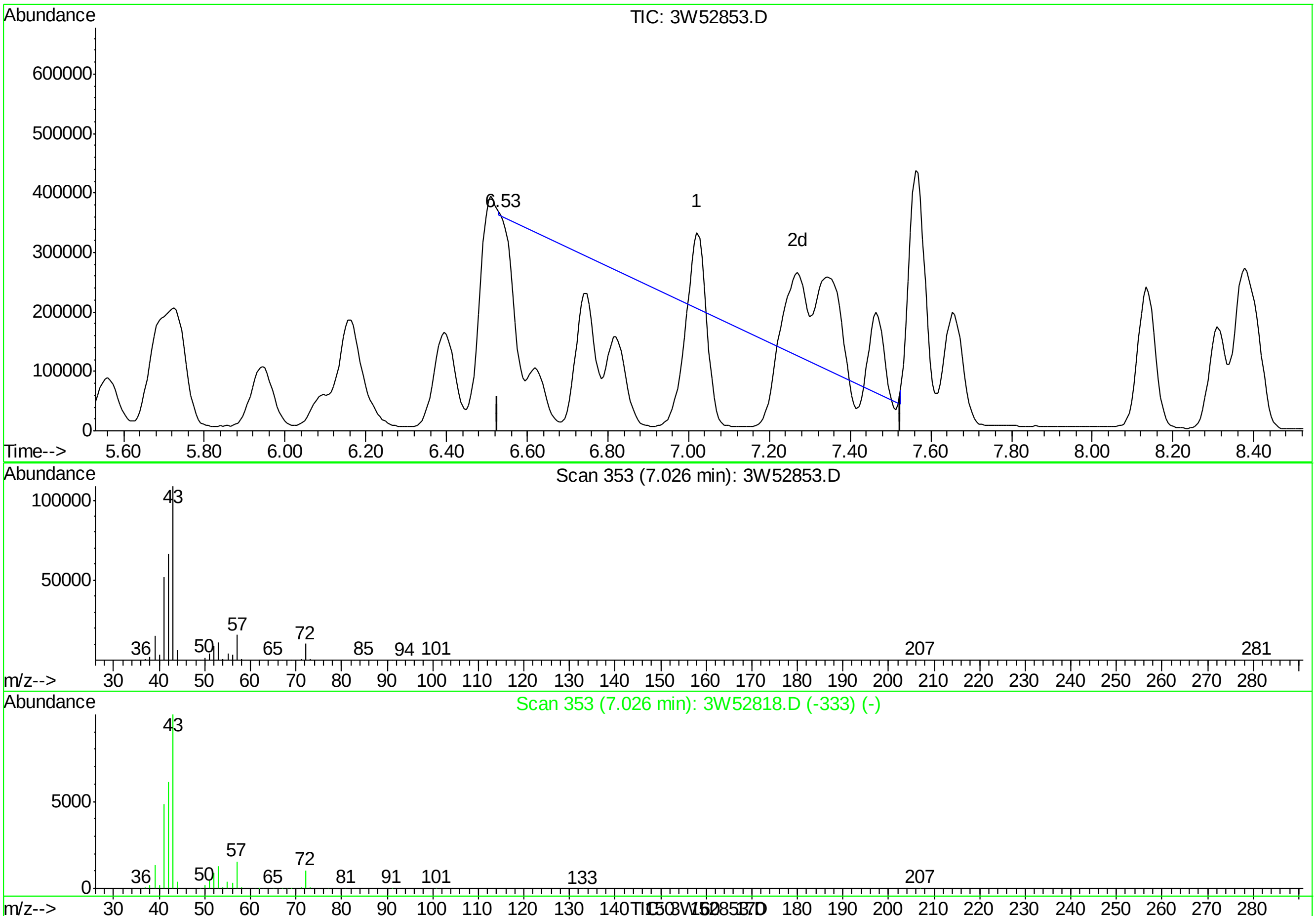
response 194545

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	32.12
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52853.D                  Vial: 2
Acq On    : 18 Mar 2016   9:40 am                    Operator: YOUMINH
Sample    : CC1994-10                                Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:48 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 17 12:10:58 2016
Response via  : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.03min 45.57PPBV m

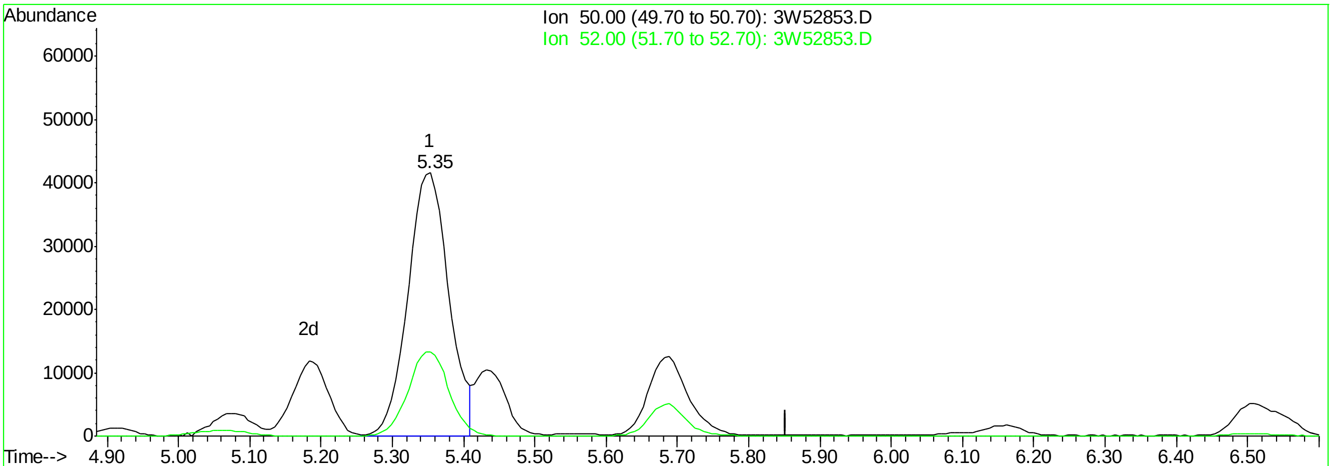
response 4776499

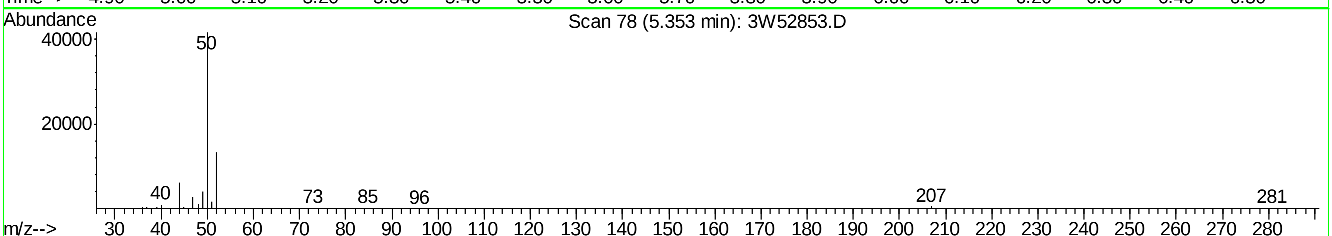
Signal	Exp%	Act%
TIC	100	100
0.00	2.60	0.51#
0.00	2.20	0.44#
0.00	0.00	0.00

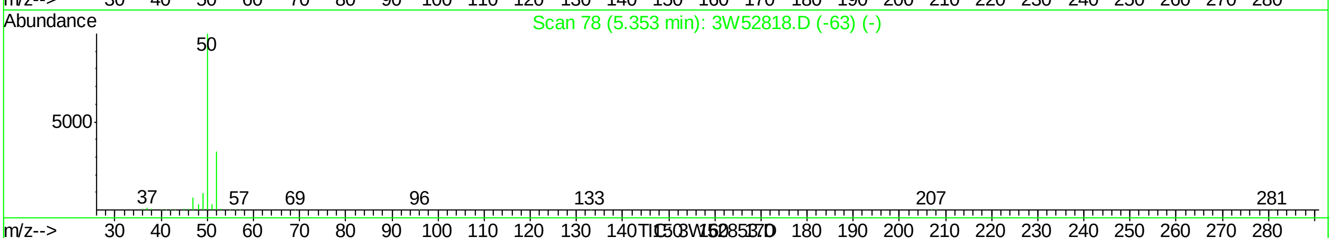
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52853.D                    Vial: 2
Acq On    : 18 Mar 2016   9:40 am                      Operator: YOUMINH
Sample    : CC1994-10                                  Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:55 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```







(10) CHLOROMETHANE

5.35min 10.91PPBV m

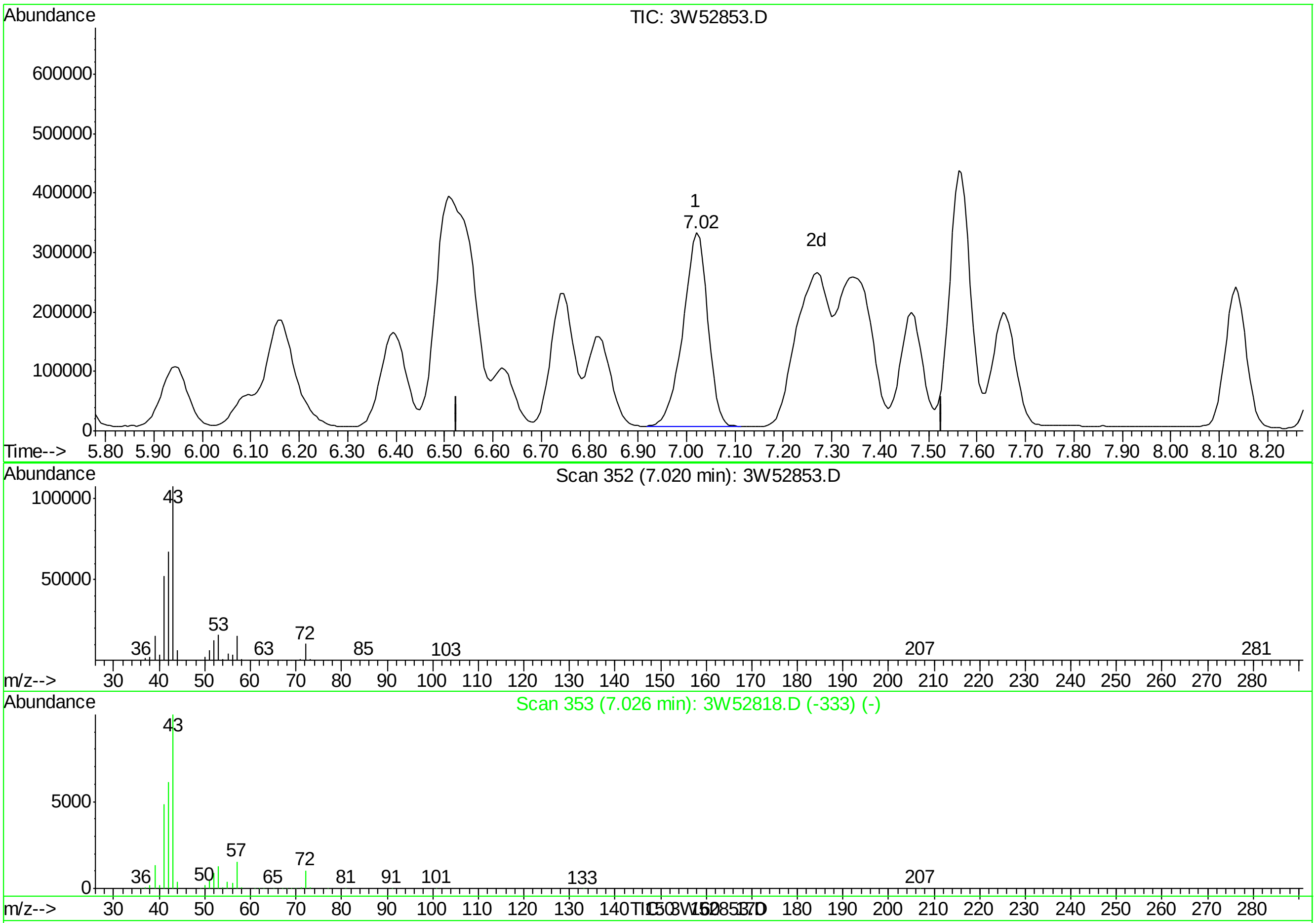
response 165716

Ion	Exp%	Act%
50.00	100	100
52.00	32.90	31.93
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52853.D                    Vial: 2
Acq On    : 18 Mar 2016   9:40 am                       Operator: YOUMINH
Sample    : CC1994-10                                   Inst    : MS3W
Misc      : MS99296,V3W1996,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 21  9:55 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1994.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 17 12:10:58 2016
Response via : Multiple Level Calibration
```



(25) TVHC as EQUIV PENTANE (H)

7.02min 11.16PPBV m

response 1169619

Signal	Exp%	Act%
TIC	100	100
0.00	2.60	2.10#
0.00	2.20	1.79#
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52929.D   Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                        Operator: YOUMINH
Sample    : ICC1998-10                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                        Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:45 2016            Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	128079	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.74	114	641393	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	331160	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.30	95	380534	10.00	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	38428	9.99	PPBV #	100
4) FREON 152A	4.99	65	86585	10.00	PPBV	100
5) CHLORODIFLUOROMETHANE	5.03	67	37449	10.00	PPBV	100
6) DICHLORODIFLUOROMETHANE	5.14	85	386898	10.00	PPBV	100
7) PROPYLENE	5.06	41	118769	10.00	PPBV	100
9) FREON 114	5.39	85	387742	10.00	PPBV	100
10) CHLOROMETHANE	5.30	50	136038m	10.00	PPBV	
11) VINYL CHLORIDE	5.51	62	159794	10.00	PPBV	100
12) 1,3-BUTADIENE	5.64	54	123648	10.00	PPBV	100
13) n-BUTANE	5.69	43	246534	10.00	PPBV	99
14) BROMOMETHANE	5.89	94	142271	10.00	PPBV	100
15) CHLOROETHANE	6.04	64	79602	10.00	PPBV	100
16) DICHLOROFLUOROMETHANE	6.11	67	319401	10.00	PPBV	100
17) ACETONITRILE	6.35	41	109169	10.00	PPBV	100
18) FREON 123	6.46	83	350180	10.00	PPBV	100
19) FREON 123A	6.50	117	203034	10.00	PPBV	100
20) TRICHLOROFLUOROMETHANE	6.70	101	355008	10.00	PPBV	100
22) ISOPROPYL ALCOHOL	6.77	45	289794	10.00	PPBV	100
23) ACETONE	6.57	58	67918	10.00	PPBV	99
24) PENTANE	6.98	42	163466	10.00	PPBV	100
26) IODOMETHANE	7.19	142	377038	10.00	PPBV	100
27) 1,1-DICHLOROETHYLENE	7.24	96	148183	10.00	PPBV	100
28) CARBON DISULFIDE	7.62	76	429293	10.00	PPBV	100
29) ETHANOL	6.15	45	62628	10.00	PPBV	100
30) BROMOETHENE	6.35	106	146821	10.00	PPBV	100
31) ACRYLONITRILE	6.95	52	86407	10.00	PPBV	100
32) METHYLENE CHLORIDE	7.33	84	128137	10.00	PPBV	100
33) 3-CHLOROPROPENE	7.43	76	70834	10.00	PPBV	100
34) FREON 113	7.53	151	238864	10.00	PPBV	100
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	143431	10.00	PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.29	59	373572	10.00	PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.34	73	397386	10.00	PPBV	100
38) TETRAHYDROFURAN	9.61	72	68345m	9.85	PPBV	
39) HEXANE	9.12	57	224662	10.00	PPBV	100
40) VINYL ACETATE	8.37	86	33358	10.00	PPBV	100
41) 1,1-DICHLOROETHANE	8.28	63	263297	10.00	PPBV	100
42) METHYL ETHYL KETONE	8.62	72	69378	10.00	PPBV	100
43) cis-1,2-DICHLOROETHYLENE	8.97	96	150024	10.00	PPBV	100
44) DIISOPROPYL ETHER	9.12	59	64870	10.00	PPBV	100
45) ETHYL ACETATE	9.15	61	44925	10.00	PPBV	100
46) METHYL ACRYLATE	9.14	55	258197	10.00	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52929.D   Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                     Operator: YOUMINH
Sample    : ICC1998-10                                Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:45 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
47)	CHLOROFORM	9.22	83	300123	10.00	PPBV	100
48)	2,4-DIMETHYLPENTANE	9.86	57	269082	10.00	PPBV	100
49)	1,1,1-TRICHLOROETHANE	10.07	97	307800	10.00	PPBV	100
50)	CARBON TETRACHLORIDE	10.59	117	321249	10.00	PPBV	100
51)	1,2-DICHLOROETHANE	9.85	62	193873	10.00	PPBV	100
53)	BENZENE	10.47	78	443054	10.00	PPBV	100
54)	CYCLOHEXANE	10.70	84	197209	10.00	PPBV	100
55)	2,3-DIMETHYLPENTANE	10.87	71	102084	10.00	PPBV	100
56)	TRICHLOROETHYLENE	11.37	95	195739	10.00	PPBV	100
57)	1,2-DICHLOROPROPANE	11.18	63	161253	10.00	PPBV	100
58)	DIBROMOMETHANE	11.16	174	180756	10.00	PPBV	100
59)	ETHYL ACRYLATE	11.14	55	316124	10.00	PPBV	100
60)	BROMODICHLOROMETHANE	11.35	83	332996	10.00	PPBV	100
61)	2,2,4-TRIMETHYLPENTANE	11.38	57	732561	10.00	PPBV	100
62)	1,4-DIOXANE	11.41	88	105001	10.00	PPBV	100
63)	HEPTANE	11.60	43	253857	10.00	PPBV	100
64)	METHYL METHACRYLATE	11.53	69	153318	10.00	PPBV	100
65)	METHYL ISOBUTYL KETONE	12.18	58	135413	10.00	PPBV	100
66)	cis-1,3-DICHLOROPROPENE	12.14	75	274611	10.00	PPBV	100
67)	TOLUENE	13.05	92	296096	10.00	PPBV	100
68)	1,3-DICHLOROPROPANE	13.06	76	239772	10.00	PPBV	100
69)	trans-1,3-DICHLOROPROPENE	12.61	75	236496	10.00	PPBV	100
70)	1,1,2-TRICHLOROETHANE	12.79	83	149872	10.00	PPBV	100
72)	2-HEXANONE	13.28	58	191874	10.00	PPBV	100
73)	ETHYL METHACRYLATE	13.27	69	264962	10.00	PPBV	100
74)	TETRACHLOROETHYLENE	14.12	164	206174	10.00	PPBV	100
75)	DIBROMOCHLOROMETHANE	13.46	129	329212	10.00	PPBV	100
76)	1,2-DIBROMOETHANE	13.69	107	275439	10.00	PPBV	100
77)	OCTANE	13.93	43	345107	10.00	PPBV	100
78)	1,1,1,2-TETRACHLOROETHANE	14.77	131	232579	10.00	PPBV	100
79)	CHLOROBENZENE	14.79	112	405659	10.00	PPBV	100
80)	ETHYLBENZENE	15.15	91	612285	10.00	PPBV	100
81)	m,p-XYLENE	15.33	106	478471	20.00	PPBV	100
82)	o-XYLENE	15.81	106	232300	10.00	PPBV	100
83)	STYRENE	15.70	104	360594	10.00	PPBV	100
84)	NONANE	16.00	43	367167	10.00	PPBV	100
85)	BROMOFORM	15.43	173	325446	10.00	PPBV	100
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	368972	10.00	PPBV	100
88)	1,2,3-TRICHLOROPROPANE	15.95	75	266979	10.00	PPBV	100
89)	ISOPROPYLBENZENE	16.42	105	702170	10.00	PPBV	100
90)	BROMOBENZENE	16.54	77	333545	10.00	PPBV	100
91)	2-CHLOROTOLUENE	16.94	126	169990	10.00	PPBV	100
92)	n-PROPYLBENZENE	16.97	120	190316	10.00	PPBV	100
93)	4-ETHYLTOLUENE	17.12	105	637893	10.00	PPBV	100
94)	1,3,5-TRIMETHYLBENZENE	17.21	105	557488	10.00	PPBV	100
95)	ALPHA-METHYLSTYRENE	17.38	118	275995	10.00	PPBV	100
96)	tert-BUTYLBENZENE	17.65	134	135199	10.00	PPBV	100
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	536248	10.00	PPBV	100
98)	m-DICHLOROBENZENE	17.82	146	333716	10.00	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52929.D Vial: 1
Acq On : 22 Mar 2016 7:47 pm Operator: YOUMINH
Sample : ICC1998-10 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:45 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

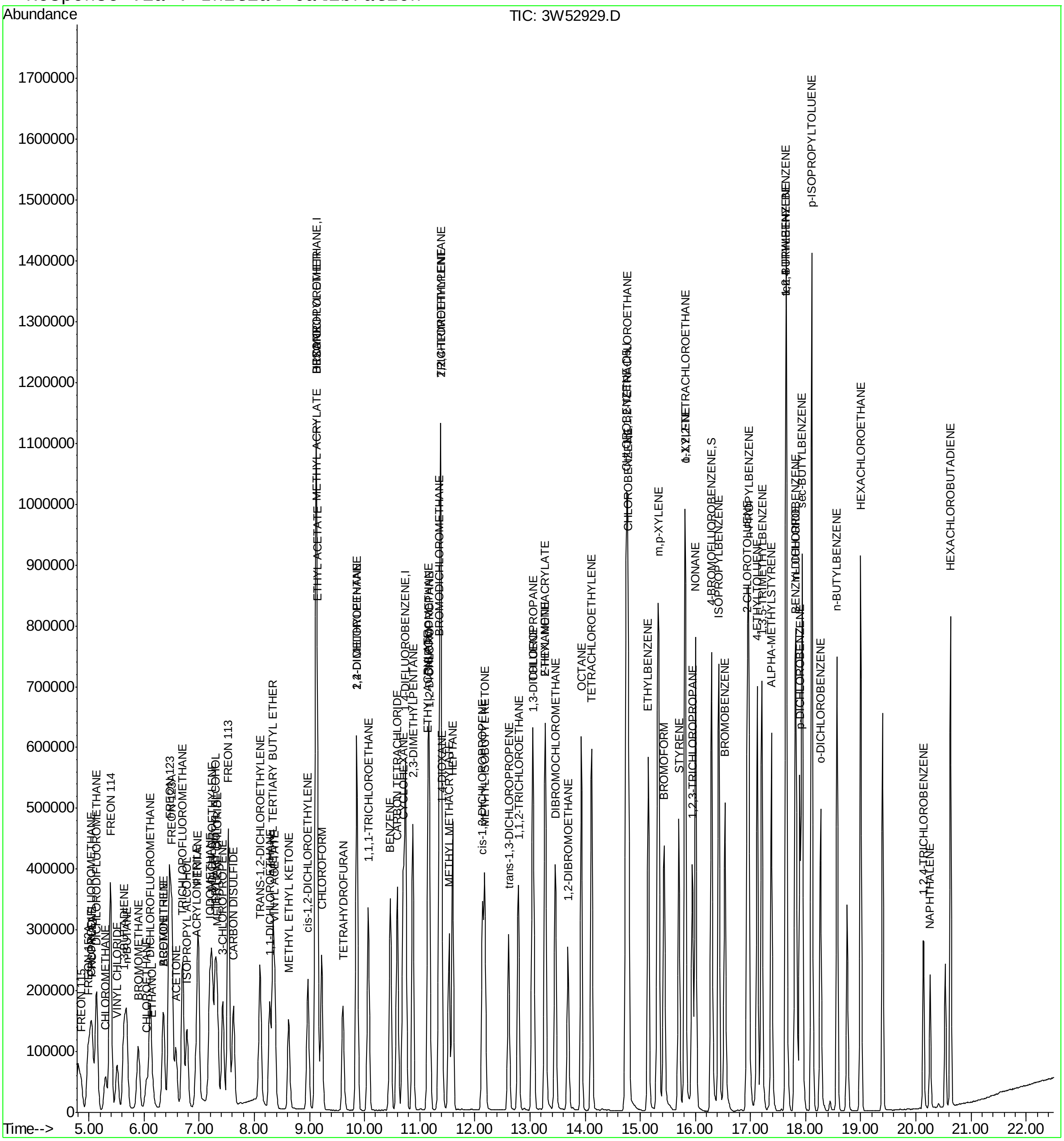
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	437110	10.00	PPBV	100
100)	p-DICHLOROBENZENE	17.90	146	343228	10.00	PPBV	100
101)	sec-BUTYLBENZENE	17.94	134	162958	10.00	PPBV	100
102)	p-ISOPROPYLTOLUENE	18.11	134	172875	10.00	PPBV	100
103)	o-DICHLOROBENZENE	18.27	146	304373	10.00	PPBV	100
104)	n-BUTYLBENZENE	18.57	134	143635	10.00	PPBV	100
105)	HEXACHLOROETHANE	19.00	117	244939	10.00	PPBV	100
106)	HEXACHLOROBUTADIENE	20.63	225	184814	10.00	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.14	180	114038	10.01	PPBV	100
108)	NAPHTHALENE	20.26	128	217489	10.01	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52929.D   Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                        Operator: YOUMINH
Sample    : ICC1998-10                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                        Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 10:49 2016                  Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

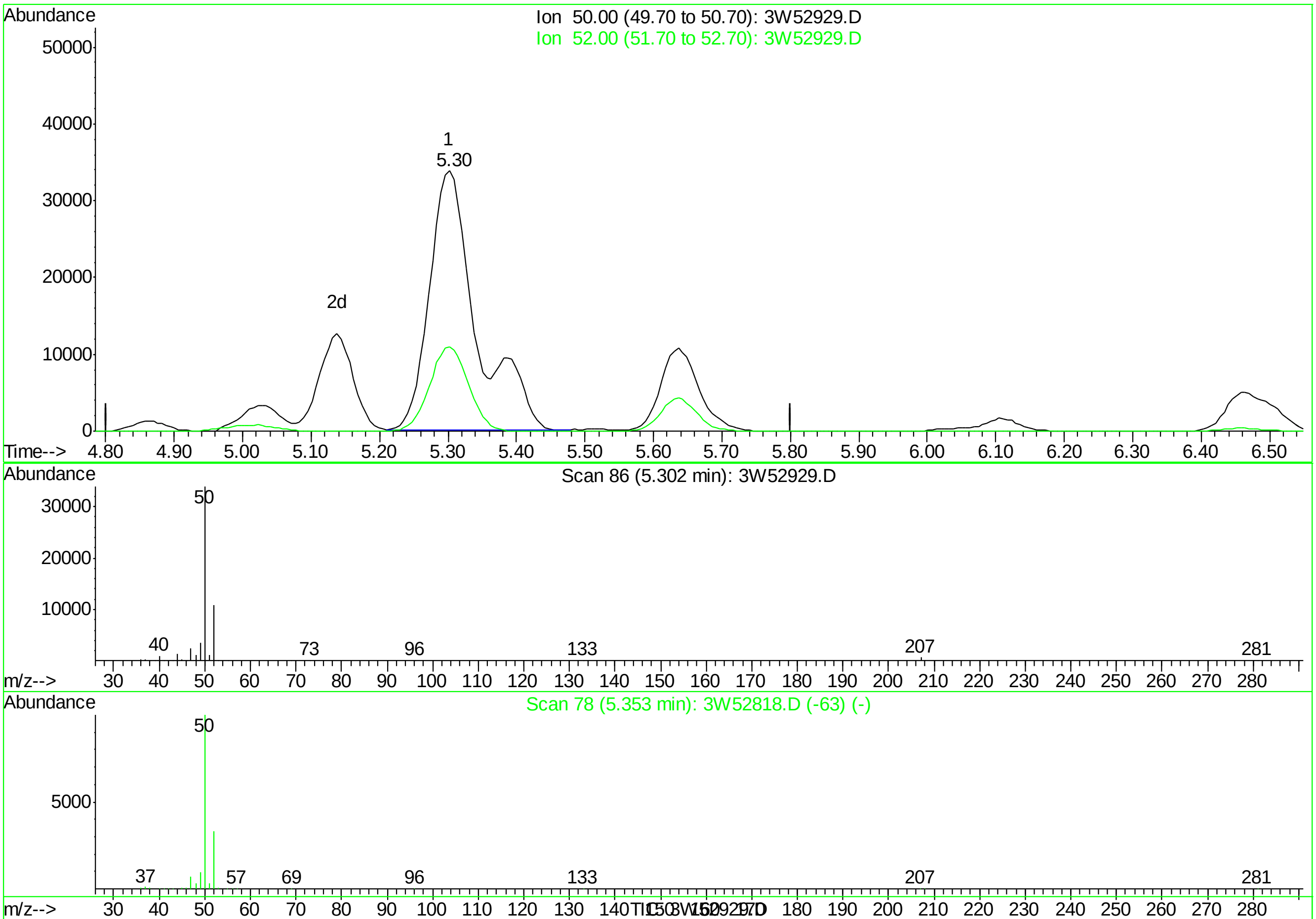
Sample Number:	V3W1998-ICC1998	**Method:**	TO-15
Lab FileID:	3W52929.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/22/16 19:47	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.61	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52929.D                    Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                      Operator: YOUMINH
Sample    : ICC1998-10                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:24 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Multiple Level Calibration
```

(10) CHLOROMETHANE

5.30min 11.87PPBV

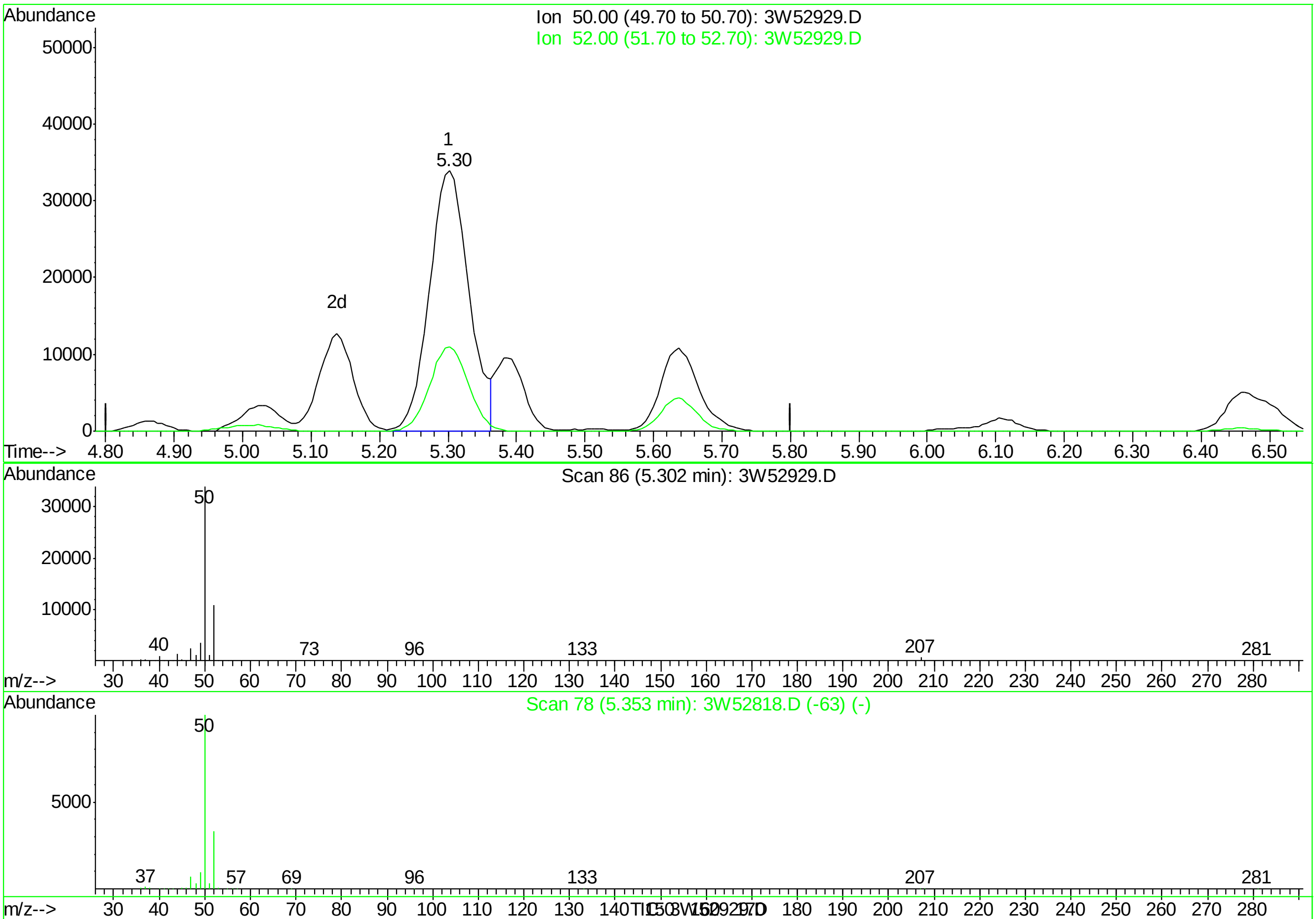
response 161541

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.51
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52929.D                    Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                      Operator: YOUMINH
Sample    : ICC1998-10                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:38 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 10.00PPBV m

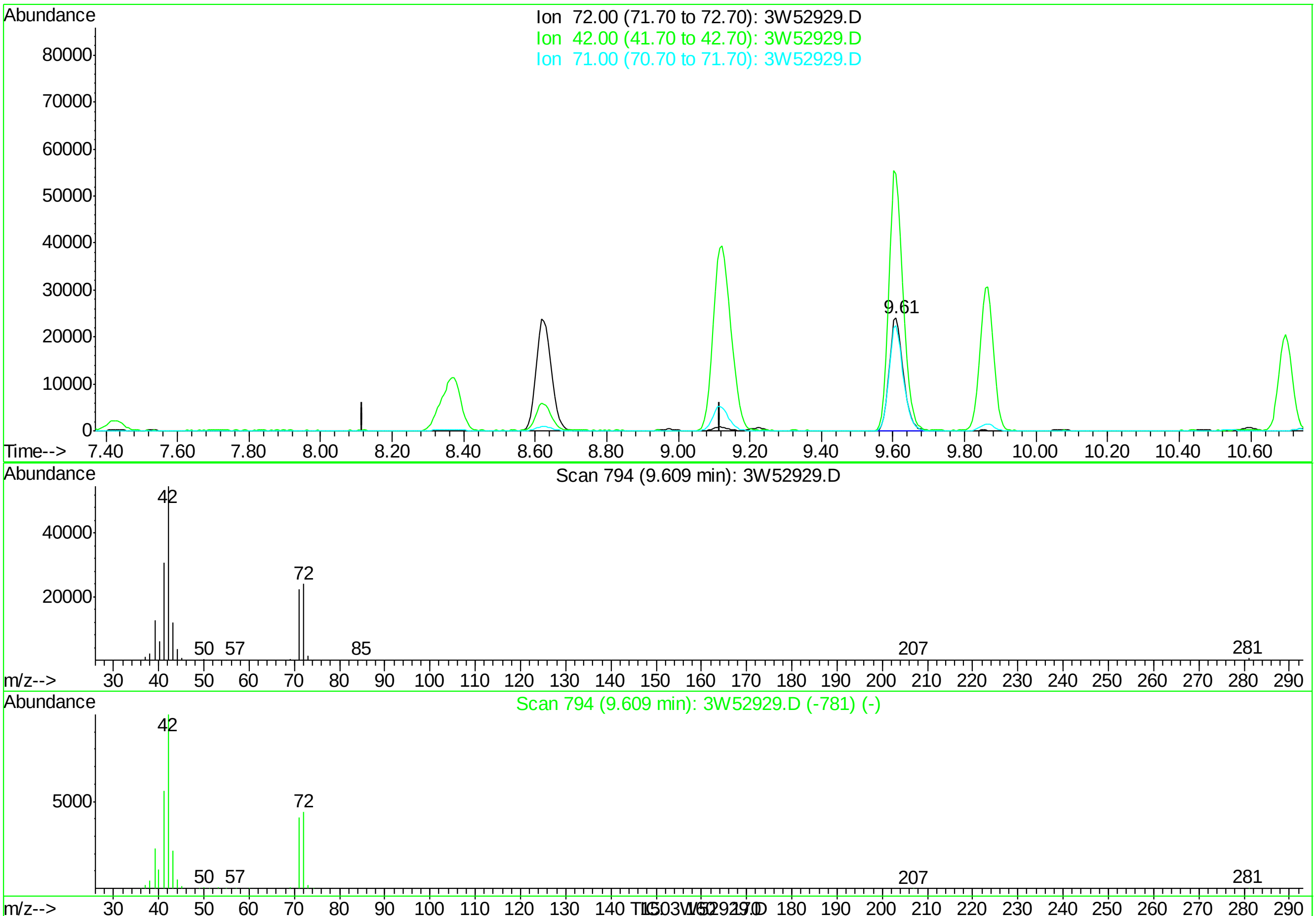
response 136038

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52929.D   Vial: 1
Acq On    : 22 Mar 2016   7:47 pm                      Operator: YOUMINH
Sample    : ICC1998-10                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 10:49 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```

(38) TETRAHYDROFURAN

9.61min 9.85PPBV m

response 68345

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	27.13
71.00	3.90	4.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52930.D   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                      Operator: YOUMINH
Sample    : IC1998-5                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:46 2016             Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	117810	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.74	114	577578	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	292313	10.00	PPBV	0.00

System Monitoring Compounds

86) 4-BROMOFLUOROBENZENE	16.29	95	333531	9.93	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 99.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	21191	5.99	PPBV #	100
4) FREON 152A	4.98	65	48142	6.04	PPBV	98
5) CHLORODIFLUOROMETHANE	5.03	67	20750	6.02	PPBV	97
6) DICHLORODIFLUOROMETHANE	5.14	85	209904	5.90	PPBV	99
7) PROPYLENE	5.06	41	64582	5.91	PPBV	99
9) FREON 114	5.39	85	212006	5.94	PPBV	99
10) CHLOROMETHANE	5.30	50	73644m	5.89	PPBV	
11) VINYL CHLORIDE	5.51	62	87984	5.99	PPBV	100
12) 1,3-BUTADIENE	5.64	54	66759	5.87	PPBV	98
13) n-BUTANE	5.68	43	136176	6.01	PPBV #	99
14) BROMOMETHANE	5.89	94	78694	6.01	PPBV	98
15) CHLOROETHANE	6.04	64	42319	5.78	PPBV	99
16) DICHLOROFLUOROMETHANE	6.11	67	171949	5.85	PPBV	100
17) ACETONITRILE	6.34	41	57486	5.72	PPBV	99
18) FREON 123	6.46	83	185354	5.75	PPBV	100
19) FREON 123A	6.50	117	107816	5.77	PPBV	99
20) TRICHLOROFLUOROMETHANE	6.70	101	194752	5.96	PPBV	100
22) ISOPROPYL ALCOHOL	6.78	45	153833	5.77	PPBV	99
23) ACETONE	6.58	58	36058	5.77	PPBV	100
24) PENTANE	6.98	42	87664	5.83	PPBV	98
26) IODOMETHANE	7.19	142	206252	5.95	PPBV	100
27) 1,1-DICHLOROETHYLENE	7.23	96	81427	5.97	PPBV	98
28) CARBON DISULFIDE	7.62	76	235287	5.96	PPBV	100
29) ETHANOL	6.17	45	33399	5.80	PPBV	98
30) BROMOETHENE	6.35	106	80043	5.93	PPBV	99
31) ACRYLONITRILE	6.95	52	44417	5.59	PPBV	99
32) METHYLENE CHLORIDE	7.33	84	69485	5.90	PPBV	97
33) 3-CHLOROPROPENE	7.43	76	37579	5.77	PPBV	99
34) FREON 113	7.53	151	127634	5.81	PPBV	100
35) TRANS-1,2-DICHLOROETHYLENE	8.11	96	80035	6.07	PPBV	97
36) TERTIARY BUTYL ALCOHOL	7.30	59	193627	5.63	PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.34	73	210945	5.77	PPBV	100
38) TETRAHYDROFURAN	9.61	72	36229m	5.68	PPBV	
39) HEXANE	9.12	57	118847	5.75	PPBV	100
40) VINYL ACETATE	8.37	86	17033	5.55	PPBV	97
41) 1,1-DICHLOROETHANE	8.28	63	139545	5.76	PPBV	100
42) METHYL ETHYL KETONE	8.62	72	36925	5.79	PPBV	95
43) cis-1,2-DICHLOROETHYLENE	8.97	96	80124	5.81	PPBV	100
44) DIISOPROPYL ETHER	9.12	59	34222	5.74	PPBV	95
45) ETHYL ACETATE	9.14	61	23943	5.79	PPBV	99
46) METHYL ACRYLATE	9.14	55	135385	5.70	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52930.D   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                       Operator: YOUMINH
Sample    : IC1998-5                                    Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:46 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.22	83	159519	5.78	PPBV		98
48)	2,4-DIMETHYLPENTANE	9.86	57	140865	5.69	PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.07	97	163142	5.76	PPBV		100
50)	CARBON TETRACHLORIDE	10.59	117	172092	5.82	PPBV		99
51)	1,2-DICHLOROETHANE	9.85	62	101390	5.69	PPBV		100
53)	BENZENE	10.47	78	233406	5.85	PPBV		100
54)	CYCLOHEXANE	10.70	84	106729	6.01	PPBV		95
55)	2,3-DIMETHYLPENTANE	10.87	71	53833	5.86	PPBV		99
56)	TRICHLOROETHYLENE	11.37	95	103232	5.86	PPBV		99
57)	1,2-DICHLOROPROPANE	11.17	63	84394	5.81	PPBV		100
58)	DIBROMOMETHANE	11.16	174	95520	5.87	PPBV		99
59)	ETHYL ACRYLATE	11.14	55	167811	5.89	PPBV		99
60)	BROMODICHLOROMETHANE	11.35	83	175031	5.84	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.38	57	382578	5.80	PPBV		100
62)	1,4-DIOXANE	11.41	88	55422	5.86	PPBV	#	89
63)	HEPTANE	11.59	43	137837	6.03	PPBV		97
64)	METHYL METHACRYLATE	11.53	69	80881	5.86	PPBV		99
65)	METHYL ISOBUTYL KETONE	12.18	58	72019	5.91	PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.14	75	144580	5.85	PPBV		100
67)	TOLUENE	13.05	92	153465	5.76	PPBV		100
68)	1,3-DICHLOROPROPANE	13.06	76	127025	5.88	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.61	75	125511	5.89	PPBV		100
70)	1,1,2-TRICHLOROETHANE	12.78	83	79352	5.88	PPBV		100
72)	2-HEXANONE	13.28	58	100792	5.95	PPBV		99
73)	ETHYL METHACRYLATE	13.27	69	139528	5.97	PPBV		98
74)	TETRACHLOROETHYLENE	14.12	164	108074	5.94	PPBV		100
75)	DIBROMOCHLOROMETHANE	13.45	129	173879	5.98	PPBV		100
76)	1,2-DIBROMOETHANE	13.69	107	144731	5.95	PPBV		100
77)	OCTANE	13.93	43	181734	5.97	PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	121892	5.94	PPBV		99
79)	CHLOROBENZENE	14.79	112	212719	5.94	PPBV		99
80)	ETHYLBENZENE	15.15	91	318885	5.90	PPBV		100
81)	m,p-XYLENE	15.32	106	249645	11.82	PPBV		99
82)	o-XYLENE	15.81	106	120635	5.88	PPBV		100
83)	STYRENE	15.70	104	194149	6.10	PPBV		97
84)	NONANE	16.00	43	199977	6.17	PPBV		99
85)	BROMOFORM	15.43	173	168842	5.88	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	191842	5.89	PPBV		99
88)	1,2,3-TRICHLOROPROPANE	15.95	75	138736	5.89	PPBV		100
89)	ISOPROPYLBENZENE	16.42	105	369111	5.96	PPBV		100
90)	BROMOBENZENE	16.53	77	174028	5.91	PPBV		99
91)	2-CHLOROTOLUENE	16.94	126	88180	5.88	PPBV		100
92)	n-PROPYLBENZENE	16.96	120	98714	5.88	PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	333627	5.93	PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	290310	5.90	PPBV		100
95)	ALPHA-METHYLSTYRENE	17.38	118	142067	5.83	PPBV		99
96)	tert-BUTYLBENZENE	17.65	134	69756	5.85	PPBV		98
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	280487	5.93	PPBV		100
98)	m-DICHLOROBENZENE	17.82	146	173187	5.88	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52930.D   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                    Operator: YOUMINH
Sample    : IC1998-5                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:46 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

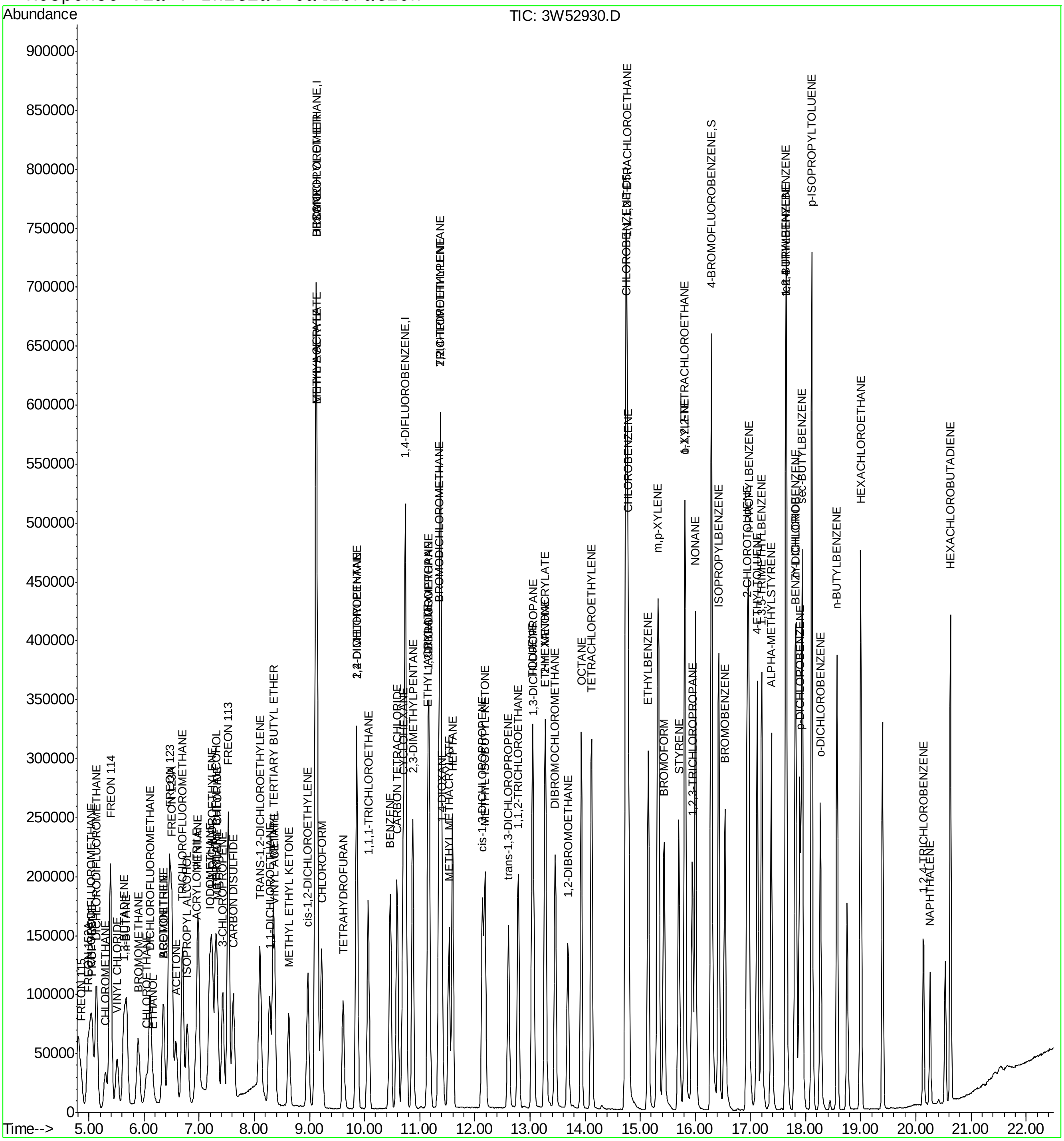
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	226009	5.86	PPBV	100
100)	p-DICHLOROBENZENE	17.90	146	177710	5.87	PPBV	99
101)	sec-BUTYLBENZENE	17.94	134	84562	5.88	PPBV	98
102)	p-ISOPROPYLTOLUENE	18.11	134	89180	5.84	PPBV	99
103)	o-DICHLOROBENZENE	18.27	146	158551	5.90	PPBV	100
104)	n-BUTYLBENZENE	18.57	134	74621	5.89	PPBV	99
105)	HEXACHLOROETHANE	19.00	117	126207	5.84	PPBV	100
106)	HEXACHLOROBUTADIENE	20.63	225	94135	5.77	PPBV	99
107)	1,2,4-TRICHLOROBENZENE	20.13	180	56339	5.60	PPBV	99
108)	NAPHTHALENE	20.26	128	109812	5.73	PPBV	99

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

```
                        Quantitation Report    (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52930.D   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                       Operator: YOUMINH
Sample    : IC1998-5                                    Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 10:49 2016                 Quant Results File: M3W1998.RES

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:29:33 2016
Response via  : Initial Calibration
```



Manual Integration Approval Summary

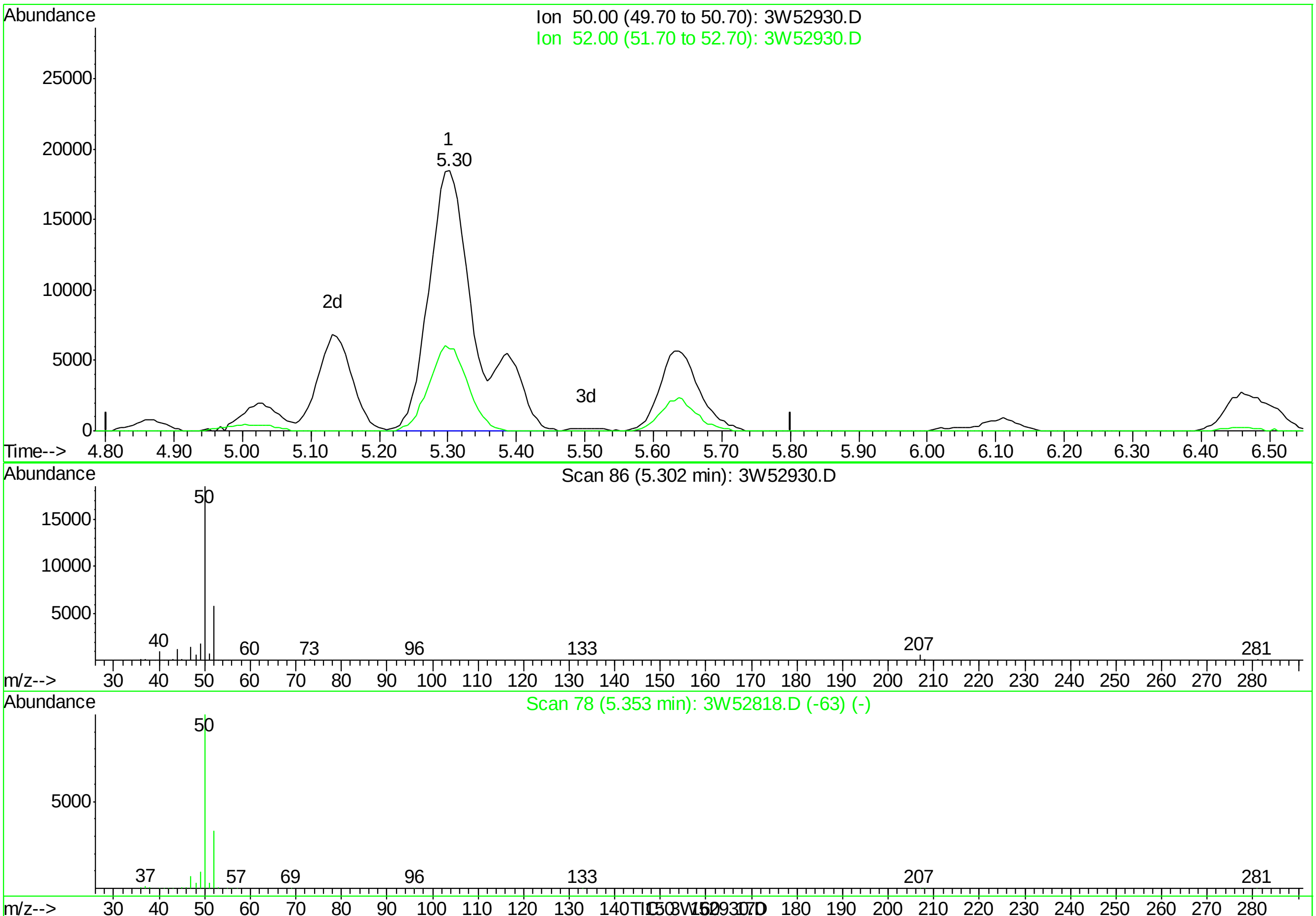
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52930.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/22/16 20:28	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.61	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52930.D                  Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                    Operator: YOUMINH
Sample    : IC1998-5                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:24 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 09:23:56 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 7.19PPBV

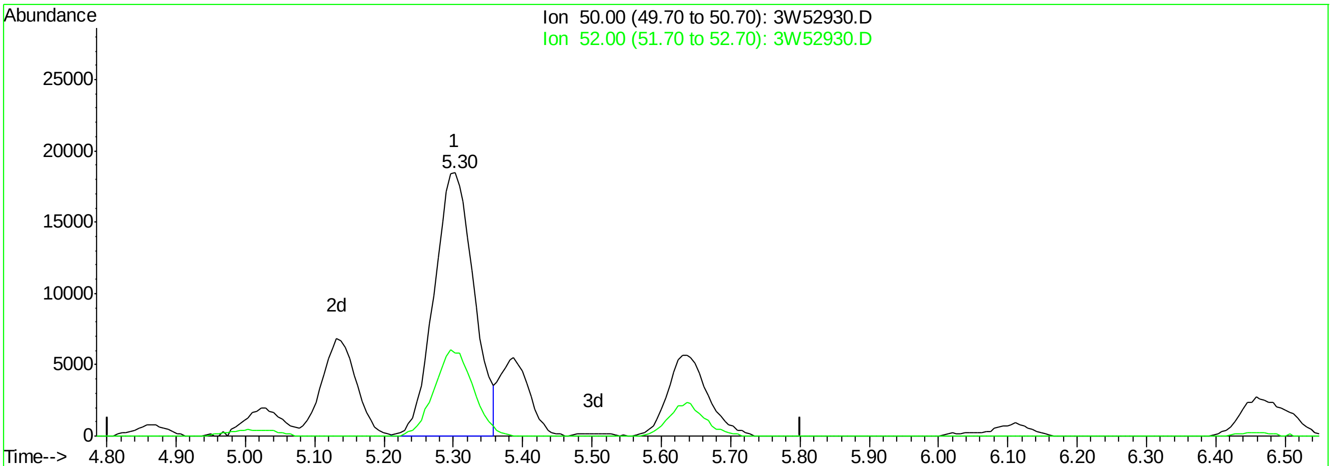
response 89934

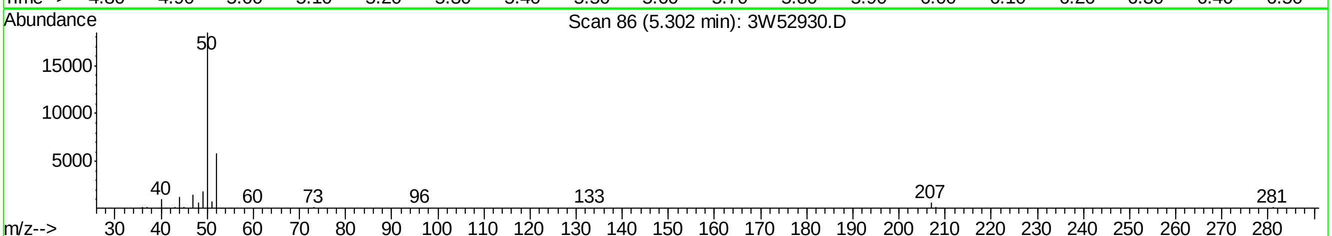
Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.71
0.00	0.00	0.00
0.00	0.00	0.00

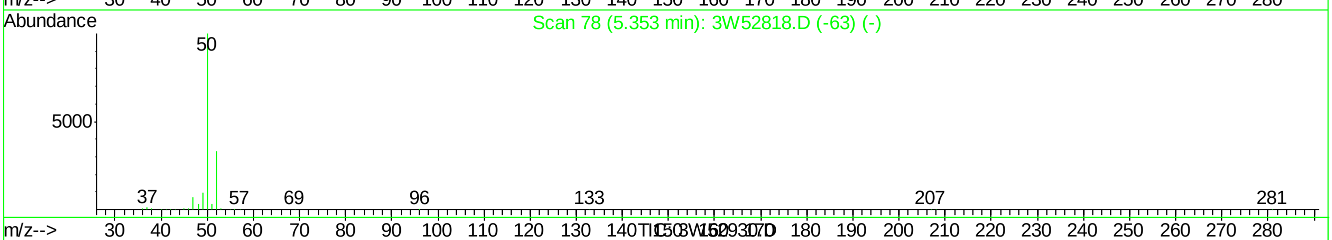
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52930.D                   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                     Operator: YOUMINH
Sample    : IC1998-5                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:38 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```







(10) CHLOROMETHANE

5.30min 5.89PPBV m

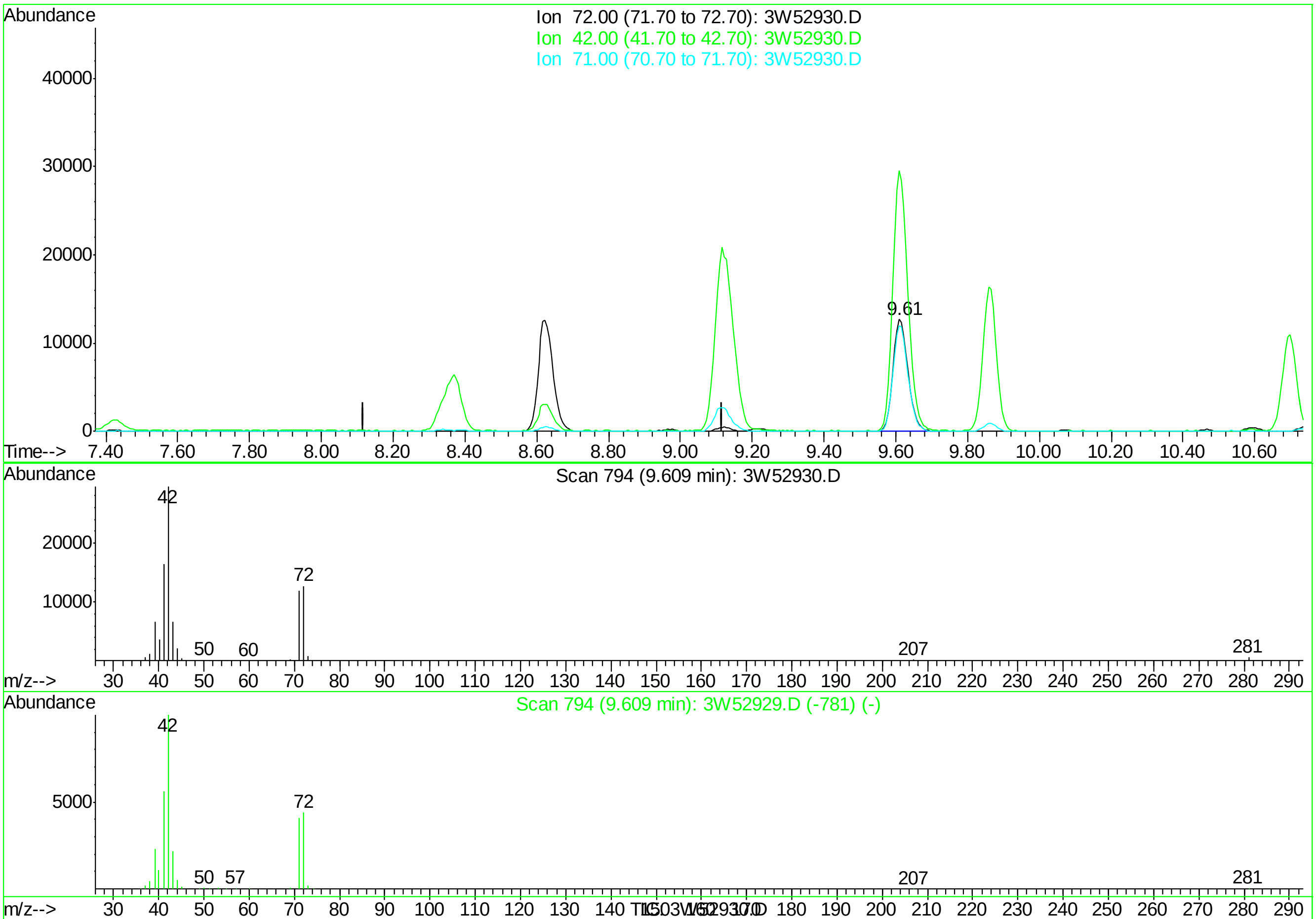
response 73644

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.61
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52930.D   Vial: 1
Acq On    : 22 Mar 2016   8:28 pm                      Operator: YOUMINH
Sample    : IC1998-5                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 10:49 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:29:33 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.61min 5.68PPBV m

response 36229

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	26.10
71.00	3.90	3.92
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52931.D   Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                     Operator: YOUMINH
Sample    : IC1998-0.5                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:48 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
--------------------------------------------------------------------------
   1) BROMOCHLOROMETHANE             9.11  128    129028    10.00 PPBV    0.00
  52) 1,4-DIFLUOROBENZENE           10.73  114    634274    10.00 PPBV    0.00
  71) CHLOROBENZENE-D5              14.74   82    307133    10.00 PPBV    0.00

 System Monitoring Compounds
  86) 4-BROMOFLUOROBENZENE          16.29   95    337917     9.57 PPBV    0.00
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   95.70%

 Target Compounds                                                      Qvalue
   3) FREON 115                      4.86   85      2249     0.58 PPBV #   100
   4) FREON 152A                     4.97   65      4205     0.48 PPBV      65
   5) CHLORODIFLUOROMETHANE          5.03   67      1934     0.51 PPBV      97
   6) DICHLORODIFLUOROMETHANE        5.14   85     18504     0.47 PPBV      99
   7) PROPYLENE                      5.06   41      5705     0.48 PPBV      82
   9) FREON 114                      5.39   85     18766     0.48 PPBV     100
  10) CHLOROMETHANE                  5.30   50      6432m    0.47 PPBV
  11) VINYL CHLORIDE                 5.51   62      7447     0.46 PPBV      98
  12) 1,3-BUTADIENE                  5.63   54      6124     0.49 PPBV #    76
  13) n-BUTANE                       5.69   43     12754     0.51 PPBV #    97
  14) BROMOMETHANE                   5.89   94      7153     0.50 PPBV      93
  15) CHLOROETHANE                   6.04   64      3854     0.48 PPBV      94
  16) DICHLOROFLUOROMETHANE          6.11   67     16262     0.51 PPBV      91
  17) ACETONITRILE                   6.35   41      6336     0.58 PPBV #    95
  18) FREON 123                      6.46   83     16983     0.48 PPBV      95
  19) FREON 123A                     6.50  117      9643     0.47 PPBV      95
  20) TRICHLOROFLUOROMETHANE         6.70  101     17402     0.49 PPBV      99
  22) ISOPROPYL ALCOHOL              6.80   45     16931     0.58 PPBV      87
  23) ACETONE                        6.60   58      3919     0.57 PPBV      97
  24) PENTANE                        6.98   42     10756     0.65 PPBV      95
  26) IODOMETHANE                    7.19  142     18330     0.48 PPBV      99
  27) 1,1-DICHLOROETHYLENE           7.24   96      7879     0.53 PPBV      90
  28) CARBON DISULFIDE               7.61   76     20626     0.48 PPBV      94
  29) ETHANOL                        6.17   45      4356     0.69 PPBV      91
  30) BROMOETHENE                    6.35  106      7024     0.47 PPBV      98
  31) ACRYLONITRILE                  6.95   52      4558     0.52 PPBV      93
  32) METHYLENE CHLORIDE             7.33   84      6333     0.49 PPBV      97
  33) 3-CHLOROPROPENE                7.43   76      3287     0.46 PPBV #    91
  34) FREON 113                      7.52  151     11348     0.47 PPBV     100
  35) TRANS-1,2-DICHLOROETHYLENE     8.09   96      7454     0.52 PPBV      91
  36) TERTIARY BUTYL ALCOHOL         7.33   59     17868     0.47 PPBV      98
  37) METHYL TERTIARY BUTYL ETHE     8.36   73     20183     0.50 PPBV      92
  38) TETRAHYDROFURAN                9.63   72      3580m    0.51 PPBV
  39) HEXANE                         9.12   57     10783     0.48 PPBV      96
  40) VINYL ACETATE                  8.37   86      1536     0.46 PPBV #    72
  41) 1,1-DICHLOROETHANE             8.28   63     12418     0.47 PPBV      98
  42) METHYL ETHYL KETONE            8.64   72      3559     0.51 PPBV #    90
  43) cis-1,2-DICHLOROETHYLENE       8.97   96      7153     0.47 PPBV      99
  44) DIISOPROPYL ETHER              9.13   59      3292     0.50 PPBV #    89
  45) ETHYL ACETATE                  9.16   61      2236     0.49 PPBV #    85
  46) METHYL ACRYLATE                9.15   55     13394     0.51 PPBV      99
--------------------------------------------------------------------------
 (#) = qualifier out of range (m) = manual integration
```

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52931.D Vial: 2
Acq On : 22 Mar 2016 9:10 pm Operator: YOUMINH
Sample : IC1998-0.5 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:48 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.21	83	14562	0.48 PPBV		97
48)	2,4-DIMETHYLPENTANE	9.86	57	12414	0.46 PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.07	97	14694	0.47 PPBV		98
50)	CARBON TETRACHLORIDE	10.59	117	15179	0.47 PPBV		99
51)	1,2-DICHLOROETHANE	9.85	62	9288	0.48 PPBV		98
53)	BENZENE	10.46	78	20558	0.47 PPBV		98
54)	CYCLOHEXANE	10.70	84	9770	0.50 PPBV	#	1
55)	2,3-DIMETHYLPENTANE	10.86	71	4684	0.46 PPBV		98
56)	TRICHLOROETHYLENE	11.37	95	9026	0.47 PPBV		99
57)	1,2-DICHLOROPROPANE	11.17	63	7807	0.49 PPBV		98
58)	DIBROMOMETHANE	11.16	174	8630	0.48 PPBV		99
59)	ETHYL ACRYLATE	11.15	55	16095	0.51 PPBV	#	87
60)	BROMODICHLOROMETHANE	11.34	83	15567	0.47 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	34907	0.48 PPBV		98
62)	1,4-DIOXANE	11.43	88	8149	0.78 PPBV	#	28
63)	HEPTANE	11.59	43	12810	0.51 PPBV		93
64)	METHYL METHACRYLATE	11.54	69	7597	0.50 PPBV		94
65)	METHYL ISOBUTYL KETONE	12.20	58	6632	0.50 PPBV	#	88
66)	cis-1,3-DICHLOROPROPENE	12.13	75	12817	0.47 PPBV		89
67)	TOLUENE	13.04	92	13680	0.47 PPBV		100
68)	1,3-DICHLOROPROPANE	13.06	76	11032	0.47 PPBV	#	76
69)	trans-1,3-DICHLOROPROPENE	12.61	75	10875	0.46 PPBV		97
70)	1,1,2-TRICHLOROETHANE	12.78	83	6974	0.47 PPBV		98
72)	2-HEXANONE	13.30	58	9576	0.54 PPBV	#	79
73)	ETHYL METHACRYLATE	13.27	69	12276	0.50 PPBV		90
74)	TETRACHLOROETHYLENE	14.12	164	9410	0.49 PPBV		99
75)	DIBROMOCHLOROMETHANE	13.45	129	14939	0.49 PPBV		99
76)	1,2-DIBROMOETHANE	13.69	107	12217	0.48 PPBV		100
77)	OCTANE	13.93	43	16555	0.52 PPBV		95
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	10273	0.48 PPBV		97
79)	CHLOROBENZENE	14.78	112	17860	0.47 PPBV	#	76
80)	ETHYLBENZENE	15.15	91	27991	0.49 PPBV		97
81)	m,p-XYLENE	15.32	106	21352	0.96 PPBV		96
82)	o-XYLENE	15.81	106	10211	0.47 PPBV		97
83)	STYRENE	15.70	104	16160	0.48 PPBV		97
84)	NONANE	16.00	43	17574	0.52 PPBV		96
85)	BROMOFORM	15.43	173	13867	0.46 PPBV		97
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	16469	0.48 PPBV		99
88)	1,2,3-TRICHLOROPROPANE	15.94	75	12492	0.50 PPBV		96
89)	ISOPROPYLBENZENE	16.42	105	31793	0.49 PPBV		99
90)	BROMOBENZENE	16.53	77	15240	0.49 PPBV		96
91)	2-CHLOROTOLUENE	16.94	126	7540	0.48 PPBV		98
92)	n-PROPYLBENZENE	16.97	120	8023	0.45 PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	27581	0.47 PPBV		98
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	24546	0.47 PPBV		100
95)	ALPHA-METHYLSTYRENE	17.38	118	11225	0.44 PPBV		100
96)	tert-BUTYLBENZENE	17.64	134	6000	0.48 PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	23126	0.46 PPBV		98
98)	m-DICHLOROBENZENE	17.82	146	14263	0.46 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52931.D   Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                      Operator: YOUMINH
Sample    : IC1998-0.5                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:48 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

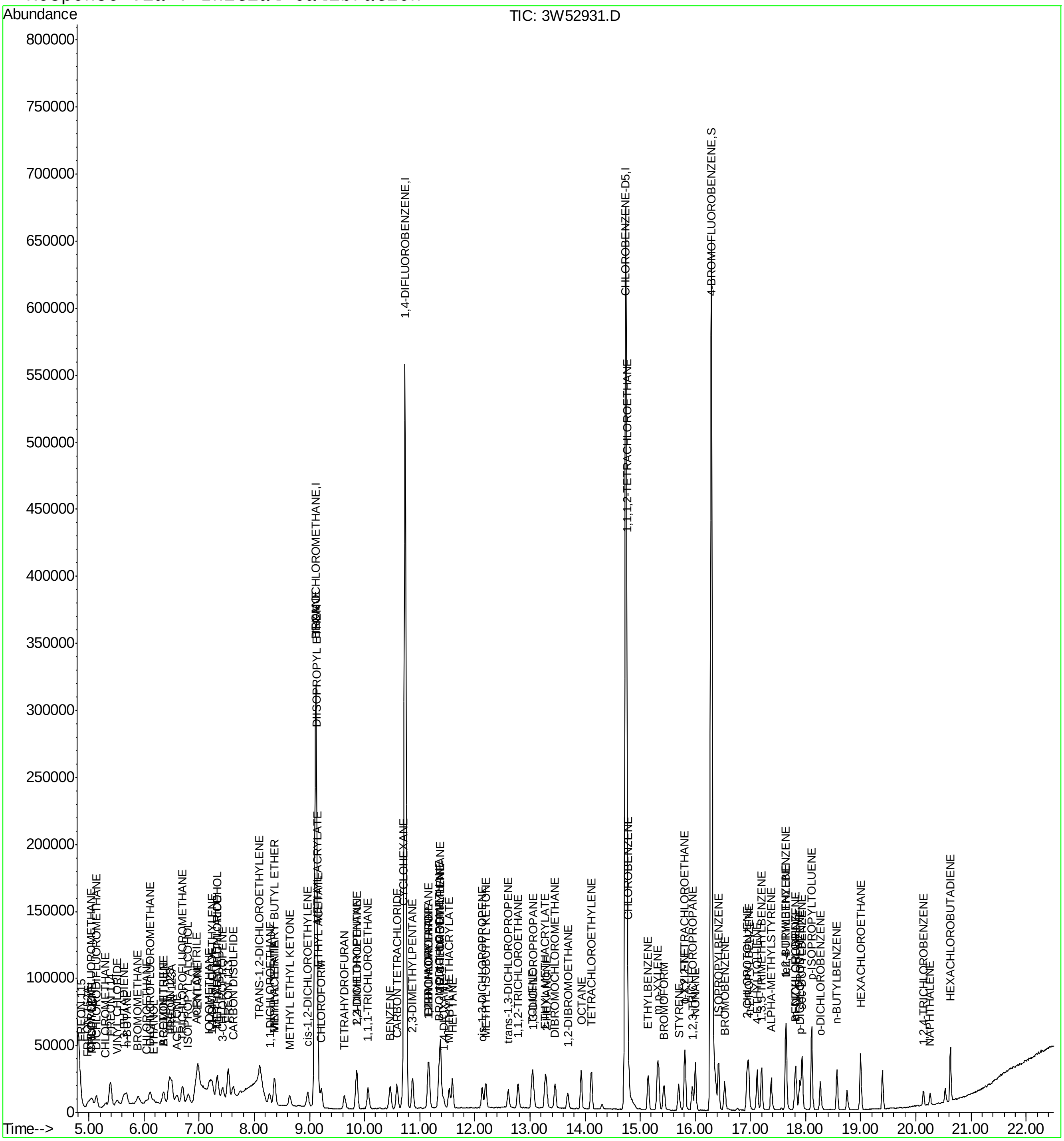
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	17379	0.43	PPBV	99
100)	p-DICHLOROBENZENE	17.90	146	14886	0.47	PPBV	99
101)	sec-BUTYLBENZENE	17.94	134	7066	0.47	PPBV	94
102)	p-ISOPROPYLTOLUENE	18.11	134	7401	0.46	PPBV	98
103)	o-DICHLOROBENZENE	18.27	146	13124	0.46	PPBV	98
104)	n-BUTYLBENZENE	18.57	134	6039	0.45	PPBV	97
105)	HEXACHLOROETHANE	19.00	117	10755	0.47	PPBV	96
106)	HEXACHLOROBUTADIENE	20.63	225	8817	0.51	PPBV	99
107)	1,2,4-TRICHLOROBENZENE	20.13	180	4630	0.44	PPBV	98
108)	NAPHTHALENE	20.26	128	9038	0.45	PPBV	99

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52931.D   Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                     Operator: YOUMINH
Sample    : IC1998-0.5                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:23 2016              Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

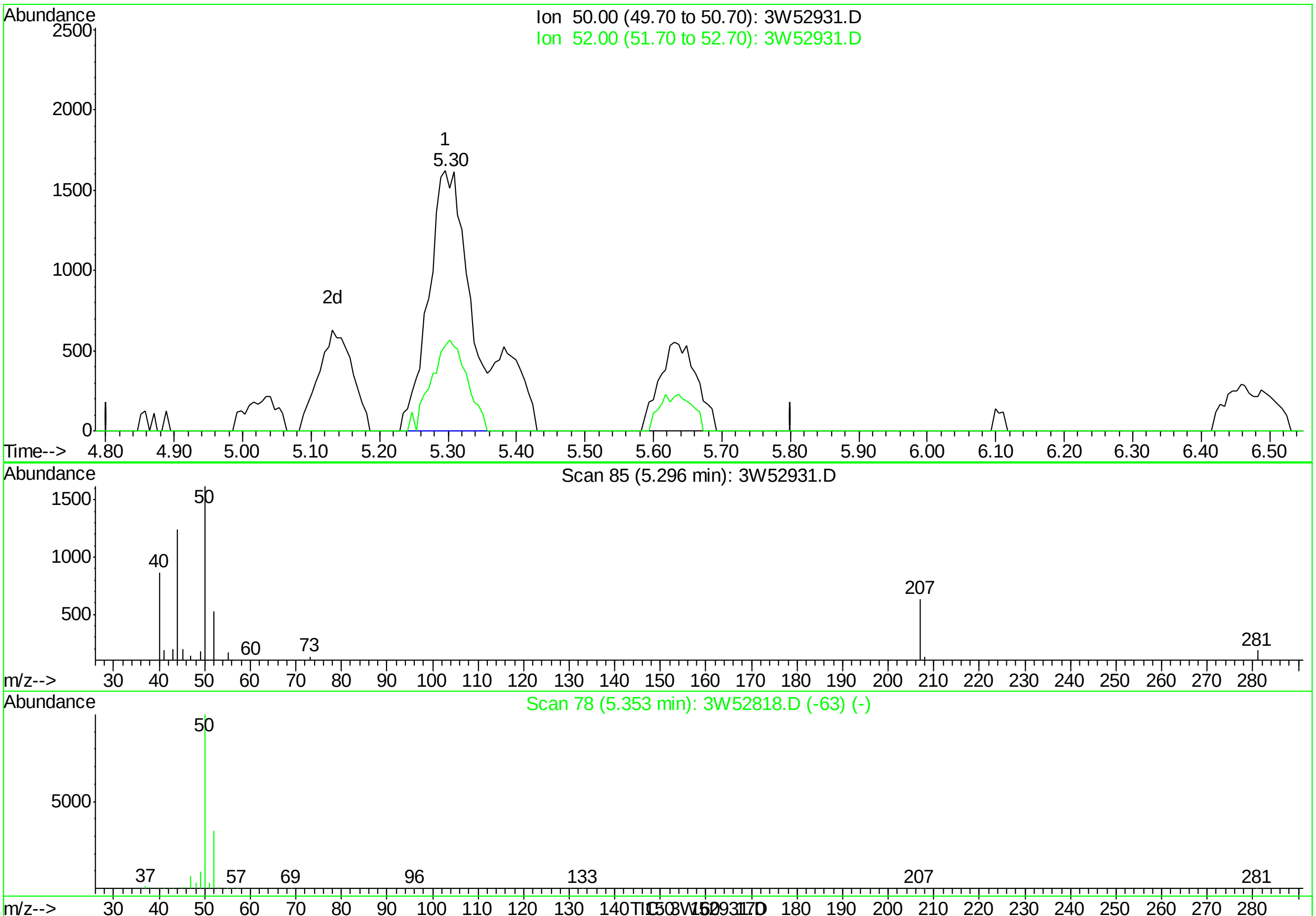
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52931.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/22/16 21:10	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.63	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52931.D                   Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                     Operator: YOUMINH
Sample    : IC1998-0.5                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:24 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 0.58PPBV

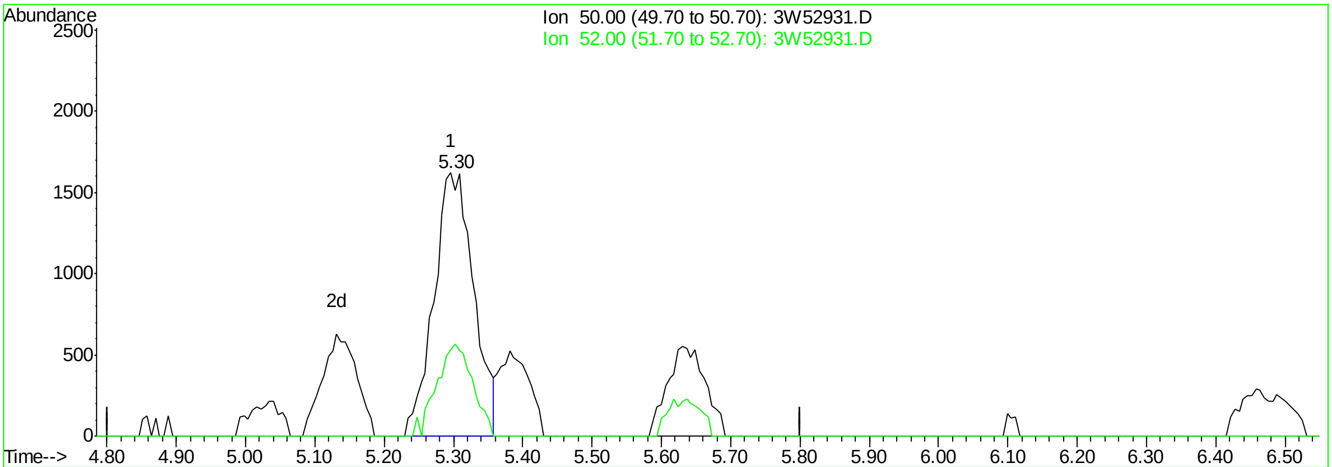
response 7984

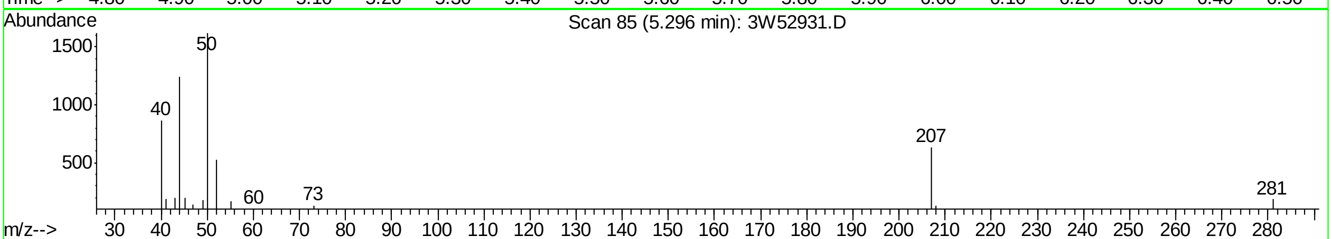
Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.78
0.00	0.00	0.00
0.00	0.00	0.00

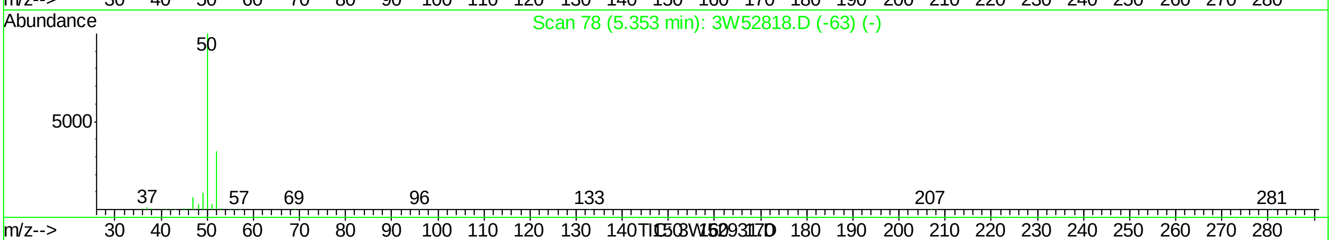
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52931.D                Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                  Operator: YOUMINH
Sample    : IC1998-0.5                             Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:38 2016           Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```







(10) CHLOROMETHANE

5.30min 0.47PPBV m

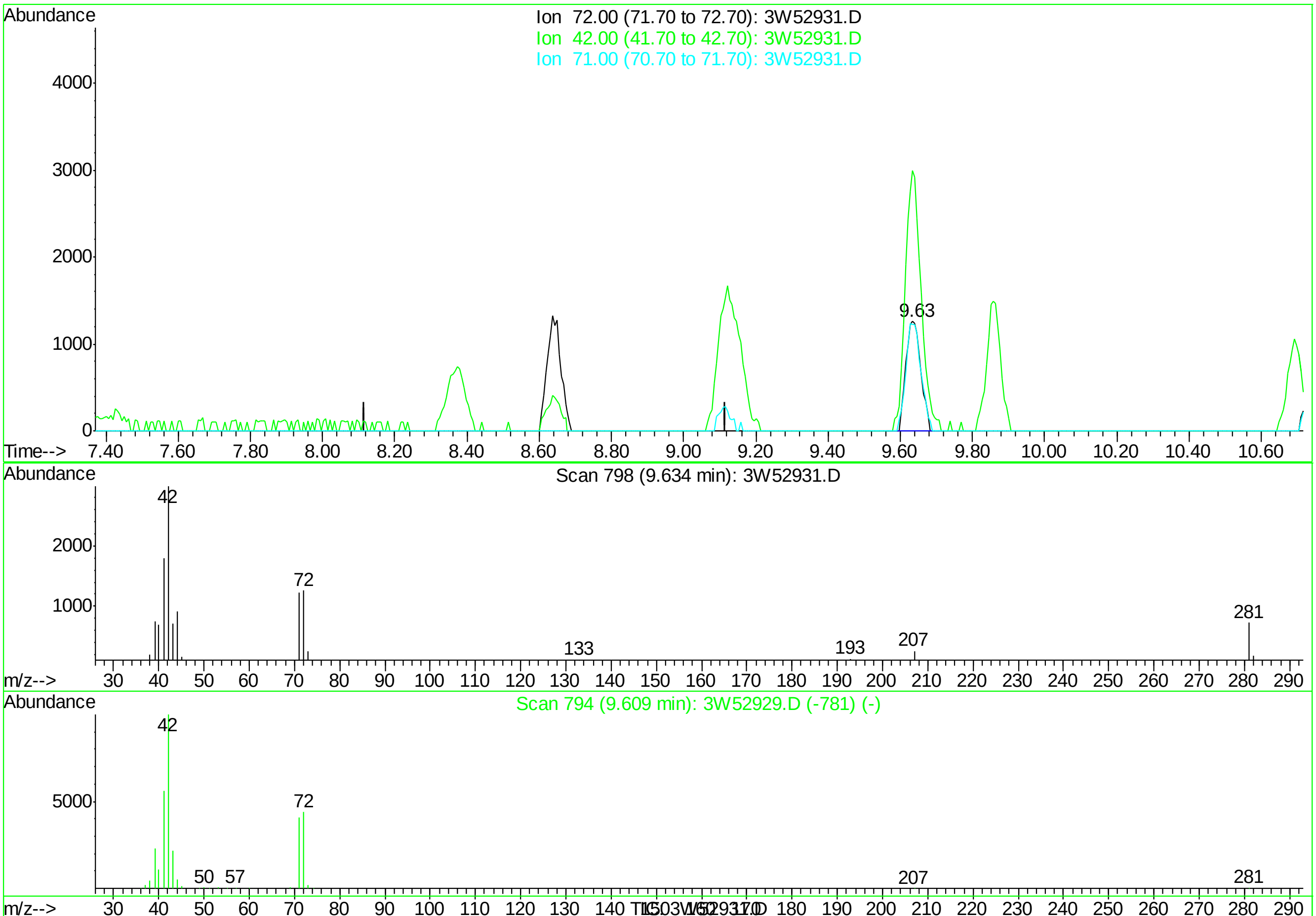
response 6432

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.78
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52931.D   Vial: 2
Acq On    : 22 Mar 2016   9:10 pm                      Operator: YOUMINH
Sample    : IC1998-0.5                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:23 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:29:33 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.63min 0.51PPBV m

response 3580

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	31.26
71.00	3.90	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52932.D   Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                      Operator: YOUMINH
Sample    : IC1998-0.2                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:49 2016            Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	113840	10.00	PPBV		0.00
52) 1,4-DIFLUOROBENZENE	10.73	114	560929	10.00	PPBV		0.00
71) CHLOROBENZENE-D5	14.74	82	271350	10.00	PPBV		0.00
System Monitoring Compounds							
86) 4-BROMOFLUOROBENZENE	16.29	95	300213	9.63	PPBV		0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 96.30%				
Target Compounds							Qvalue
3) FREON 115	4.86	85	710	0.21	PPBV	#	100
4) FREON 152A	4.98	65	1838	0.24	PPBV	#	44
5) CHLORODIFLUOROMETHANE	5.04	67	749	0.23	PPBV	#	42
6) DICHLORODIFLUOROMETHANE	5.14	85	7607	0.22	PPBV		99
7) PROPYLENE	5.06	41	3248	0.31	PPBV		94
9) FREON 114	5.39	85	7955	0.23	PPBV		97
10) CHLOROMETHANE	5.31	50	3034	0.25	PPBV		90
11) VINYL CHLORIDE	5.52	62	2948	0.21	PPBV	#	92
12) 1,3-BUTADIENE	5.64	54	2762	0.25	PPBV		92
13) n-BUTANE	5.69	43	5930	0.27	PPBV	#	94
14) BROMOMETHANE	5.89	94	3182	0.25	PPBV	#	68
15) CHLOROETHANE	6.03	64	1579	0.22	PPBV	#	35
16) DICHLOROFLUOROMETHANE	6.11	67	6950	0.24	PPBV	#	84
17) ACETONITRILE	6.37	41	2521	0.26	PPBV		88
18) FREON 123	6.46	83	6813	0.22	PPBV		92
19) FREON 123A	6.50	117	3837	0.21	PPBV	#	84
20) TRICHLOROFLUOROMETHANE	6.70	101	7290	0.23	PPBV		98
22) ISOPROPYL ALCOHOL	6.81	45	6347	0.25	PPBV		76
23) ACETONE	6.60	58	1667	0.28	PPBV	#	78
24) PENTANE	6.98	42	3829m	0.26	PPBV		
26) IODOMETHANE	7.19	142	7366	0.22	PPBV		99
27) 1,1-DICHLOROETHYLENE	7.23	96	3688	0.28	PPBV	#	81
28) CARBON DISULFIDE	7.62	76	8544	0.22	PPBV		91
29) ETHANOL	6.19	45	1954	0.35	PPBV	#	82
30) BROMOETHENE	6.35	106	2925	0.22	PPBV	#	94
31) ACRYLONITRILE	6.95	52	1762	0.23	PPBV	#	82
32) METHYLENE CHLORIDE	7.33	84	2607	0.23	PPBV		98
33) 3-CHLOROPROPENE	7.42	76	1292	0.21	PPBV	#	74
34) FREON 113	7.53	151	4430	0.21	PPBV		95
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	3724	0.29	PPBV	#	76
36) TERTIARY BUTYL ALCOHOL	7.35	59	7020	0.21	PPBV		96
37) METHYL TERTIARY BUTYL ETHE	8.37	73	8188	0.23	PPBV		90
38) TETRAHYDROFURAN	9.63	72	1336m	0.22	PPBV		
39) HEXANE	9.11	57	4498	0.23	PPBV		88
40) VINYL ACETATE	8.39	86	605	0.20	PPBV	#	81
41) 1,1-DICHLOROETHANE	8.28	63	5156	0.22	PPBV		97
42) METHYL ETHYL KETONE	8.64	72	1374	0.22	PPBV		95
43) cis-1,2-DICHLOROETHYLENE	8.96	96	3037	0.23	PPBV		94
44) DIISOPROPYL ETHER	9.15	59	1300	0.23	PPBV	#	65
45) ETHYL ACETATE	9.16	61	808	0.20	PPBV	#	9
46) METHYL ACRYLATE	9.15	55	5604	0.24	PPBV	#	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52932.D Vial: 2
Acq On : 22 Mar 2016 9:50 pm Operator: YOUMINH
Sample : IC1998-0.2 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:49 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.22	83	5931	0.22	PPBV		95
48)	2,4-DIMETHYLPENTANE	9.86	57	5123	0.21	PPBV		97
49)	1,1,1-TRICHLOROETHANE	10.06	97	6142	0.22	PPBV		97
50)	CARBON TETRACHLORIDE	10.59	117	6158	0.22	PPBV		98
51)	1,2-DICHLOROETHANE	9.85	62	3779	0.22	PPBV		95
53)	BENZENE	10.46	78	8540	0.22	PPBV		98
54)	CYCLOHEXANE	10.70	84	4445	0.26	PPBV	#	1
55)	2,3-DIMETHYLPENTANE	10.87	71	1818	0.20	PPBV	#	83
56)	TRICHLOROETHYLENE	11.37	95	3727	0.22	PPBV		98
57)	1,2-DICHLOROPROPANE	11.17	63	3089	0.22	PPBV		98
58)	DIBROMOMETHANE	11.15	174	3297	0.21	PPBV		94
59)	ETHYL ACRYLATE	11.15	55	6332	0.23	PPBV	#	84
60)	BROMODICHLOROMETHANE	11.34	83	6238	0.21	PPBV		98
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	13588	0.21	PPBV		99
62)	1,4-DIOXANE	11.45	88	1881	0.20	PPBV	#	31
63)	HEPTANE	11.59	43	5739	0.26	PPBV		89
64)	METHYL METHACRYLATE	11.54	69	2962	0.22	PPBV		87
65)	METHYL ISOBUTYL KETONE	12.20	58	2463	0.21	PPBV	#	84
66)	cis-1,3-DICHLOROPROPENE	12.14	75	5126	0.21	PPBV		92
67)	TOLUENE	13.04	92	5133	0.20	PPBV		97
68)	1,3-DICHLOROPROPANE	13.06	76	4329	0.21	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.61	75	4265	0.21	PPBV		93
70)	1,1,2-TRICHLOROETHANE	12.78	83	2842	0.22	PPBV		95
72)	2-HEXANONE	13.30	58	3226	0.21	PPBV	#	74
73)	ETHYL METHACRYLATE	13.28	69	4636	0.21	PPBV		90
74)	TETRACHLOROETHYLENE	14.11	164	3735	0.22	PPBV		97
75)	DIBROMOCHLOROMETHANE	13.45	129	5783	0.21	PPBV		98
76)	1,2-DIBROMOETHANE	13.69	107	4909	0.22	PPBV	#	98
77)	OCTANE	13.93	43	6843	0.24	PPBV		95
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	4149	0.22	PPBV		97
79)	CHLOROBENZENE	14.78	112	6861	0.21	PPBV	#	40
80)	ETHYLBENZENE	15.14	91	10350	0.21	PPBV		99
81)	m,p-XYLENE	15.32	106	7969	0.41	PPBV		99
82)	o-XYLENE	15.81	106	3691	0.19	PPBV		95
83)	STYRENE	15.69	104	5620	0.19	PPBV		99
84)	NONANE	16.00	43	7109	0.24	PPBV		95
85)	BROMOFORM	15.43	173	5005	0.19	PPBV		96
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	6223	0.21	PPBV		98
88)	1,2,3-TRICHLOROPROPANE	15.94	75	4811	0.22	PPBV		92
89)	ISOPROPYLBENZENE	16.42	105	12109	0.21	PPBV		98
90)	BROMOBENZENE	16.53	77	5809	0.21	PPBV		94
91)	2-CHLOROTOLUENE	16.94	126	2776	0.20	PPBV		97
92)	n-PROPYLBENZENE	16.96	120	2921	0.19	PPBV		99
93)	4-ETHYLTOLUENE	17.12	105	10532m	0.20	PPBV		
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	9304	0.20	PPBV		99
95)	ALPHA-METHYLSTYRENE	17.38	118	4037	0.18	PPBV		97
96)	tert-BUTYLBENZENE	17.64	134	2311	0.21	PPBV		98
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	8910	0.20	PPBV		95
98)	m-DICHLOROBENZENE	17.82	146	5605	0.20	PPBV		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52932.D   Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                       Operator: YOUMINH
Sample    : IC1998-0.2                                  Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:49 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

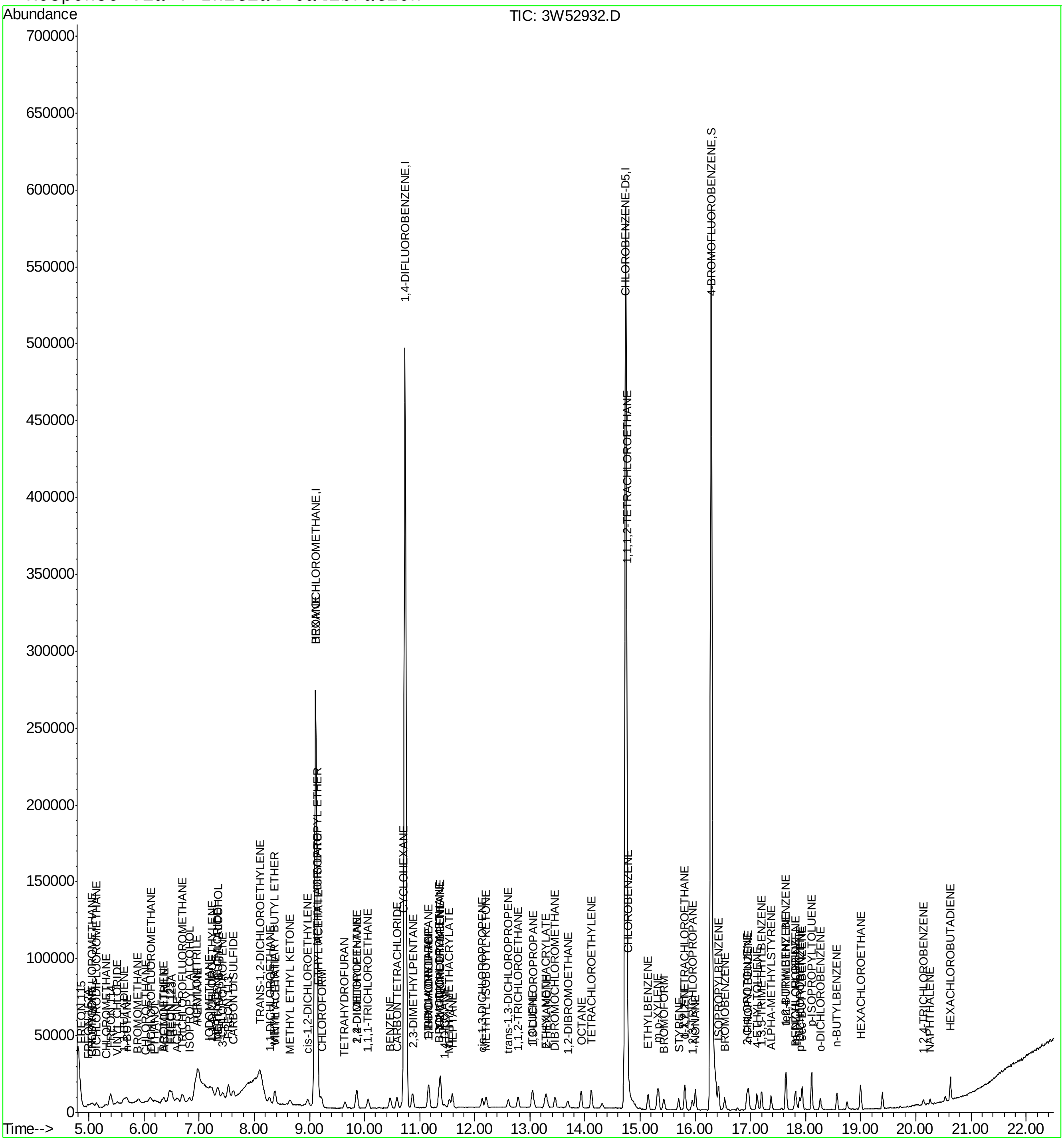
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
99)	BENZYL CHLORIDE	17.80	91	6732	0.19	PPBV	98
100)	p-DICHLOROBENZENE	17.90	146	5597	0.20	PPBV	97
101)	sec-BUTYLBENZENE	17.94	134	2640	0.20	PPBV	94
102)	p-ISOPROPYLTOLUENE	18.11	134	2797	0.20	PPBV	94
103)	o-DICHLOROBENZENE	18.27	146	5092	0.20	PPBV	97
104)	n-BUTYLBENZENE	18.57	134	2212	0.19	PPBV	95
105)	HEXACHLOROETHANE	18.99	117	4321	0.22	PPBV	97
106)	HEXACHLOROBUTADIENE	20.63	225	3423	0.23	PPBV	98
107)	1,2,4-TRICHLOROBENZENE	20.14	180	1666	0.18	PPBV	92
108)	NAPHTHALENE	20.26	128	3304	0.19	PPBV	97

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52932.D   Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                      Operator: YOUMINH
Sample    : IC1998-0.2                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016              Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



7.7.16
7

Manual Integration Approval Summary

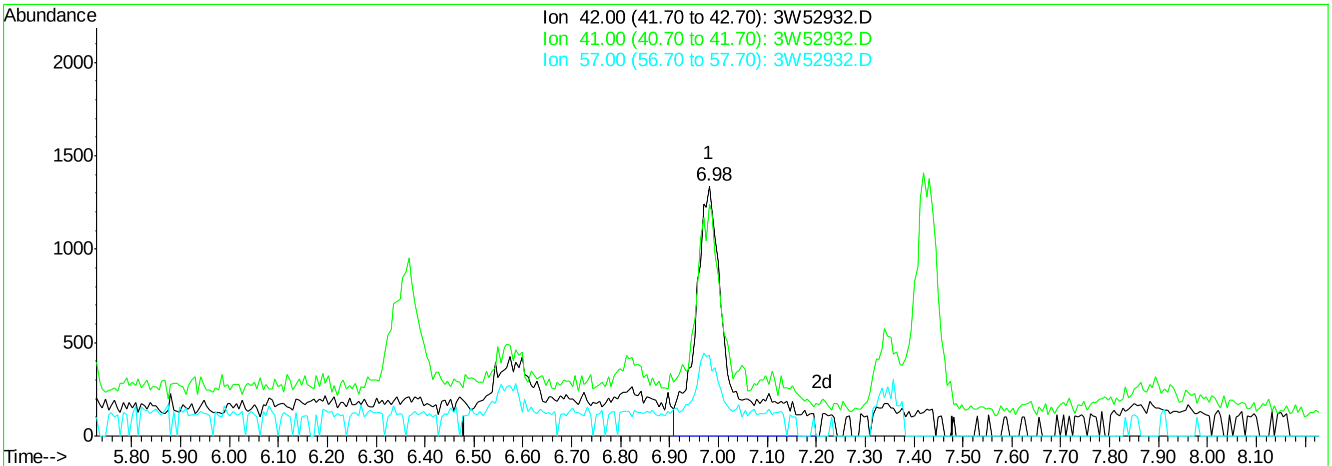
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52932.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/22/16 21:50	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

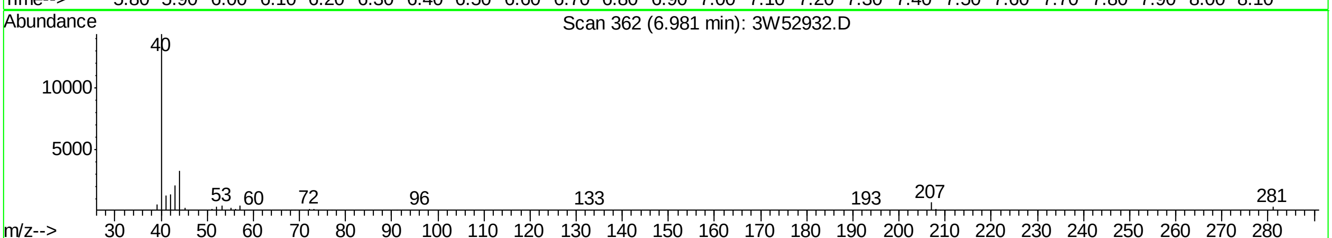
Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Pentane	109-66-0		6.98	Poor instrument integration
Tetrahydrofuran	109-99-9		9.63	Poor instrument integration
4-Ethyltoluene	622-96-8		17.12	Overlapping peak

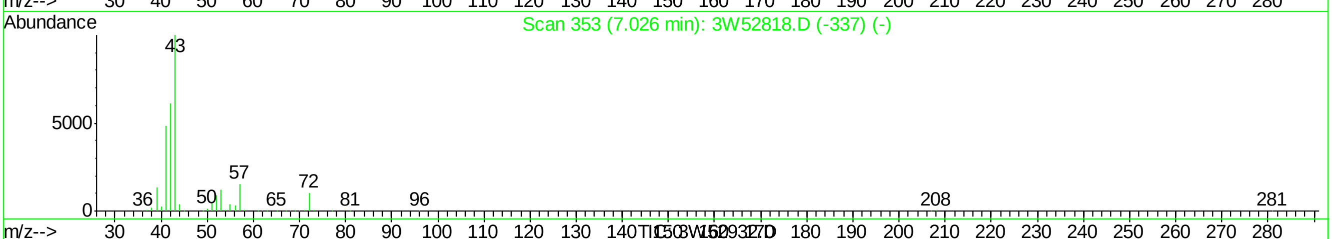
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52932.D                  Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                    Operator: YOUMINH
Sample    : IC1998-0.2                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:24 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 09:23:56 2016
Response via  : Multiple Level Calibration
```







(24) PENTANE

6.98min 0.44PPBV

response 6435

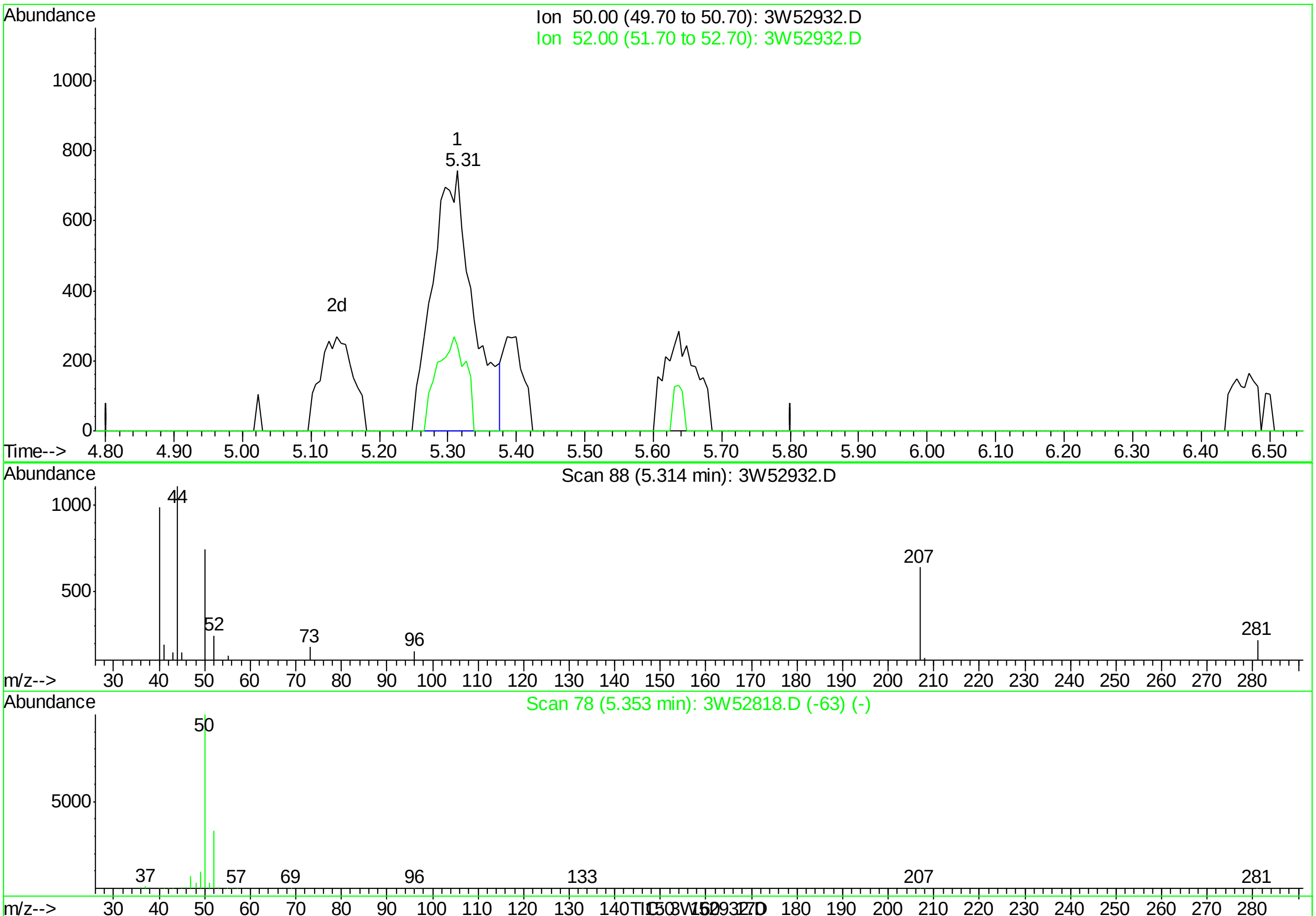
Ion	Exp%	Act%
42.00	100	100
41.00	83.90	50.07#
57.00	27.00	35.48
0.00	0.00	0.00

3W52932.D edits: PENTANE

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52932.D                Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                  Operator: YOUMINH
Sample    : IC1998-0.2                             Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:31 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 09:43:25 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.31min 0.25PPBV

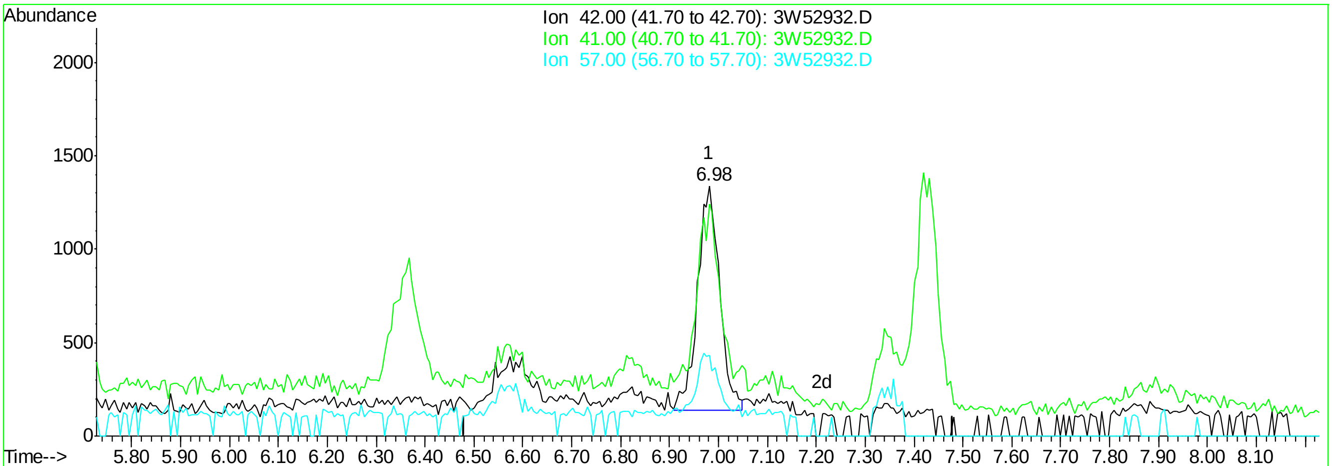
response 3034

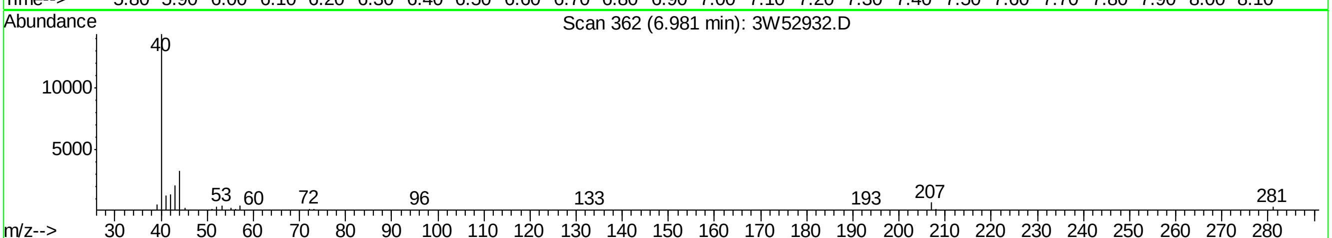
Ion	Exp%	Act%
50.00	100	100
52.00	32.30	37.87
0.00	0.00	0.00
0.00	0.00	0.00

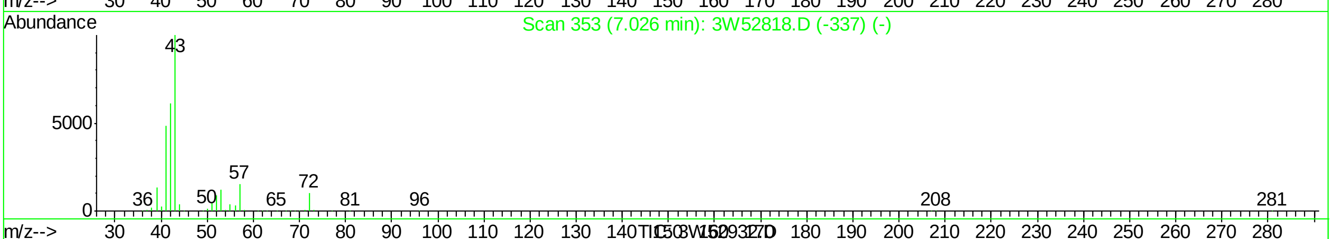
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52932.D                  Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                    Operator: YOUMINH
Sample    : IC1998-0.2                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:31 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 10:51:39 2016
Response via : Multiple Level Calibration
```







(24) PENTANE

6.98min 0.26PPBV m

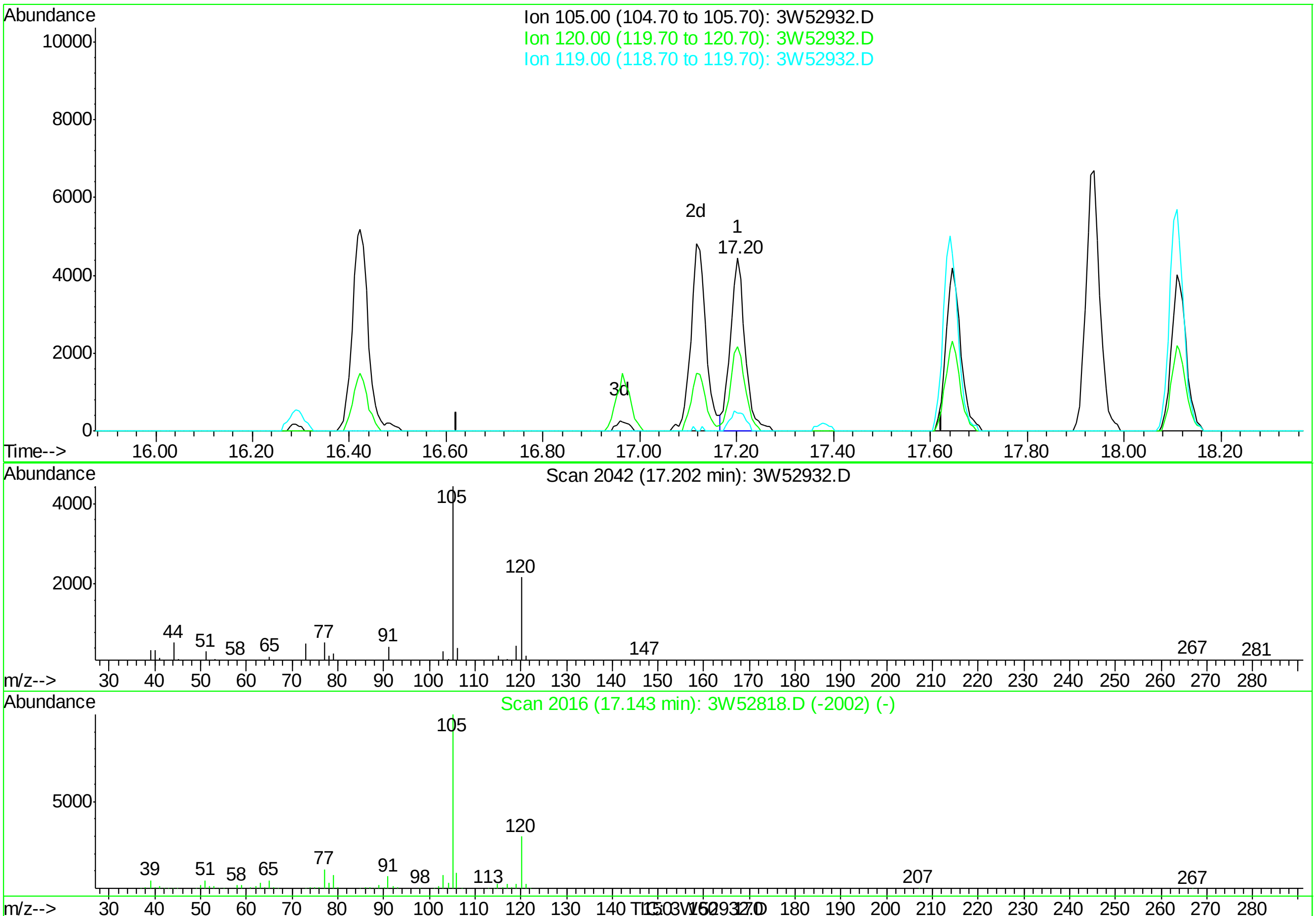
response 3829

Ion	Exp%	Act%
42.00	100	100
41.00	83.90	84.15
57.00	27.00	59.62#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52932.D                 Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                   Operator: YOUMINH
Sample    : IC1998-0.2                              Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:31 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 10:51:39 2016
Response via  : Multiple Level Calibration
```



(93) 4-ETHYLTOLUENE

17.20min 0.18PPBV

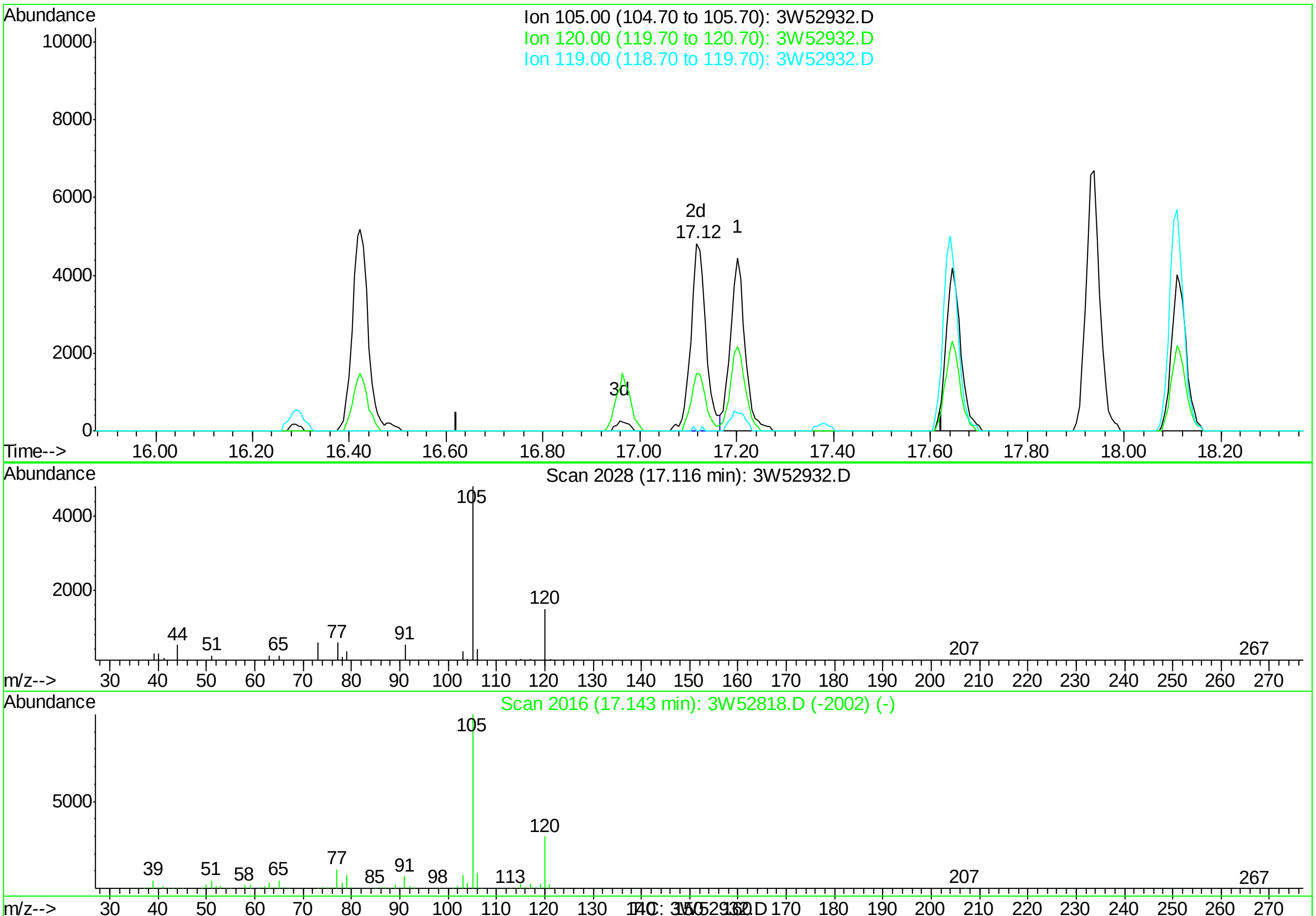
response 9304

Ion	Exp%	Act%
105.00	100	100
120.00	30.70	50.19
119.00	2.30	11.63
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52932.D                   Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                     Operator: YOUMINH
Sample    : IC1998-0.2                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 12:29 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 12:29:59 2016
Response via  : Multiple Level Calibration
```



(93) 4-ETHYLTOLUENE

17.12min 0.20PPBV m

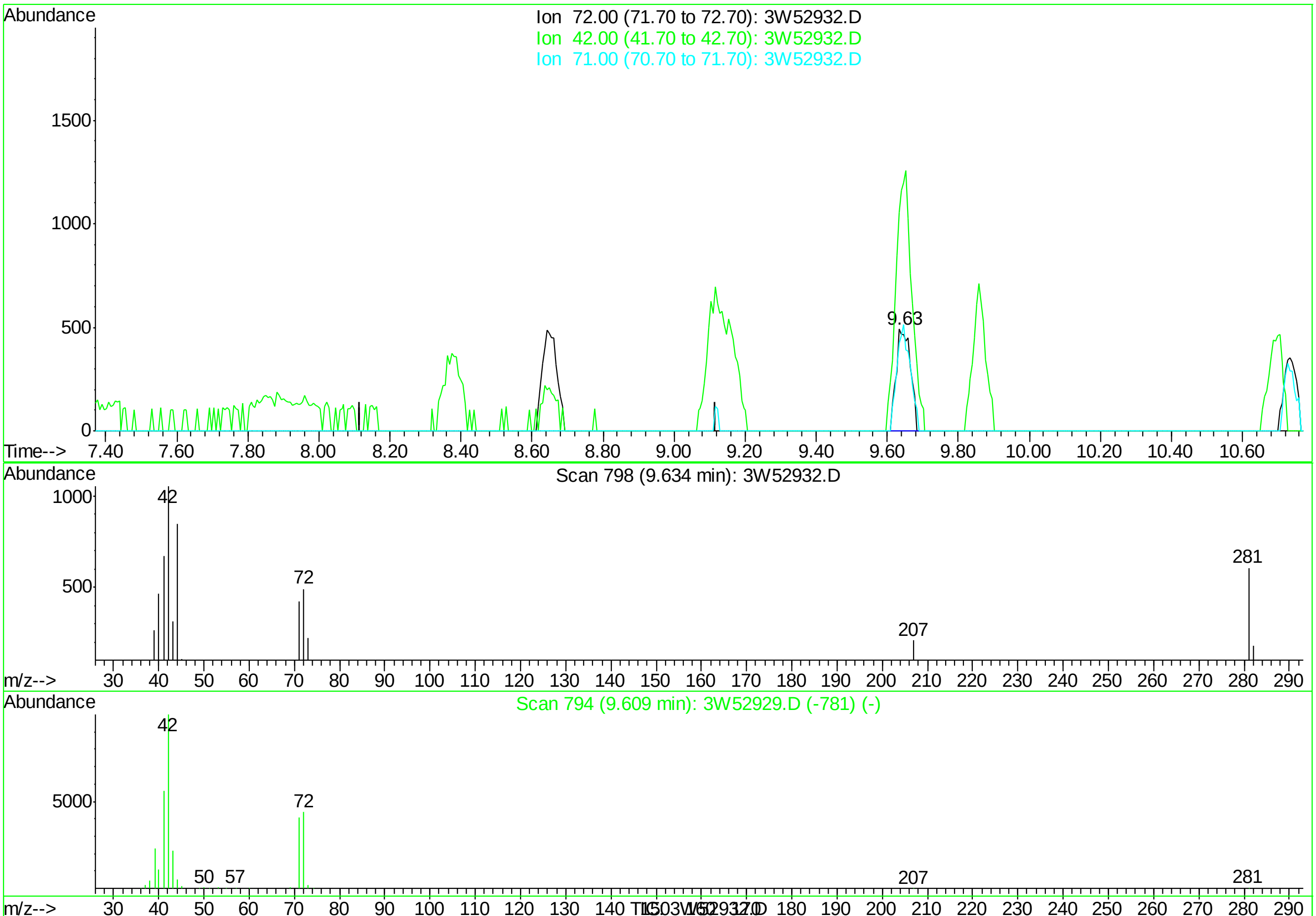
response 10532

Ion	Exp%	Act%
105.00	100	100
120.00	30.70	44.34
119.00	2.30	10.27
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52932.D   Vial: 2
Acq On    : 22 Mar 2016   9:50 pm                      Operator: YOUMINH
Sample    : IC1998-0.2                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.63min 0.22PPBV m

response 1336

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	47.98#
71.00	3.90	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52933.D   Vial: 1
Acq On    : 22 Mar 2016  10:31 pm                       Operator: YOUMINH
Sample    : IC1998-20                                   Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:50 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	113291	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.74	114	562380	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	312637	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.30	95	350593	9.76	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 97.60%

Target Compounds

Compound	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	76466	22.47	PPBV #	100
4) FREON 152A	4.98	65	174759	22.82	PPBV	99
5) CHLORODIFLUOROMETHANE	5.02	67	76282	23.03	PPBV	99
6) DICHLORODIFLUOROMETHANE	5.13	85	752348	21.98	PPBV	100
7) PROPYLENE	5.06	41	232901	22.17	PPBV	99
9) FREON 114	5.39	85	782513	22.82	PPBV	98
10) CHLOROMETHANE	5.30	50	265098m	22.03	PPBV	
11) VINYL CHLORIDE	5.51	62	316780	22.41	PPBV	100
12) 1,3-BUTADIENE	5.63	54	252282	23.07	PPBV	97
13) n-BUTANE	5.68	43	499680	22.91	PPBV	98
14) BROMOMETHANE	5.89	94	278465	22.13	PPBV	99
15) CHLOROETHANE	6.04	64	159804	22.70	PPBV	99
16) DICHLOROFLUOROMETHANE	6.11	67	657868	23.29	PPBV	100
17) ACETONITRILE	6.34	41	246790	25.56	PPBV	99
18) FREON 123	6.45	83	717790	23.17	PPBV	100
19) FREON 123A	6.50	117	410210	22.84	PPBV	97
20) TRICHLOROFLUOROMETHANE	6.70	101	731043	23.28	PPBV	99
22) ISOPROPYL ALCOHOL	6.77	45	612270	23.89	PPBV	100
23) ACETONE	6.57	58	145512	24.22	PPBV	95
24) PENTANE	6.97	42	344922	23.85	PPBV	99
26) IODOMETHANE	7.19	142	759094	22.76	PPBV	99
27) 1,1-DICHLOROETHYLENE	7.23	96	301266	22.98	PPBV	98
28) CARBON DISULFIDE	7.61	76	865359	22.79	PPBV	100
29) ETHANOL	6.15	45	133103	24.03	PPBV	98
30) BROMOETHENE	6.35	106	289549	22.30	PPBV	100
31) ACRYLONITRILE	6.94	52	190990	24.99	PPBV	99
32) METHYLENE CHLORIDE	7.33	84	263469	23.25	PPBV	95
33) 3-CHLOROPROPENE	7.43	76	144958	23.14	PPBV	96
34) FREON 113	7.53	151	487342	23.07	PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	300564	23.69	PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.29	59	777191	23.52	PPBV	98
37) METHYL TERTIARY BUTYL ETHE	8.33	73	837201	23.82	PPBV	99
38) TETRAHYDROFURAN	9.60	72	145251m	23.67	PPBV	
39) HEXANE	9.11	57	483112	24.31	PPBV	100
40) VINYL ACETATE	8.37	86	73645	24.96	PPBV	99
41) 1,1-DICHLOROETHANE	8.28	63	546719	23.47	PPBV	100
42) METHYL ETHYL KETONE	8.62	72	147065	23.96	PPBV	95
43) cis-1,2-DICHLOROETHYLENE	8.97	96	307726	23.19	PPBV	99
44) DIISOPROPYL ETHER	9.12	59	141311	24.63	PPBV	99
45) ETHYL ACETATE	9.14	61	98303	24.74	PPBV	99
46) METHYL ACRYLATE	9.14	55	569466	24.93	PPBV	100

(#) = qualifier out of range (m) = manual integration

7.7.17

7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52933.D Vial: 1
Acq On : 22 Mar 2016 10:31 pm Operator: YOUMINH
Sample : IC1998-20 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:50 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.22	83	626491	23.60 PPBV		98
48)	2,4-DIMETHYLPENTANE	9.86	57	575220	24.17 PPBV		100
49)	1,1,1-TRICHLOROETHANE	10.07	97	643237	23.63 PPBV		99
50)	CARBON TETRACHLORIDE	10.59	117	667063	23.48 PPBV		100
51)	1,2-DICHLOROETHANE	9.85	62	405582	23.65 PPBV		100
53)	BENZENE	10.47	78	924035	23.79 PPBV		100
54)	CYCLOHEXANE	10.70	84	410252	23.73 PPBV		97
55)	2,3-DIMETHYLPENTANE	10.87	71	215800	24.11 PPBV		99
56)	TRICHLOROETHYLENE	11.37	95	416848	24.29 PPBV		99
57)	1,2-DICHLOROPROPANE	11.17	63	343956	24.33 PPBV		100
58)	DIBROMOMETHANE	11.16	174	378361	23.87 PPBV		99
59)	ETHYL ACRYLATE	11.14	55	700511	25.27 PPBV		100
60)	BROMODICHLOROMETHANE	11.35	83	706448	24.20 PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.38	57	1589662	24.75 PPBV		100
62)	1,4-DIOXANE	11.40	88	227996	24.76 PPBV	#	1
63)	HEPTANE	11.60	43	555926	24.98 PPBV		100
64)	METHYL METHACRYLATE	11.53	69	338498	25.18 PPBV		99
65)	METHYL ISOBUTYL KETONE	12.18	58	295796	24.91 PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.14	75	580571	24.11 PPBV		100
67)	TOLUENE	13.04	92	647556	24.94 PPBV		100
68)	1,3-DICHLOROPROPANE	13.06	76	533750	25.39 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.61	75	503385	24.28 PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.78	83	320998	24.43 PPBV		100
72)	2-HEXANONE	13.28	58	427652	23.61 PPBV		98
73)	ETHYL METHACRYLATE	13.27	69	593206	23.71 PPBV		100
74)	TETRACHLOROETHYLENE	14.12	164	434906	22.34 PPBV		99
75)	DIBROMOCHLOROMETHANE	13.46	129	708804	22.81 PPBV		100
76)	1,2-DIBROMOETHANE	13.69	107	585550	22.52 PPBV		100
77)	OCTANE	13.93	43	760523	23.34 PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.77	131	495244	22.56 PPBV		99
79)	CHLOROBENZENE	14.79	112	875686	22.87 PPBV		100
80)	ETHYLBENZENE	15.15	91	1387369	24.00 PPBV		100
81)	m,p-XYLENE	15.33	106	1104412	48.90 PPBV		100
82)	o-XYLENE	15.81	106	542842	24.75 PPBV		99
83)	STYRENE	15.70	104	825685	24.25 PPBV		100
84)	NONANE	16.00	43	815170	23.52 PPBV		99
85)	BROMOFORM	15.43	173	712041	23.18 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	816246	23.43 PPBV		99
88)	1,2,3-TRICHLOROPROPANE	15.95	75	606204	24.05 PPBV		100
89)	ISOPROPYLBENZENE	16.42	105	1600915	24.15 PPBV		100
90)	BROMOBENZENE	16.54	77	749799	23.81 PPBV		100
91)	2-CHLOROTOLUENE	16.94	126	388797	24.23 PPBV		100
92)	n-PROPYLBENZENE	16.96	120	443951	24.71 PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	1475204	24.50 PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.21	105	1269336	24.12 PPBV		100
95)	ALPHA-METHYLSTYRENE	17.38	118	637121	24.45 PPBV		99
96)	tert-BUTYLBENZENE	17.65	134	313534	24.56 PPBV		98
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	1250600	24.70 PPBV		99
98)	m-DICHLOROBENZENE	17.82	146	795007	25.23 PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52933.D Vial: 1
Acq On : 22 Mar 2016 10:31 pm Operator: YOUMINH
Sample : IC1998-20 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:50 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

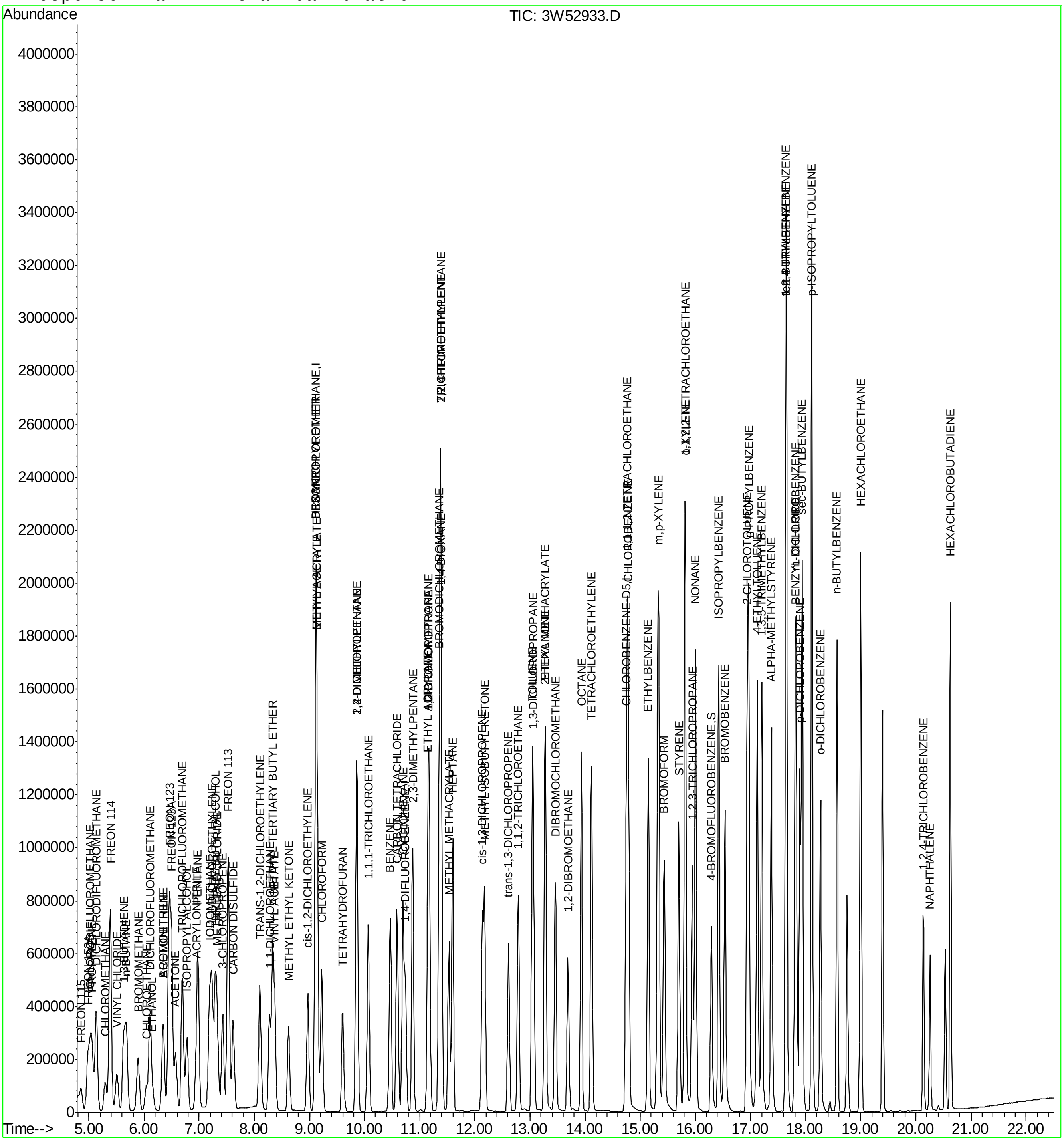
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	1029543	24.95	PPBV	100
100)	p-DICHLOROBENZENE	17.90	146	779632	24.06	PPBV	99
101)	sec-BUTYLBENZENE	17.94	134	379123	24.64	PPBV	98
102)	p-ISOPROPYLTOLUENE	18.11	134	409117	25.07	PPBV	97
103)	o-DICHLOROBENZENE	18.27	146	712658	24.80	PPBV	100
104)	n-BUTYLBENZENE	18.57	134	343202	25.31	PPBV	97
105)	HEXACHLOROETHANE	19.00	117	548983	23.74	PPBV	99
106)	HEXACHLOROBUTADIENE	20.63	225	436158	25.00	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	295328	27.47	PPBV	99
108)	NAPHTHALENE	20.26	128	560746	27.34	PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52933.D M3W1998.M Thu Mar 31 15:10:29 2016 MS3W Page 3

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52933.D   Vial: 1
Acq On    : 22 Mar 2016  10:31 pm                  Operator: YOUMINH
Sample    : IC1998-20                              Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016              Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

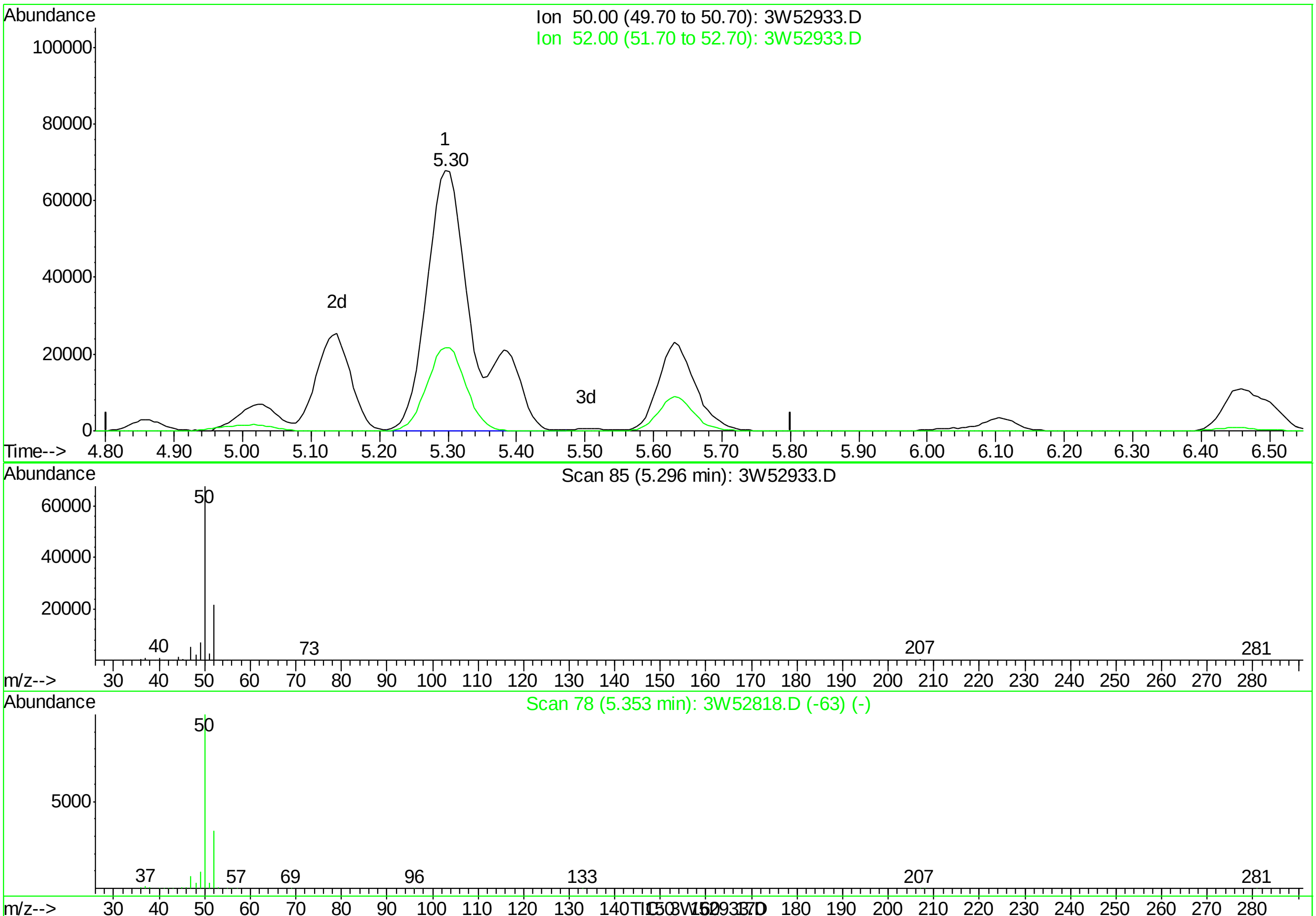
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52933.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/22/16 22:31	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.60	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52933.D                Vial: 1
Acq On    : 22 Mar 2016  10:31 pm                  Operator: YOUMINH
Sample    : IC1998-20                              Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:33 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 27.53PPBV

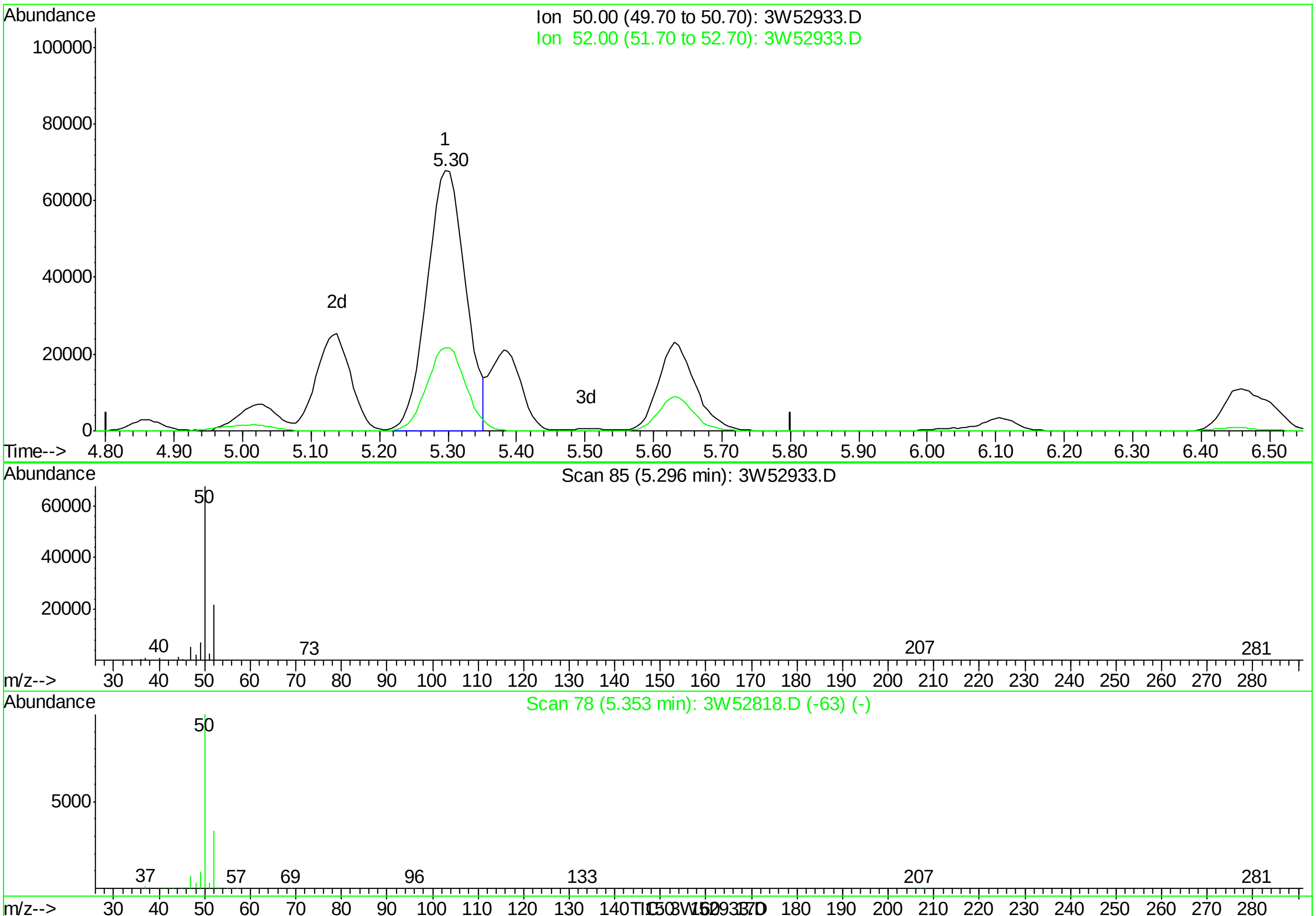
response 331278

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52933.D                Vial: 1
Acq On    : 22 Mar 2016  10:31 pm                   Operator: YOUMINH
Sample    : IC1998-20                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 10:50 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 10:51:39 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 22.03PPBV m

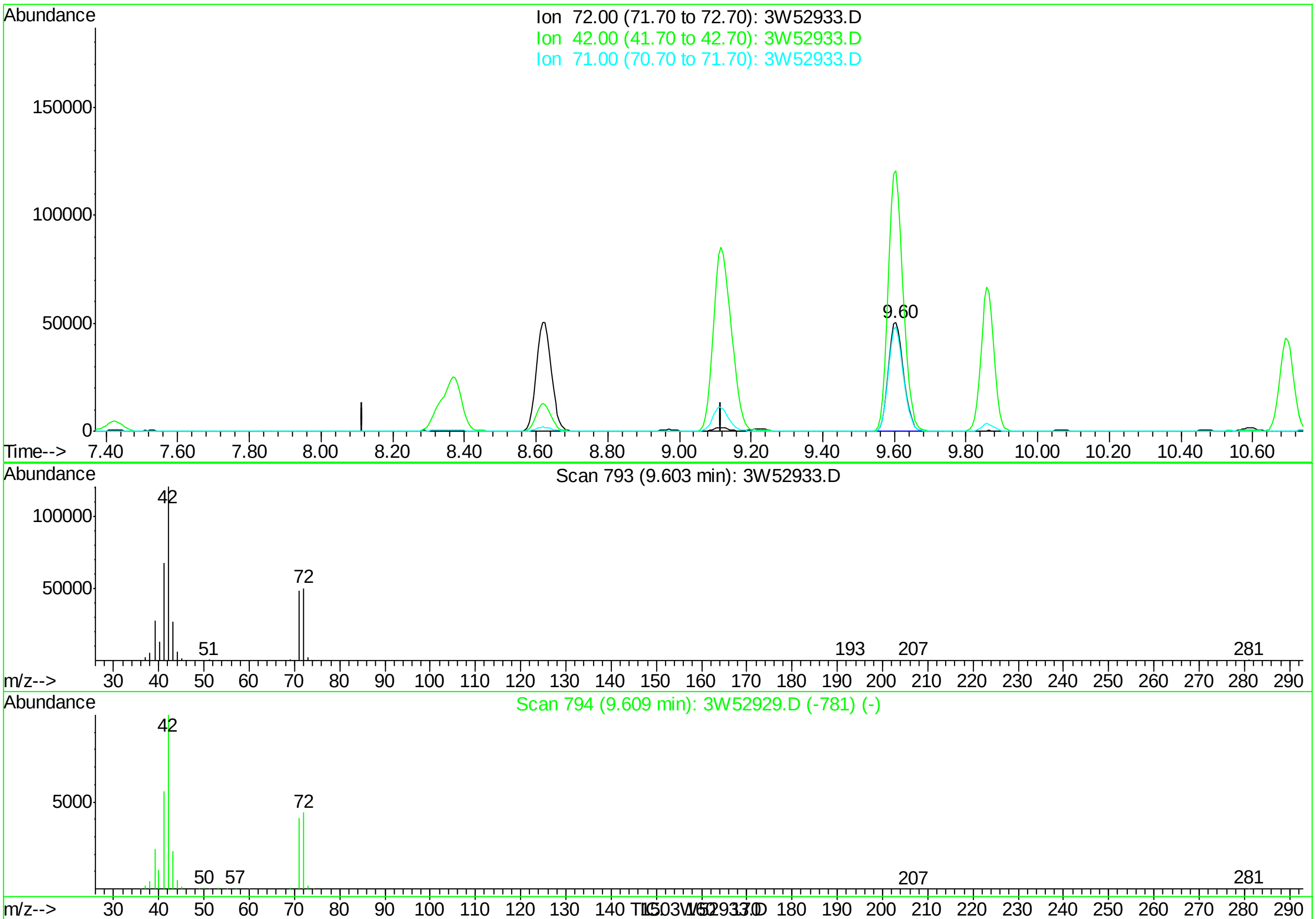
response 265098

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52933.D   Vial: 1
Acq On    : 22 Mar 2016  10:31 pm                      Operator: YOUMINH
Sample    : IC1998-20                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.60min 23.67PPBV m

response 145251

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	26.20
71.00	3.90	3.84
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

7.7.18

7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52934.D Vial: 1
Acq On : 22 Mar 2016 11:12 pm Operator: YOUMINH
Sample : IC1998-15 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:51 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	120785	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.74	114	594996	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	316631	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.29	95	355141	9.76	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 97.60%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	63842	17.59	PPBV #	100
4) FREON 152A	4.98	65	135374	16.58	PPBV	99
5) CHLORODIFLUOROMETHANE	5.02	67	58328	16.52	PPBV	100
6) DICHLORODIFLUOROMETHANE	5.13	85	583619	16.00	PPBV	100
7) PROPYLENE	5.05	41	178173	15.91	PPBV	99
9) FREON 114	5.38	85	614650	16.81	PPBV	100
10) CHLOROMETHANE	5.30	50	206032m	16.06	PPBV	
11) VINYL CHLORIDE	5.50	62	247088	16.40	PPBV	100
12) 1,3-BUTADIENE	5.63	54	193893	16.63	PPBV	100
13) n-BUTANE	5.67	43	381656	16.42	PPBV	98
14) BROMOMETHANE	5.89	94	224251	16.71	PPBV	99
15) CHLOROETHANE	6.04	64	125114	16.67	PPBV	100
16) DICHLOROFLUOROMETHANE	6.11	67	508946	16.90	PPBV	100
17) ACETONITRILE	6.34	41	180823	17.56	PPBV	99
18) FREON 123	6.45	83	567202	17.18	PPBV	100
19) FREON 123A	6.49	117	331347	17.31	PPBV	99
20) TRICHLOROFLUOROMETHANE	6.69	101	567735	16.96	PPBV	100
22) ISOPROPYL ALCOHOL	6.77	45	460500	16.85	PPBV	98
23) ACETONE	6.57	58	111048	17.34	PPBV	98
24) PENTANE	6.98	42	258395	16.76	PPBV	100
26) IODOMETHANE	7.18	142	611014	17.18	PPBV	100
27) 1,1-DICHLOROETHYLENE	7.23	96	238904	17.10	PPBV	99
28) CARBON DISULFIDE	7.61	76	682634	16.86	PPBV	99
29) ETHANOL	6.15	45	99488	16.84	PPBV	99
30) BROMOETHENE	6.34	106	235542	17.01	PPBV	100
31) ACRYLONITRILE	6.94	52	143719	17.64	PPBV	99
32) METHYLENE CHLORIDE	7.32	84	207138	17.14	PPBV	97
33) 3-CHLOROPROPENE	7.42	76	114450	17.13	PPBV	98
34) FREON 113	7.52	151	390253	17.32	PPBV	100
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	236393	17.48	PPBV	98
36) TERTIARY BUTYL ALCOHOL	7.29	59	593047	16.83	PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.33	73	647781	17.29	PPBV	100
38) TETRAHYDROFURAN	9.60	72	110488m	16.89	PPBV	
39) HEXANE	9.11	57	368014	17.37	PPBV	98
40) VINYL ACETATE	8.37	86	56430	17.94	PPBV #	95
41) 1,1-DICHLOROETHANE	8.28	63	424884	17.11	PPBV	100
42) METHYL ETHYL KETONE	8.62	72	113131	17.29	PPBV	96
43) cis-1,2-DICHLOROETHYLENE	8.97	96	241334	17.06	PPBV	100
44) DIISOPROPYL ETHER	9.12	59	105251	17.20	PPBV	100
45) ETHYL ACETATE	9.14	61	72782	17.18	PPBV	99
46) METHYL ACRYLATE	9.14	55	424862	17.45	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52934.D   Vial: 1
Acq On    : 22 Mar 2016  11:12 pm                       Operator: YOUMINH
Sample    : IC1998-15                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:51 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47) CHLOROFORM	9.22	83	483368	17.08	PPBV		98
48) 2,4-DIMETHYLPENTANE	9.86	57	437542	17.24	PPBV		100
49) 1,1,1-TRICHLOROETHANE	10.07	97	494426	17.03	PPBV		99
50) CARBON TETRACHLORIDE	10.59	117	512394	16.91	PPBV		100
51) 1,2-DICHLOROETHANE	9.85	62	304694	16.67	PPBV		100
53) BENZENE	10.46	78	710797	17.29	PPBV		100
54) CYCLOHEXANE	10.69	84	317001	17.33	PPBV		96
55) 2,3-DIMETHYLPENTANE	10.87	71	163923	17.31	PPBV		100
56) TRICHLOROETHYLENE	11.37	95	316505	17.43	PPBV		99
57) 1,2-DICHLOROPROPANE	11.17	63	258900	17.31	PPBV		99
58) DIBROMOMETHANE	11.16	174	290032	17.30	PPBV		100
59) ETHYL ACRYLATE	11.14	55	514262	17.54	PPBV		100
60) BROMODICHLOROMETHANE	11.35	83	533741	17.28	PPBV		100
61) 2,2,4-TRIMETHYLPENTANE	11.38	57	1190040	17.51	PPBV		100
62) 1,4-DIOXANE	11.40	88	169581	17.41	PPBV	#	8
63) HEPTANE	11.59	43	413871	17.57	PPBV		100
64) METHYL METHACRYLATE	11.53	69	250959	17.64	PPBV		98
65) METHYL ISOBUTYL KETONE	12.18	58	217181	17.29	PPBV		99
66) cis-1,3-DICHLOROPROPENE	12.13	75	439185	17.24	PPBV		99
67) TOLUENE	13.04	92	482455	17.56	PPBV		100
68) 1,3-DICHLOROPROPANE	13.06	76	395526	17.78	PPBV		99
69) trans-1,3-DICHLOROPROPENE	12.61	75	377900	17.23	PPBV		99
70) 1,1,2-TRICHLOROETHANE	12.79	83	242220	17.42	PPBV		100
72) 2-HEXANONE	13.28	58	311891	17.00	PPBV		98
73) ETHYL METHACRYLATE	13.27	69	430871	17.01	PPBV		99
74) TETRACHLOROETHYLENE	14.12	164	331399	16.81	PPBV		100
75) DIBROMOCHLOROMETHANE	13.45	129	529772	16.83	PPBV		100
76) 1,2-DIBROMOETHANE	13.69	107	444560	16.88	PPBV		100
77) OCTANE	13.93	43	559125	16.94	PPBV		100
78) 1,1,1,2-TETRACHLOROETHANE	14.76	131	373354	16.79	PPBV		100
79) CHLOROBENZENE	14.79	112	657239	16.95	PPBV		100
80) ETHYLBENZENE	15.15	91	1022703	17.47	PPBV		100
81) m,p-XYLENE	15.32	106	808165	35.33	PPBV		100
82) o-XYLENE	15.81	106	393865	17.73	PPBV		100
83) STYRENE	15.70	104	608414	17.65	PPBV		100
84) NONANE	16.00	43	594209	16.93	PPBV		100
85) BROMOFORM	15.43	173	531628	17.08	PPBV		100
87) 1,1,2,2-TETRACHLOROETHANE	15.81	83	597043	16.92	PPBV		99
88) 1,2,3-TRICHLOROPROPANE	15.94	75	445113	17.44	PPBV		100
89) ISOPROPYLBENZENE	16.42	105	1175811	17.51	PPBV		100
90) BROMOBENZENE	16.53	77	550749	17.27	PPBV		100
91) 2-CHLOROTOLUENE	16.94	126	284721	17.52	PPBV		100
92) n-PROPYLBENZENE	16.96	120	320452	17.61	PPBV		100
93) 4-ETHYLTOLUENE	17.12	105	1077866	17.67	PPBV		99
94) 1,3,5-TRIMETHYLBENZENE	17.20	105	923225	17.32	PPBV		99
95) ALPHA-METHYLSTYRENE	17.37	118	464581	17.61	PPBV		100
96) tert-BUTYLBENZENE	17.64	134	226937	17.56	PPBV		100
97) 1,2,4-TRIMETHYLBENZENE	17.65	105	909097	17.73	PPBV		99
98) m-DICHLOROBENZENE	17.82	146	571721	17.92	PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52934.D Vial: 1
Acq On : 22 Mar 2016 11:12 pm Operator: YOUMINH
Sample : IC1998-15 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:51 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	751478	17.98	PPBV	100
100)	p-DICHLOROBENZENE	17.90	146	578708	17.63	PPBV	99
101)	sec-BUTYLBENZENE	17.94	134	274042	17.59	PPBV	100
102)	p-ISOPROPYLTOLUENE	18.11	134	294441	17.81	PPBV	98
103)	o-DICHLOROBENZENE	18.27	146	521263	17.91	PPBV	100
104)	n-BUTYLBENZENE	18.57	134	246760	17.97	PPBV	98
105)	HEXACHLOROETHANE	19.00	117	399224	17.05	PPBV	99
106)	HEXACHLOROBUTADIENE	20.63	225	311901	17.65	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	211354	19.41	PPBV	100
108)	NAPHTHALENE	20.26	128	396092	19.07	PPBV	100

7.7.18

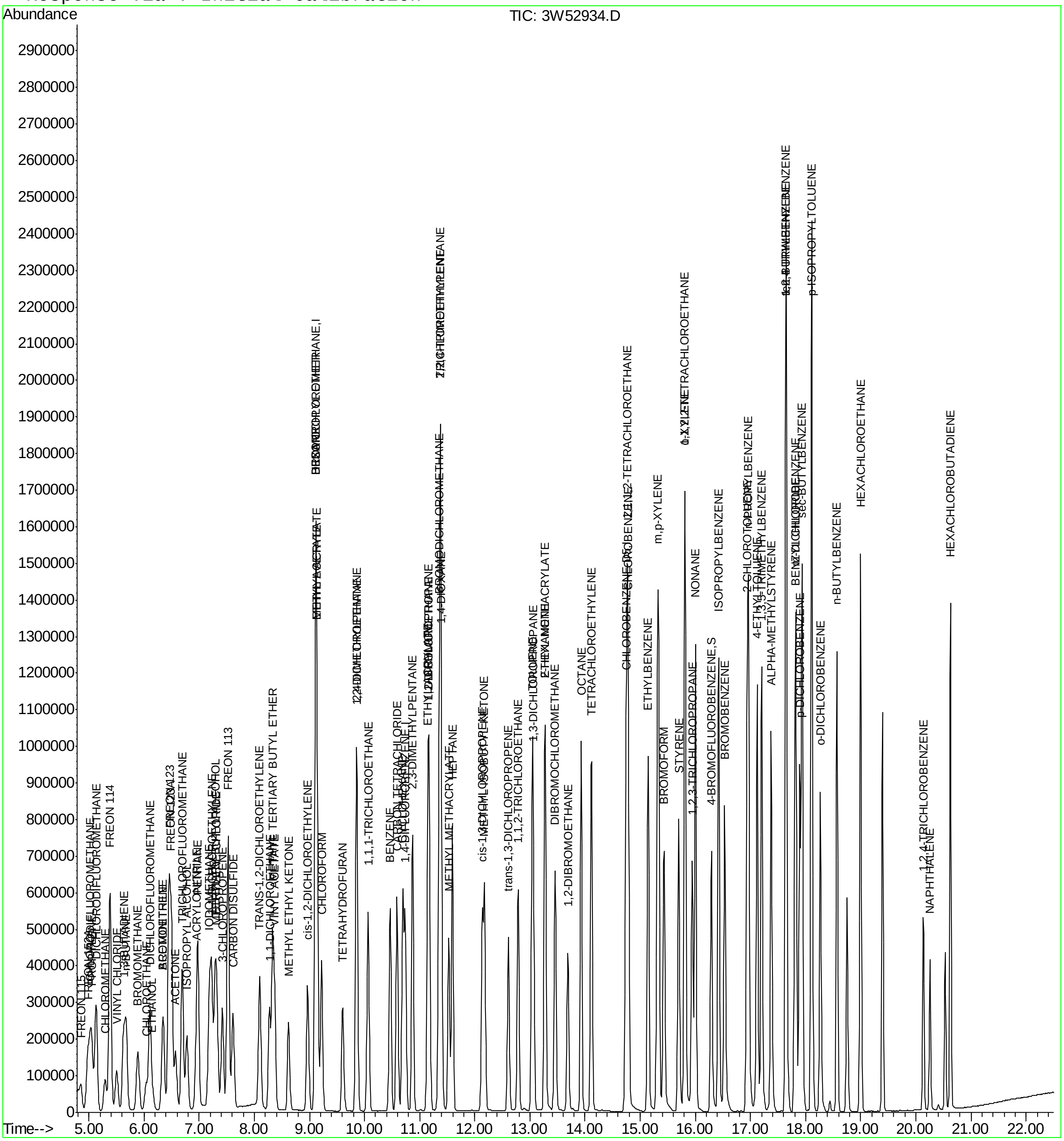
7

(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52934.D M3W1998.M Thu Mar 31 15:10:30 2016 MS3W Page 3

Quantitation Report   (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52934.D   Vial: 1
Acq On    : 22 Mar 2016  11:12 pm                      Operator: YOUMINH
Sample    : IC1998-15                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016              Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

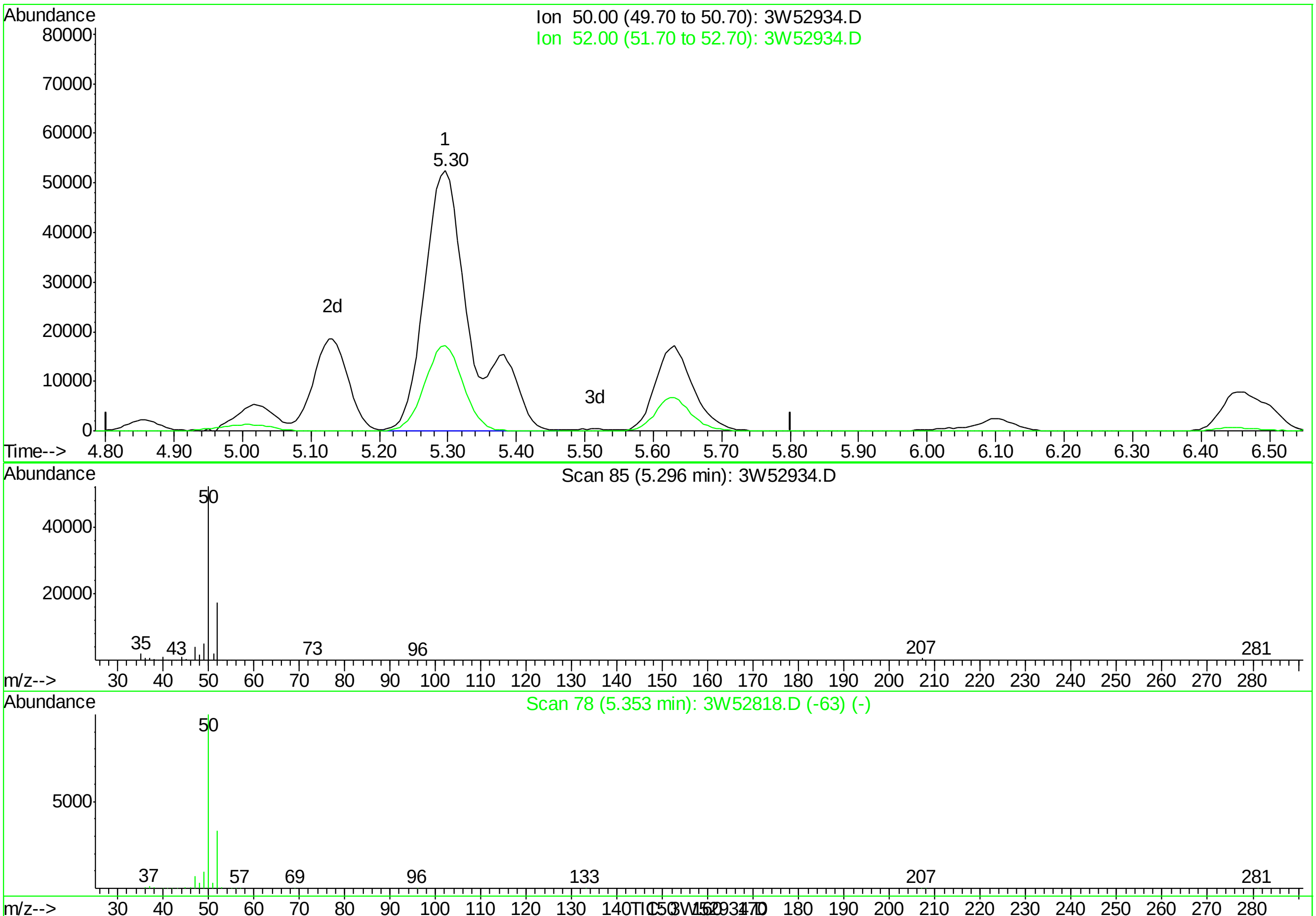
Sample Number:	V3W1998-IC1998	**Method:**	TO-15	
Lab FileID:	3W52934.D	**Analyst approved:**	03/31/16 12:59	Youmin Hu
Injection Time:	03/22/16 23:12	**Supervisor approved:**	03/31/16 16:24	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.60	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52934.D                 Vial: 1
Acq On    : 22 Mar 2016  11:12 pm                    Operator: YOUMINH
Sample    : IC1998-15                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:33 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 19.63PPBV

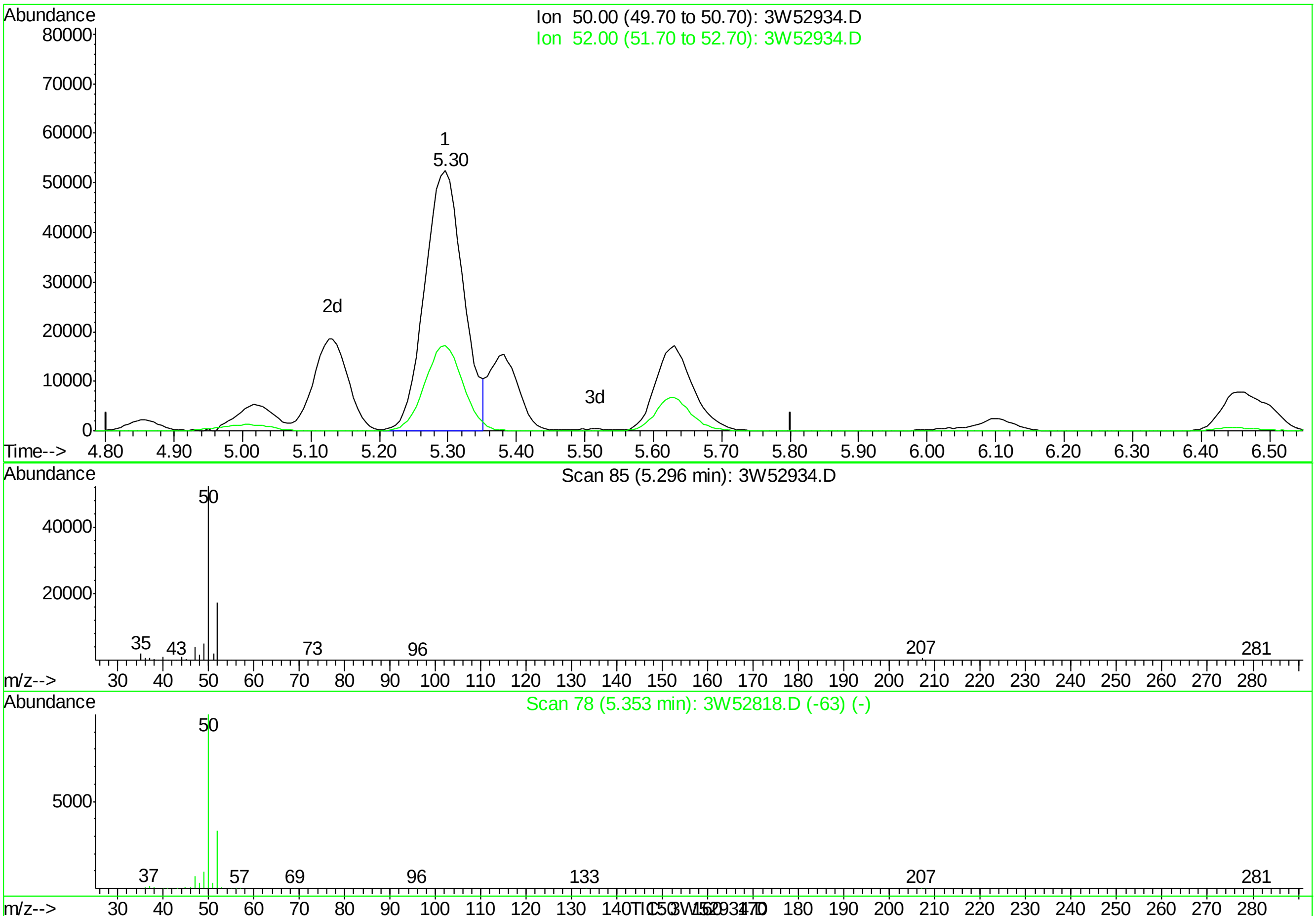
response 251816

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	33.09
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52934.D                    Vial: 1
Acq On    : 22 Mar 2016  11:12 pm                      Operator: YOUMINH
Sample    : IC1998-15                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 10:50 2016                Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 10:51:39 2016
Response via  : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 16.06PPBV m

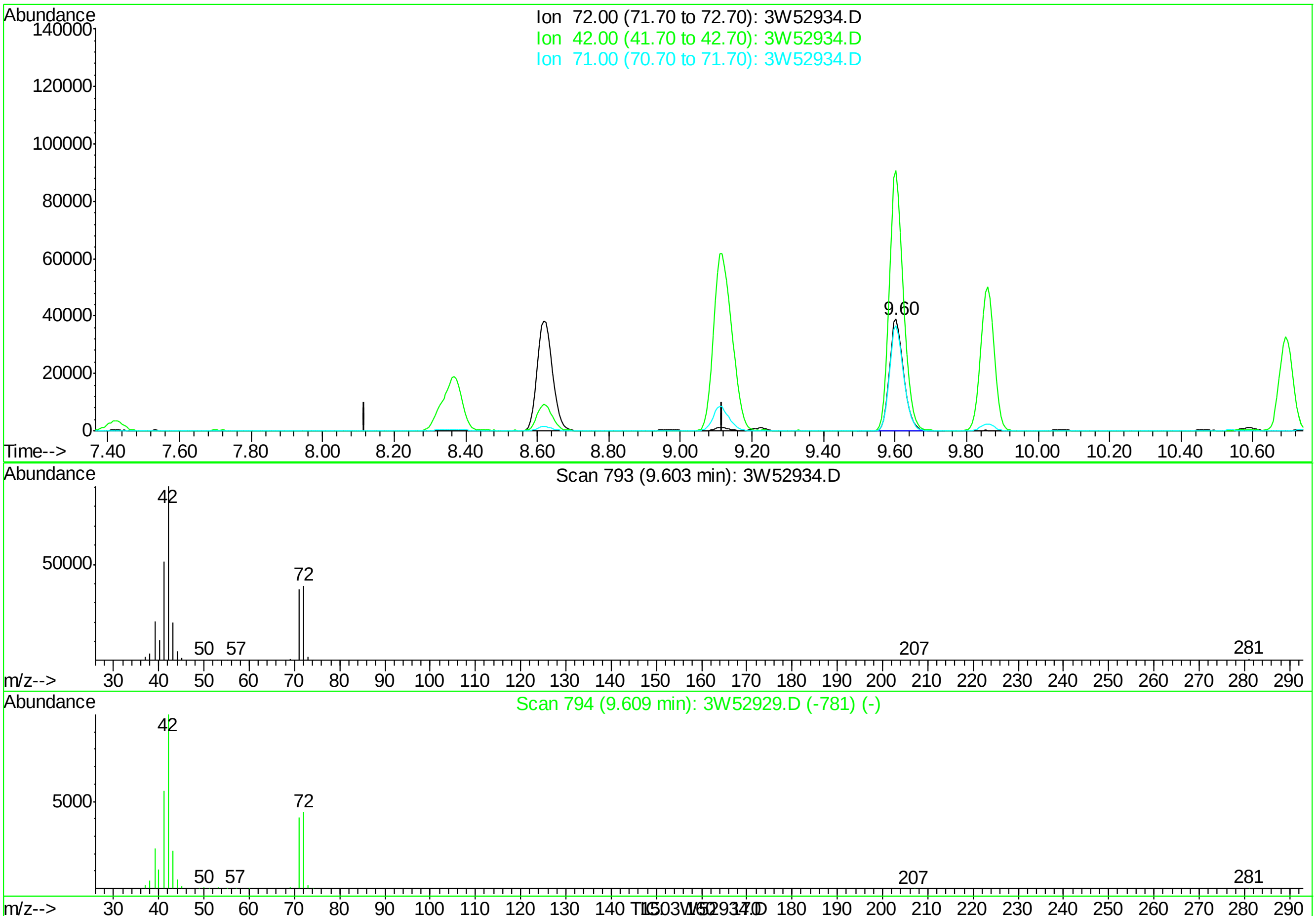
response 206032

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.97
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52934.D   Vial: 1
Acq On    : 22 Mar 2016  11:12 pm                      Operator: YOUMINH
Sample    : IC1998-15                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:24 2016               Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 31 12:29:33 2016
Response via  : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.60min 16.89PPBV m

response 110488

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	25.73
71.00	3.90	3.93
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52936.D   Vial: 3
Acq On    : 23 Mar 2016  12:34 am                       Operator: YOUMINH
Sample    : IC1998-0.1                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:53 2016           Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.11	128	116743	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.73	114	566389	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	270271	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.29	95	296189	9.54 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 95.40%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 115	4.87	85	302	0.09 PPBV #	100
4) FREON 152A	4.99	65	865	0.11 PPBV #	44
6) DICHLORODIFLUOROMETHANE	5.14	85	4031	0.11 PPBV	95
9) FREON 114	5.39	85	4234	0.12 PPBV	98
10) CHLOROMETHANE	5.30	50	1433	0.12 PPBV	89
11) VINYL CHLORIDE	5.51	62	1617	0.11 PPBV #	85
12) 1,3-BUTADIENE	5.64	54	1395	0.12 PPBV	91
13) n-BUTANE	5.67	43	2615	0.12 PPBV #	94
15) CHLOROETHANE	6.04	64	727	0.10 PPBV #	59
18) FREON 123	6.46	83	4018	0.13 PPBV #	89
19) FREON 123A	6.51	117	2197	0.12 PPBV #	82
20) TRICHLOROFLUOROMETHANE	6.70	101	3869	0.12 PPBV	91
22) ISOPROPYL ALCOHOL	6.82	45	3487	0.13 PPBV	62
26) IODOMETHANE	7.18	142	3992	0.12 PPBV	99
28) CARBON DISULFIDE	7.61	76	4429	0.11 PPBV #	81
30) BROMOETHENE	6.34	106	1610	0.12 PPBV	90
31) ACRYLONITRILE	6.96	52	900	0.11 PPBV #	61
32) METHYLENE CHLORIDE	7.33	84	1419	0.12 PPBV	95
33) 3-CHLOROPROPENE	7.43	76	635	0.10 PPBV #	39
34) FREON 113	7.52	151	2529	0.12 PPBV	97
36) TERTIARY BUTYL ALCOHOL	7.35	59	3892	0.11 PPBV	96
37) METHYL TERTIARY BUTYL ETHE	8.37	73	4112	0.11 PPBV	82
38) TETRAHYDROFURAN	9.66	72	766m	0.12 PPBV	
39) HEXANE	9.12	57	2478	0.12 PPBV #	85
40) VINYL ACETATE	8.39	86	235	0.08 PPBV #	1
41) 1,1-DICHLOROETHANE	8.27	63	2749	0.11 PPBV	99
42) METHYL ETHYL KETONE	8.64	72	668	0.11 PPBV	96
43) cis-1,2-DICHLOROETHYLENE	8.96	96	1842	0.13 PPBV #	83
44) DIISOPROPYL ETHER	9.15	59	671	0.11 PPBV #	51
45) ETHYL ACETATE	9.17	61	389	0.09 PPBV #	1
46) METHYL ACRYLATE	9.15	55	3052	0.13 PPBV #	76
47) CHLOROFORM	9.21	83	3024	0.11 PPBV	98
48) 2,4-DIMETHYLPENTANE	9.86	57	2872	0.12 PPBV	97
49) 1,1,1-TRICHLOROETHANE	10.07	97	3246	0.12 PPBV	96
50) CARBON TETRACHLORIDE	10.59	117	3273	0.11 PPBV	95
51) 1,2-DICHLOROETHANE	9.85	62	1943	0.11 PPBV #	92
53) BENZENE	10.46	78	4641	0.12 PPBV	96
55) 2,3-DIMETHYLPENTANE	10.86	71	1073	0.12 PPBV #	94
56) TRICHLOROETHYLENE	11.37	95	1913	0.11 PPBV	96
57) 1,2-DICHLOROPROPANE	11.17	63	1617	0.11 PPBV	89
58) DIBROMOMETHANE	11.15	174	1768	0.11 PPBV	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52936.D Vial: 3
Acq On : 23 Mar 2016 12:34 am Operator: YOUMINH
Sample : IC1998-0.1 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:53 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

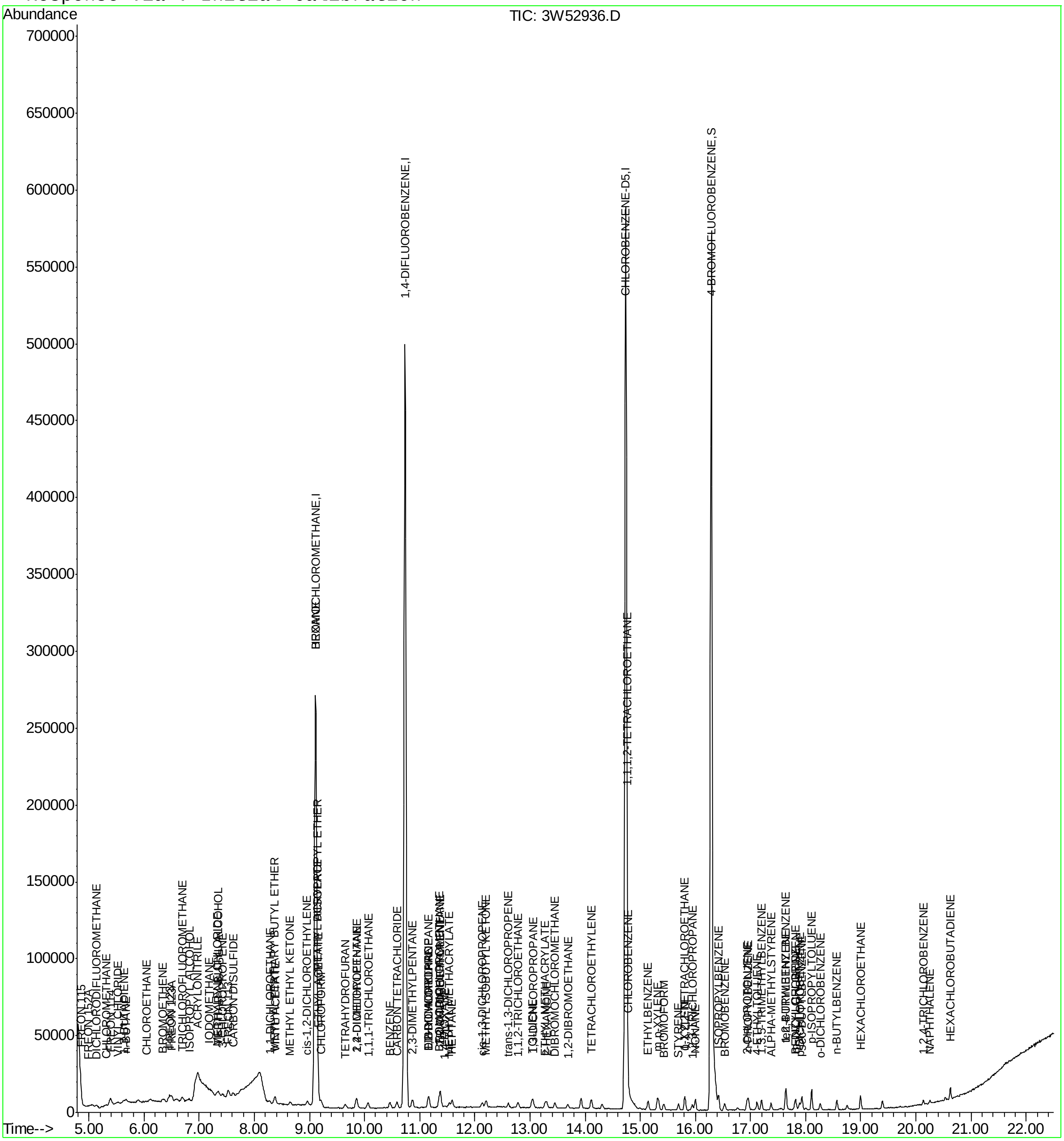
Compound	R.T.	QIon	Response	Conc Unit		Qvalue
59) ETHYL ACRYLATE	11.15	55	3523	0.13 PPBV	#	75
60) BROMODICHLOROMETHANE	11.34	83	3239	0.11 PPBV		96
61) 2,2,4-TRIMETHYLPENTANE	11.37	57	7281	0.11 PPBV		96
62) 1,4-DIOXANE	11.45	88	819	0.09 PPBV	#	39
63) HEPTANE	11.59	43	3177	0.14 PPBV		86
64) METHYL METHACRYLATE	11.54	69	1623	0.12 PPBV	#	72
65) METHYL ISOBUTYL KETONE	12.21	58	1460	0.12 PPBV	#	77
66) cis-1,3-DICHLOROPROPENE	12.13	75	2902	0.12 PPBV		90
67) TOLUENE	13.04	92	2993	0.11 PPBV		98
68) 1,3-DICHLOROPROPANE	13.06	76	2282	0.11 PPBV		96
69) trans-1,3-DICHLOROPROPENE	12.61	75	2398	0.11 PPBV		92
70) 1,1,2-TRICHLOROETHANE	12.78	83	1333	0.10 PPBV		93
72) 2-HEXANONE	13.31	58	1751	0.11 PPBV	#	64
73) ETHYL METHACRYLATE	13.27	69	2533	0.12 PPBV	#	90
74) TETRACHLOROETHYLENE	14.11	164	1973	0.12 PPBV		95
75) DIBROMOCHLOROMETHANE	13.45	129	3119	0.12 PPBV		98
76) 1,2-DIBROMOETHANE	13.69	107	2704	0.12 PPBV	#	96
78) 1,1,1,2-TETRACHLOROETHANE	14.77	131	2174	0.11 PPBV		100
79) CHLOROBENZENE	14.79	112	3871	0.12 PPBV	#	49
80) ETHYLBENZENE	15.15	91	5911	0.12 PPBV		99
81) m,p-XYLENE	15.32	106	4591	0.24 PPBV		96
82) o-XYLENE	15.81	106	2135	0.11 PPBV		95
83) STYRENE	15.69	104	3288	0.11 PPBV		96
84) NONANE	16.00	43	3922	0.13 PPBV	#	90
85) BROMOFORM	15.43	173	2735	0.10 PPBV	#	93
87) 1,1,2,2-TETRACHLOROETHANE	15.81	83	3385	0.11 PPBV	#	96
88) 1,2,3-TRICHLOROPROPANE	15.95	75	2706	0.12 PPBV		92
89) ISOPROPYLBENZENE	16.42	105	6525	0.11 PPBV		99
90) BROMOBENZENE	16.53	77	3393	0.12 PPBV		93
91) 2-CHLOROTOLUENE	16.93	126	1587	0.11 PPBV		89
92) n-PROPYLBENZENE	16.96	120	1675	0.11 PPBV	#	62
93) 4-ETHYLTOLUENE	17.12	105	6159	0.12 PPBV	#	94
94) 1,3,5-TRIMETHYLBENZENE	17.20	105	5104	0.11 PPBV		98
95) ALPHA-METHYLSTYRENE	17.37	118	2324	0.10 PPBV		98
96) tert-BUTYLBENZENE	17.64	134	1256	0.11 PPBV		99
97) 1,2,4-TRIMETHYLBENZENE	17.65	105	4849	0.11 PPBV		96
98) m-DICHLOROBENZENE	17.82	146	3284	0.12 PPBV		97
99) BENZYL CHLORIDE	17.80	91	3956	0.11 PPBV		95
100) p-DICHLOROBENZENE	17.89	146	3343	0.12 PPBV		99
101) sec-BUTYLBENZENE	17.93	134	1410	0.11 PPBV	#	82
102) p-ISOPROPYLTOLUENE	18.11	134	1533	0.11 PPBV		92
103) o-DICHLOROBENZENE	18.27	146	2914	0.12 PPBV		98
104) n-BUTYLBENZENE	18.56	134	1232	0.11 PPBV		91
105) HEXACHLOROETHANE	19.00	117	2267	0.11 PPBV		94
106) HEXACHLOROBUTADIENE	20.63	225	1743	0.12 PPBV		92
107) 1,2,4-TRICHLOROBENZENE	20.13	180	1157	0.12 PPBV		92
108) NAPHTHALENE	20.26	128	2353	0.13 PPBV		93

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52936.D   Vial: 3
Acq On    : 23 Mar 2016  12:34 am                    Operator: YOUMINH
Sample    : IC1998-0.1                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016              Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



7.7.19

7

Manual Integration Approval Summary

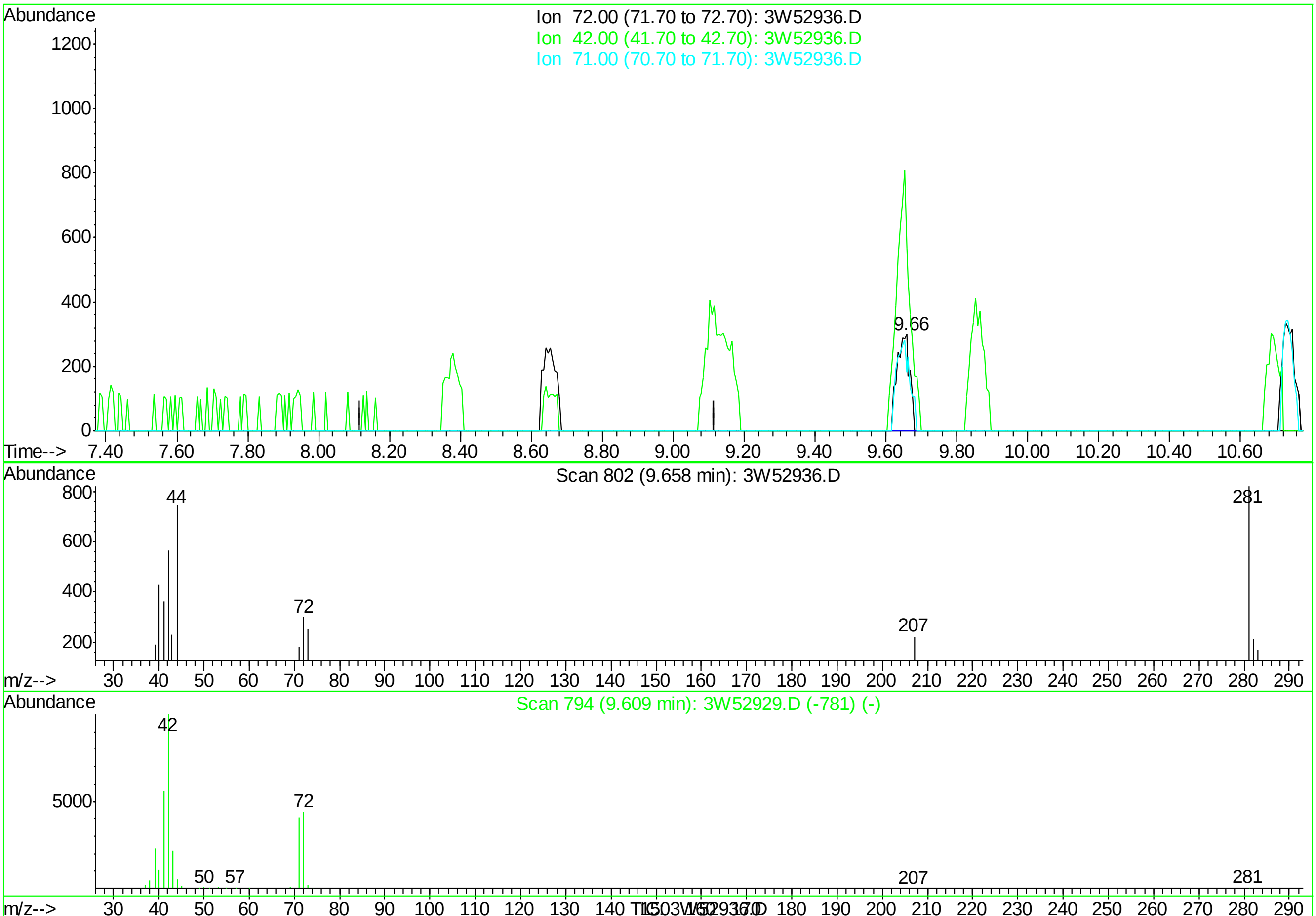
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52936.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/23/16 00:34	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Tetrahydrofuran	109-99-9		9.66	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52936.D   Vial: 3
Acq On    : 23 Mar 2016  12:34 am                     Operator: YOUMINH
Sample    : IC1998-0.1                                Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                     Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.66min 0.12PPBV m

response 766

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	38.12
71.00	3.90	0.00
0.00	0.00	0.00

3W52936.D edits: TETRAHYDROFURAN

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52937.D   Vial: 3
Acq On    : 23 Mar 2016   1:15 am                      Operator: YOUMINH
Sample    : IC1998-0.04                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:54 2016         Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.11	128	110201	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.73	114	532265	10.00	PPBV	-0.01
71) CHLOROBENZENE-D5	14.73	82	265473	10.00	PPBV	-0.01

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.28	95	278750	9.14	PPBV	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 91.40%

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
4) FREON 152A	4.97	65	230	0.03	PPBV	#	44
6) DICHLORODIFLUOROMETHANE	5.14	85	1680	0.05	PPBV	#	83
10) CHLOROMETHANE	5.28	50	565	0.05	PPBV	#	42
11) VINYL CHLORIDE	5.51	62	639	0.05	PPBV	#	50
15) CHLOROETHANE	6.04	64	240	0.04	PPBV	#	35
18) FREON 123	6.45	83	1655	0.05	PPBV	#	86
19) FREON 123A	6.49	117	910	0.05	PPBV	#	83
20) TRICHLOROFLUOROMETHANE	6.69	101	1639	0.05	PPBV	#	83
22) ISOPROPYL ALCOHOL	6.80	45	1619	0.06	PPBV	#	14
26) IODOMETHANE	7.18	142	1678	0.05	PPBV		89
28) CARBON DISULFIDE	7.61	76	1857	0.05	PPBV	#	57
30) BROMOETHENE	6.35	106	558	0.04	PPBV	#	87
31) ACRYLONITRILE	6.95	52	292	0.04	PPBV	#	1
32) METHYLENE CHLORIDE	7.33	84	581	0.05	PPBV	#	20
34) FREON 113	7.52	151	1046	0.05	PPBV		96
36) TERTIARY BUTYL ALCOHOL	7.35	59	1517	0.05	PPBV	#	72
37) METHYL TERTIARY BUTYL ETHE	8.36	73	1880	0.05	PPBV		77
39) HEXANE	9.10	57	1070	0.06	PPBV	#	78
41) 1,1-DICHLOROETHANE	8.28	63	1145	0.05	PPBV	#	75
47) CHLOROFORM	9.21	83	1313	0.05	PPBV		94
48) 2,4-DIMETHYLPENTANE	9.86	57	1160	0.05	PPBV		92
49) 1,1,1-TRICHLOROETHANE	10.05	97	1295	0.05	PPBV		96
50) CARBON TETRACHLORIDE	10.58	117	1329	0.05	PPBV		92
51) 1,2-DICHLOROETHANE	9.83	62	764	0.05	PPBV	#	49
53) BENZENE	10.45	78	1826	0.05	PPBV	#	78
55) 2,3-DIMETHYLPENTANE	10.87	71	325	0.04	PPBV	#	33
56) TRICHLOROETHYLENE	11.37	95	810	0.05	PPBV		95
57) 1,2-DICHLOROPROPANE	11.17	63	649	0.05	PPBV	#	38
58) DIBROMOMETHANE	11.15	174	754	0.05	PPBV	#	91
60) BROMODICHLOROMETHANE	11.34	83	1414	0.05	PPBV		94
61) 2,2,4-TRIMETHYLPENTANE	11.37	57	3154	0.05	PPBV	#	91
62) 1,4-DIOXANE	11.44	88	231	0.03	PPBV	#	1
64) METHYL METHACRYLATE	11.53	69	656	0.05	PPBV	#	1
65) METHYL ISOBUTYL KETONE	12.20	58	445	0.04	PPBV	#	1
67) TOLUENE	13.03	92	1279	0.05	PPBV	#	93
68) 1,3-DICHLOROPROPANE	13.06	76	928	0.05	PPBV	#	70
70) 1,1,2-TRICHLOROETHANE	12.77	83	562	0.05	PPBV		91
72) 2-HEXANONE	13.30	58	569	0.04	PPBV	#	27
73) ETHYL METHACRYLATE	13.28	69	1015	0.05	PPBV	#	71
74) TETRACHLOROETHYLENE	14.11	164	846	0.05	PPBV		95
75) DIBROMOCHLOROMETHANE	13.45	129	1237	0.05	PPBV	#	86

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52937.D Vial: 3
Acq On : 23 Mar 2016 1:15 am Operator: YOUMINH
Sample : IC1998-0.04 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:54 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

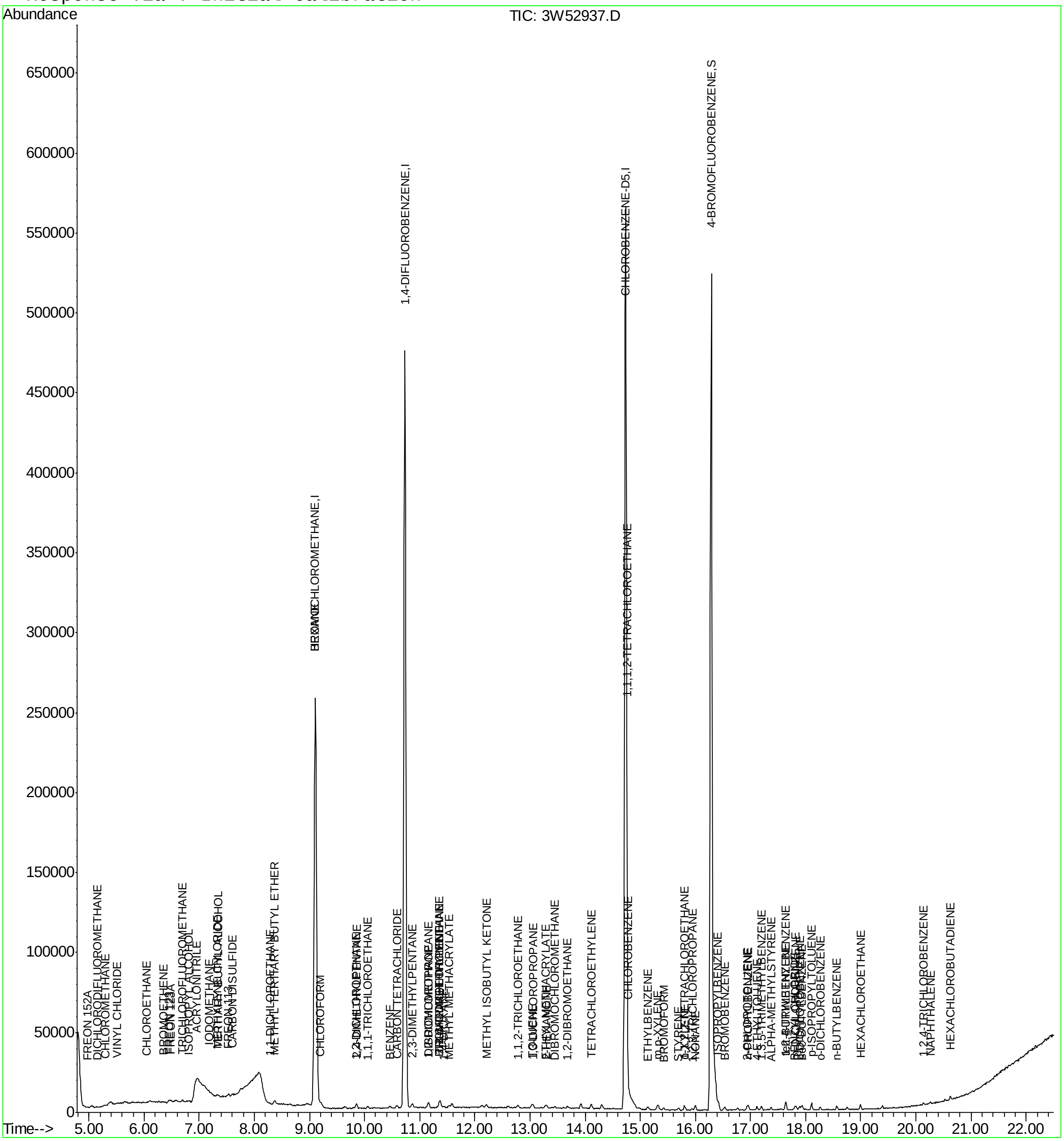
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
76)	1,2-DIBROMOETHANE	13.69	107	1094	0.05	PPBV	#	91
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	833	0.04	PPBV		90
79)	CHLOROBENZENE	14.78	112	1667	0.05	PPBV	#	49
80)	ETHYLBENZENE	15.14	91	2469	0.05	PPBV	#	88
81)	m,p-XYLENE	15.31	106	1987	0.10	PPBV		100
82)	o-XYLENE	15.81	106	831	0.04	PPBV	#	87
83)	STYRENE	15.69	104	1309	0.05	PPBV		95
84)	NONANE	16.00	43	1784	0.06	PPBV	#	81
85)	BROMOFORM	15.43	173	1060	0.04	PPBV	#	89
87)	1,1,2,2-TETRACHLOROETHANE	15.80	83	1327	0.04	PPBV	#	89
88)	1,2,3-TRICHLOROPROPANE	15.94	75	1145	0.05	PPBV		74
89)	ISOPROPYLBENZENE	16.42	105	2633	0.05	PPBV		99
90)	BROMOBENZENE	16.53	77	1456	0.05	PPBV		87
91)	2-CHLOROTOLUENE	16.93	126	562	0.04	PPBV	#	42
92)	n-PROPYLBENZENE	16.96	120	594	0.04	PPBV	#	62
93)	4-ETHYLTOLUENE	17.12	105	2331	0.05	PPBV	#	95
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	1951	0.04	PPBV	#	91
95)	ALPHA-METHYLSTYRENE	17.37	118	848	0.04	PPBV		93
96)	tert-BUTYLBENZENE	17.64	134	413	0.04	PPBV	#	57
97)	1,2,4-TRIMETHYLBENZENE	17.64	105	1971	0.05	PPBV		96
98)	m-DICHLOROBENZENE	17.82	146	1390	0.05	PPBV		95
99)	BENZYL CHLORIDE	17.80	91	1758	0.05	PPBV	#	60
100)	p-DICHLOROBENZENE	17.89	146	1433	0.05	PPBV		94
101)	sec-BUTYLBENZENE	17.93	134	507	0.04	PPBV	#	69
102)	p-ISOPROPYLTOLUENE	18.10	134	546	0.04	PPBV	#	76
103)	o-DICHLOROBENZENE	18.27	146	1199	0.05	PPBV		96
104)	n-BUTYLBENZENE	18.57	134	468	0.04	PPBV	#	86
105)	HEXACHLOROETHANE	19.00	117	891	0.05	PPBV		93
106)	HEXACHLOROBUTADIENE	20.62	225	663	0.04	PPBV		89
107)	1,2,4-TRICHLOROBENZENE	20.13	180	499	0.05	PPBV	#	81
108)	NAPHTHALENE	20.26	128	1076	0.06	PPBV	#	69

(#) = qualifier out of range (m) = manual integration (+) = signals summed
3W52937.D M3W1998.M Thu Mar 31 15:10:34 2016 MS3W

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52937.D   Vial: 3
Acq On    : 23 Mar 2016   1:15 am                 Operator: YOUMINH
Sample    : IC1998-0.04                           Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:43 2016            Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52938.D Vial: 1
Acq On : 23 Mar 2016 1:56 am Operator: YOUMINH
Sample : IC1998-30 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:55 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	116378	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.74	114	566005	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	338696	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.29	95	363747	9.35	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 93.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	108178	30.94	PPBV #	100
4) FREON 152A	4.99	65	259353	32.97	PPBV	100
5) CHLORODIFLUOROMETHANE	5.03	67	113897	33.47	PPBV	99
6) DICHLORODIFLUOROMETHANE	5.14	85	1106188	31.47	PPBV	99
7) PROPYLENE	5.06	41	347846	32.23	PPBV	99
9) FREON 114	5.39	85	1174169	33.33	PPBV	98
10) CHLOROMETHANE	5.30	50	395271m	31.98	PPBV	
11) VINYL CHLORIDE	5.51	62	470084	32.38	PPBV	100
12) 1,3-BUTADIENE	5.64	54	379125	33.74	PPBV	97
13) n-BUTANE	5.68	43	747272	33.36	PPBV	99
14) BROMOMETHANE	5.89	94	415006	32.10	PPBV	98
15) CHLOROETHANE	6.04	64	240284	33.22	PPBV	98
16) DICHLOROFLUOROMETHANE	6.11	67	989023	34.08	PPBV	100
17) ACETONITRILE	6.34	41	366554	36.95	PPBV	98
18) FREON 123	6.46	83	1074195	33.76	PPBV	100
19) FREON 123A	6.50	117	611306	33.14	PPBV	95
20) TRICHLOROFLUOROMETHANE	6.70	101	1108828	34.37	PPBV	99
22) ISOPROPYL ALCOHOL	6.77	45	891890	33.87	PPBV	100
23) ACETONE	6.57	58	217595	35.26	PPBV	95
24) PENTANE	6.98	42	529832	35.67	PPBV	99
26) IODOMETHANE	7.19	142	1150462	33.58	PPBV	98
27) 1,1-DICHLOROETHYLENE	7.23	96	459397	34.12	PPBV	98
28) CARBON DISULFIDE	7.62	76	1298249	33.28	PPBV	100
29) ETHANOL	6.15	45	193941	34.08	PPBV	99
30) BROMOETHENE	6.35	106	435149	32.62	PPBV	100
31) ACRYLONITRILE	6.95	52	287754	36.65	PPBV	99
32) METHYLENE CHLORIDE	7.33	84	399521	34.31	PPBV	95
33) 3-CHLOROPROPENE	7.43	76	219077	34.04	PPBV	97
34) FREON 113	7.53	151	741456	34.16	PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	451272	34.63	PPBV	99
36) TERTIARY BUTYL ALCOHOL	7.29	59	1114368	32.83	PPBV	98
37) METHYL TERTIARY BUTYL ETHE	8.33	73	1270203	35.18	PPBV	99
38) TETRAHYDROFURAN	9.60	72	216464m	34.34	PPBV	
39) HEXANE	9.11	57	740392	36.27	PPBV	100
40) VINYL ACETATE	8.37	86	112940	37.26	PPBV	100
41) 1,1-DICHLOROETHANE	8.28	63	818291	34.20	PPBV	100
42) METHYL ETHYL KETONE	8.62	72	220254	34.94	PPBV	96
43) cis-1,2-DICHLOROETHYLENE	8.97	96	464408	34.07	PPBV	99
44) DIISOPROPYL ETHER	9.12	59	221004	37.49	PPBV	99
45) ETHYL ACETATE	9.15	61	150979	36.99	PPBV	98
46) METHYL ACRYLATE	9.14	55	877960	37.42	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52938.D   Vial: 1
Acq On    : 23 Mar 2016   1:56 am                    Operator: YOUMINH
Sample    : IC1998-30                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:55 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.23	83	942730	34.57	PPBV		97
48)	2,4-DIMETHYLPENTANE	9.86	57	874552	35.77	PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.07	97	964720	34.49	PPBV		99
50)	CARBON TETRACHLORIDE	10.59	117	1002141	34.33	PPBV		100
51)	1,2-DICHLOROETHANE	9.85	62	606558	34.43	PPBV		100
53)	BENZENE	10.47	78	1394462	35.67	PPBV		100
54)	CYCLOHEXANE	10.70	84	619674	35.61	PPBV		96
55)	2,3-DIMETHYLPENTANE	10.87	71	328888	36.51	PPBV		100
56)	TRICHLOROETHYLENE	11.37	95	646865	37.45	PPBV		99
57)	1,2-DICHLOROPROPANE	11.18	63	531378	37.34	PPBV		99
58)	DIBROMOMETHANE	11.16	174	580235	36.38	PPBV		100
59)	ETHYL ACRYLATE	11.14	55	1057619	37.91	PPBV		100
60)	BROMODICHLOROMETHANE	11.35	83	1078753	36.71	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.38	57	2473662	38.26	PPBV		100
62)	1,4-DIOXANE	11.40	88	336368	36.30	PPBV	#	1
63)	HEPTANE	11.60	43	868593	38.77	PPBV		99
64)	METHYL METHACRYLATE	11.53	69	512393	37.87	PPBV		98
65)	METHYL ISOBUTYL KETONE	12.18	58	429562	35.95	PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.14	75	885283	36.53	PPBV		99
67)	TOLUENE	13.04	92	1012445	38.75	PPBV		100
68)	1,3-DICHLOROPROPANE	13.06	76	819674	38.74	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.61	75	760281	36.43	PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.78	83	486616	36.79	PPBV		99
72)	2-HEXANONE	13.28	58	612237	31.20	PPBV		98
73)	ETHYL METHACRYLATE	13.27	69	870219	32.11	PPBV		99
74)	TETRACHLOROETHYLENE	14.12	164	690097	32.73	PPBV		100
75)	DIBROMOCHLOROMETHANE	13.46	129	1074761	31.92	PPBV		99
76)	1,2-DIBROMOETHANE	13.69	107	908000	32.23	PPBV		99
77)	OCTANE	13.93	43	1196669	33.90	PPBV		100
78)	1,1,1,2-TETRACHLOROETHANE	14.77	131	761114	32.00	PPBV		99
79)	CHLOROBENZENE	14.79	112	1359818	32.78	PPBV		99
80)	ETHYLBENZENE	15.15	91	2101052	33.55	PPBV		99
81)	m,p-XYLENE	15.33	106	1667740	68.16	PPBV		99
82)	o-XYLENE	15.81	106	812118	34.18	PPBV		99
83)	STYRENE	15.70	104	1238515	33.58	PPBV		100
84)	NONANE	16.00	43	1235053	32.89	PPBV		99
85)	BROMOFORM	15.44	173	1073086	32.24	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	1230863	32.62	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.95	75	877822	32.15	PPBV		99
89)	ISOPROPYLBENZENE	16.42	105	2348199	32.70	PPBV		99
90)	BROMOBENZENE	16.54	77	1117344	32.75	PPBV		99
91)	2-CHLOROTOLUENE	16.94	126	574976	33.07	PPBV		100
92)	n-PROPYLBENZENE	16.96	120	647909	33.29	PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	2117989	32.46	PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	1818634	31.90	PPBV		99
95)	ALPHA-METHYLSTYRENE	17.38	118	913272	32.35	PPBV		100
96)	tert-BUTYLBENZENE	17.65	134	455320	32.93	PPBV		96
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	1788257	32.61	PPBV		99
98)	m-DICHLOROBENZENE	17.82	146	1157412	33.91	PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52938.D Vial: 1
Acq On : 23 Mar 2016 1:56 am Operator: YOUMINH
Sample : IC1998-30 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:55 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

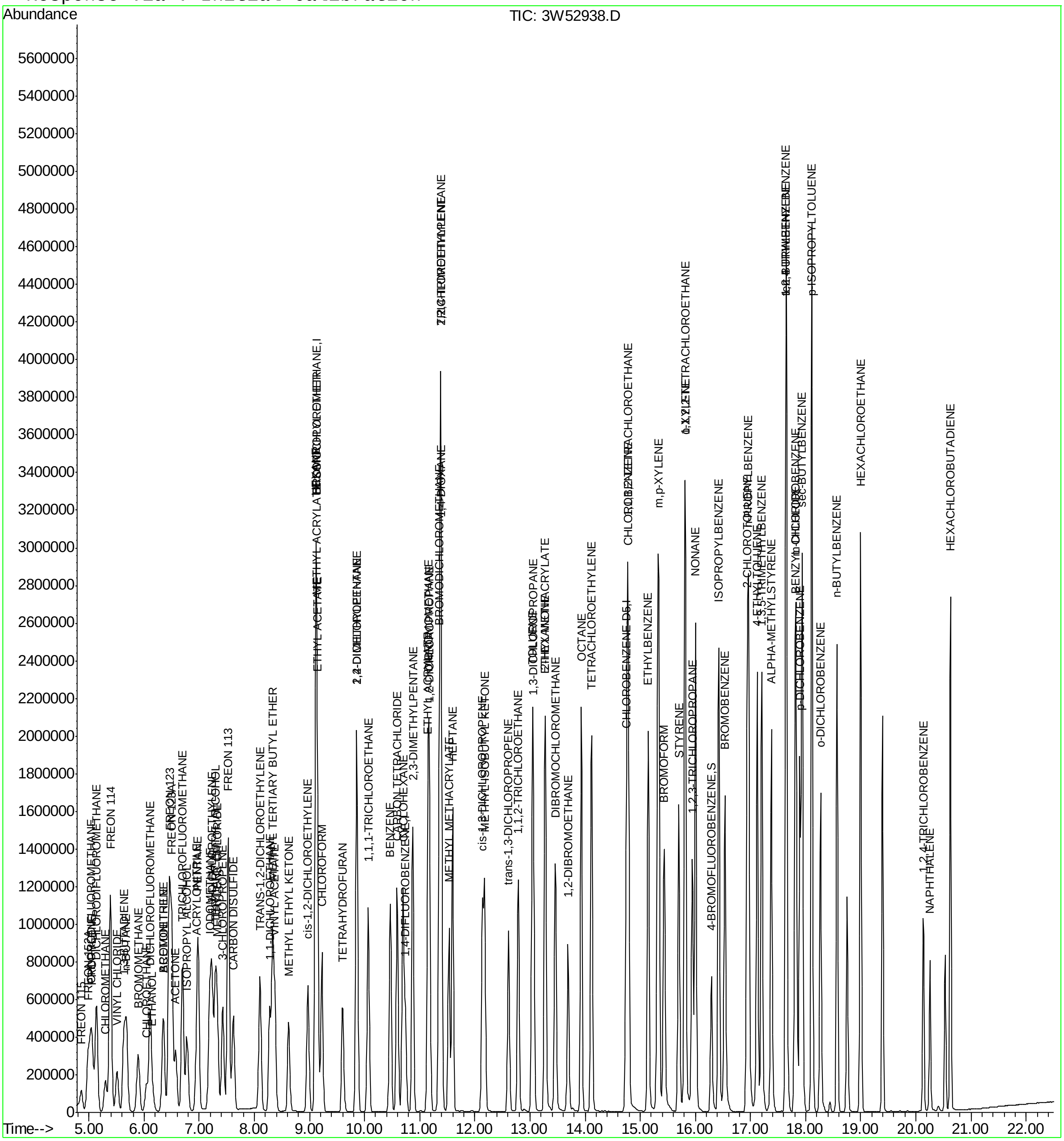
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99) BENZYL CHLORIDE	17.80	91	1456463	32.58	PPBV	99
100) p-DICHLOROBENZENE	17.90	146	1122404	31.97	PPBV	98
101) sec-BUTYLBENZENE	17.94	134	547055	32.82	PPBV	96
102) p-ISOPROPYLTOLUENE	18.11	134	580630	32.84	PPBV	95
103) o-DICHLOROBENZENE	18.27	146	1020690	32.79	PPBV	100
104) n-BUTYLBENZENE	18.57	134	478557	32.58	PPBV	96
105) HEXACHLOROETHANE	19.00	117	795550	31.76	PPBV	99
106) HEXACHLOROBUTADIENE	20.63	225	614682	32.52	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	20.13	180	408850	35.10	PPBV	100
108) NAPHTHALENE	20.26	128	768014	34.57	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52938.D   Vial: 1
Acq On    : 23 Mar 2016   1:56 am                      Operator: YOUMINH
Sample    : IC1998-30                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016               Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

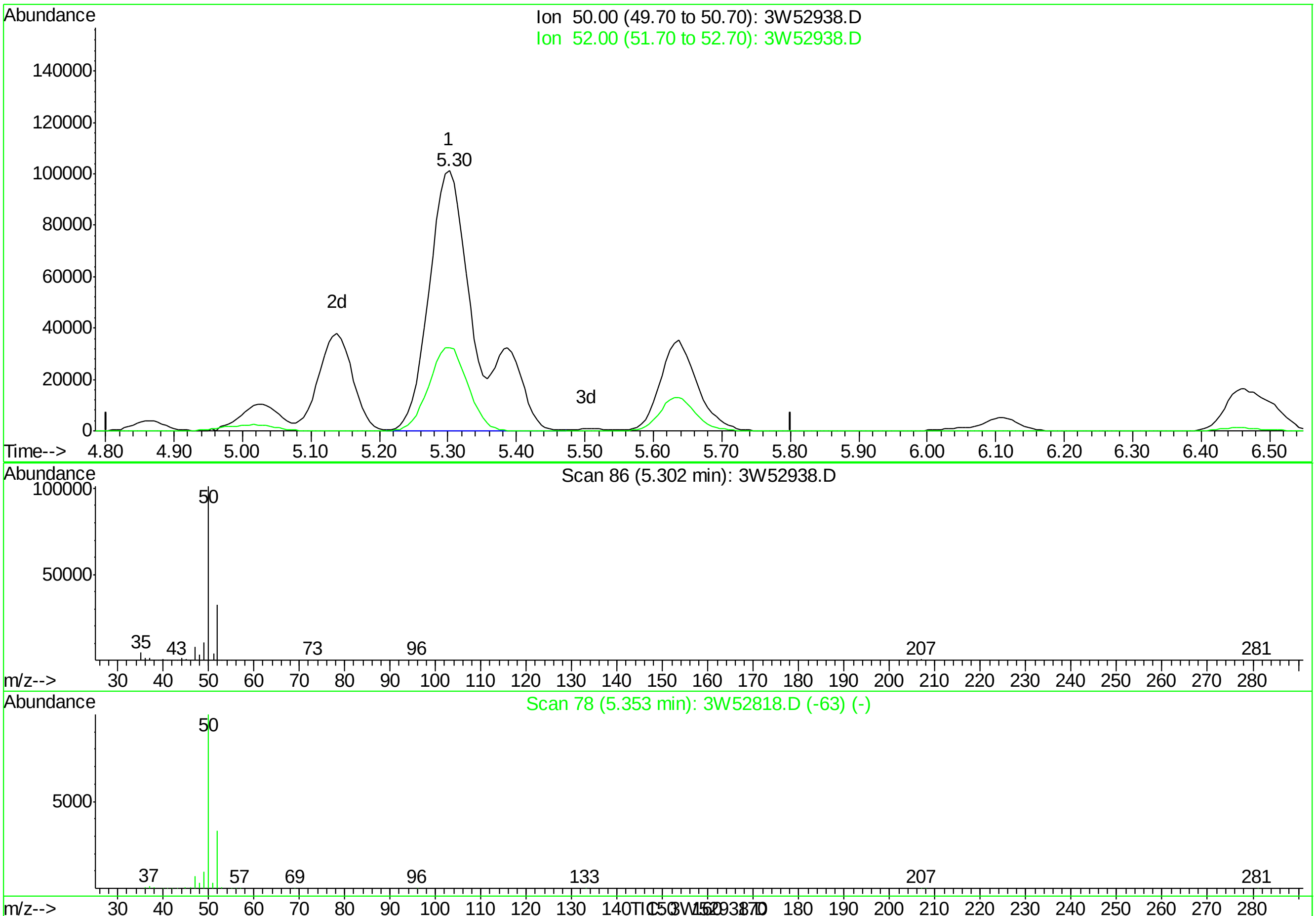
Sample Number:	V3W1998-IC1998	**Method:**	TO-15	
Lab FileID:	3W52938.D	**Analyst approved:**	03/31/16 12:59	Youmin Hu
Injection Time:	03/23/16 01:56	**Supervisor approved:**	03/31/16 16:24	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.60	Poor instrument integration

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52938.D                    Vial: 1
Acq On    : 23 Mar 2016   1:56 am                      Operator: YOUMINH
Sample    : IC1998-30                                  Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:37 2016           Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:40:54 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 39.74PPBV

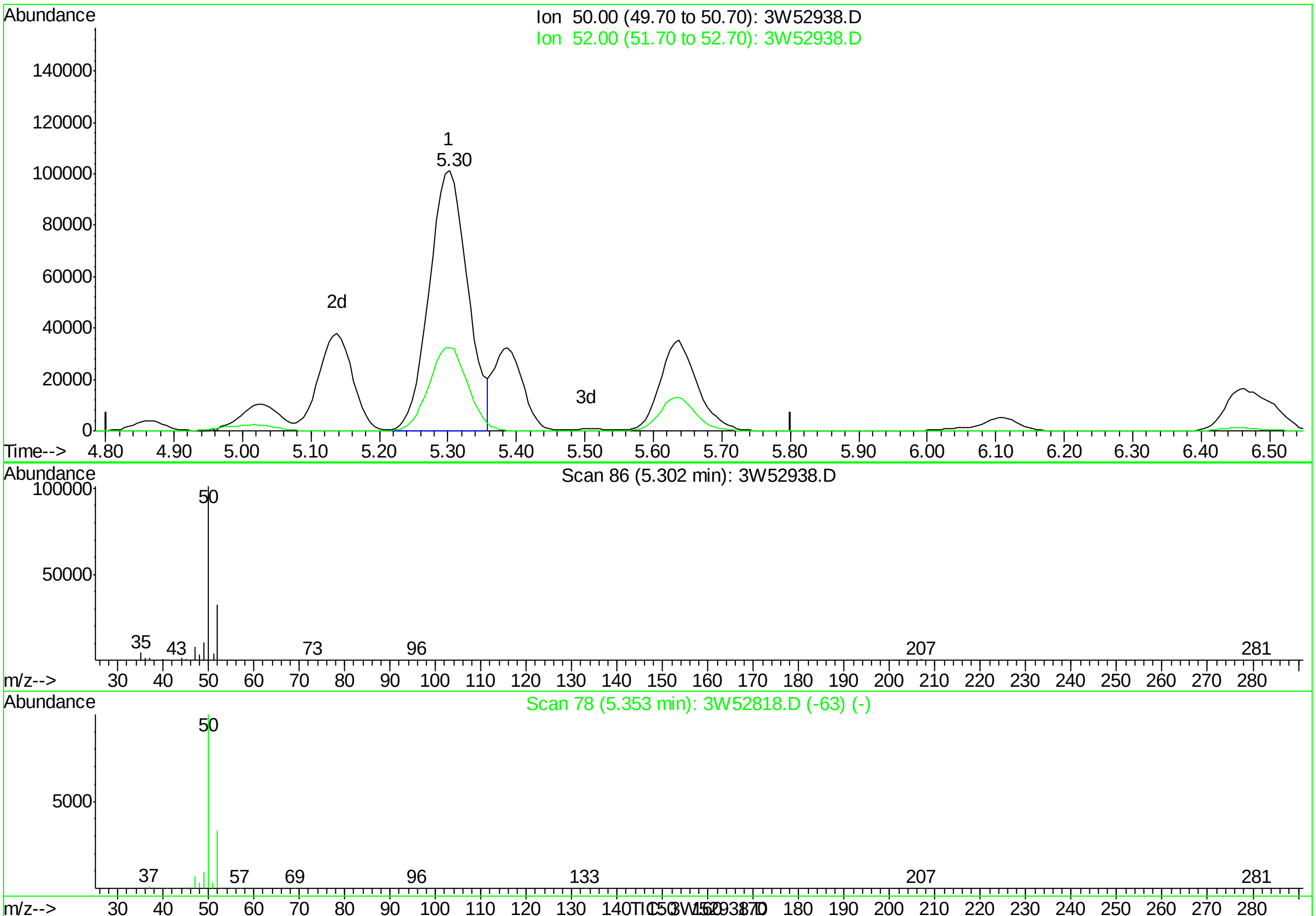
response 491210

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52938.D                    Vial: 1
Acq On    : 23 Mar 2016   1:56 am                       Operator: YOUMINH
Sample    : IC1998-30                                   Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:42 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 10:51:39 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 31.98PPBV m

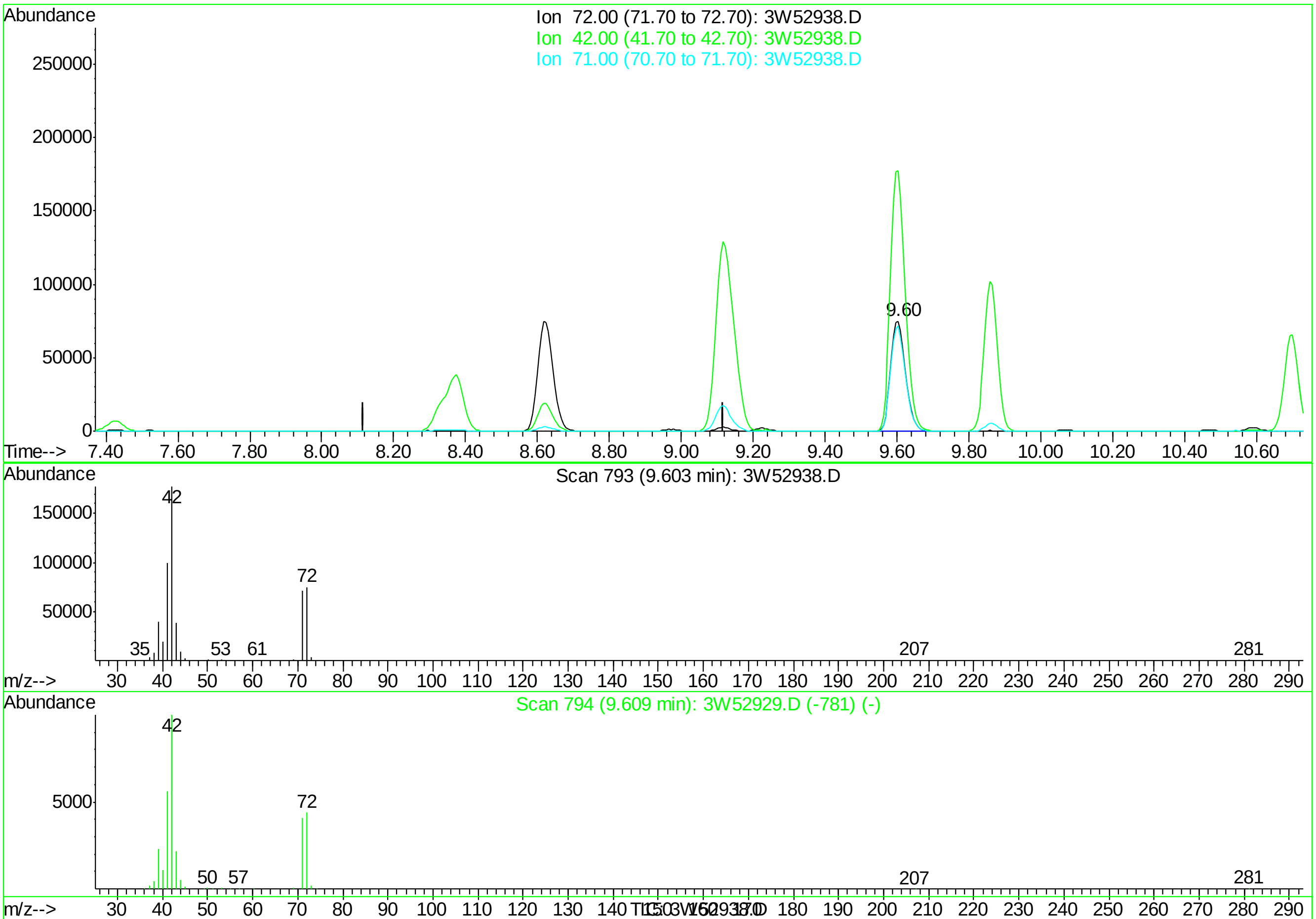
response 395271

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.15
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52938.D   Vial: 1
Acq On    : 23 Mar 2016   1:56 am                    Operator: YOUMINH
Sample    : IC1998-30                                Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.60min 34.34PPBV m

response 216464

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	26.38
71.00	3.90	3.84
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 16:24

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52940.D   Vial: 1
Acq On    : 23 Mar 2016   3:20 am                      Operator: YOUMINH
Sample    : IC1998-40                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:57 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.12	128	117481	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.75	114	571202	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	342793	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.30	95	354791	9.01 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 90.10%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 115	4.86	85	142191	40.29 PPBV #	100
4) FREON 152A	4.98	65	349666	44.03 PPBV	100
5) CHLORODIFLUOROMETHANE	5.02	67	151996	44.25 PPBV	100
6) DICHLORODIFLUOROMETHANE	5.13	85	1488807	41.95 PPBV	99
7) PROPYLENE	5.05	41	465535	42.73 PPBV	99
9) FREON 114	5.39	85	1587922	44.65 PPBV	99
10) CHLOROMETHANE	5.30	50	525531m	42.12 PPBV	
11) VINYL CHLORIDE	5.51	62	634326	43.28 PPBV	100
12) 1,3-BUTADIENE	5.63	54	511502	45.10 PPBV	98
13) n-BUTANE	5.68	43	1002029	44.31 PPBV	98
14) BROMOMETHANE	5.89	94	564007	43.22 PPBV	98
15) CHLOROETHANE	6.04	64	321986	44.10 PPBV	98
16) DICHLOROFLUOROMETHANE	6.11	67	1323941	45.19 PPBV	100
17) ACETONITRILE	6.35	41	504761	50.41 PPBV	98
18) FREON 123	6.46	83	1480806	46.10 PPBV	100
19) FREON 123A	6.50	117	847946	45.53 PPBV	97
20) TRICHLOROFLUOROMETHANE	6.70	101	1493610	45.87 PPBV	99
22) ISOPROPYL ALCOHOL	6.79	45	1265417	47.61 PPBV	100
23) ACETONE	6.58	58	304268	48.84 PPBV	97
24) PENTANE	6.98	42	705932	47.08 PPBV	99
26) IODOMETHANE	7.19	142	1562835	45.19 PPBV	99
27) 1,1-DICHLOROETHYLENE	7.24	96	627308	46.15 PPBV	99
28) CARBON DISULFIDE	7.61	76	1764136	44.80 PPBV	100
29) ETHANOL	6.17	45	272915	47.51 PPBV	98
30) BROMOETHENE	6.35	106	591432	43.92 PPBV	100
31) ACRYLONITRILE	6.96	52	398736	50.31 PPBV	98
32) METHYLENE CHLORIDE	7.33	84	543782	46.27 PPBV	96
33) 3-CHLOROPROPENE	7.43	76	300751	46.29 PPBV	98
34) FREON 113	7.53	151	1017990	46.46 PPBV	98
35) TRANS-1,2-DICHLOROETHYLENE	8.11	96	619174	47.06 PPBV	100
36) TERTIARY BUTYL ALCOHOL	7.30	59	1594029	46.52 PPBV	99
37) METHYL TERTIARY BUTYL ETHE	8.33	73	1750101	48.01 PPBV	99
38) TETRAHYDROFURAN	9.60	72	303310m	47.66 PPBV	
39) HEXANE	9.12	57	1013350	49.17 PPBV	98
40) VINYL ACETATE	8.38	86	157654	51.52 PPBV #	96
41) 1,1-DICHLOROETHANE	8.28	63	1127908	46.70 PPBV	99
42) METHYL ETHYL KETONE	8.62	72	309368	48.61 PPBV	97
43) cis-1,2-DICHLOROETHYLENE	8.98	96	645930	46.94 PPBV	99
44) DIISOPROPYL ETHER	9.12	59	303224	50.96 PPBV	97
45) ETHYL ACETATE	9.15	61	212379	51.54 PPBV #	91
46) METHYL ACRYLATE	9.15	55	1211584	51.16 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52940.D Vial: 1
Acq On : 23 Mar 2016 3:20 am Operator: YOUMINH
Sample : IC1998-40 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:57 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.23	83	1283714	46.63	PPBV		98
48)	2,4-DIMETHYLPENTANE	9.86	57	1210136	49.03	PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.07	97	1329553	47.09	PPBV		99
50)	CARBON TETRACHLORIDE	10.59	117	1374425	46.64	PPBV		100
51)	1,2-DICHLOROETHANE	9.86	62	831388	46.75	PPBV		100
53)	BENZENE	10.47	78	1915610	48.55	PPBV		99
54)	CYCLOHEXANE	10.70	84	849950	48.40	PPBV		95
55)	2,3-DIMETHYLPENTANE	10.87	71	455312	50.08	PPBV		100
56)	TRICHLOROETHYLENE	11.38	95	903038	51.80	PPBV		100
57)	1,2-DICHLOROPROPANE	11.18	63	741117	51.61	PPBV		99
58)	DIBROMOMETHANE	11.17	174	813855	50.56	PPBV		100
59)	ETHYL ACRYLATE	11.15	55	1498493	53.23	PPBV		100
60)	BROMODICHLOROMETHANE	11.36	83	1493700	50.37	PPBV		100
61)	2,2,4-TRIMETHYLPENTANE	11.39	57	3403983	52.18	PPBV		99
62)	1,4-DIOXANE	11.40	88	491662	52.58	PPBV	#	23
63)	HEPTANE	11.60	43	1191768	52.72	PPBV		100
64)	METHYL METHACRYLATE	11.53	69	726602	53.22	PPBV		99
65)	METHYL ISOBUTYL KETONE	12.18	58	630238	52.26	PPBV		97
66)	cis-1,3-DICHLOROPROPENE	12.14	75	1222771	50.00	PPBV		99
67)	TOLUENE	13.05	92	1389355	52.69	PPBV		99
68)	1,3-DICHLOROPROPANE	13.06	76	1145076	53.63	PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.61	75	1054729	50.08	PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.79	83	679860	50.94	PPBV		99
72)	2-HEXANONE	13.28	58	906565	45.64	PPBV		96
73)	ETHYL METHACRYLATE	13.27	69	1256243	45.80	PPBV		98
74)	TETRACHLOROETHYLENE	14.12	164	943979	44.23	PPBV		100
75)	DIBROMOCHLOROMETHANE	13.46	129	1488883	43.69	PPBV		99
76)	1,2-DIBROMOETHANE	13.70	107	1257138	44.09	PPBV		100
77)	OCTANE	13.93	43	1626540	45.53	PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.77	131	1047513	43.51	PPBV		99
79)	CHLOROBENZENE	14.79	112	1871754	44.58	PPBV		100
80)	ETHYLBENZENE	15.15	91	2924773	46.15	PPBV		99
81)	m,p-XYLENE	15.33	106	2367067	95.59	PPBV		98
82)	o-XYLENE	15.81	106	1179622	49.06	PPBV		98
83)	STYRENE	15.70	104	1775711	47.57	PPBV		99
84)	NONANE	16.00	43	1704602	44.85	PPBV		98
85)	BROMOFORM	15.44	173	1527509	45.34	PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.81	83	1746100	45.72	PPBV		99
88)	1,2,3-TRICHLOROPROPANE	15.95	75	1282426	46.40	PPBV		99
89)	ISOPROPYLBENZENE	16.43	105	3388429	46.62	PPBV		99
90)	BROMOBENZENE	16.54	77	1596752	46.25	PPBV		99
91)	2-CHLOROTOLUENE	16.94	126	838584	47.66	PPBV		100
92)	n-PROPYLBENZENE	16.96	120	968802	49.18	PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	3126486	47.35	PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.21	105	2691745	46.64	PPBV		99
95)	ALPHA-METHYLSTYRENE	17.38	118	1373642	48.08	PPBV		99
96)	tert-BUTYLBENZENE	17.65	134	683385	48.83	PPBV		93
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	2682239	48.32	PPBV		98
98)	m-DICHLOROBENZENE	17.83	146	1735130	50.23	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52940.D   Vial: 1
Acq On    : 23 Mar 2016   3:20 am                      Operator: YOUMINH
Sample    : IC1998-40                                  Inst     : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 09:24:57 2016          Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:23:56 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

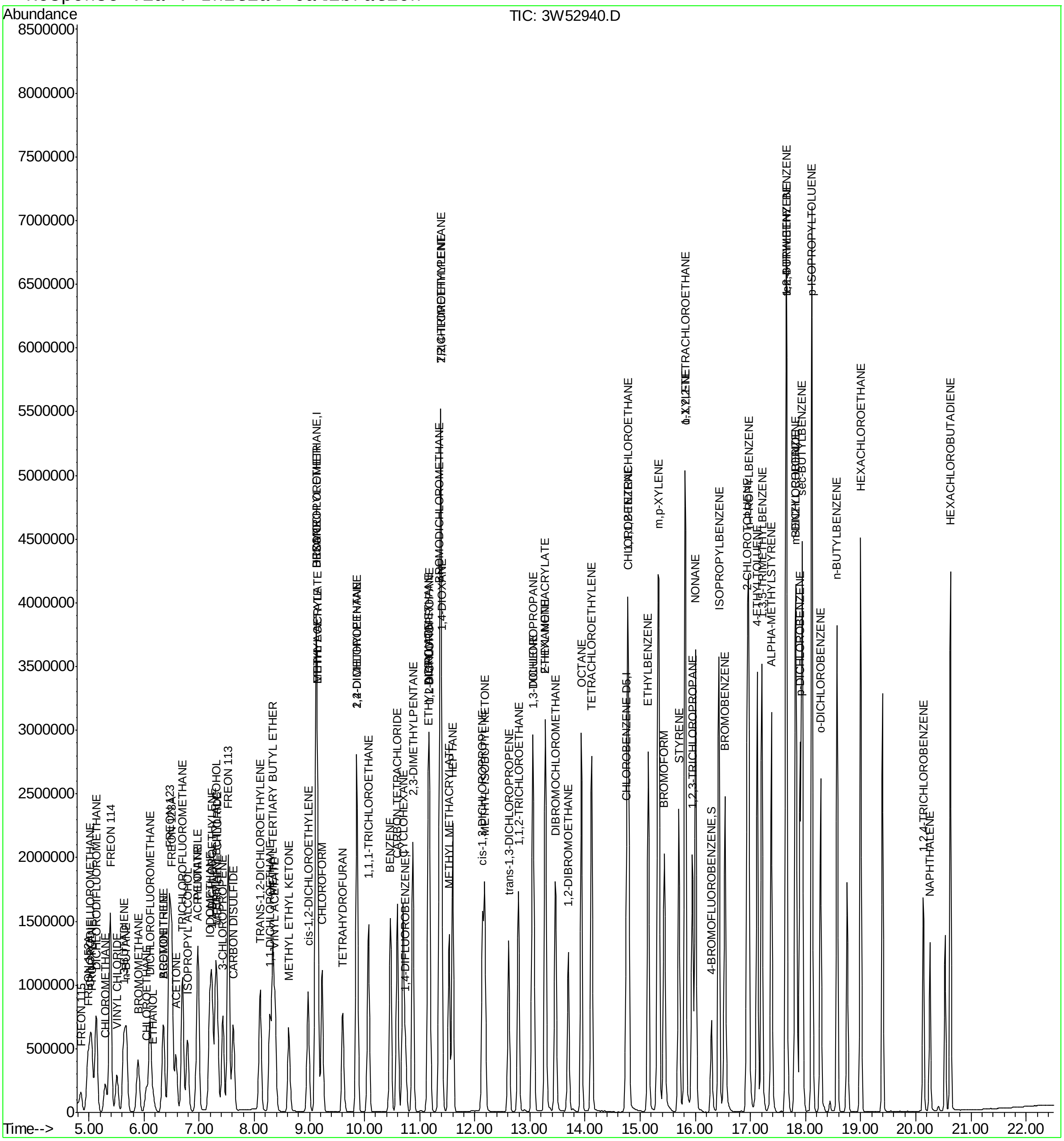
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
99)	BENZYL CHLORIDE	17.81	91	2227321	49.23	PPBV		99
100)	p-DICHLOROBENZENE	17.90	146	1702833	47.93	PPBV		98
101)	sec-BUTYLBENZENE	17.94	134	830022	49.21	PPBV	#	92
102)	p-ISOPROPYLTOLUENE	18.11	134	886168	49.52	PPBV	#	91
103)	o-DICHLOROBENZENE	18.27	146	1537523	48.80	PPBV		100
104)	n-BUTYLBENZENE	18.57	134	740817	49.83	PPBV		93
105)	HEXACHLOROETHANE	19.00	117	1173235	46.27	PPBV		99
106)	HEXACHLOROBUTADIENE	20.63	225	958881	50.12	PPBV		99
107)	1,2,4-TRICHLOROBENZENE	20.13	180	666941	56.57	PPBV		100
108)	NAPHTHALENE	20.26	128	1269216	56.45	PPBV		100

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

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52940.D Vial: 1
Acq On : 23 Mar 2016 3:20 am Operator: YOUMINH
Sample : IC1998-40 Inst : MS3W
Misc : MS99296,V3W1998,,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016 Quant Results File: M3W1998.RES

Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration



Manual Integration Approval Summary

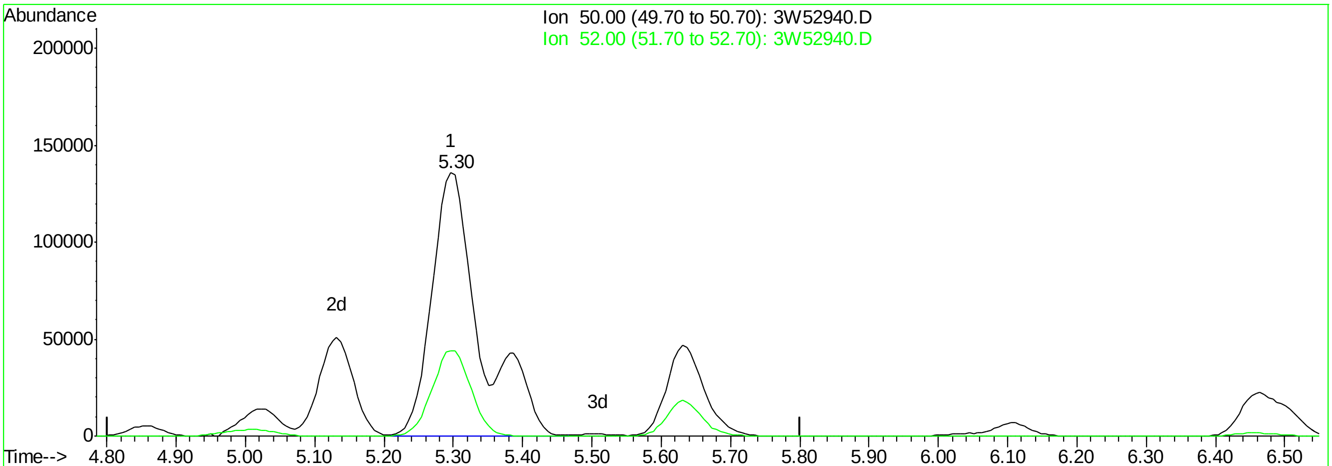
Sample Number:	V3W1998-IC1998	**Method:**	TO-15
Lab FileID:	3W52940.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/23/16 03:20	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

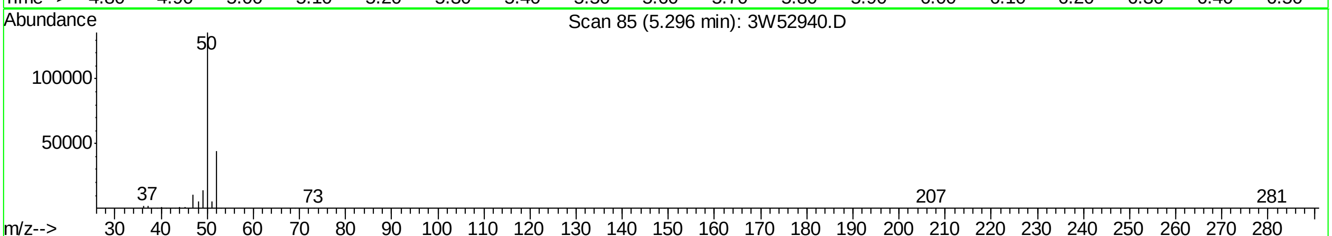
Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Overlapping peak
Tetrahydrofuran	109-99-9		9.60	Poor instrument integration

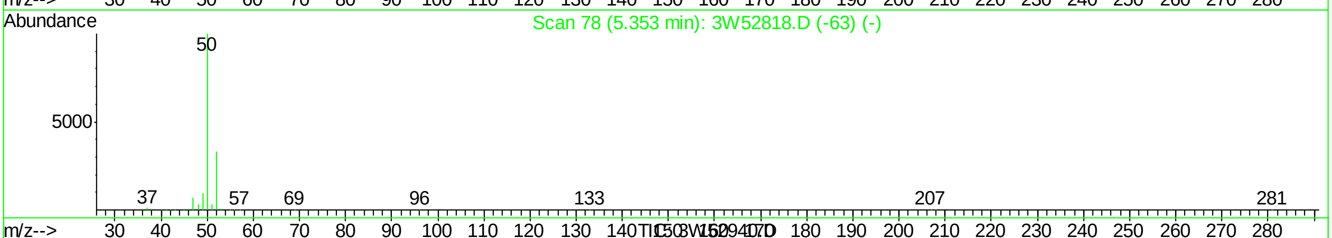
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52940.D                    Vial: 1
Acq On    : 23 Mar 2016   3:20 am                      Operator: YOUMINH
Sample    : IC1998-40                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:37 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:40:54 2016
Response via : Multiple Level Calibration
```







(10) CHLOROMETHANE

5.30min 52.75PPBV

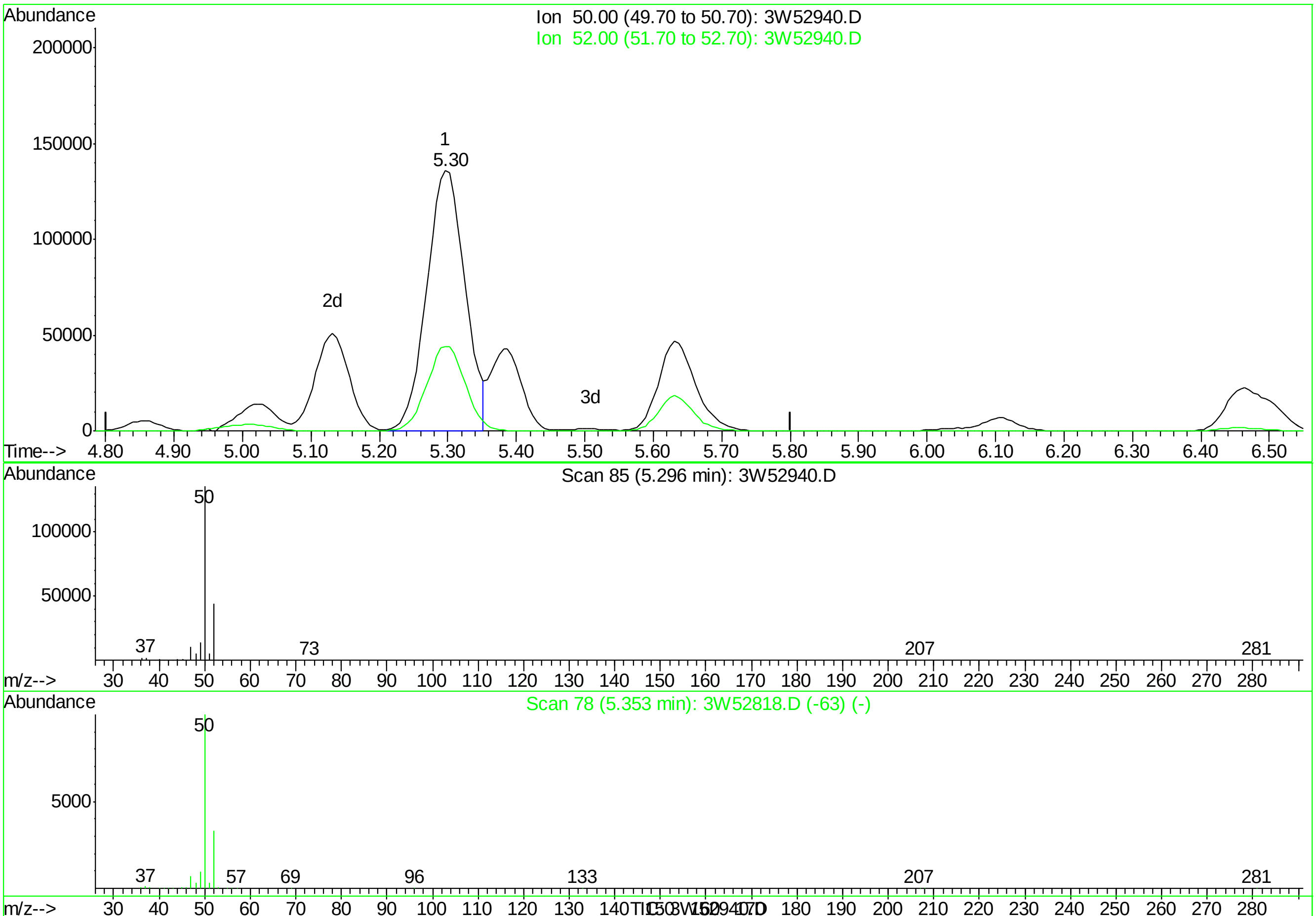
response 658257

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52940.D                 Vial: 1
Acq On    : 23 Mar 2016   3:20 am                   Operator: YOUMINH
Sample    : IC1998-40                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:43 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update   : Thu Mar 24 10:51:39 2016
Response via  : Multiple Level Calibration
```

(10) CHLOROMETHANE

5.30min 42.12PPBV m

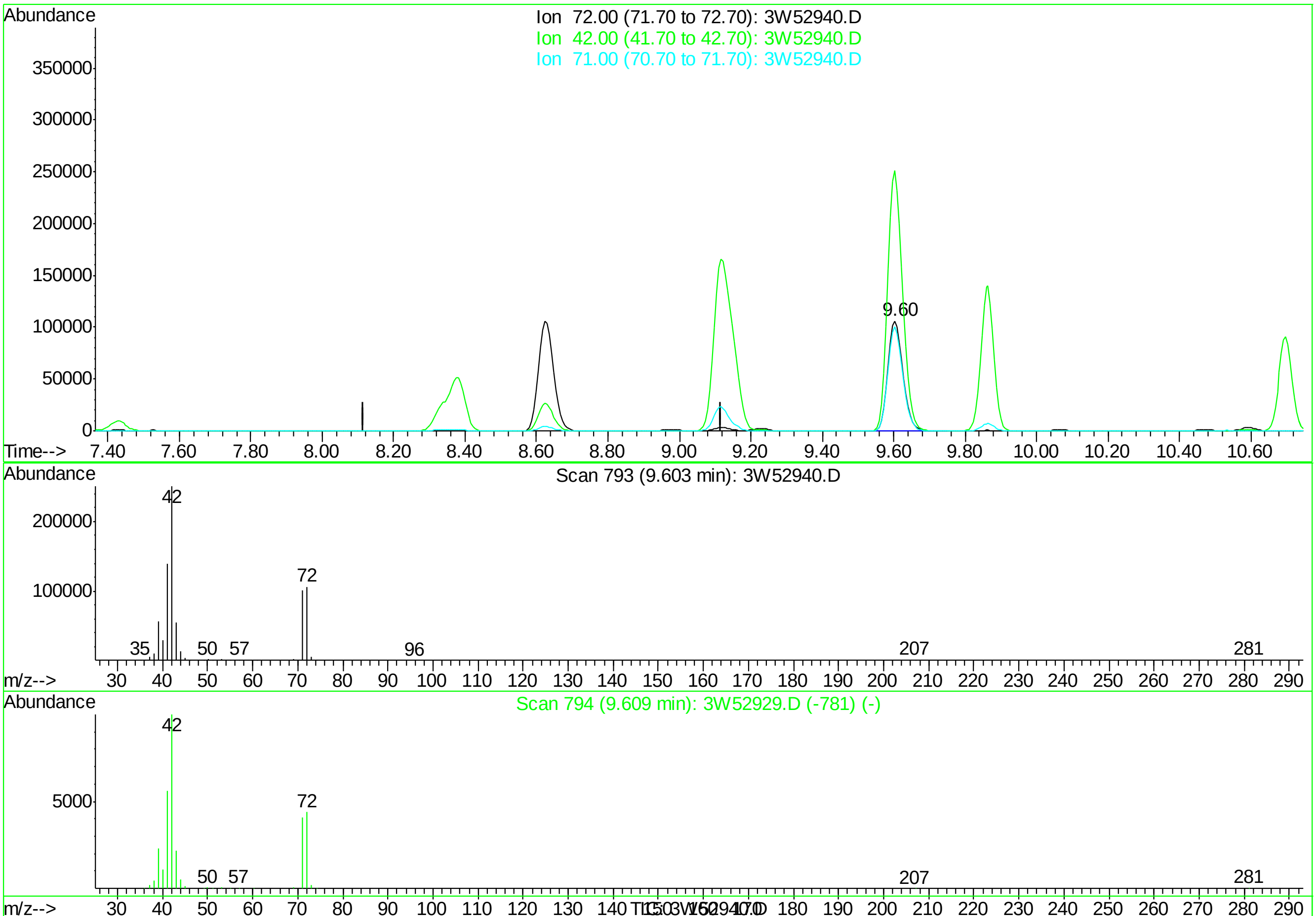
response 525531

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.30
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52940.D   Vial: 1
Acq On    : 23 Mar 2016   3:20 am                      Operator: YOUMINH
Sample    : IC1998-40                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:25 2016                Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.60min 47.66PPBV m

response 303310

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	25.28
71.00	3.90	3.89
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52942.D   Vial: 4
Acq On    : 23 Mar 2016   4:42 am                       Operator: YOUMINH
Sample    : ICV1998-10                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:28:47 2016              Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:27:37 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.11	128	113662	10.00 PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.73	114	562441	10.00 PPBV	0.00
71) CHLOROBENZENE-D5	14.74	82	307171	10.00 PPBV	0.00
System Monitoring Compounds					
86) 4-BROMOFLUOROBENZENE	16.29	95	348248	10.67 PPBV	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 106.70%		

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 115	4.86	85	38300	10.53 PPBV	100
4) FREON 152A	4.97	65	93174	11.35 PPBV	98
5) CHLORODIFLUOROMETHANE	5.02	67	40909	11.15 PPBV	100
6) DICHLORODIFLUOROMETHANE	5.13	85	400359	10.69 PPBV	100
7) PROPYLENE	5.05	41	127428	10.76 PPBV	99
9) FREON 114	5.38	85	417396	10.93 PPBV	98
10) CHLOROMETHANE	5.29	50	142610m	10.72 PPBV	
11) VINYL CHLORIDE	5.50	62	168844	11.02 PPBV	99
12) 1,3-BUTADIENE	5.62	54	131778	10.63 PPBV	97
13) n-BUTANE	5.67	43	266282	10.73 PPBV	99
14) BROMOMETHANE	5.89	94	144040	10.34 PPBV	99
15) CHLOROETHANE	6.03	64	81088	10.86 PPBV	97
16) DICHLOROFLUOROMETHANE	6.10	67	344096	10.84 PPBV	100
17) ACETONITRILE	6.34	41	125979	10.91 PPBV	97
18) FREON 123	6.45	83	358172	10.09 PPBV	99
19) FREON 123A	6.49	117	192400	9.54 PPBV	94
20) TRICHLOROFLUOROMETHANE	6.69	101	372764	10.34 PPBV	100
22) ISOPROPYL ALCOHOL	6.77	45	260143	8.34 PPBV	99
23) ACETONE	6.57	58	73151	10.28 PPBV	96
24) PENTANE	6.97	42	188312	10.97 PPBV	99
26) IODOMETHANE	7.18	142	398702	10.60 PPBV	99
27) 1,1-DICHLOROETHYLENE	7.22	96	154045	10.15 PPBV	98
28) CARBON DISULFIDE	7.61	76	458831	10.80 PPBV	99
29) ETHANOL	6.15	45	55580	8.05 PPBV	99
30) BROMOETHENE	6.34	106	146813	10.25 PPBV	100
31) ACRYLONITRILE	6.94	52	99191	11.41 PPBV	100
32) METHYLENE CHLORIDE	7.32	84	135852	10.44 PPBV	99
33) 3-CHLOROPROPENE	7.42	76	73117	10.82 PPBV	97
34) FREON 113	7.52	151	249963	10.54 PPBV	97
35) TRANS-1,2-DICHLOROETHYLENE	8.09	96	155532	10.41 PPBV	99
36) TERTIARY BUTYL ALCOHOL	7.29	59	324649	8.89 PPBV	98
37) METHYL TERTIARY BUTYL ETHE	8.33	73	411104	10.10 PPBV	99
38) TETRAHYDROFURAN	9.60	72	71645	10.38 PPBV #	1
39) HEXANE	9.10	57	241376	10.41 PPBV	99
40) VINYL ACETATE	8.37	86	38164	11.85 PPBV	97
41) 1,1-DICHLOROETHANE	8.27	63	278276	10.61 PPBV	100
42) METHYL ETHYL KETONE	8.61	72	70314	10.20 PPBV	97
43) cis-1,2-DICHLOROETHYLENE	8.96	96	156428	10.37 PPBV	99
44) DIISOPROPYL ETHER	9.12	59	70629	10.70 PPBV	95
45) ETHYL ACETATE	9.13	61	47750	10.77 PPBV #	93
46) METHYL ACRYLATE	9.13	55	273553	10.11 PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52942.D Vial: 4
Acq On : 23 Mar 2016 4:42 am Operator: YOUMINH
Sample : ICV1998-10 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:28:47 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:27:37 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
47)	CHLOROFORM	9.21	83	323466	10.80 PPBV		98
48)	2,4-DIMETHYLPENTANE	9.85	57	290904	10.76 PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.06	97	327461	10.66 PPBV		99
50)	CARBON TETRACHLORIDE	10.58	117	337952	10.67 PPBV		100
51)	1,2-DICHLOROETHANE	9.85	62	207487	10.92 PPBV		100
53)	BENZENE	10.46	78	476198	10.77 PPBV		100
54)	CYCLOHEXANE	10.69	84	209127	10.48 PPBV		99
55)	2,3-DIMETHYLPENTANE	10.87	71	109038	10.98 PPBV		97
56)	TRICHLOROETHYLENE	11.37	95	208673	10.60 PPBV		99
57)	1,2-DICHLOROPROPANE	11.17	63	177590	10.93 PPBV		99
58)	DIBROMOMETHANE	11.15	174	194058	10.77 PPBV		98
59)	ETHYL ACRYLATE	11.14	55	328822	10.03 PPBV		99
60)	BROMODICHLOROMETHANE	11.34	83	352110	10.57 PPBV		99
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	799750	10.74 PPBV		100
62)	1,4-DIOXANE	11.40	88	97790	9.45 PPBV	#	45
63)	HEPTANE	11.59	43	292186	10.77 PPBV		98
64)	METHYL METHACRYLATE	11.53	69	158450	9.99 PPBV		100
65)	METHYL ISOBUTYL KETONE	12.17	58	123597	9.19 PPBV		98
66)	cis-1,3-DICHLOROPROPENE	12.13	75	286090	10.48 PPBV		99
67)	TOLUENE	13.03	92	335730	11.20 PPBV		99
68)	1,3-DICHLOROPROPANE	13.06	76	264127	10.95 PPBV		99
69)	trans-1,3-DICHLOROPROPENE	12.60	75	259771	11.14 PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.78	83	164004	11.12 PPBV		99
72)	2-HEXANONE	13.28	58	166010	8.61 PPBV		99
73)	ETHYL METHACRYLATE	13.26	69	254960	9.29 PPBV		99
74)	TETRACHLOROETHYLENE	14.11	164	224220	10.50 PPBV		100
75)	DIBROMOCHLOROMETHANE	13.45	129	358340	10.67 PPBV		100
76)	1,2-DIBROMOETHANE	13.69	107	301961	10.64 PPBV		99
77)	OCTANE	13.92	43	400060	11.11 PPBV		99
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	254674	10.84 PPBV		99
79)	CHLOROBENZENE	14.78	112	443954	10.63 PPBV		99
80)	ETHYLBENZENE	15.14	91	682895	10.66 PPBV		100
81)	m,p-XYLENE	15.32	106	533109	21.14 PPBV		99
82)	o-XYLENE	15.80	106	257211	10.73 PPBV		100
83)	STYRENE	15.69	104	395735	10.67 PPBV		100
84)	NONANE	16.00	43	414879	10.33 PPBV		100
85)	BROMOFORM	15.43	173	347715	10.88 PPBV		100
87)	1,1,2,2-TETRACHLOROETHANE	15.80	83	377999	10.09 PPBV		98
88)	1,2,3-TRICHLOROPROPANE	15.94	75	285101	10.04 PPBV		99
89)	ISOPROPYLBENZENE	16.42	105	768424	10.57 PPBV		100
90)	BROMOBENZENE	16.53	77	367917	10.41 PPBV		99
91)	2-CHLOROTOLUENE	16.93	126	182971	10.57 PPBV		100
92)	n-PROPYLBENZENE	16.96	120	200477	10.49 PPBV		100
93)	4-ETHYLTOLUENE	17.12	105	674259	10.25 PPBV		99
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	580555	10.25 PPBV		100
95)	ALPHA-METHYLSTYRENE	17.37	118	294165	10.84 PPBV		99
96)	tert-BUTYLBENZENE	17.64	134	141409	10.27 PPBV		100
97)	1,2,4-TRIMETHYLBENZENE	17.65	105	550973	9.98 PPBV		99
98)	m-DICHLOROBENZENE	17.82	146	361723	10.19 PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52942.D Vial: 4
Acq On : 23 Mar 2016 4:42 am Operator: YOUMINH
Sample : ICV1998-10 Inst : MS3W
Misc : MS99296,V3W1998,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:28:47 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 31 12:27:37 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.80	91	443547	9.86	PPBV	100
100)	p-DICHLOROBENZENE	17.89	146	350754	9.80	PPBV	99
101)	sec-BUTYLBENZENE	17.93	134	169751	10.34	PPBV	99
102)	p-ISOPROPYLTOLUENE	18.11	134	180747	10.32	PPBV	100
103)	o-DICHLOROBENZENE	18.27	146	321771	10.10	PPBV	100
104)	n-BUTYLBENZENE	18.56	134	148490	10.24	PPBV	99
105)	HEXACHLOROETHANE	19.00	117	266041	10.65	PPBV	99
106)	HEXACHLOROBUTADIENE	20.63	225	191816	9.86	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	109877	8.85	PPBV	100
108)	NAPHTHALENE	20.26	128	194224	8.00	PPBV	100

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

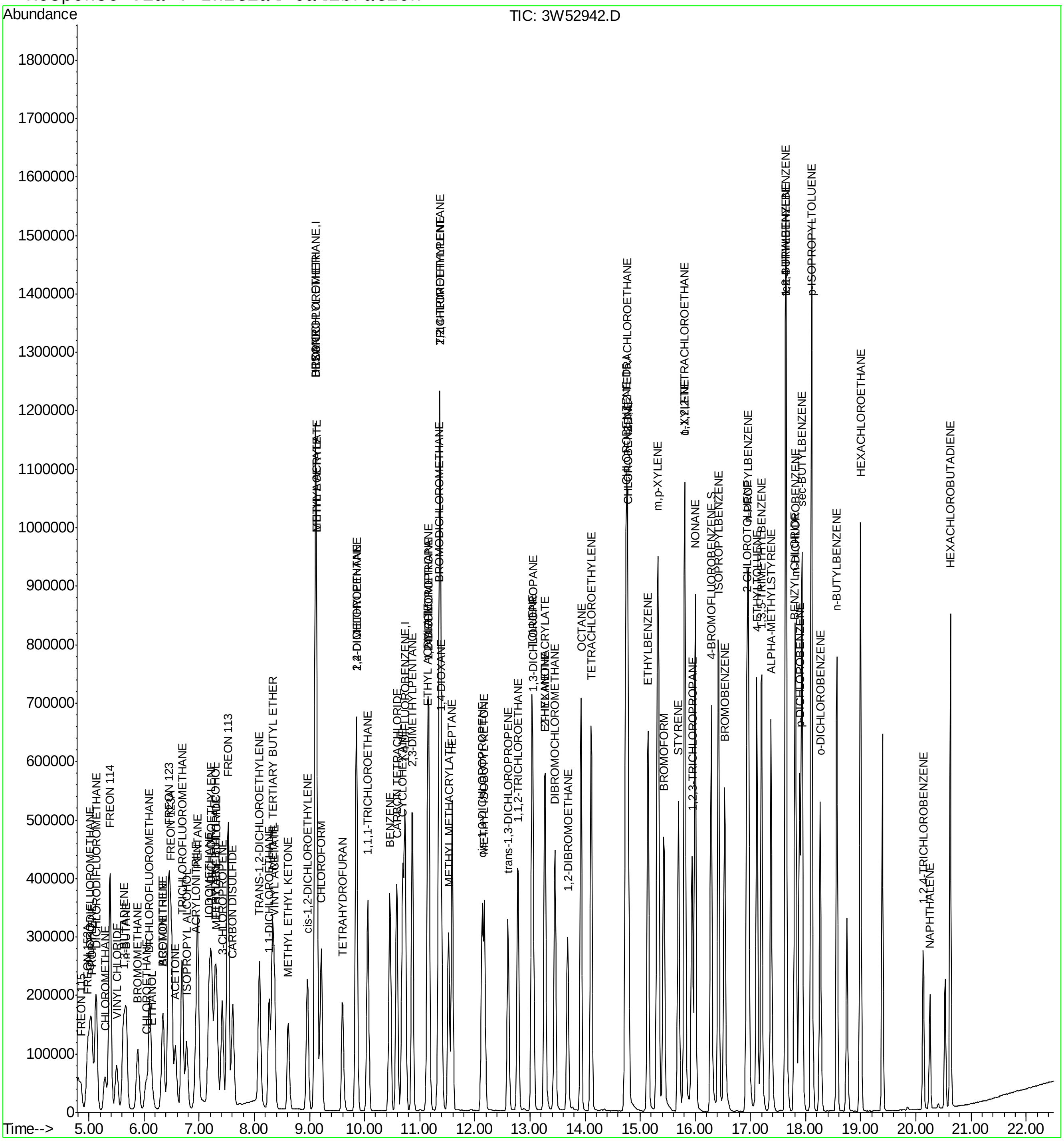
7.7.23

7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1998\3W52942.D   Vial: 4
Acq On    : 23 Mar 2016   4:42 am                       Operator: YOUMINH
Sample    : ICV1998-10                                  Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 31 12:32 2016                 Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

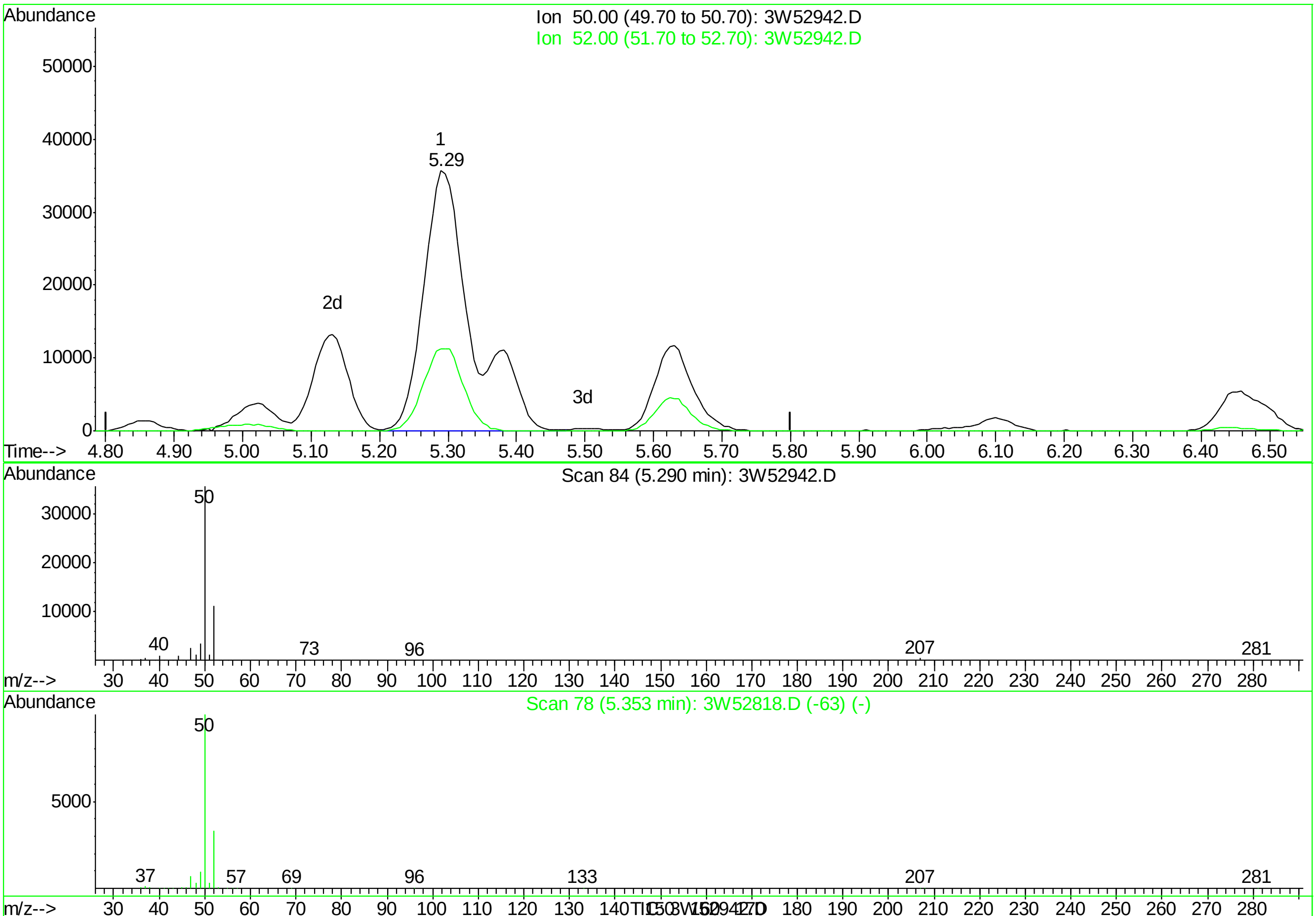
Sample Number:	V3W1998-ICV1998	**Method:**	TO-15
Lab FileID:	3W52942.D	**Analyst approved:**	03/31/16 12:59 Youmin Hu
Injection Time:	03/23/16 04:42	**Supervisor approved:**	03/31/16 16:24 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.29	Overlapping peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52942.D                    Vial: 4
Acq On    : 23 Mar 2016   4:42 am                      Operator: YOUMINH
Sample    : ICV1998-10                                 Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24  9:43 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 09:43:25 2016
Response via : Multiple Level Calibration
```

(10) CHLOROMETHANE

5.29min 12.61PPBV

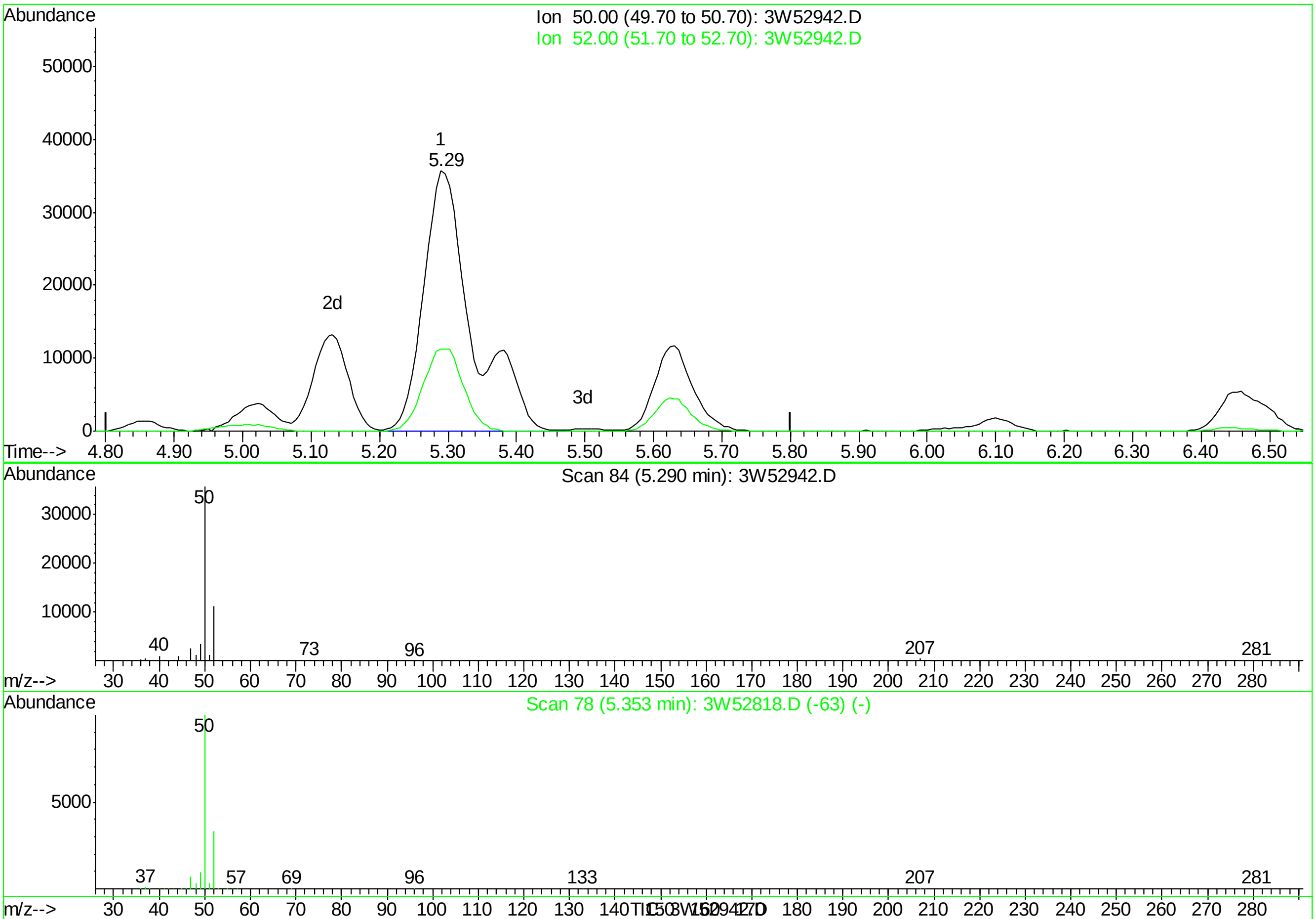
response 175676

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52942.D                 Vial: 4
Acq On    : 23 Mar 2016   4:42 am                   Operator: YOUMINH
Sample    : ICV1998-10                              Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                   Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 10:52 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 10:51:39 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.29min 13.20PPBV

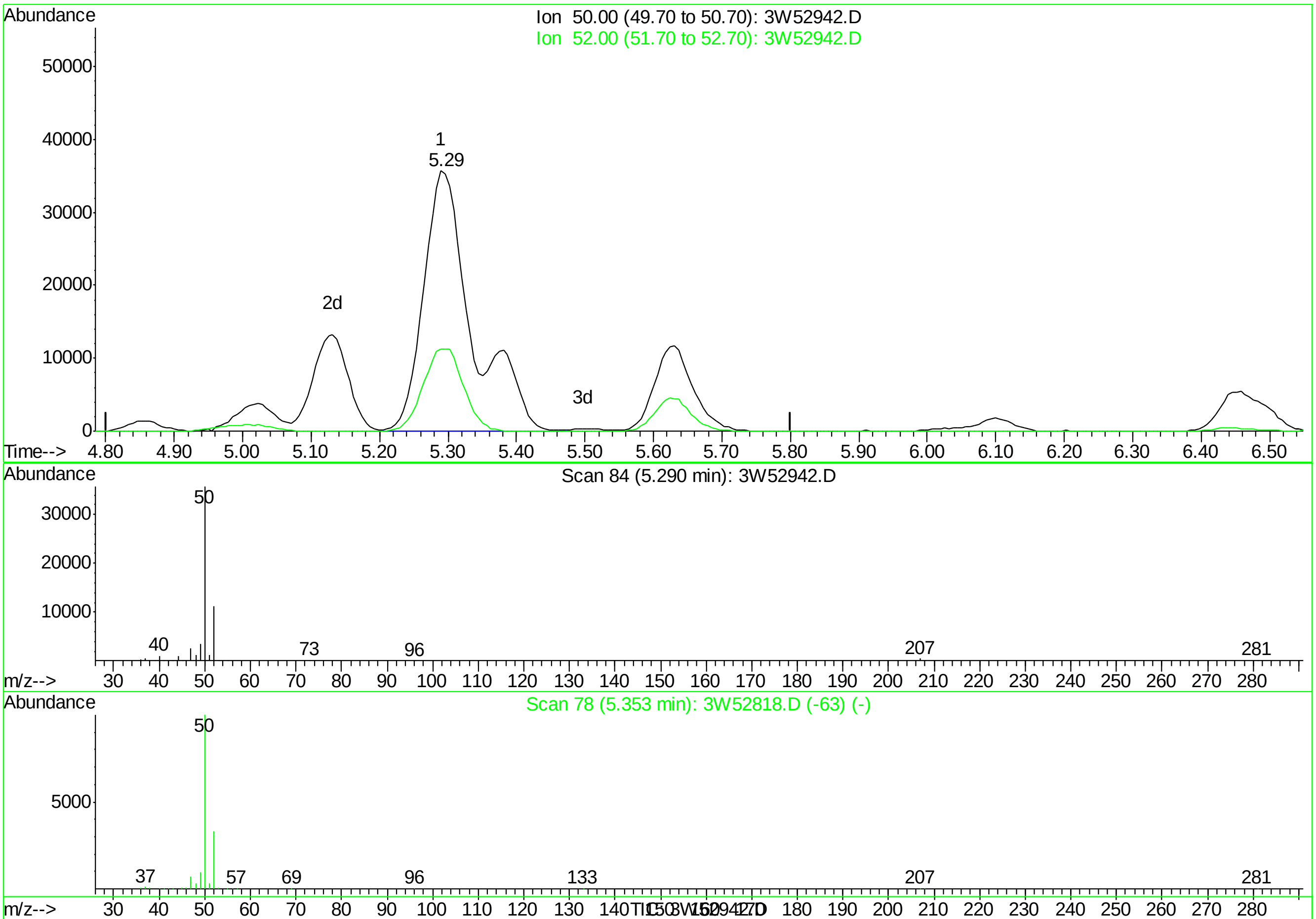
response 175676

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.81
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52942.D                  Vial: 4
Acq On    : 23 Mar 2016   4:42 am                    Operator: YOUMINH
Sample    : ICV1998-10                               Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 12:30 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.29min 13.20PPBV

response 175676

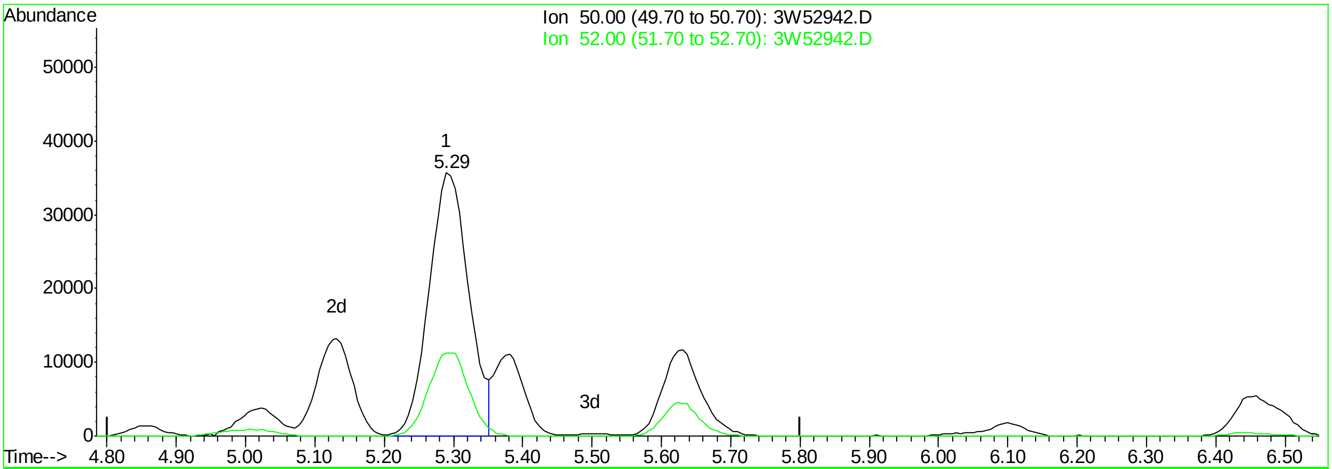
Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.81
0.00	0.00	0.00
0.00	0.00	0.00

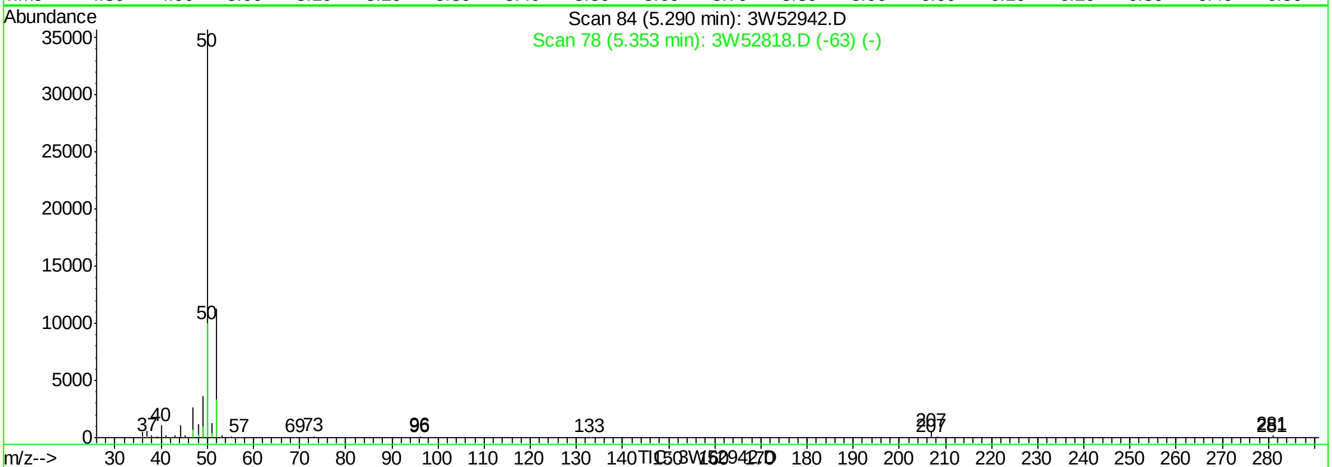
3W52942.D edits: CHLOROMETHANE

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52942.D                Vial: 4
Acq On    : 23 Mar 2016   4:42 am                  Operator: YOUMINH
Sample    : ICV1998-10                             Inst    : MS3W
Misc      : MS99296,V3W1998,,,,,1                  Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 24 12:30 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```





(10) CHLOROMETHANE

5.29min 10.72PPBV m

response 142610

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.64
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/01/16 08:53

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D   Vial: 2
Acq On    : 24 Mar 2016  11:10 am                      Operator: YOUMINH
Sample    : CC1998-10                                  Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:11 2016             Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.11	128	108812	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	10.73	114	538426	10.00	PPBV	0.00
71) CHLOROBENZENE-D5	14.73	82	286604	10.00	PPBV	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
86) 4-BROMOFLUOROBENZENE	16.28	95	304281	10.00	PPBV	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 100.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 115	4.86	85	34358	9.86	PPBV	99
4) FREON 152A	4.99	65	84957	10.49	PPBV	100
5) CHLORODIFLUOROMETHANE	5.03	67	38121	10.86	PPBV	98
6) DICHLORODIFLUOROMETHANE	5.14	85	378478	10.56	PPBV	100
7) PROPYLENE	5.06	41	117001	10.32	PPBV	100
9) FREON 114	5.39	85	397565	10.87	PPBV	98
10) CHLOROMETHANE	5.30	50	138431m	10.87	PPBV	
11) VINYL CHLORIDE	5.51	62	158672	10.82	PPBV	100
12) 1,3-BUTADIENE	5.64	54	123366	10.40	PPBV	97
13) n-BUTANE	5.68	43	248561	10.47	PPBV	99
14) BROMOMETHANE	5.89	94	137697	10.32	PPBV	98
15) CHLOROETHANE	6.04	64	74901	10.48	PPBV	98
16) DICHLOROFLUOROMETHANE	6.11	67	310801	10.22	PPBV	100
17) ACETONITRILE	6.34	41	114613	10.37	PPBV	98
18) FREON 123	6.45	83	335843	9.88	PPBV	100
19) FREON 123A	6.50	117	188610	9.77	PPBV	94
20) TRICHLOROFLUOROMETHANE	6.70	101	353014	10.23	PPBV	99
22) ISOPROPYL ALCOHOL	6.77	45	362978	12.16	PPBV	95
23) ACETONE	6.57	58	69501	10.20	PPBV	94
24) PENTANE	6.98	42	165308	10.06	PPBV	99
26) IODOMETHANE	7.19	142	366873	10.19	PPBV	100
27) 1,1-DICHLOROETHYLENE	7.23	96	146912	10.11	PPBV	99
28) CARBON DISULFIDE	7.61	76	438318	10.78	PPBV	92
29) ETHANOL	6.15	45	65857	9.96	PPBV	100
30) BROMOETHENE	6.35	106	139879	10.20	PPBV	99
31) ACRYLONITRILE	6.94	52	88035	10.57	PPBV	100
32) METHYLENE CHLORIDE	7.32	84	129008	10.36	PPBV	94
33) 3-CHLOROPROPENE	7.42	76	68936	10.66	PPBV	98
34) FREON 113	7.53	151	225509	9.93	PPBV	97
35) TRANS-1,2-DICHLOROETHYLENE	8.10	96	141589	9.90	PPBV	99
36) TERTIARY BUTYL ALCOHOL	7.29	59	358599	10.26	PPBV	100
37) METHYL TERTIARY BUTYL ETHE	8.33	73	381981	9.80	PPBV	99
38) TETRAHYDROFURAN	9.60	72	65713m	9.96	PPBV	
39) HEXANE	9.11	57	220107	9.91	PPBV	100
40) VINYL ACETATE	8.37	86	32650	10.59	PPBV	96
41) 1,1-DICHLOROETHANE	8.28	63	252000	10.04	PPBV	100
42) METHYL ETHYL KETONE	8.61	72	67103	10.17	PPBV	96
43) cis-1,2-DICHLOROETHYLENE	8.96	96	142568	9.87	PPBV	99
44) DIISOPROPYL ETHER	9.12	59	64061	10.14	PPBV	98
45) ETHYL ACETATE	9.13	61	44669	10.52	PPBV	99
46) METHYL ACRYLATE	9.13	55	258226	9.97	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D Vial: 2
Acq On : 24 Mar 2016 11:10 am Operator: YOUMINH
Sample : CC1998-10 Inst : MS3W
Misc : MS99296,V3W1999,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:11 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
47)	CHLOROFORM	9.21	83	288126	10.05	PPBV		98
48)	2,4-DIMETHYLPENTANE	9.85	57	253634	9.80	PPBV		99
49)	1,1,1-TRICHLOROETHANE	10.06	97	290631	9.88	PPBV		99
50)	CARBON TETRACHLORIDE	10.58	117	302194	9.96	PPBV		100
51)	1,2-DICHLOROETHANE	9.85	62	185834	10.22	PPBV		100
53)	BENZENE	10.45	78	424094	10.02	PPBV		100
54)	CYCLOHEXANE	10.69	84	187102	9.79	PPBV		100
55)	2,3-DIMETHYLPENTANE	10.86	71	95307	10.02	PPBV		98
56)	TRICHLOROETHYLENE	11.37	95	189185	10.04	PPBV		98
57)	1,2-DICHLOROPROPANE	11.17	63	154957	9.96	PPBV		100
58)	DIBROMOMETHANE	11.15	174	173548	10.06	PPBV		98
59)	ETHYL ACRYLATE	11.14	55	314090	10.01	PPBV		100
60)	BROMODICHLOROMETHANE	11.34	83	325722	10.21	PPBV		99
61)	2,2,4-TRIMETHYLPENTANE	11.37	57	693044	9.72	PPBV		100
62)	1,4-DIOXANE	11.40	88	91639	9.25	PPBV	#	74
63)	HEPTANE	11.59	43	246754	9.50	PPBV		99
64)	METHYL METHACRYLATE	11.52	69	152471	10.04	PPBV		99
65)	METHYL ISOBUTYL KETONE	12.17	58	133011	10.33	PPBV		99
66)	cis-1,3-DICHLOROPROPENE	12.13	75	265967	10.18	PPBV		98
67)	TOLUENE	13.03	92	294376	10.25	PPBV		99
68)	1,3-DICHLOROPROPANE	13.05	76	244300	10.58	PPBV		100
69)	trans-1,3-DICHLOROPROPENE	12.60	75	231492	10.37	PPBV		99
70)	1,1,2-TRICHLOROETHANE	12.78	83	150326	10.65	PPBV		99
72)	2-HEXANONE	13.27	58	183230	10.19	PPBV		98
73)	ETHYL METHACRYLATE	13.25	69	266841	10.43	PPBV		99
74)	TETRACHLOROETHYLENE	14.11	164	198280	9.95	PPBV		99
75)	DIBROMOCHLOROMETHANE	13.45	129	325508	10.39	PPBV		100
76)	1,2-DIBROMOETHANE	13.68	107	272985	10.31	PPBV		99
77)	OCTANE	13.92	43	346731	10.32	PPBV		98
78)	1,1,1,2-TETRACHLOROETHANE	14.76	131	229984	10.49	PPBV		99
79)	CHLOROBENZENE	14.77	112	402746	10.33	PPBV		99
80)	ETHYLBENZENE	15.13	91	632525	10.59	PPBV		100
81)	m,p-XYLENE	15.32	106	498216	21.18	PPBV		98
82)	o-XYLENE	15.80	106	246344	11.02	PPBV		99
83)	STYRENE	15.69	104	370398	10.71	PPBV		100
84)	NONANE	15.99	43	387839	10.35	PPBV		99
85)	BROMOFORM	15.42	173	332672	11.16	PPBV		99
87)	1,1,2,2-TETRACHLOROETHANE	15.80	83	400503	11.46	PPBV		100
88)	1,2,3-TRICHLOROPROPANE	15.94	75	282537	10.67	PPBV		100
89)	ISOPROPYLBENZENE	16.41	105	744297	10.98	PPBV		100
90)	BROMOBENZENE	16.53	77	351741	10.66	PPBV		99
91)	2-CHLOROTOLUENE	16.93	126	181289	11.23	PPBV		100
92)	n-PROPYLBENZENE	16.96	120	202712	11.37	PPBV		99
93)	4-ETHYLTOLUENE	17.11	105	684556	11.15	PPBV		100
94)	1,3,5-TRIMETHYLBENZENE	17.20	105	601834	11.39	PPBV		100
95)	ALPHA-METHYLSTYRENE	17.37	118	293547	11.59	PPBV		99
96)	tert-BUTYLBENZENE	17.63	134	144759	11.27	PPBV		99
97)	1,2,4-TRIMETHYLBENZENE	17.64	105	585636	11.37	PPBV		99
98)	m-DICHLOROBENZENE	17.82	146	363145	10.96	PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D Vial: 2
Acq On : 24 Mar 2016 11:10 am Operator: YOUMINH
Sample : CC1998-10 Inst : MS3W
Misc : MS99296,V3W1999,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 09:44:11 2016 Quant Results File: M3W1998.RES

Quant Method : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update : Thu Mar 24 12:29:59 2016
Response via : Initial Calibration
DataAcq Meth : TO153W

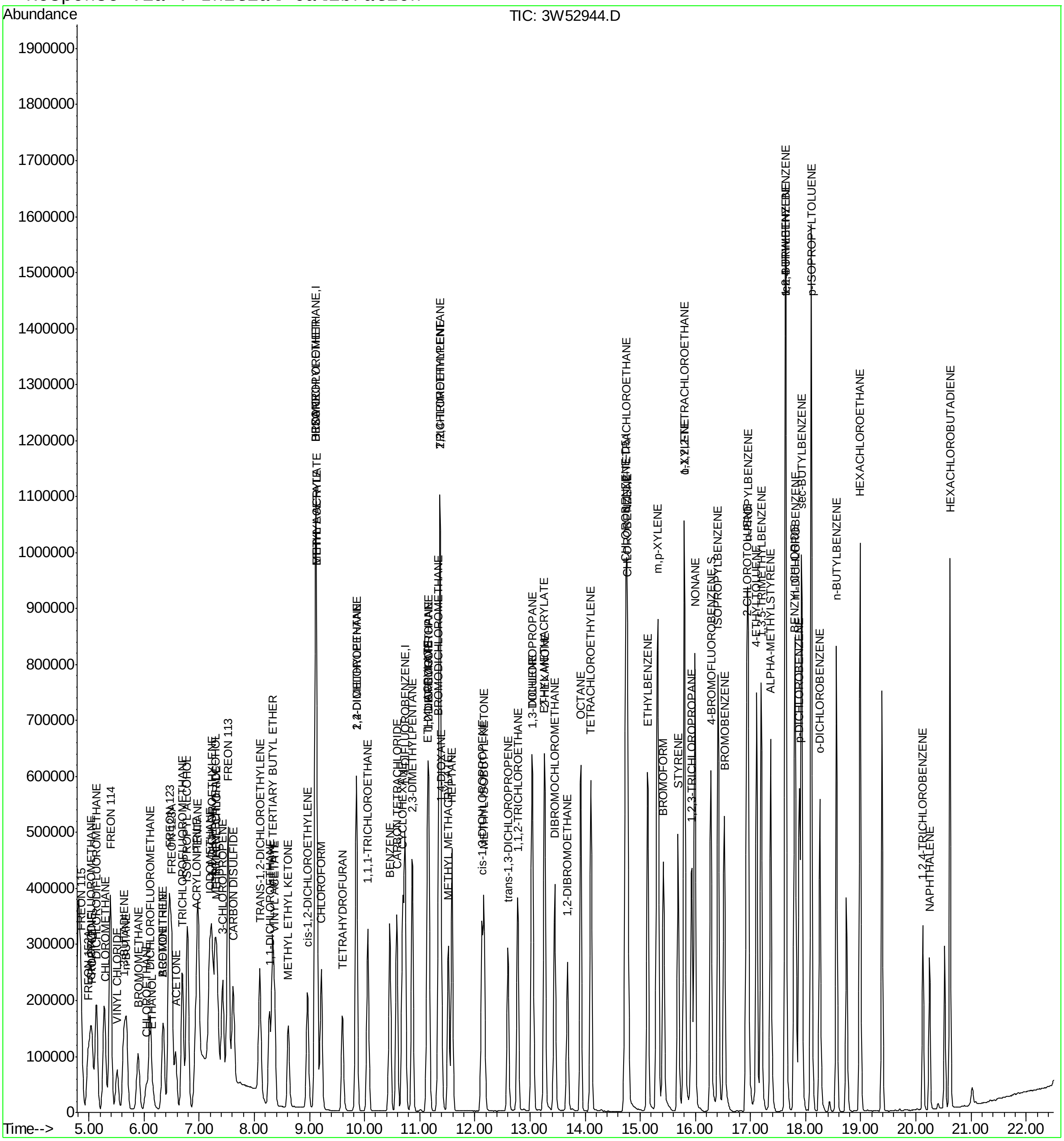
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
99)	BENZYL CHLORIDE	17.79	91	463903	11.05	PPBV	100
100)	p-DICHLOROBENZENE	17.88	146	358709	10.74	PPBV	99
101)	sec-BUTYLBENZENE	17.93	134	175712	11.47	PPBV	98
102)	p-ISOPROPYLTOLUENE	18.10	134	189462	11.59	PPBV	100
103)	o-DICHLOROBENZENE	18.26	146	335975	11.31	PPBV	99
104)	n-BUTYLBENZENE	18.56	134	158333	11.70	PPBV	98
105)	HEXACHLOROETHANE	18.99	117	270240	11.59	PPBV	99
106)	HEXACHLOROBUTADIENE	20.62	225	220115	12.12	PPBV	100
107)	1,2,4-TRICHLOROBENZENE	20.13	180	129210	11.15	PPBV	100
108)	NAPHTHALENE	20.25	128	258747	11.43	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D   Vial: 2
Acq On    : 24 Mar 2016  11:10 am                       Operator: YOUMINH
Sample    : CC1998-10                                   Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                       Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:45 2016             Quant Results File: M3W1998.RES

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 31 12:29:33 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

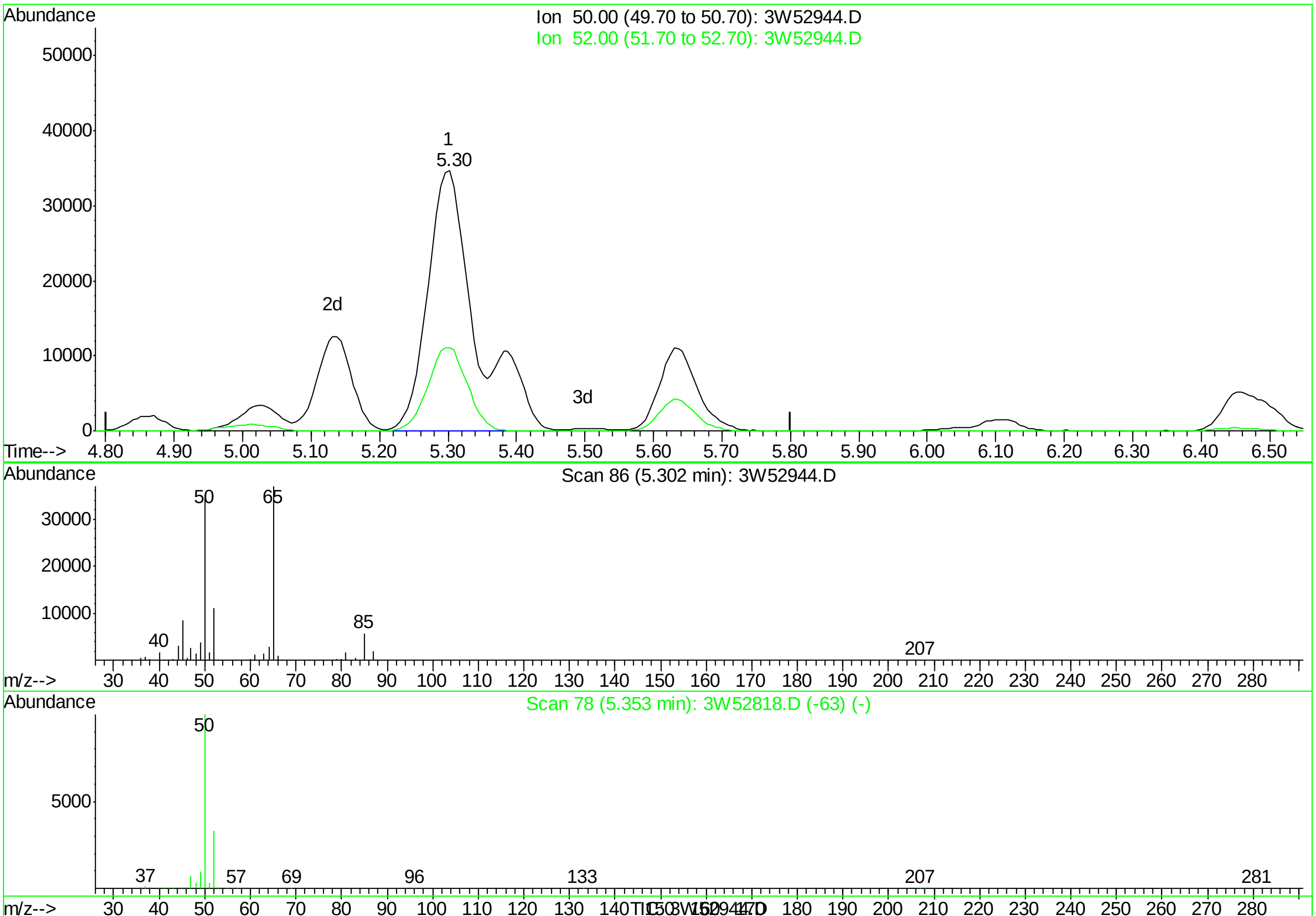
Sample Number:	V3W1999-CC1998	**Method:**	TO-15	
Lab FileID:	3W52944.D	**Analyst approved:**	04/01/16 08:49	Dana Tryon
Injection Time:	03/24/16 11:10	**Supervisor approved:**	04/01/16 08:53	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Chloromethane	74-87-3		5.30	Poor instrument integration
Tetrahydrofuran	109-99-9		9.60	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52944.D                  Vial: 2
Acq On    : 24 Mar 2016  11:10 am                    Operator: YOUMINH
Sample    : CC1998-10                                Inst     : MS3W
Misc      : MS99296,V3W1999,,,,,1                    Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25  9:54 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```



(10) CHLOROMETHANE

5.30min 13.36PPBV

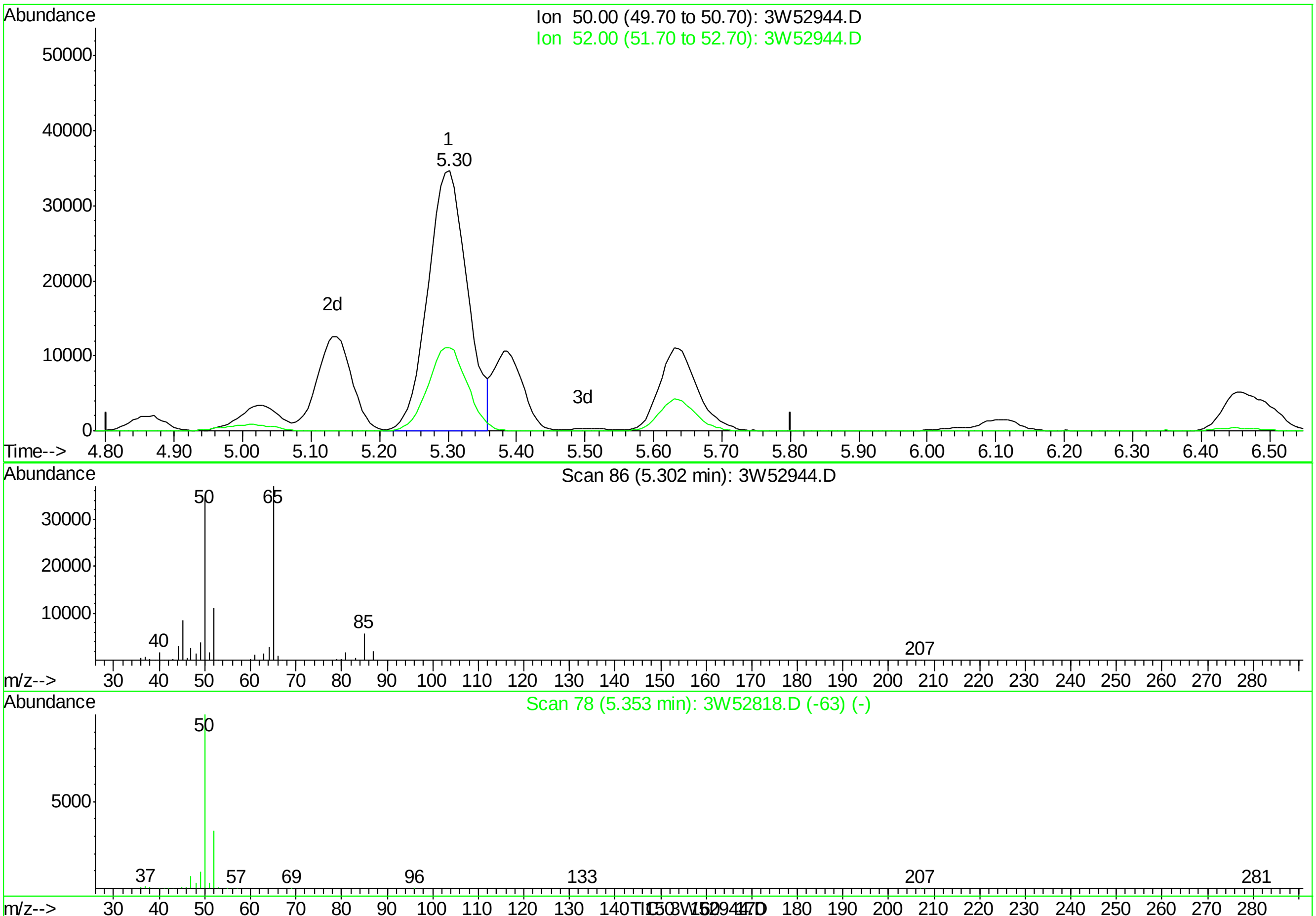
response 170271

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	32.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\3W52944.D                    Vial: 2
Acq On    : 24 Mar 2016  11:10 am                      Operator: YOUMINH
Sample    : CC1998-10                                  Inst    : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Mar 25 11:58 2016              Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update  : Thu Mar 24 12:29:59 2016
Response via : Multiple Level Calibration
```

(10) CHLOROMETHANE

5.30min 10.87PPBV m

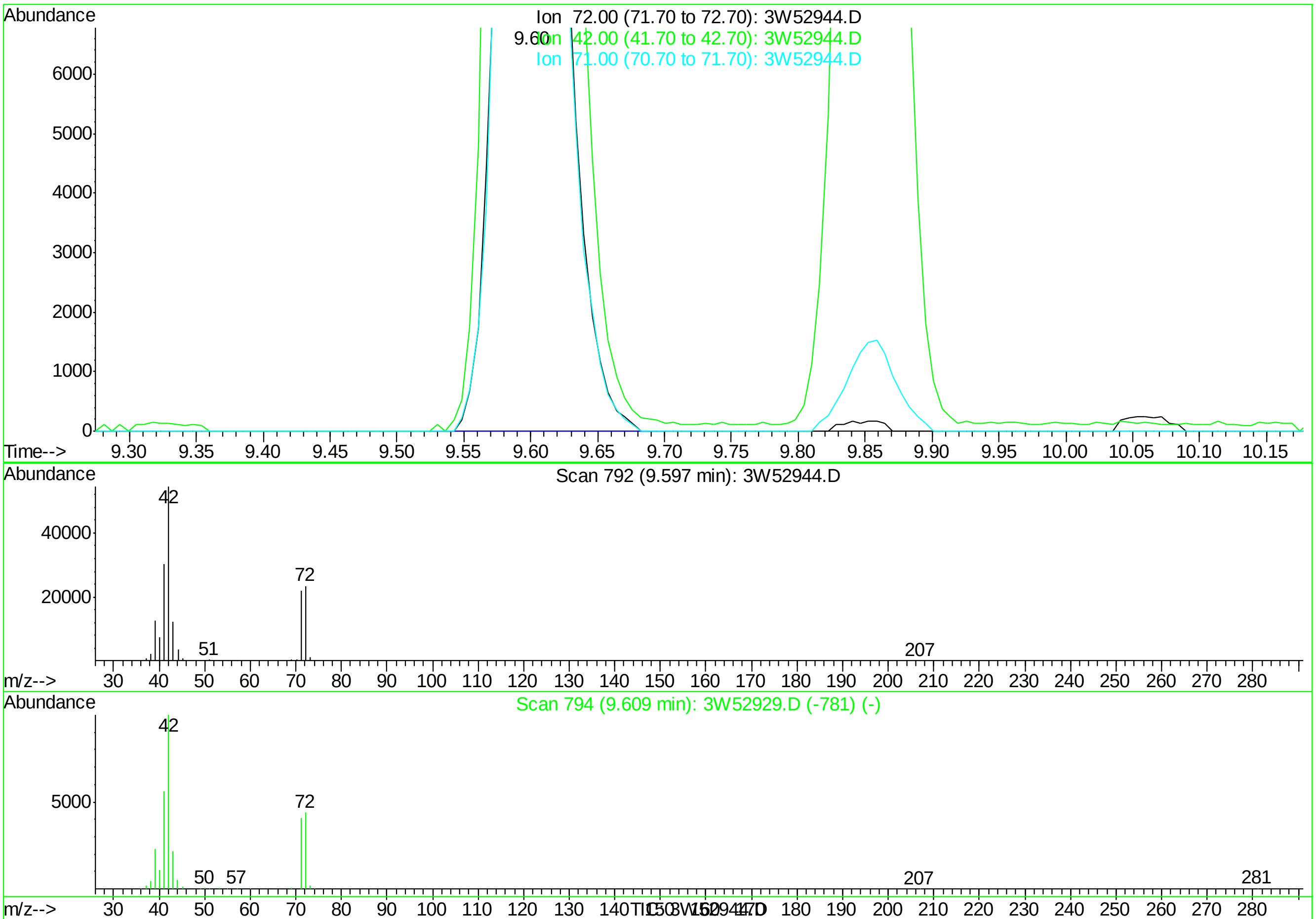
response 138431

Ion	Exp%	Act%
50.00	100	100
52.00	32.30	31.96
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\OLDV3W\V3W1999\3W52944.D   Vial: 2
Acq On    : 24 Mar 2016  11:10 am                      Operator: YOUMINH
Sample    : CC1998-10                                  Inst     : MS3W
Misc      : MS99296,V3W1999,,,,,1                      Multiplr: 1.00
MS Integration Params: RTEINT1.P
Quant Time: Apr  1  8:45 2016              Quant Results File: temp.res

Method         : C:\MSDCHEM\1\METHODS\M3W1998.M (RTE Integrator)
Title          : TO15 by GCMS w/Rtx-1, 60 m X 0.32mm ID X 1.0 um
Last Update    : Thu Mar 31 12:29:33 2016
Response via   : Multiple Level Calibration
```



(38) TETRAHYDROFURAN

9.60min 9.96PPBV m

response 65713

Ion	Exp%	Act%
72.00	100	100
42.00	26.70	26.47
71.00	3.90	3.90
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15841.D
Acq On : 22 Jan 2016 9:47 pm
Operator : THOMASH
Sample : ICC637-10
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:46:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.285	130	165817	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.488	114	626348	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.049	82	304742	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.285	130	165817	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.300	95	405807	10.00	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.00%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	421218	10.00	ppb(v	95
3) Freon 152A	3.838	65	93544	10.00	ppb(v	90
4) Chlorodifluoromethane	3.881	67	34847	10.00	ppb(v	97
5) Propene	3.905	41	95240	10.00	ppb(v	98
6) Dichlorodifluoromethane	3.960	85	387523	10.00	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.076	65	255633	10.00	ppb(v	96
8) Chloromethane	4.101	50	131255	10.00	ppb(v	99
9) Dichlorotetrafluoroethane	4.174	85	436191	10.00	ppb(v	99
10) Vinyl Chloride	4.278	62	156744	10.00	ppb(v#	99
11) 1,3-Butadiene	4.388	54	111783	10.00	ppb(v	91
12) n-Butane	4.431	58	24170	10.00	ppb(v#	76
13) Bromomethane	4.615	94	170373	10.00	ppb(v	99
14) Chloroethane	4.755	64	77197	10.00	ppb(v	96
15) Dichlorofluoromethane	4.829	67	347296	10.00	ppb(v	99
16) Acetonitrile	5.055	41	110290	10.00	ppb(v	98
17) Freon 123	5.178	83	415874	10.00	ppb(v	98
18) Freon 123A	5.226	117	239575	10.00	ppb(v	94
19) Bromoethene	5.055	106	176553	10.00	ppb(v	97
20) Trichlorofluoromethane	5.416	101	401215	10.00	ppb(v	100
21) Acetone	5.275	58	69437	10.00	ppb(v	84
22) Pentane	5.722	57	37871	10.00	ppb(v	78
23) 1,1-Dichloro-1-fluoroe...	5.520	81	326258	10.00	ppb(v	97
24) Iodomethane	5.930	142	491510	10.00	ppb(v	93
25) Isopropyl Alcohol	5.496	43	45674	10.00	ppb(v	83
26) 1,1-Dichloroethene	5.997	61	244845	10.00	ppb(v	91
27) Freon 113	6.352	101	359890	10.00	ppb(v	96
28) Methylene Chloride	6.114	84	152665	10.00	ppb(v	90
29) Carbon Disulfide	6.395	76	490023	10.00	ppb(v	100
30) Ethanol	4.866	45	57490	10.00	ppb(v	96
31) Acrylonitrile	5.691	53	116751	10.00	ppb(v	99
32) 3-Chloropropene	6.218	76	75624	10.00	ppb(v	82
33) trans-1,2-Dichloroethene	7.013	61	225822	10.00	ppb(v	95
34) tert-Butyl Alcohol	6.034	59	353248	10.00	ppb(v	95
35) Methyl tert-Butyl Ether	7.276	73	434156	10.00	ppb(v	96
36) Vinyl Acetate	7.380	43	389039	10.00	ppb(v	95
37) 1,1-Dichloroethane	7.221	63	292830	10.00	ppb(v	99
38) 2-Butanone	7.643	72	79178	10.00	ppb(v	78
39) Hexane	8.304	57	225897	10.00	ppb(v	89
40) cis-1,2-Dichloroethene	8.108	61	217987	10.00	ppb(v	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15841.D
Acq On : 22 Jan 2016 9:47 pm
Operator : THOMASH
Sample : ICC637-10
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:46:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.310	87	136036	10.00 ppb(v	80
42) Ethyl Acetate	8.353	61	54548	10.00 ppb(v	80
43) Methyl Acrylate	8.340	55	296928	10.00 ppb(v	97
44) Chloroform	8.426	83	354880	10.00 ppb(v	98
45) 2,4-Dimethylpentane	9.289	57	278517	10.00 ppb(v	98
46) Tetrahydrofuran	8.873	72	79672	10.00 ppb(v	85
47) 1,1,1-Trichloroethane	9.521	97	344679	10.00 ppb(v	98
48) 1,2-Dichloroethane	9.240	62	201525	10.00 ppb(v	99
49) Benzene	10.053	78	528351	10.00 ppb(v	98
50) Carbon Tetrachloride	10.225	117	361449	10.00 ppb(v	99
51) Cyclohexane	10.359	56	235335	10.00 ppb(v	95
52) 2,3-Dimethylpentane	10.647	71	107942	10.00 ppb(v	94
54) 2,2,4-Trimethylpentane	11.338	57	782600	10.00 ppb(v	97
55) Heptane	11.681	71	162754	10.00 ppb(v	97
56) Trichloroethene	11.320	95	249950	10.00 ppb(v	96
57) 1,2-Dichloropropane	11.020	63	193219	10.00 ppb(v	98
58) Dibromomethane	11.002	174	243786	10.00 ppb(v	88
59) Ethyl Acrylate	11.057	55	373900	10.00 ppb(v	97
60) Methyl Methacrylate	11.589	69	185073	10.00 ppb(v	88
61) 1,4-Dioxane	11.338	88	126001	10.00 ppb(v	85
62) Bromodichloromethane	11.271	83	396337	10.00 ppb(v	99
63) cis-1,3-Dichloropropene	12.396	75	330017	10.00 ppb(v	99
64) 4-Methyl-2-pentanone	12.445	58	157559	10.00 ppb(v	89
65) trans-1,3-Dichloropropene	13.075	75	282055	10.00 ppb(v	98
66) Toluene	13.644	91	643347	10.00 ppb(v	100
67) 1,1,2-Trichloroethane	13.290	97	232543	10.00 ppb(v	97
68) 1,3-Dichloropropane	13.687	76	303950	10.00 ppb(v	93
69) 2-Hexanone	14.018	58	219837	10.00 ppb(v	88
70) Ethyl Methacrylate	14.054	69	322275	10.00 ppb(v	97
71) Dibromochloromethane	14.207	129	430308	10.00 ppb(v	100
72) Tetrachloroethene	15.162	166	334865	10.00 ppb(v	99
73) 1,2-Dibromoethane	14.525	107	379933	10.00 ppb(v	98
74) Octane	14.990	43	348035	10.00 ppb(v	93
75) 1,1,1,2-Tetrachloroethane	16.092	131	294847	10.00 ppb(v	98
77) Chlorobenzene	16.110	112	523597	10.00 ppb(v	97
78) Ethylbenzene	16.654	91	828591	10.00 ppb(v	98
79) m,p-Xylene	16.930	91	1257673	20.00 ppb(v	97
80) Styrene	17.450	104	492542	10.00 ppb(v	99
81) Nonane	17.982	43	344929	10.00 ppb(v	94
82) o-Xylene	17.603	91	637326	10.00 ppb(v	99
83) Bromoform	17.003	173	455013	10.00 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.603	83	519650	10.00 ppb(v	100
85) 1,2,3-Trichloropropane	17.798	75	366292	10.00 ppb(v	98
86) Isopropylbenzene	18.514	105	909101	10.00 ppb(v	98
87) Bromobenzene	18.624	156	318500	10.00 ppb(v	94
88) 2-Chlorotoluene	19.230	126	234514	10.00 ppb(v	91
89) n-Propylbenzene	19.297	120	243453	10.00 ppb(v	93
91) 4-Ethyltoluene	19.517	105	843766	10.00 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.640	105	715631	10.00 ppb(v	98
93) alpha-Methylstyrene	19.872	118	380939	10.00 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15841.D
Acq On : 22 Jan 2016 9:47 pm
Operator : THOMASH
Sample : ICC637-10
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:46:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.203	134	158765	10.00	ppb(v	84
95)	1,2,4-Trimethylbenzene	20.221	105	731496	10.00	ppb(v	95
96)	1,3-Dichlorobenzene	20.411	146	496593	10.00	ppb(v	97
97)	Benzyl Chloride	20.398	91	650204	10.00	ppb(v	97
98)	1,4-Dichlorobenzene	20.508	146	501932	10.00	ppb(v	97
99)	sec-Butylbenzene	20.588	134	196618	10.00	ppb(v	89
100)	p-Isopropyltoluene	20.814	134	221180	10.00	ppb(v	96
101)	1,2-Dichlorobenzene	20.967	146	473417	10.00	ppb(v	97
102)	n-Butylbenzene	21.383	134	198460	10.00	ppb(v	86
103)	Hexachloroethane	21.848	201	299598	10.00	ppb(v	89
104)	1,2,4-Trichlorobenzene	23.164	180	282945	10.00	ppb(v	99
105)	Naphthalene	23.292	128	604138	10.00	ppb(v	100
106)	Hexachlorobutadiene	23.739	225	274575	10.00	ppb(v	99
108)	TVHC as equiv Pentane	5.722	TIC	885404	10.00	ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15841.D
Acq On    : 22 Jan 2016   9:47 pm
Operator  : THOMASH
Sample    : ICC637-10
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:46:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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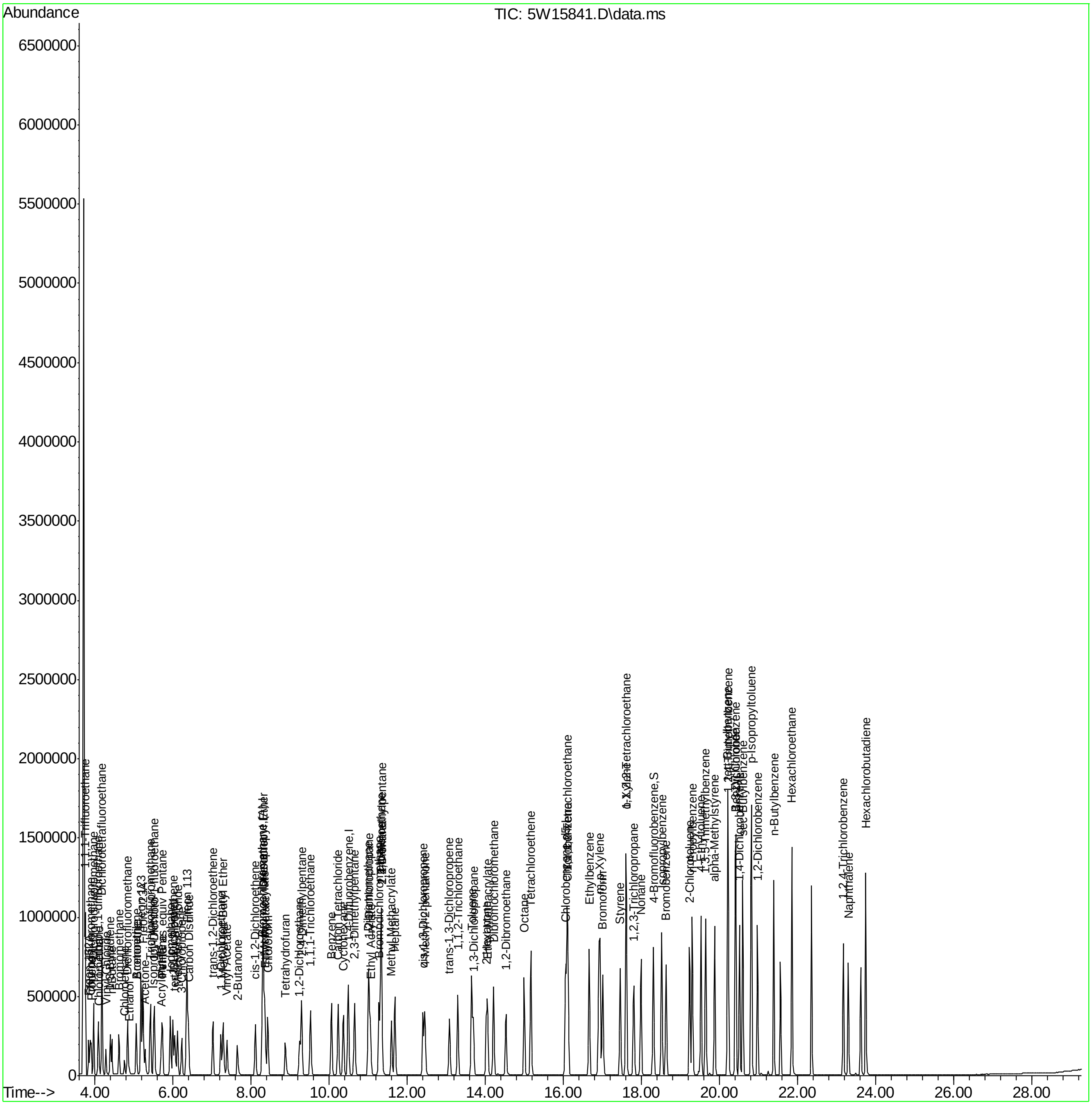

m5w637.M Mon Jan 25 12:12:27 2016 GCMS5W

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15842.D
Acq On    : 22 Jan 2016  10:29 pm
Operator  : THOMASH
Sample    : IC637-5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:46:43 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.285	130	157743	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.481	114	605028	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.049	82	285988	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.285	130	157743	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.294	95	384679	10.10 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery =	101.00%	
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	198782	4.96 ppb(v	95
3) Freon 152A	3.838	65	44121	4.96 ppb(v	91
4) Chlorodifluoromethane	3.880	67	16579	5.00 ppb(v	98
5) Propene	3.905	41	45291	5.00 ppb(v	97
6) Dichlorodifluoromethane	3.960	85	183596	4.98 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.076	65	120827	4.97 ppb(v	95
8) Chloromethane	4.101	50	62011	4.97 ppb(v	97
9) Dichlorotetrafluoroethane	4.174	85	206563	4.98 ppb(v	99
10) Vinyl Chloride	4.278	62	73815	4.95 ppb(v#	99
11) 1,3-Butadiene	4.388	54	52669	4.95 ppb(v	92
12) n-Butane	4.431	58	11481	4.99 ppb(v#	83
13) Bromomethane	4.614	94	80298	4.95 ppb(v	99
14) Chloroethane	4.755	64	36378	4.95 ppb(v	98
15) Dichlorofluoromethane	4.829	67	164864	4.99 ppb(v	99
16) Acetonitrile	5.055	41	51917	4.95 ppb(v	98
17) Freon 123	5.177	83	196745	4.97 ppb(v	99
18) Freon 123A	5.226	117	112459	4.93 ppb(v	95
19) Bromoethene	5.055	106	82868	4.93 ppb(v	97
20) Trichlorofluoromethane	5.416	101	188544	4.94 ppb(v	100
21) Acetone	5.281	58	33710	5.10 ppb(v	81
22) Pentane	5.722	57	18113	5.03 ppb(v	75
23) 1,1-Dichloro-1-fluoroe...	5.520	81	154104	4.97 ppb(v	97
24) Iodomethane	5.924	142	229425	4.91 ppb(v	93
25) Isopropyl Alcohol	5.495	43	22231	5.12 ppb(v	91
26) 1,1-Dichloroethene	5.991	61	114952	4.94 ppb(v	93
27) Freon 113	6.352	101	169478	4.95 ppb(v	96
28) Methylene Chloride	6.113	84	71607	4.93 ppb(v	90
29) Carbon Disulfide	6.395	76	228626	4.90 ppb(v	100
30) Ethanol	4.865	45	27417	5.01 ppb(v	99
31) Acrylonitrile	5.691	53	54299	4.89 ppb(v	97
32) 3-Chloropropene	6.217	76	36156	5.03 ppb(v	78
33) trans-1,2-Dichloroethene	7.013	61	105089	4.89 ppb(v	95
34) tert-Butyl Alcohol	6.040	59	165564	4.93 ppb(v	95
35) Methyl tert-Butyl Ether	7.282	73	203643	4.93 ppb(v	96
36) Vinyl Acetate	7.380	43	180653	4.88 ppb(v	97
37) 1,1-Dichloroethane	7.221	63	136977	4.92 ppb(v	98
38) 2-Butanone	7.643	72	37114	4.93 ppb(v	80
39) Hexane	8.303	57	106939	4.98 ppb(v	90
40) cis-1,2-Dichloroethene	8.102	61	101022	4.87 ppb(v	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15842.D
Acq On : 22 Jan 2016 10:29 pm
Operator : THOMASH
Sample : IC637-5
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:46:43 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.310	87	63434	4.90 ppb(v	82
42) Ethyl Acetate	8.352	61	25294	4.87 ppb(v	82
43) Methyl Acrylate	8.340	55	139607	4.94 ppb(v	98
44) Chloroform	8.420	83	167953	4.97 ppb(v	98
45) 2,4-Dimethylpentane	9.288	57	130397	4.92 ppb(v	98
46) Tetrahydrofuran	8.879	72	37211	4.91 ppb(v	86
47) 1,1,1-Trichloroethane	9.521	97	163650	4.99 ppb(v	98
48) 1,2-Dichloroethane	9.239	62	94493	4.93 ppb(v	99
49) Benzene	10.053	78	248251	4.94 ppb(v	97
50) Carbon Tetrachloride	10.224	117	171399	4.98 ppb(v	99
51) Cyclohexane	10.359	56	111413	4.98 ppb(v	95
52) 2,3-Dimethylpentane	10.647	71	51297	5.00 ppb(v	95
54) 2,2,4-Trimethylpentane	11.338	57	367558	4.86 ppb(v	97
55) Heptane	11.680	71	75949	4.83 ppb(v	97
56) Trichloroethene	11.313	95	117343	4.86 ppb(v	97
57) 1,2-Dichloropropane	11.020	63	91009	4.88 ppb(v	98
58) Dibromomethane	11.001	174	115982	4.93 ppb(v	88
59) Ethyl Acrylate	11.056	55	174706	4.84 ppb(v	98
60) Methyl Methacrylate	11.589	69	88098	4.93 ppb(v	88
61) 1,4-Dioxane	11.338	88	59480	4.89 ppb(v	83
62) Bromodichloromethane	11.271	83	188348	4.92 ppb(v	98
63) cis-1,3-Dichloropropene	12.396	75	154923	4.86 ppb(v	98
64) 4-Methyl-2-pentanone	12.445	58	72438	4.76 ppb(v	90
65) trans-1,3-Dichloropropene	13.075	75	131287	4.82 ppb(v	97
66) Toluene	13.644	91	304436	4.90 ppb(v	99
67) 1,1,2-Trichloroethane	13.289	97	109902	4.89 ppb(v	98
68) 1,3-Dichloropropane	13.687	76	142370	4.85 ppb(v	93
69) 2-Hexanone	14.017	58	103030	4.85 ppb(v	86
70) Ethyl Methacrylate	14.054	69	151072	4.85 ppb(v	97
71) Dibromochloromethane	14.201	129	203673	4.90 ppb(v	100
72) Tetrachloroethene	15.161	166	158872	4.91 ppb(v	99
73) 1,2-Dibromoethane	14.519	107	179483	4.89 ppb(v	98
74) Octane	14.990	43	160883	4.79 ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.085	131	138840	4.87 ppb(v	91
77) Chlorobenzene	16.110	112	248521	5.06 ppb(v	96
78) Ethylbenzene	16.654	91	390529	5.02 ppb(v	98
79) m,p-Xylene	16.929	91	590861	10.01 ppb(v	97
80) Styrene	17.449	104	232312	5.03 ppb(v	98
81) Nonane	17.982	43	158194	4.89 ppb(v#	93
82) o-Xylene	17.602	91	300553	5.03 ppb(v	98
83) Bromoform	17.003	173	214616	5.03 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.602	83	243866	5.00 ppb(v	100
85) 1,2,3-Trichloropropane	17.798	75	171600	4.99 ppb(v	97
86) Isopropylbenzene	18.514	105	428222	5.02 ppb(v	98
87) Bromobenzene	18.624	156	149461	5.00 ppb(v	93
88) 2-Chlorotoluene	19.224	126	110977	5.04 ppb(v	93
89) n-Propylbenzene	19.297	120	114683	5.02 ppb(v	92
91) 4-Ethyltoluene	19.517	105	398663	5.03 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.640	105	338686	5.04 ppb(v	97
93) alpha-Methylstyrene	19.872	118	179405	5.02 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15842.D
Acq On : 22 Jan 2016 10:29 pm
Operator : THOMASH
Sample : IC637-5
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:46:43 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) tert-Butylbenzene	20.202	134	74188	4.98	ppb(v	91
95) 1,2,4-Trimethylbenzene	20.215	105	346541	5.05	ppb(v	90
96) 1,3-Dichlorobenzene	20.410	146	235760	5.06	ppb(v	96
97) Benzyl Chloride	20.398	91	301099	4.93	ppb(v	97
98) 1,4-Dichlorobenzene	20.508	146	237006	5.03	ppb(v	96
99) sec-Butylbenzene	20.588	134	92622	5.02	ppb(v	90
100) p-Isopropyltoluene	20.814	134	103656	4.99	ppb(v	98
101) 1,2-Dichlorobenzene	20.967	146	223062	5.02	ppb(v	97
102) n-Butylbenzene	21.383	134	94448	5.07	ppb(v	87
103) Hexachloroethane	21.848	201	140553	5.00	ppb(v	87
104) 1,2,4-Trichlorobenzene	23.163	180	133452	5.03	ppb(v	100
105) Naphthalene	23.292	128	286729	5.06	ppb(v	100
106) Hexachlorobutadiene	23.738	225	135648	5.26	ppb(v	99
108) TVHC as equiv Pentane	5.722	TIC	418934	4.97	ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15842.D
Acq On    : 22 Jan 2016  10:29 pm
Operator  : THOMASH
Sample    : IC637-5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:46:43 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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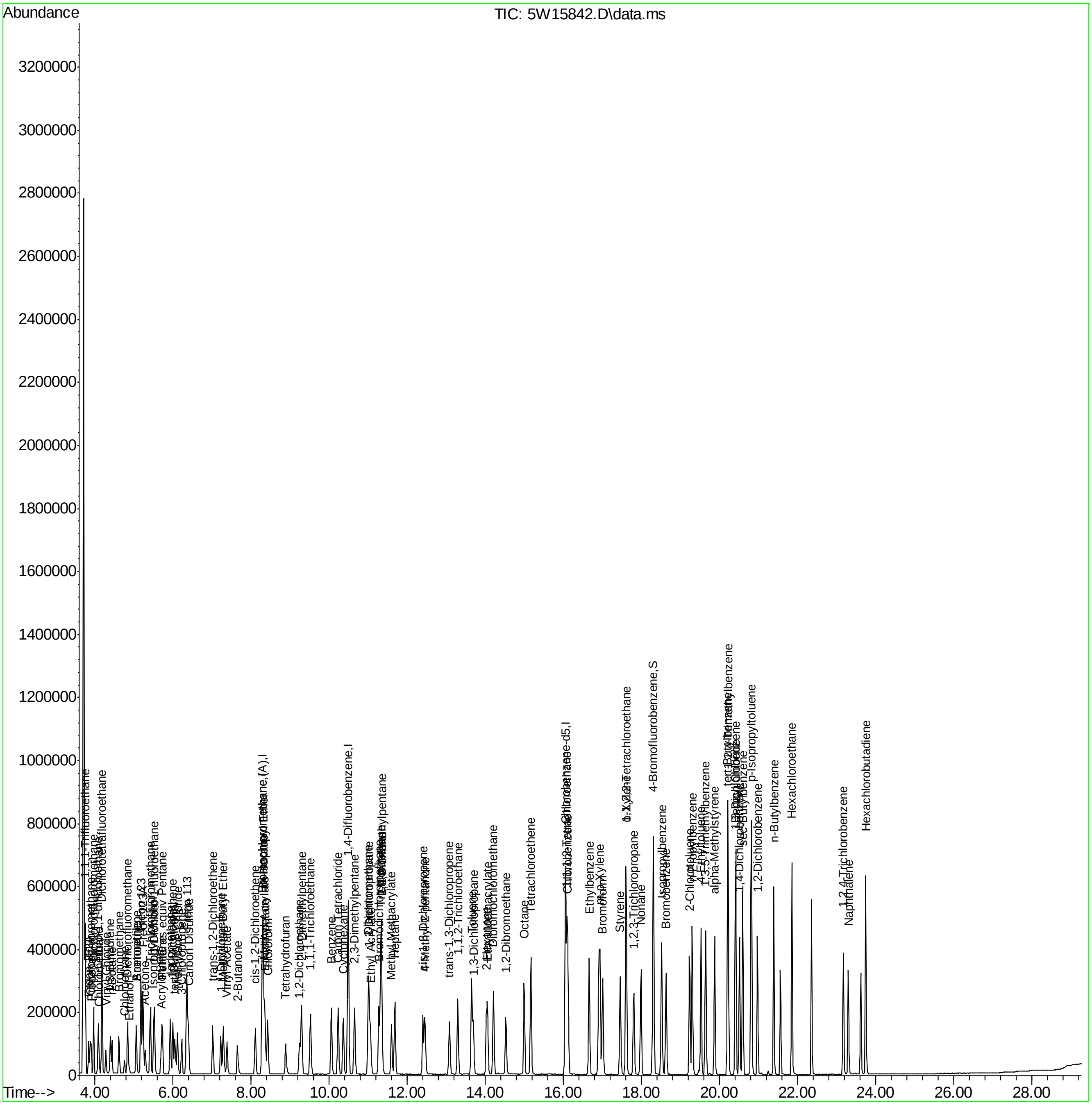

Manual Integrations
APPROVED
(compounds with "m" flag)
Dana Tryon
01/26/16 15:29

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On    : 22 Jan 2016  11:13 pm
Operator  : THOMASH
Sample    : IC637-0.5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:55:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.285	130	178138	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.487	114	673869	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.048	82	314609	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.285	130	178138	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.294	95	427491	10.20	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.00%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	19361	0.43	ppb(v	96
3) Freon 152A	3.838	65	4195	0.42	ppb(v	99
4) Chlorodifluoromethane	3.874	67	1688	0.45	ppb(v	87
5) Propene	3.899	41	5039	0.49	ppb(v#	83
6) Dichlorodifluoromethane	3.960	85	17495	0.42	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.076	65	11595	0.42	ppb(v#	95
8) Chloromethane	4.094	50	6021	0.43	ppb(v	98
9) Dichlorotetrafluoroethane	4.174	85	19812	0.42	ppb(v	97
10) Vinyl Chloride	4.278	62	6877	0.41	ppb(v#	97
11) 1,3-Butadiene	4.388	54	5101	0.42	ppb(v	95
12) n-Butane	4.431	58	1174	0.45	ppb(v#	38
13) Bromomethane	4.614	94	7850	0.43	ppb(v	99
14) Chloroethane	4.755	64	3358	0.40	ppb(v	92
15) Dichlorofluoromethane	4.829	67	15678	0.42	ppb(v	98
16) Acetonitrile	5.079	41	6198	0.52	ppb(v#	47
17) Freon 123	5.177	83	18728	0.42	ppb(v	97
18) Freon 123A	5.226	117	9853	0.38	ppb(v	98
19) Bromoethene	5.055	106	7657	0.40	ppb(v	96
20) Trichlorofluoromethane	5.416	101	17703	0.41	ppb(v	99
21) Acetone	5.306	58	3839	0.51	ppb(v	87
22) Pentane	5.716	57	1998	0.49	ppb(v	66
23) 1,1-Dichloro-1-fluoroe...	5.520	81	14756	0.42	ppb(v	97
24) Iodomethane	5.924	142	21511	0.41	ppb(v	90
25) Isopropyl Alcohol	5.514	43	3168	0.65	ppb(v	63
26) 1,1-Dichloroethene	5.991	61	10931	0.42	ppb(v	96
27) Freon 113	6.352	101	15607	0.40	ppb(v	96
28) Methylene Chloride	6.113	84	6881	0.42	ppb(v	89
29) Carbon Disulfide	6.395	76	21301	0.40	ppb(v	100
30) Ethanol	4.884	45	4722	0.76	ppb(v#	91
31) Acrylonitrile	5.710	53	6070	0.48	ppb(v	92
32) 3-Chloropropene	6.217	76	3296	0.41	ppb(v	79
33) trans-1,2-Dichloroethene	7.019	61	9527	0.39	ppb(v	89
34) tert-Butyl Alcohol	6.077	59	15304	0.40	ppb(v	96
35) Methyl tert-Butyl Ether	7.306	73	18950	0.41	ppb(v	96
36) Vinyl Acetate	7.392	43	16942	0.41	ppb(v	98
37) 1,1-Dichloroethane	7.227	63	12935	0.41	ppb(v	100
38) 2-Butanone	7.679	72	3586	0.42	ppb(v	82
39) Hexane	8.310	57	10557	0.44	ppb(v	76
40) cis-1,2-Dichloroethene	8.108	61	9477	0.40	ppb(v	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On : 22 Jan 2016 11:13 pm
Operator : THOMASH
Sample : IC637-0.5
Misc : MS97607,v5w637,,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 08:55:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.328	87	5835	0.40 ppb(v	80
42) Ethyl Acetate	8.377	61	2296	0.39 ppb(v	78
43) Methyl Acrylate	8.358	55	13752	0.43 ppb(v	99
44) Chloroform	8.426	83	15897	0.42 ppb(v	98
45) 2,4-Dimethylpentane	9.288	57	12581	0.42 ppb(v	97
46) Tetrahydrofuran	8.921	72	3453	0.40 ppb(v	86
47) 1,1,1-Trichloroethane	9.521	97	14934	0.40 ppb(v	97
48) 1,2-Dichloroethane	9.246	62	8634	0.40 ppb(v#	98
49) Benzene	10.059	78	23009	0.41 ppb(v	98
50) Carbon Tetrachloride	10.231	117	15403	0.40 ppb(v	99
51) Cyclohexane	10.359	56	10661	0.42 ppb(v	97
52) 2,3-Dimethylpentane	10.653	71	4775	0.41 ppb(v	95
54) 2,2,4-Trimethylpentane	11.338	57	34916	0.41 ppb(v	95
55) Heptane	11.687	71	7009	0.40 ppb(v	97
56) Trichloroethene	11.319	95	11074	0.41 ppb(v	96
57) 1,2-Dichloropropane	11.026	63	8308	0.40 ppb(v	97
58) Dibromomethane	11.001	174	10931	0.42 ppb(v	90
59) Ethyl Acrylate	11.075	55	17976	0.45 ppb(v#	96
60) Methyl Methacrylate	11.601	69	8516	0.43 ppb(v	86
61) 1,4-Dioxane	11.375	88	5802	0.43 ppb(v#	48
62) Bromodichloromethane	11.271	83	17485	0.41 ppb(v	95
63) cis-1,3-Dichloropropene	12.402	75	14072	0.40 ppb(v	98
64) 4-Methyl-2-pentanone	12.463	58	6497	0.38 ppb(v	87
65) trans-1,3-Dichloropropene	13.087	75	12344	0.41 ppb(v	96
66) Toluene	13.650	91	28014	0.40 ppb(v	98
67) 1,1,2-Trichloroethane	13.295	97	10151	0.41 ppb(v	96
68) 1,3-Dichloropropane	13.693	76	13196	0.40 ppb(v	95
69) 2-Hexanone	14.042	58	9741	0.41 ppb(v	91
70) Ethyl Methacrylate	14.060	69	14400	0.42 ppb(v	97
71) Dibromochloromethane	14.207	129	18748	0.40 ppb(v	97
72) Tetrachloroethene	15.168	166	14739	0.41 ppb(v	97
73) 1,2-Dibromoethane	14.525	107	16965	0.42 ppb(v	99
74) Octane	14.996	43	15275	0.41 ppb(v	93
75) 1,1,1,2-Tetrachloroethane	16.091	131	12612	0.40 ppb(v#	21
77) Chlorobenzene	16.116	112	22641	0.42 ppb(v	95
78) Ethylbenzene	16.660	91	36360	0.43 ppb(v	98
79) m,p-Xylene	16.905	91	54262	0.84 ppb(v	98
80) Styrene	17.456	104	21081	0.41 ppb(v	99
81) Nonane	17.982	43	15936	0.45 ppb(v	96
82) o-Xylene	17.602	91	28076	0.43 ppb(v	97
83) Bromoform	17.009	173	19121	0.41 ppb(v	98
84) 1,1,2,2-Tetrachloroethane	17.608	83	22855	0.43 ppb(v	98
85) 1,2,3-Trichloropropane	17.804	75	16087	0.43 ppb(v	97
86) Isopropylbenzene	18.514	105	39559	0.42 ppb(v	97
87) Bromobenzene	18.630	156	14211	0.43 ppb(v	89
88) 2-Chlorotoluene	19.236	126	10116	0.42 ppb(v	88
89) n-Propylbenzene	19.297	120	10430	0.41 ppb(v	93
91) 4-Ethyltoluene	19.523	105	37412	0.43 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.640	105	31467	0.43 ppb(v	99
93) alpha-Methylstyrene	19.872	118	16217	0.41 ppb(v	93

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On    : 22 Jan 2016  11:13 pm
Operator  : THOMASH
Sample    : IC637-0.5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:55:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```

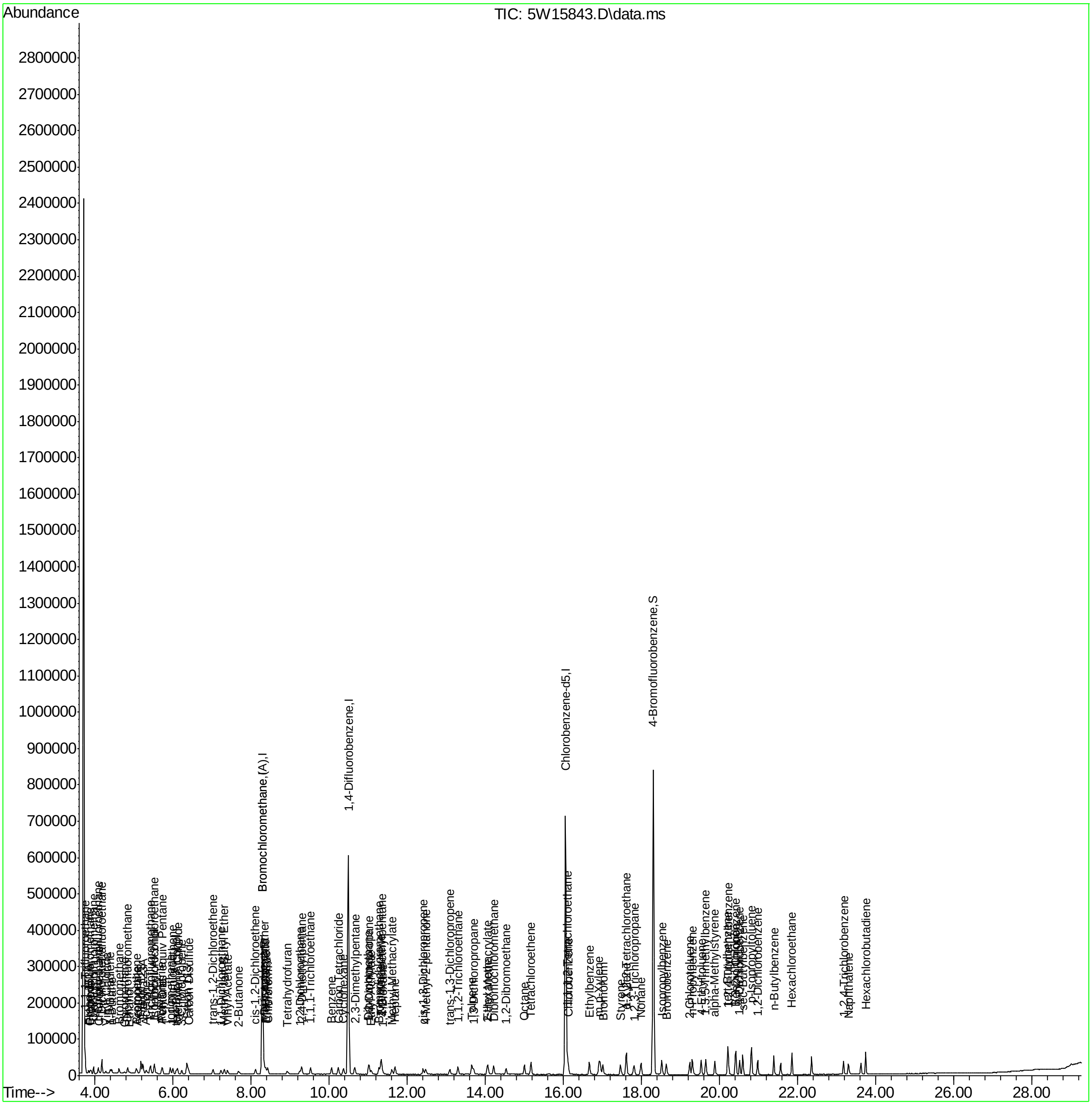
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.202	134	6832	0.42 ppb(v	84
95) 1,2,4-Trimethylbenzene	20.221	105	32095	0.42 ppb(v	93
96) 1,3-Dichlorobenzene	20.410	146	22313	0.44 ppb(v	96
97) Benzyl Chloride	20.404	91	28008	0.42 ppb(v	96
98) 1,4-Dichlorobenzene	20.508	146	23222	0.45 ppb(v	97
99) sec-Butylbenzene	20.588	134	8461	0.42 ppb(v	100
100) p-Isopropyltoluene	20.814	134	9687	0.42 ppb(v	96
101) 1,2-Dichlorobenzene	20.973	146	21165	0.43 ppb(v	96
102) n-Butylbenzene	21.383	134	8523	0.42 ppb(v	98
103) Hexachloroethane	21.848	201	12204	0.39 ppb(v	89
104) 1,2,4-Trichlorobenzene	23.169	180	13400	0.46 ppb(v	99
105) Naphthalene	23.292	128	30303	0.49 ppb(v	100
106) Hexachlorobutadiene	23.745	225	13278	0.47 ppb(v	97
108) TVHC as equiv Pentane	5.716	TIC	41238m	0.43 ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On    : 22 Jan 2016  11:13 pm
Operator  : THOMASH
Sample    : IC637-0.5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:55:32 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

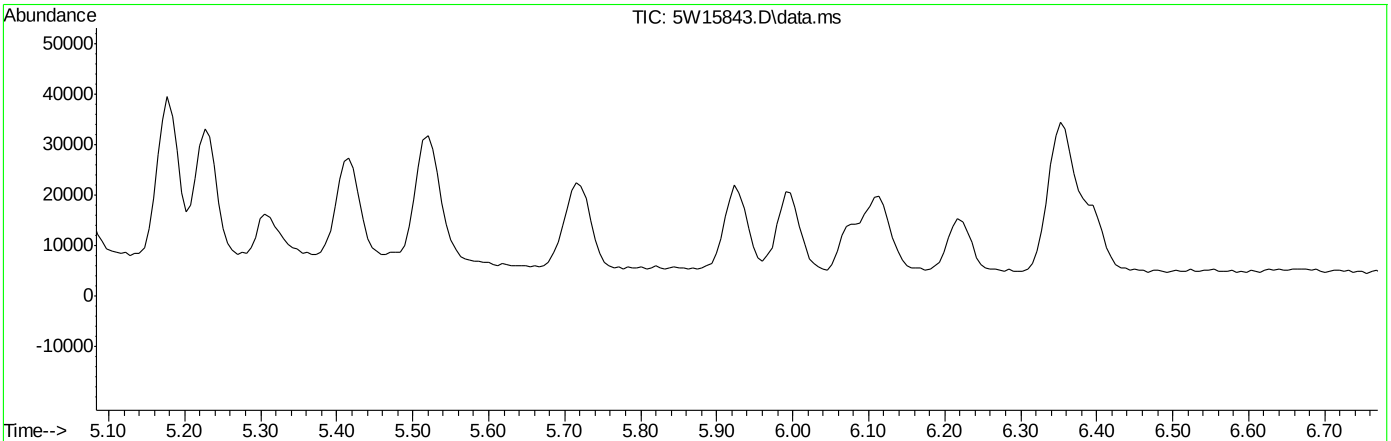
Sample Number:	V5W637-IC637	**Method:**	TO-15	
Lab FileID:	5W15843.D	**Analyst approved:**	01/25/16 12:26	Thomas Hilbig
Injection Time:	01/22/16 23:13	**Supervisor approved:**	01/26/16 15:29	Dana Tryon

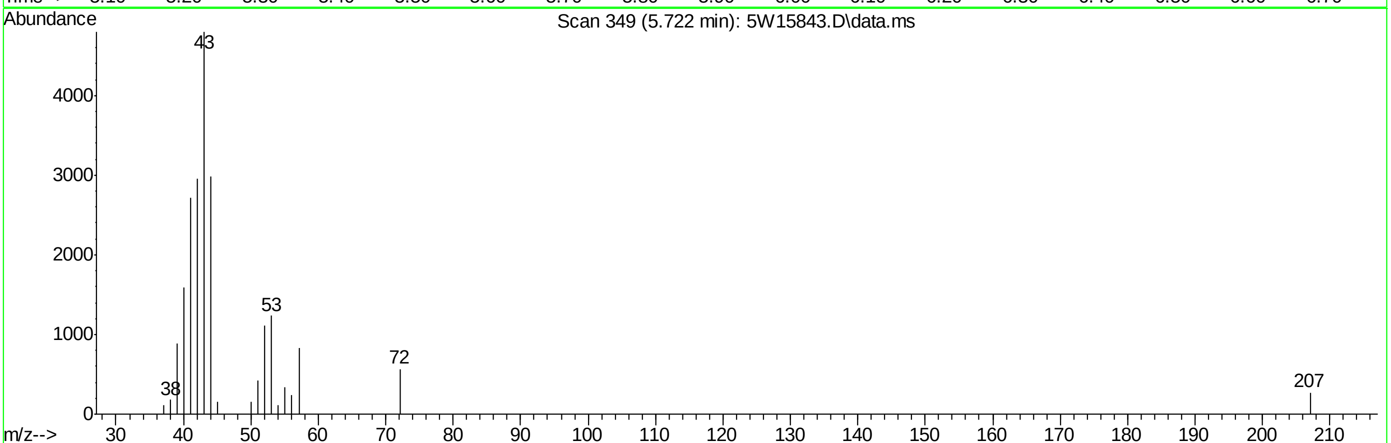
Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.72	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On    : 22 Jan 2016  11:13 pm
Operator  : THOMASH
Sample    : IC637-0.5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:46:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```





TIC: 5W15843.D\data.ms

(108) TVHC as equiv Pentane

5.722min (-5.722) 0.00ppb(v)

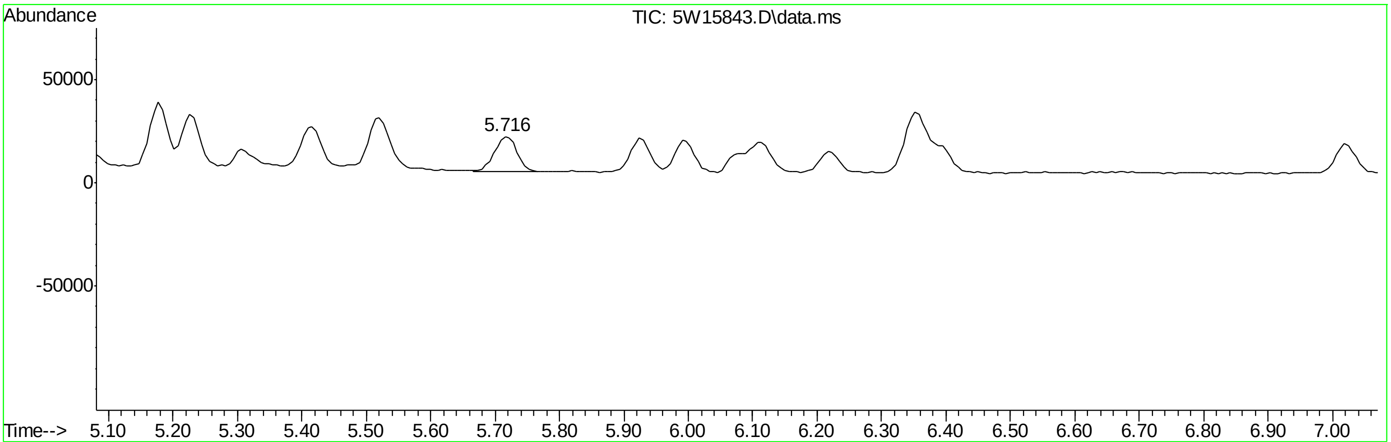
response 0

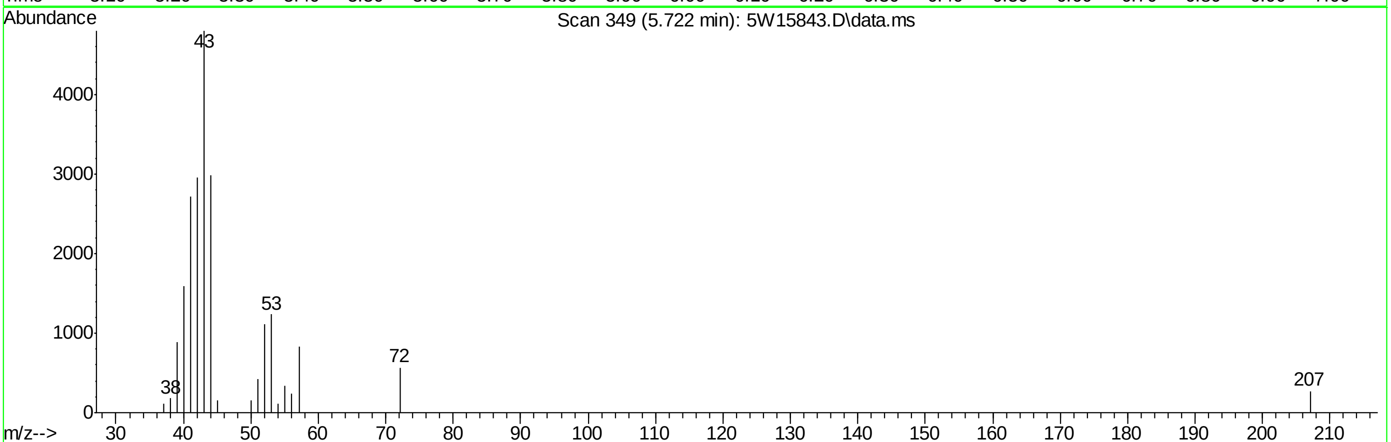
Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15843.D
Acq On    : 22 Jan 2016  11:13 pm
Operator  : THOMASH
Sample    : IC637-0.5
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:46:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



TIC: 5W15843.D\data.ms

(108) TVHC as equiv Pentane

5.716min (-0.006) 0.43ppb(v) m

response 41238

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W15843.D edits: TVHC as equiv Pentane

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
01/26/16 15:29

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On : 22 Jan 2016 11:56 pm
Operator : THOMASH
Sample : IC637-0.2
Misc : MS97607,v5w637,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:32:37 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.279	130	156402	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.482	114	586634	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.049	82	270919	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.279	130	156402	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.294	95	373662	10.36	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.60%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	7939	0.20	ppb(v	96
3) Freon 152A	3.838	65	1735	0.20	ppb(v	88
4) Chlorodifluoromethane	3.874	67	708	0.22	ppb(v#	79
5) Propene	3.899	41	2425	0.27	ppb(v#	68
6) Dichlorodifluoromethane	3.960	85	7265	0.20	ppb(v	97
7) 1-Chloro-1,1-difluoroe...	4.076	65	4900	0.20	ppb(v#	69
8) Chloromethane	4.095	50	2706	0.22	ppb(v	99
9) Dichlorotetrafluoroethane	4.174	85	8089	0.20	ppb(v	97
10) Vinyl Chloride	4.278	62	2877	0.19	ppb(v#	87
11) 1,3-Butadiene	4.388	54	2134	0.20	ppb(v	93
12) n-Butane	4.425	58	492	0.22	ppb(v#	1
13) Bromomethane	4.615	94	3328	0.21	ppb(v	99
14) Chloroethane	4.755	64	1468	0.20	ppb(v#	91
15) Dichlorofluoromethane	4.835	67	6735	0.21	ppb(v	94
16) Acetonitrile	5.067	41	2889	0.28	ppb(v#	1
17) Freon 123	5.177	83	7959	0.20	ppb(v	98
18) Freon 123A	5.226	117	4305	0.19	ppb(v	99
19) Bromoethene	5.055	106	3077	0.18	ppb(v	94
20) Trichlorofluoromethane	5.416	101	7356	0.19	ppb(v	97
21) Acetone	5.312	58	1813	0.28	ppb(v	83
22) Pentane	5.722	57	948	0.27	ppb(v#	49
23) 1,1-Dichloro-1-fluoroe...	5.520	81	6310	0.21	ppb(v	97
24) Iodomethane	5.924	142	8821	0.19	ppb(v	92
25) Isopropyl Alcohol	5.520	43	1575	0.37	ppb(v#	45
26) 1,1-Dichloroethene	5.991	61	4517	0.20	ppb(v	95
27) Freon 113	6.352	101	6308	0.19	ppb(v	96
28) Methylene Chloride	6.107	84	2815	0.20	ppb(v	84
29) Carbon Disulfide	6.389	76	8389	0.18	ppb(v	98
31) Acrylonitrile	5.704	53	2278	0.21	ppb(v	92
32) 3-Chloropropene	6.218	76	1326	0.19	ppb(v	85
33) trans-1,2-Dichloroethene	7.019	61	3980	0.19	ppb(v	95
34) tert-Butyl Alcohol	6.071	59	6334	0.19	ppb(v#	91
35) Methyl tert-Butyl Ether	7.306	73	7907	0.19	ppb(v	98
36) Vinyl Acetate	7.392	43	6916	0.19	ppb(v	97
37) 1,1-Dichloroethane	7.221	63	5152	0.19	ppb(v#	96
38) 2-Butanone	7.680	72	1446	0.19	ppb(v#	77
39) Hexane	8.310	57	4701	0.22	ppb(v	77
40) cis-1,2-Dichloroethene	8.102	61	3842	0.19	ppb(v	94
41) Di-isopropyl Ether	8.322	87	2437	0.19	ppb(v	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On : 22 Jan 2016 11:56 pm
Operator : THOMASH
Sample : IC637-0.2
Misc : MS97607,v5w637,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 25 09:32:37 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
42) Ethyl Acetate	8.371	61	825	0.16 ppb(v#	90
43) Methyl Acrylate	8.359	55	6978	0.25 ppb(v	100
44) Chloroform	8.414	83	6510	0.19 ppb(v	96
45) 2,4-Dimethylpentane	9.289	57	5473	0.21 ppb(v	99
46) Tetrahydrofuran	8.928	72	1304	0.17 ppb(v	86
47) 1,1,1-Trichloroethane	9.515	97	6330	0.19 ppb(v	96
48) 1,2-Dichloroethane	9.240	62	3572	0.19 ppb(v#	96
49) Benzene	10.053	78	9256	0.19 ppb(v	95
50) Carbon Tetrachloride	10.225	117	6250	0.18 ppb(v	99
51) Cyclohexane	10.353	56	4503	0.20 ppb(v	94
52) 2,3-Dimethylpentane	10.641	71	2045	0.20 ppb(v	80
54) 2,2,4-Trimethylpentane	11.338	57	14603	0.20 ppb(v	97
55) Heptane	11.681	71	2910	0.19 ppb(v	93
56) Trichloroethene	11.314	95	4543	0.19 ppb(v	98
57) 1,2-Dichloropropane	11.026	63	3386	0.19 ppb(v	95
58) Dibromomethane	11.002	174	4295	0.19 ppb(v	94
59) Ethyl Acrylate	11.081	55	6550m	0.19 ppb(v	
60) Methyl Methacrylate	11.607	69	3450	0.20 ppb(v	84
61) 1,4-Dioxane	11.381	88	2140	0.18 ppb(v#	48
62) Bromodichloromethane	11.265	83	7089	0.19 ppb(v	98
63) cis-1,3-Dichloropropene	12.403	75	5549	0.18 ppb(v	94
64) 4-Methyl-2-pentanone	12.476	58	2273	0.15 ppb(v	94
65) trans-1,3-Dichloropropene	13.088	75	4592	0.17 ppb(v	96
66) Toluene	13.650	91	11328	0.19 ppb(v	99
67) 1,1,2-Trichloroethane	13.296	97	4096	0.19 ppb(v	92
68) 1,3-Dichloropropane	13.693	76	5225	0.18 ppb(v	92
69) 2-Hexanone	14.060	58	3260	0.16 ppb(v	96
70) Ethyl Methacrylate	14.067	69	5476	0.18 ppb(v#	93
71) Dibromochloromethane	14.207	129	7566	0.19 ppb(v	99
72) Tetrachloroethene	15.162	166	5843	0.19 ppb(v	96
73) 1,2-Dibromoethane	14.531	107	6648	0.19 ppb(v	100
74) Octane	14.996	43	6419	0.20 ppb(v	95
75) 1,1,1,2-Tetrachloroethane	16.091	131	5100	0.18 ppb(v#	1
77) Chlorobenzene	16.110	112	9344	0.20 ppb(v	89
78) Ethylbenzene	16.660	91	14558	0.20 ppb(v	95
79) m,p-Xylene	16.911	91	23915	0.43 ppb(v	98
80) Styrene	17.462	104	8064	0.18 ppb(v	97
81) Nonane	17.982	43	6576	0.21 ppb(v#	95
82) o-Xylene	17.609	91	11612	0.20 ppb(v	97
83) Bromoform	17.009	173	7431	0.18 ppb(v	97
84) 1,1,2,2-Tetrachloroethane	17.609	83	9226	0.20 ppb(v	99
85) 1,2,3-Trichloropropane	17.804	75	6408	0.20 ppb(v	98
86) Isopropylbenzene	18.514	105	16007	0.20 ppb(v	96
87) Bromobenzene	18.630	156	5600	0.20 ppb(v	96
88) 2-Chlorotoluene	19.230	126	4048	0.19 ppb(v#	82
89) n-Propylbenzene	19.303	120	4094	0.19 ppb(v	99
91) 4-Ethyltoluene	19.523	105	15050	0.20 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.640	105	12980	0.20 ppb(v	97
93) alpha-Methylstyrene	19.878	118	6290	0.19 ppb(v	96
94) tert-Butylbenzene	20.203	134	2762	0.20 ppb(v	82

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 09:32:37 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
95)	1,2,4-Trimethylbenzene	20.221	105	12503	0.19	ppb(v	94
96)	1,3-Dichlorobenzene	20.417	146	8831	0.20	ppb(v	95
97)	Benzyl Chloride	20.404	91	10690	0.18	ppb(v	98
98)	1,4-Dichlorobenzene	20.515	146	9133	0.20	ppb(v	96
99)	sec-Butylbenzene	20.588	134	3317	0.19	ppb(v	93
100)	p-Isopropyltoluene	20.820	134	3689	0.19	ppb(v	98
101)	1,2-Dichlorobenzene	20.973	146	8354	0.20	ppb(v	95
102)	n-Butylbenzene	21.389	134	3158	0.18	ppb(v	90
103)	Hexachloroethane	21.848	201	4928	0.19	ppb(v	96
104)	1,2,4-Trichlorobenzene	23.170	180	4631	0.18	ppb(v	89
105)	Naphthalene	23.298	128	10646	0.20	ppb(v	99
106)	Hexachlorobutadiene	23.745	225	5066	0.21	ppb(v	98
108)	TVHC as equiv Pentane	5.716	TIC	15654m	0.19	ppb(v	

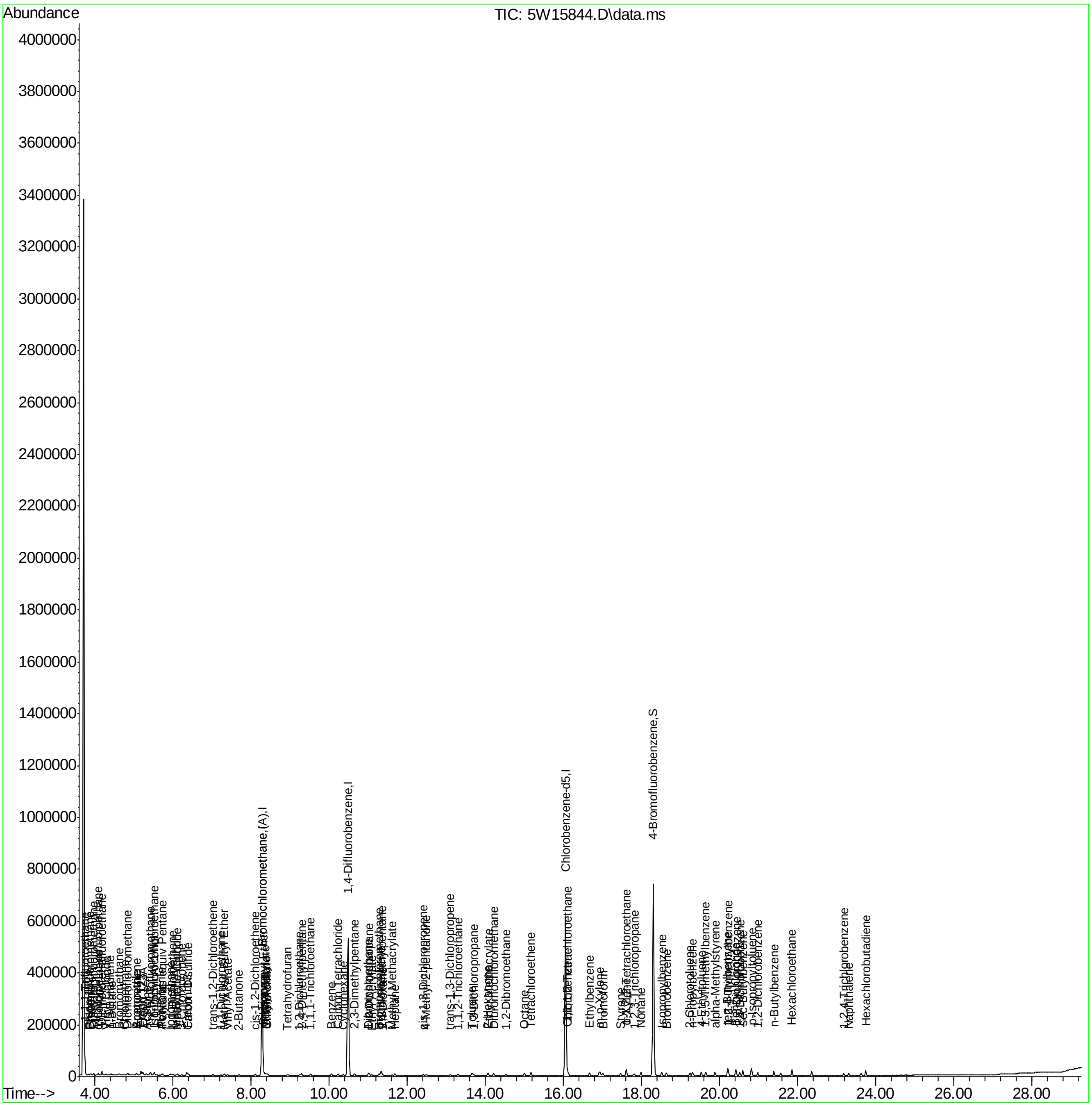
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.28 7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 09:32:37 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

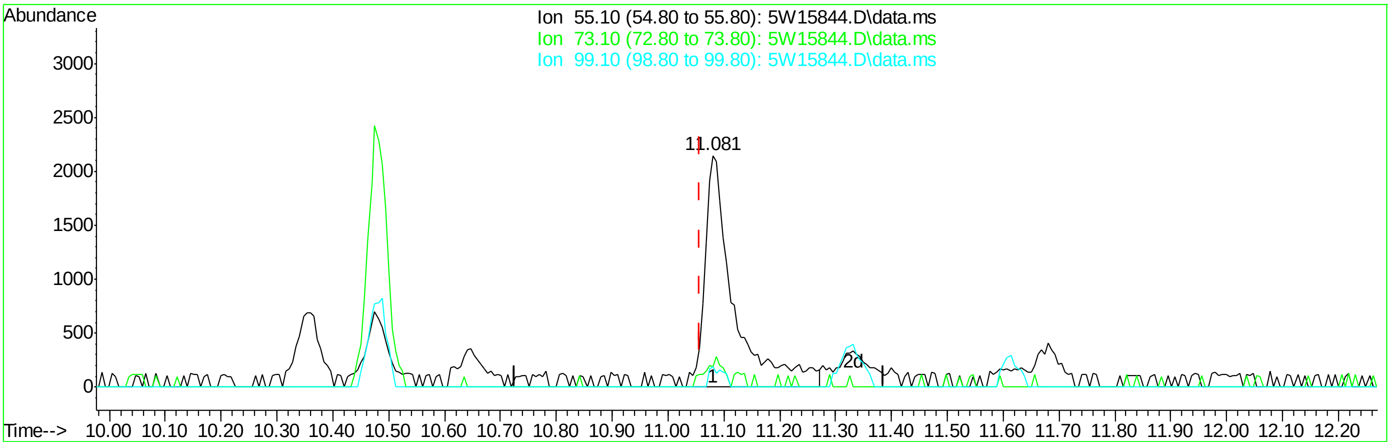
Sample Number:	V5W637-IC637	**Method:**	TO-15
Lab FileID:	5W15844.D	**Analyst approved:**	01/25/16 12:26 Thomas Hilbig
Injection Time:	01/22/16 23:56	**Supervisor approved:**	01/26/16 15:29 Dana Tryon

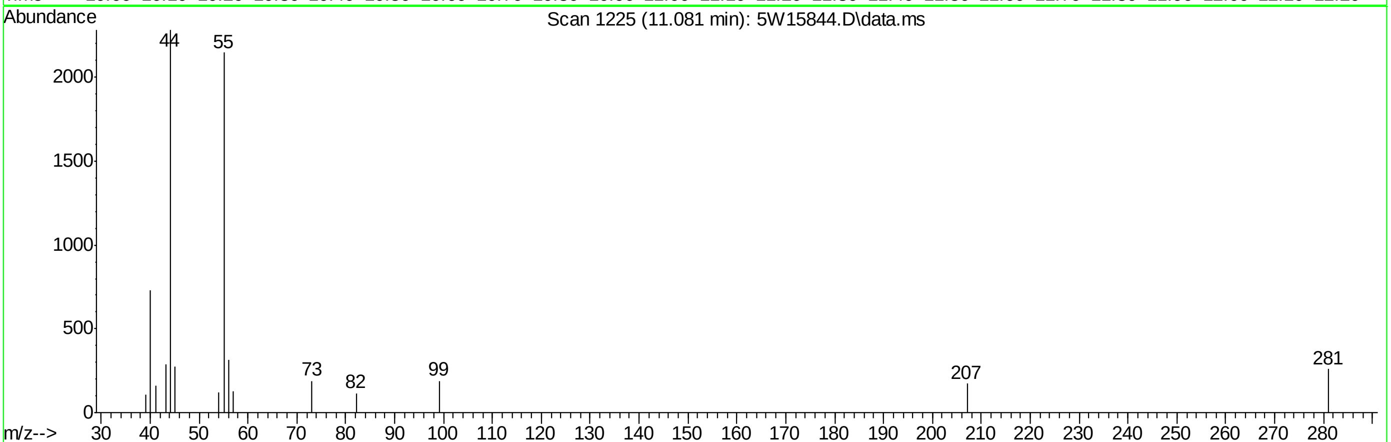
Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.72	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:47:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```





TIC: 5W15844.D\data.ms

(59) Ethyl Acrylate

11.081min (+0.024) 0.22ppb(v)

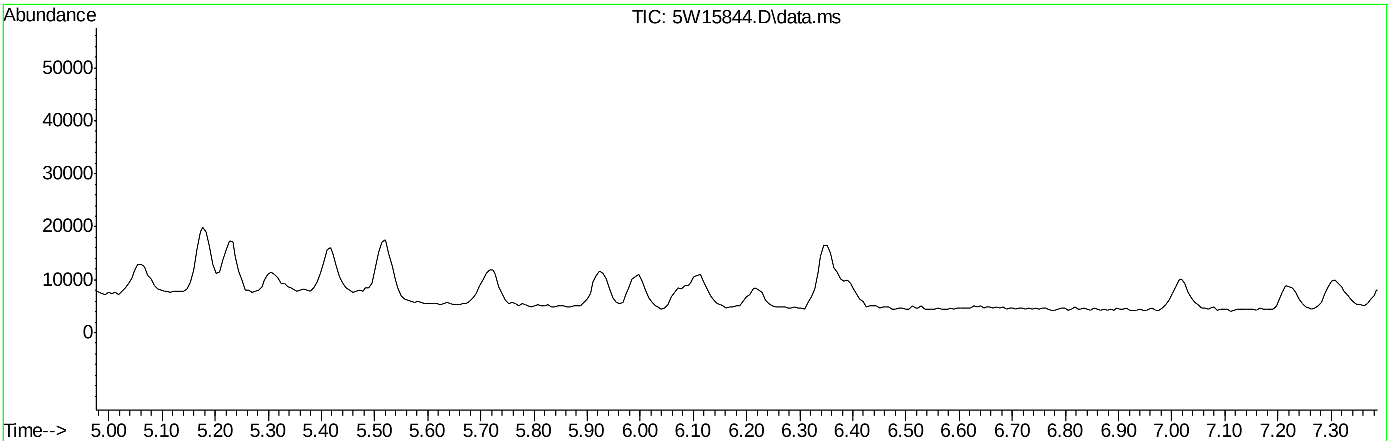
response 7714

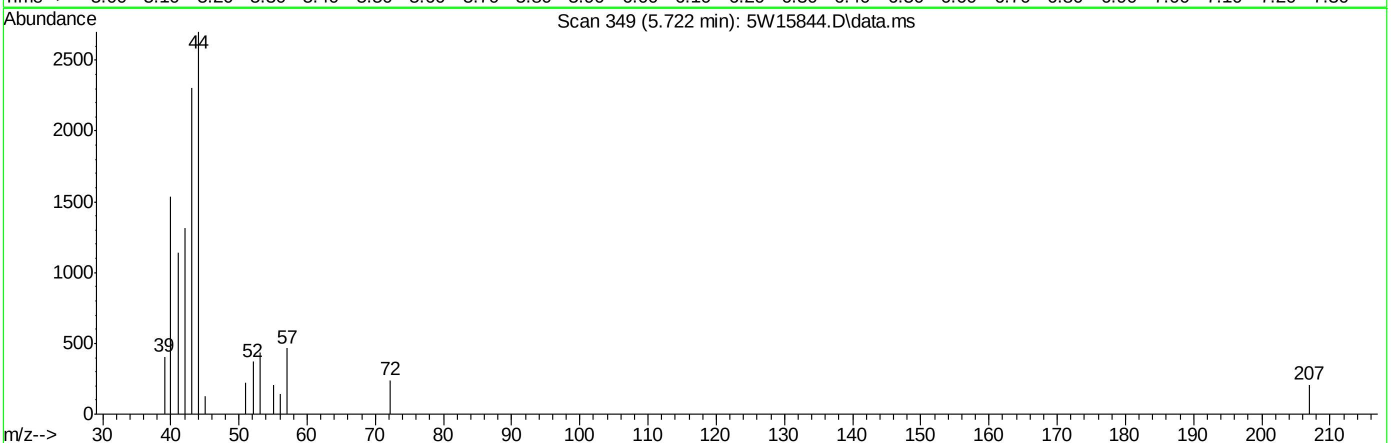
Ion	Exp%	Act%
55.10	100	100
73.10	7.50	8.90
99.10	7.70	8.90
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:47:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```





TIC: 5W15844.D\data.ms

(108) TVHC as equiv Pentane

5.722min (-5.722) 0.00ppb(v)

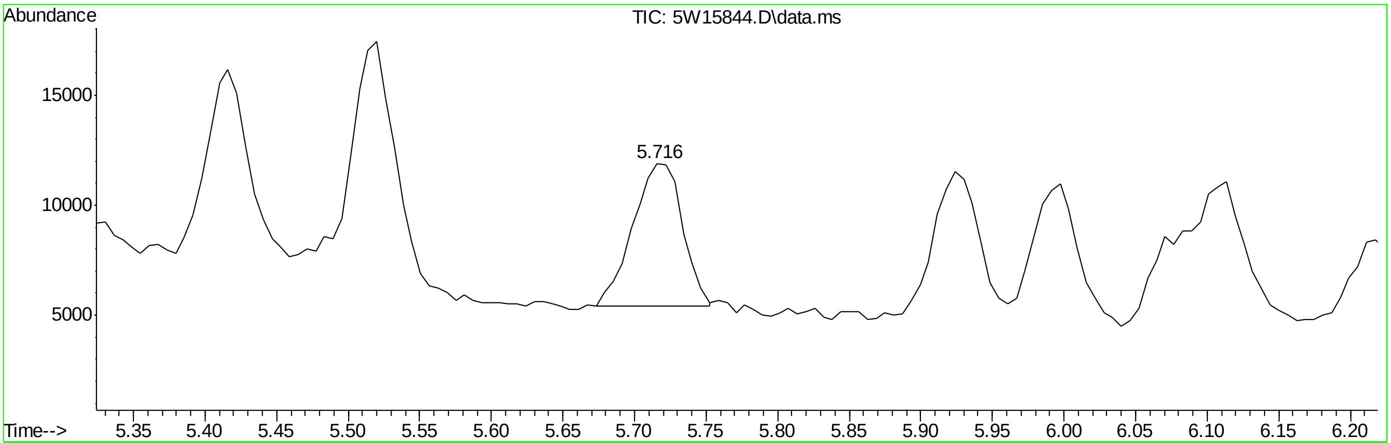
response 0

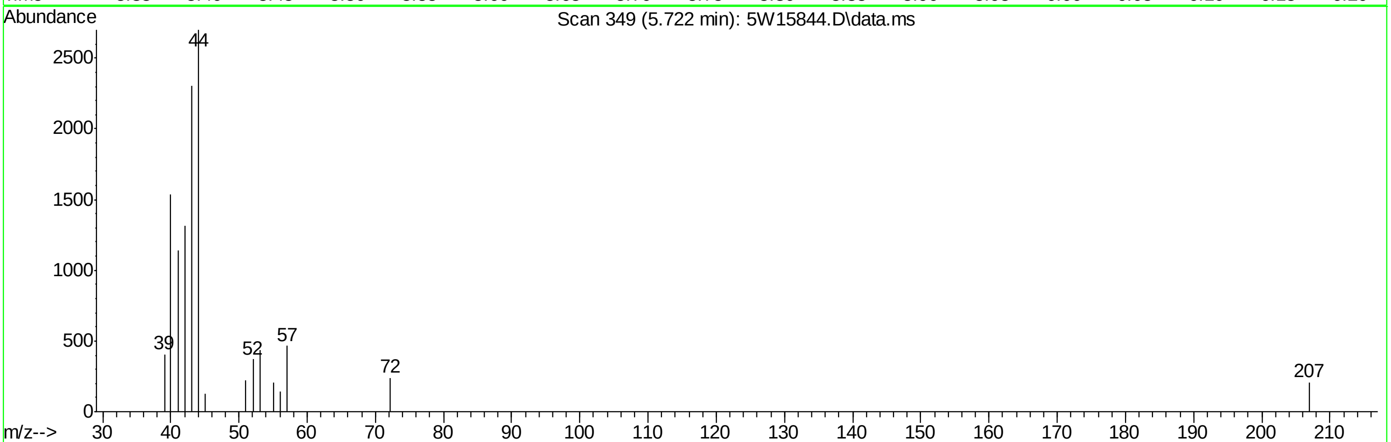
Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 08:47:11 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



TIC: 5W15844.D\data.ms

(108) TVHC as equiv Pentane

5.716min (-0.006) 0.19ppb(v) m

response 15654

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15844.D
Acq On    : 22 Jan 2016  11:56 pm
Operator  : THOMASH
Sample    : IC637-0.2
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Jan 25 09:32:37 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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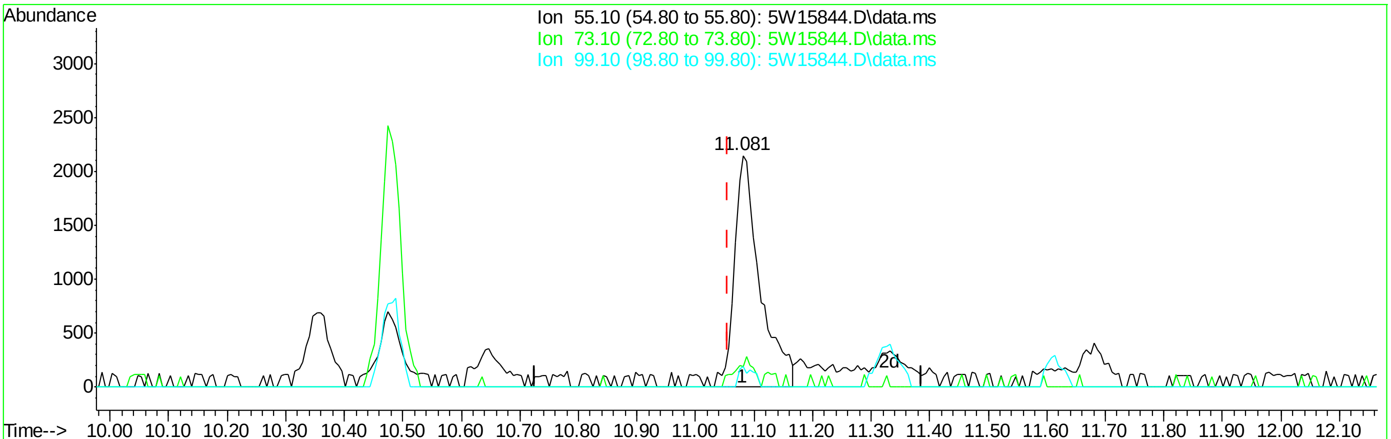

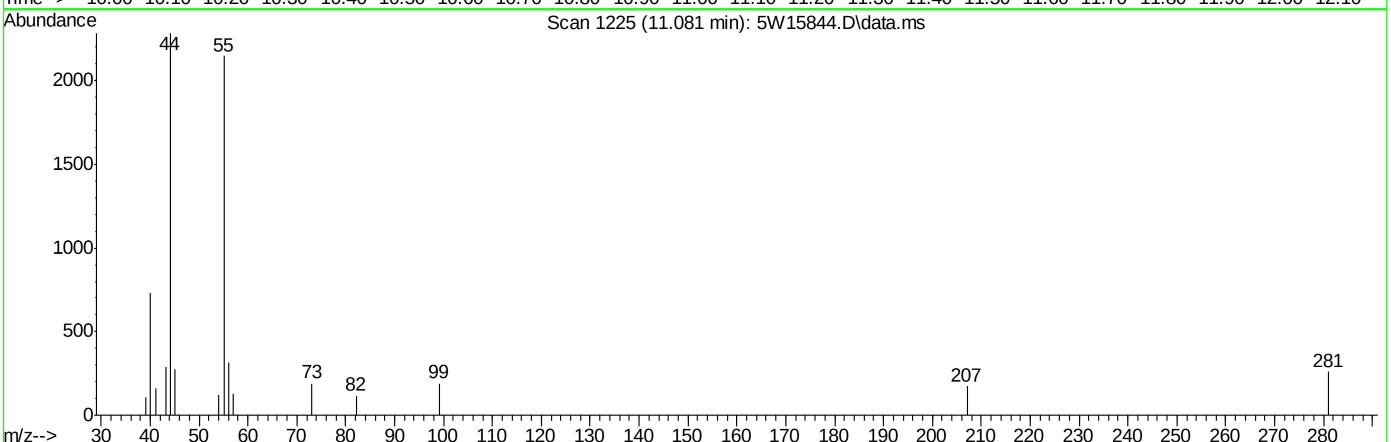

TIC: 5W15844.D\data.ms

(59) Ethyl Acrylate

11.081min (+0.024) 0.19ppb(v) m

response 6550

Ion	Exp%	Act%
55.10	100	100
73.10	7.50	8.90
99.10	7.70	8.90
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15845.D
Acq On    : 23 Jan 2016  12:40 am
Operator  : THOMASH
Sample    : IC637-20
Misc      : MS97607,v5w637,,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:47:22 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

        Compound                   R.T.  QIon  Response  Conc Units Dev(Min)
-----------------------------------------------------------------------------
Internal Standards
  1) Bromochloromethane            8.291  130    159701    10.00 ppb(v    0.00
 53) 1,4-Difluorobenzene          10.488  114    592191    10.00 ppb(v    0.00
 76) Chlorobenzene-d5             16.055   82    300685    10.00 ppb(v    0.00
107) Bromochloromethane (A)        8.291  130    159701    10.00 ppb(v    0.00

System Monitoring Compounds
 90) 4-Bromofluorobenzene         18.300   95    384745     9.61 ppb(v   0.00
  Spiked Amount     10.000   Range  65 - 128    Recovery   =   96.10%

Target Compounds                                                      Qvalue
  2) 1,1,1-Trifluoroethane         3.746   69    758567    18.70 ppb(v     95
  3) Freon 152A                    3.844   65    168879    18.74 ppb(v     89
  4) Chlorodifluoromethane         3.880   67     63330    18.87 ppb(v     98
  5) Propene                       3.905   41    171772    18.73 ppb(v     98
  6) Dichlorodifluoromethane       3.966   85    700076    18.76 ppb(v     99
  7) 1-Chloro-1,1-difluoroe...     4.082   65    464966    18.89 ppb(v     95
  8) Chloromethane                 4.101   50    237185    18.76 ppb(v     99
  9) Dichlorotetrafluoroethane     4.180   85    790913    18.83 ppb(v     95
 10) Vinyl Chloride                4.278   62    285211    18.89 ppb(v#    99
 11) 1,3-Butadiene                 4.388   54    200927    18.66 ppb(v     92
 12) n-Butane                      4.431   58     44029    18.91 ppb(v     82
 13) Bromomethane                  4.621   94    310141    18.90 ppb(v     99
 14) Chloroethane                  4.755   64    139112    18.71 ppb(v     96
 15) Dichlorofluoromethane         4.835   67    630393    18.85 ppb(v     99
 16) Acetonitrile                  5.061   41    196858    18.53 ppb(v     98
 17) Freon 123                     5.184   83    755200    18.85 ppb(v     98
 18) Freon 123A                    5.232  117    403963    17.51 ppb(v     91
 19) Bromoethene                   5.055  106    319811    18.81 ppb(v     96
 20) Trichlorofluoromethane        5.416  101    732931    18.97 ppb(v    100
 21) Acetone                       5.275   58    127592    19.08 ppb(v     80
 22) Pentane                       5.722   57     67815    18.59 ppb(v     78
 23) 1,1-Dichloro-1-fluoroe...     5.520   81    595054    18.94 ppb(v     98
 24) Iodomethane                   5.930  142    891291    18.83 ppb(v     93
 25) Isopropyl Alcohol             5.502   43     83202    18.91 ppb(v     71
 26) 1,1-Dichloroethene            5.997   61    445896    18.91 ppb(v     92
 27) Freon 113                     6.352  101    657769    18.98 ppb(v     96
 28) Methylene Chloride            6.113   84    275799    18.76 ppb(v     90
 29) Carbon Disulfide              6.395   76    888799    18.83 ppb(v    100
 30) Ethanol                       4.872   45    104438    18.86 ppb(v     99
 31) Acrylonitrile                 5.697   53    213149    18.96 ppb(v     99
 32) 3-Chloropropene               6.224   76    140053    19.23 ppb(v     76
 33) trans-1,2-Dichloroethene      7.019   61    410894    18.89 ppb(v     93
 34) tert-Butyl Alcohol            6.040   59    630845    18.54 ppb(v     95
 35) Methyl tert-Butyl Ether       7.276   73    777558    18.60 ppb(v     96
 36) Vinyl Acetate                 7.386   43    695893    18.57 ppb(v     95
 37) 1,1-Dichloroethane            7.227   63    530796    18.82 ppb(v    100
 38) 2-Butanone                    7.643   72    143935    18.87 ppb(v     77
 39) Hexane                        8.310   57    413357    19.00 ppb(v     90
 40) cis-1,2-Dichloroethene        8.108   61    398279    18.97 ppb(v     93
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15845.D
Acq On : 23 Jan 2016 12:40 am
Operator : THOMASH
Sample : IC637-20
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:47:22 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.310	87	250676	19.13 ppb(v	79
42) Ethyl Acetate	8.353	61	99088	18.86 ppb(v	78
43) Methyl Acrylate	8.346	55	541630	18.94 ppb(v	97
44) Chloroform	8.432	83	647359	18.94 ppb(v	97
45) 2,4-Dimethylpentane	9.289	57	509897	19.01 ppb(v	97
46) Tetrahydrofuran	8.873	72	144775	18.87 ppb(v	86
47) 1,1,1-Trichloroethane	9.521	97	637930	19.22 ppb(v	98
48) 1,2-Dichloroethane	9.240	62	369798	19.05 ppb(v	99
49) Benzene	10.059	78	956279	18.79 ppb(v	98
50) Carbon Tetrachloride	10.231	117	669289	19.23 ppb(v	99
51) Cyclohexane	10.359	56	428102	18.89 ppb(v	95
52) 2,3-Dimethylpentane	10.647	71	198577	19.10 ppb(v	93
54) 2,2,4-Trimethylpentane	11.338	57	1414162	19.11 ppb(v	97
55) Heptane	11.681	71	298201	19.38 ppb(v	96
56) Trichloroethene	11.320	95	460202	19.47 ppb(v	95
57) 1,2-Dichloropropane	11.026	63	354244	19.39 ppb(v	99
58) Dibromomethane	11.008	174	459057	19.92 ppb(v	86
59) Ethyl Acrylate	11.057	55	680594	19.25 ppb(v	97
60) Methyl Methacrylate	11.595	69	336546	19.23 ppb(v	86
61) 1,4-Dioxane	11.338	88	233988	19.64 ppb(v	83
62) Bromodichloromethane	11.277	83	734680	19.61 ppb(v	98
63) cis-1,3-Dichloropropene	12.402	75	605652	19.41 ppb(v	98
64) 4-Methyl-2-pentanone	12.445	58	285872	19.19 ppb(v	88
65) trans-1,3-Dichloropropene	13.082	75	513358	19.25 ppb(v	97
66) Toluene	13.650	91	1177940	19.37 ppb(v	99
67) 1,1,2-Trichloroethane	13.296	97	427574	19.45 ppb(v	97
68) 1,3-Dichloropropane	13.693	76	553652	19.27 ppb(v	91
69) 2-Hexanone	14.018	58	400046	19.25 ppb(v	88
70) Ethyl Methacrylate	14.054	69	583488	19.15 ppb(v	98
71) Dibromochloromethane	14.207	129	803130	19.74 ppb(v	98
72) Tetrachloroethene	15.168	166	618993	19.55 ppb(v	99
73) 1,2-Dibromoethane	14.525	107	702359	19.55 ppb(v	98
74) Octane	14.996	43	628496	19.10 ppb(v	90
75) 1,1,1,2-Tetrachloroethane	16.091	131	548258	19.67 ppb(v	97
77) Chlorobenzene	16.116	112	978168	18.93 ppb(v	96
78) Ethylbenzene	16.660	91	1524516	18.65 ppb(v	98
79) m,p-Xylene	16.930	91	2286659	36.85 ppb(v	97
80) Styrene	17.456	104	913931	18.81 ppb(v	98
81) Nonane	17.982	43	629246	18.49 ppb(v	93
82) o-Xylene	17.609	91	1169663	18.60 ppb(v	98
83) Bromoform	17.009	173	850714	18.95 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.609	83	956864	18.66 ppb(v	99
85) 1,2,3-Trichloropropane	17.798	75	668208	18.49 ppb(v	97
86) Isopropylbenzene	18.514	105	1675324	18.68 ppb(v	98
87) Bromobenzene	18.630	156	597593	19.02 ppb(v	91
88) 2-Chlorotoluene	19.230	126	439216	18.98 ppb(v	91
89) n-Propylbenzene	19.297	120	458101	19.07 ppb(v	89
91) 4-Ethyltoluene	19.523	105	1565605	18.81 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.640	105	1337727	18.95 ppb(v	98
93) alpha-Methylstyrene	19.872	118	709287	18.87 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15845.D
Acq On : 23 Jan 2016 12:40 am
Operator : THOMASH
Sample : IC637-20
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:47:22 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.209	134	297072	18.96	ppb(v	88
95)	1,2,4-Trimethylbenzene	20.221	105	1351721	18.73	ppb(v	97
96)	1,3-Dichlorobenzene	20.411	146	939722	19.18	ppb(v	97
97)	Benzyl Chloride	20.398	91	1217607	18.98	ppb(v	97
98)	1,4-Dichlorobenzene	20.508	146	940894	19.00	ppb(v	97
99)	sec-Butylbenzene	20.588	134	368060	18.97	ppb(v	87
100)	p-Isopropyltoluene	20.820	134	420623	19.27	ppb(v	91
101)	1,2-Dichlorobenzene	20.973	146	887032	18.99	ppb(v	95
102)	n-Butylbenzene	21.383	134	384804	19.65	ppb(v	84
103)	Hexachloroethane	21.848	201	577478	19.54	ppb(v	91
104)	1,2,4-Trichlorobenzene	23.163	180	552323	19.78	ppb(v	99
105)	Naphthalene	23.292	128	1158803	19.44	ppb(v	100
106)	Hexachlorobutadiene	23.739	225	535281	19.76	ppb(v	99
108)	TVHC as equiv Pentane	5.722	TIC	1596368	18.72	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15845.D
Acq On    : 23 Jan 2016  12:40 am
Operator  : THOMASH
Sample    : IC637-20
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:47:22 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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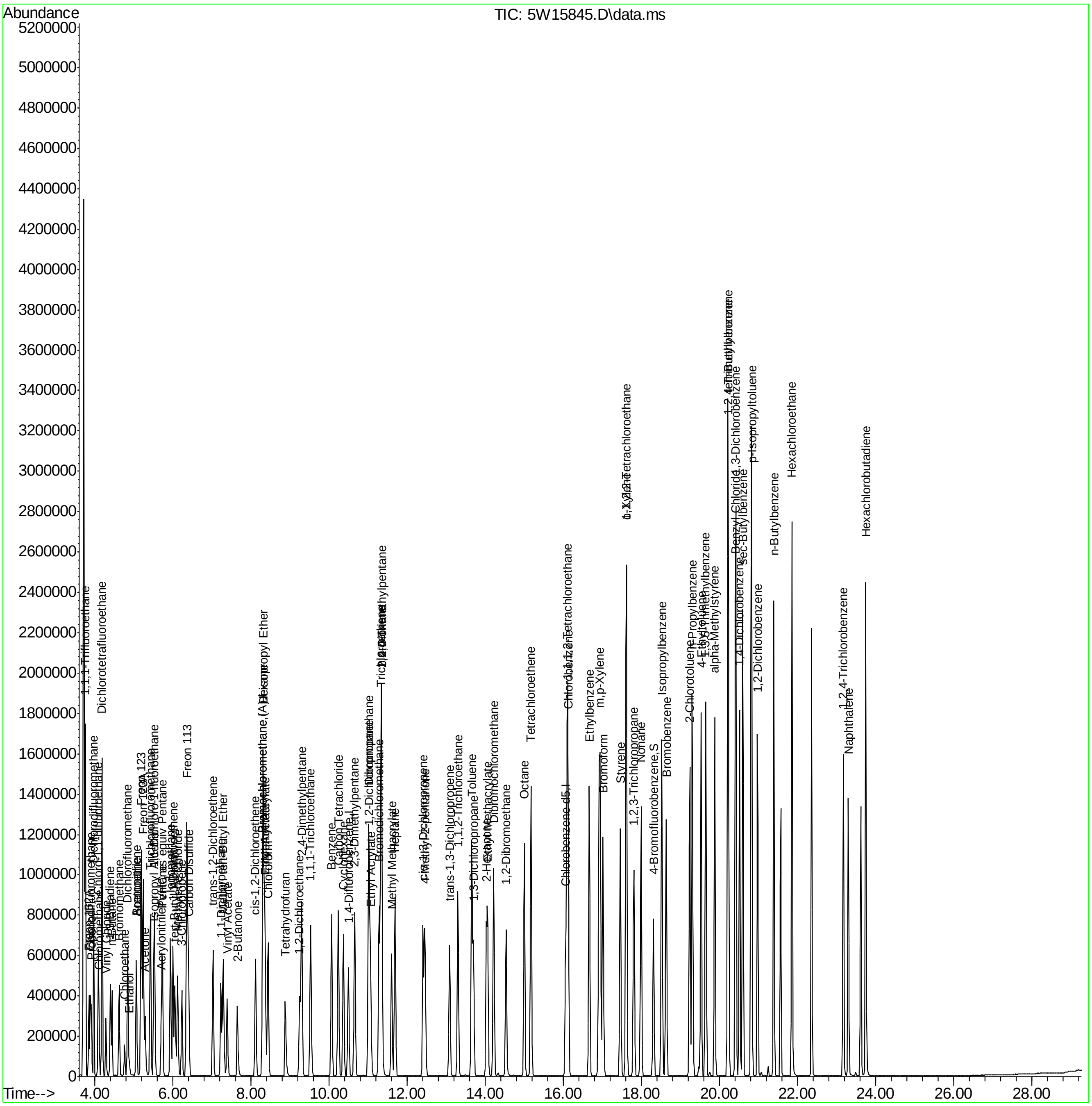

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15847.D
Acq On : 23 Jan 2016 2:07 am
Operator : THOMASH
Sample : IC637-0.1
Misc : MS97607,v5w637,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 25 09:30:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.279	130	157444	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.481	114	596904	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.048	82	276760	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.279	130	157444	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.294	95	377035	10.23 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.30%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	4036	0.10 ppb(v	94
3) Freon 152A	3.838	65	981	0.11 ppb(v	84
4) Chlorodifluoromethane	3.880	67	315	0.10 ppb(v#	66
5) Propene	3.899	41	1445	0.16 ppb(v#	53
6) Dichlorodifluoromethane	3.960	85	3652	0.10 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.076	65	2491	0.10 ppb(v#	68
8) Chloromethane	4.101	50	1269	0.10 ppb(v	95
9) Dichlorotetrafluoroethane	4.174	85	4270	0.10 ppb(v	96
10) Vinyl Chloride	4.278	62	1370	0.09 ppb(v#	97
11) 1,3-Butadiene	4.388	54	1095	0.10 ppb(v#	88
12) n-Butane	4.431	58	296	0.13 ppb(v#	1
13) Bromomethane	4.614	94	1756	0.11 ppb(v	95
14) Chloroethane	4.755	64	721	0.10 ppb(v#	86
15) Dichlorofluoromethane	4.835	67	3550	0.11 ppb(v	94
16) Acetonitrile	5.067	41	1296	0.12 ppb(v#	1
17) Freon 123	5.177	83	4077	0.10 ppb(v	94
18) Freon 123A	5.232	117	2071	0.09 ppb(v	95
19) Bromoethene	5.049	106	1594	0.10 ppb(v	88
20) Trichlorofluoromethane	5.410	101	3766	0.10 ppb(v	93
21) Acetone	5.312	58	1219	0.18 ppb(v	72
22) Pentane	5.722	57	460	0.13 ppb(v	66
23) 1,1-Dichloro-1-fluoroe...	5.514	81	3333	0.11 ppb(v#	94
24) Iodomethane	5.924	142	4408	0.09 ppb(v	91
26) 1,1-Dichloroethene	5.997	61	2178	0.09 ppb(v	86
27) Freon 113	6.346	101	3280	0.10 ppb(v	92
28) Methylene Chloride	6.113	84	1834	0.13 ppb(v	95
29) Carbon Disulfide	6.395	76	4280	0.09 ppb(v	96
31) Acrylonitrile	5.703	53	1115	0.10 ppb(v	95
32) 3-Chloropropene	6.217	76	666	0.09 ppb(v#	91
33) trans-1,2-Dichloroethene	7.019	61	1976	0.09 ppb(v	89
34) tert-Butyl Alcohol	6.095	59	3116	0.09 ppb(v#	72
35) Methyl tert-Butyl Ether	7.312	73	3993	0.10 ppb(v	98
36) Vinyl Acetate	7.392	43	3020	0.08 ppb(v	98
37) 1,1-Dichloroethane	7.221	63	2576	0.09 ppb(v#	96
38) 2-Butanone	7.686	72	486	0.06 ppb(v#	99
39) Hexane	8.310	57	2567	0.12 ppb(v#	68
40) cis-1,2-Dichloroethene	8.108	61	1916	0.09 ppb(v	90
41) Di-isopropyl Ether	8.328	87	1165	0.09 ppb(v	92
42) Ethyl Acetate	8.389	61	242	0.05 ppb(v#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15847.D
Acq On : 23 Jan 2016 2:07 am
Operator : THOMASH
Sample : IC637-0.1
Misc : MS97607,v5w637,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 25 09:30:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
44) Chloroform	8.420	83	3282	0.10 ppb(v	96
45) 2,4-Dimethylpentane	9.288	57	2678	0.10 ppb(v	96
46) Tetrahydrofuran	8.946	72	518	0.07 ppb(v	91
47) 1,1,1-Trichloroethane	9.521	97	3144	0.10 ppb(v	91
48) 1,2-Dichloroethane	9.239	62	1726	0.09 ppb(v#	92
49) Benzene	10.059	78	4808	0.10 ppb(v	94
50) Carbon Tetrachloride	10.224	117	3069	0.09 ppb(v	98
51) Cyclohexane	10.353	56	2228	0.10 ppb(v	98
52) 2,3-Dimethylpentane	10.647	71	958	0.09 ppb(v#	83
54) 2,2,4-Trimethylpentane	11.332	57	7397	0.10 ppb(v#	95
55) Heptane	11.687	71	1521	0.10 ppb(v	93
56) Trichloroethene	11.320	95	2230	0.09 ppb(v	96
57) 1,2-Dichloropropane	11.032	63	1661	0.09 ppb(v#	94
58) Dibromomethane	11.008	174	2095	0.09 ppb(v	88
59) Ethyl Acrylate	11.105	55	3170	0.09 ppb(v#	78
60) Methyl Methacrylate	11.613	69	1428	0.08 ppb(v	97
62) Bromodichloromethane	11.271	83	3563	0.09 ppb(v	96
63) cis-1,3-Dichloropropene	12.408	75	2678	0.09 ppb(v#	86
64) 4-Methyl-2-pentanone	12.488	58	972	0.06 ppb(v	85
65) trans-1,3-Dichloropropene	13.100	75	2163	0.08 ppb(v#	89
66) Toluene	13.650	91	5935	0.10 ppb(v	97
67) 1,1,2-Trichloroethane	13.296	97	2008	0.09 ppb(v	97
68) 1,3-Dichloropropane	13.699	76	2420	0.08 ppb(v#	85
69) 2-Hexanone	14.079	58	936	0.04 ppb(v#	91
70) Ethyl Methacrylate	14.079	69	2514	0.08 ppb(v#	95
71) Dibromochloromethane	14.213	129	3624	0.09 ppb(v#	97
72) Tetrachloroethene	15.161	166	2935	0.09 ppb(v	96
73) 1,2-Dibromoethane	14.525	107	3304	0.09 ppb(v#	95
74) Octane	14.996	43	3114	0.09 ppb(v	96
75) 1,1,1,2-Tetrachloroethane	16.097	131	2511	0.09 ppb(v#	1
77) Chlorobenzene	16.110	112	4735	0.10 ppb(v	98
78) Ethylbenzene	16.666	91	7205	0.10 ppb(v	91
79) m,p-Xylene	16.936	91	11169	0.20 ppb(v	97
80) Styrene	17.468	104	3894	0.09 ppb(v	93
81) Nonane	17.982	43	3606	0.12 ppb(v#	94
82) o-Xylene	17.608	91	5767	0.10 ppb(v	97
83) Bromoform	17.015	173	3665	0.09 ppb(v	97
84) 1,1,2,2-Tetrachloroethane	17.615	83	4437	0.09 ppb(v#	96
85) 1,2,3-Trichloropropane	17.804	75	3227	0.10 ppb(v	100
86) Isopropylbenzene	18.520	105	8110	0.10 ppb(v	98
87) Bromobenzene	18.636	156	2877	0.10 ppb(v	87
88) 2-Chlorotoluene	19.236	126	1946	0.09 ppb(v	90
89) n-Propylbenzene	19.309	120	2107	0.10 ppb(v	83
91) 4-Ethyltoluene	19.529	105	7573	0.10 ppb(v	95
92) 1,3,5-Trimethylbenzene	19.646	105	6709	0.10 ppb(v	97
93) alpha-Methylstyrene	19.884	118	3050	0.09 ppb(v	99
94) tert-Butylbenzene	20.209	134	1304	0.09 ppb(v	76
95) 1,2,4-Trimethylbenzene	20.221	105	6315	0.10 ppb(v	97
96) 1,3-Dichlorobenzene	20.423	146	4717	0.10 ppb(v	91
97) Benzyl Chloride	20.410	91	5469	0.09 ppb(v	95

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15847.D
Acq On    : 23 Jan 2016   2:07 am
Operator  : THOMASH
Sample    : IC637-0.1
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 09:30:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
98) 1,4-Dichlorobenzene	20.521	146	5080	0.11 ppb(v	96
99) sec-Butylbenzene	20.594	134	1650	0.09 ppb(v	96
100) p-Isopropyltoluene	20.820	134	1744	0.09 ppb(v	92
101) 1,2-Dichlorobenzene	20.973	146	4694	0.11 ppb(v	96
102) n-Butylbenzene	21.389	134	1502	0.08 ppb(v	99
103) Hexachloroethane	21.848	201	2282	0.08 ppb(v	95
104) 1,2,4-Trichlorobenzene	23.176	180	2973	0.12 ppb(v	93
105) Naphthalene	23.304	128	6902	0.13 ppb(v	98
106) Hexachlorobutadiene	23.745	225	2654	0.11 ppb(v	93

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

7.7.30
7

```
                         Quantitation Report    (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15847.D
Acq On    : 23 Jan 2016   2:07 am
Operator  : THOMASH
Sample    : IC637-0.1
Misc      : MS97607,v5w637,,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 09:30:06 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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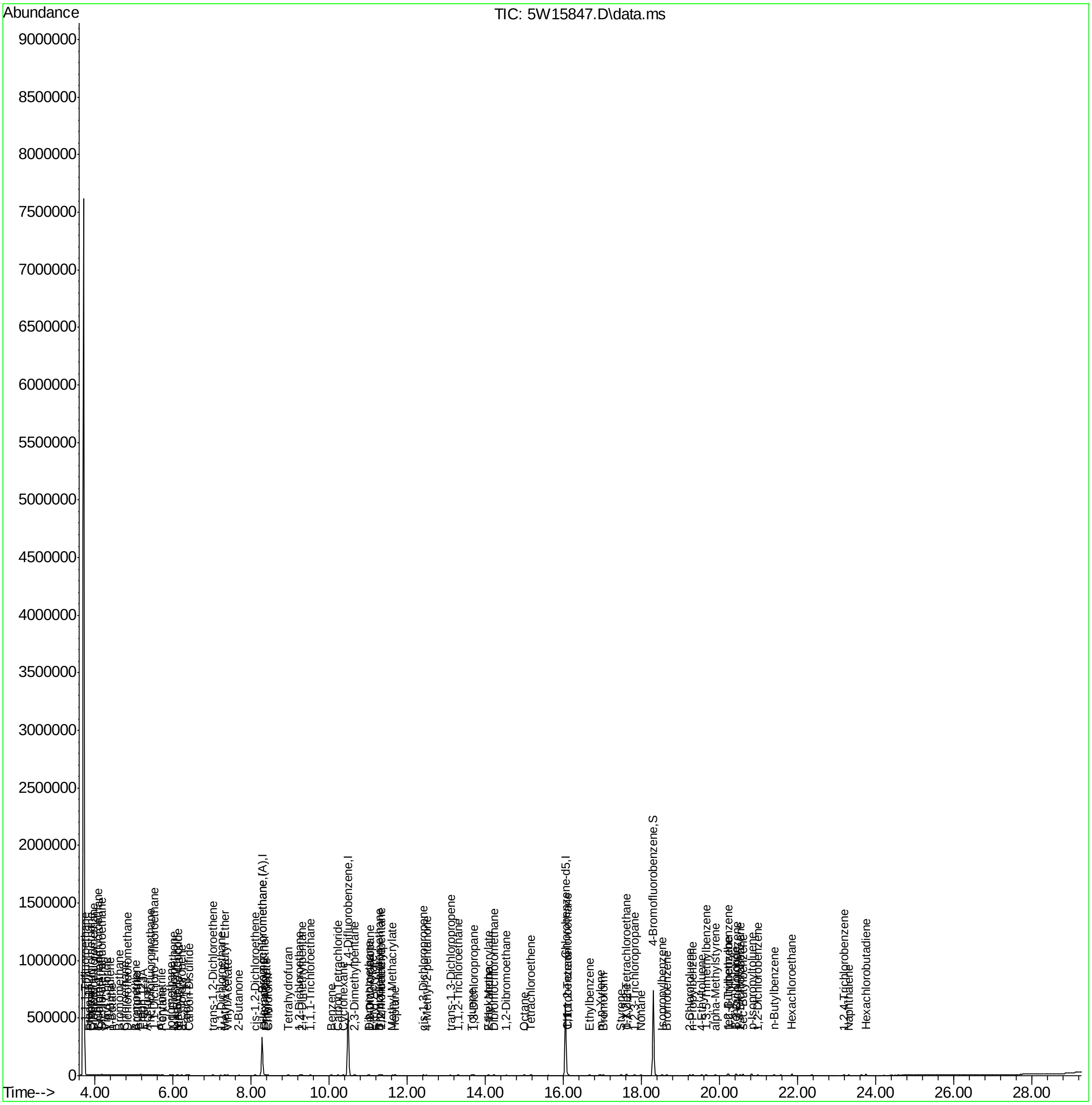

m5w637.M Mon Jan 25 12:12:42 2016 GCMS5W

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
01/26/16 15:29

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On    : 23 Jan 2016   2:48 am
Operator  : THOMASH
Sample    : IC637-0.04
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 09:16:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.279	130	159611	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.481	114	599773	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.048	82	280374	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.279	130	159611	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.294	95	380645	10.20 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.00%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.740	69	1937	0.05 ppb(v#	85
3) Freon 152A	3.838	65	401	0.04 ppb(v#	61
6) Dichlorodifluoromethane	3.960	85	1670	0.04 ppb(v#	89
7) 1-Chloro-1,1-difluoroe...	4.076	65	1137	0.05 ppb(v#	70
8) Chloromethane	4.094	50	644	0.05 ppb(v	95
9) Dichlorotetrafluoroethane	4.174	85	1815	0.04 ppb(v	96
10) Vinyl Chloride	4.278	62	600	0.04 ppb(v#	92
11) 1,3-Butadiene	4.382	54	535	0.05 ppb(v#	87
13) Bromomethane	4.614	94	808	0.05 ppb(v#	82
14) Chloroethane	4.755	64	273	0.04 ppb(v#	48
15) Dichlorofluoromethane	4.835	67	1557	0.05 ppb(v#	72
16) Acetonitrile	5.067	41	546m	0.05 ppb(v	
17) Freon 123	5.177	83	1696	0.04 ppb(v	95
18) Freon 123A	5.226	117	830	0.04 ppb(v	93
19) Bromoethene	5.061	106	607	0.04 ppb(v#	91
20) Trichlorofluoromethane	5.410	101	1628	0.04 ppb(v#	93
23) 1,1-Dichloro-1-fluoroe...	5.520	81	1591	0.05 ppb(v#	77
24) Iodomethane	5.924	142	1855	0.04 ppb(v	91
26) 1,1-Dichloroethene	5.991	61	917	0.04 ppb(v	93
27) Freon 113	6.346	101	1396	0.04 ppb(v	91
28) Methylene Chloride	6.107	84	823	0.06 ppb(v	82
29) Carbon Disulfide	6.389	76	1816	0.04 ppb(v#	74
31) Acrylonitrile	5.710	53	420	0.04 ppb(v#	85
32) 3-Chloropropene	6.223	76	197	0.03 ppb(v#	74
33) trans-1,2-Dichloroethene	7.013	61	754	0.03 ppb(v#	78
34) tert-Butyl Alcohol	6.095	59	1118	0.03 ppb(v#	40
35) Methyl tert-Butyl Ether	7.312	73	1734	0.04 ppb(v#	88
36) Vinyl Acetate	7.398	43	1538	0.04 ppb(v#	78
37) 1,1-Dichloroethane	7.227	63	1092	0.04 ppb(v#	86
39) Hexane	8.303	57	1188	0.05 ppb(v#	59
40) cis-1,2-Dichloroethene	8.102	61	808	0.04 ppb(v	94
41) Di-isopropyl Ether	8.328	87	402	0.03 ppb(v#	86
44) Chloroform	8.420	83	1473	0.04 ppb(v#	84
45) 2,4-Dimethylpentane	9.282	57	1303	0.05 ppb(v	94
46) Tetrahydrofuran	8.940	72	122	0.02 ppb(v	78
47) 1,1,1-Trichloroethane	9.515	97	1342	0.04 ppb(v#	82
48) 1,2-Dichloroethane	9.233	62	665	0.03 ppb(v#	53
49) Benzene	10.047	78	2090	0.04 ppb(v	93
50) Carbon Tetrachloride	10.224	117	1335	0.04 ppb(v#	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On : 23 Jan 2016 2:48 am
Operator : THOMASH
Sample : IC637-0.04
Misc : MS97607,v5w637,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 25 09:16:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) Cyclohexane	10.359	56	1065	0.05	ppb(v#	79
52) 2,3-Dimethylpentane	10.634	71	415	0.04	ppb(v#	63
54) 2,2,4-Trimethylpentane	11.338	57	3146	0.04	ppb(v#	90
55) Heptane	11.674	71	576	0.04	ppb(v#	89
56) Trichloroethene	11.319	95	957	0.04	ppb(v	89
57) 1,2-Dichloropropane	11.020	63	615	0.03	ppb(v#	92
58) Dibromomethane	11.001	174	972	0.04	ppb(v	93
59) Ethyl Acrylate	11.118	55	1227	0.03	ppb(v#	78
60) Methyl Methacrylate	11.631	69	583	0.03	ppb(v#	75
62) Bromodichloromethane	11.271	83	1391	0.04	ppb(v#	93
63) cis-1,3-Dichloropropene	12.415	75	1111	0.04	ppb(v#	81
65) trans-1,3-Dichloropropene	13.106	75	725	0.03	ppb(v#	50
66) Toluene	13.656	91	2411	0.04	ppb(v	89
67) 1,1,2-Trichloroethane	13.308	97	794	0.04	ppb(v	89
68) 1,3-Dichloropropane	13.711	76	916	0.03	ppb(v#	71
70) Ethyl Methacrylate	14.091	69	875	0.03	ppb(v#	63
71) Dibromochloromethane	14.207	129	1432	0.03	ppb(v#	99
72) Tetrachloroethene	15.168	166	1277	0.04	ppb(v	92
73) 1,2-Dibromoethane	14.531	107	1319	0.04	ppb(v#	91
74) Octane	14.996	43	1627	0.05	ppb(v	87
75) 1,1,1,2-Tetrachloroethane	16.091	131	1045	0.04	ppb(v#	1
77) Chlorobenzene	16.110	112	2053	0.04	ppb(v	99
78) Ethylbenzene	16.672	91	3129	0.04	ppb(v#	90
79) m,p-Xylene	16.942	91	4902	0.08	ppb(v	95
80) Styrene	17.480	104	1532	0.03	ppb(v	95
81) Nonane	17.988	43	1624	0.05	ppb(v#	97
82) o-Xylene	17.615	91	2573	0.04	ppb(v	88
83) Bromoform	17.015	173	1474	0.04	ppb(v#	95
84) 1,1,2,2-Tetrachloroethane	17.615	83	1939	0.04	ppb(v#	92
85) 1,2,3-Trichloropropane	17.816	75	1379	0.04	ppb(v#	77
86) Isopropylbenzene	18.520	105	3412	0.04	ppb(v	97
87) Bromobenzene	18.642	156	1198	0.04	ppb(v	89
88) 2-Chlorotoluene	19.236	126	773	0.04	ppb(v	94
89) n-Propylbenzene	19.315	120	745	0.03	ppb(v	89
91) 4-Ethyltoluene	19.536	105	3165	0.04	ppb(v	97
92) 1,3,5-Trimethylbenzene	19.646	105	2826	0.04	ppb(v	94
93) alpha-Methylstyrene	19.890	118	1192	0.03	ppb(v	94
94) tert-Butylbenzene	20.209	134	489	0.03	ppb(v	94
95) 1,2,4-Trimethylbenzene	20.227	105	2876	0.04	ppb(v#	79
96) 1,3-Dichlorobenzene	20.429	146	2022	0.04	ppb(v	94
97) Benzyl Chloride	20.423	91	2262	0.04	ppb(v#	95
98) 1,4-Dichlorobenzene	20.520	146	2250	0.05	ppb(v	95
99) sec-Butylbenzene	20.594	134	666	0.04	ppb(v	83
100) p-Isopropyltoluene	20.820	134	695	0.03	ppb(v	84
101) 1,2-Dichlorobenzene	20.979	146	1892	0.04	ppb(v	97
102) n-Butylbenzene	21.395	134	548	0.03	ppb(v	99
103) Hexachloroethane	21.848	201	933	0.03	ppb(v	94
104) 1,2,4-Trichlorobenzene	23.182	180	1201	0.05	ppb(v	93
105) Naphthalene	23.310	128	2833	0.05	ppb(v#	86
106) Hexachlorobutadiene	23.745	225	1090	0.04	ppb(v	96

```
                         Quantitation Report    (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On    : 23 Jan 2016   2:48 am
Operator  : THOMASH
Sample    : IC637-0.04
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 09:16:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

        Compound                   R.T. QIon  Response  Conc Units Dev(Min)
 --------------------------------------------------------------------------
 --------------------------------------------------------------------------

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On    : 23 Jan 2016   2:48 am
Operator  : THOMASH
Sample    : IC637-0.04
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 09:16:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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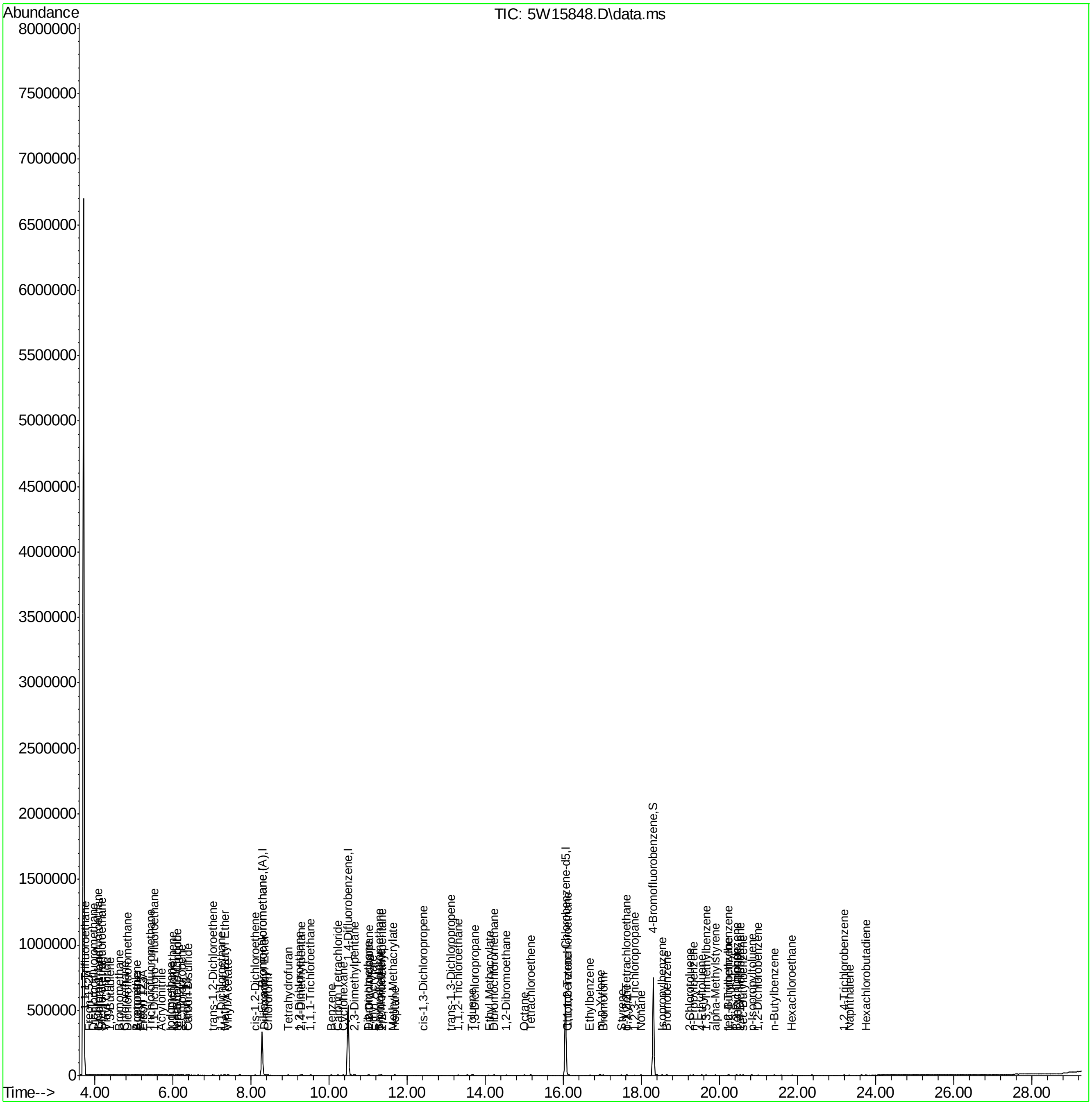


m5w637.M Mon Jan 25 12:12:45 2016 GCMS5W Page: 4

Manual Integration Approval Summary

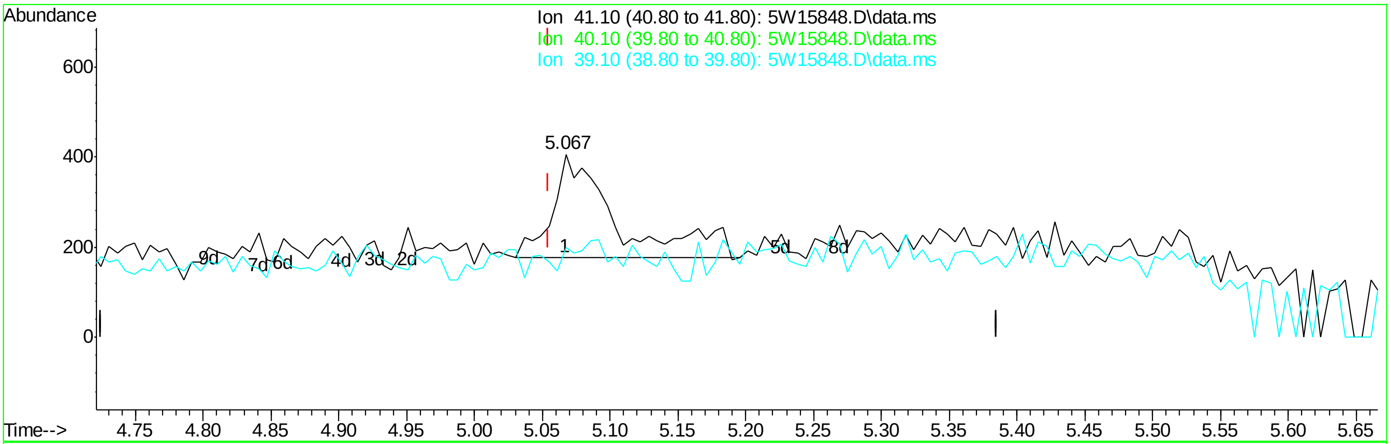
Sample Number:	V5W637-IC637	**Method:**	TO-15
Lab FileID:	5W15848.D	**Analyst approved:**	01/25/16 12:26 Thomas Hilbig
Injection Time:	01/23/16 02:48	**Supervisor approved:**	01/26/16 15:29 Dana Tryon

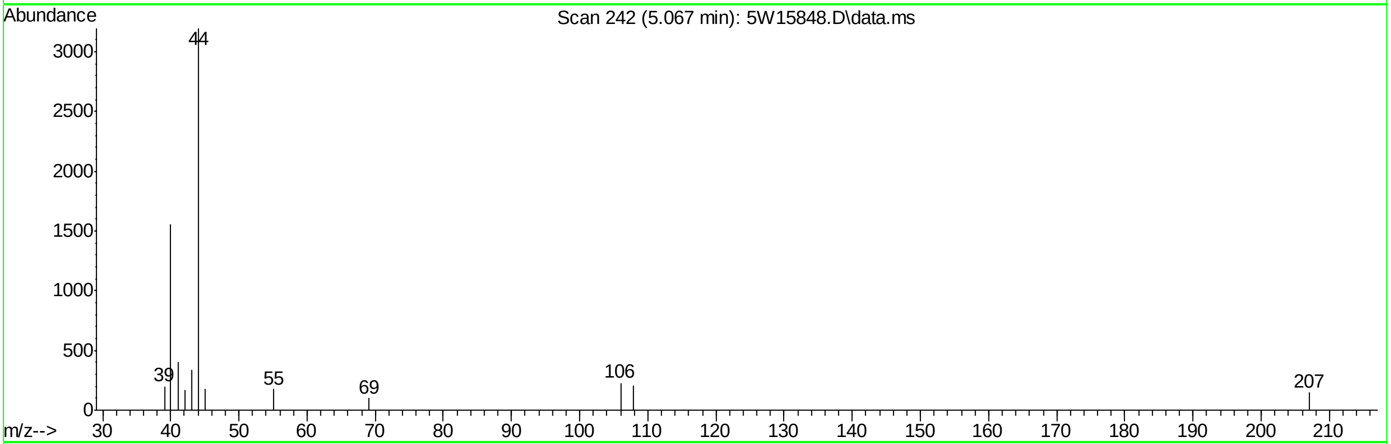
Parameter	CAS	Sig#	R.T. (min.)	Reason
Acetonitrile	75-05-8		5.07	Poorly defined baseline

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On    : 23 Jan 2016   2:48 am
Operator  : THOMASH
Sample    : IC637-0.04
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 08:48:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



TIC: 5W15848.D\data.ms

(16) Acetonitrile

5.067min (+0.012) 0.07ppb(v)

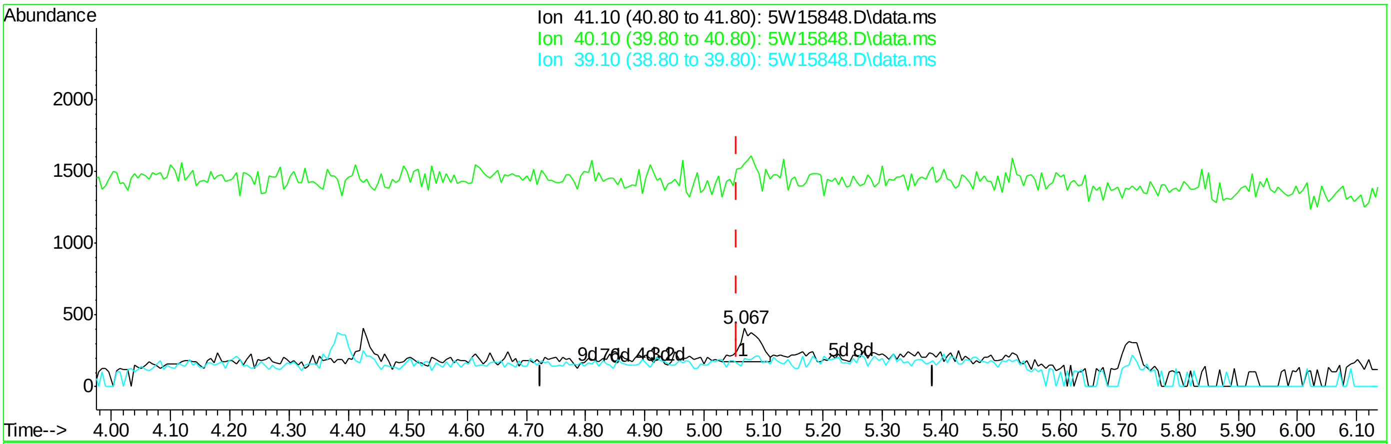
response 740

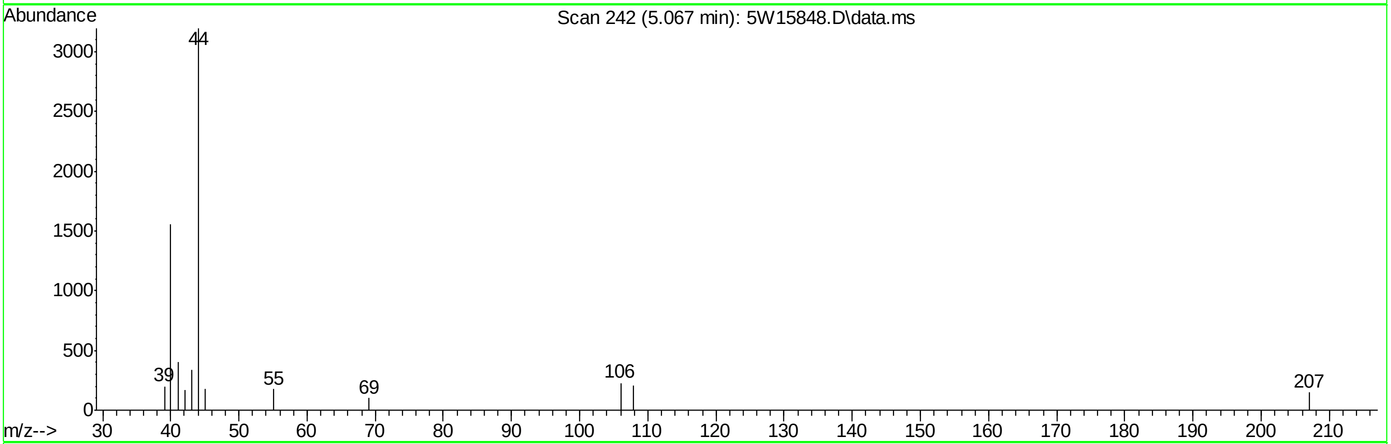
Ion	Exp%	Act%
41.10	100	100
40.10	55.30	383.50#
39.10	20.00	49.01#
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W15848.D
Acq On    : 23 Jan 2016   2:48 am
Operator  : THOMASH
Sample    : IC637-0.04
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Jan 25 08:48:00 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
```



TIC: 5W15848.D\data.ms

(16) Acetonitrile

5.067min (+0.012) 0.05ppb(v) m

response 546

Ion	Exp%	Act%
41.10	100	100
40.10	55.30	383.50#
39.10	20.00	49.01#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15849.D
Acq On : 23 Jan 2016 3:33 am
Operator : THOMASH
Sample : IC637-30
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:31 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.298	130	156620	10.00 ppb(v	0.01
53) 1,4-Difluorobenzene	10.494	114	575274	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.055	82	302180	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.298	130	156620	10.00 ppb(v	0.01

System Monitoring Compounds

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) 4-Bromofluorobenzene	18.300	95	378160	9.40 ppb(v	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 94.00%

Target Compounds

Compound	R.T.	QIon	Response	Conc Units	Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	1143871	28.75 ppb(v	95
3) Freon 152A	3.838	65	252161	28.54 ppb(v	91
4) Chlorodifluoromethane	3.881	67	96098	29.20 ppb(v	98
5) Propene	3.905	41	257384	28.61 ppb(v	98
6) Dichlorodifluoromethane	3.960	85	1051452	28.73 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.076	65	700347	29.01 ppb(v	95
8) Chloromethane	4.101	50	353847	28.54 ppb(v	98
9) Dichlorotetrafluoroethane	4.174	85	1180434	28.65 ppb(v	99
10) Vinyl Chloride	4.278	62	424063	28.64 ppb(v#	99
11) 1,3-Butadiene	4.388	54	299698	28.39 ppb(v	92
12) n-Butane	4.431	58	64615	28.30 ppb(v	77
13) Bromomethane	4.615	94	460419	28.61 ppb(v	98
14) Chloroethane	4.761	64	208100	28.54 ppb(v	97
15) Dichlorofluoromethane	4.835	67	940216	28.66 ppb(v	99
16) Acetonitrile	5.067	41	294166	28.24 ppb(v	98
17) Freon 123	5.190	83	1122274	28.57 ppb(v	98
18) Freon 123A	5.239	117	647508	28.61 ppb(v	91
19) Bromoethene	5.055	106	477025	28.61 ppb(v	97
20) Trichlorofluoromethane	5.422	101	1090015	28.76 ppb(v	100
21) Acetone	5.282	58	191365	29.18 ppb(v	82
22) Pentane	5.728	57	99890	27.93 ppb(v	78
23) 1,1-Dichloro-1-fluoroe...	5.526	81	867176	28.14 ppb(v	97
24) Iodomethane	5.936	142	1321286	28.46 ppb(v	94
25) Isopropyl Alcohol	5.508	43	121396	28.14 ppb(v	72
26) 1,1-Dichloroethene	6.003	61	664402	28.73 ppb(v	92
27) Freon 113	6.358	101	980242	28.84 ppb(v	96
28) Methylene Chloride	6.126	84	411643	28.55 ppb(v	89
29) Carbon Disulfide	6.401	76	1324140	28.61 ppb(v	100
30) Ethanol	4.878	45	156985	28.91 ppb(v	99
31) Acrylonitrile	5.704	53	315901	28.65 ppb(v	98
32) 3-Chloropropene	6.230	76	207162	29.00 ppb(v	78
33) trans-1,2-Dichloroethene	7.025	61	610341	28.61 ppb(v	93
34) tert-Butyl Alcohol	6.052	59	935683	28.04 ppb(v	95
35) Methyl tert-Butyl Ether	7.282	73	1168019	28.48 ppb(v	97
36) Vinyl Acetate	7.392	43	1041675	28.35 ppb(v	95
37) 1,1-Dichloroethane	7.233	63	789201	28.53 ppb(v	100
38) 2-Butanone	7.649	72	214328	28.66 ppb(v	76
39) Hexane	8.316	57	615227	28.83 ppb(v	89
40) cis-1,2-Dichloroethene	8.114	61	592217	28.76 ppb(v	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15849.D
Acq On : 23 Jan 2016 3:33 am
Operator : THOMASH
Sample : IC637-30
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:31 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.322	87	374694	29.16 ppb(v	75
42) Ethyl Acetate	8.359	61	148384	28.80 ppb(v	78
43) Methyl Acrylate	8.353	55	813416	29.00 ppb(v	96
44) Chloroform	8.438	83	970372	28.95 ppb(v	98
45) 2,4-Dimethylpentane	9.295	57	748772	28.46 ppb(v	98
46) Tetrahydrofuran	8.873	72	216173	28.73 ppb(v	85
47) 1,1,1-Trichloroethane	9.527	97	944869	29.02 ppb(v	99
48) 1,2-Dichloroethane	9.246	62	547570	28.77 ppb(v	99
49) Benzene	10.066	78	1418261	28.42 ppb(v	98
50) Carbon Tetrachloride	10.231	117	1003315	29.39 ppb(v	99
51) Cyclohexane	10.365	56	635647	28.60 ppb(v	95
52) 2,3-Dimethylpentane	10.653	71	294407	28.88 ppb(v	91
54) 2,2,4-Trimethylpentane	11.344	57	2086558	29.03 ppb(v	97
55) Heptane	11.687	71	440529	29.47 ppb(v	96
56) Trichloroethene	11.326	95	685098	29.84 ppb(v	95
57) 1,2-Dichloropropane	11.032	63	528250	29.77 ppb(v	99
58) Dibromomethane	11.008	174	679165	30.33 ppb(v	90
59) Ethyl Acrylate	11.063	55	1014912	29.55 ppb(v	97
60) Methyl Methacrylate	11.595	69	503071	29.60 ppb(v	87
61) 1,4-Dioxane	11.338	88	350108	30.25 ppb(v	76
62) Bromodichloromethane	11.277	83	1093018	30.03 ppb(v	99
63) cis-1,3-Dichloropropene	12.409	75	899691	29.68 ppb(v	98
64) 4-Methyl-2-pentanone	12.451	58	427694	29.55 ppb(v	87
65) trans-1,3-Dichloropropene	13.082	75	769556	29.71 ppb(v	98
66) Toluene	13.651	91	1736379	29.39 ppb(v	100
67) 1,1,2-Trichloroethane	13.296	97	639118	29.92 ppb(v	98
68) 1,3-Dichloropropane	13.693	76	818115	29.31 ppb(v	91
69) 2-Hexanone	14.024	58	599649	29.70 ppb(v	88
70) Ethyl Methacrylate	14.060	69	879374	29.71 ppb(v	97
71) Dibromochloromethane	14.213	129	1194325	30.22 ppb(v	99
72) Tetrachloroethene	15.168	166	922380	29.99 ppb(v	99
73) 1,2-Dibromoethane	14.531	107	1042904	29.89 ppb(v	98
74) Octane	14.996	43	926374	28.98 ppb(v	90
75) 1,1,1,2-Tetrachloroethane	16.098	131	816224	30.14 ppb(v	96
77) Chlorobenzene	16.116	112	1447307	27.88 ppb(v	96
78) Ethylbenzene	16.660	91	2245633	27.33 ppb(v	98
79) m,p-Xylene	16.936	91	3438222	55.14 ppb(v	97
80) Styrene	17.456	104	1366197	27.97 ppb(v	99
81) Nonane	17.982	43	931253	27.23 ppb(v	93
82) o-Xylene	17.609	91	1742862	27.58 ppb(v	98
83) Bromoform	17.009	173	1280016	28.37 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.609	83	1435004	27.85 ppb(v	99
85) 1,2,3-Trichloropropane	17.798	75	996125	27.43 ppb(v	98
86) Isopropylbenzene	18.520	105	2474350	27.45 ppb(v	97
87) Bromobenzene	18.630	156	887053	28.09 ppb(v	93
88) 2-Chlorotoluene	19.230	126	659721	28.37 ppb(v	91
89) n-Propylbenzene	19.303	120	685075	28.38 ppb(v	86
91) 4-Ethyltoluene	19.524	105	2321534	27.75 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.640	105	1982729	27.94 ppb(v	98
93) alpha-Methylstyrene	19.872	118	1052170	27.85 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15849.D
Acq On : 23 Jan 2016 3:33 am
Operator : THOMASH
Sample : IC637-30
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:31 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) tert-Butylbenzene	20.209	134	445413	28.29	ppb(v	84
95) 1,2,4-Trimethylbenzene	20.221	105	2018177	27.82	ppb(v	90
96) 1,3-Dichlorobenzene	20.417	146	1404515	28.52	ppb(v	96
97) Benzyl Chloride	20.404	91	1827972	28.35	ppb(v	95
98) 1,4-Dichlorobenzene	20.508	146	1409895	28.33	ppb(v	98
99) sec-Butylbenzene	20.594	134	565535	29.01	ppb(v	81
100) p-Isopropyltoluene	20.820	134	627285	28.60	ppb(v	92
101) 1,2-Dichlorobenzene	20.973	146	1337021	28.48	ppb(v	96
102) n-Butylbenzene	21.389	134	578857	29.41	ppb(v	77
103) Hexachloroethane	21.848	201	867588	29.20	ppb(v	92
104) 1,2,4-Trichlorobenzene	23.170	180	842559	30.03	ppb(v	99
105) Naphthalene	23.292	128	1771537	29.57	ppb(v	100
106) Hexachlorobutadiene	23.745	225	795805	29.23	ppb(v	98
108) TVHC as equiv Pentane	5.728	TIC	2366966	28.30	ppb(v	100

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

7.7.32
7

Quantitation Report   (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15849.D
Acq On    : 23 Jan 2016   3:33 am
Operator  : THOMASH
Sample    : IC637-30
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:48:31 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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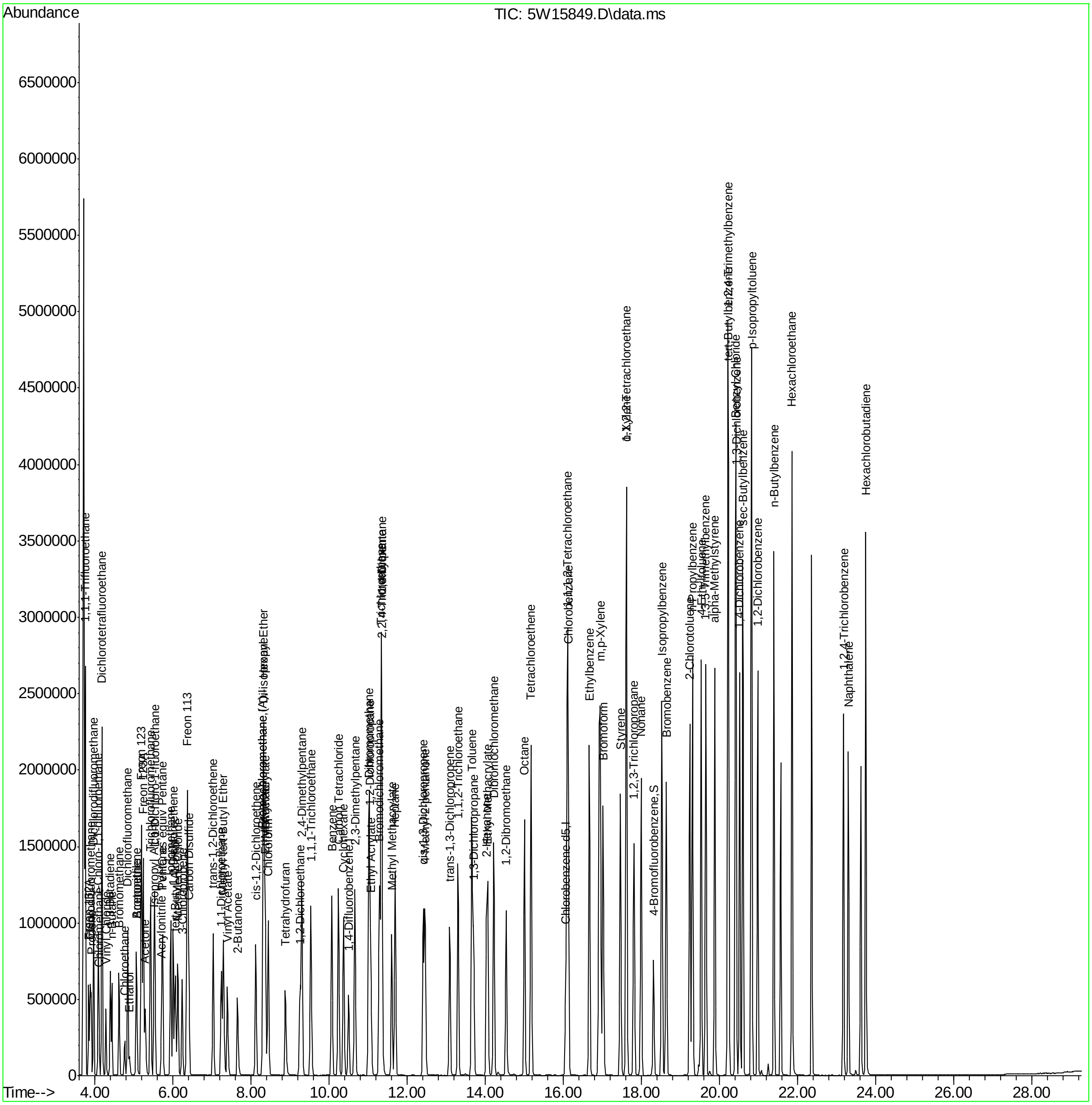

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15851.D
Acq On : 23 Jan 2016 5:01 am
Operator : THOMASH
Sample : IC637-40
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.291	130	171418	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.494	114	631746	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.055	82	339871	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.291	130	171418	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.300	95	411348	9.09	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 90.90%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.746	69	1508002	34.63	ppb(v	95
3) Freon 152A	3.838	65	337472	34.90	ppb(v	91
4) Chlorodifluoromethane	3.874	67	127544	35.41	ppb(v	99
5) Propene	3.899	41	344129	34.95	ppb(v	98
6) Dichlorodifluoromethane	3.960	85	1398202	34.90	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.076	65	935780	35.41	ppb(v	95
8) Chloromethane	4.095	50	472937	34.85	ppb(v	100
9) Dichlorotetrafluoroethane	4.174	85	1563378	34.67	ppb(v	98
10) Vinyl Chloride	4.278	62	562535	34.72	ppb(v#	99
11) 1,3-Butadiene	4.388	54	398089	34.45	ppb(v	91
12) n-Butane	4.431	58	86083	34.45	ppb(v	76
13) Bromomethane	4.615	94	615175	34.93	ppb(v	99
14) Chloroethane	4.755	64	278430	34.89	ppb(v	97
15) Dichlorofluoromethane	4.829	67	1262557	35.17	ppb(v	99
16) Acetonitrile	5.061	41	394313	34.58	ppb(v	97
17) Freon 123	5.184	83	1503625	34.97	ppb(v	98
18) Freon 123A	5.232	117	877305	35.42	ppb(v	91
19) Bromoethene	5.055	106	639890	35.06	ppb(v	97
20) Trichlorofluoromethane	5.416	101	1464789	35.32	ppb(v	100
21) Acetone	5.275	58	254944	35.52	ppb(v	79
22) Pentane	5.722	57	135203	34.53	ppb(v	76
23) 1,1-Dichloro-1-fluoroe...	5.520	81	1190485	35.30	ppb(v	97
24) Iodomethane	5.930	142	1783953	35.11	ppb(v	95
25) Isopropyl Alcohol	5.502	43	163186	34.56	ppb(v	71
26) 1,1-Dichloroethene	5.997	61	896111	35.40	ppb(v	93
27) Freon 113	6.352	101	1325544	35.63	ppb(v	97
28) Methylene Chloride	6.113	84	554776	35.15	ppb(v	90
29) Carbon Disulfide	6.395	76	1779931	35.14	ppb(v	100
30) Ethanol	4.872	45	210768	35.46	ppb(v	99
31) Acrylonitrile	5.697	53	424476	35.17	ppb(v	98
32) 3-Chloropropene	6.224	76	281283	35.98	ppb(v	75
33) trans-1,2-Dichloroethene	7.019	61	822717	35.24	ppb(v	93
34) tert-Butyl Alcohol	6.046	59	1252411	34.30	ppb(v	95
35) Methyl tert-Butyl Ether	7.276	73	1573120	35.05	ppb(v	96
36) Vinyl Acetate	7.386	43	1408757	35.03	ppb(v	95
37) 1,1-Dichloroethane	7.227	63	1065786	35.21	ppb(v	100
38) 2-Butanone	7.643	72	289966	35.43	ppb(v	76
39) Hexane	8.310	57	822655	35.23	ppb(v	86
40) cis-1,2-Dichloroethene	8.114	61	797037	35.37	ppb(v	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15851.D
Acq On : 23 Jan 2016 5:01 am
Operator : THOMASH
Sample : IC637-40
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.316	87	503537	35.81 ppb(v	73
42) Ethyl Acetate	8.359	61	197740	35.07 ppb(v	74
43) Methyl Acrylate	8.346	55	1080059	35.19 ppb(v	97
44) Chloroform	8.432	83	1294646	35.29 ppb(v	98
45) 2,4-Dimethylpentane	9.289	57	1006482	34.96 ppb(v	98
46) Tetrahydrofuran	8.866	72	288106	34.98 ppb(v	86
47) 1,1,1-Trichloroethane	9.527	97	1264331	35.48 ppb(v	98
48) 1,2-Dichloroethane	9.246	62	737650	35.41 ppb(v	99
49) Benzene	10.059	78	1904892	34.88 ppb(v	98
50) Carbon Tetrachloride	10.231	117	1359042	36.37 ppb(v	99
51) Cyclohexane	10.359	56	860394	35.37 ppb(v	94
52) 2,3-Dimethylpentane	10.653	71	398053	35.67 ppb(v	88
54) 2,2,4-Trimethylpentane	11.344	57	2767211	35.06 ppb(v	97
55) Heptane	11.687	71	592378	36.09 ppb(v	95
56) Trichloroethene	11.326	95	917760	36.40 ppb(v	95
57) 1,2-Dichloropropane	11.026	63	709069	36.38 ppb(v	99
58) Dibromomethane	11.008	174	917070	37.30 ppb(v	89
59) Ethyl Acrylate	11.063	55	1362570	36.13 ppb(v	97
60) Methyl Methacrylate	11.595	69	669564	35.87 ppb(v	87
61) 1,4-Dioxane	11.338	88	465305	36.61 ppb(v	76
62) Bromodichloromethane	11.277	83	1468803	36.74 ppb(v	98
63) cis-1,3-Dichloropropene	12.409	75	1216308	36.54 ppb(v	98
64) 4-Methyl-2-pentanone	12.451	58	576972	36.31 ppb(v	85
65) trans-1,3-Dichloropropene	13.082	75	1043791	36.69 ppb(v	98
66) Toluene	13.650	91	2320624	35.76 ppb(v	99
67) 1,1,2-Trichloroethane	13.296	97	858962	36.62 ppb(v	98
68) 1,3-Dichloropropane	13.693	76	1104504	36.03 ppb(v	91
69) 2-Hexanone	14.024	58	801930	36.17 ppb(v	87
70) Ethyl Methacrylate	14.060	69	1173991	36.12 ppb(v	97
71) Dibromochloromethane	14.213	129	1598577	36.83 ppb(v	99
72) Tetrachloroethene	15.168	166	1246848	36.92 ppb(v	99
73) 1,2-Dibromoethane	14.531	107	1397485	36.47 ppb(v	99
74) Octane	14.996	43	1249674	35.60 ppb(v	90
75) 1,1,1,2-Tetrachloroethane	16.098	131	1096988	36.89 ppb(v	96
77) Chlorobenzene	16.116	112	1934415	33.13 ppb(v	97
78) Ethylbenzene	16.660	91	3011573	32.59 ppb(v	98
79) m,p-Xylene	16.936	91	4558673	65.00 ppb(v	97
80) Styrene	17.456	104	1832171	33.35 ppb(v	99
81) Nonane	17.988	43	1245456	32.38 ppb(v#	90
82) o-Xylene	17.609	91	2297078	32.32 ppb(v	98
83) Bromoform	17.015	173	1716304	33.82 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.609	83	1902043	32.82 ppb(v	100
85) 1,2,3-Trichloropropane	17.804	75	1350329	33.05 ppb(v	97
86) Isopropylbenzene	18.520	105	3307928	32.63 ppb(v	97
87) Bromobenzene	18.630	156	1195843	33.67 ppb(v	92
88) 2-Chlorotoluene	19.230	126	880464	33.66 ppb(v	91
89) n-Propylbenzene	19.303	120	919795	33.88 ppb(v	85
91) 4-Ethyltoluene	19.523	105	3084487	32.78 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.646	105	2652093	33.23 ppb(v	97
93) alpha-Methylstyrene	19.872	118	1424515	33.53 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15851.D
Acq On : 23 Jan 2016 5:01 am
Operator : THOMASH
Sample : IC637-40
Misc : MS97607,v5w637,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jan 25 08:48:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.209	134	596931	33.71	ppb(v	83
95)	1,2,4-Trimethylbenzene	20.227	105	2672985	32.76	ppb(v	97
96)	1,3-Dichlorobenzene	20.417	146	1890207	34.13	ppb(v	97
97)	Benzyl Chloride	20.404	91	2449310	33.78	ppb(v	95
98)	1,4-Dichlorobenzene	20.515	146	1885543	33.68	ppb(v	97
99)	sec-Butylbenzene	20.594	134	753850	34.38	ppb(v	79
100)	p-Isopropyltoluene	20.820	134	829915	33.64	ppb(v	92
101)	1,2-Dichlorobenzene	20.973	146	1780012	33.71	ppb(v	97
102)	n-Butylbenzene	21.389	134	781351	35.30	ppb(v	76
103)	Hexachloroethane	21.854	201	1161454	34.76	ppb(v	85
104)	1,2,4-Trichlorobenzene	23.170	180	1141170	36.16	ppb(v	99
105)	Naphthalene	23.292	128	2367478	35.14	ppb(v	99
106)	Hexachlorobutadiene	23.745	225	1054046	34.42	ppb(v	98
108)	TVHC as equiv Pentane	5.722	TIC	3178064	34.72	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15851.D
Acq On    : 23 Jan 2016   5:01 am
Operator  : THOMASH
Sample    : IC637-40
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Jan 25 08:48:39 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 08:46:26 2016
Response via : Initial Calibration
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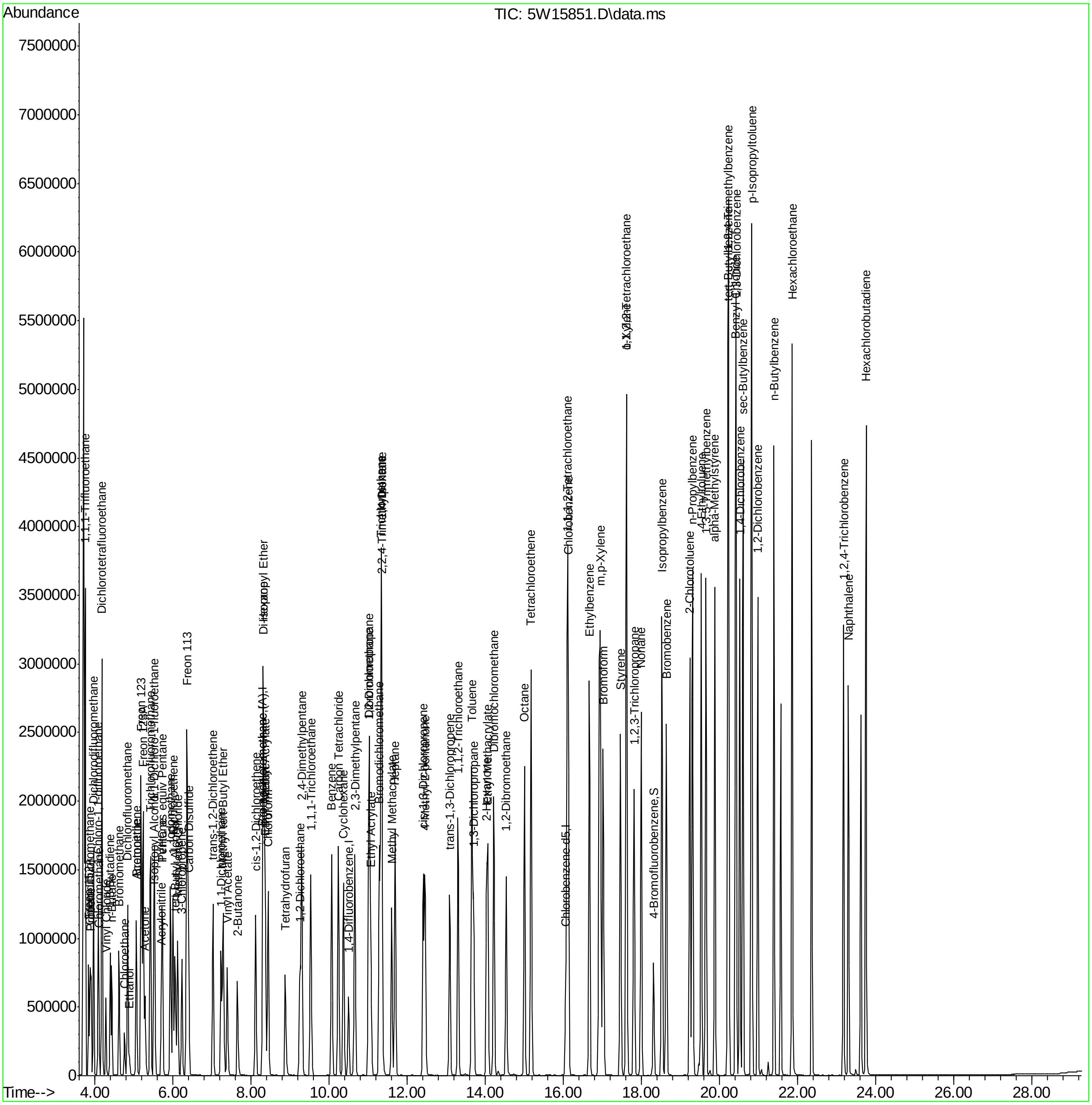

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15853.D
Acq On    : 23 Jan 2016   6:25 am
Operator  : THOMASH
Sample    : ICV637-10
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Jan 25 10:06:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.285	130	157187	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.488	114	588906	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.049	82	286878	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.285	130	157187	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.300	95	383997	10.14 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.40%		
Target Compounds					Qvalue
3) Freon 152A	3.838	65	91965	10.62 ppb(v	93
4) Chlorodifluoromethane	3.880	67	35660	11.17 ppb(v	100
5) Propene	3.905	41	95715	9.75 ppb(v	98
6) Dichlorodifluoromethane	3.966	85	388390	10.92 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.076	65	260062	10.94 ppb(v	95
8) Chloromethane	4.101	50	127784	10.28 ppb(v	99
9) Dichlorotetrafluoroethane	4.174	85	427161	10.69 ppb(v	100
10) Vinyl Chloride	4.278	62	152840	10.94 ppb(v#	99
11) 1,3-Butadiene	4.388	54	106719	10.22 ppb(v	91
12) n-Butane	4.431	58	23642	10.29 ppb(v	77
13) Bromomethane	4.615	94	161021	10.00 ppb(v	98
14) Chloroethane	4.755	64	73213	10.63 ppb(v	97
15) Dichlorofluoromethane	4.829	67	345210	10.62 ppb(v	99
16) Acetonitrile	5.061	41	110506	9.83 ppb(v	98
17) Freon 123	5.177	83	398044	10.43 ppb(v	99
18) Freon 123A	5.226	117	198474	9.56 ppb(v	94
19) Bromoethene	5.055	106	165020	10.65 ppb(v	97
20) Trichlorofluoromethane	5.416	101	388906	10.68 ppb(v	99
21) Acetone	5.275	58	70211	9.38 ppb(v	81
22) Pentane	5.722	57	38219	10.24 ppb(v	81
24) Iodomethane	5.924	142	483171	11.06 ppb(v	94
25) Isopropyl Alcohol	5.495	43	43573	8.93 ppb(v	97
26) 1,1-Dichloroethene	5.997	61	240268	10.97 ppb(v	93
27) Freon 113	6.352	101	357663	11.11 ppb(v	98
28) Methylene Chloride	6.113	84	149595	10.07 ppb(v	90
29) Carbon Disulfide	6.395	76	477517	11.08 ppb(v	100
30) Ethanol	4.865	45	54682	9.52 ppb(v	99
31) Acrylonitrile	5.691	53	118894	11.11 ppb(v	99
32) 3-Chloropropene	6.217	76	73953	11.35 ppb(v	83
33) trans-1,2-Dichloroethene	7.019	61	223262	11.36 ppb(v	93
34) tert-Butyl Alcohol	6.040	59	334586	10.95 ppb(v	95
35) Methyl tert-Butyl Ether	7.276	73	421853	10.82 ppb(v	97
36) Vinyl Acetate	7.380	43	394956	11.58 ppb(v	97
37) 1,1-Dichloroethane	7.227	63	286838	11.06 ppb(v	100
38) 2-Butanone	7.643	72	76049	11.21 ppb(v	77
39) Hexane	8.304	57	223408	10.07 ppb(v	90
40) cis-1,2-Dichloroethene	8.108	61	210191	10.90 ppb(v	91
41) Di-isopropyl Ether	8.310	87	138849	11.79 ppb(v	80
42) Ethyl Acetate	8.352	61	54588	12.41 ppb(v	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15853.D
Acq On : 23 Jan 2016 6:25 am
Operator : THOMASH
Sample : ICV637-10
Misc : MS97607,v5w637,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 25 10:06:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Acrylate	8.340	55	289777	10.46	ppb(v	97
44) Chloroform	8.426	83	359120	11.11	ppb(v	98
45) 2,4-Dimethylpentane	9.288	57	272577	10.48	ppb(v	97
46) Tetrahydrofuran	8.872	72	79344	12.58	ppb(v	87
47) 1,1,1-Trichloroethane	9.521	97	347619	11.18	ppb(v	99
48) 1,2-Dichloroethane	9.240	62	202347	11.51	ppb(v	99
49) Benzene	10.053	78	518615	11.00	ppb(v	98
50) Carbon Tetrachloride	10.225	117	366283	11.44	ppb(v	98
51) Cyclohexane	10.359	56	232405	10.65	ppb(v	96
52) 2,3-Dimethylpentane	10.647	71	106965	10.98	ppb(v	93
54) 2,2,4-Trimethylpentane	11.338	57	768907	10.89	ppb(v	97
55) Heptane	11.681	71	158447	10.99	ppb(v	96
56) Trichloroethene	11.320	95	245704	10.97	ppb(v	96
57) 1,2-Dichloropropane	11.020	63	192246	11.45	ppb(v	99
58) Dibromomethane	11.001	174	244940	11.13	ppb(v	89
59) Ethyl Acrylate	11.057	55	368996	11.25	ppb(v	98
60) Methyl Methacrylate	11.589	69	177161	11.02	ppb(v	89
61) 1,4-Dioxane	11.338	88	126625	11.26	ppb(v	84
62) Bromodichloromethane	11.271	83	386922	10.97	ppb(v	99
63) cis-1,3-Dichloropropene	12.402	75	306744	10.76	ppb(v	97
64) 4-Methyl-2-pentanone	12.445	58	151637	11.72	ppb(v	90
65) trans-1,3-Dichloropropene	13.075	75	275892	11.72	ppb(v	98
66) Toluene	13.644	91	629599	11.00	ppb(v	99
67) 1,1,2-Trichloroethane	13.289	97	226987	11.11	ppb(v	98
68) 1,3-Dichloropropane	13.687	76	294315	11.36	ppb(v	93
69) 2-Hexanone	14.017	58	208461	11.71	ppb(v	90
70) Ethyl Methacrylate	14.054	69	315435	11.59	ppb(v	97
71) Dibromochloromethane	14.207	129	431613	11.44	ppb(v	100
72) Tetrachloroethene	15.161	166	332957	11.14	ppb(v	98
73) 1,2-Dibromoethane	14.525	107	374856	11.18	ppb(v	99
74) Octane	14.996	43	341914	10.77	ppb(v	91
75) 1,1,1,2-Tetrachloroethane	16.091	131	294888	11.37	ppb(v	98
77) Chlorobenzene	16.110	112	513213	10.87	ppb(v	96
78) Ethylbenzene	16.654	91	805017	10.95	ppb(v	99
79) m,p-Xylene	16.923	91	1241434	21.96	ppb(v	98
80) Styrene	17.450	104	483675	11.48	ppb(v	99
81) Nonane	17.982	43	339621	10.44	ppb(v	94
82) o-Xylene	17.602	91	631746	10.98	ppb(v	100
83) Bromoform	17.009	173	442747	11.28	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.602	83	506305	10.98	ppb(v	100
85) 1,2,3-Trichloropropane	17.798	75	360511	11.08	ppb(v	97
86) Isopropylbenzene	18.514	105	899784	11.13	ppb(v	98
87) Bromobenzene	18.624	156	312067	10.89	ppb(v	93
88) 2-Chlorotoluene	19.230	126	226757	11.06	ppb(v	93
89) n-Propylbenzene	19.297	120	238203	11.26	ppb(v	93
91) 4-Ethyltoluene	19.517	105	854548	11.31	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.640	105	703527	10.81	ppb(v	98
93) alpha-Methylstyrene	19.872	118	378114	11.57	ppb(v	97
94) tert-Butylbenzene	20.209	134	155911	11.33	ppb(v	90
95) 1,2,4-Trimethylbenzene	20.221	105	712373	10.92	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W15853.D
Acq On : 23 Jan 2016 6:25 am
Operator : THOMASH
Sample : ICV637-10
Misc : MS97607,v5w637,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 25 10:06:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.410	146	488588	10.69 ppb(v	96
97) Benzyl Chloride	20.398	91	619658	10.90 ppb(v	97
98) 1,4-Dichlorobenzene	20.508	146	480862	10.18 ppb(v	97
99) sec-Butylbenzene	20.588	134	195002	11.28 ppb(v	92
100) p-Isopropyltoluene	20.820	134	221821	11.60 ppb(v	92
101) 1,2-Dichlorobenzene	20.967	146	460062	10.58 ppb(v	97
102) n-Butylbenzene	21.383	134	195593	11.53 ppb(v	88
103) Hexachloroethane	21.848	201	293120	11.38 ppb(v	91
104) 1,2,4-Trichlorobenzene	23.163	180	269748	10.07 ppb(v	99
105) Naphthalene	23.292	128	567379	9.61 ppb(v	100
106) Hexachlorobutadiene	23.738	225	265811	10.29 ppb(v	99
108) TVHC as equiv Pentane	5.722	TIC	908644	11.58 ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W15853.D
Acq On    : 23 Jan 2016   6:25 am
Operator  : THOMASH
Sample    : ICV637-10
Misc      : MS97607,v5w637,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Jan 25 10:06:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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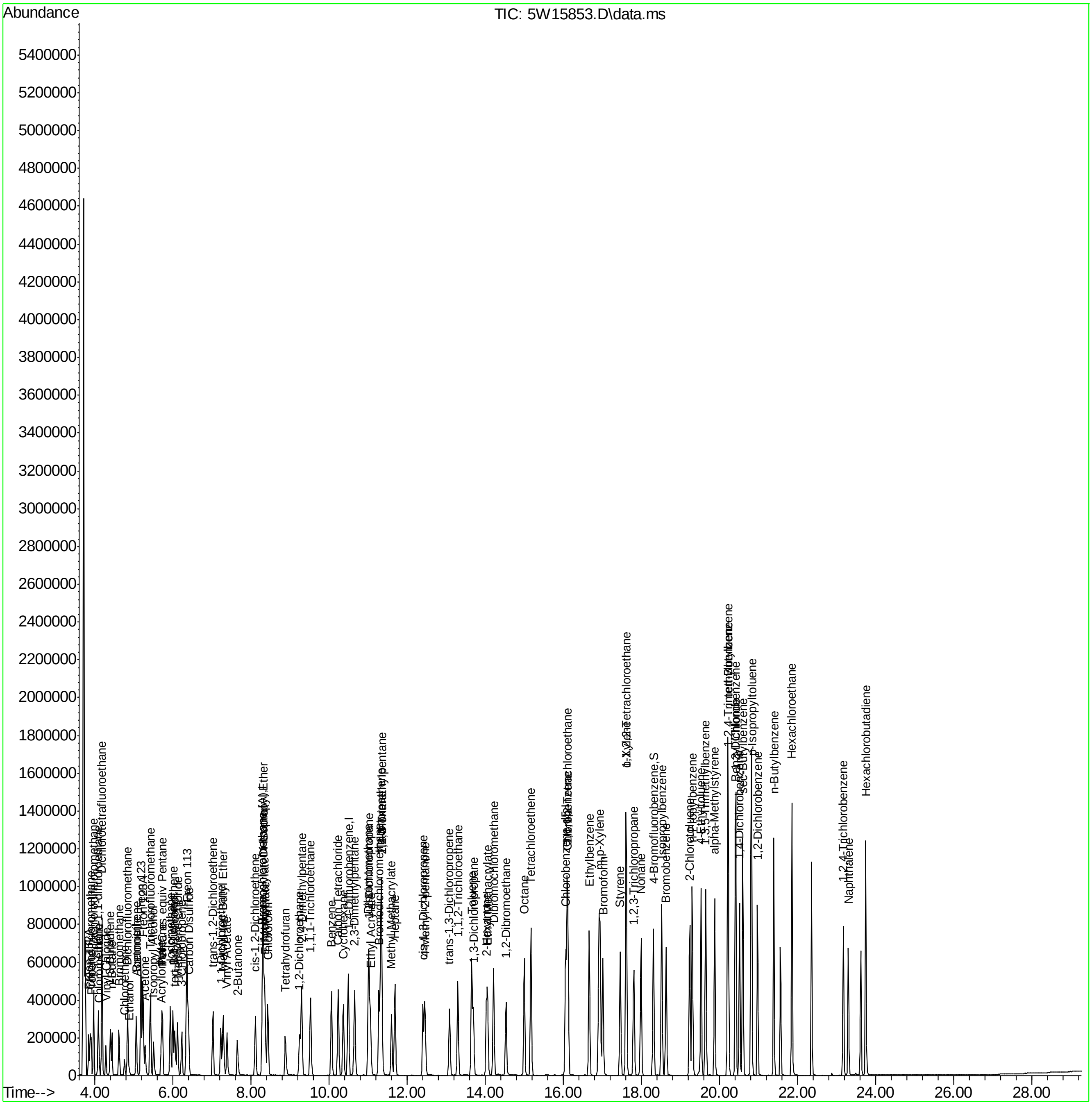

m5w637.M Mon Jan 25 12:13:10 2016 GCMS5W Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17074.D
Acq On : 17 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w683,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 14:25:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	151986	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	528789	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	262780	10.00	ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	151986	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.269	95	353830	10.20	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 102.00%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.728	69	409787	10.84	ppb(v	96
3) Freon 152A	3.819	65	89027	10.63	ppb(v	93
4) Chlorodifluoromethane	3.856	67	34138	11.06	ppb(v	96
5) Propene	3.881	41	100417	10.58	ppb(v	99
6) Dichlorodifluoromethane	3.942	85	369244	10.74	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	267571	11.64	ppb(v	98
8) Chloromethane	4.076	50	141043	11.73	ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	428695	11.09	ppb(v	97
10) Vinyl Chloride	4.254	62	150069	11.11	ppb(v	99
11) 1,3-Butadiene	4.364	54	106417	10.54	ppb(v	99
12) n-Butane	4.407	58	22178	9.98	ppb(v	88
13) Bromomethane	4.590	94	163552	10.50	ppb(v	97
14) Chloroethane	4.731	64	71678	10.76	ppb(v	97
15) Dichlorofluoromethane	4.804	67	349701	11.13	ppb(v	99
16) Acetonitrile	5.031	41	129437	11.90	ppb(v	98
17) Freon 123	5.147	83	401548	10.89	ppb(v	99
18) Freon 123A	5.196	117	209449	10.43	ppb(v	99
19) Bromoethene	5.025	106	161941	10.81	ppb(v	98
20) Trichlorofluoromethane	5.386	101	403134	11.45	ppb(v	98
21) Acetone	5.251	58	70278	9.71	ppb(v	95
22) Pentane	5.691	57	32400	8.98	ppb(v	97
23) 1,1-Dichloro-1-fluoroe...	5.490	81	312285	10.48	ppb(v	98
24) Iodomethane	5.899	142	409752	9.70	ppb(v	95
25) Isopropyl Alcohol	5.465	43	53396	11.32	ppb(v	98
26) 1,1-Dichloroethene	5.961	61	212670	10.04	ppb(v	98
27) Freon 113	6.315	101	312177	10.03	ppb(v	98
28) Methylene Chloride	6.083	84	130865	9.11	ppb(v	99
29) Carbon Disulfide	6.358	76	426499	10.23	ppb(v	100
30) Ethanol	4.841	45	63136	11.37	ppb(v	98
31) Acrylonitrile	5.661	53	101514	9.81	ppb(v	98
32) 3-Chloropropene	6.187	76	59555	9.46	ppb(v	88
33) trans-1,2-Dichloroethene	6.982	61	187047	9.84	ppb(v	98
34) tert-Butyl Alcohol	6.010	59	278274	9.42	ppb(v	94
35) Methyl tert-Butyl Ether	7.245	73	325451	8.63	ppb(v	94
36) Vinyl Acetate	7.349	43	347831	10.55	ppb(v	98
37) 1,1-Dichloroethane	7.190	63	252325	10.07	ppb(v	99
38) 2-Butanone	7.612	72	61285	9.35	ppb(v	92
39) Hexane	8.267	57	201766	9.41	ppb(v	86
40) cis-1,2-Dichloroethene	8.071	61	179959	9.65	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17074.D
Acq On : 17 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w683,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 14:25:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	108094	9.49	ppb(v	89
42) Ethyl Acetate	8.322	61	47319	11.12	ppb(v	93
43) Methyl Acrylate	8.310	55	274098	10.23	ppb(v	99
44) Chloroform	8.389	83	321018	10.27	ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	237099	9.43	ppb(v	97
46) Tetrahydrofuran	8.848	72	59273	9.72	ppb(v	92
47) 1,1,1-Trichloroethane	9.484	97	298242	9.92	ppb(v	99
48) 1,2-Dichloroethane	9.203	62	183885	10.82	ppb(v	99
49) Benzene	10.017	78	413894	9.08	ppb(v	100
50) Carbon Tetrachloride	10.194	117	313069	10.11	ppb(v	99
51) Cyclohexane	10.323	56	194561	9.22	ppb(v	98
52) 2,3-Dimethylpentane	10.610	71	84817	9.00	ppb(v	97
54) 2,2,4-Trimethylpentane	11.301	57	689133	10.87	ppb(v	99
55) Heptane	11.650	71	130236	10.06	ppb(v	96
56) Trichloroethene	11.283	95	207726	10.33	ppb(v	96
57) 1,2-Dichloropropane	10.989	63	164394	10.91	ppb(v	99
58) Dibromomethane	10.965	174	212886	10.77	ppb(v	88
59) Ethyl Acrylate	11.026	55	309857	10.53	ppb(v	100
60) Methyl Methacrylate	11.564	69	139220	9.65	ppb(v	98
61) 1,4-Dioxane	11.307	88	101995	10.10	ppb(v	99
62) Bromodichloromethane	11.234	83	346121	10.93	ppb(v	98
63) cis-1,3-Dichloropropene	12.366	75	247658	9.68	ppb(v	99
64) 4-Methyl-2-pentanone	12.421	58	130843	11.26	ppb(v	91
65) trans-1,3-Dichloropropene	13.045	75	215436	10.19	ppb(v	97
66) Toluene	13.614	91	503713	9.80	ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	192476	10.49	ppb(v	97
68) 1,3-Dichloropropane	13.657	76	256372	11.02	ppb(v	97
69) 2-Hexanone	13.993	58	180017	11.26	ppb(v	94
70) Ethyl Methacrylate	14.024	69	259611	10.62	ppb(v	99
71) Dibromochloromethane	14.177	129	379829	11.21	ppb(v	99
72) Tetrachloroethene	15.131	166	286097	10.66	ppb(v	98
73) 1,2-Dibromoethane	14.489	107	309443	10.28	ppb(v	99
74) Octane	14.966	43	340589	11.95	ppb(v	95
75) 1,1,1,2-Tetrachloroethane	16.061	131	247125	10.61	ppb(v	98
77) Chlorobenzene	16.079	112	417875	9.67	ppb(v	98
78) Ethylbenzene	16.630	91	635978	9.44	ppb(v	100
79) m,p-Xylene	16.899	91	997856	19.27	ppb(v	97
80) Styrene	17.425	104	357560	9.27	ppb(v	98
81) Nonane	17.951	43	345487	11.59	ppb(v	96
82) o-Xylene	17.572	91	522969	9.92	ppb(v	99
83) Bromoform	16.979	173	388529	10.81	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.578	83	461707	10.93	ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	307639	10.32	ppb(v	99
86) Isopropylbenzene	18.484	105	722693	9.76	ppb(v	100
87) Bromobenzene	18.594	156	268402	10.23	ppb(v	92
88) 2-Chlorotoluene	19.199	126	180747	9.62	ppb(v	95
89) n-Propylbenzene	19.273	120	190459	9.83	ppb(v	98
91) 4-Ethyltoluene	19.493	105	661002	9.55	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.615	105	572518	9.60	ppb(v	99
93) alpha-Methylstyrene	19.848	118	289440	9.67	ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17074.D
Acq On : 17 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w683,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 17 14:25:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.178	134	123593	9.81	ppb(v	94
95)	1,2,4-Trimethylbenzene	20.196	105	604694	10.12	ppb(v	97
96)	1,3-Dichlorobenzene	20.386	146	422339	10.09	ppb(v	96
97)	Benzyl Chloride	20.374	91	510420	9.81	ppb(v	98
98)	1,4-Dichlorobenzene	20.484	146	404450	9.35	ppb(v	96
99)	sec-Butylbenzene	20.564	134	152546	9.63	ppb(v	98
100)	p-Isopropyltoluene	20.796	134	175199	10.00	ppb(v	98
101)	1,2-Dichlorobenzene	20.949	146	387010	9.72	ppb(v	95
102)	n-Butylbenzene	21.365	134	151284	9.74	ppb(v	91
103)	Hexachloroethane	21.830	201	259272	10.99	ppb(v	84
104)	1,2,4-Trichlorobenzene	23.145	180	204448	8.34	ppb(v	99
105)	Naphthalene	23.274	128	417630	7.72	ppb(v	99
106)	Hexachlorobutadiene	23.720	225	238002	10.06	ppb(v	98
108)	TVHC as equiv Pentane	5.685	TIC	868148	11.44	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17074.D
Acq On    : 17 Mar 2016   8:59 am
Operator  : THOMASH
Sample    : CC637-10
Misc      : MS99296,v5w683,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 17 14:25:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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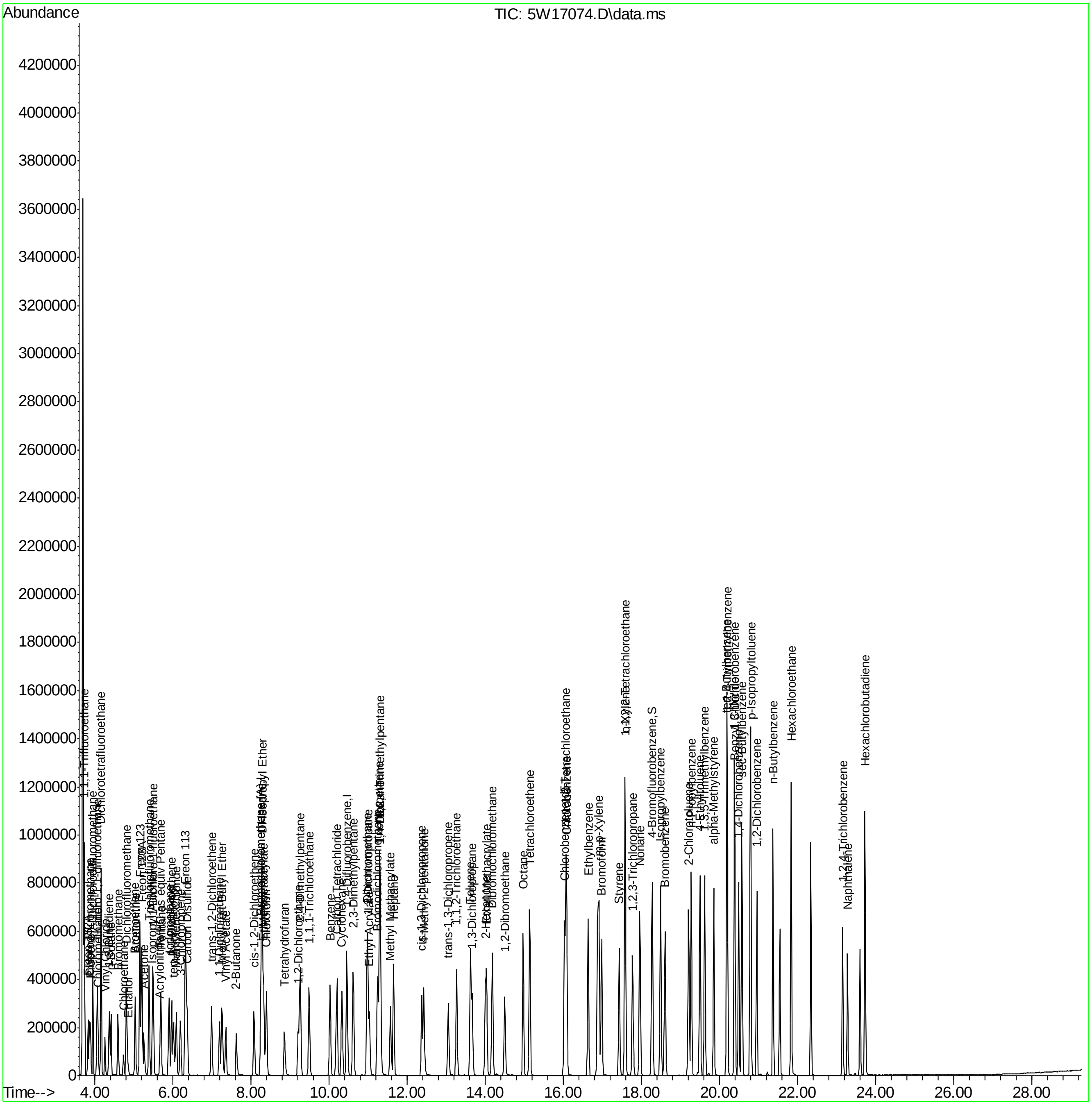

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17106.D
Acq On    : 18 Mar 2016   9:24 am
Operator  : THOMASH
Sample    : CC637-10
Misc      : MS99296,v5w684,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 19 10:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	149110	10.00	ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	514833	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	261079	10.00	ppb(v	-0.03
107) Bromochloromethane (A)	8.249	130	149110	10.00	ppb(v	-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.269	95	345243	10.02	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.20%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.721	69	431031	11.63	ppb(v	95
3) Freon 152A	3.813	65	89101	10.85	ppb(v	94
4) Chlorodifluoromethane	3.856	67	33980	11.22	ppb(v	99
5) Propene	3.881	41	103670	11.14	ppb(v	99
6) Dichlorodifluoromethane	3.942	85	368259	10.92	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.052	65	267532	11.86	ppb(v	99
8) Chloromethane	4.076	50	143757	12.19	ppb(v	98
9) Dichlorotetrafluoroethane	4.150	85	434022	11.45	ppb(v	97
10) Vinyl Chloride	4.254	62	153181	11.56	ppb(v	99
11) 1,3-Butadiene	4.364	54	109084	11.01	ppb(v	96
12) n-Butane	4.401	58	23263	10.67	ppb(v	93
13) Bromomethane	4.590	94	162565	10.64	ppb(v	99
14) Chloroethane	4.731	64	73520	11.25	ppb(v	99
15) Dichlorofluoromethane	4.804	67	352818	11.44	ppb(v	99
16) Acetonitrile	5.031	41	129360	12.13	ppb(v	98
17) Freon 123	5.147	83	404602	11.18	ppb(v	99
18) Freon 123A	5.202	117	208449	10.58	ppb(v	99
19) Bromoethene	5.025	106	159155	10.83	ppb(v	99
20) Trichlorofluoromethane	5.386	101	401158	11.62	ppb(v	100
21) Acetone	5.251	58	70454	9.92	ppb(v	96
22) Pentane	5.691	57	32219	9.10	ppb(v	91
23) 1,1-Dichloro-1-fluoroe...	5.490	81	324101	11.08	ppb(v	100
24) Iodomethane	5.893	142	384899	9.29	ppb(v	99
25) Isopropyl Alcohol	5.471	43	56604	12.23	ppb(v	90
26) 1,1-Dichloroethene	5.961	61	213592	10.28	ppb(v	99
27) Freon 113	6.315	101	307971	10.08	ppb(v	99
28) Methylene Chloride	6.077	84	129427	9.19	ppb(v	98
29) Carbon Disulfide	6.358	76	421246	10.30	ppb(v	100
30) Ethanol	4.841	45	64506	11.84	ppb(v	98
31) Acrylonitrile	5.667	53	100274	9.88	ppb(v	98
32) 3-Chloropropene	6.187	76	58085	9.40	ppb(v	91
33) trans-1,2-Dichloroethene	6.982	61	184168	9.87	ppb(v	99
34) tert-Butyl Alcohol	6.010	59	275356	9.50	ppb(v	92
35) Methyl tert-Butyl Ether	7.251	73	316418	8.56	ppb(v	95
36) Vinyl Acetate	7.349	43	354922	10.97	ppb(v	97
37) 1,1-Dichloroethane	7.190	63	249566	10.15	ppb(v	99
38) 2-Butanone	7.618	72	59932	9.32	ppb(v	86
39) Hexane	8.273	57	196727	9.35	ppb(v	99
40) cis-1,2-Dichloroethene	8.071	61	177475	9.70	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17106.D
Acq On : 18 Mar 2016 9:24 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w684,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 10:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	104908	9.39 ppb(v	80
42) Ethyl Acetate	8.328	61	46704	11.19 ppb(v	99
43) Methyl Acrylate	8.310	55	272511	10.37 ppb(v	98
44) Chloroform	8.389	83	312274	10.18 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	237523	9.63 ppb(v	97
46) Tetrahydrofuran	8.854	72	57004	9.53 ppb(v	91
47) 1,1,1-Trichloroethane	9.484	97	292650	9.92 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	184997	11.10 ppb(v	98
49) Benzene	10.023	78	401974	8.99 ppb(v	100
50) Carbon Tetrachloride	10.188	117	311368	10.25 ppb(v	99
51) Cyclohexane	10.323	56	193960	9.37 ppb(v	95
52) 2,3-Dimethylpentane	10.610	71	84782	9.17 ppb(v	88
54) 2,2,4-Trimethylpentane	11.301	57	696999	11.29 ppb(v	99
55) Heptane	11.650	71	131310	10.42 ppb(v	97
56) Trichloroethene	11.283	95	205468	10.49 ppb(v	99
57) 1,2-Dichloropropane	10.989	63	164612	11.22 ppb(v	98
58) Dibromomethane	10.971	174	203922	10.60 ppb(v	87
59) Ethyl Acrylate	11.032	55	312045	10.89 ppb(v	100
60) Methyl Methacrylate	11.564	69	135251	9.63 ppb(v	92
61) 1,4-Dioxane	11.314	88	99201	10.09 ppb(v	93
62) Bromodichloromethane	11.234	83	343884	11.15 ppb(v	100
63) cis-1,3-Dichloropropene	12.372	75	246235	9.88 ppb(v	99
64) 4-Methyl-2-pentanone	12.421	58	129626	11.46 ppb(v	91
65) trans-1,3-Dichloropropene	13.045	75	211418	10.27 ppb(v	99
66) Toluene	13.614	91	485326	9.70 ppb(v	99
67) 1,1,2-Trichloroethane	13.259	97	190695	10.67 ppb(v	99
68) 1,3-Dichloropropane	13.657	76	251947	11.13 ppb(v	96
69) 2-Hexanone	13.993	58	182586	11.73 ppb(v	94
70) Ethyl Methacrylate	14.024	69	261675	10.99 ppb(v	97
71) Dibromochloromethane	14.177	129	371012	11.24 ppb(v	99
72) Tetrachloroethene	15.131	166	271838	10.40 ppb(v	97
73) 1,2-Dibromoethane	14.489	107	302861	10.33 ppb(v	99
74) Octane	14.966	43	336013	12.11 ppb(v	91
75) 1,1,1,2-Tetrachloroethane	16.061	131	239061	10.54 ppb(v	98
77) Chlorobenzene	16.079	112	404665	9.42 ppb(v	99
78) Ethylbenzene	16.630	91	609683	9.11 ppb(v	99
79) m,p-Xylene	16.899	91	991605	19.27 ppb(v	99
80) Styrene	17.425	104	344061	8.97 ppb(v	100
81) Nonane	17.951	43	344957	11.65 ppb(v	95
82) o-Xylene	17.572	91	495950	9.47 ppb(v	98
83) Bromoform	16.979	173	377034	10.56 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	453110	10.79 ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	305204	10.31 ppb(v	99
86) Isopropylbenzene	18.484	105	678442	9.22 ppb(v	100
87) Bromobenzene	18.594	156	251063	9.63 ppb(v	95
88) 2-Chlorotoluene	19.199	126	172405	9.24 ppb(v	98
89) n-Propylbenzene	19.273	120	186943	9.71 ppb(v	99
91) 4-Ethyltoluene	19.493	105	632045	9.19 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.615	105	554081	9.35 ppb(v	99
93) alpha-Methylstyrene	19.848	118	268462	9.03 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17106.D
Acq On : 18 Mar 2016 9:24 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w684,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 10:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

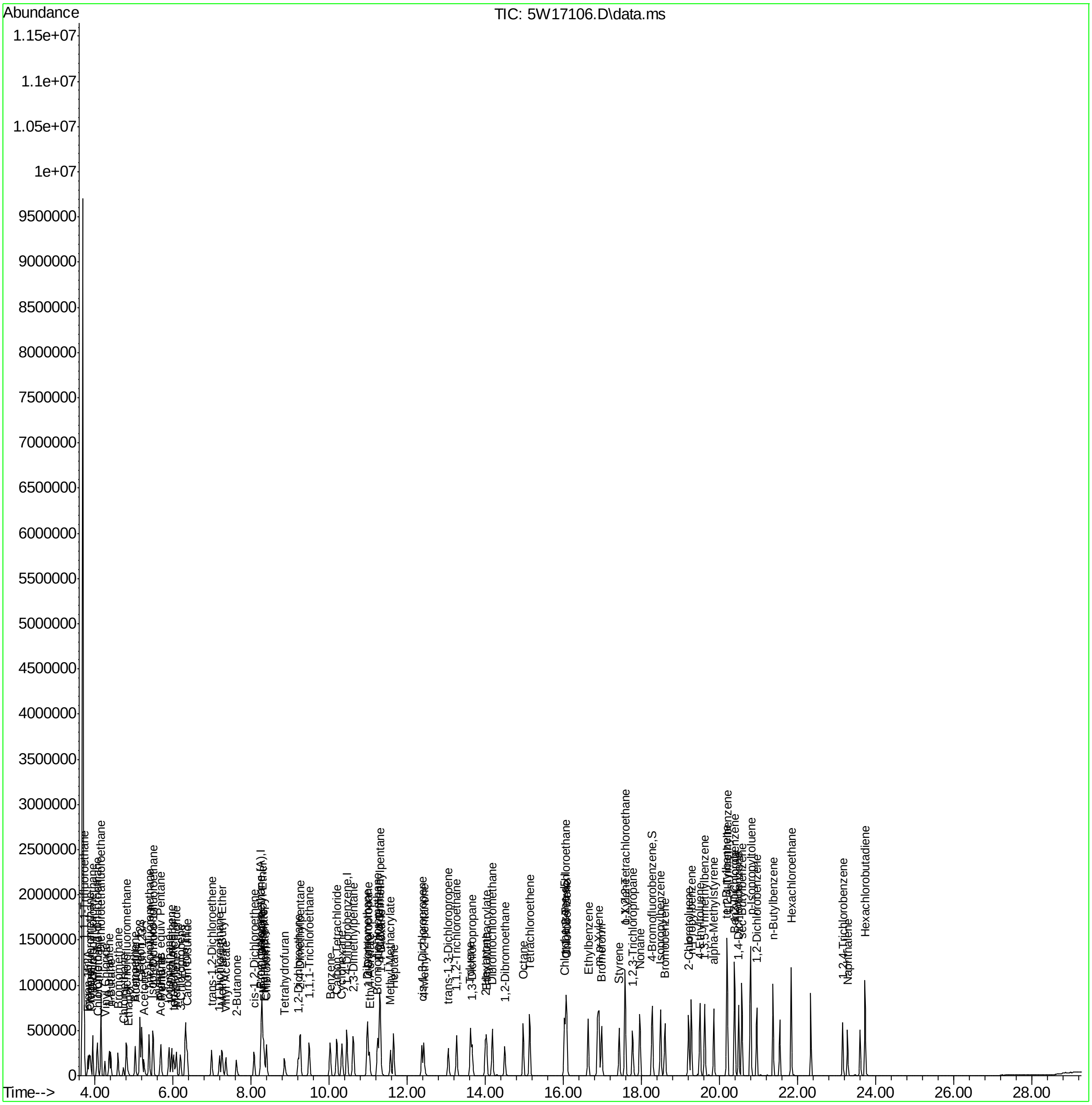
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.178	134	115444	9.22	ppb(v	97
95)	1,2,4-Trimethylbenzene	20.196	105	579145	9.76	ppb(v	99
96)	1,3-Dichlorobenzene	20.386	146	400907	9.64	ppb(v	96
97)	Benzyl Chloride	20.374	91	491014	9.49	ppb(v	99
98)	1,4-Dichlorobenzene	20.484	146	391545	9.11	ppb(v	97
99)	sec-Butylbenzene	20.564	134	147443	9.37	ppb(v	97
100)	p-Isopropyltoluene	20.796	134	169203	9.72	ppb(v	99
101)	1,2-Dichlorobenzene	20.949	146	378387	9.56	ppb(v	95
102)	n-Butylbenzene	21.365	134	144355	9.35	ppb(v	96
103)	Hexachloroethane	21.830	201	245760	10.49	ppb(v	86
104)	1,2,4-Trichlorobenzene	23.151	180	199970	8.21	ppb(v	99
105)	Naphthalene	23.274	128	404561	7.53	ppb(v	100
106)	Hexachlorobutadiene	23.726	225	229509	9.76	ppb(v	98
108)	TVHC as equiv Pentane	5.685	TIC	865120	11.62	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17106.D
Acq On : 18 Mar 2016 9:24 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w684,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 19 10:33:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17134.D
Acq On : 19 Mar 2016 9:32 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w685,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 21 08:38:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.261	130	141587	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	10.463	114	491797	10.00	ppb(v	-0.02
76) Chlorobenzene-d5	16.024	82	255076	10.00	ppb(v	-0.02
107) Bromochloromethane (A)	8.261	130	141587	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.269	95	331636	9.85	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery = 98.50%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.734	69	396918	11.27	ppb(v	95
3) Freon 152A	3.832	65	86577	11.10	ppb(v	96
4) Chlorodifluoromethane	3.868	67	34171	11.88	ppb(v	98
5) Propene	3.887	41	105542	11.94	ppb(v	99
6) Dichlorodifluoromethane	3.954	85	356525	11.13	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.070	65	258072	12.05	ppb(v	98
8) Chloromethane	4.088	50	139078	12.42	ppb(v	98
9) Dichlorotetrafluoroethane	4.168	85	407805	11.33	ppb(v	98
10) Vinyl Chloride	4.266	62	145407	11.56	ppb(v	100
11) 1,3-Butadiene	4.376	54	105800	11.25	ppb(v	98
12) n-Butane	4.419	58	21984	10.62	ppb(v	80
13) Bromomethane	4.602	94	150388	10.37	ppb(v	98
14) Chloroethane	4.743	64	68597	11.06	ppb(v	96
15) Dichlorofluoromethane	4.816	67	325686	11.13	ppb(v	100
16) Acetonitrile	5.055	41	123192	12.16	ppb(v	99
17) Freon 123	5.165	83	365600	10.64	ppb(v	99
18) Freon 123A	5.214	117	194901	10.42	ppb(v	99
19) Bromoethene	5.043	106	150781	10.80	ppb(v	99
20) Trichlorofluoromethane	5.398	101	372551	11.36	ppb(v	99
21) Acetone	5.269	58	65949	9.78	ppb(v	99
22) Pentane	5.704	57	31457	9.36	ppb(v	90
23) 1,1-Dichloro-1-fluoroe...	5.508	81	289020	10.41	ppb(v	99
24) Iodomethane	5.912	142	390203	9.91	ppb(v	98
25) Isopropyl Alcohol	5.489	43	48668	11.07	ppb(v	74
26) 1,1-Dichloroethene	5.979	61	211844	10.74	ppb(v	98
27) Freon 113	6.334	101	290896	10.03	ppb(v	97
28) Methylene Chloride	6.095	84	122354	9.15	ppb(v	98
29) Carbon Disulfide	6.370	76	400791	10.32	ppb(v	100
30) Ethanol	4.865	45	61641	11.91	ppb(v	99
31) Acrylonitrile	5.685	53	100142	10.39	ppb(v	100
32) 3-Chloropropene	6.205	76	58268	9.93	ppb(v	86
33) trans-1,2-Dichloroethene	6.994	61	185656	10.48	ppb(v	99
34) tert-Butyl Alcohol	6.034	59	282956	10.28	ppb(v	95
35) Methyl tert-Butyl Ether	7.264	73	331929	9.45	ppb(v	96
36) Vinyl Acetate	7.368	43	359366	11.70	ppb(v	96
37) 1,1-Dichloroethane	7.202	63	247144	10.58	ppb(v	99
38) 2-Butanone	7.631	72	60311	9.87	ppb(v	86
39) Hexane	8.279	57	198161	9.92	ppb(v	87
40) cis-1,2-Dichloroethene	8.089	61	178566	10.28	ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17134.D
Acq On : 19 Mar 2016 9:32 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w685,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 21 08:38:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.297	87	103116	9.72 ppb(v	82
42) Ethyl Acetate	8.340	61	45183	11.40 ppb(v	82
43) Methyl Acrylate	8.328	55	262524	10.52 ppb(v	98
44) Chloroform	8.401	83	298807	10.26 ppb(v	98
45) 2,4-Dimethylpentane	9.264	57	234515	10.01 ppb(v	98
46) Tetrahydrofuran	8.860	72	59498	10.48 ppb(v	87
47) 1,1,1-Trichloroethane	9.496	97	285630	10.20 ppb(v	100
48) 1,2-Dichloroethane	9.215	62	181390	11.46 ppb(v	100
49) Benzene	10.029	78	403868	9.51 ppb(v	98
50) Carbon Tetrachloride	10.200	117	300186	10.41 ppb(v	99
51) Cyclohexane	10.335	56	196852	10.01 ppb(v	97
52) 2,3-Dimethylpentane	10.622	71	81805	9.32 ppb(v	92
54) 2,2,4-Trimethylpentane	11.307	57	668775	11.34 ppb(v	99
55) Heptane	11.656	71	125293	10.41 ppb(v	95
56) Trichloroethene	11.289	95	197142	10.54 ppb(v	99
57) 1,2-Dichloropropane	10.995	63	160235	11.43 ppb(v	98
58) Dibromomethane	10.977	174	193827	10.55 ppb(v	91
59) Ethyl Acrylate	11.038	55	312914	11.43 ppb(v	100
60) Methyl Methacrylate	11.570	69	137992	10.28 ppb(v	92
61) 1,4-Dioxane	11.320	88	96736	10.30 ppb(v	96
62) Bromodichloromethane	11.246	83	330940	11.24 ppb(v	99
63) cis-1,3-Dichloropropene	12.378	75	254439	10.69 ppb(v	99
64) 4-Methyl-2-pentanone	12.427	58	128756	11.91 ppb(v	91
65) trans-1,3-Dichloropropene	13.051	75	215143	10.94 ppb(v	99
66) Toluene	13.620	91	476920	9.98 ppb(v	100
67) 1,1,2-Trichloroethane	13.265	97	180431	10.57 ppb(v	99
68) 1,3-Dichloropropane	13.663	76	246399	11.39 ppb(v	95
69) 2-Hexanone	13.999	58	176901	11.90 ppb(v	92
70) Ethyl Methacrylate	14.030	69	252774	11.12 ppb(v	99
71) Dibromochloromethane	14.177	129	352308	11.18 ppb(v	99
72) Tetrachloroethene	15.137	166	264405	10.59 ppb(v	97
73) 1,2-Dibromoethane	14.495	107	293478	10.48 ppb(v	97
74) Octane	14.966	43	340911	12.86 ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.061	131	233467	10.78 ppb(v	98
77) Chlorobenzene	16.085	112	395363	9.42 ppb(v	99
78) Ethylbenzene	16.630	91	626717	9.59 ppb(v	99
79) m,p-Xylene	16.899	91	956684	19.03 ppb(v	99
80) Styrene	17.425	104	350271	9.35 ppb(v	99
81) Nonane	17.951	43	353137	12.21 ppb(v	94
82) o-Xylene	17.578	91	495442	9.68 ppb(v	98
83) Bromoform	16.978	173	358030	10.26 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.578	83	435125	10.61 ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	299367	10.35 ppb(v	99
86) Isopropylbenzene	18.483	105	692912	9.64 ppb(v	99
87) Bromobenzene	18.600	156	251208	9.86 ppb(v	93
88) 2-Chlorotoluene	19.205	126	174160	9.55 ppb(v	93
89) n-Propylbenzene	19.273	120	180490	9.59 ppb(v	97
91) 4-Ethyltoluene	19.493	105	649059	9.66 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.615	105	554453	9.58 ppb(v	99
93) alpha-Methylstyrene	19.848	118	277325	9.55 ppb(v	99

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17134.D
Acq On    : 19 Mar 2016   9:32 am
Operator  : THOMASH
Sample    : CC637-10
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 21 08:38:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94)	tert-Butylbenzene	20.184	134	116265	9.51 ppb(v	95
95)	1,2,4-Trimethylbenzene	20.196	105	573889	9.90 ppb(v	98
96)	1,3-Dichlorobenzene	20.386	146	399944	9.84 ppb(v	96
97)	Benzyl Chloride	20.374	91	499364	9.88 ppb(v	99
98)	1,4-Dichlorobenzene	20.484	146	387927	9.24 ppb(v	97
99)	sec-Butylbenzene	20.563	134	147861	9.62 ppb(v	97
100)	p-Isopropyltoluene	20.796	134	168929	9.94 ppb(v	99
101)	1,2-Dichlorobenzene	20.949	146	368043	9.52 ppb(v	96
102)	n-Butylbenzene	21.365	134	148860	9.87 ppb(v	94
103)	Hexachloroethane	21.830	201	244413	10.67 ppb(v	86
104)	1,2,4-Trichlorobenzene	23.145	180	211286	8.87 ppb(v	97
105)	Naphthalene	23.274	128	415238	7.91 ppb(v	99
106)	Hexachlorobutadiene	23.720	225	232698	10.13 ppb(v	99
108)	TVHC as equiv Pentane	5.704	TIC	840548	11.89 ppb(v	100

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

7.7.37

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17134.D
Acq On    : 19 Mar 2016   9:32 am
Operator  : THOMASH
Sample    : CC637-10
Misc      : MS99296,v5w685,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 21 08:38:26 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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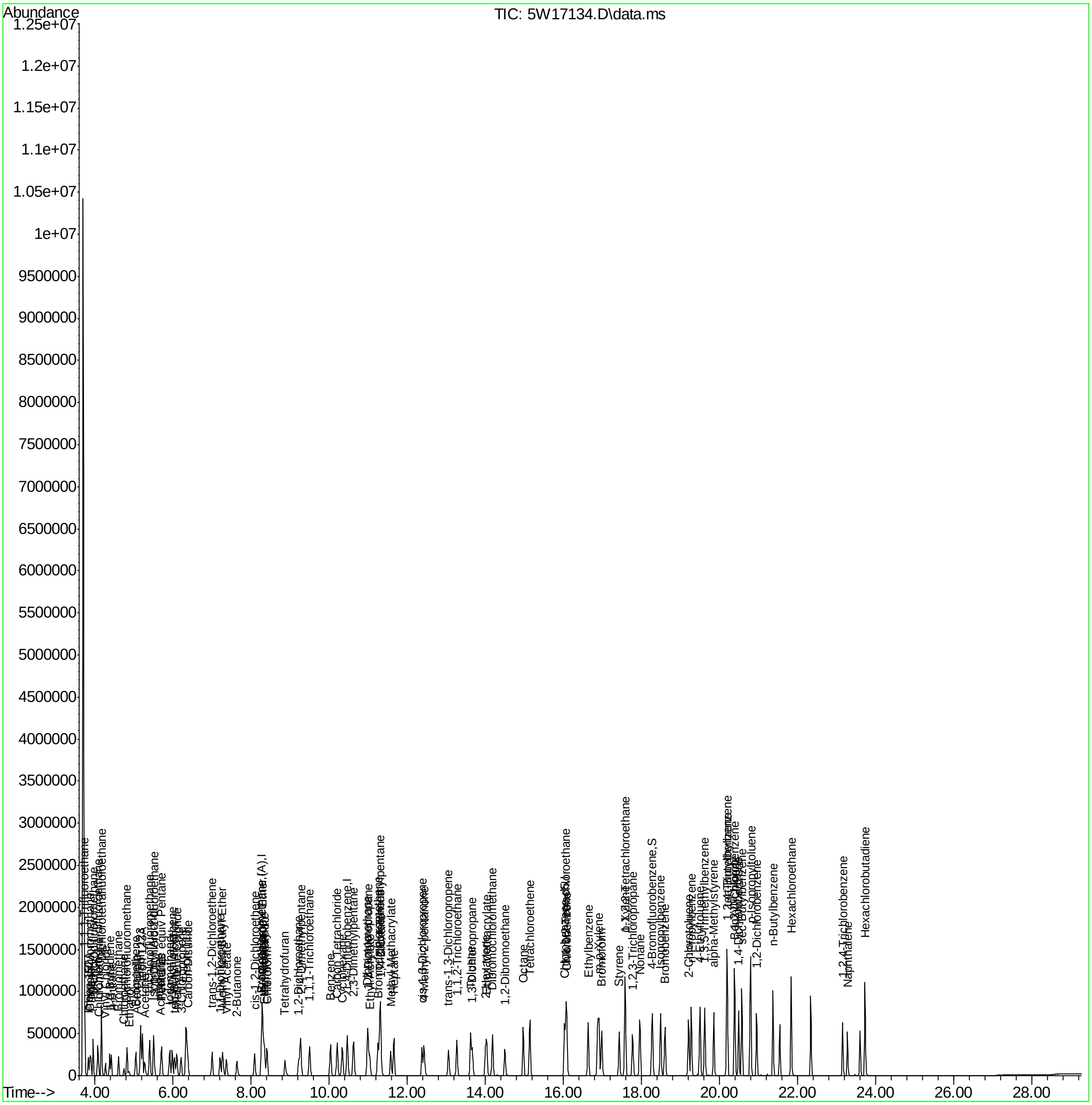

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17164.D
Acq On : 21 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w686,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 21 11:17:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.249	130	133767	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	484077	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.012	82	258758	10.00 ppb(v	-0.04
107) Bromochloromethane (A)	8.249	130	133767	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	352899	10.34 ppb(v	-0.04
Spiked Amount 10.000 Range 65 - 128			Recovery = 103.40%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.721	69	382353	11.50 ppb(v	98
3) Freon 152A	3.819	65	81922	11.12 ppb(v	98
4) Chlorodifluoromethane	3.856	67	33483	12.32 ppb(v	100
5) Propene	3.881	41	102934	12.32 ppb(v	99
6) Dichlorodifluoromethane	3.942	85	342909	11.33 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.058	65	254473	12.57 ppb(v	99
8) Chloromethane	4.076	50	131583	12.44 ppb(v	100
9) Dichlorotetrafluoroethane	4.156	85	386666	11.37 ppb(v	98
10) Vinyl Chloride	4.254	62	139004	11.69 ppb(v	99
11) 1,3-Butadiene	4.364	54	100828	11.35 ppb(v	97
12) n-Butane	4.407	58	20816	10.65 ppb(v	80
13) Bromomethane	4.590	94	143770	10.49 ppb(v	97
14) Chloroethane	4.731	64	64584	11.02 ppb(v	98
15) Dichlorofluoromethane	4.804	67	309284	11.18 ppb(v	99
16) Acetonitrile	5.031	41	118130	12.34 ppb(v	99
17) Freon 123	5.153	83	349351	10.76 ppb(v	99
18) Freon 123A	5.202	117	186084	10.53 ppb(v	95
19) Bromoethene	5.025	106	143509	10.88 ppb(v	97
20) Trichlorofluoromethane	5.385	101	361003	11.65 ppb(v	99
21) Acetone	5.251	58	61092	9.59 ppb(v	93
22) Pentane	5.691	57	30084	9.47 ppb(v	93
23) 1,1-Dichloro-1-fluoroe...	5.489	81	296558	11.31 ppb(v	99
24) Iodomethane	5.893	142	366466	9.86 ppb(v	99
25) Isopropyl Alcohol	5.471	43	46963	11.31 ppb(v	82
26) 1,1-Dichloroethene	5.961	61	200527	10.76 ppb(v	100
27) Freon 113	6.315	101	271151	9.90 ppb(v	99
28) Methylene Chloride	6.083	84	112942	8.94 ppb(v	98
29) Carbon Disulfide	6.358	76	375544	10.23 ppb(v	99
30) Ethanol	4.847	45	60822	12.44 ppb(v	97
31) Acrylonitrile	5.661	53	94284	10.35 ppb(v	97
32) 3-Chloropropene	6.187	76	55143	9.95 ppb(v	86
33) trans-1,2-Dichloroethene	6.982	61	181959	10.87 ppb(v	100
34) tert-Butyl Alcohol	6.009	59	275487	10.59 ppb(v	96
35) Methyl tert-Butyl Ether	7.245	73	325949	9.82 ppb(v	96
36) Vinyl Acetate	7.349	43	356076	12.27 ppb(v	99
37) 1,1-Dichloroethane	7.190	63	235886	10.69 ppb(v	97
38) 2-Butanone	7.612	72	57969	10.05 ppb(v	84
39) Hexane	8.273	57	188676	9.99 ppb(v	96
40) cis-1,2-Dichloroethene	8.071	61	175260	10.68 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17164.D
Acq On : 21 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w686,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 21 11:17:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	99322	9.91	ppb(v	75
42) Ethyl Acetate	8.322	61	42994	11.48	ppb(v	90
43) Methyl Acrylate	8.310	55	252550	10.71	ppb(v	98
44) Chloroform	8.389	83	289288	10.52	ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	221649	10.01	ppb(v	99
46) Tetrahydrofuran	8.848	72	58288	10.86	ppb(v	89
47) 1,1,1-Trichloroethane	9.484	97	281535	10.64	ppb(v	100
48) 1,2-Dichloroethane	9.203	62	173974	11.63	ppb(v	100
49) Benzene	10.017	78	391764	9.76	ppb(v	98
50) Carbon Tetrachloride	10.188	117	288392	10.58	ppb(v	99
51) Cyclohexane	10.316	56	190740	10.27	ppb(v	95
52) 2,3-Dimethylpentane	10.610	71	80105	9.66	ppb(v	95
54) 2,2,4-Trimethylpentane	11.301	57	659241	11.36	ppb(v	99
55) Heptane	11.644	71	122820	10.36	ppb(v	95
56) Trichloroethene	11.283	95	192350	10.44	ppb(v	97
57) 1,2-Dichloropropane	10.989	63	157259	11.40	ppb(v	99
58) Dibromomethane	10.965	174	188702	10.43	ppb(v	90
59) Ethyl Acrylate	11.026	55	301302	11.18	ppb(v	99
60) Methyl Methacrylate	11.558	69	134163	10.15	ppb(v	91
61) 1,4-Dioxane	11.307	88	92497	10.00	ppb(v	98
62) Bromodichloromethane	11.234	83	318615	10.99	ppb(v	98
63) cis-1,3-Dichloropropene	12.366	75	249239	10.64	ppb(v	98
64) 4-Methyl-2-pentanone	12.415	58	122508	11.52	ppb(v	88
65) trans-1,3-Dichloropropene	13.045	75	215967	11.16	ppb(v	99
66) Toluene	13.614	91	469842	9.98	ppb(v	98
67) 1,1,2-Trichloroethane	13.253	97	171504	10.21	ppb(v	98
68) 1,3-Dichloropropane	13.657	76	234279	11.00	ppb(v	93
69) 2-Hexanone	13.993	58	170765	11.67	ppb(v	93
70) Ethyl Methacrylate	14.024	69	241024	10.77	ppb(v	98
71) Dibromochloromethane	14.177	129	337859	10.89	ppb(v	99
72) Tetrachloroethene	15.131	166	254894	10.37	ppb(v	98
73) 1,2-Dibromoethane	14.489	107	278391	10.10	ppb(v	98
74) Octane	14.960	43	343804	13.18	ppb(v	92
75) 1,1,1,2-Tetrachloroethane	16.055	131	224252	10.52	ppb(v	98
77) Chlorobenzene	16.079	112	378090	8.88	ppb(v	99
78) Ethylbenzene	16.624	91	607016	9.15	ppb(v	100
79) m,p-Xylene	16.899	91	947843	18.59	ppb(v	99
80) Styrene	17.419	104	338414	8.91	ppb(v	99
81) Nonane	17.951	43	346938	11.82	ppb(v	96
82) o-Xylene	17.572	91	489983	9.44	ppb(v	98
83) Bromoform	16.972	173	359691	10.16	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	413841	9.95	ppb(v	99
85) 1,2,3-Trichloropropane	17.768	75	291682	9.94	ppb(v	99
86) Isopropylbenzene	18.477	105	671238	9.20	ppb(v	99
87) Bromobenzene	18.594	156	236247	9.14	ppb(v	96
88) 2-Chlorotoluene	19.199	126	171434	9.27	ppb(v	96
89) n-Propylbenzene	19.267	120	176581	9.25	ppb(v	95
91) 4-Ethyltoluene	19.493	105	620297	9.10	ppb(v	98
92) 1,3,5-Trimethylbenzene	19.609	105	539959	9.20	ppb(v	99
93) alpha-Methylstyrene	19.842	118	258627	8.78	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17164.D
Acq On : 21 Mar 2016 8:59 am
Operator : THOMASH
Sample : CC637-10
Misc : MS99296,v5w686,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 21 11:17:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.178	134	112207	9.04 ppb(v	91
95) 1,2,4-Trimethylbenzene	20.190	105	551996	9.38 ppb(v	93
96) 1,3-Dichlorobenzene	20.386	146	377730	9.16 ppb(v	96
97) Benzyl Chloride	20.374	91	487607	9.51 ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	361508	8.49 ppb(v	97
99) sec-Butylbenzene	20.564	134	139932	8.97 ppb(v	98
100) p-Isopropyltoluene	20.790	134	160823	9.32 ppb(v	95
101) 1,2-Dichlorobenzene	20.943	146	355896	9.07 ppb(v	97
102) n-Butylbenzene	21.359	134	140855	9.21 ppb(v	98
103) Hexachloroethane	21.824	201	239898	10.33 ppb(v	90
104) 1,2,4-Trichlorobenzene	23.145	180	199671	8.27 ppb(v	99
105) Naphthalene	23.274	128	417973	7.85 ppb(v	100
106) Hexachlorobutadiene	23.720	225	232118	9.96 ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	791919	11.86 ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17164.D
Acq On    : 21 Mar 2016   8:59 am
Operator  : THOMASH
Sample    : CC637-10
Misc      : MS99296,v5w686,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 21 11:17:59 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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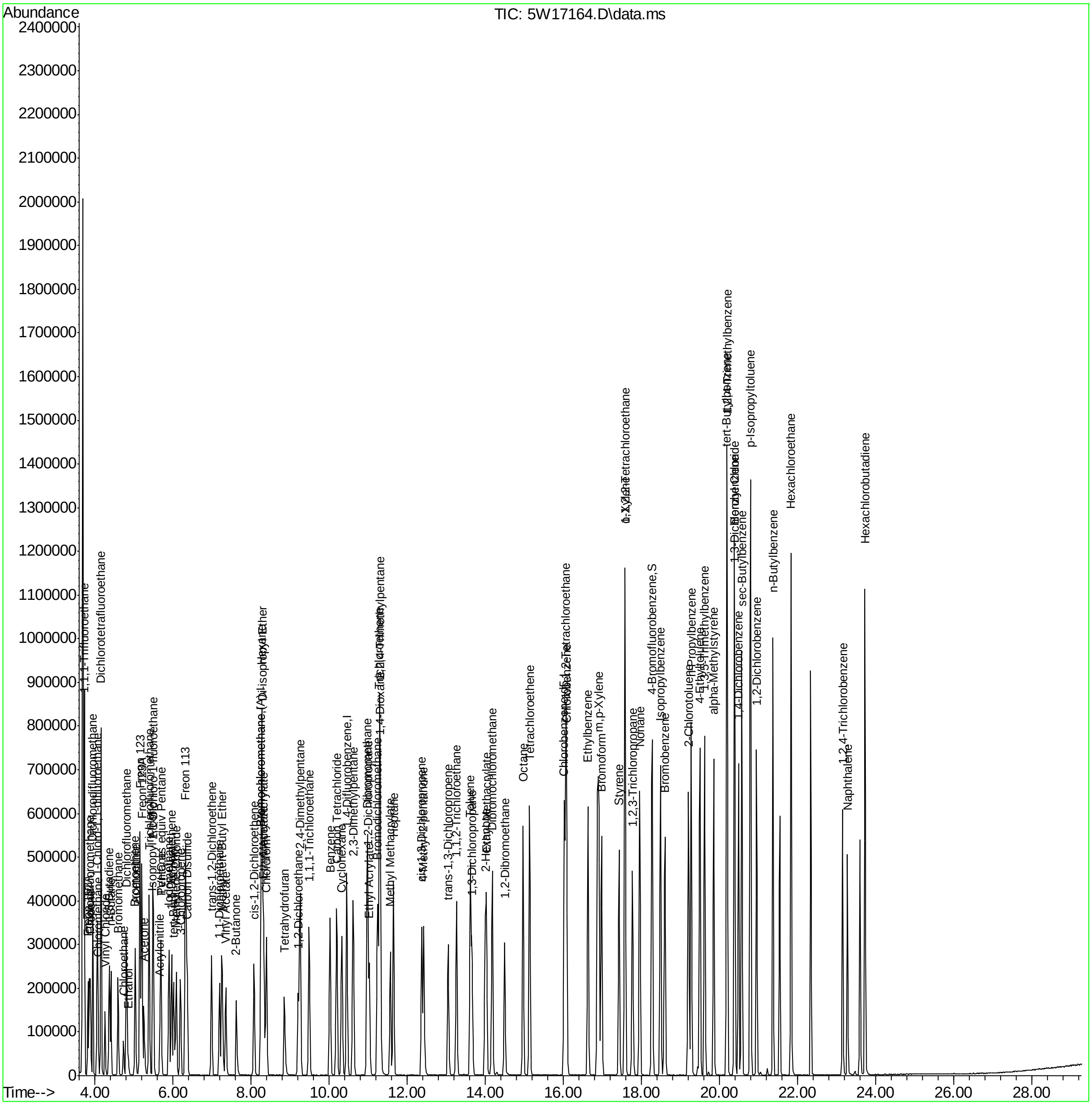

m5w637.M Mon Mar 21 11:53:19 2016 GCMS5W

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17190.D
Acq On    : 22 Mar 2016   8:56 am
Operator  : THOMASH
Sample    : cc637-10
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.248	130	157352	10.00 ppb(v	-0.04
53) 1,4-Difluorobenzene	10.451	114	559314	10.00 ppb(v	-0.04
76) Chlorobenzene-d5	16.018	82	292401	10.00 ppb(v	-0.03
107) Bromochloromethane (A)	8.248	130	157352	10.00 ppb(v	-0.04
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	387605	10.05 ppb(v	-0.04
Spiked Amount 10.000 Range 65 - 128 Recovery = 100.50%					
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.734	69	463527	11.85 ppb(v	97
3) Freon 152A	3.825	65	98986	11.42 ppb(v	97
4) Chlorodifluoromethane	3.862	67	38648	12.09 ppb(v	98
5) Propene	3.887	41	123652	12.59 ppb(v	100
6) Dichlorodifluoromethane	3.948	85	399443	11.22 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	292082	12.27 ppb(v	99
8) Chloromethane	4.082	50	158667	12.75 ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	447182	11.18 ppb(v	99
10) Vinyl Chloride	4.260	62	163771	11.71 ppb(v	99
11) 1,3-Butadiene	4.370	54	119561	11.44 ppb(v	95
12) n-Butane	4.407	58	25038	10.89 ppb(v	79
13) Bromomethane	4.596	94	168150	10.43 ppb(v	98
14) Chloroethane	4.731	64	77073	11.18 ppb(v	99
15) Dichlorofluoromethane	4.810	67	365060	11.22 ppb(v	98
16) Acetonitrile	5.037	41	134760	11.97 ppb(v	99
17) Freon 123	5.153	83	405915	10.63 ppb(v	98
18) Freon 123A	5.202	117	209291	10.07 ppb(v	100
19) Bromoethene	5.031	106	165786	10.69 ppb(v	99
20) Trichlorofluoromethane	5.391	101	418144	11.48 ppb(v	99
21) Acetone	5.251	58	72742	9.71 ppb(v	90
22) Pentane	5.691	57	34670	9.28 ppb(v	82
23) 1,1-Dichloro-1-fluoroe...	5.496	81	330279	10.70 ppb(v	99
24) Iodomethane	5.899	142	418015	9.56 ppb(v	98
25) Isopropyl Alcohol	5.471	43	57644	11.80 ppb(v	85
26) 1,1-Dichloroethene	5.967	61	236559	10.79 ppb(v	98
27) Freon 113	6.321	101	318305	9.87 ppb(v	98
28) Methylene Chloride	6.083	84	133323	8.97 ppb(v	90
29) Carbon Disulfide	6.358	76	448543	10.39 ppb(v	98
30) Ethanol	4.847	45	65519	11.39 ppb(v	98
31) Acrylonitrile	5.667	53	111123	10.37 ppb(v	98
32) 3-Chloropropene	6.193	76	66309	10.17 ppb(v	91
33) trans-1,2-Dichloroethene	6.982	61	210343	10.69 ppb(v	97
34) tert-Butyl Alcohol	6.016	59	320836	10.49 ppb(v	96
35) Methyl tert-Butyl Ether	7.251	73	371096	9.51 ppb(v	96
36) Vinyl Acetate	7.349	43	429051	12.57 ppb(v	96
37) 1,1-Dichloroethane	7.190	63	276230	10.64 ppb(v	100
38) 2-Butanone	7.612	72	67582	9.96 ppb(v	80
39) Hexane	8.273	57	219915	9.90 ppb(v	96
40) cis-1,2-Dichloroethene	8.071	61	208041	10.78 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17190.D
Acq On : 22 Mar 2016 8:56 am
Operator : THOMASH
Sample : cc637-10
Misc : MS99577,v5w687,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	111960	9.49 ppb(v	59
42) Ethyl Acetate	8.328	61	50485	11.46 ppb(v	91
43) Methyl Acrylate	8.310	55	298504	10.76 ppb(v	99
44) Chloroform	8.389	83	333580	10.31 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	263879	10.13 ppb(v	98
46) Tetrahydrofuran	8.848	72	65758	10.42 ppb(v	87
47) 1,1,1-Trichloroethane	9.484	97	320650	10.30 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	205314	11.67 ppb(v	97
49) Benzene	10.017	78	444062	9.41 ppb(v	97
50) Carbon Tetrachloride	10.188	117	336160	10.49 ppb(v	100
51) Cyclohexane	10.316	56	223066	10.21 ppb(v	93
52) 2,3-Dimethylpentane	10.610	71	92869	9.52 ppb(v	88
54) 2,2,4-Trimethylpentane	11.301	57	762245	11.36 ppb(v	98
55) Heptane	11.644	71	141191	10.31 ppb(v	95
56) Trichloroethene	11.283	95	216862	10.19 ppb(v	99
57) 1,2-Dichloropropane	10.983	63	182577	11.45 ppb(v	99
58) Dibromomethane	10.965	174	209424	10.02 ppb(v	95
59) Ethyl Acrylate	11.026	55	358596	11.52 ppb(v	98
60) Methyl Methacrylate	11.558	69	155638	10.20 ppb(v	84
61) 1,4-Dioxane	11.307	88	105048	9.83 ppb(v	94
62) Bromodichloromethane	11.234	83	367860	10.98 ppb(v	98
63) cis-1,3-Dichloropropene	12.366	75	286386	10.58 ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	150146	12.22 ppb(v	88
65) trans-1,3-Dichloropropene	13.045	75	248746	11.12 ppb(v	99
66) Toluene	13.614	91	537410	9.88 ppb(v	100
67) 1,1,2-Trichloroethane	13.259	97	197282	10.16 ppb(v	98
68) 1,3-Dichloropropane	13.650	76	273550	11.12 ppb(v	93
69) 2-Hexanone	13.987	58	212798	12.59 ppb(v	92
70) Ethyl Methacrylate	14.024	69	285881	11.06 ppb(v	98
71) Dibromochloromethane	14.170	129	392712	10.95 ppb(v	100
72) Tetrachloroethene	15.131	166	279319	9.84 ppb(v	98
73) 1,2-Dibromoethane	14.489	107	322950	10.14 ppb(v	100
74) Octane	14.960	43	392667	13.03 ppb(v	90
75) 1,1,1,2-Tetrachloroethane	16.055	131	254591	10.33 ppb(v	97
77) Chlorobenzene	16.079	112	432282	8.99 ppb(v	100
78) Ethylbenzene	16.624	91	687639	9.17 ppb(v	99
79) m,p-Xylene	16.893	91	1059814	18.39 ppb(v	99
80) Styrene	17.419	104	388218	9.04 ppb(v	98
81) Nonane	17.951	43	401056	12.10 ppb(v	95
82) o-Xylene	17.572	91	554571	9.45 ppb(v	98
83) Bromoform	16.972	173	404704	10.12 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	479895	10.21 ppb(v	98
85) 1,2,3-Trichloropropane	17.762	75	333184	10.05 ppb(v	98
86) Isopropylbenzene	18.483	105	756450	9.18 ppb(v	99
87) Bromobenzene	18.594	156	270748	9.27 ppb(v	94
88) 2-Chlorotoluene	19.193	126	191194	9.15 ppb(v	99
89) n-Propylbenzene	19.266	120	197544	9.16 ppb(v	95
91) 4-Ethyltoluene	19.487	105	710451	9.23 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	604358	9.11 ppb(v	99
93) alpha-Methylstyrene	19.842	118	301647	9.06 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17190.D
Acq On : 22 Mar 2016 8:56 am
Operator : THOMASH
Sample : cc637-10
Misc : MS99577,v5w687,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.178	134	123917	8.84	ppb(v	98
95)	1,2,4-Trimethylbenzene	20.190	105	627288	9.44	ppb(v	96
96)	1,3-Dichlorobenzene	20.386	146	423443	9.09	ppb(v	97
97)	Benzyl Chloride	20.374	91	566360	9.78	ppb(v	100
98)	1,4-Dichlorobenzene	20.484	146	415269	8.63	ppb(v	97
99)	sec-Butylbenzene	20.563	134	157950	8.96	ppb(v	97
100)	p-Isopropyltoluene	20.790	134	179444	9.21	ppb(v	93
101)	1,2-Dichlorobenzene	20.943	146	402764	9.09	ppb(v	97
102)	n-Butylbenzene	21.359	134	157560	9.11	ppb(v	94
103)	Hexachloroethane	21.824	201	268757	10.24	ppb(v	94
104)	1,2,4-Trichlorobenzene	23.145	180	233141	8.54	ppb(v	99
105)	Naphthalene	23.274	128	478361	7.95	ppb(v	99
106)	Hexachlorobutadiene	23.720	225	250827	9.53	ppb(v	98
108)	TVHC as equiv Pentane	5.691	TIC	949087	12.08	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17190.D
Acq On    : 22 Mar 2016   8:56 am
Operator  : THOMASH
Sample    : cc637-10
Misc      : MS99577,v5w687,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 22 09:30:55 2016
Quant Method : C:\msdchem\1\METHODS\m5w637.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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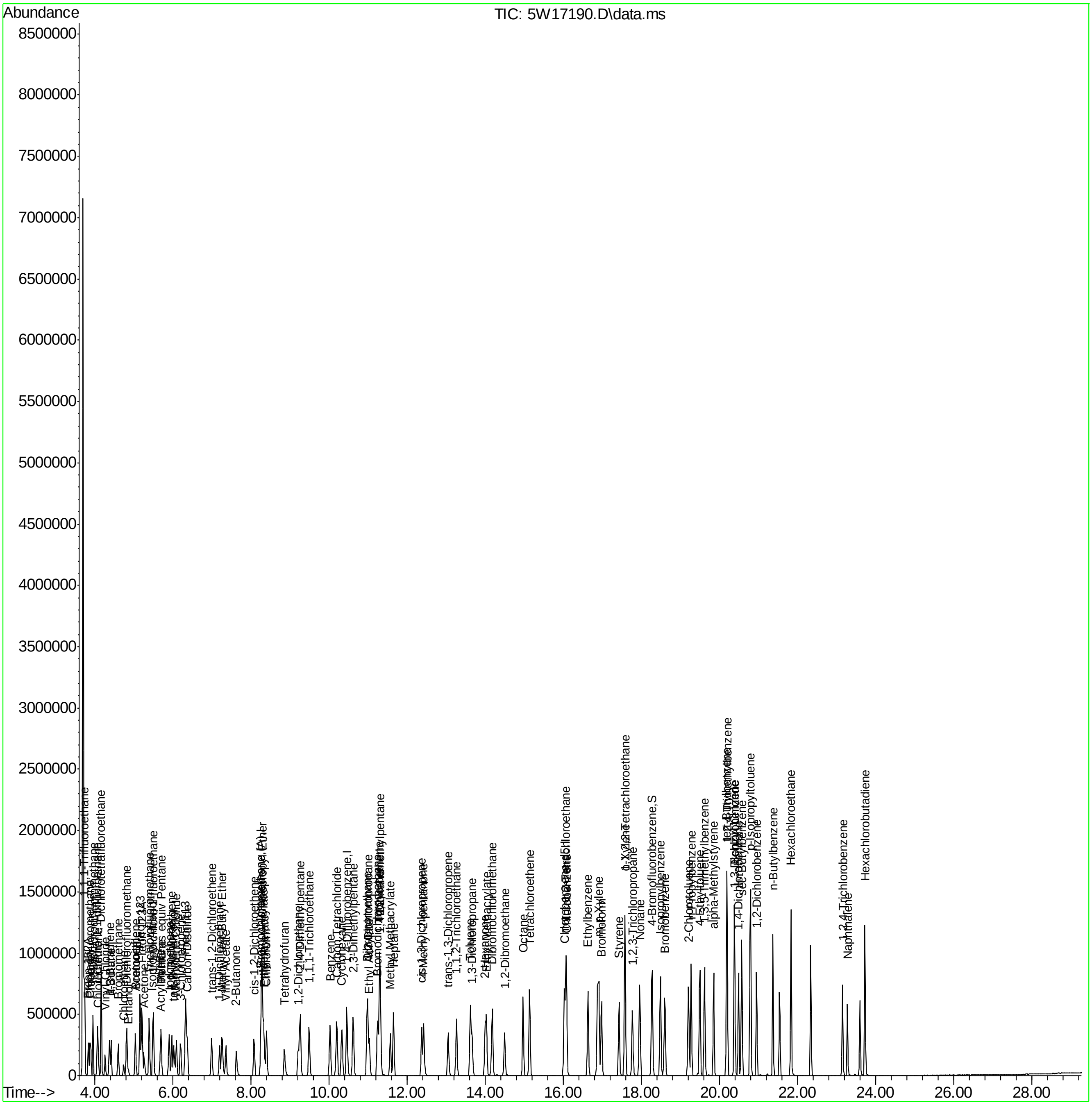

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17372.D
Acq On    : 29 Mar 2016   8:14 pm
Operator  : THOMASH
Sample    : ICC693-10
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:41:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.248	130	180567	10.00	ppb(v	#-0.04
53) 1,4-Difluorobenzene	10.445	114	667683	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	16.012	82	325233	10.00	ppb(v	-0.04
107) Bromochloromethane (A)	8.248	130	180567	10.00	ppb(v	#-0.04
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.257	95	451563	10.52	ppb(v	-0.04
Spiked Amount 10.000	Range 65 - 128		Recovery = 105.20%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.728	69	414060	9.22	ppb(v	100
3) Freon 152A	3.825	65	86234	8.67	ppb(v	99
4) Chlorodifluoromethane	3.862	67	38776	10.57	ppb(v	99
5) Propene	3.887	41	89869	7.97	ppb(v	99
6) Dichlorodifluoromethane	3.942	85	406439	9.95	ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.058	65	289488	10.60	ppb(v	98
8) Chloromethane	4.076	50	118468	8.29	ppb(v	100
9) Dichlorotetrafluoroethane	4.156	85	423513	9.22	ppb(v	95
10) Vinyl Chloride	4.260	62	140108	8.73	ppb(v	99
11) 1,3-Butadiene	4.364	54	100161	8.35	ppb(v	99
12) n-Butane	4.407	58	21709	8.23	ppb(v#	87
13) Bromomethane	4.590	94	164792	8.91	ppb(v	98
14) Chloroethane	4.731	64	68676	8.68	ppb(v	98
15) Dichlorofluoromethane	4.804	67	332866	8.92	ppb(v	100
16) Acetonitrile	5.031	41	99563	7.71	ppb(v	97
17) Freon 123	5.153	83	398587	9.10	ppb(v	98
18) Freon 123A	5.202	117	226185	9.48	ppb(v	85
19) Bromoethene	5.031	106	172923	9.72	ppb(v	97
20) Trichlorofluoromethane	5.385	101	433771	10.37	ppb(v	100
21) Acetone	5.251	58	61441	7.15	ppb(v	100
22) Pentane	5.691	57	34704	8.09	ppb(v	87
23) 1,1-Dichloro-1-fluoroe...	5.489	81	353613	9.99	ppb(v	98
24) Iodomethane	5.893	142	509688	10.15	ppb(v	97
25) Isopropyl Alcohol	5.471	43	48241	8.60	ppb(v	90
26) 1,1-Dichloroethene	5.960	61	243517	9.68	ppb(v	94
27) Freon 113	6.315	101	363774	9.83	ppb(v	94
28) Methylene Chloride	6.083	84	144240	8.45	ppb(v	90
29) Carbon Disulfide	6.358	76	455680	9.20	ppb(v	100
30) Ethanol	4.847	45	52685	7.98	ppb(v	99
31) Acrylonitrile	5.667	53	104558	8.51	ppb(v	99
32) 3-Chloropropene	6.187	76	71623	9.57	ppb(v	86
33) trans-1,2-Dichloroethene	6.982	61	216633	9.59	ppb(v	91
34) tert-Butyl Alcohol	6.009	59	348276	9.92	ppb(v	98
35) Methyl tert-Butyl Ether	7.245	73	433305	9.68	ppb(v	96
36) Vinyl Acetate	7.343	43	381319	9.73	ppb(v	97
37) 1,1-Dichloroethane	7.184	63	278293	9.34	ppb(v	99
38) 2-Butanone	7.612	72	74595	9.58	ppb(v	83
39) Hexane	8.267	57	213595	8.38	ppb(v	90
40) cis-1,2-Dichloroethene	8.065	61	211138	9.53	ppb(v	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17372.D
Acq On : 29 Mar 2016 8:14 pm
Operator : THOMASH
Sample : ICC693-10
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:41:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	135000	9.98 ppb(v	76
42) Ethyl Acetate	8.322	61	50465	9.98 ppb(v	89
43) Methyl Acrylate	8.310	55	284914	8.95 ppb(v	96
44) Chloroform	8.383	83	365070	9.83 ppb(v	99
45) 2,4-Dimethylpentane	9.246	57	260049	8.70 ppb(v	97
46) Tetrahydrofuran	8.842	72	73637	10.17 ppb(v	89
47) 1,1,1-Trichloroethane	9.478	97	374049	10.47 ppb(v	99
48) 1,2-Dichloroethane	9.197	62	219356	10.87 ppb(v	99
49) Benzene	10.010	78	500466	9.24 ppb(v	99
50) Carbon Tetrachloride	10.182	117	404238	10.99 ppb(v	99
51) Cyclohexane	10.316	56	215404	8.59 ppb(v	92
52) 2,3-Dimethylpentane	10.604	71	103299	9.23 ppb(v	94
54) 2,2,4-Trimethylpentane	11.295	57	734068	9.17 ppb(v	99
55) Heptane	11.638	71	154784	9.47 ppb(v	96
56) Trichloroethene	11.277	95	253863	9.99 ppb(v	93
57) 1,2-Dichloropropane	10.983	63	179703	9.44 ppb(v	96
58) Dibromomethane	10.959	174	266329	10.67 ppb(v	85
59) Ethyl Acrylate	11.020	55	356560	9.59 ppb(v	97
60) Methyl Methacrylate	11.558	69	173902	9.54 ppb(v	93
61) 1,4-Dioxane	11.301	88	123831	9.71 ppb(v	83
62) Bromodichloromethane	11.228	83	413230	10.33 ppb(v	99
63) cis-1,3-Dichloropropene	12.360	75	325576	10.08 ppb(v	97
64) 4-Methyl-2-pentanone	12.415	58	147412	10.05 ppb(v	94
65) trans-1,3-Dichloropropene	13.039	75	287908	10.78 ppb(v	97
66) Toluene	13.608	91	640906	9.87 ppb(v	99
67) 1,1,2-Trichloroethane	13.253	97	232984	10.05 ppb(v	96
68) 1,3-Dichloropropane	13.650	76	296457	10.09 ppb(v	95
69) 2-Hexanone	13.987	58	208457	10.33 ppb(v	94
70) Ethyl Methacrylate	14.017	69	311541	10.09 ppb(v	95
71) Dibromochloromethane	14.164	129	468502	10.95 ppb(v	100
72) Tetrachloroethene	15.125	166	364536	10.75 ppb(v	98
73) 1,2-Dibromoethane	14.482	107	390437	10.27 ppb(v	98
74) Octane	14.953	43	338165	9.40 ppb(v	93
75) 1,1,1,2-Tetrachloroethane	16.049	131	317961	10.81 ppb(v	99
77) Chlorobenzene	16.073	112	534983	10.00 ppb(v	95
78) Ethylbenzene	16.618	91	838999	10.06 ppb(v	98
79) m,p-Xylene	16.887	91	1276026	19.91 ppb(v	97
80) Styrene	17.413	104	505392	10.58 ppb(v	98
81) Nonane	17.945	43	336606	9.13 ppb(v#	94
82) o-Xylene	17.566	91	651804	9.99 ppb(v	98
83) Bromoform	16.966	173	507760	11.42 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.566	83	513882	9.83 ppb(v	99
85) 1,2,3-Trichloropropane	17.762	75	363967	9.87 ppb(v	96
86) Isopropylbenzene	18.477	105	944500	10.30 ppb(v	97
87) Bromobenzene	18.587	156	347256	10.69 ppb(v	87
88) 2-Chlorotoluene	19.193	126	248011	10.67 ppb(v	89
89) n-Propylbenzene	19.260	120	258226	10.76 ppb(v	87
91) 4-Ethyltoluene	19.487	105	875930	10.23 ppb(v	98
92) 1,3,5-Trimethylbenzene	19.603	105	757763	10.27 ppb(v	98
93) alpha-Methylstyrene	19.835	118	401348	10.84 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17372.D
Acq On : 29 Mar 2016 8:14 pm
Operator : THOMASH
Sample : ICC693-10
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:41:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) tert-Butylbenzene	20.172	134	170213	10.91	ppb(v	86
95) 1,2,4-Trimethylbenzene	20.184	105	770309	10.42	ppb(v#	86
96) 1,3-Dichlorobenzene	20.380	146	542015	10.46	ppb(v	96
97) Benzyl Chloride	20.368	91	685882	10.65	ppb(v	96
98) 1,4-Dichlorobenzene	20.478	146	540361	10.09	ppb(v	96
99) sec-Butylbenzene	20.557	134	210159	10.72	ppb(v	86
100) p-Isopropyltoluene	20.790	134	239090	11.03	ppb(v	94
101) 1,2-Dichlorobenzene	20.937	146	512167	10.39	ppb(v	97
102) n-Butylbenzene	21.359	134	215174	11.19	ppb(v	77
103) Hexachloroethane	21.824	201	336844	11.54	ppb(v	81
104) 1,2,4-Trichlorobenzene	23.139	180	315676	10.40	ppb(v	100
105) Naphthalene	23.267	128	637191	9.52	ppb(v	99
106) Hexachlorobutadiene	23.720	225	327395	11.18	ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	851749	9.45	ppb(v	100

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

7.7.40
7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17372.D
Acq On    : 29 Mar 2016   8:14 pm
Operator  : THOMASH
Sample    : ICC693-10
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:41:27 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Mon Jan 25 09:32:20 2016
Response via : Initial Calibration
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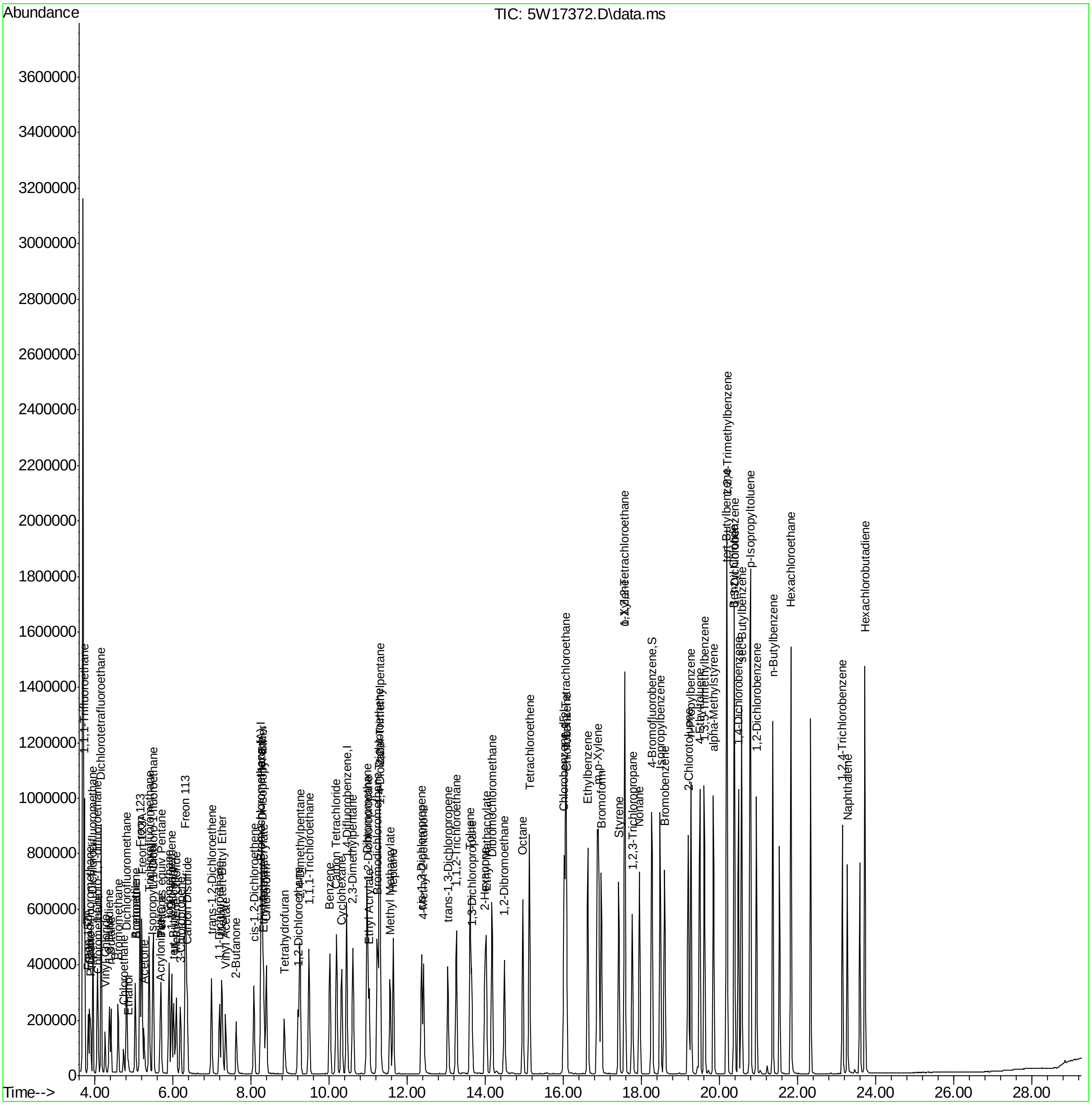

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17373.D
Acq On    : 29 Mar 2016   8:56 pm
Operator  : THOMASH
Sample    : IC693-5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:43:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:43:43 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.242	130	177341	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.439	114	659619	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.012	82	312271	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.242	130	177341	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.257	95	438208	10.11 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.10%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.727	69	214874	5.28 ppb(v	99
3) Freon 152A	3.819	65	45045	5.32 ppb(v	98
4) Chlorodifluoromethane	3.862	67	20643	5.42 ppb(v	99
5) Propene	3.887	41	46741	5.30 ppb(v	99
6) Dichlorodifluoromethane	3.942	85	213490	5.35 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.058	65	150511	5.29 ppb(v	99
8) Chloromethane	4.076	50	61977	5.33 ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	220127	5.29 ppb(v	99
10) Vinyl Chloride	4.254	62	72500	5.27 ppb(v	98
11) 1,3-Butadiene	4.364	54	52114	5.30 ppb(v	98
12) n-Butane	4.407	58	11402	5.35 ppb(v#	91
13) Bromomethane	4.590	94	85987	5.31 ppb(v	99
14) Chloroethane	4.731	64	35835	5.31 ppb(v	99
15) Dichlorofluoromethane	4.804	67	173036	5.29 ppb(v	100
16) Acetonitrile	5.031	41	52433	5.36 ppb(v	97
17) Freon 123	5.147	83	205401	5.25 ppb(v	99
18) Freon 123A	5.202	117	116158	5.23 ppb(v	99
19) Bromoethene	5.024	106	90155	5.31 ppb(v	99
20) Trichlorofluoromethane	5.385	101	226451	5.32 ppb(v	99
21) Acetone	5.251	58	33694	5.58 ppb(v	97
22) Pentane	5.691	57	18064	5.30 ppb(v	98
23) 1,1-Dichloro-1-fluoroe...	5.489	81	185966	5.35 ppb(v	100
24) Iodomethane	5.893	142	265872	5.31 ppb(v	99
25) Isopropyl Alcohol	5.465	43	25363	5.35 ppb(v	88
26) 1,1-Dichloroethene	5.960	61	126976	5.31 ppb(v	99
27) Freon 113	6.315	101	188657	5.28 ppb(v	98
28) Methylene Chloride	6.077	84	75090	5.30 ppb(v	99
29) Carbon Disulfide	6.358	76	237225	5.30 ppb(v	100
30) Ethanol	4.841	45	27639	5.34 ppb(v	97
31) Acrylonitrile	5.661	53	55185	5.37 ppb(v	100
32) 3-Chloropropene	6.187	76	36989	5.26 ppb(v	99
33) trans-1,2-Dichloroethene	6.976	61	111669	5.25 ppb(v	99
34) tert-Butyl Alcohol	6.009	59	180288	5.27 ppb(v	100
35) Methyl tert-Butyl Ether	7.245	73	225501	5.30 ppb(v	99
36) Vinyl Acetate	7.343	43	195789	5.23 ppb(v	100
37) 1,1-Dichloroethane	7.184	63	143677	5.26 ppb(v	100
38) 2-Butanone	7.612	72	37932	5.18 ppb(v	99
39) Hexane	8.267	57	109829	5.24 ppb(v	96
40) cis-1,2-Dichloroethene	8.065	61	109476	5.28 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17373.D
Acq On : 29 Mar 2016 8:56 pm
Operator : THOMASH
Sample : IC693-5
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:43:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:43:43 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.273	87	69159	5.22 ppb(v	96
42) Ethyl Acetate	8.316	61	26028	5.25 ppb(v	99
43) Methyl Acrylate	8.304	55	147027	5.25 ppb(v	98
44) Chloroform	8.383	83	190536	5.31 ppb(v	99
45) 2,4-Dimethylpentane	9.246	57	132865	5.20 ppb(v	100
46) Tetrahydrofuran	8.848	72	38381	5.31 ppb(v	96
47) 1,1,1-Trichloroethane	9.478	97	193788	5.28 ppb(v	100
48) 1,2-Dichloroethane	9.197	62	113566	5.27 ppb(v	99
49) Benzene	10.010	78	259399	5.28 ppb(v	99
50) Carbon Tetrachloride	10.182	117	208197	5.24 ppb(v	98
51) Cyclohexane	10.316	56	111906	5.29 ppb(v	99
52) 2,3-Dimethylpentane	10.604	71	53592	5.28 ppb(v	98
54) 2,2,4-Trimethylpentane	11.295	57	378142	5.21 ppb(v	99
55) Heptane	11.638	71	79923	5.23 ppb(v	99
56) Trichloroethene	11.277	95	131374	5.24 ppb(v	99
57) 1,2-Dichloropropane	10.977	63	93277	5.25 ppb(v	100
58) Dibromomethane	10.959	174	137859	5.24 ppb(v	95
59) Ethyl Acrylate	11.020	55	183600	5.21 ppb(v	100
60) Methyl Methacrylate	11.552	69	88471	5.15 ppb(v	96
61) 1,4-Dioxane	11.307	88	64247	5.25 ppb(v	86
62) Bromodichloromethane	11.228	83	216208	5.30 ppb(v	99
63) cis-1,3-Dichloropropene	12.360	75	168101	5.23 ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	75916	5.21 ppb(v	99
65) trans-1,3-Dichloropropene	13.039	75	147743	5.19 ppb(v	99
66) Toluene	13.601	91	329753	5.21 ppb(v	100
67) 1,1,2-Trichloroethane	13.253	97	121246	5.27 ppb(v	98
68) 1,3-Dichloropropane	13.644	76	152874	5.22 ppb(v	100
69) 2-Hexanone	13.987	58	107372	5.21 ppb(v	98
70) Ethyl Methacrylate	14.017	69	160056	5.20 ppb(v	99
71) Dibromochloromethane	14.164	129	243298	5.26 ppb(v	99
72) Tetrachloroethene	15.125	166	189239	5.25 ppb(v	99
73) 1,2-Dibromoethane	14.482	107	200671	5.20 ppb(v	100
74) Octane	14.953	43	171100	5.12 ppb(v	99
75) 1,1,1,2-Tetrachloroethane	16.049	131	164988	5.25 ppb(v	98
77) Chlorobenzene	16.073	112	278190	5.42 ppb(v	99
78) Ethylbenzene	16.617	91	433718	5.38 ppb(v	99
79) m,p-Xylene	16.887	91	658500	10.75 ppb(v	100
80) Styrene	17.413	104	259799	5.35 ppb(v	99
81) Nonane	17.939	43	164836	5.10 ppb(v	98
82) o-Xylene	17.566	91	337838	5.40 ppb(v	99
83) Bromoform	16.966	173	260183	5.34 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.566	83	264167	5.35 ppb(v	99
85) 1,2,3-Trichloropropane	17.755	75	188119	5.38 ppb(v	99
86) Isopropylbenzene	18.471	105	485939	5.36 ppb(v	99
87) Bromobenzene	18.587	156	179244	5.38 ppb(v	99
88) 2-Chlorotoluene	19.193	126	126215	5.30 ppb(v	99
89) n-Propylbenzene	19.260	120	131636	5.31 ppb(v	99
91) 4-Ethyltoluene	19.487	105	446704	5.31 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.603	105	384618	5.29 ppb(v	100
93) alpha-Methylstyrene	19.835	118	202704	5.26 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17373.D
Acq On : 29 Mar 2016 8:56 pm
Operator : THOMASH
Sample : IC693-5
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:43:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:43:43 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.172	134	85101	5.21	ppb(v	95
95)	1,2,4-Trimethylbenzene	20.184	105	389933	5.27	ppb(v	96
96)	1,3-Dichlorobenzene	20.380	146	278100	5.34	ppb(v	99
97)	Benzyl Chloride	20.368	91	348584	5.29	ppb(v	99
98)	1,4-Dichlorobenzene	20.478	146	281768	5.43	ppb(v	100
99)	sec-Butylbenzene	20.557	134	106910	5.30	ppb(v	98
100)	p-Isopropyltoluene	20.790	134	119933	5.22	ppb(v	98
101)	1,2-Dichlorobenzene	20.937	146	260008	5.29	ppb(v	100
102)	n-Butylbenzene	21.353	134	109095	5.28	ppb(v	92
103)	Hexachloroethane	21.824	201	169177	5.23	ppb(v	99
104)	1,2,4-Trichlorobenzene	23.139	180	159490	5.26	ppb(v	99
105)	Naphthalene	23.267	128	329993	5.39	ppb(v	100
106)	Hexachlorobutadiene	23.714	225	165186	5.25	ppb(v	99
108)	TVHC as equiv Pentane	5.685	TIC	446886	5.34	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17373.D
Acq On    : 29 Mar 2016   8:56 pm
Operator  : THOMASH
Sample    : IC693-5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:43:57 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:43:43 2016
Response via : Initial Calibration
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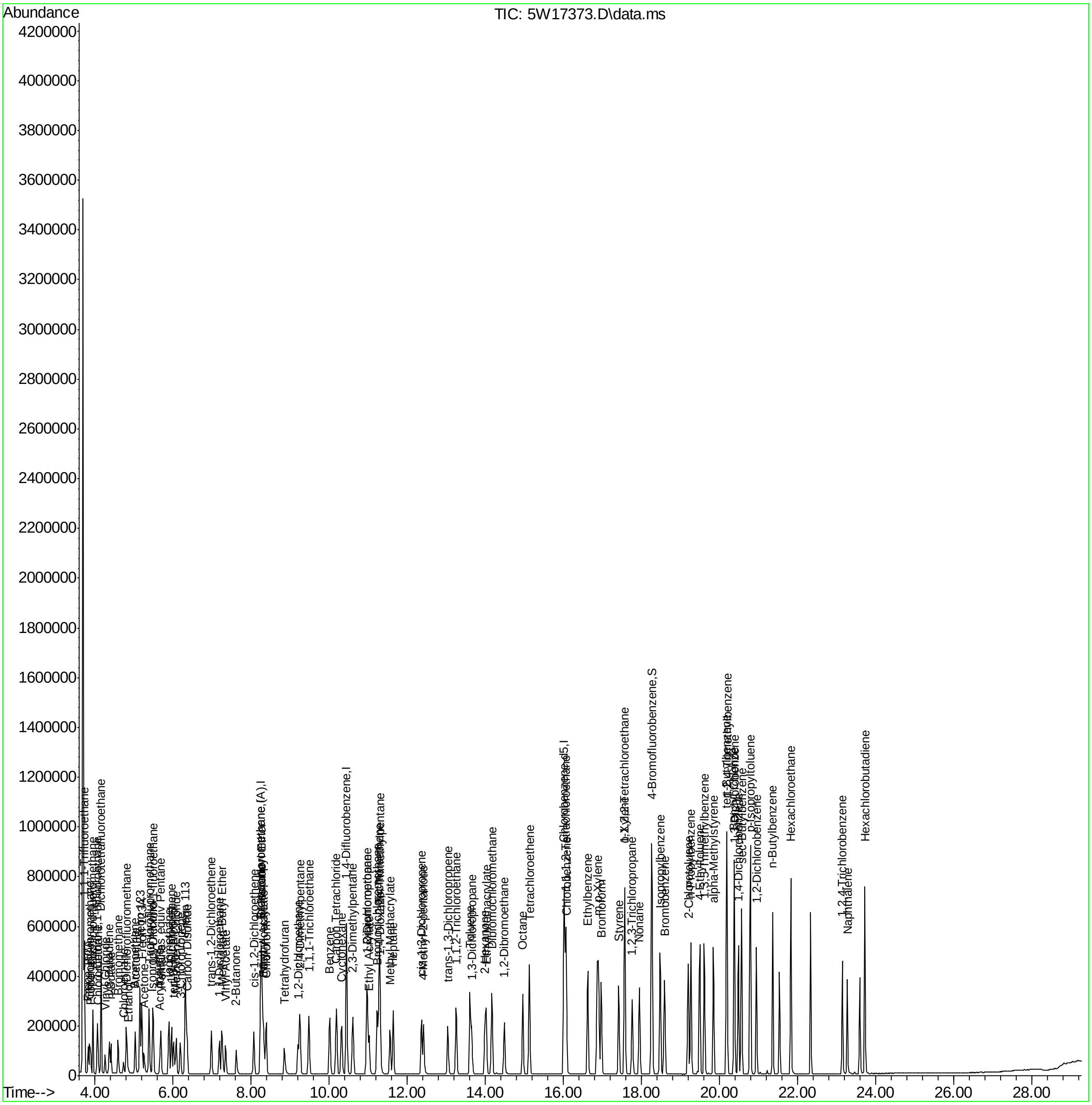

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 11:05

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17374.D
Acq On    : 29 Mar 2016   9:39 pm
Operator  : THOMASH
Sample    : IC693-0.5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:47:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:45:22 2016
Response via : Initial Calibration
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Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.242	130	171672	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.439	114	641990	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.006	82	292264	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.242	130	171672	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.257	95	414638	10.16	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 101.60%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.727	69	19808	0.49	ppb(v	96
3) Freon 152A	3.819	65	4290	0.51	ppb(v#	57
4) Chlorodifluoromethane	3.862	67	2314	0.60	ppb(v#	78
5) Propene	3.880	41	4449	0.51	ppb(v#	90
6) Dichlorodifluoromethane	3.942	85	19334	0.48	ppb(v	97
7) 1-Chloro-1,1-difluoroe...	4.058	65	13928	0.49	ppb(v#	92
8) Chloromethane	4.076	50	6004	0.52	ppb(v	96
9) Dichlorotetrafluoroethane	4.156	85	20468	0.49	ppb(v	98
10) Vinyl Chloride	4.254	62	6551	0.48	ppb(v#	99
11) 1,3-Butadiene	4.364	54	5338	0.54	ppb(v	88
12) n-Butane	4.407	58	1116	0.52	ppb(v#	22
13) Bromomethane	4.590	94	8100	0.50	ppb(v	96
14) Chloroethane	4.731	64	3224	0.48	ppb(v#	93
15) Dichlorofluoromethane	4.804	67	15728	0.48	ppb(v	99
16) Acetonitrile	5.037	41	5407	0.55	ppb(v#	83
17) Freon 123	5.147	83	18688	0.48	ppb(v	98
18) Freon 123A	5.196	117	10906	0.50	ppb(v	99
19) Bromoethene	5.024	106	8113	0.48	ppb(v	96
20) Trichlorofluoromethane	5.385	101	20807	0.49	ppb(v	99
21) Acetone	5.269	58	3644	0.59	ppb(v	97
22) Pentane	5.691	57	1685	0.50	ppb(v	84
23) 1,1-Dichloro-1-fluoroe...	5.489	81	17539	0.50	ppb(v	99
24) Iodomethane	5.893	142	24034	0.48	ppb(v	100
25) Isopropyl Alcohol	5.483	43	3220	0.68	ppb(v	49
26) 1,1-Dichloroethene	5.960	61	11413	0.48	ppb(v	95
27) Freon 113	6.315	101	17011	0.48	ppb(v	98
28) Methylene Chloride	6.083	84	6961	0.49	ppb(v	95
29) Carbon Disulfide	6.358	76	20861	0.47	ppb(v	99
30) Ethanol	4.847	45	3795	0.73	ppb(v#	92
31) Acrylonitrile	5.667	53	6210	0.60	ppb(v	97
32) 3-Chloropropene	6.187	76	3223	0.46	ppb(v	82
33) trans-1,2-Dichloroethene	6.976	61	9789	0.46	ppb(v	98
34) tert-Butyl Alcohol	6.028	59	16005	0.47	ppb(v#	83
35) Methyl tert-Butyl Ether	7.264	73	20911	0.49	ppb(v	92
36) Vinyl Acetate	7.355	43	17172	0.46	ppb(v	100
37) 1,1-Dichloroethane	7.184	63	12929	0.48	ppb(v#	99
38) 2-Butanone	7.643	72	3254	0.45	ppb(v#	89
39) Hexane	8.267	57	9929	0.48	ppb(v	85
40) cis-1,2-Dichloroethene	8.065	61	9574	0.46	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17374.D
Acq On : 29 Mar 2016 9:39 pm
Operator : THOMASH
Sample : IC693-0.5
Misc : MS99822,v5w693,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 07:47:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:45:22 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	6065	0.46 ppb(v	88
42) Ethyl Acetate	8.340	61	2202	0.45 ppb(v	93
43) Methyl Acrylate	8.322	55	11667	0.42 ppb(v	98
44) Chloroform	8.377	83	17462	0.49 ppb(v	95
45) 2,4-Dimethylpentane	9.246	57	13551	0.54 ppb(v	95
46) Tetrahydrofuran	8.879	72	3222	0.45 ppb(v	93
47) 1,1,1-Trichloroethane	9.478	97	17687	0.48 ppb(v	99
48) 1,2-Dichloroethane	9.197	62	10028	0.47 ppb(v	97
49) Benzene	10.010	78	23375	0.48 ppb(v	98
50) Carbon Tetrachloride	10.182	117	18516	0.47 ppb(v	98
51) Cyclohexane	10.316	56	10219	0.48 ppb(v	96
52) 2,3-Dimethylpentane	10.598	71	5080	0.50 ppb(v	93
54) 2,2,4-Trimethylpentane	11.295	57	33579	0.47 ppb(v	94
55) Heptane	11.638	71	7427	0.49 ppb(v	92
56) Trichloroethene	11.277	95	11995	0.48 ppb(v	98
57) 1,2-Dichloropropane	10.983	63	8250	0.47 ppb(v	96
58) Dibromomethane	10.959	174	12195	0.47 ppb(v	98
59) Ethyl Acrylate	11.032	55	15943	0.46 ppb(v	99
60) Methyl Methacrylate	11.564	69	8829	0.52 ppb(v	89
61) 1,4-Dioxane	11.344	88	5750	0.47 ppb(v#	60
62) Bromodichloromethane	11.222	83	19460	0.48 ppb(v	99
63) cis-1,3-Dichloropropene	12.360	75	14420	0.45 ppb(v	96
64) 4-Methyl-2-pentanone	12.433	58	6541	0.45 ppb(v	93
65) trans-1,3-Dichloropropene	13.045	75	12854	0.46 ppb(v	95
66) Toluene	13.608	91	29977	0.48 ppb(v	98
67) 1,1,2-Trichloroethane	13.253	97	10892	0.47 ppb(v	96
68) 1,3-Dichloropropane	13.650	76	13341	0.46 ppb(v	96
69) 2-Hexanone	14.005	58	8517	0.42 ppb(v	92
70) Ethyl Methacrylate	14.024	69	13224	0.43 ppb(v	98
71) Dibromochloromethane	14.164	129	21757	0.47 ppb(v	99
72) Tetrachloroethene	15.125	166	17212	0.48 ppb(v	98
73) 1,2-Dibromoethane	14.482	107	18112	0.47 ppb(v	99
74) Octane	14.953	43	15729	0.48 ppb(v	96
75) 1,1,1,2-Tetrachloroethane	16.049	131	14509	0.46 ppb(v#	13
77) Chlorobenzene	16.073	112	24815	0.50 ppb(v	99
78) Ethylbenzene	16.617	91	38906	0.50 ppb(v	99
79) m,p-Xylene	16.874	91	56689	0.95 ppb(v	99
80) Styrene	17.419	104	22311	0.47 ppb(v	98
81) Nonane	17.939	43	16038	0.52 ppb(v	100
82) o-Xylene	17.566	91	30726	0.50 ppb(v	99
83) Bromoform	16.966	173	22626	0.48 ppb(v	98
84) 1,1,2,2-Tetrachloroethane	17.566	83	23815	0.50 ppb(v	97
85) 1,2,3-Trichloropropane	17.762	75	16703	0.49 ppb(v	98
86) Isopropylbenzene	18.477	105	43943	0.50 ppb(v	99
87) Bromobenzene	18.587	156	15974	0.49 ppb(v	98
88) 2-Chlorotoluene	19.193	126	11262	0.49 ppb(v	99
89) n-Propylbenzene	19.266	120	11268	0.47 ppb(v	97
91) 4-Ethyltoluene	19.487	105	40606	0.50 ppb(v	97
92) 1,3,5-Trimethylbenzene	19.603	105	35225	0.50 ppb(v	97
93) alpha-Methylstyrene	19.842	118	17323	0.47 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17374.D
Acq On : 29 Mar 2016 9:39 pm
Operator : THOMASH
Sample : IC693-0.5
Misc : MS99822,v5w693,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 07:47:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:45:22 2016
Response via : Initial Calibration

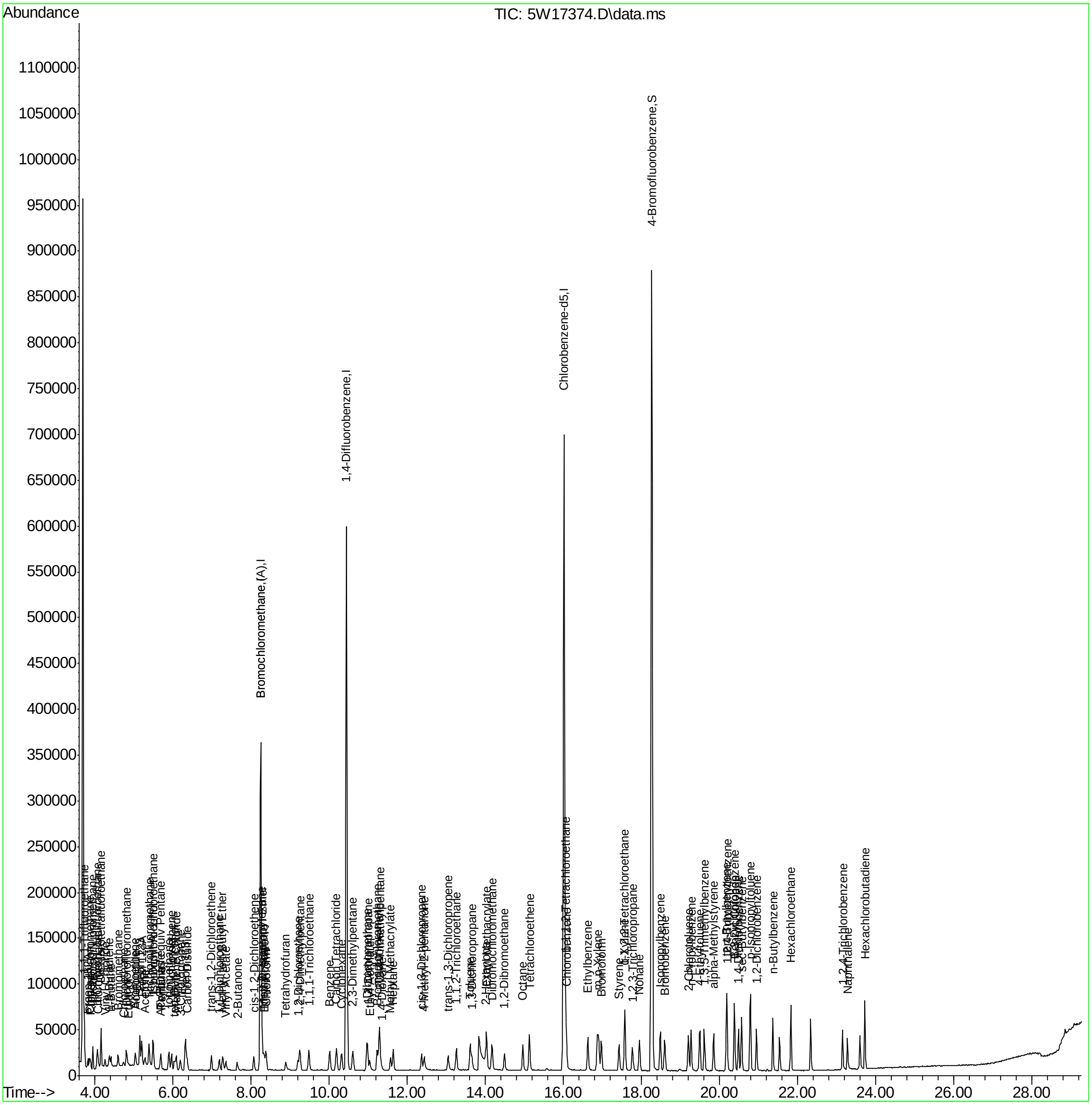
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.172	134	7730	0.50 ppb(v	100
95) 1,2,4-Trimethylbenzene	20.190	105	35142	0.49 ppb(v#	80
96) 1,3-Dichlorobenzene	20.380	146	24998	0.50 ppb(v	98
97) Benzyl Chloride	20.374	91	31000	0.49 ppb(v	99
98) 1,4-Dichlorobenzene	20.478	146	25507	0.50 ppb(v	98
99) sec-Butylbenzene	20.557	134	9446	0.49 ppb(v	95
100) p-Isopropyltoluene	20.790	134	10347	0.47 ppb(v	91
101) 1,2-Dichlorobenzene	20.943	146	24264	0.51 ppb(v	100
102) n-Butylbenzene	21.359	134	9538	0.48 ppb(v	93
103) Hexachloroethane	21.824	201	14889	0.48 ppb(v	98
104) 1,2,4-Trichlorobenzene	23.145	180	15842	0.54 ppb(v	97
105) Naphthalene	23.274	128	33724	0.57 ppb(v	100
106) Hexachlorobutadiene	23.720	225	16239	0.54 ppb(v	98
108) TVHC as equiv Pentane	5.685	TIC	40991m	0.49 ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17374.D
Acq On    : 29 Mar 2016   9:39 pm
Operator  : THOMASH
Sample    : IC693-0.5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:47:17 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:45:22 2016
Response via : Initial Calibration
```

Manual Integration Approval Summary

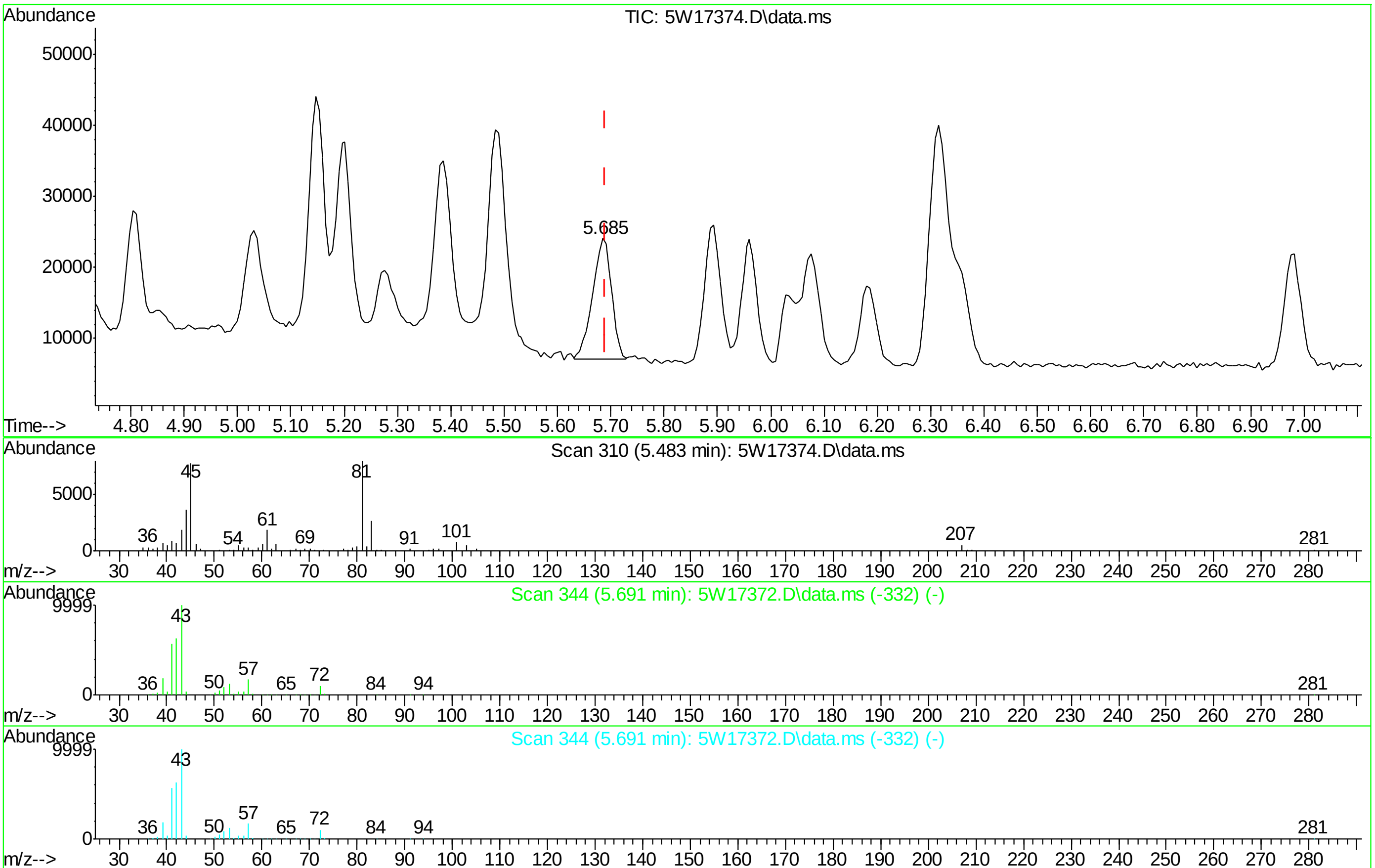
Sample Number:	V5W693-IC693	**Method:**	TO-15	
Lab FileID:	5W17374.D	**Analyst approved:**	03/30/16 09:20	Thomas Hilbig
Injection Time:	03/29/16 21:39	**Supervisor approved:**	03/31/16 11:05	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.69	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17374.D
Acq On    : 29 Mar 2016   9:39 pm
Operator  : THOMASH
Sample    : IC693-0.5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:45:34 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:45:22 2016
Response via : Initial Calibration
```



TIC: 5W17374.D\data.ms

(108) TVHC as equiv Pentane

5.685min (-0.006) 0.49ppb(v) m

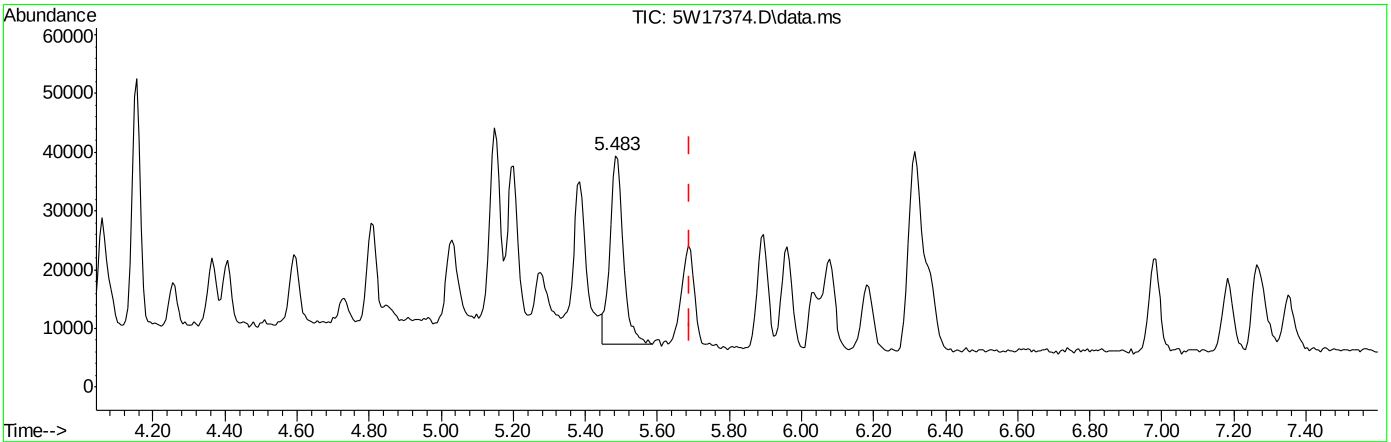
response 40991

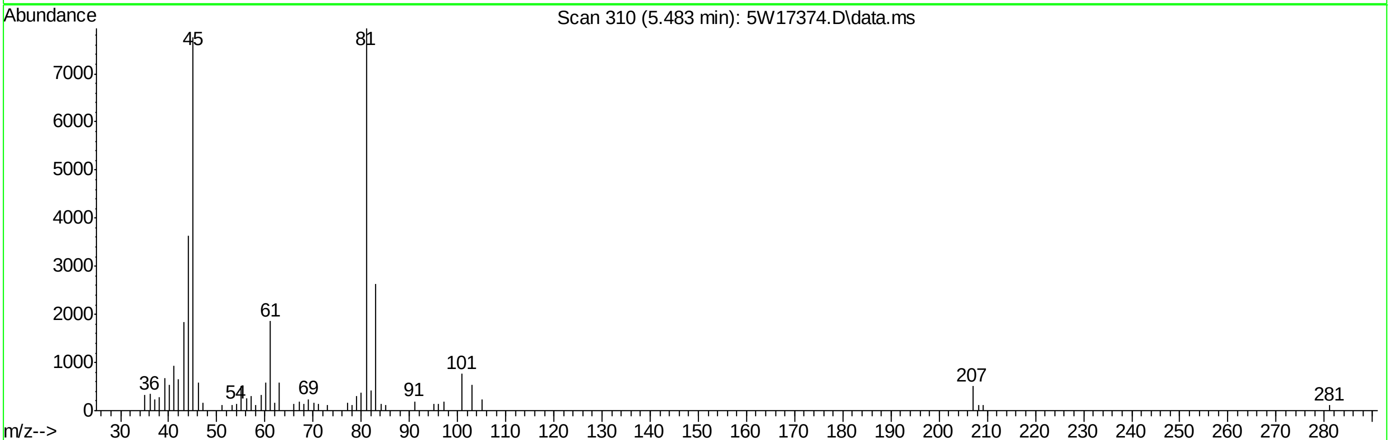
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\Rawdata\
Data File : 5W17374.D
Acq On    : 29 Mar 2016   9:39 pm
Operator  : THOMASH
Sample    : IC693-0.5
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 08:18:53 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17374.D\data.ms

(108) TVHC as equiv Pentane

5.483min (-0.208) 1.01ppb(v)

response 81868

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/31/16 11:05

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On    : 29 Mar 2016  10:22 pm
Operator  : THOMASH
Sample    : IC693-0.2
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:58:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:55:26 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.242	130	179905	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.439	114	664989	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.006	82	305318	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.242	130	179905	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.257	95	432993	10.47 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery =	104.70%	

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
2) 1,1,1-Trifluoroethane	3.727	69	8514	0.21 ppb(v#	91
3) Freon 152A	3.819	65	2015	0.23 ppb(v#	1
4) Chlorodifluoromethane	3.862	67	1126	0.27 ppb(v#	60
5) Propene	3.880	41	2024	0.23 ppb(v#	77
6) Dichlorodifluoromethane	3.942	85	8307	0.21 ppb(v	98
7) 1-Chloro-1,1-difluoroe...	4.058	65	6024	0.21 ppb(v	94
8) Chloromethane	4.076	50	2720	0.23 ppb(v	92
9) Dichlorotetrafluoroethane	4.156	85	8609	0.21 ppb(v	97
10) Vinyl Chloride	4.254	62	2793	0.21 ppb(v#	98
11) 1,3-Butadiene	4.364	54	2423	0.24 ppb(v	90
12) n-Butane	4.400	58	610	0.27 ppb(v#	2
13) Bromomethane	4.590	94	3650	0.22 ppb(v#	97
14) Chloroethane	4.731	64	1515	0.22 ppb(v#	89
15) Dichlorofluoromethane	4.804	67	7679	0.23 ppb(v	94
16) Acetonitrile	5.049	41	2306	0.22 ppb(v#	71
17) Freon 123	5.153	83	8965	0.23 ppb(v	99
18) Freon 123A	5.202	117	4821	0.21 ppb(v	95
19) Bromoethene	5.024	106	3469	0.20 ppb(v#	89
20) Trichlorofluoromethane	5.385	101	8613	0.20 ppb(v#	95
21) Acetone	5.281	58	1745	0.26 ppb(v	80
22) Pentane	5.685	57	806	0.23 ppb(v	70
23) 1,1-Dichloro-1-fluoroe...	5.489	81	7642	0.22 ppb(v	99
24) Iodomethane	5.893	142	9938	0.20 ppb(v	98
25) Isopropyl Alcohol	5.489	43	1579	0.27 ppb(v#	7
26) 1,1-Dichloroethene	5.960	61	4752	0.20 ppb(v	99
27) Freon 113	6.315	101	7081	0.20 ppb(v	97
28) Methylene Chloride	6.077	84	3151	0.22 ppb(v	93
29) Carbon Disulfide	6.352	76	8671	0.20 ppb(v	97
30) Ethanol	4.859	45	1620	0.27 ppb(v#	86
31) Acrylonitrile	5.673	53	2515	0.23 ppb(v	89
32) 3-Chloropropene	6.187	76	1412	0.20 ppb(v	85
33) trans-1,2-Dichloroethene	6.982	61	4091	0.20 ppb(v	98
34) tert-Butyl Alcohol	6.046	59	6582	0.20 ppb(v#	62
35) Methyl tert-Butyl Ether	7.270	73	8976	0.21 ppb(v#	86
36) Vinyl Acetate	7.355	43	7106	0.19 ppb(v	99
37) 1,1-Dichloroethane	7.184	63	5391	0.20 ppb(v#	98
38) 2-Butanone	7.655	72	1259	0.18 ppb(v#	86
39) Hexane	8.267	57	5168	0.24 ppb(v	78
40) cis-1,2-Dichloroethene	8.065	61	4123	0.20 ppb(v	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On : 29 Mar 2016 10:22 pm
Operator : THOMASH
Sample : IC693-0.2
Misc : MS99822,v5w693,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 07:58:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:55:26 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.285	87	2539	0.19 ppb(v	73
42) Ethyl Acetate	8.340	61	823	0.17 ppb(v#	77
43) Methyl Acrylate	8.328	55	4818	0.18 ppb(v	96
44) Chloroform	8.377	83	7304	0.20 ppb(v	98
45) 2,4-Dimethylpentane	9.240	57	5134	0.20 ppb(v	98
46) Tetrahydrofuran	8.897	72	1367	0.19 ppb(v#	72
47) 1,1,1-Trichloroethane	9.478	97	7908	0.21 ppb(v	93
48) 1,2-Dichloroethane	9.197	62	4223	0.20 ppb(v#	96
49) Benzene	10.010	78	9744	0.20 ppb(v	95
50) Carbon Tetrachloride	10.188	117	7762	0.20 ppb(v	94
51) Cyclohexane	10.316	56	4920	0.23 ppb(v	95
52) 2,3-Dimethylpentane	10.604	71	2296	0.22 ppb(v	99
54) 2,2,4-Trimethylpentane	11.295	57	14073	0.19 ppb(v	92
55) Heptane	11.638	71	3338	0.22 ppb(v	96
56) Trichloroethene	11.271	95	5011	0.20 ppb(v	98
57) 1,2-Dichloropropane	10.977	63	3356	0.19 ppb(v	98
58) Dibromomethane	10.959	174	5077	0.19 ppb(v	99
59) Ethyl Acrylate	11.050	55	6018	0.17 ppb(v#	93
60) Methyl Methacrylate	11.576	69	3901	0.22 ppb(v	88
61) 1,4-Dioxane	11.356	88	2152	0.18 ppb(v#	76
62) Bromodichloromethane	11.228	83	8388	0.20 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	5930	0.19 ppb(v	96
64) 4-Methyl-2-pentanone	12.445	58	2337	0.17 ppb(v	82
65) trans-1,3-Dichloropropene	13.051	75	4738	0.17 ppb(v	92
66) Toluene	13.608	91	12567	0.20 ppb(v	97
67) 1,1,2-Trichloroethane	13.253	97	4567	0.20 ppb(v	93
68) 1,3-Dichloropropane	13.657	76	5007	0.18 ppb(v	92
69) 2-Hexanone	14.030	58	2903	0.15 ppb(v#	70
70) Ethyl Methacrylate	14.036	69	5679	0.19 ppb(v	99
71) Dibromochloromethane	14.164	129	8661	0.19 ppb(v	96
72) Tetrachloroethene	15.125	166	6967	0.19 ppb(v	98
73) 1,2-Dibromoethane	14.489	107	7232	0.19 ppb(v#	99
74) Octane	14.960	43	6418	0.20 ppb(v	94
75) 1,1,1,2-Tetrachloroethane	16.049	131	6018	0.19 ppb(v#	1
77) Chlorobenzene	16.073	112	10489	0.21 ppb(v	97
78) Ethylbenzene	16.624	91	16786	0.22 ppb(v	99
79) m,p-Xylene	16.881	91	23864	0.41 ppb(v	98
80) Styrene	17.419	104	9223	0.20 ppb(v	98
81) Nonane	17.945	43	6830	0.22 ppb(v#	95
82) o-Xylene	17.572	91	12985	0.22 ppb(v	99
83) Bromoform	16.972	173	8995	0.20 ppb(v	97
84) 1,1,2,2-Tetrachloroethane	17.572	83	9929	0.21 ppb(v	93
85) 1,2,3-Trichloropropane	17.768	75	6857	0.21 ppb(v	97
86) Isopropylbenzene	18.477	105	18415	0.21 ppb(v	98
87) Bromobenzene	18.587	156	6567	0.21 ppb(v	96
88) 2-Chlorotoluene	19.199	126	4605	0.20 ppb(v	93
89) n-Propylbenzene	19.266	120	4569	0.20 ppb(v	93
91) 4-Ethyltoluene	19.487	105	17153	0.21 ppb(v	97
92) 1,3,5-Trimethylbenzene	19.609	105	14836	0.21 ppb(v	99
93) alpha-Methylstyrene	19.848	118	6943	0.19 ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On : 29 Mar 2016 10:22 pm
Operator : THOMASH
Sample : IC693-0.2
Misc : MS99822,v5w693,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 30 07:58:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:55:26 2016
Response via : Initial Calibration

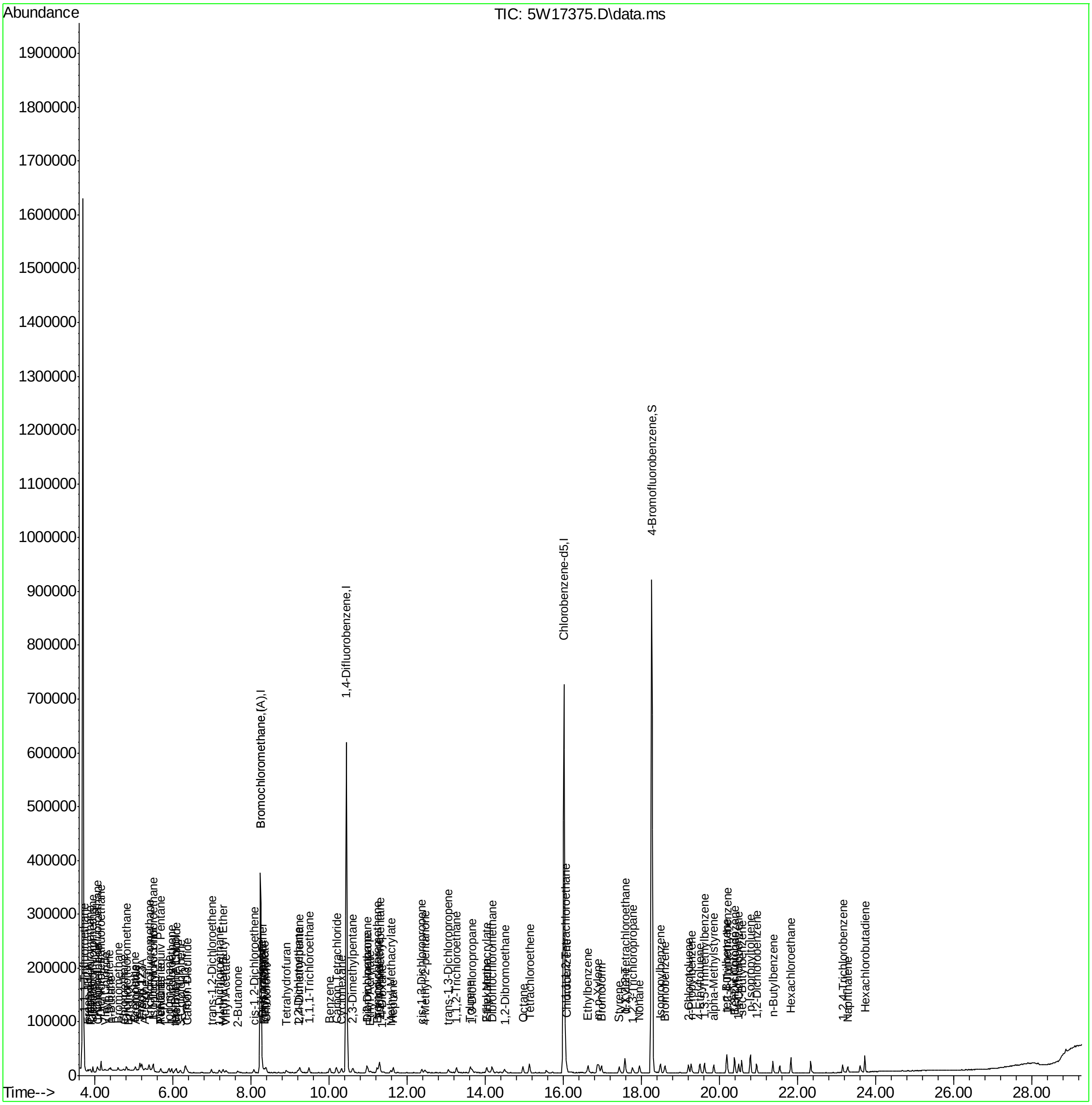
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.172	134	3106	0.20	ppb(v	90
95)	1,2,4-Trimethylbenzene	20.190	105	14431	0.21	ppb(v#	82
96)	1,3-Dichlorobenzene	20.386	146	10114	0.20	ppb(v	98
97)	Benzyl Chloride	20.374	91	12533	0.20	ppb(v	96
98)	1,4-Dichlorobenzene	20.484	146	10615	0.21	ppb(v	98
99)	sec-Butylbenzene	20.563	134	3931	0.20	ppb(v	93
100)	p-Isopropyltoluene	20.790	134	4253	0.20	ppb(v	95
101)	1,2-Dichlorobenzene	20.943	146	9771	0.21	ppb(v	99
102)	n-Butylbenzene	21.359	134	3723	0.19	ppb(v	96
103)	Hexachloroethane	21.824	201	6072	0.20	ppb(v	99
104)	1,2,4-Trichlorobenzene	23.151	180	5688	0.19	ppb(v	98
105)	Naphthalene	23.274	128	12366	0.20	ppb(v	98
106)	Hexachlorobutadiene	23.720	225	6682	0.22	ppb(v	98
108)	TVHC as equiv Pentane	5.685	TIC	19519m	0.23	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On    : 29 Mar 2016  10:22 pm
Operator  : THOMASH
Sample    : IC693-0.2
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:58:38 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:55:26 2016
Response via : Initial Calibration
```



m5w693.M Thu Mar 31 10:02:24 2016 GCMS5W

Manual Integration Approval Summary

Sample Number:	V5W693-IC693	**Method:**	TO-15	
Lab FileID:	5W17375.D	**Analyst approved:**	03/30/16 09:20	Thomas Hilbig
Injection Time:	03/29/16 22:22	**Supervisor approved:**	03/31/16 11:05	Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
TVHC As Equiv Pentane			5.69	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On    : 29 Mar 2016  10:22 pm
Operator  : THOMASH
Sample    : IC693-0.2
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:47:41 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:47:27 2016
Response via : Initial Calibration
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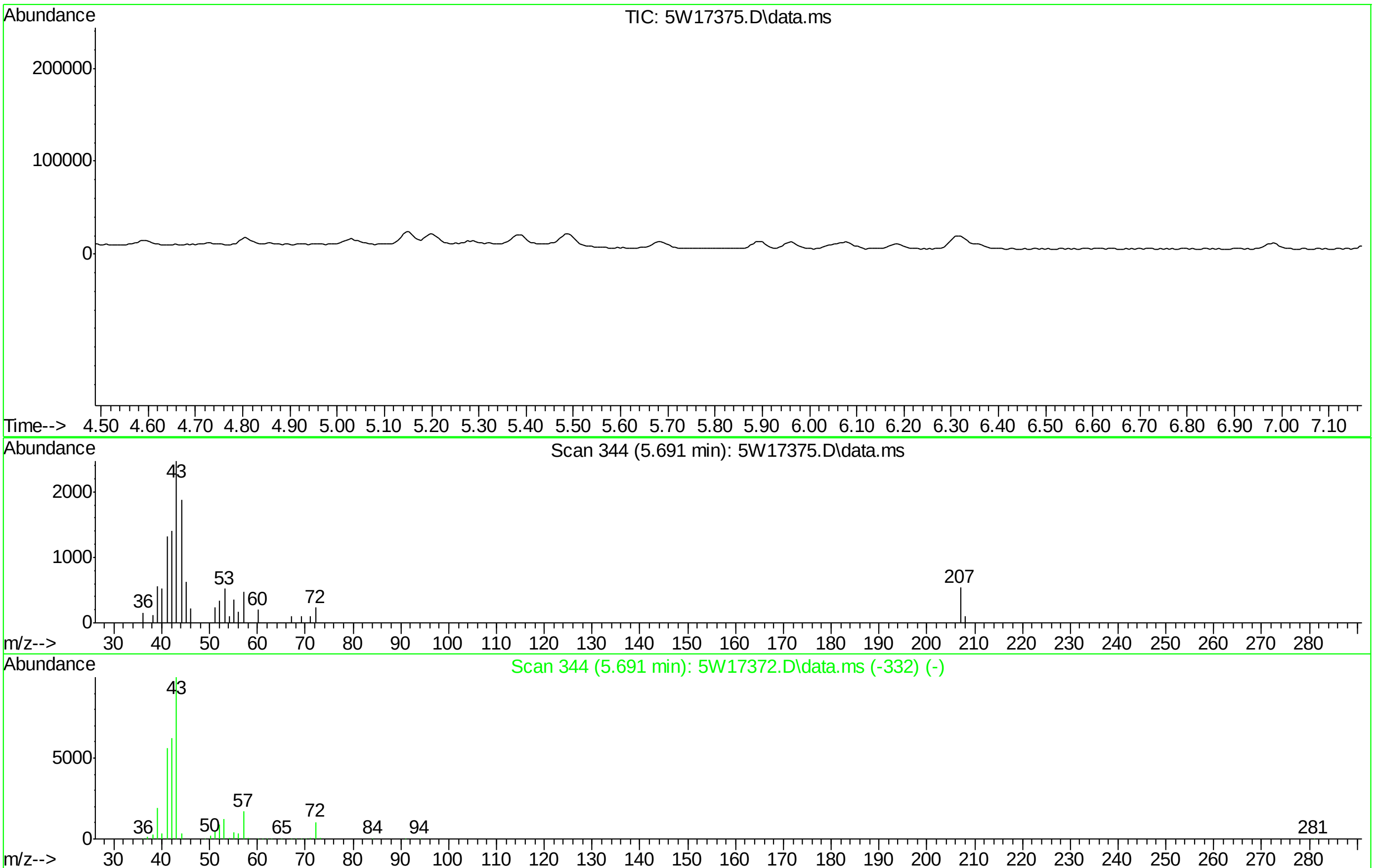


TIC: 5W17375.D\data.ms

(108) TVHC as equiv Pentane

5.691min (-5.691) 0.00ppb(v)

response 0

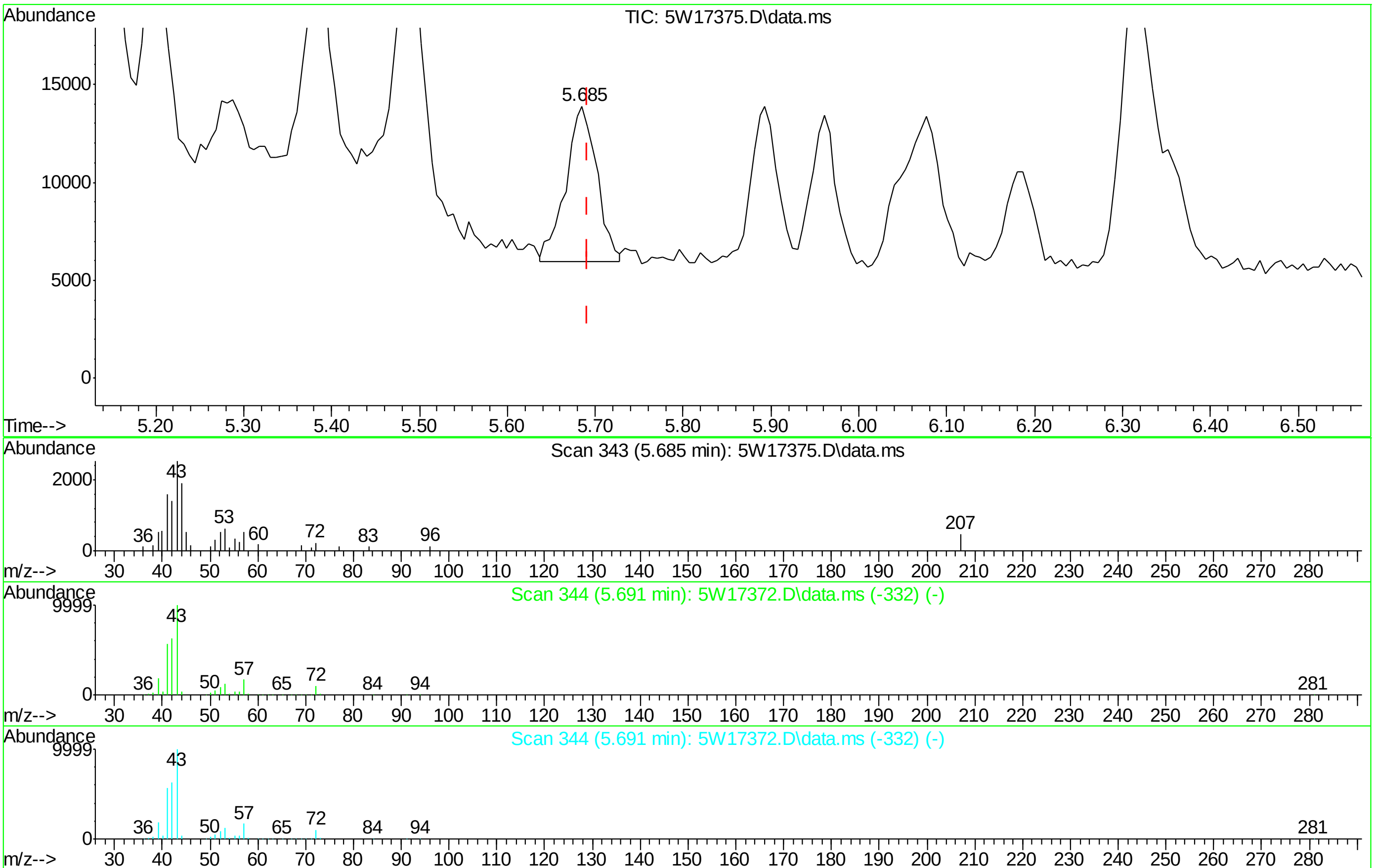
Signal	Exp%	Act%
TIC	100	0.00
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W17375.D edits: TVHC as equiv Pentane

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17375.D
Acq On    : 29 Mar 2016  10:22 pm
Operator  : THOMASH
Sample    : IC693-0.2
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Mar 30 07:56:48 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:55:26 2016
Response via : Initial Calibration
```



TIC: 5W17375.D\data.ms

(108) TVHC as equiv Pentane

5.685min (-0.006) 0.23ppb(v) m

response 19519

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17376.D
Acq On : 29 Mar 2016 11:06 pm
Operator : THOMASH
Sample : IC693-20
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:50:05 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:49:46 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.249	130	177749	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.445	114	650547	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.012	82	329194	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.249	130	177749	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	439504	9.49 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery =	94.90%	
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.728	69	780225	18.70 ppb(v	100
3) Freon 152A	3.825	65	161567	17.78 ppb(v	99
4) Chlorodifluoromethane	3.862	67	73783	16.12 ppb(v	98
5) Propene	3.887	41	170693	18.23 ppb(v	99
6) Dichlorodifluoromethane	3.942	85	771970	18.85 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	554428	18.92 ppb(v	100
8) Chloromethane	4.076	50	224071	17.95 ppb(v	100
9) Dichlorotetrafluoroethane	4.156	85	803240	18.82 ppb(v	99
10) Vinyl Chloride	4.260	62	262988	18.89 ppb(v	99
11) 1,3-Butadiene	4.364	54	186740	17.24 ppb(v	98
12) n-Butane	4.407	58	39915	16.38 ppb(v	98
13) Bromomethane	4.590	94	310437	18.19 ppb(v	99
14) Chloroethane	4.731	64	129256	18.40 ppb(v	99
15) Dichlorofluoromethane	4.804	67	630910	18.30 ppb(v	99
16) Acetonitrile	5.037	41	190724	17.57 ppb(v	99
17) Freon 123	5.153	83	759035	18.59 ppb(v	100
18) Freon 123A	5.202	117	430849	18.75 ppb(v	99
19) Bromoethene	5.031	106	331454	19.21 ppb(v	99
20) Trichlorofluoromethane	5.385	101	831268	19.14 ppb(v	99
21) Acetone	5.251	58	117271	16.20 ppb(v	100
22) Pentane	5.691	57	64558	18.09 ppb(v	99
23) 1,1-Dichloro-1-fluoroe...	5.489	81	683777	18.72 ppb(v	100
24) Iodomethane	5.899	142	974391	19.27 ppb(v	99
25) Isopropyl Alcohol	5.471	43	91948	13.41 ppb(v	99
26) 1,1-Dichloroethene	5.961	61	464704	19.26 ppb(v	100
27) Freon 113	6.315	101	695187	19.34 ppb(v	100
28) Methylene Chloride	6.083	84	275956	18.64 ppb(v	100
29) Carbon Disulfide	6.358	76	865774	19.41 ppb(v	100
30) Ethanol	4.847	45	99837	14.52 ppb(v	99
31) Acrylonitrile	5.667	53	203204	17.43 ppb(v	99
32) 3-Chloropropene	6.187	76	136920	19.48 ppb(v	98
33) trans-1,2-Dichloroethene	6.982	61	413343	19.64 ppb(v	99
34) tert-Butyl Alcohol	6.016	59	662204	19.47 ppb(v	99
35) Methyl tert-Butyl Ether	7.245	73	824314	18.79 ppb(v	99
36) Vinyl Acetate	7.349	43	719285	19.31 ppb(v	99
37) 1,1-Dichloroethane	7.190	63	530772	19.37 ppb(v	99
38) 2-Butanone	7.606	72	140147	20.09 ppb(v	98
39) Hexane	8.267	57	405046	18.18 ppb(v	97
40) cis-1,2-Dichloroethene	8.071	61	402856	19.44 ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17376.D
Acq On : 29 Mar 2016 11:06 pm
Operator : THOMASH
Sample : IC693-20
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:50:05 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:49:46 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	258366	19.78 ppb(v	99
42) Ethyl Acetate	8.322	61	95167	20.24 ppb(v	99
43) Methyl Acrylate	8.310	55	543603	20.75 ppb(v	99
44) Chloroform	8.389	83	694521	18.98 ppb(v	98
45) 2,4-Dimethylpentane	9.246	57	493083	18.39 ppb(v	100
46) Tetrahydrofuran	8.842	72	140015	19.75 ppb(v	100
47) 1,1,1-Trichloroethane	9.478	97	715582	18.91 ppb(v	99
48) 1,2-Dichloroethane	9.203	62	418208	19.46 ppb(v	99
49) Benzene	10.017	78	949960	19.21 ppb(v	100
50) Carbon Tetrachloride	10.188	117	772423	19.53 ppb(v	99
51) Cyclohexane	10.316	56	411552	18.48 ppb(v	100
52) 2,3-Dimethylpentane	10.610	71	194366	18.18 ppb(v	97
54) 2,2,4-Trimethylpentane	11.295	57	1388740	19.02 ppb(v	100
55) Heptane	11.644	71	293863	18.89 ppb(v	98
56) Trichloroethene	11.277	95	483303	19.44 ppb(v	99
57) 1,2-Dichloropropane	10.983	63	340585	19.73 ppb(v	99
58) Dibromomethane	10.965	174	512195	19.95 ppb(v	98
59) Ethyl Acrylate	11.020	55	676014	19.91 ppb(v	100
60) Methyl Methacrylate	11.558	69	330997	18.55 ppb(v	100
61) 1,4-Dioxane	11.301	88	239553	20.43 ppb(v	97
62) Bromodichloromethane	11.234	83	785914	19.24 ppb(v	99
63) cis-1,3-Dichloropropene	12.360	75	623391	20.26 ppb(v	100
64) 4-Methyl-2-pentanone	12.415	58	282397	20.91 ppb(v	99
65) trans-1,3-Dichloropropene	13.039	75	548100	20.30 ppb(v	100
66) Toluene	13.608	91	1219078	19.42 ppb(v	100
67) 1,1,2-Trichloroethane	13.253	97	445041	19.56 ppb(v	99
68) 1,3-Dichloropropane	13.650	76	566817	20.51 ppb(v	100
69) 2-Hexanone	13.987	58	400047	21.94 ppb(v	99
70) Ethyl Methacrylate	14.018	69	597734	20.00 ppb(v	99
71) Dibromochloromethane	14.170	129	894582	19.87 ppb(v	100
72) Tetrachloroethene	15.125	166	699024	19.72 ppb(v	100
73) 1,2-Dibromoethane	14.489	107	746844	19.96 ppb(v	100
74) Octane	14.954	43	641529	19.65 ppb(v	99
75) 1,1,1,2-Tetrachloroethane	16.055	131	614418	20.09 ppb(v	95
77) Chlorobenzene	16.073	112	1034798	18.38 ppb(v	99
78) Ethylbenzene	16.618	91	1597029	18.02 ppb(v	99
79) m,p-Xylene	16.893	91	2455799	37.48 ppb(v	99
80) Styrene	17.413	104	977751	19.00 ppb(v	99
81) Nonane	17.945	43	644204	18.18 ppb(v	100
82) o-Xylene	17.566	91	1244736	18.02 ppb(v	100
83) Bromoform	16.966	173	978363	19.03 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.566	83	981370	18.27 ppb(v	99
85) 1,2,3-Trichloropropane	17.762	75	695863	18.43 ppb(v	100
86) Isopropylbenzene	18.477	105	1798914	18.16 ppb(v	100
87) Bromobenzene	18.587	156	668352	18.53 ppb(v	99
88) 2-Chlorotoluene	19.193	126	477592	18.75 ppb(v	99
89) n-Propylbenzene	19.267	120	495076	19.06 ppb(v	94
91) 4-Ethyltoluene	19.487	105	1691207	18.45 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	1458486	18.40 ppb(v	99
93) alpha-Methylstyrene	19.842	118	776020	19.43 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17376.D
Acq On : 29 Mar 2016 11:06 pm
Operator : THOMASH
Sample : IC693-20
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:50:05 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:49:46 2016
Response via : Initial Calibration

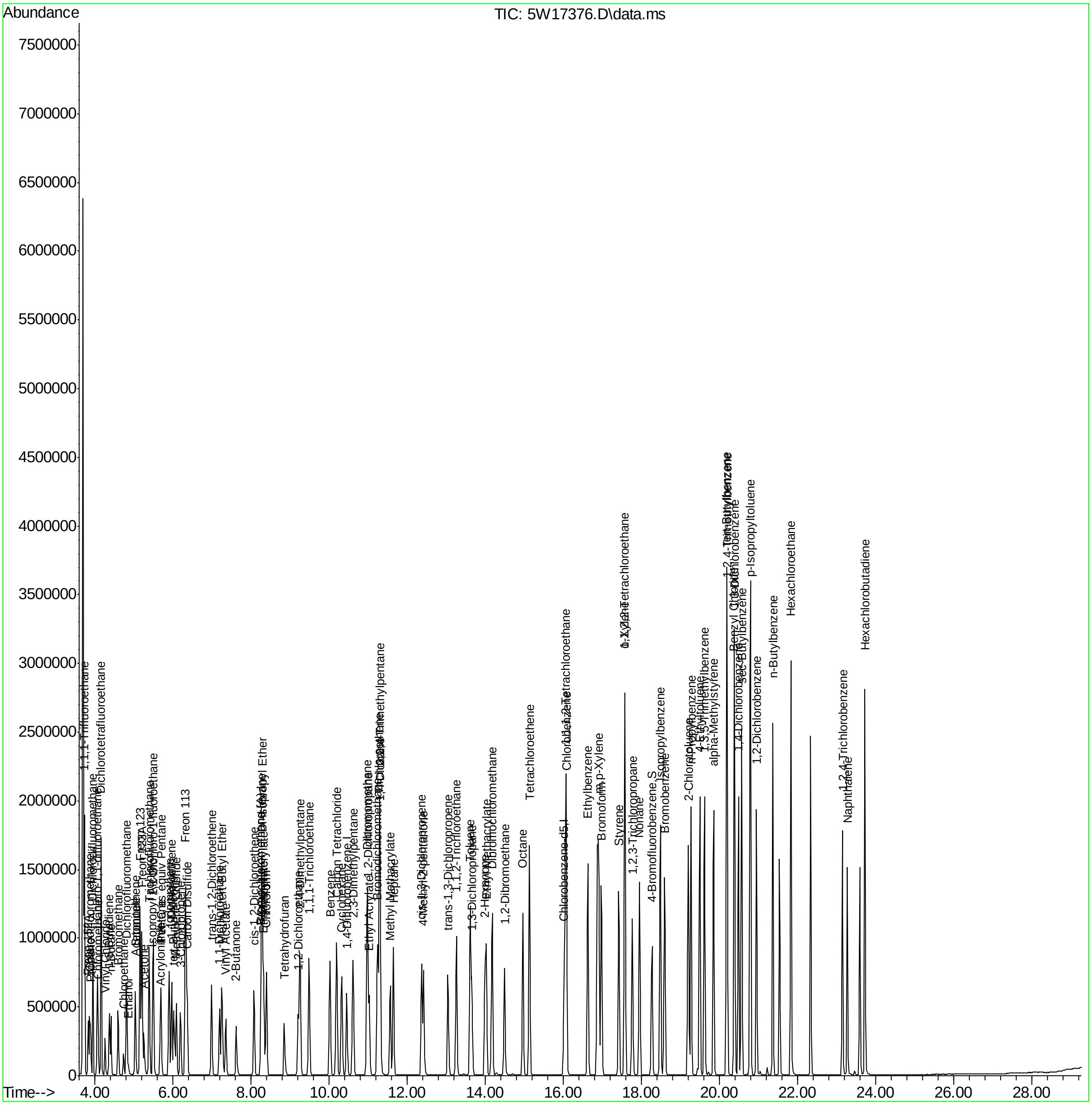
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.178	134	325826	18.80 ppb(v	96
95) 1,2,4-Trimethylbenzene	20.190	105	1474758	18.60 ppb(v	87
96) 1,3-Dichlorobenzene	20.380	146	1047712	18.69 ppb(v	100
97) Benzyl Chloride	20.368	91	1331843	19.01 ppb(v	99
98) 1,4-Dichlorobenzene	20.478	146	1056880	18.48 ppb(v	99
99) sec-Butylbenzene	20.557	134	410340	19.03 ppb(v	97
100) p-Isopropyltoluene	20.790	134	467413	19.54 ppb(v	98
101) 1,2-Dichlorobenzene	20.943	146	999432	18.69 ppb(v	99
102) n-Butylbenzene	21.359	134	426668	19.77 ppb(v	99
103) Hexachloroethane	21.824	201	661634	19.46 ppb(v	99
104) 1,2,4-Trichlorobenzene	23.145	180	633933	19.22 ppb(v	99
105) Naphthalene	23.267	128	1280458	18.51 ppb(v	100
106) Hexachlorobutadiene	23.720	225	631143	17.96 ppb(v	100
108) TVHC as equiv Pentane	5.691	TIC	1611416	18.45 ppb(v	100

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17376.D
Acq On    : 29 Mar 2016  11:06 pm
Operator  : THOMASH
Sample    : IC693-20
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:50:05 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:49:46 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17378.D
Acq On    : 30 Mar 2016  12:31 am
Operator  : THOMASH
Sample    : IC693-0.1
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 30 08:01:28 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:58:51 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.242	130	171654	10.00 ppb(v	0.00
53) 1,4-Difluorobenzene	10.439	114	638243	10.00 ppb(v	0.00
76) Chlorobenzene-d5	16.006	82	289153	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.242	130	171654	10.00 ppb(v	0.00
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.257	95	410875	10.49 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery =	104.90%	
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.727	69	4158	0.11 ppb(v#	89
3) Freon 152A	3.819	65	953	0.12 ppb(v#	1
4) Chlorodifluoromethane	3.856	67	574	0.14 ppb(v#	66
5) Propene	3.880	41	1129	0.13 ppb(v#	68
6) Dichlorodifluoromethane	3.942	85	4034	0.11 ppb(v	98
7) 1-Chloro-1,1-difluoroe...	4.058	65	2934	0.11 ppb(v#	66
8) Chloromethane	4.076	50	1484	0.13 ppb(v	95
9) Dichlorotetrafluoroethane	4.156	85	4156	0.10 ppb(v	96
10) Vinyl Chloride	4.260	62	1298	0.10 ppb(v#	92
11) 1,3-Butadiene	4.370	54	1151	0.12 ppb(v#	86
12) n-Butane	4.407	58	266	0.12 ppb(v#	9
13) Bromomethane	4.590	94	1892	0.12 ppb(v#	96
14) Chloroethane	4.731	64	767	0.12 ppb(v#	87
15) Dichlorofluoromethane	4.810	67	3279	0.10 ppb(v	91
17) Freon 123	5.147	83	4055	0.11 ppb(v#	92
18) Freon 123A	5.196	117	2480	0.11 ppb(v	86
19) Bromoethene	5.031	106	1638	0.10 ppb(v#	90
20) Trichlorofluoromethane	5.385	101	4196	0.10 ppb(v#	89
21) Acetone	5.294	58	885	0.14 ppb(v	74
23) 1,1-Dichloro-1-fluoroe...	5.489	81	3749	0.11 ppb(v#	93
24) Iodomethane	5.893	142	4753	0.10 ppb(v	96
26) 1,1-Dichloroethene	5.960	61	2242	0.10 ppb(v	92
27) Freon 113	6.315	101	3122	0.09 ppb(v	92
28) Methylene Chloride	6.077	84	1599	0.12 ppb(v	98
29) Carbon Disulfide	6.358	76	4077	0.10 ppb(v	99
31) Acrylonitrile	5.679	53	1066	0.10 ppb(v#	87
32) 3-Chloropropene	6.187	76	652	0.10 ppb(v#	72
33) trans-1,2-Dichloroethene	6.982	61	1928	0.10 ppb(v	94
34) tert-Butyl Alcohol	6.064	59	2958	0.09 ppb(v#	18
35) Methyl tert-Butyl Ether	7.288	73	4269	0.10 ppb(v#	81
36) Vinyl Acetate	7.361	43	2796	0.08 ppb(v	95
37) 1,1-Dichloroethane	7.184	63	2648	0.10 ppb(v#	96
38) 2-Butanone	7.661	72	555	0.08 ppb(v#	61
39) Hexane	8.261	57	2813	0.14 ppb(v#	74
40) cis-1,2-Dichloroethene	8.065	61	1807	0.09 ppb(v	96
41) Di-isopropyl Ether	8.297	87	1134	0.09 ppb(v	86
44) Chloroform	8.383	83	3607	0.11 ppb(v	93
45) 2,4-Dimethylpentane	9.239	57	2917	0.12 ppb(v	92
46) Tetrahydrofuran	8.903	72	462	0.07 ppb(v#	70

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17378.D
Acq On : 30 Mar 2016 12:31 am
Operator : THOMASH
Sample : IC693-0.1
Misc : MS99822,v5w693,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 08:01:28 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:58:51 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
47) 1,1,1-Trichloroethane	9.478	97	3713	0.11 ppb(v#	94
48) 1,2-Dichloroethane	9.197	62	1932	0.10 ppb(v#	87
49) Benzene	10.016	78	4676	0.10 ppb(v	93
50) Carbon Tetrachloride	10.182	117	3687	0.10 ppb(v	97
51) Cyclohexane	10.310	56	2441	0.12 ppb(v	88
52) 2,3-Dimethylpentane	10.598	71	943	0.10 ppb(v#	92
54) 2,2,4-Trimethylpentane	11.295	57	7299	0.11 ppb(v#	89
55) Heptane	11.638	71	1555	0.10 ppb(v	95
56) Trichloroethene	11.277	95	2294	0.10 ppb(v	92
57) 1,2-Dichloropropane	10.983	63	1503	0.09 ppb(v#	93
58) Dibromomethane	10.965	174	2373	0.09 ppb(v	98
59) Ethyl Acrylate	11.069	55	2084	0.06 ppb(v#	74
60) Methyl Methacrylate	11.595	69	1914	0.11 ppb(v	84
62) Bromodichloromethane	11.228	83	3778	0.10 ppb(v	98
63) cis-1,3-Dichloropropene	12.372	75	2818	0.09 ppb(v	95
64) 4-Methyl-2-pentanone	12.457	58	832	0.06 ppb(v#	54
65) trans-1,3-Dichloropropene	13.063	75	2186	0.08 ppb(v	96
66) Toluene	13.614	91	5971	0.10 ppb(v	95
67) 1,1,2-Trichloroethane	13.259	97	2161	0.10 ppb(v	98
68) 1,3-Dichloropropane	13.656	76	2373	0.09 ppb(v#	86
70) Ethyl Methacrylate	14.048	69	2774	0.10 ppb(v#	94
71) Dibromochloromethane	14.170	129	3867	0.09 ppb(v#	95
72) Tetrachloroethene	15.131	166	3425	0.10 ppb(v	97
73) 1,2-Dibromoethane	14.495	107	3101	0.08 ppb(v#	95
74) Octane	14.960	43	3518	0.11 ppb(v	84
75) 1,1,1,2-Tetrachloroethane	16.049	131	2846	0.10 ppb(v#	1
77) Chlorobenzene	16.067	112	5113	0.11 ppb(v	93
78) Ethylbenzene	16.630	91	7833	0.11 ppb(v#	97
79) m,p-Xylene	16.874	91	11356	0.21 ppb(v	97
80) Styrene	17.431	104	4228	0.10 ppb(v	97
81) Nonane	17.945	43	3551	0.12 ppb(v	93
82) o-Xylene	17.572	91	6440	0.11 ppb(v	96
83) Bromoform	16.972	173	4091	0.09 ppb(v	97
84) 1,1,2,2-Tetrachloroethane	17.572	83	4584	0.10 ppb(v#	93
85) 1,2,3-Trichloropropane	17.768	75	3176	0.10 ppb(v	95
86) Isopropylbenzene	18.477	105	8547	0.10 ppb(v	97
87) Bromobenzene	18.600	156	3191	0.11 ppb(v	94
88) 2-Chlorotoluene	19.199	126	2152	0.10 ppb(v	99
89) n-Propylbenzene	19.273	120	2105	0.10 ppb(v	99
91) 4-Ethyltoluene	19.493	105	8105	0.11 ppb(v	97
92) 1,3,5-Trimethylbenzene	19.615	105	7298	0.11 ppb(v	96
93) alpha-Methylstyrene	19.848	118	3266	0.10 ppb(v	94
94) tert-Butylbenzene	20.172	134	1483	0.10 ppb(v	91
95) 1,2,4-Trimethylbenzene	20.190	105	6929	0.10 ppb(v	87
96) 1,3-Dichlorobenzene	20.386	146	5219	0.11 ppb(v	95
97) Benzyl Chloride	20.380	91	6149	0.10 ppb(v#	96
98) 1,4-Dichlorobenzene	20.484	146	5603	0.12 ppb(v	98
99) sec-Butylbenzene	20.563	134	1790	0.10 ppb(v	98
100) p-Isopropyltoluene	20.790	134	1966	0.10 ppb(v	88
101) 1,2-Dichlorobenzene	20.949	146	4951	0.11 ppb(v	94

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17378.D
Acq On    : 30 Mar 2016  12:31 am
Operator  : THOMASH
Sample    : IC693-0.1
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 30 08:01:28 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:58:51 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
102) n-Butylbenzene	21.365	134	1610	0.09 ppb(v	96
103) Hexachloroethane	21.824	201	2745	0.09 ppb(v	97
104) 1,2,4-Trichlorobenzene	23.151	180	3445	0.12 ppb(v	98
105) Naphthalene	23.280	128	7644	0.13 ppb(v	98
106) Hexachlorobutadiene	23.720	225	3130	0.11 ppb(v	97

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17378.D
Acq On    : 30 Mar 2016  12:31 am
Operator  : THOMASH
Sample    : IC693-0.1
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 30 08:01:28 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:58:51 2016
Response via : Initial Calibration
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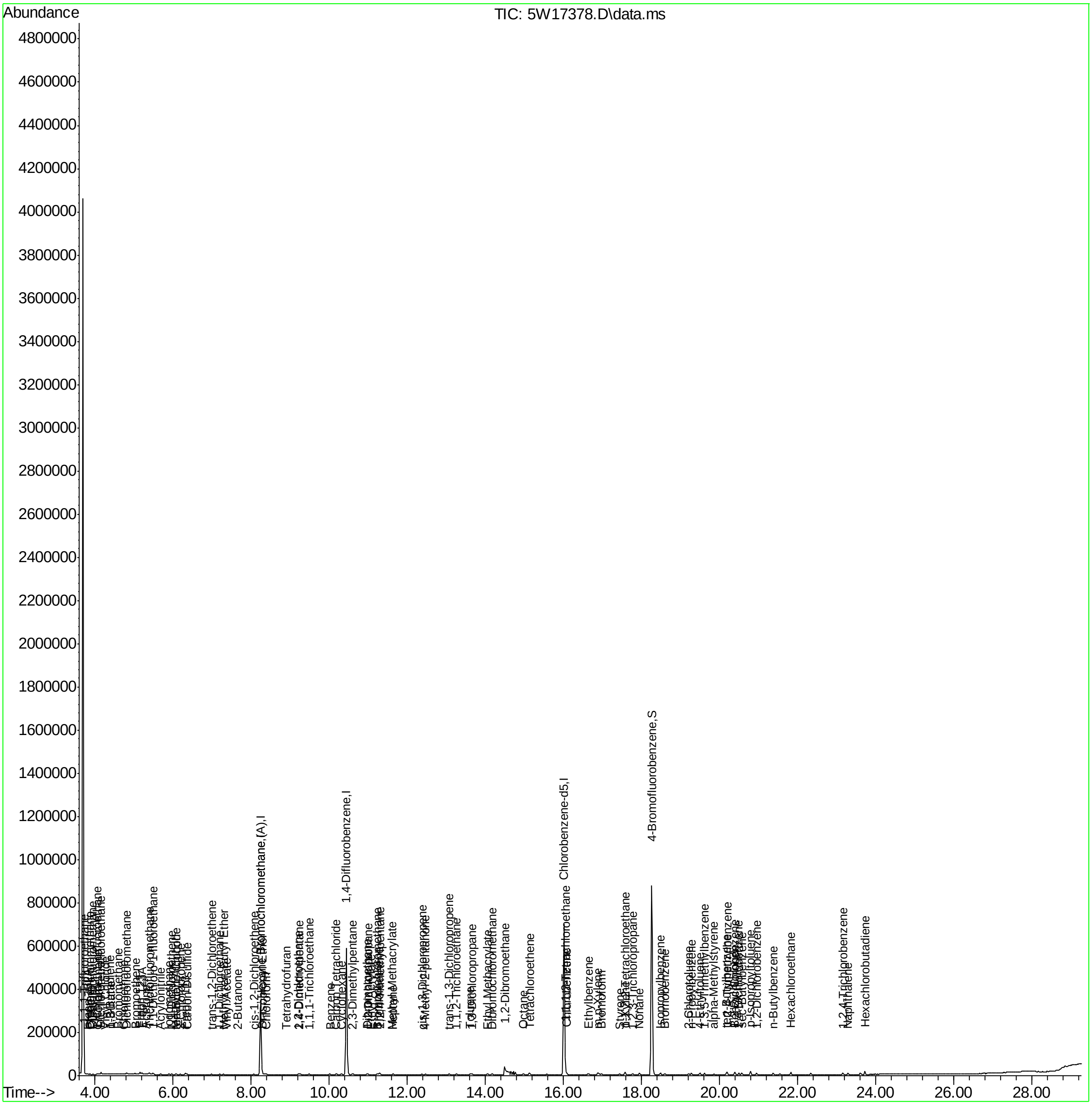

m5w693.M Thu Mar 31 10:02:41 2016 GCMS5W

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17379.D
Acq On    : 30 Mar 2016   1:13 am
Operator  : THOMASH
Sample    : IC693-0.04
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 30 08:05:14 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:02:09 2016
Response via : Initial Calibration
```

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.242	130	175600	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.439	114	648235	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.006	82	298093	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.242	130	175600	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.257	95	422450	10.39	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 103.90%			

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) 1,1,1-Trifluoroethane	3.728	69	2033	0.05	ppb(v#	86
3) Freon 152A	3.819	65	445	0.05	ppb(v#	1
6) Dichlorodifluoromethane	3.942	85	1868	0.05	ppb(v#	89
7) 1-Chloro-1,1-difluoroe...	4.058	65	1418	0.05	ppb(v#	71
8) Chloromethane	4.082	50	616	0.05	ppb(v#	63
9) Dichlorotetrafluoroethane	4.156	85	1982	0.05	ppb(v	93
10) Vinyl Chloride	4.254	62	586	0.04	ppb(v#	95
11) 1,3-Butadiene	4.364	54	592	0.06	ppb(v#	65
13) Bromomethane	4.596	94	996	0.06	ppb(v#	87
14) Chloroethane	4.725	64	345	0.05	ppb(v#	35
15) Dichlorofluoromethane	4.810	67	1864	0.06	ppb(v#	82
17) Freon 123	5.147	83	2049	0.05	ppb(v#	91
18) Freon 123A	5.202	117	1118	0.05	ppb(v	82
19) Bromoethene	5.031	106	751	0.05	ppb(v#	74
20) Trichlorofluoromethane	5.379	101	1849	0.04	ppb(v#	90
23) 1,1-Dichloro-1-fluoroe...	5.489	81	1967	0.06	ppb(v#	85
24) Iodomethane	5.893	142	2059	0.04	ppb(v	98
26) 1,1-Dichloroethene	5.960	61	959	0.04	ppb(v	87
27) Freon 113	6.321	101	1402	0.04	ppb(v	94
28) Methylene Chloride	6.083	84	730	0.05	ppb(v#	81
29) Carbon Disulfide	6.358	76	1809	0.04	ppb(v#	74
31) Acrylonitrile	5.673	53	533	0.05	ppb(v#	71
32) 3-Chloropropene	6.193	76	268	0.04	ppb(v#	63
33) trans-1,2-Dichloroethene	6.982	61	817	0.04	ppb(v	89
34) tert-Butyl Alcohol	6.077	59	1195	0.04	ppb(v#	1
35) Methyl tert-Butyl Ether	7.288	73	2086	0.05	ppb(v#	75
37) 1,1-Dichloroethane	7.178	63	1240	0.05	ppb(v#	95
39) Hexane	8.273	57	1455	0.07	ppb(v#	87
40) cis-1,2-Dichloroethene	8.071	61	822	0.04	ppb(v	99
41) Di-isopropyl Ether	8.304	87	398	0.03	ppb(v#	23
44) Chloroform	8.383	83	1622	0.05	ppb(v#	89
45) 2,4-Dimethylpentane	9.246	57	1458	0.06	ppb(v	92
47) 1,1,1-Trichloroethane	9.484	97	1779	0.05	ppb(v#	86
48) 1,2-Dichloroethane	9.197	62	780	0.04	ppb(v#	91
49) Benzene	10.010	78	2205	0.05	ppb(v	92
50) Carbon Tetrachloride	10.182	117	1581	0.04	ppb(v	93
51) Cyclohexane	10.310	56	1193	0.06	ppb(v#	77
52) 2,3-Dimethylpentane	10.604	71	536	0.05	ppb(v#	79
54) 2,2,4-Trimethylpentane	11.289	57	3522	0.05	ppb(v#	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17379.D
Acq On : 30 Mar 2016 1:13 am
Operator : THOMASH
Sample : IC693-0.04
Misc : MS99822,v5w693,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Mar 30 08:05:14 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:02:09 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Heptane	11.638	71	706	0.05 ppb(v#	85
56) Trichloroethene	11.271	95	1128	0.05 ppb(v	84
57) 1,2-Dichloropropane	10.983	63	743	0.04 ppb(v#	90
58) Dibromomethane	10.965	174	1142	0.05 ppb(v	96
62) Bromodichloromethane	11.228	83	1727	0.04 ppb(v#	95
63) cis-1,3-Dichloropropene	12.378	75	1195	0.04 ppb(v#	84
66) Toluene	13.620	91	2763	0.05 ppb(v	95
67) 1,1,2-Trichloroethane	13.253	97	929	0.04 ppb(v#	85
68) 1,3-Dichloropropane	13.675	76	1023	0.04 ppb(v#	73
71) Dibromochloromethane	14.183	129	1806	0.04 ppb(v#	98
72) Tetrachloroethene	15.125	166	1545	0.04 ppb(v	87
73) 1,2-Dibromoethane	14.495	107	1387	0.04 ppb(v#	97
74) Octane	14.960	43	1579	0.05 ppb(v#	79
75) 1,1,1,2-Tetrachloroethane	16.049	131	1227	0.04 ppb(v#	1
77) Chlorobenzene	16.073	112	2386	0.05 ppb(v	95
78) Ethylbenzene	16.636	91	3823	0.05 ppb(v#	94
79) m,p-Xylene	16.905	91	6283	0.11 ppb(v#	91
80) Styrene	17.443	104	1971	0.04 ppb(v#	87
81) Nonane	17.945	43	1589	0.05 ppb(v#	91
82) o-Xylene	17.578	91	3021	0.05 ppb(v	98
83) Bromoform	16.978	173	1741	0.04 ppb(v#	94
84) 1,1,2,2-Tetrachloroethane	17.578	83	2080	0.05 ppb(v#	95
85) 1,2,3-Trichloropropane	17.780	75	1522	0.05 ppb(v	96
86) Isopropylbenzene	18.477	105	4102	0.05 ppb(v	97
87) Bromobenzene	18.600	156	1394	0.04 ppb(v	96
88) 2-Chlorotoluene	19.205	126	933	0.04 ppb(v	97
89) n-Propylbenzene	19.279	120	917	0.04 ppb(v	73
91) 4-Ethyltoluene	19.499	105	3709	0.05 ppb(v#	95
92) 1,3,5-Trimethylbenzene	19.609	105	3495	0.05 ppb(v#	95
93) alpha-Methylstyrene	19.860	118	1383	0.04 ppb(v	100
94) tert-Butylbenzene	20.178	134	657	0.04 ppb(v	84
95) 1,2,4-Trimethylbenzene	20.196	105	3224	0.05 ppb(v#	72
96) 1,3-Dichlorobenzene	20.392	146	2420	0.05 ppb(v	97
97) Benzyl Chloride	20.392	91	3020	0.05 ppb(v#	93
98) 1,4-Dichlorobenzene	20.490	146	2667	0.05 ppb(v	96
99) sec-Butylbenzene	20.563	134	816	0.04 ppb(v	68
100) p-Isopropyltoluene	20.796	134	851	0.04 ppb(v	87
101) 1,2-Dichlorobenzene	20.955	146	2194	0.05 ppb(v	93
102) n-Butylbenzene	21.365	134	609	0.03 ppb(v	95
103) Hexachloroethane	21.824	201	1172	0.04 ppb(v	91
104) 1,2,4-Trichlorobenzene	23.157	180	1447	0.05 ppb(v	90
105) Naphthalene	23.286	128	3367	0.05 ppb(v	98
106) Hexachlorobutadiene	23.714	225	1462	0.05 ppb(v	97

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

7.7.46

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17379.D
Acq On    : 30 Mar 2016   1:13 am
Operator  : THOMASH
Sample    : IC693-0.04
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 3   Sample Multiplier: 1

Quant Time: Mar 30 08:05:14 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:02:09 2016
Response via : Initial Calibration
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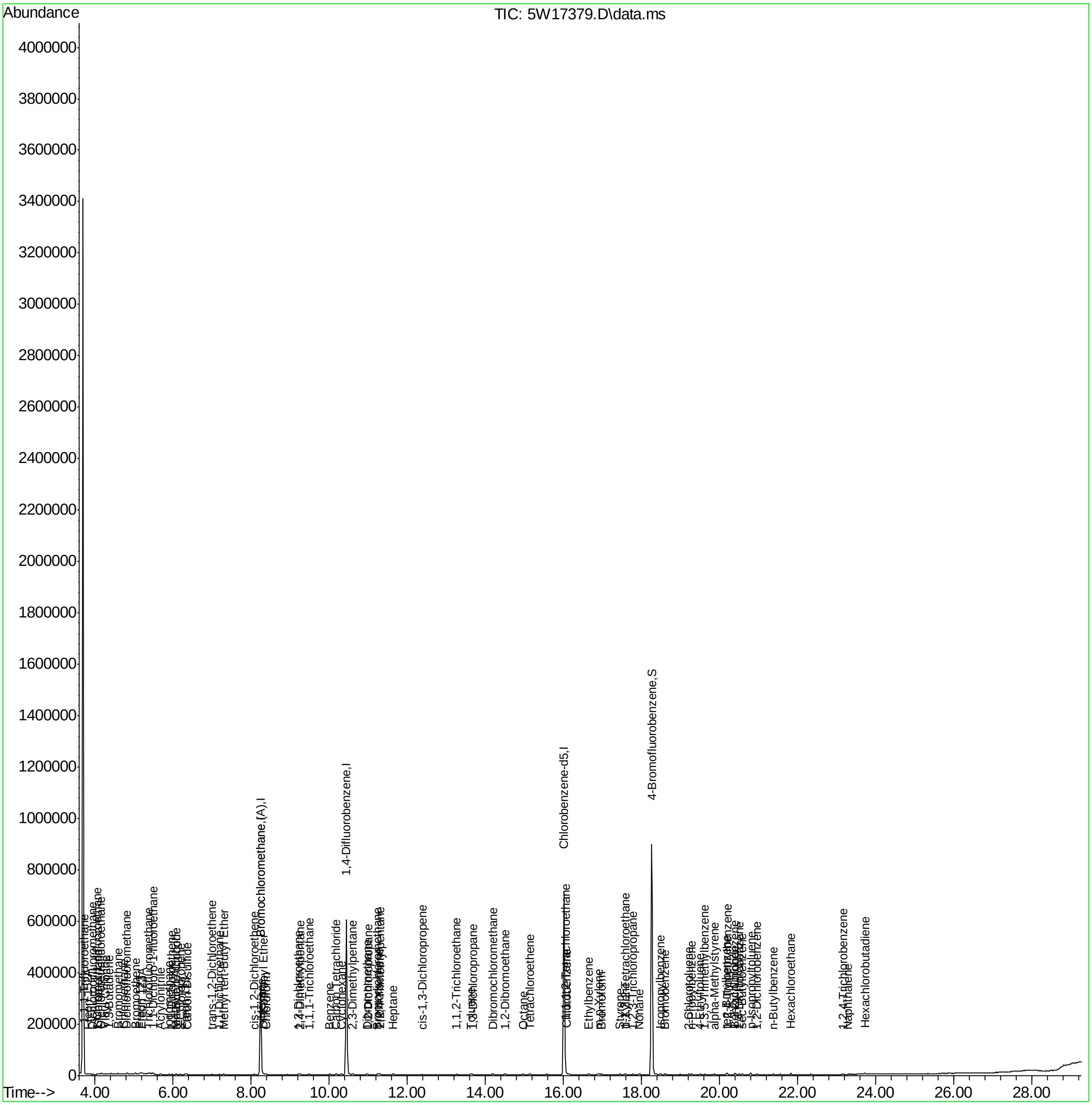

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17380.D
Acq On : 30 Mar 2016 1:59 am
Operator : THOMASH
Sample : IC693-30
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:51:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:51:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.261	130	182768	10.00 ppb(v	0.01
53) 1,4-Difluorobenzene	10.457	114	654579	10.00 ppb(v	0.01
76) Chlorobenzene-d5	16.018	82	346476	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.261	130	182768	10.00 ppb(v	0.01
System Monitoring Compounds					
90) 4-Bromofluorobenzene	18.263	95	446677	9.26 ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 92.60%		
Target Compounds					Qvalue
2) 1,1,1-Trifluoroethane	3.734	69	1062975	25.11 ppb(v	98
3) Freon 152A	3.831	65	239689	26.23 ppb(v	99
4) Chlorodifluoromethane	3.868	67	109607	24.23 ppb(v	98
5) Propene	3.893	41	252272	26.67 ppb(v	100
6) Dichlorodifluoromethane	3.954	85	1140788	27.40 ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.070	65	817166	27.41 ppb(v	100
8) Chloromethane	4.088	50	328285	26.11 ppb(v	100
9) Dichlorotetrafluoroethane	4.162	85	1183035	27.28 ppb(v	98
10) Vinyl Chloride	4.266	62	386821	27.33 ppb(v	99
11) 1,3-Butadiene	4.376	54	275849	25.47 ppb(v	97
12) n-Butane	4.413	58	58261	24.13 ppb(v#	93
13) Bromomethane	4.602	94	456751	26.51 ppb(v	99
14) Chloroethane	4.743	64	190898	26.86 ppb(v	99
15) Dichlorofluoromethane	4.816	67	934775	26.82 ppb(v	100
16) Acetonitrile	5.049	41	284939	26.17 ppb(v	99
17) Freon 123	5.165	83	1129850	27.29 ppb(v	100
18) Freon 123A	5.214	117	690467	29.59 ppb(v	99
19) Bromoethene	5.037	106	488898	27.78 ppb(v	99
20) Trichlorofluoromethane	5.398	101	1236480	27.93 ppb(v	99
21) Acetone	5.263	58	172803	24.13 ppb(v	99
22) Pentane	5.703	57	96388	26.78 ppb(v	99
23) 1,1-Dichloro-1-fluoroe...	5.502	81	999534	26.95 ppb(v	100
24) Iodomethane	5.905	142	1449268	28.08 ppb(v	99
25) Isopropyl Alcohol	5.489	43	133970	20.34 ppb(v	85
26) 1,1-Dichloroethene	5.973	61	689734	28.01 ppb(v	99
27) Freon 113	6.327	101	1039185	28.30 ppb(v	99
28) Methylene Chloride	6.095	84	413405	27.53 ppb(v	100
29) Carbon Disulfide	6.370	76	1275189	27.97 ppb(v	100
30) Ethanol	4.865	45	146579	21.93 ppb(v	99
31) Acrylonitrile	5.679	53	301448	25.81 ppb(v	99
32) 3-Chloropropene	6.199	76	205081	28.53 ppb(v	98
33) trans-1,2-Dichloroethene	6.994	61	614798	28.51 ppb(v	99
34) tert-Butyl Alcohol	6.028	59	985939	28.34 ppb(v	99
35) Methyl tert-Butyl Ether	7.251	73	1223817	27.46 ppb(v	100
36) Vinyl Acetate	7.361	43	1078808	28.37 ppb(v	98
37) 1,1-Dichloroethane	7.202	63	790533	28.24 ppb(v	100
38) 2-Butanone	7.618	72	209491	29.18 ppb(v	98
39) Hexane	8.279	57	607966	27.03 ppb(v	100
40) cis-1,2-Dichloroethene	8.083	61	598908	28.26 ppb(v	98

Quantitation Report   (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17380.D
Acq On   : 30 Mar 2016   1:59 am
Operator : THOMASH
Sample   : IC693-30
Misc   : MS99822,v5w693,,,,,1
ALS Vial : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:51:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:51:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Di-isopropyl Ether	8.285	87	387274	28.90	ppb(v	99
42) Ethyl Acetate	8.334	61	143344	29.58	ppb(v	93
43) Methyl Acrylate	8.322	55	808184	29.77	ppb(v	100
44) Chloroform	8.401	83	1030615	27.68	ppb(v	99
45) 2,4-Dimethylpentane	9.258	57	731940	26.98	ppb(v	100
46) Tetrahydrofuran	8.848	72	209720	28.84	ppb(v	99
47) 1,1,1-Trichloroethane	9.490	97	1065443	27.69	ppb(v	100
48) 1,2-Dichloroethane	9.209	62	625074	28.44	ppb(v	100
49) Benzene	10.023	78	1402726	27.81	ppb(v	100
50) Carbon Tetrachloride	10.194	117	1157596	28.60	ppb(v	99
51) Cyclohexane	10.322	56	606538	26.90	ppb(v	99
52) 2,3-Dimethylpentane	10.616	71	287781	26.66	ppb(v	99
54) 2,2,4-Trimethylpentane	11.301	57	2063991	28.38	ppb(v	99
55) Heptane	11.650	71	435736	28.15	ppb(v	98
56) Trichloroethene	11.283	95	722642	29.05	ppb(v	98
57) 1,2-Dichloropropane	10.989	63	508968	29.39	ppb(v	99
58) Dibromomethane	10.971	174	760269	29.45	ppb(v	99
59) Ethyl Acrylate	11.032	55	1002023	29.36	ppb(v	100
60) Methyl Methacrylate	11.564	69	493881	27.92	ppb(v	99
61) 1,4-Dioxane	11.307	88	354717	29.93	ppb(v	97
62) Bromodichloromethane	11.240	83	1171542	28.73	ppb(v	100
63) cis-1,3-Dichloropropene	12.366	75	914509	29.46	ppb(v	100
64) 4-Methyl-2-pentanone	12.421	58	415022	30.27	ppb(v	98
65) trans-1,3-Dichloropropene	13.045	75	813521	29.86	ppb(v	100
66) Toluene	13.614	91	1792241	28.54	ppb(v	100
67) 1,1,2-Trichloroethane	13.259	97	658859	28.90	ppb(v	100
68) 1,3-Dichloropropane	13.656	76	838910	30.01	ppb(v	99
69) 2-Hexanone	13.993	58	596356	31.88	ppb(v	99
70) Ethyl Methacrylate	14.024	69	890681	29.62	ppb(v	100
71) Dibromochloromethane	14.176	129	1328670	29.37	ppb(v	99
72) Tetrachloroethene	15.131	166	1028919	28.93	ppb(v	100
73) 1,2-Dibromoethane	14.488	107	1108698	29.46	ppb(v	100
74) Octane	14.960	43	944006	28.84	ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	908069	29.48	ppb(v	96
77) Chlorobenzene	16.079	112	1533301	26.30	ppb(v	99
78) Ethylbenzene	16.624	91	2368702	25.91	ppb(v	99
79) m,p-Xylene	16.893	91	3632459	53.34	ppb(v	99
80) Styrene	17.419	104	1452152	27.08	ppb(v	99
81) Nonane	17.945	43	966100	26.38	ppb(v	100
82) o-Xylene	17.572	91	1844596	25.88	ppb(v	100
83) Bromoform	16.972	173	1453659	27.13	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	1465528	26.38	ppb(v	100
85) 1,2,3-Trichloropropane	17.761	75	1033567	26.42	ppb(v	100
86) Isopropylbenzene	18.477	105	2666050	26.05	ppb(v	100
87) Bromobenzene	18.593	156	999082	26.71	ppb(v	99
88) 2-Chlorotoluene	19.193	126	709616	26.80	ppb(v	99
89) n-Propylbenzene	19.266	120	743694	27.46	ppb(v	93
91) 4-Ethyltoluene	19.487	105	2535371	26.69	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	2186661	26.64	ppb(v	100
93) alpha-Methylstyrene	19.841	118	1160046	27.75	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17380.D
Acq On : 30 Mar 2016 1:59 am
Operator : THOMASH
Sample : IC693-30
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:51:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:51:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) tert-Butylbenzene	20.178	134	493514	27.39	ppb(v	100
95) 1,2,4-Trimethylbenzene	20.190	105	2223814	27.03	ppb(v	96
96) 1,3-Dichlorobenzene	20.386	146	1565882	26.89	ppb(v	99
97) Benzyl Chloride	20.374	91	2000417	27.40	ppb(v	99
98) 1,4-Dichlorobenzene	20.484	146	1581657	26.68	ppb(v	99
99) sec-Butylbenzene	20.563	134	618356	27.51	ppb(v	93
100) p-Isopropyltoluene	20.790	134	699131	27.89	ppb(v	98
101) 1,2-Dichlorobenzene	20.943	146	1483987	26.71	ppb(v	99
102) n-Butylbenzene	21.359	134	649790	28.67	ppb(v	100
103) Hexachloroethane	21.824	201	996252	27.99	ppb(v	95
104) 1,2,4-Trichlorobenzene	23.145	180	968781	28.13	ppb(v	100
105) Naphthalene	23.267	128	1950187	27.20	ppb(v	100
106) Hexachlorobutadiene	23.720	225	964390	26.62	ppb(v	99
108) TVHC as equiv Pentane	5.697	TIC	2391437	27.05	ppb(v	100

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17380.D
Acq On    : 30 Mar 2016   1:59 am
Operator  : THOMASH
Sample    : IC693-30
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:51:44 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:51:27 2016
Response via : Initial Calibration
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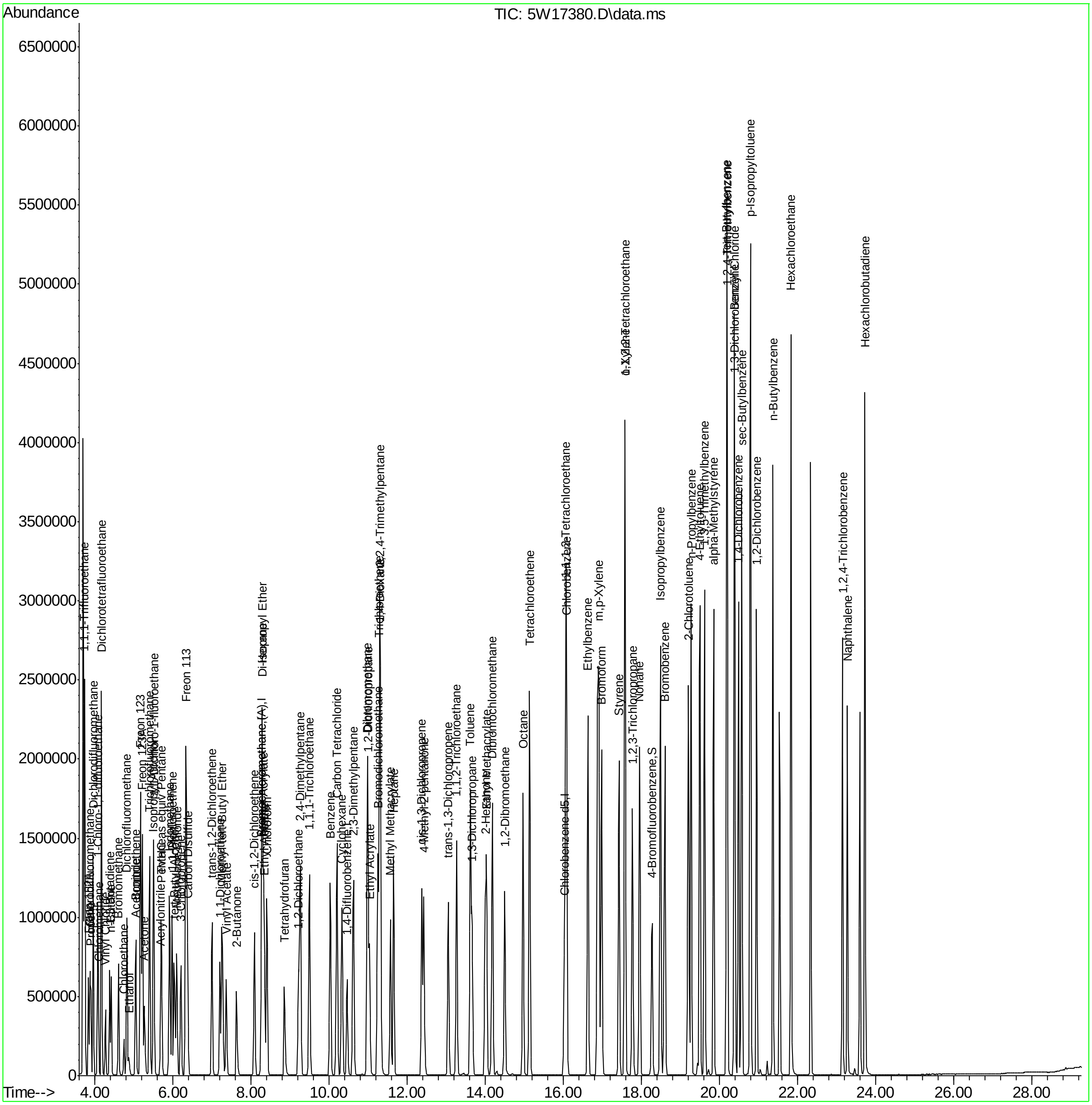

m5w693.M Thu Mar 31 10:02:56 2016 GCMS5W

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17382.D
Acq On : 30 Mar 2016 3:28 am
Operator : THOMASH
Sample : IC693-40
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:54:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:53:41 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.255	130	184873	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.451	114	656970	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.012	82	362990	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.255	130	184873	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.263	95	447542	8.97	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 89.70%			
Target Compounds						Qvalue
2) 1,1,1-Trifluoroethane	3.734	69	1452869	34.87	ppb(v	98
3) Freon 152A	3.826	65	320686	35.44	ppb(v	99
4) Chlorodifluoromethane	3.862	67	146656	33.12	ppb(v	99
5) Propene	3.887	41	334267	35.60	ppb(v	100
6) Dichlorodifluoromethane	3.948	85	1529741	36.86	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.064	65	1087600	36.59	ppb(v	99
8) Chloromethane	4.082	50	442680	35.57	ppb(v	99
9) Dichlorotetrafluoroethane	4.162	85	1589088	36.78	ppb(v	97
10) Vinyl Chloride	4.260	62	521571	36.98	ppb(v	99
11) 1,3-Butadiene	4.370	54	372108	34.85	ppb(v	96
12) n-Butane	4.413	58	80466	34.06	ppb(v#	94
13) Bromomethane	4.596	94	615211	36.00	ppb(v	99
14) Chloroethane	4.737	64	260068	36.82	ppb(v	100
15) Dichlorofluoromethane	4.810	67	1258617	36.34	ppb(v	100
16) Acetonitrile	5.043	41	384155	35.64	ppb(v	99
17) Freon 123	5.159	83	1525211	36.98	ppb(v	100
18) Freon 123A	5.208	117	932584	39.60	ppb(v	98
19) Bromoethene	5.031	106	663232	37.72	ppb(v	99
20) Trichlorofluoromethane	5.392	101	1656599	37.43	ppb(v	99
21) Acetone	5.251	58	235691	33.63	ppb(v	99
22) Pentane	5.698	57	131465	36.77	ppb(v	95
23) 1,1-Dichloro-1-fluoroe...	5.496	81	1338927	36.31	ppb(v	100
24) Iodomethane	5.899	142	1948960	37.73	ppb(v	99
25) Isopropyl Alcohol	5.477	43	178412	28.30	ppb(v	95
26) 1,1-Dichloroethene	5.967	61	921296	37.40	ppb(v	99
27) Freon 113	6.322	101	1390703	37.80	ppb(v	99
28) Methylene Chloride	6.089	84	549403	36.67	ppb(v	99
29) Carbon Disulfide	6.364	76	1704151	37.37	ppb(v	100
30) Ethanol	4.853	45	198134	30.69	ppb(v	99
31) Acrylonitrile	5.673	53	404106	35.02	ppb(v	99
32) 3-Chloropropene	6.193	76	274888	38.12	ppb(v	99
33) trans-1,2-Dichloroethene	6.988	61	825236	38.15	ppb(v	100
34) tert-Butyl Alcohol	6.022	59	1316235	37.75	ppb(v	99
35) Methyl tert-Butyl Ether	7.251	73	1649445	37.12	ppb(v	99
36) Vinyl Acetate	7.355	43	1442440	37.84	ppb(v	98
37) 1,1-Dichloroethane	7.196	63	1055331	37.64	ppb(v	99
38) 2-Butanone	7.612	72	279814	38.71	ppb(v	97
39) Hexane	8.273	57	815952	36.47	ppb(v	97
40) cis-1,2-Dichloroethene	8.077	61	803408	37.84	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17382.D
Acq On : 30 Mar 2016 3:28 am
Operator : THOMASH
Sample : IC693-40
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:54:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:53:41 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.279	87	523392	38.85 ppb(v	97
42) Ethyl Acetate	8.328	61	192488	39.36 ppb(v	94
43) Methyl Acrylate	8.316	55	1088897	39.71 ppb(v	100
44) Chloroform	8.395	83	1374600	36.97 ppb(v	99
45) 2,4-Dimethylpentane	9.252	57	975188	36.15 ppb(v	100
46) Tetrahydrofuran	8.836	72	279952	38.30 ppb(v	99
47) 1,1,1-Trichloroethane	9.484	97	1414750	36.82 ppb(v	100
48) 1,2-Dichloroethane	9.209	62	830355	37.67 ppb(v	99
49) Benzene	10.017	78	1882665	37.36 ppb(v	100
50) Carbon Tetrachloride	10.188	117	1559052	38.38 ppb(v	99
51) Cyclohexane	10.316	56	816407	36.42 ppb(v	99
52) 2,3-Dimethylpentane	10.610	71	388109	36.22 ppb(v	97
54) 2,2,4-Trimethylpentane	11.301	57	2752650	38.05 ppb(v	99
55) Heptane	11.644	71	588186	38.26 ppb(v	99
56) Trichloroethene	11.283	95	967822	38.97 ppb(v	99
57) 1,2-Dichloropropane	10.989	63	685735	39.58 ppb(v	98
58) Dibromomethane	10.971	174	1025823	39.71 ppb(v	97
59) Ethyl Acrylate	11.026	55	1347081	39.46 ppb(v	100
60) Methyl Methacrylate	11.558	69	665661	37.93 ppb(v	100
61) 1,4-Dioxane	11.301	88	477509	40.16 ppb(v	97
62) Bromodichloromethane	11.240	83	1571247	38.66 ppb(v	99
63) cis-1,3-Dichloropropene	12.366	75	1242671	40.00 ppb(v	99
64) 4-Methyl-2-pentanone	12.415	58	557377	40.44 ppb(v	97
65) trans-1,3-Dichloropropene	13.045	75	1095636	40.10 ppb(v	99
66) Toluene	13.614	91	2387902	38.19 ppb(v	100
67) 1,1,2-Trichloroethane	13.259	97	880173	38.71 ppb(v	100
68) 1,3-Dichloropropane	13.657	76	1120389	39.93 ppb(v	99
69) 2-Hexanone	13.993	58	801961	42.28 ppb(v	98
70) Ethyl Methacrylate	14.024	69	1186686	39.40 ppb(v	99
71) Dibromochloromethane	14.177	129	1792679	39.62 ppb(v	100
72) Tetrachloroethene	15.131	166	1387632	39.10 ppb(v	99
73) 1,2-Dibromoethane	14.489	107	1485309	39.44 ppb(v	100
74) Octane	14.960	43	1269368	38.89 ppb(v	96
75) 1,1,1,2-Tetrachloroethane	16.055	131	1218798	39.54 ppb(v	96
77) Chlorobenzene	16.079	112	2055360	34.36 ppb(v	100
78) Ethylbenzene	16.624	91	3163994	33.80 ppb(v	98
79) m,p-Xylene	16.899	91	4837082	69.08 ppb(v	99
80) Styrene	17.419	104	1949304	35.27 ppb(v	99
81) Nonane	17.951	43	1292194	34.37 ppb(v	98
82) o-Xylene	17.572	91	2462532	33.75 ppb(v	99
83) Bromoform	16.972	173	1952823	35.35 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.572	83	1953099	34.25 ppb(v	100
85) 1,2,3-Trichloropropane	17.762	75	1381816	34.40 ppb(v	100
86) Isopropylbenzene	18.477	105	3574457	34.09 ppb(v	100
87) Bromobenzene	18.594	156	1341533	34.87 ppb(v	100
88) 2-Chlorotoluene	19.193	126	958367	35.18 ppb(v	98
89) n-Propylbenzene	19.267	120	990833	35.43 ppb(v	92
91) 4-Ethyltoluene	19.487	105	3365274	34.45 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.609	105	2913163	34.52 ppb(v	99
93) alpha-Methylstyrene	19.842	118	1570470	36.31 ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17382.D
Acq On : 30 Mar 2016 3:28 am
Operator : THOMASH
Sample : IC693-40
Misc : MS99822,v5w693,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Mar 30 07:54:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:53:41 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
94) tert-Butylbenzene	20.178	134	658185	35.38 ppb(v	98
95) 1,2,4-Trimethylbenzene	20.196	105	2934962	34.62 ppb(v#	83
96) 1,3-Dichlorobenzene	20.386	146	2087440	34.81 ppb(v	99
97) Benzyl Chloride	20.374	91	2674452	35.48 ppb(v	98
98) 1,4-Dichlorobenzene	20.484	146	2116479	34.72 ppb(v	99
99) sec-Butylbenzene	20.564	134	830469	35.76 ppb(v	92
100) p-Isopropyltoluene	20.796	134	932392	35.93 ppb(v	96
101) 1,2-Dichlorobenzene	20.943	146	2002100	35.04 ppb(v	99
102) n-Butylbenzene	21.359	134	879901	37.34 ppb(v	98
103) Hexachloroethane	21.824	201	1341845	36.39 ppb(v	96
104) 1,2,4-Trichlorobenzene	23.145	180	1334024	37.36 ppb(v	99
105) Naphthalene	23.268	128	2653485	35.88 ppb(v	99
106) Hexachlorobutadiene	23.720	225	1306161	35.07 ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	3194785	36.32 ppb(v	100

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

7.7.48

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\
Data File : 5W17382.D
Acq On    : 30 Mar 2016   3:28 am
Operator  : THOMASH
Sample    : IC693-40
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 1   Sample Multiplier: 1

Quant Time: Mar 30 07:54:03 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 07:53:41 2016
Response via : Initial Calibration
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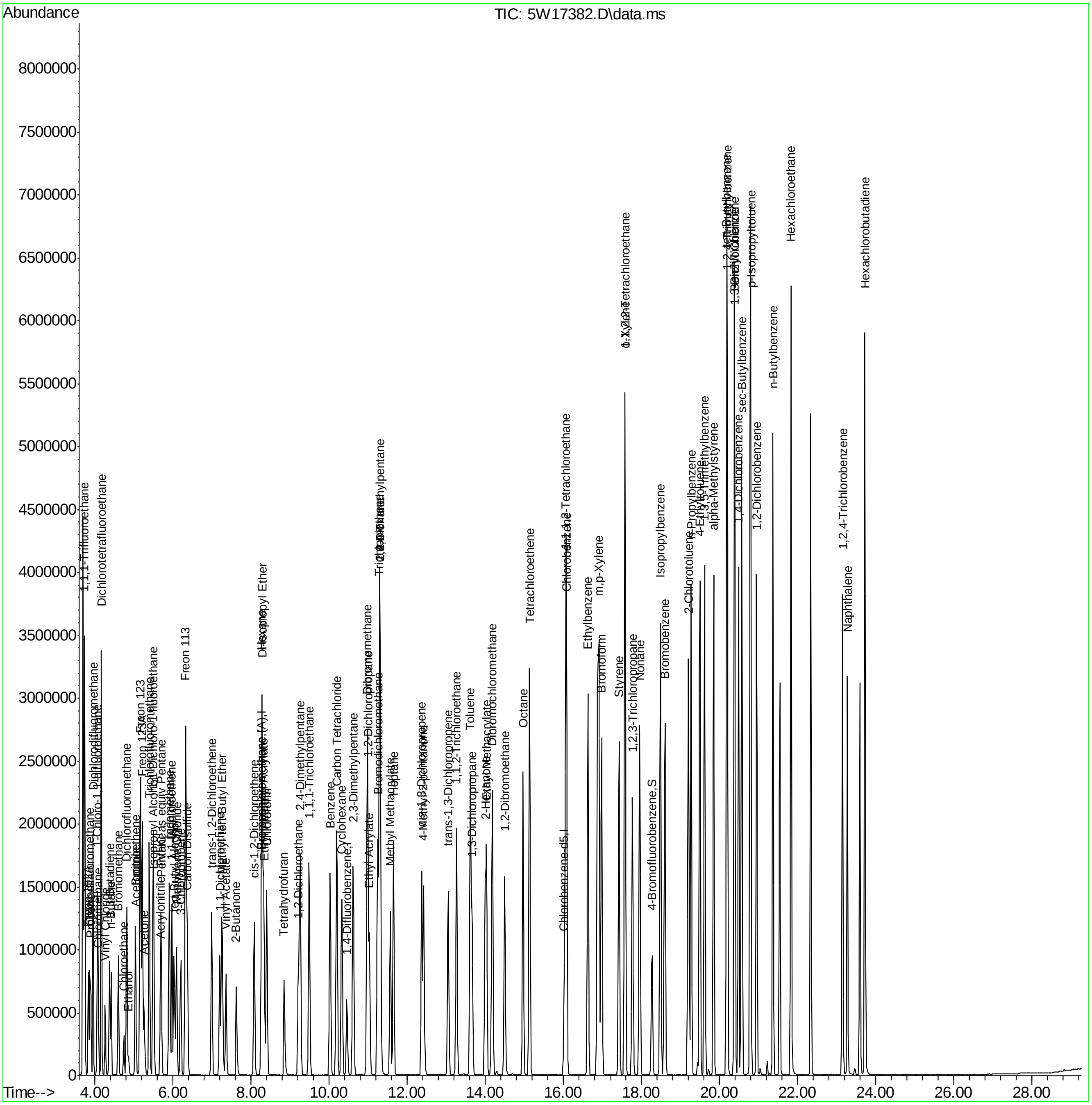


m5w693.M Thu Mar 31 10:03:04 2016 GCMS5W Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17384.D
Acq On : 30 Mar 2016 4:52 am
Operator : THOMASH
Sample : ICV693-10
Misc : MS99822,v5w693,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 30 08:06:34 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	8.249	130	175670	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	10.445	114	643347	10.00	ppb(v	0.00
76) Chlorobenzene-d5	16.012	82	312810	10.00	ppb(v	0.00
107) Bromochloromethane (A)	8.249	130	175670	10.00	ppb(v	0.00
System Monitoring Compounds						
90) 4-Bromofluorobenzene	18.257	95	430500	10.05	ppb(v	0.00
Spiked Amount 10.000	Range 65 - 128		Recovery = 100.50%			
Target Compounds						Qvalue
3) Freon 152A	3.825	65	84059	9.45	ppb(v	99
4) Chlorodifluoromethane	3.862	67	38965	9.01	ppb(v	98
5) Propene	3.887	41	89861	9.85	ppb(v	99
6) Dichlorodifluoromethane	3.948	85	408715	10.19	ppb(v	99
7) 1-Chloro-1,1-difluoroe...	4.058	65	288033	9.94	ppb(v	100
8) Chloromethane	4.082	50	115923	9.31	ppb(v	99
9) Dichlorotetrafluoroethane	4.156	85	417030	9.98	ppb(v	99
10) Vinyl Chloride	4.260	62	136081	10.14	ppb(v	100
11) 1,3-Butadiene	4.370	54	94999	8.88	ppb(v	97
12) n-Butane	4.407	58	20389	9.01	ppb(v	94
13) Bromomethane	4.596	94	157848	9.09	ppb(v	99
14) Chloroethane	4.731	64	66455	9.50	ppb(v	99
15) Dichlorofluoromethane	4.810	67	334995	9.80	ppb(v	100
16) Acetonitrile	5.037	41	101830	10.17	ppb(v	99
17) Freon 123	5.153	83	386623	9.55	ppb(v	100
18) Freon 123A	5.202	117	208731	8.95	ppb(v	100
19) Bromoethene	5.031	106	165398	9.82	ppb(v	99
20) Trichlorofluoromethane	5.386	101	426479	10.08	ppb(v	100
21) Acetone	5.251	58	61522	9.01	ppb(v	97
22) Pentane	5.691	57	35245	10.39	ppb(v	97
24) Iodomethane	5.893	142	505524	10.32	ppb(v	99
25) Isopropyl Alcohol	5.471	43	43659	8.24	ppb(v	77
26) 1,1-Dichloroethene	5.961	61	238603	10.26	ppb(v	99
27) Freon 113	6.315	101	365106	10.60	ppb(v	99
28) Methylene Chloride	6.083	84	142045	9.61	ppb(v	99
29) Carbon Disulfide	6.358	76	445695	10.35	ppb(v	100
30) Ethanol	4.847	45	48483	8.36	ppb(v	99
31) Acrylonitrile	5.667	53	106782	9.65	ppb(v	98
32) 3-Chloropropene	6.187	76	69705	10.28	ppb(v	95
33) trans-1,2-Dichloroethene	6.982	61	213873	10.51	ppb(v	100
34) tert-Butyl Alcohol	6.010	59	328176	10.18	ppb(v	99
35) Methyl tert-Butyl Ether	7.245	73	421073	9.76	ppb(v	100
36) Vinyl Acetate	7.343	43	382423	10.98	ppb(v	99
37) 1,1-Dichloroethane	7.184	63	273853	10.14	ppb(v	100
38) 2-Butanone	7.606	72	69759	10.42	ppb(v	96
39) Hexane	8.267	57	205497	8.72	ppb(v	96
40) cis-1,2-Dichloroethene	8.065	61	203415	10.22	ppb(v	100
41) Di-isopropyl Ether	8.273	87	133831	10.87	ppb(v	94
42) Ethyl Acetate	8.322	61	49649	10.71	ppb(v	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17384.D
Acq On : 30 Mar 2016 4:52 am
Operator : THOMASH
Sample : ICV693-10
Misc : MS99822,v5w693,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 30 08:06:34 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) Methyl Acrylate	8.310	55	267578	10.24	ppb(v	100
44) Chloroform	8.383	83	365774	10.22	ppb(v	99
45) 2,4-Dimethylpentane	9.246	57	251253	9.35	ppb(v	99
46) Tetrahydrofuran	8.842	72	72948	11.00	ppb(v	98
47) 1,1,1-Trichloroethane	9.478	97	376645	10.11	ppb(v	100
48) 1,2-Dichloroethane	9.197	62	215548	10.50	ppb(v	100
49) Benzene	10.011	78	489424	10.12	ppb(v	100
50) Carbon Tetrachloride	10.182	117	406264	10.57	ppb(v	99
51) Cyclohexane	10.316	56	212177	9.45	ppb(v	99
52) 2,3-Dimethylpentane	10.604	71	99482	9.59	ppb(v	99
54) 2,2,4-Trimethylpentane	11.295	57	707897	9.89	ppb(v	99
55) Heptane	11.638	71	148962	9.72	ppb(v	99
56) Trichloroethene	11.277	95	245399	10.01	ppb(v	99
57) 1,2-Dichloropropane	10.977	63	175610	10.39	ppb(v	98
58) Dibromomethane	10.959	174	265302	10.42	ppb(v	98
59) Ethyl Acrylate	11.020	55	343547	10.93	ppb(v	100
60) Methyl Methacrylate	11.552	69	165923	9.57	ppb(v	98
61) 1,4-Dioxane	11.301	88	120326	10.33	ppb(v	97
62) Bromodichloromethane	11.228	83	395351	9.93	ppb(v	100
63) cis-1,3-Dichloropropene	12.360	75	298149	9.90	ppb(v	99
64) 4-Methyl-2-pentanone	12.409	58	138468	10.75	ppb(v	99
65) trans-1,3-Dichloropropene	13.039	75	275068	10.95	ppb(v	99
66) Toluene	13.608	91	615435	10.01	ppb(v	100
67) 1,1,2-Trichloroethane	13.253	97	224049	10.08	ppb(v	99
68) 1,3-Dichloropropane	13.651	76	280220	10.44	ppb(v	99
69) 2-Hexanone	13.987	58	193522	10.33	ppb(v	100
70) Ethyl Methacrylate	14.018	69	301583	10.45	ppb(v	99
71) Dibromochloromethane	14.164	129	461069	10.54	ppb(v	99
72) Tetrachloroethene	15.125	166	359694	10.27	ppb(v	99
73) 1,2-Dibromoethane	14.483	107	377010	10.49	ppb(v	100
74) Octane	14.954	43	324080	9.82	ppb(v	99
75) 1,1,1,2-Tetrachloroethane	16.049	131	316824	10.56	ppb(v	99
77) Chlorobenzene	16.073	112	518213	9.89	ppb(v	98
78) Ethylbenzene	16.618	91	802737	9.80	ppb(v	99
79) m,p-Xylene	16.887	91	1246596	20.10	ppb(v	100
80) Styrene	17.413	104	484944	10.26	ppb(v	99
81) Nonane	17.939	43	321174	9.56	ppb(v	99
82) o-Xylene	17.566	91	631729	9.81	ppb(v	100
83) Bromoform	16.966	173	484991	10.45	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.566	83	482861	9.85	ppb(v	100
85) 1,2,3-Trichloropropane	17.756	75	350127	10.11	ppb(v	99
86) Isopropylbenzene	18.471	105	919198	10.10	ppb(v	99
87) Bromobenzene	18.588	156	333879	10.05	ppb(v	98
88) 2-Chlorotoluene	19.193	126	235661	10.13	ppb(v	98
89) n-Propylbenzene	19.260	120	245878	10.40	ppb(v	100
91) 4-Ethyltoluene	19.487	105	877226	10.35	ppb(v	99
92) 1,3,5-Trimethylbenzene	19.603	105	733858	9.86	ppb(v	100
93) alpha-Methylstyrene	19.836	118	394214	10.78	ppb(v	100
94) tert-Butylbenzene	20.172	134	165541	10.37	ppb(v	99
95) 1,2,4-Trimethylbenzene	20.184	105	736161	10.02	ppb(v	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17384.D
Acq On : 30 Mar 2016 4:52 am
Operator : THOMASH
Sample : ICV693-10
Misc : MS99822,v5w693,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 30 08:06:34 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,3-Dichlorobenzene	20.380	146	523932	9.93	ppb(v	99
97) Benzyl Chloride	20.368	91	632694	9.60	ppb(v	99
98) 1,4-Dichlorobenzene	20.478	146	510628	9.35	ppb(v	99
99) sec-Butylbenzene	20.557	134	204243	10.28	ppb(v	98
100) p-Isopropyltoluene	20.790	134	233640	10.63	ppb(v	98
101) 1,2-Dichlorobenzene	20.937	146	490170	9.81	ppb(v	99
102) n-Butylbenzene	21.359	134	206774	10.68	ppb(v	98
103) Hexachloroethane	21.824	201	327583	10.53	ppb(v	97
104) 1,2,4-Trichlorobenzene	23.139	180	293122	9.14	ppb(v	99
105) Naphthalene	23.268	128	561900	8.28	ppb(v	100
106) Hexachlorobutadiene	23.714	225	312366	9.60	ppb(v	99
108) TVHC as equiv Pentane	5.691	TIC	870680	10.46	ppb(v	100

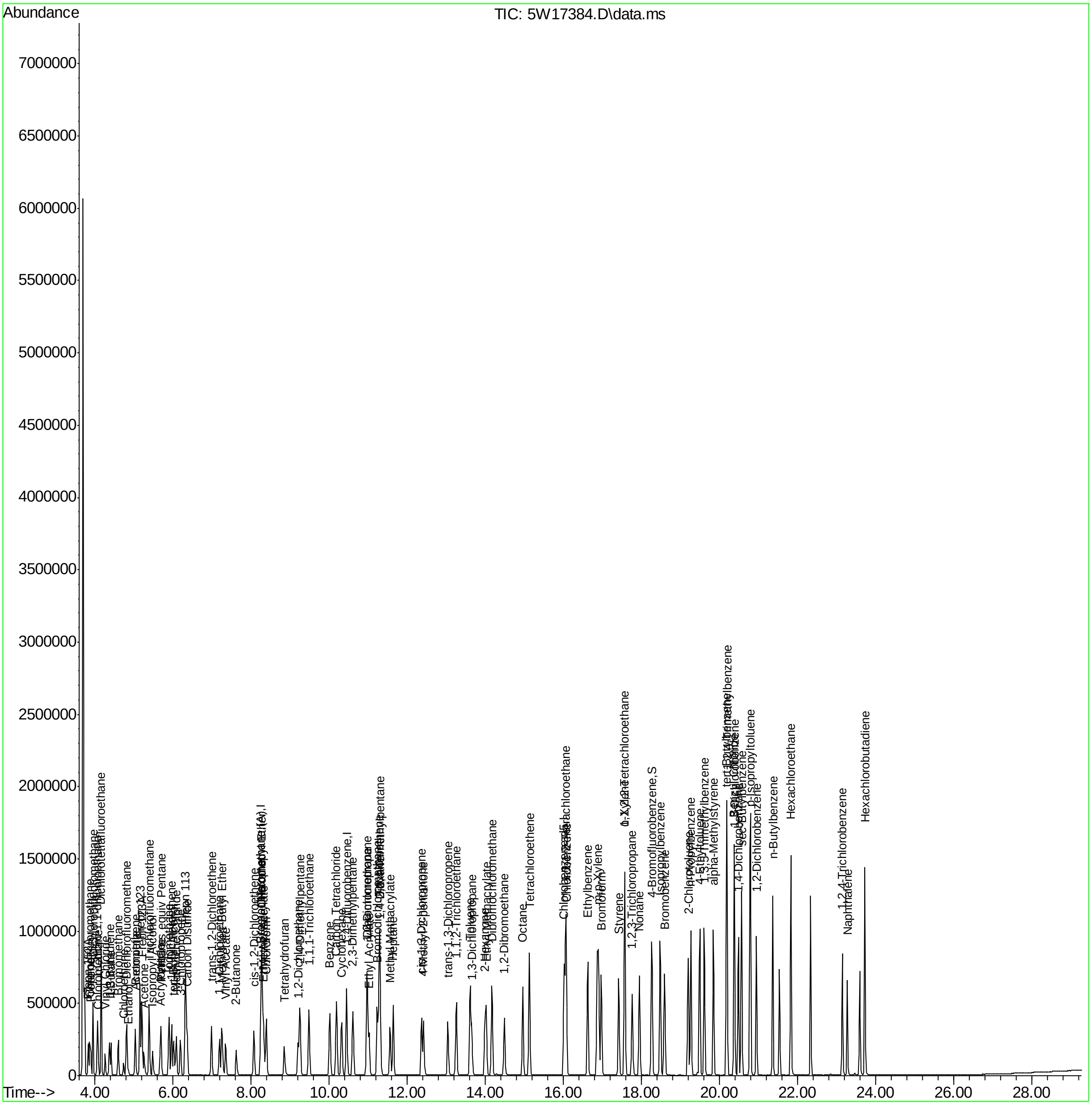
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.49
7

Quantitation Report   (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17384.D
Acq On    : 30 Mar 2016   4:52 am
Operator  : THOMASH
Sample    : ICV693-10
Misc      : MS99822,v5w693,,,,,1
ALS Vial  : 4   Sample Multiplier: 1

Quant Time: Mar 30 08:06:34 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/06/16 11:53

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:20:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                     R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane            8.395  130   154769    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene          10.531  114   552768    10.00 ppb(v    0.09
  76) Chlorobenzene-d5             16.012   82   309497    10.00 ppb(v    0.00
 107) Bromochloromethane (A)        8.395  130   154769    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene         18.245   95   432764    10.21 ppb(v   -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =  102.10%

 Target Compounds                                                  Qvalue
   2) 1,1,1-Trifluoroethane         3.991   69   415377    11.61 ppb(v     97
   3) Freon 152A                    4.082   65    79770m   10.17 ppb(v
   4) Chlorodifluoromethane         4.119   67    39694    10.41 ppb(v     98
   5) Propene                       4.144   41    90385    11.24 ppb(v     98
   6) Dichlorodifluoromethane       4.199   85   392664    11.11 ppb(v    100
   7) 1-Chloro-1,1-difluoroe...     4.315   65   315486    12.36 ppb(v     98
   8) Chloromethane                 4.333   50   130651    11.91 ppb(v     99
   9) Dichlorotetrafluoroethane     4.413   85   452649    12.29 ppb(v     97
  10) Vinyl Chloride                4.511   62   148719    12.58 ppb(v     98
  11) 1,3-Butadiene                 4.621   54   105404    11.18 ppb(v    100
  12) n-Butane                      4.658   58    23370    11.72 ppb(v     93
  13) Bromomethane                  4.847   94   171183    11.19 ppb(v     99
  14) Chloroethane                  4.982   64    74243    12.05 ppb(v     99
  15) Dichlorofluoromethane         5.055   67   373217    12.40 ppb(v     99
  16) Acetonitrile                  5.275   41   111769    12.67 ppb(v     98
  17) Freon 123                     5.392   83   440867    12.37 ppb(v     99
  18) Freon 123A                    5.441  117   253135    12.33 ppb(v     90
  19) Bromoethene                   5.275  106   176322    11.88 ppb(v     98
  20) Trichlorofluoromethane        5.624  101   460166    12.34 ppb(v    100
  21) Acetone                       5.483   58    69714    11.59 ppb(v     98
  22) Pentane                       5.918   57    31896    10.67 ppb(v     87
  23) 1,1-Dichloro-1-fluoroe...     5.722   81   361263    11.20 ppb(v     98
  24) Iodomethane                   6.120  142   430524     9.97 ppb(v     95
  25) Isopropyl Alcohol             5.698   43    55349    11.86 ppb(v     89
  26) 1,1-Dichloroethene            6.181   61   234792    11.46 ppb(v     94
  27) Freon 113                     6.523  101   334523    11.03 ppb(v     96
  28) Methylene Chloride            6.297   84   127941     9.82 ppb(v     93
  29) Carbon Disulfide              6.566   76   408236    10.76 ppb(v    100
  30) Ethanol                       5.092   45    56468    11.05 ppb(v     98
  31) Acrylonitrile                 5.887   53    92953     9.53 ppb(v     98
  32) 3-Chloropropene               6.401   76    62184    10.41 ppb(v     81
  33) trans-1,2-Dichloroethene      7.172   61   198062    11.05 ppb(v     96
  34) tert-Butyl Alcohol            6.224   59   324659    11.43 ppb(v     95
  35) Methyl tert-Butyl Ether       7.423   73   385892    10.15 ppb(v     96
  36) Vinyl Acetate                 7.521   43   358954    11.69 ppb(v     98
  37) 1,1-Dichloroethane            7.368   63   259973    10.93 ppb(v     99
  38) 2-Butanone                    7.771   72    63878    10.83 ppb(v     86
  39) Hexane                        8.414   57   212718    10.24 ppb(v     89
  40) cis-1,2-Dichloroethene        8.224   61   194716    11.10 ppb(v     96
```

7.7.50

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On : 5 Apr 2016 8:34 am
Operator : THOMASH
Sample : CC693-10
Misc : MS107,v5w698,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 11:20:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	125711	11.59 ppb(v	83
42) Ethyl Acetate	8.457	61	47636	11.66 ppb(v	78
43) Methyl Acrylate	8.450	55	274771	11.94 ppb(v	97
44) Chloroform	8.530	83	346793	11.00 ppb(v	98
45) 2,4-Dimethylpentane	9.368	57	245307	10.37 ppb(v	98
46) Tetrahydrofuran	8.970	72	64796	11.09 ppb(v	89
47) 1,1,1-Trichloroethane	9.595	97	344744	10.51 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	213024	11.78 ppb(v	99
49) Benzene	10.115	78	451059	10.59 ppb(v	98
50) Carbon Tetrachloride	10.280	117	364297	10.76 ppb(v	99
51) Cyclohexane	10.408	56	199584	10.09 ppb(v	95
52) 2,3-Dimethylpentane	10.690	71	92816	10.15 ppb(v	93
54) 2,2,4-Trimethylpentane	11.363	57	743075	12.08 ppb(v	98
55) Heptane	11.699	71	146896	11.16 ppb(v	97
56) Trichloroethene	11.350	95	243940	11.58 ppb(v	96
57) 1,2-Dichloropropane	11.057	63	173521	11.94 ppb(v	99
58) Dibromomethane	11.038	174	230885	10.55 ppb(v	92
59) Ethyl Acrylate	11.093	55	336424	12.46 ppb(v	99
60) Methyl Methacrylate	11.613	69	158995	10.67 ppb(v	90
61) 1,4-Dioxane	11.369	88	117227	11.71 ppb(v	91
62) Bromodichloromethane	11.301	83	391464	11.45 ppb(v	99
63) cis-1,3-Dichloropropene	12.409	75	293712	11.35 ppb(v	99
64) 4-Methyl-2-pentanone	12.458	58	138052	12.48 ppb(v	94
65) trans-1,3-Dichloropropene	13.075	75	254469	11.79 ppb(v	98
66) Toluene	13.638	91	579333	10.97 ppb(v	99
67) 1,1,2-Trichloroethane	13.283	97	211017	11.05 ppb(v	99
68) 1,3-Dichloropropane	13.675	76	280542	12.16 ppb(v	94
69) 2-Hexanone	14.005	58	199574	12.40 ppb(v	93
70) Ethyl Methacrylate	14.036	69	305201	12.30 ppb(v	97
71) Dibromochloromethane	14.189	129	447250	11.90 ppb(v	100
72) Tetrachloroethene	15.137	166	334833	11.12 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	348830	11.30 ppb(v	99
74) Octane	14.966	43	345621	12.19 ppb(v	95
75) 1,1,1,2-Tetrachloroethane	16.055	131	305992	11.87 ppb(v	97
77) Chlorobenzene	16.073	112	500459	9.65 ppb(v	97
78) Ethylbenzene	16.612	91	793775	9.79 ppb(v	100
79) m,p-Xylene	16.887	91	1256060	20.47 ppb(v	99
80) Styrene	17.407	104	468744	10.03 ppb(v	99
81) Nonane	17.933	43	359845	10.83 ppb(v	97
82) o-Xylene	17.560	91	658868	10.35 ppb(v	99
83) Bromoform	16.960	173	468767	10.21 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.554	83	538562	11.10 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	362385	10.57 ppb(v	99
86) Isopropylbenzene	18.459	105	915452	10.16 ppb(v	98
87) Bromobenzene	18.575	156	324920	9.89 ppb(v	96
88) 2-Chlorotoluene	19.175	126	233940	10.17 ppb(v	94
89) n-Propylbenzene	19.248	120	250183	10.69 ppb(v	97
91) 4-Ethyltoluene	19.468	105	866953	10.34 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	747577	10.15 ppb(v	99
93) alpha-Methylstyrene	19.823	118	383232	10.59 ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On : 5 Apr 2016 8:34 am
Operator : THOMASH
Sample : CC693-10
Misc : MS107,v5w698,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 05 11:20:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	171707	10.87	ppb(v	91
95)	1,2,4-Trimethylbenzene	20.172	105	799174	11.00	ppb(v	88
96)	1,3-Dichlorobenzene	20.362	146	530436	10.16	ppb(v	99
97)	Benzyl Chloride	20.349	91	666051	10.21	ppb(v	98
98)	1,4-Dichlorobenzene	20.460	146	517572	9.58	ppb(v	98
99)	sec-Butylbenzene	20.539	134	207659	10.57	ppb(v	94
100)	p-Isopropyltoluene	20.772	134	238358	10.96	ppb(v	97
101)	1,2-Dichlorobenzene	20.924	146	498120	10.07	ppb(v	99
102)	n-Butylbenzene	21.340	134	207147	10.82	ppb(v	92
103)	Hexachloroethane	21.805	201	326277	10.60	ppb(v	93
104)	1,2,4-Trichlorobenzene	23.127	180	250870	7.91	ppb(v	100
105)	Naphthalene	23.249	128	483568	7.20	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	295703	9.18	ppb(v	100
108)	TVHC as equiv Pentane	5.918	TIC	813636m	11.09	ppb(v	

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

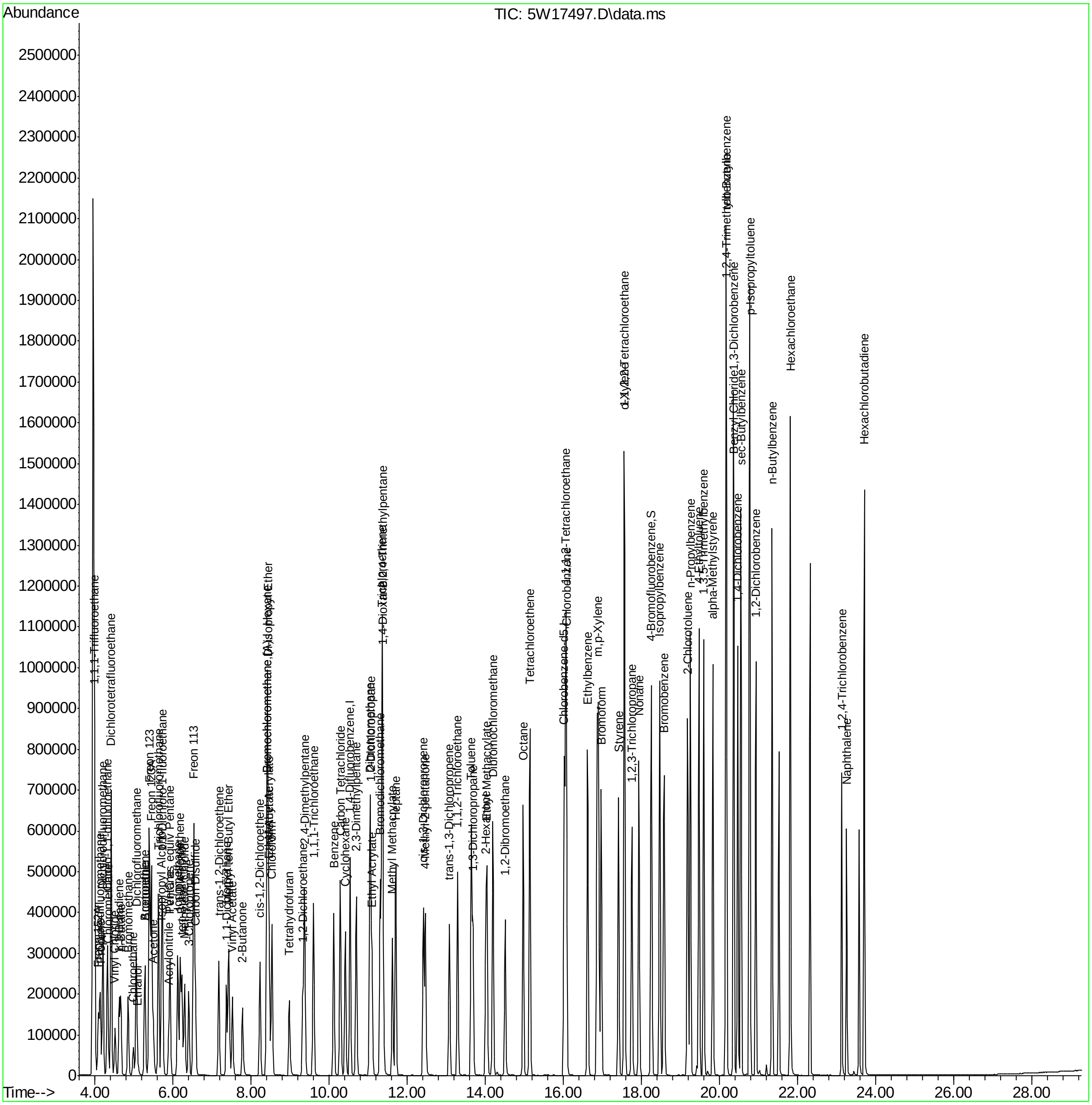
7.7.50

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:20:50 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```




```
m5w693.M Tue Apr 05 11:31:24 2016 GCMS5W                                Page: 4
```

Manual Integration Approval Summary

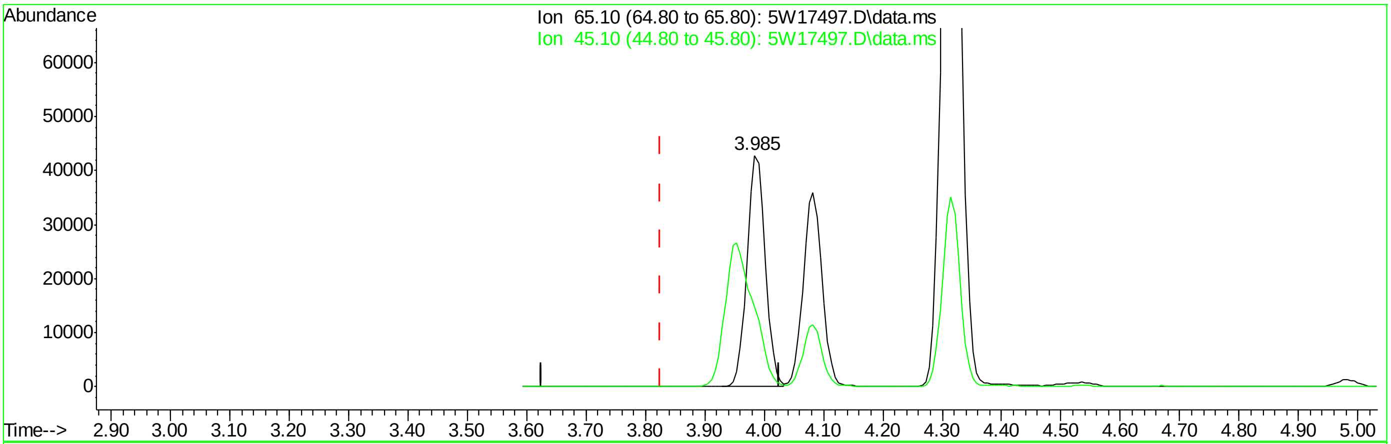
Sample Number:	V5W698-CC693	**Method:**	TO-15
Lab FileID:	5W17497.D	**Analyst approved:**	04/05/16 12:32 Thomas Hilbig
Injection Time:	04/05/16 08:34	**Supervisor approved:**	04/06/16 11:53 Kanya Veerawat

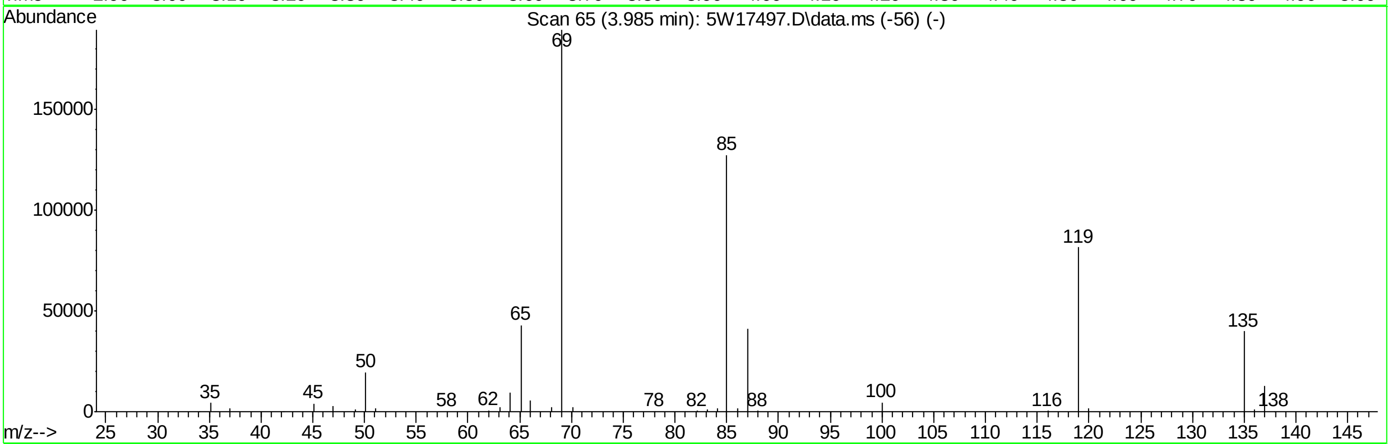
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:06:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17497.D\data.ms

(3) Freon 152A

3.985min (+0.159) 11.69ppb(v)

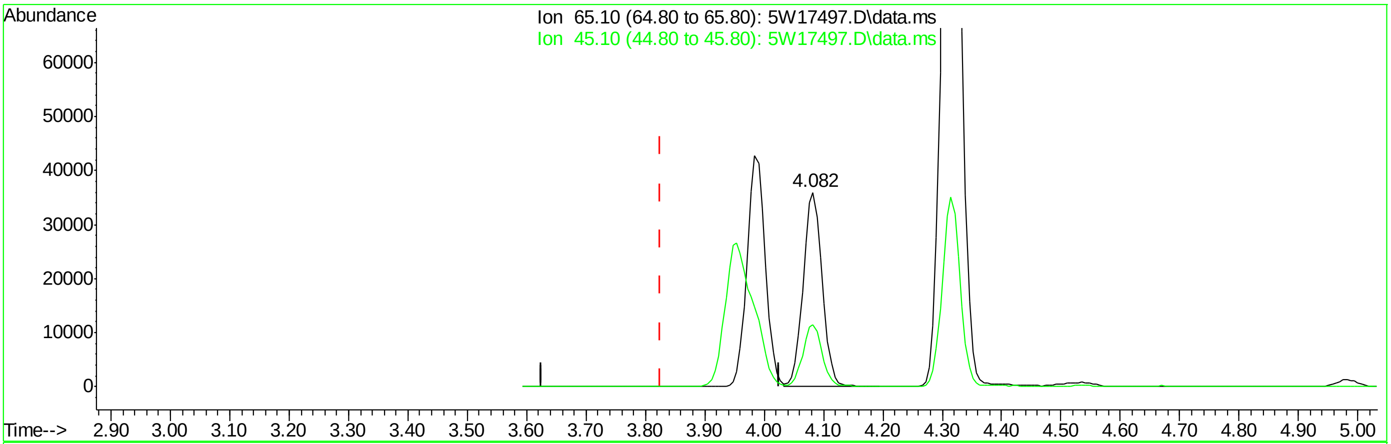
response 91633

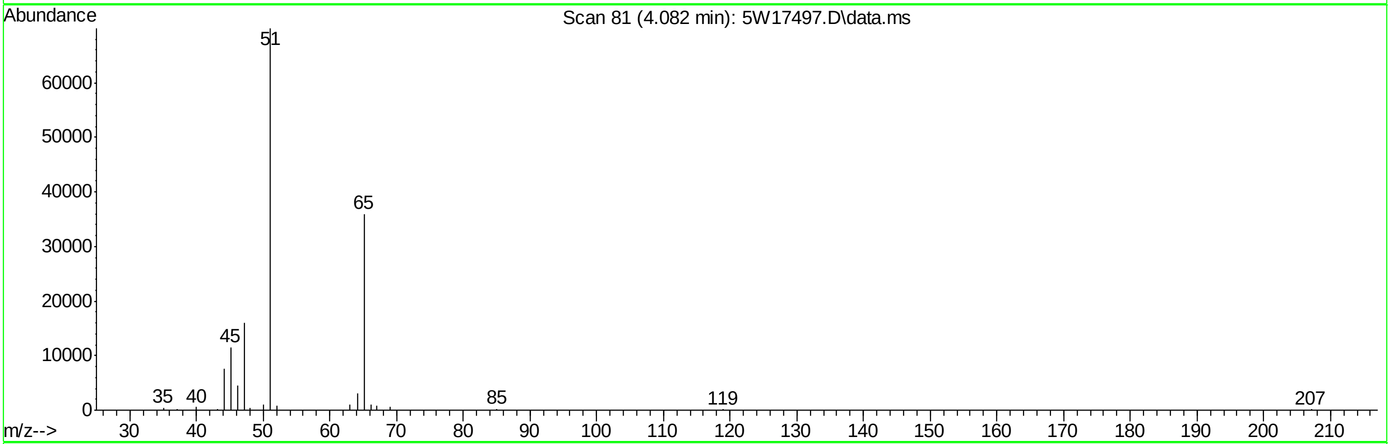
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	34.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:06:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17497.D\data.ms

(3) Freon 152A

4.082min (+0.257) 10.17ppb(v) m

response 79770

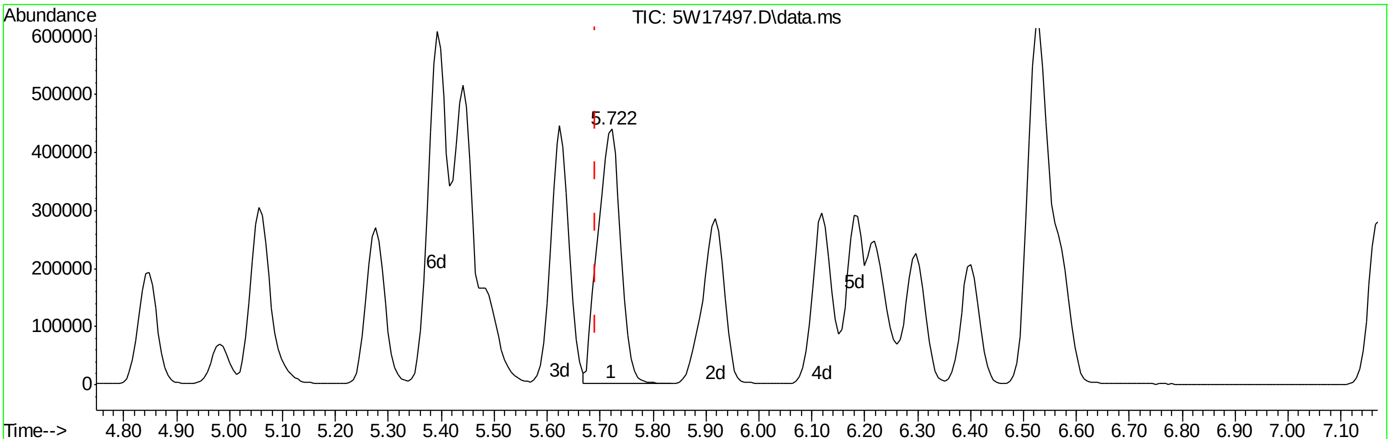
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	32.08
0.00	0.00	0.00
0.00	0.00	0.00

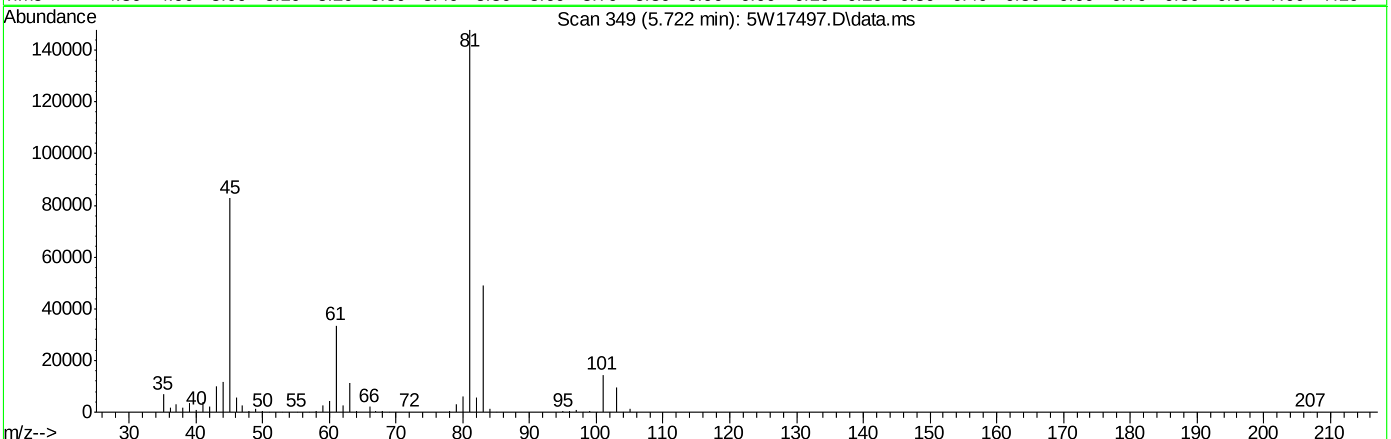
5W17497.D edits: Freon 152A

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:06:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17497.D\data.ms

(108) TVHC as equiv Pentane

5.722min (+0.031) 17.89ppb(v)

response 1311765

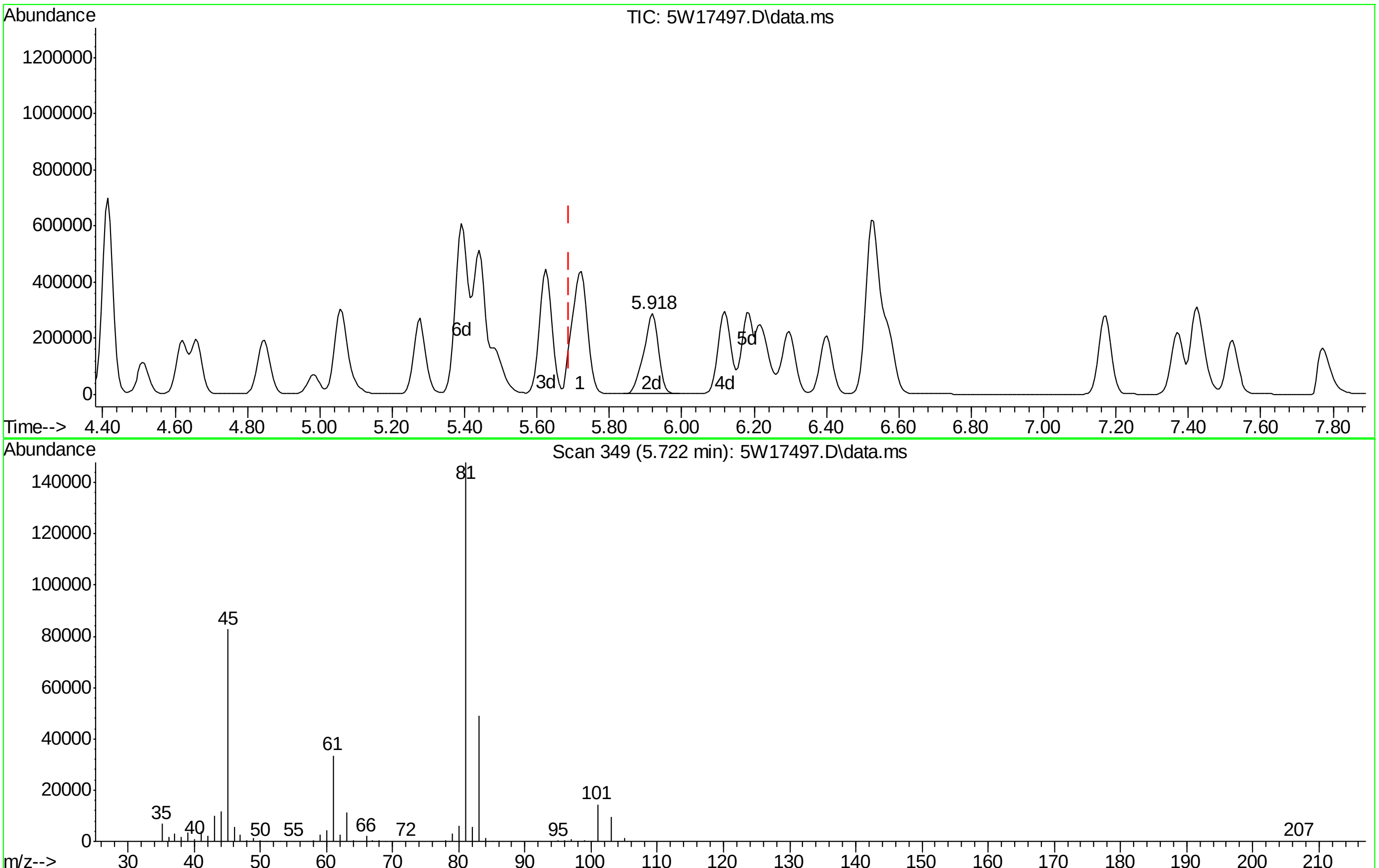
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W17497.D edits: TVHC as equiv Pentane

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17497.D
Acq On    :  5 Apr 2016   8:34 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w698,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 05 11:06:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17497.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 11.09ppb(v) m

response 813636

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/07/16 13:17

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:19:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                          R.T.  QIon  Response  Conc Units Dev(Min)
-----------------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane                 8.395   130    182557    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene               10.530   114    685881    10.00 ppb(v    0.09
  76) Chlorobenzene-d5                  16.012    82    357334    10.00 ppb(v    0.00
 107) Bromochloromethane (A)             8.395   130    182557    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene              18.245    95    484866     9.91 ppb(v   -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery    =    99.10%

 Target Compounds                                                          Qvalue
   2) 1,1,1-Trifluoroethane              3.984    69    486189    11.52 ppb(v     97
   3) Freon 152A                         4.082    65    101804m   11.01 ppb(v
   4) Chlorodifluoromethane              4.119    67     41562     9.24 ppb(v     96
   5) Propene                            4.137    41    108415    11.43 ppb(v     98
   6) Dichlorodifluoromethane            4.198    85    444085    10.65 ppb(v     99
   7) 1-Chloro-1,1-difluoroe...          4.315    65    322768    10.72 ppb(v     99
   8) Chloromethane                      4.333    50    144940    11.20 ppb(v    100
   9) Dichlorotetrafluoroethane          4.413    85    487808    11.23 ppb(v     98
  10) Vinyl Chloride                     4.510    62    167668    12.02 ppb(v     98
  11) 1,3-Butadiene                      4.621    54    117817    10.59 ppb(v     96
  12) n-Butane                           4.657    58     25755    10.95 ppb(v     97
  13) Bromomethane                       4.847    94    186397    10.33 ppb(v     98
  14) Chloroethane                       4.982    64     84314    11.60 ppb(v     99
  15) Dichlorofluoromethane              5.055    67    391056    11.01 ppb(v    100
  16) Acetonitrile                       5.275    41    119537    11.49 ppb(v     97
  17) Freon 123                          5.391    83    466827    11.10 ppb(v     99
  18) Freon 123A                         5.440   117    269438    11.12 ppb(v     92
  19) Bromoethene                        5.275   106    190854    10.91 ppb(v     99
  20) Trichlorofluoromethane             5.624   101    473086    10.76 ppb(v     99
  21) Acetone                            5.483    58     76490    10.78 ppb(v     91
  22) Pentane                            5.918    57     40124    11.38 ppb(v     98
  23) 1,1-Dichloro-1-fluoroe...          5.722    81    391884    10.30 ppb(v     99
  24) Iodomethane                        6.119   142    536324    10.53 ppb(v    100
  25) Isopropyl Alcohol                  5.697    43     55474    10.07 ppb(v     98
  26) 1,1-Dichloroethene                 6.181    61    276998    11.46 ppb(v     98
  27) Freon 113                          6.523   101    407528    11.39 ppb(v     98
  28) Methylene Chloride                 6.297    84    163158    10.62 ppb(v     97
  29) Carbon Disulfide                   6.566    76    517519    11.57 ppb(v    100
  30) Ethanol                            5.086    45     63700    10.56 ppb(v     98
  31) Acrylonitrile                      5.887    53    118024    10.26 ppb(v     98
  32) 3-Chloropropene                    6.401    76     80435    11.41 ppb(v     96
  33) trans-1,2-Dichloroethene           7.166    61    241502    11.42 ppb(v     97
  34) tert-Butyl Alcohol                 6.223    59    390320    11.65 ppb(v     99
  35) Methyl tert-Butyl Ether            7.423    73    476255    10.62 ppb(v     98
  36) Vinyl Acetate                      7.514    43    423017    11.68 ppb(v    100
  37) 1,1-Dichloroethane                 7.367    63    323861    11.54 ppb(v     99
  38) 2-Butanone                         7.771    72     82447    11.85 ppb(v     99
  39) Hexane                             8.414    57    250899    10.24 ppb(v     95
  40) cis-1,2-Dichloroethene             8.224    61    236471    11.43 ppb(v     99
```

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On : 6 Apr 2016 11:11 am
Operator : THOMASH
Sample : CC693-10
Misc : MS107,v5w699,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 06 13:19:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	148804	11.63 ppb(v	92
42) Ethyl Acetate	8.456	61	58894	12.22 ppb(v	96
43) Methyl Acrylate	8.450	55	323597	11.92 ppb(v	98
44) Chloroform	8.530	83	400576	10.77 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	300357	10.76 ppb(v	99
46) Tetrahydrofuran	8.970	72	83607	12.13 ppb(v	98
47) 1,1,1-Trichloroethane	9.594	97	393291	10.16 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	232736	10.91 ppb(v	99
49) Benzene	10.114	78	559985	11.15 ppb(v	100
50) Carbon Tetrachloride	10.279	117	416629	10.43 ppb(v	99
51) Cyclohexane	10.408	56	251063	10.76 ppb(v	96
52) 2,3-Dimethylpentane	10.689	71	115343	10.70 ppb(v	96
54) 2,2,4-Trimethylpentane	11.362	57	852310	11.16 ppb(v	99
55) Heptane	11.699	71	174536	10.68 ppb(v	98
56) Trichloroethene	11.344	95	275035	10.52 ppb(v	96
57) 1,2-Dichloropropane	11.056	63	209235	11.61 ppb(v	97
58) Dibromomethane	11.038	174	272375	10.03 ppb(v	98
59) Ethyl Acrylate	11.093	55	401397	11.98 ppb(v	99
60) Methyl Methacrylate	11.613	69	192376	10.41 ppb(v	97
61) 1,4-Dioxane	11.368	88	136701	11.01 ppb(v	97
62) Bromodichloromethane	11.301	83	447921	10.56 ppb(v	100
63) cis-1,3-Dichloropropene	12.408	75	355059	11.06 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	164055	11.95 ppb(v	98
65) trans-1,3-Dichloropropene	13.075	75	299555	11.19 ppb(v	99
66) Toluene	13.638	91	692690	10.57 ppb(v	100
67) 1,1,2-Trichloroethane	13.283	97	255331	10.78 ppb(v	98
68) 1,3-Dichloropropane	13.675	76	330902	11.56 ppb(v	99
69) 2-Hexanone	14.005	58	230335	11.54 ppb(v	99
70) Ethyl Methacrylate	14.036	69	341285	11.09 ppb(v	98
71) Dibromochloromethane	14.189	129	488571	10.48 ppb(v	100
72) Tetrachloroethene	15.137	166	384379	10.29 ppb(v	99
73) 1,2-Dibromoethane	14.501	107	413217	10.79 ppb(v	99
74) Octane	14.966	43	382617	10.88 ppb(v	98
75) 1,1,1,2-Tetrachloroethane	16.055	131	335466	10.48 ppb(v	98
77) Chlorobenzene	16.073	112	571867	9.55 ppb(v	99
78) Ethylbenzene	16.611	91	903847	9.66 ppb(v	100
79) m,p-Xylene	16.887	91	1372595	19.38 ppb(v	99
80) Styrene	17.407	104	531730	9.85 ppb(v	100
81) Nonane	17.933	43	386893	10.08 ppb(v	100
82) o-Xylene	17.553	91	702827	9.56 ppb(v	99
83) Bromoform	16.960	173	509309	9.61 ppb(v	99
84) 1,1,2,2-Tetrachloroethane	17.553	83	577558	10.31 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	401555	10.15 ppb(v	98
86) Isopropylbenzene	18.459	105	1005195	9.67 ppb(v	99
87) Bromobenzene	18.575	156	355170	9.36 ppb(v	96
88) 2-Chlorotoluene	19.175	126	259225	9.76 ppb(v	96
89) n-Propylbenzene	19.248	120	268852	9.95 ppb(v	96
91) 4-Ethyltoluene	19.468	105	938179	9.69 ppb(v	99
92) 1,3,5-Trimethylbenzene	19.591	105	797810	9.38 ppb(v	100
93) alpha-Methylstyrene	19.823	118	414103	9.91 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On : 6 Apr 2016 11:11 am
Operator : THOMASH
Sample : CC693-10
Misc : MS107,v5w699,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 06 13:19:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

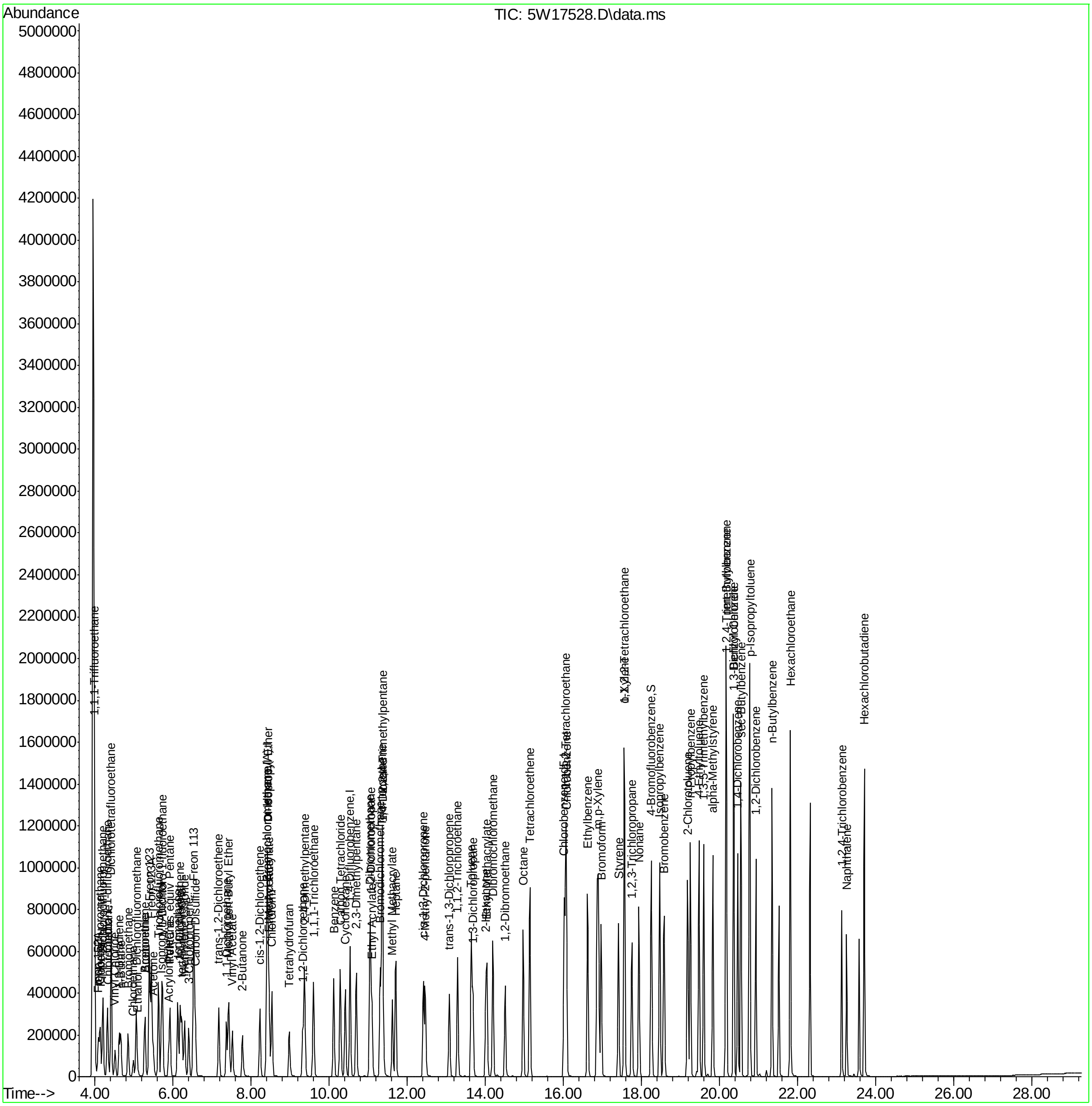
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	178001	9.76	ppb(v	96
95)	1,2,4-Trimethylbenzene	20.172	105	816140	9.73	ppb(v	86
96)	1,3-Dichlorobenzene	20.361	146	554530	9.20	ppb(v	99
97)	Benzyl Chloride	20.355	91	693134	9.21	ppb(v	100
98)	1,4-Dichlorobenzene	20.459	146	551831	8.85	ppb(v	99
99)	sec-Butylbenzene	20.539	134	221748	9.77	ppb(v	99
100)	p-Isopropyltoluene	20.771	134	249934	9.95	ppb(v	98
101)	1,2-Dichlorobenzene	20.924	146	530468	9.29	ppb(v	99
102)	n-Butylbenzene	21.340	134	221499	10.02	ppb(v	92
103)	Hexachloroethane	21.805	201	350605	9.86	ppb(v	95
104)	1,2,4-Trichlorobenzene	23.127	180	280658	7.66	ppb(v	99
105)	Naphthalene	23.249	128	561174	7.24	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	322396	8.67	ppb(v	99
108)	TVHC as equiv Pentane	5.918	TIC	973876m	11.26	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:19:18 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

Manual Integration Approval Summary

Sample Number:	V5W699-CC693	**Method:**	TO-15
Lab FileID:	5W17528.D	**Analyst approved:**	04/06/16 15:00 Thomas Hilbig
Injection Time:	04/06/16 11:11	**Supervisor approved:**	04/07/16 13:17 Kanya Veerawat

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:17:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
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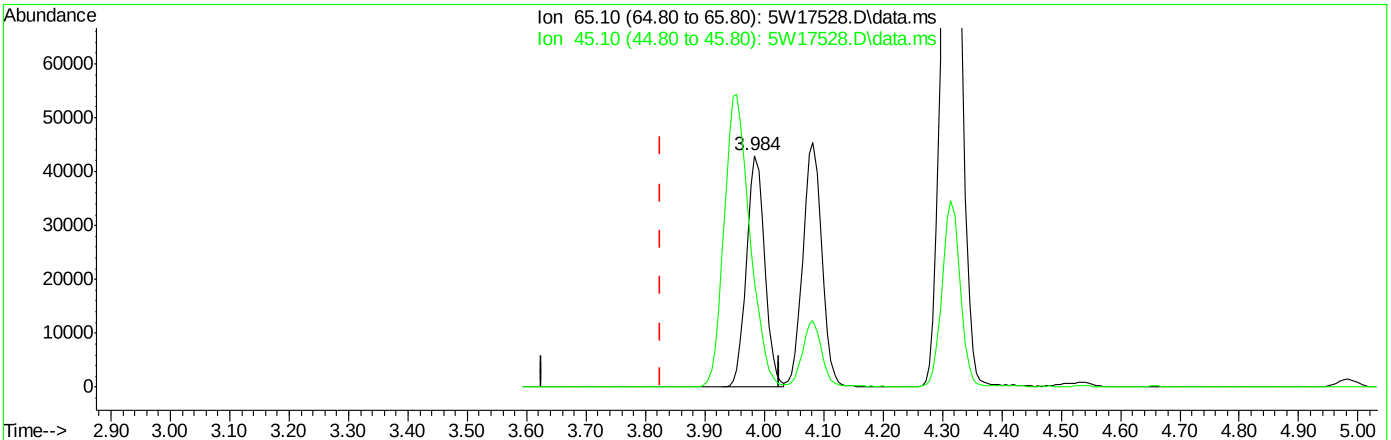
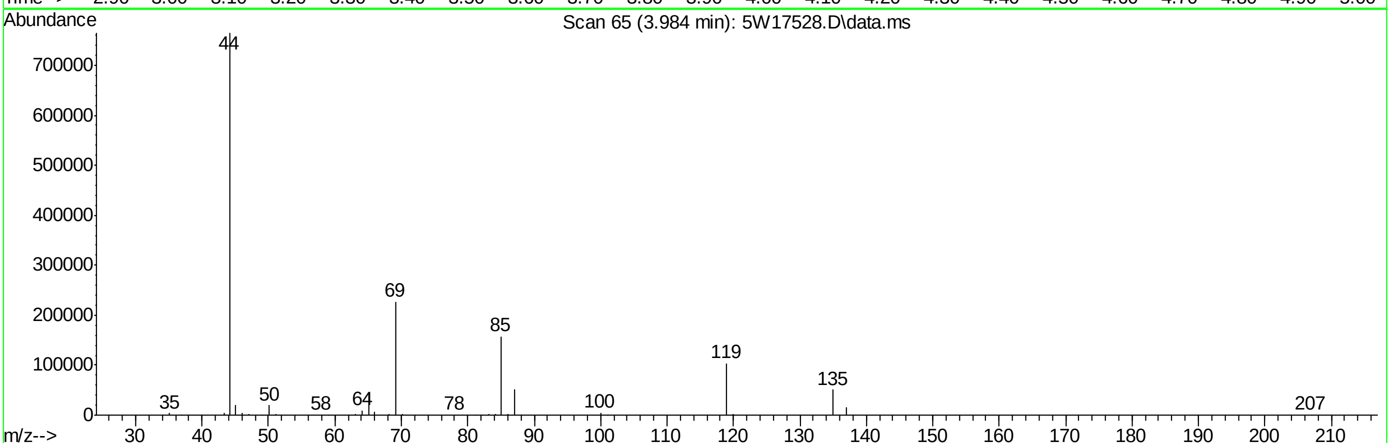




TIC: 5W17528.D\data.ms

(3) Freon 152A

3.984min (+0.159) 9.93ppb(v)

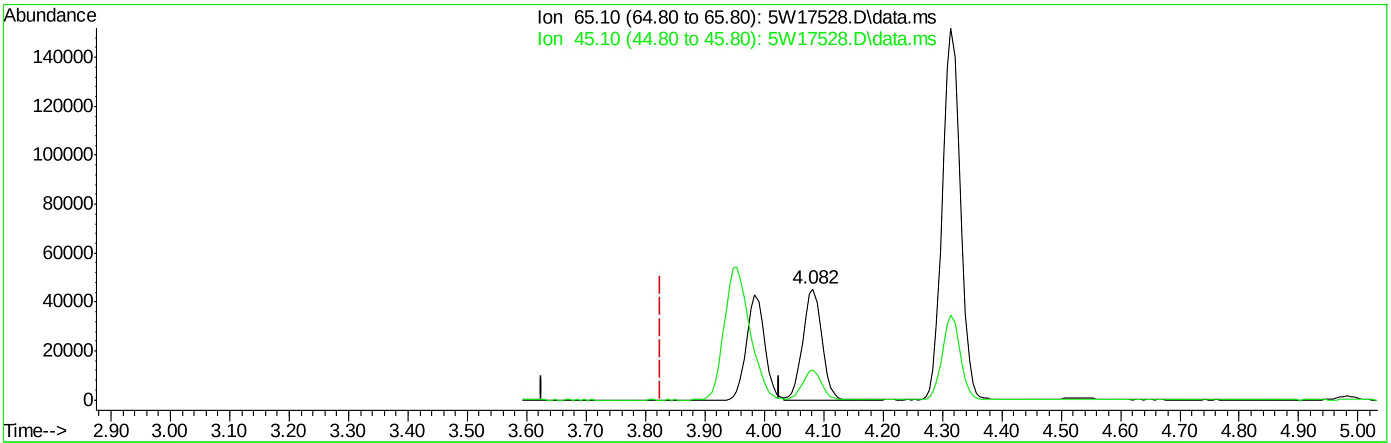
response 91816

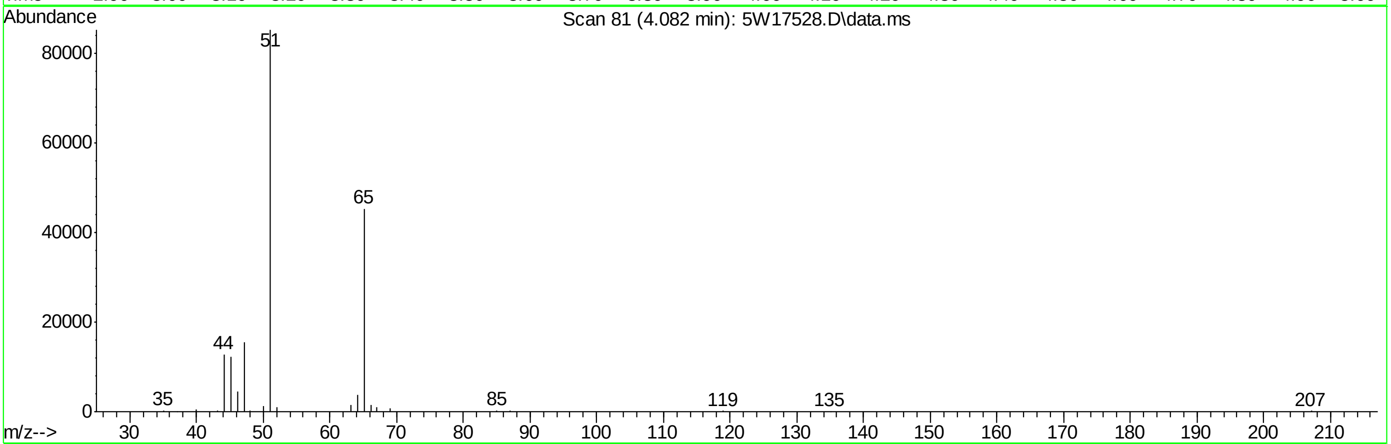
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	45.05#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:17:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17528.D\data.ms

(3) Freon 152A

4.082min (+0.257) 11.01ppb(v) m

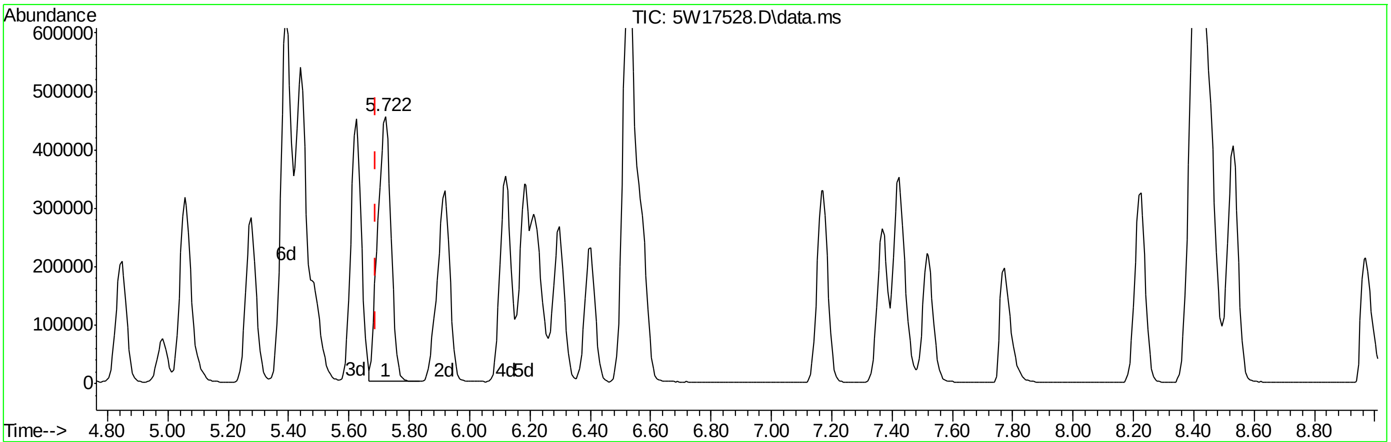
response 101804

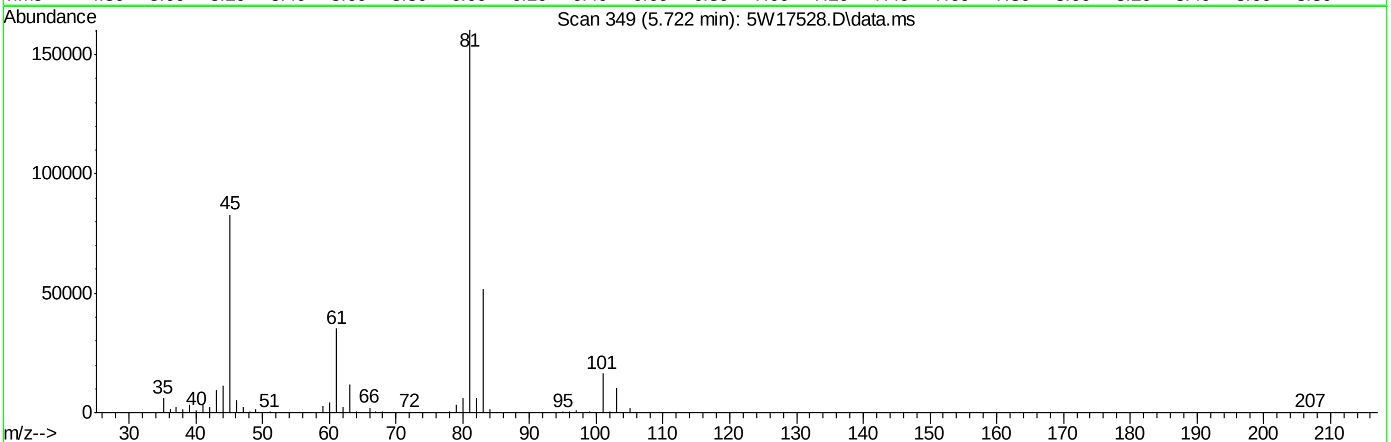
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	27.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:17:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17528.D\data.ms

(108) TVHC as equiv Pentane

5.722min (+0.031) 15.99ppb(v)

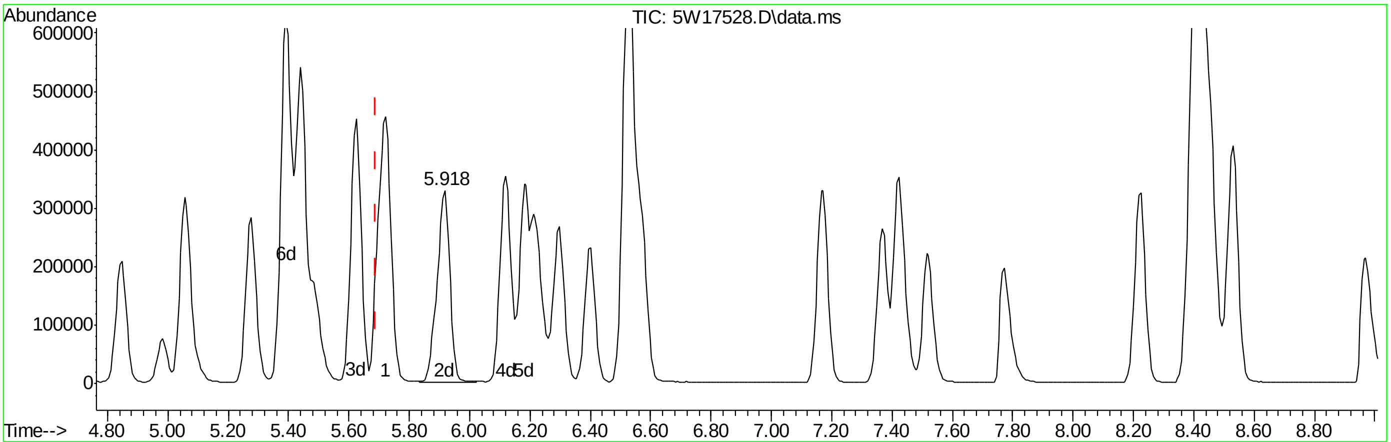
response 1383672

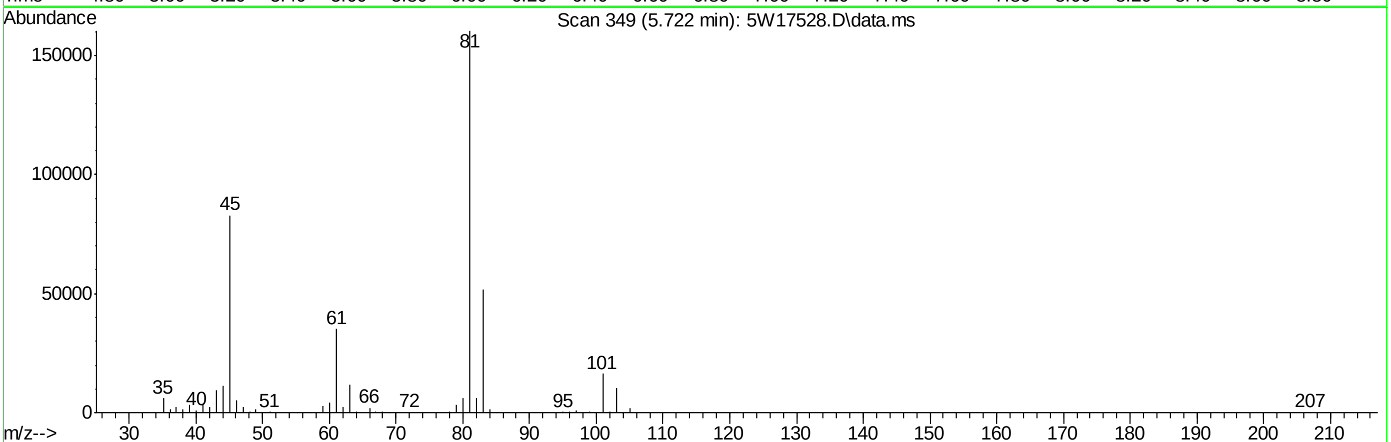
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17528.D
Acq On    :  6 Apr 2016  11:11 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS107,v5w699,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 06 13:17:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17528.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 11.26ppb(v) m

response 973876

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W17528.D edits: TVHC as equiv Pentane

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
04/08/16 17:11

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 16:07:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

        Compound                    R.T. QIon  Response  Conc Units Dev(Min)
 ---------------------------------------------------------------------------
 Internal Standards
   1) Bromochloromethane           8.395  130    194794    10.00 ppb(v    0.15
  53) 1,4-Difluorobenzene         10.530  114    718497    10.00 ppb(v    0.09
  76) Chlorobenzene-d5            16.012   82    374467    10.00 ppb(v    0.00
 107) Bromochloromethane (A)       8.395  130    194794    10.00 ppb(v    0.15

 System Monitoring Compounds
  90) 4-Bromofluorobenzene        18.245   95    503881     9.83 ppb(v   -0.01
   Spiked Amount     10.000   Range  65 - 128    Recovery   =   98.30%

 Target Compounds                                                   Qvalue
   2) 1,1,1-Trifluoroethane        3.984   69    512536    11.38 ppb(v     97
   3) Freon 152A                   4.076   65    107290m   10.87 ppb(v
   4) Chlorodifluoromethane        4.113   67     44326     9.24 ppb(v     97
   5) Propene                      4.137   41    117541    11.62 ppb(v     98
   6) Dichlorodifluoromethane      4.198   85    468296    10.53 ppb(v     99
   7) 1-Chloro-1,1-difluoroe...    4.315   65    337638    10.51 ppb(v     99
   8) Chloromethane                4.333   50    155058    11.23 ppb(v    100
   9) Dichlorotetrafluoroethane    4.413   85    512726    11.06 ppb(v     98
  10) Vinyl Chloride               4.510   62    177158    11.91 ppb(v    100
  11) 1,3-Butadiene                4.621   54    126533    10.66 ppb(v     97
  12) n-Butane                     4.657   58     27532    10.97 ppb(v     95
  13) Bromomethane                 4.841   94    194397    10.09 ppb(v     98
  14) Chloroethane                 4.982   64     86111    11.11 ppb(v     98
  15) Dichlorofluoromethane        5.055   67    411129    10.85 ppb(v    100
  16) Acetonitrile                 5.275   41    129079    11.63 ppb(v     97
  17) Freon 123                    5.391   83    489566    10.91 ppb(v     99
  18) Freon 123A                   5.440  117    278761    10.79 ppb(v     89
  19) Bromoethene                  5.275  106    197453    10.57 ppb(v    100
  20) Trichlorofluoromethane       5.624  101    493791    10.52 ppb(v     99
  21) Acetone                      5.483   58     81369    10.75 ppb(v     95
  22) Pentane                      5.918   57     42907    11.41 ppb(v     98
  23) 1,1-Dichloro-1-fluoroe...    5.722   81    411956    10.14 ppb(v     99
  24) Iodomethane                  6.119  142    562043    10.34 ppb(v    100
  25) Isopropyl Alcohol            5.691   43     60569    10.31 ppb(v     89
  26) 1,1-Dichloroethene           6.181   61    297114    11.52 ppb(v     97
  27) Freon 113                    6.523  101    428958    11.24 ppb(v     97
  28) Methylene Chloride           6.297   84    173314    10.57 ppb(v     96
  29) Carbon Disulfide             6.566   76    552374    11.57 ppb(v     99
  30) Ethanol                      5.086   45     77514    12.05 ppb(v     99
  31) Acrylonitrile                5.887   53    125597    10.23 ppb(v    100
  32) 3-Chloropropene              6.401   76     85902    11.42 ppb(v     96
  33) trans-1,2-Dichloroethene     7.166   61    257141    11.40 ppb(v     96
  34) tert-Butyl Alcohol           6.217   59    416005    11.63 ppb(v     98
  35) Methyl tert-Butyl Ether      7.422   73    495658    10.36 ppb(v     98
  36) Vinyl Acetate                7.514   43    453623    11.74 ppb(v     98
  37) 1,1-Dichloroethane           7.367   63    341936    11.42 ppb(v     99
  38) 2-Butanone                   7.771   72     87608    11.80 ppb(v     95
  39) Hexane                       8.414   57    269327    10.30 ppb(v     95
  40) cis-1,2-Dichloroethene       8.224   61    249744    11.31 ppb(v     99
```

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On : 7 Apr 2016 8:40 am
Operator : THOMASH
Sample : CC693-10
Misc : MS514,v5w700,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 16:07:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	158305	11.60 ppb(v	88
42) Ethyl Acetate	8.462	61	62484	12.15 ppb(v	96
43) Methyl Acrylate	8.450	55	346627	11.97 ppb(v	98
44) Chloroform	8.530	83	423521	10.67 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	318322	10.69 ppb(v	98
46) Tetrahydrofuran	8.970	72	86754	11.80 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	417587	10.11 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	247979	10.90 ppb(v	100
49) Benzene	10.114	78	590863	11.02 ppb(v	100
50) Carbon Tetrachloride	10.279	117	436618	10.24 ppb(v	100
51) Cyclohexane	10.408	56	263743	10.60 ppb(v	95
52) 2,3-Dimethylpentane	10.689	71	121362	10.55 ppb(v	98
54) 2,2,4-Trimethylpentane	11.368	57	901080	11.27 ppb(v	99
55) Heptane	11.699	71	184591	10.78 ppb(v	98
56) Trichloroethene	11.350	95	287767	10.51 ppb(v	96
57) 1,2-Dichloropropane	11.056	63	221725	11.74 ppb(v	97
58) Dibromomethane	11.038	174	284695	10.01 ppb(v	95
59) Ethyl Acrylate	11.093	55	422245	12.03 ppb(v	99
60) Methyl Methacrylate	11.613	69	202480	10.46 ppb(v	97
61) 1,4-Dioxane	11.368	88	142092	10.92 ppb(v	94
62) Bromodichloromethane	11.301	83	470123	10.58 ppb(v	99
63) cis-1,3-Dichloropropene	12.408	75	373223	11.10 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	174110	12.11 ppb(v	97
65) trans-1,3-Dichloropropene	13.075	75	314013	11.20 ppb(v	99
66) Toluene	13.638	91	725053	10.56 ppb(v	99
67) 1,1,2-Trichloroethane	13.283	97	268130	10.80 ppb(v	98
68) 1,3-Dichloropropane	13.675	76	347136	11.58 ppb(v	99
69) 2-Hexanone	14.005	58	245622	11.74 ppb(v	99
70) Ethyl Methacrylate	14.036	69	360083	11.17 ppb(v	96
71) Dibromochloromethane	14.189	129	512587	10.50 ppb(v	100
72) Tetrachloroethene	15.137	166	398963	10.20 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	430980	10.74 ppb(v	99
74) Octane	14.966	43	416417	11.30 ppb(v	97
75) 1,1,1,2-Tetrachloroethane	16.055	131	349862	10.44 ppb(v	99
77) Chlorobenzene	16.073	112	596869	9.52 ppb(v	98
78) Ethylbenzene	16.617	91	945240	9.64 ppb(v	100
79) m,p-Xylene	16.887	91	1430302	19.27 ppb(v	100
80) Styrene	17.407	104	556045	9.83 ppb(v	99
81) Nonane	17.933	43	421765	10.49 ppb(v	98
82) o-Xylene	17.560	91	741069	9.62 ppb(v	100
83) Bromoform	16.960	173	521757	9.39 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	612631	10.44 ppb(v	99
85) 1,2,3-Trichloropropane	17.749	75	423729	10.22 ppb(v	98
86) Isopropylbenzene	18.459	105	1052877	9.66 ppb(v	99
87) Bromobenzene	18.575	156	370401	9.31 ppb(v	96
88) 2-Chlorotoluene	19.175	126	272588	9.79 ppb(v	97
89) n-Propylbenzene	19.248	120	283991	10.03 ppb(v	96
91) 4-Ethyltoluene	19.468	105	984320	9.70 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	834868	9.37 ppb(v	100
93) alpha-Methylstyrene	19.823	118	433932	9.91 ppb(v	100

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 16:07:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	187272	9.80	ppb(v	94
95)	1,2,4-Trimethylbenzene	20.172	105	862096	9.80	ppb(v	89
96)	1,3-Dichlorobenzene	20.361	146	585845	9.27	ppb(v	99
97)	Benzyl Chloride	20.355	91	730233	9.25	ppb(v	100
98)	1,4-Dichlorobenzene	20.459	146	576598	8.82	ppb(v	98
99)	sec-Butylbenzene	20.539	134	231224	9.72	ppb(v	93
100)	p-Isopropyltoluene	20.771	134	260065	9.88	ppb(v	98
101)	1,2-Dichlorobenzene	20.924	146	553192	9.25	ppb(v	99
102)	n-Butylbenzene	21.340	134	231714	10.00	ppb(v	89
103)	Hexachloroethane	21.805	201	361296	9.70	ppb(v	93
104)	1,2,4-Trichlorobenzene	23.127	180	271945	7.08	ppb(v	99
105)	Naphthalene	23.249	128	541454	6.67	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	321931	8.26	ppb(v	100
108)	TVHC as equiv Pentane	5.918	TIC	1045239m	11.32	ppb(v	

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

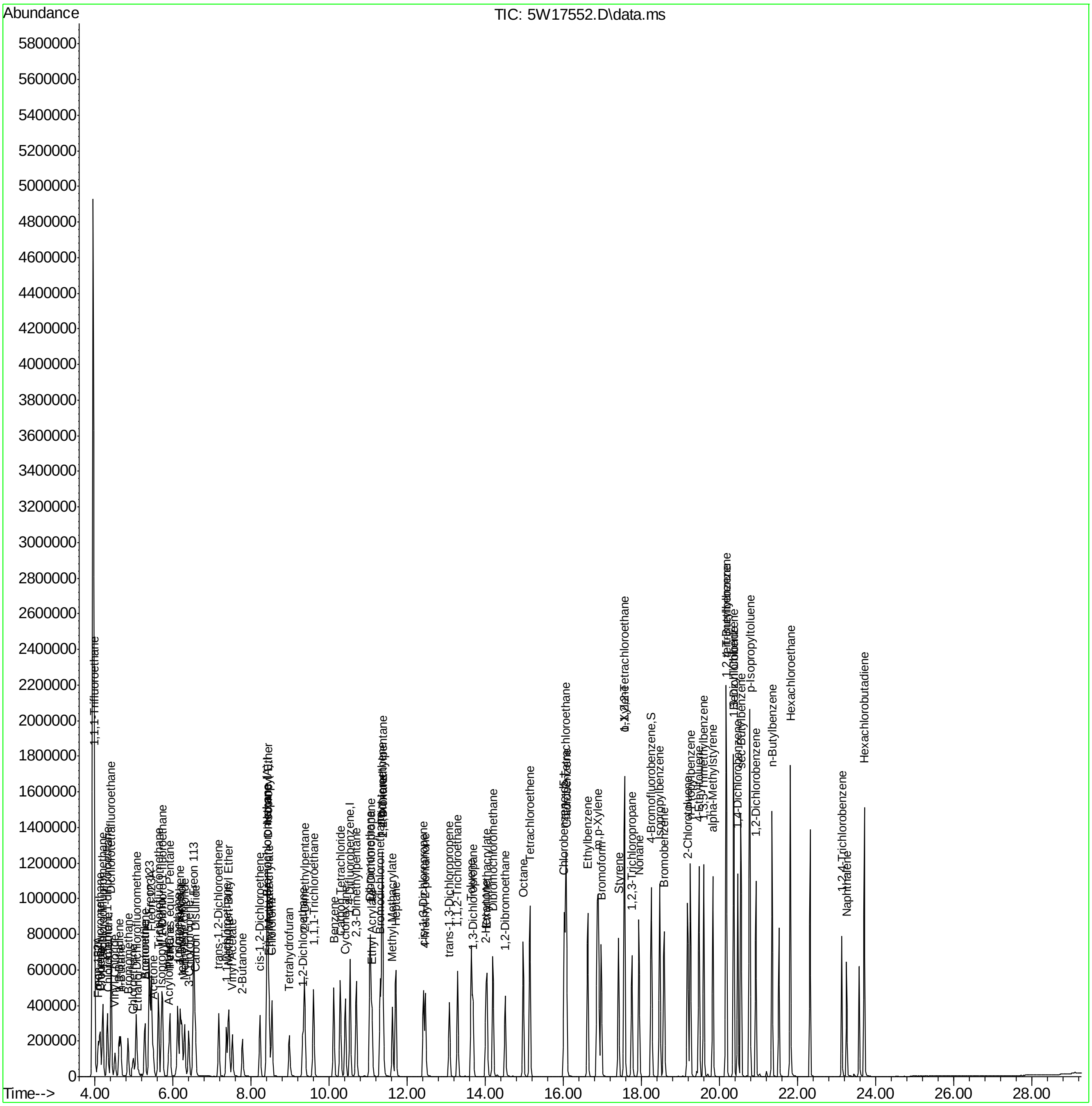
7.7.52

7

Quantitation Report   (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 16:07:01 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

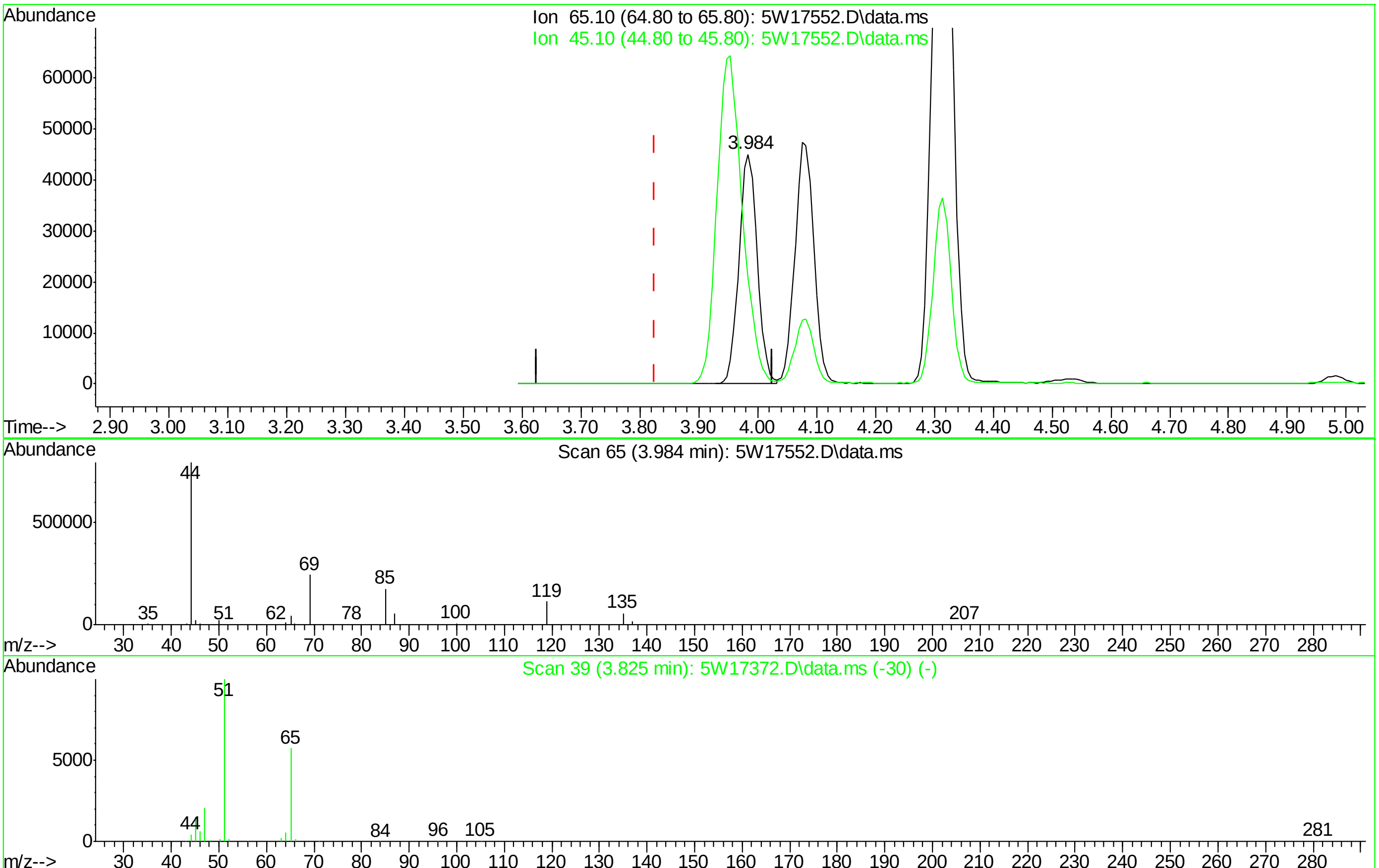
Sample Number:	V5W700-CC693	**Method:**	TO-15	
Lab FileID:	5W17552.D	**Analyst approved:**	04/08/16 17:08	Dana Tryon
Injection Time:	04/07/16 08:40	**Supervisor approved:**	04/08/16 17:11	Dana Tryon

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 07 11:30:56 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17552.D\data.ms

(3) Freon 152A

3.984min (+0.159) 9.87ppb(v)

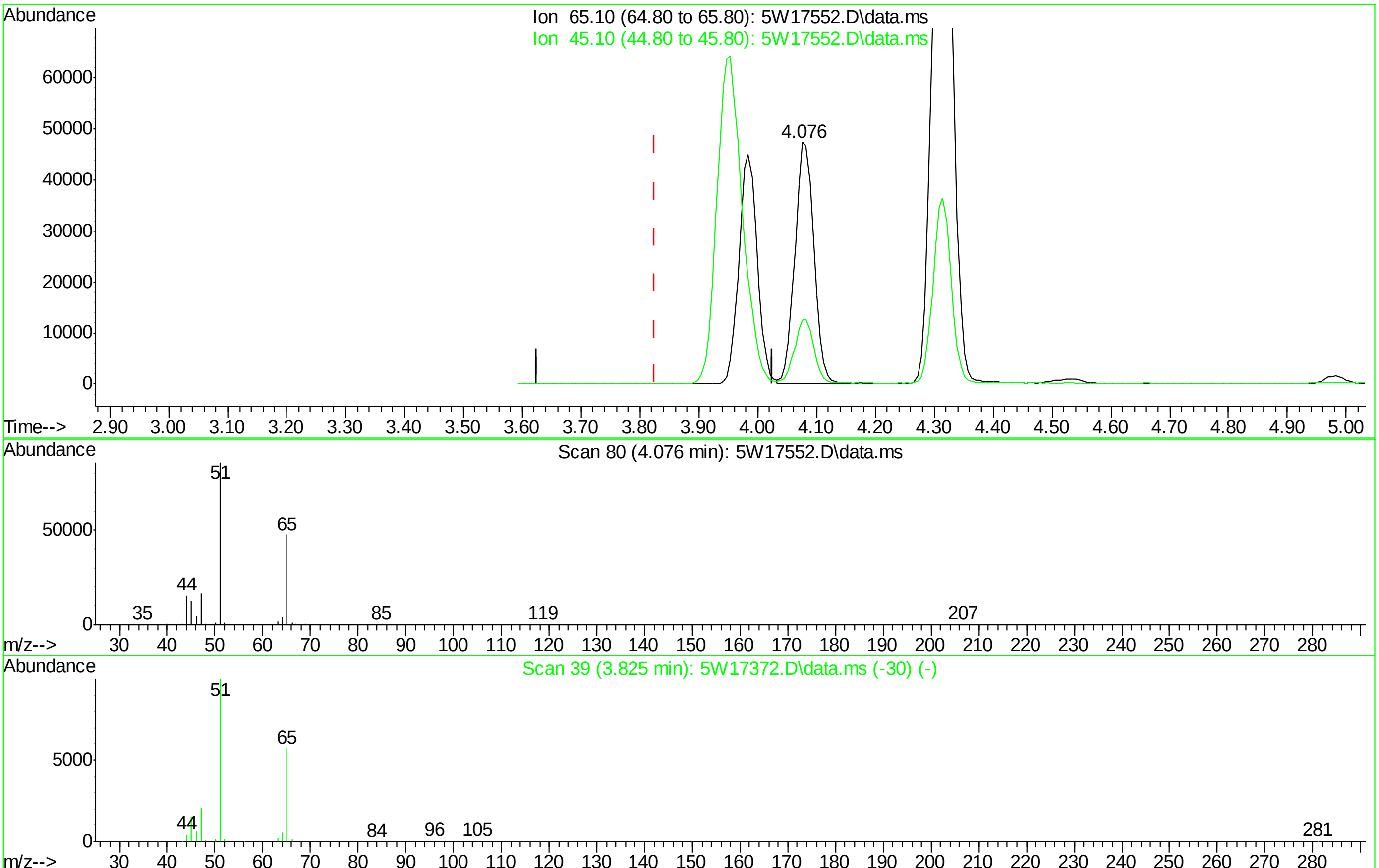
response 97416

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	45.95#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 07 11:30:56 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17552.D\data.ms

(3) Freon 152A

4.076min (+0.251) 10.87ppb(v) m

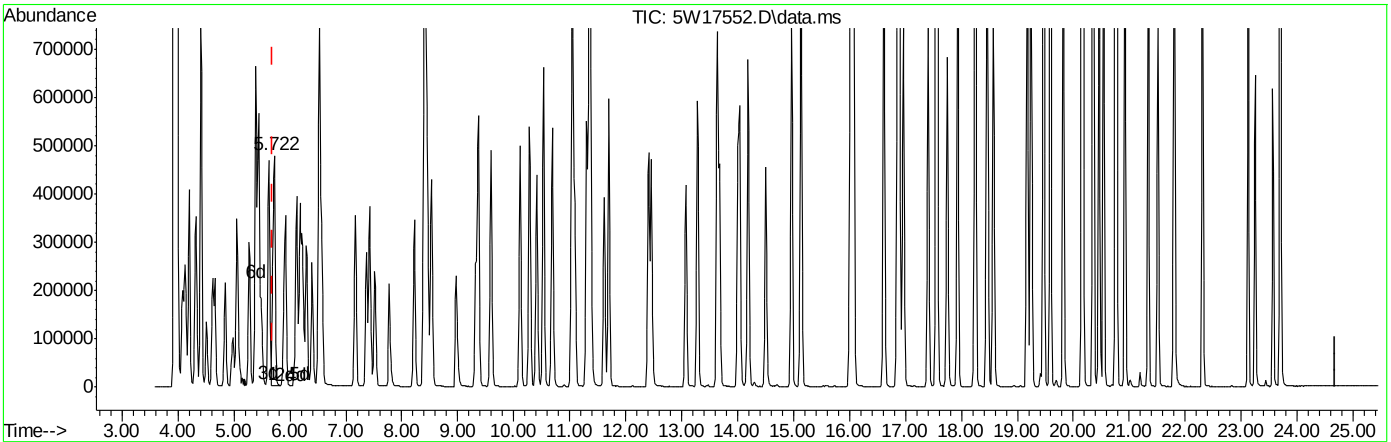
response 107290

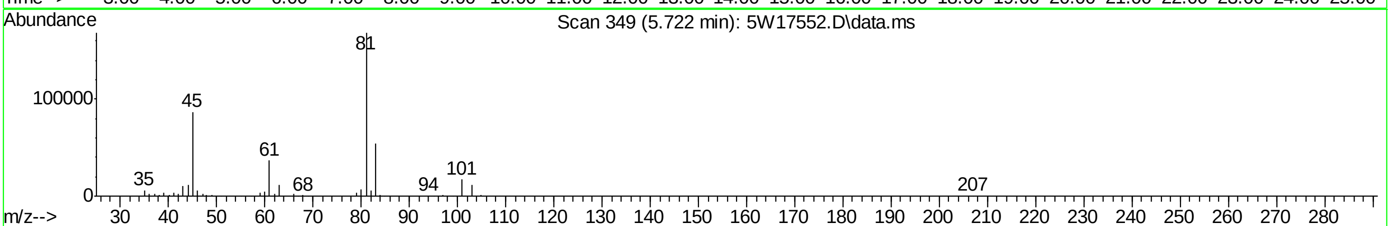
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.39
0.00	0.00	0.00
0.00	0.00	0.00

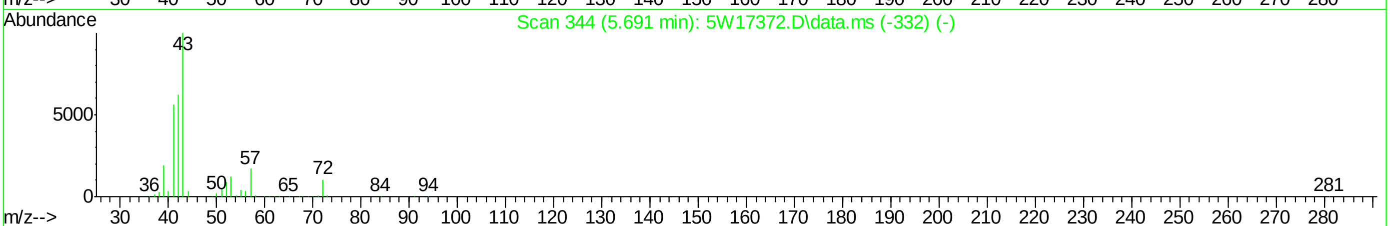
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 07 11:30:56 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```







TIC: 5W17552.D\data.ms

(108) TVHC as equiv Pentane

5.722min (+0.030) 15.88ppb(v)

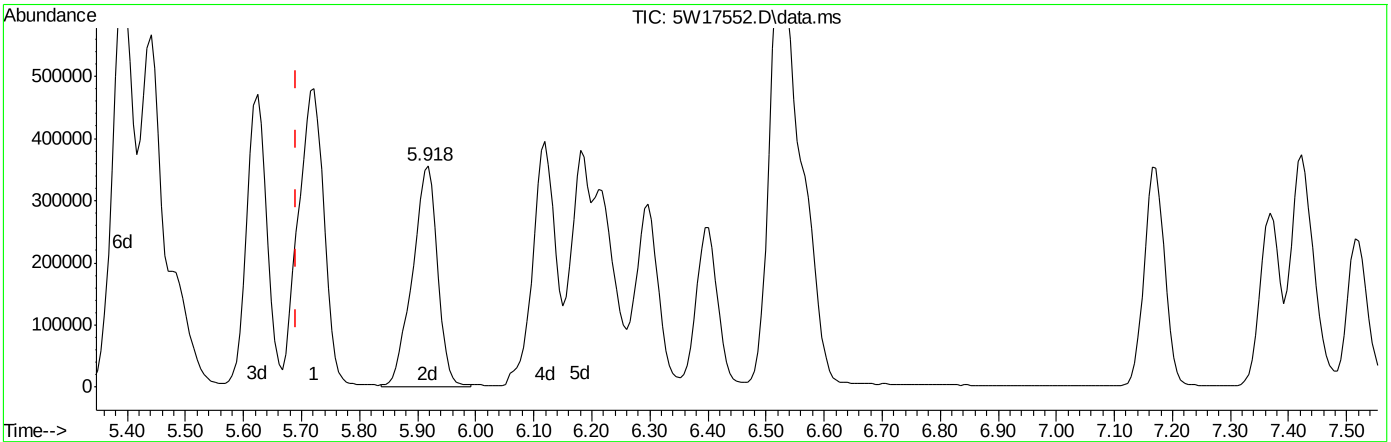
response 1465937

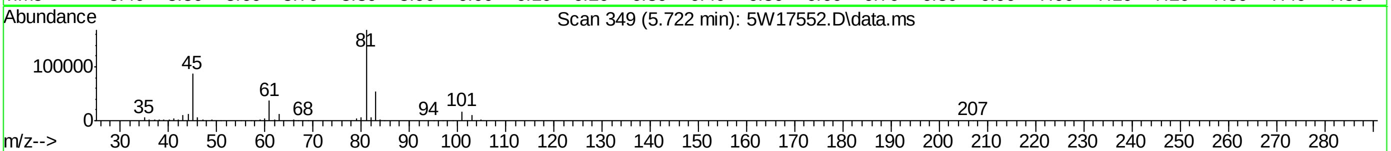
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

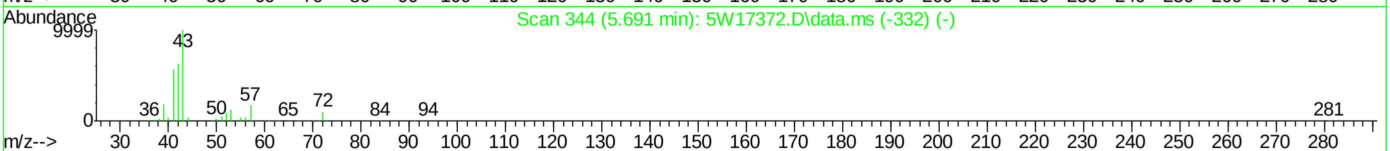
Quantitation Report (Qedit)

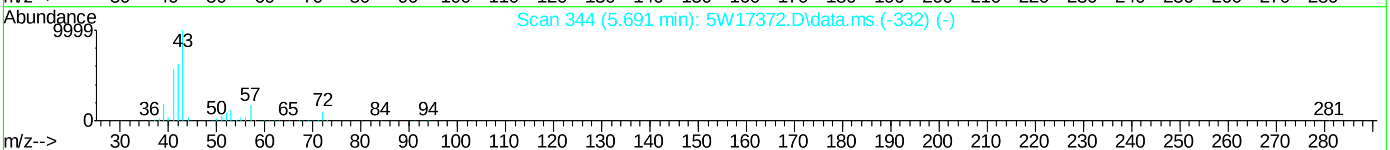
```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 07 11:30:56 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```







TIC: 5W17552.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 11.53ppb(v) m

response 1064172

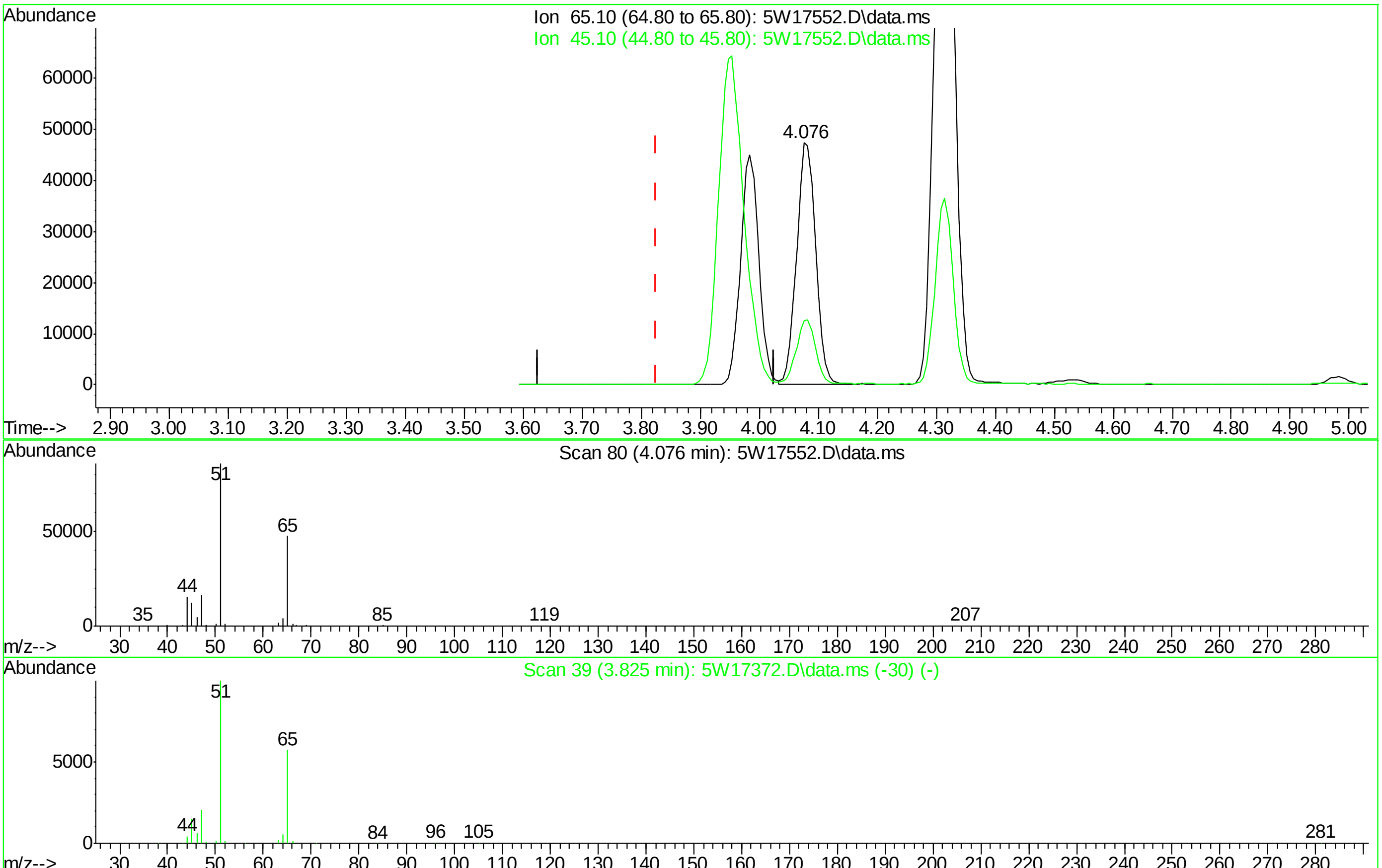
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

5W17552.D edits: TVHC as equiv Pentane

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 09:16:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

TIC: 5W17552.D\data.ms

(3) Freon 152A

4.076min (+0.251) 10.87ppb(v) m

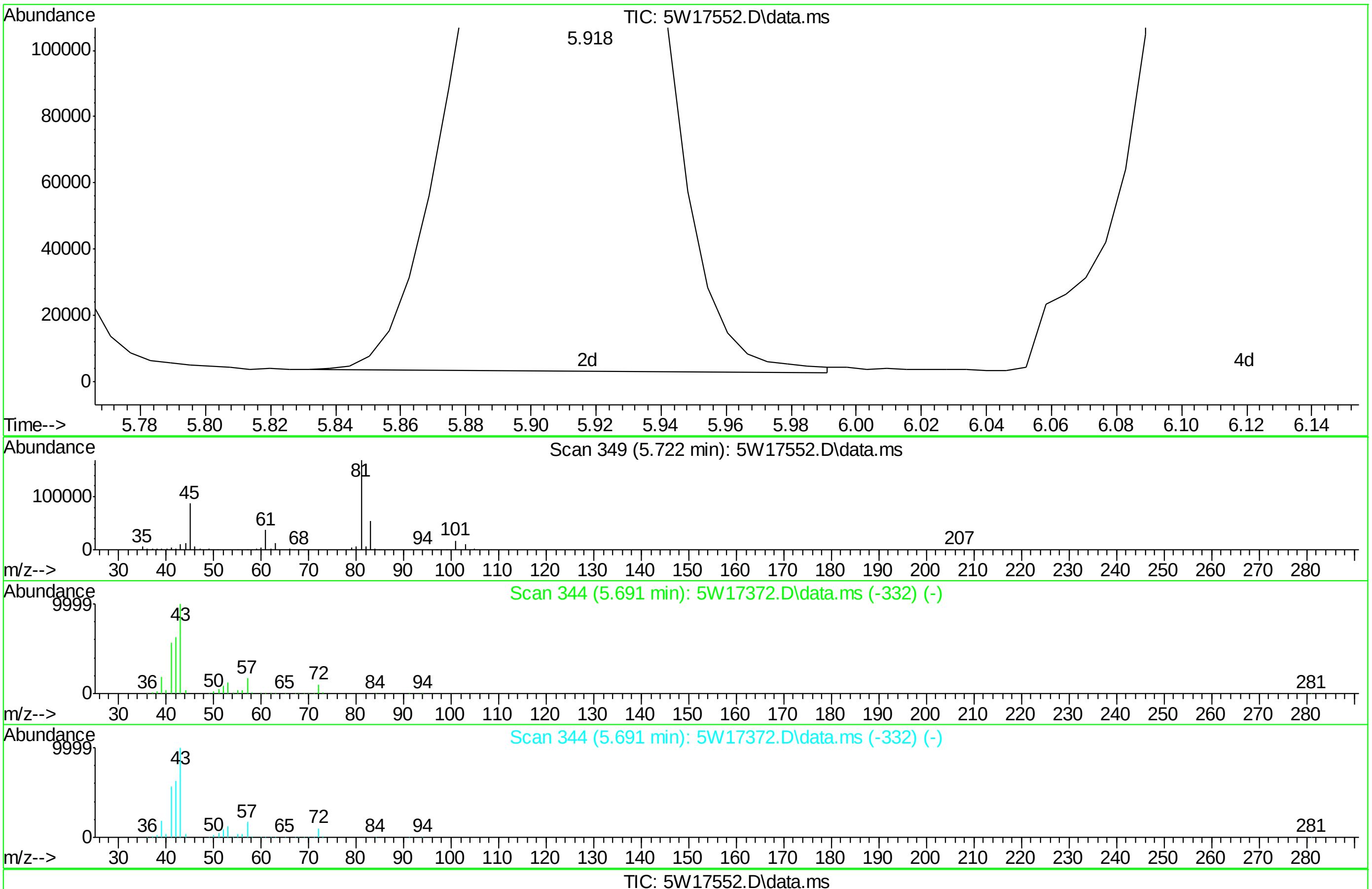
response 107290

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17552.D
Acq On    :  7 Apr 2016   8:40 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS514,v5w700,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 09:16:04 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```

(108) TVHC as equiv Pentane

5.918min (+0.226) 11.32ppb(v) m

response 1045239

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat
04/08/16 17:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On : 8 Apr 2016 10:03 am
Operator : THOMASH
Sample : CC693-10
Misc : MS676,v5w701,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:31:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Bromochloromethane	8.395	130	194659	10.00 ppb(v	0.15
53) 1,4-Difluorobenzene	10.530	114	716081	10.00 ppb(v	0.09
76) Chlorobenzene-d5	16.012	82	369751	10.00 ppb(v	0.00
107) Bromochloromethane (A)	8.395	130	194659	10.00 ppb(v	0.15

System Monitoring Compounds

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
90) 4-Bromofluorobenzene	18.245	95	492077	9.72 ppb(v	-0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 97.20%

Target Compounds

Compound	R.T.	QIon	Response	Conc Units	Qvalue
2) 1,1,1-Trifluoroethane	3.984	69	484110	10.76 ppb(v	97
3) Freon 152A	4.082	65	100019m	10.14 ppb(v	
4) Chlorodifluoromethane	4.119	67	42022	8.77 ppb(v	97
5) Propene	4.137	41	105667	10.45 ppb(v	99
6) Dichlorodifluoromethane	4.199	85	444080	9.99 ppb(v	100
7) 1-Chloro-1,1-difluoroe...	4.315	65	317059	9.87 ppb(v	99
8) Chloromethane	4.333	50	142210	10.31 ppb(v	99
9) Dichlorotetrafluoroethane	4.413	85	485470	10.48 ppb(v	98
10) Vinyl Chloride	4.511	62	164389	11.06 ppb(v	98
11) 1,3-Butadiene	4.621	54	115950	9.78 ppb(v	97
12) n-Butane	4.657	58	25513	10.17 ppb(v	95
13) Bromomethane	4.847	94	183415	9.53 ppb(v	99
14) Chloroethane	4.982	64	81994	10.58 ppb(v	99
15) Dichlorofluoromethane	5.055	67	390971	10.33 ppb(v	100
16) Acetonitrile	5.275	41	118457	10.68 ppb(v	98
17) Freon 123	5.392	83	465465	10.38 ppb(v	99
18) Freon 123A	5.440	117	266049	10.30 ppb(v	90
19) Bromoethene	5.275	106	185590	9.95 ppb(v	100
20) Trichlorofluoromethane	5.624	101	469481	10.01 ppb(v	100
21) Acetone	5.489	58	76515	10.11 ppb(v	92
22) Pentane	5.918	57	39896	10.62 ppb(v	98
23) 1,1-Dichloro-1-fluoroe...	5.722	81	384716	9.48 ppb(v	99
24) Iodomethane	6.120	142	521919	9.61 ppb(v	99
25) Isopropyl Alcohol	5.697	43	56136	9.56 ppb(v	93
26) 1,1-Dichloroethene	6.187	61	274939	10.67 ppb(v	99
27) Freon 113	6.523	101	403322	10.57 ppb(v	97
28) Methylene Chloride	6.297	84	162410	9.91 ppb(v	97
29) Carbon Disulfide	6.566	76	515781	10.81 ppb(v	100
30) Ethanol	5.092	45	62609	9.74 ppb(v	99
31) Acrylonitrile	5.893	53	116487	9.50 ppb(v	100
32) 3-Chloropropene	6.401	76	79035	10.52 ppb(v	98
33) trans-1,2-Dichloroethene	7.166	61	235508	10.45 ppb(v	96
34) tert-Butyl Alcohol	6.224	59	375930	10.52 ppb(v	98
35) Methyl tert-Butyl Ether	7.423	73	460637	9.63 ppb(v	98
36) Vinyl Acetate	7.521	43	408096	10.57 ppb(v	100
37) 1,1-Dichloroethane	7.368	63	317632	10.61 ppb(v	100
38) 2-Butanone	7.771	72	80878	10.91 ppb(v	99
39) Hexane	8.414	57	250913	9.61 ppb(v	96
40) cis-1,2-Dichloroethene	8.224	61	230994	10.47 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On : 8 Apr 2016 10:03 am
Operator : THOMASH
Sample : CC693-10
Misc : MS676,v5w701,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:31:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
41) Di-isopropyl Ether	8.420	87	146981	10.77 ppb(v	88
42) Ethyl Acetate	8.463	61	57764	11.24 ppb(v	96
43) Methyl Acrylate	8.450	55	320831	11.08 ppb(v	98
44) Chloroform	8.530	83	401709	10.13 ppb(v	99
45) 2,4-Dimethylpentane	9.368	57	298529	10.03 ppb(v	98
46) Tetrahydrofuran	8.970	72	81433	11.08 ppb(v	97
47) 1,1,1-Trichloroethane	9.594	97	394053	9.55 ppb(v	99
48) 1,2-Dichloroethane	9.319	62	232201	10.21 ppb(v	99
49) Benzene	10.114	78	549471	10.26 ppb(v	100
50) Carbon Tetrachloride	10.280	117	409917	9.62 ppb(v	99
51) Cyclohexane	10.408	56	245894	9.88 ppb(v	96
52) 2,3-Dimethylpentane	10.689	71	113053	9.83 ppb(v	97
54) 2,2,4-Trimethylpentane	11.369	57	846266	10.62 ppb(v	99
55) Heptane	11.699	71	172588	10.12 ppb(v	98
56) Trichloroethene	11.350	95	272958	10.00 ppb(v	97
57) 1,2-Dichloropropane	11.057	63	207222	11.01 ppb(v	97
58) Dibromomethane	11.038	174	268505	9.47 ppb(v	95
59) Ethyl Acrylate	11.093	55	393363	11.24 ppb(v	99
60) Methyl Methacrylate	11.613	69	189550	9.82 ppb(v	99
61) 1,4-Dioxane	11.369	88	133127	10.27 ppb(v	92
62) Bromodichloromethane	11.301	83	443480	10.01 ppb(v	100
63) cis-1,3-Dichloropropene	12.409	75	345302	10.30 ppb(v	99
64) 4-Methyl-2-pentanone	12.457	58	162582	11.34 ppb(v	97
65) trans-1,3-Dichloropropene	13.075	75	293734	10.51 ppb(v	99
66) Toluene	13.638	91	679480	9.93 ppb(v	100
67) 1,1,2-Trichloroethane	13.283	97	253725	10.26 ppb(v	98
68) 1,3-Dichloropropane	13.681	76	328102	10.98 ppb(v	100
69) 2-Hexanone	14.005	58	228307	10.95 ppb(v	99
70) Ethyl Methacrylate	14.036	69	341177	10.62 ppb(v	97
71) Dibromochloromethane	14.189	129	487389	10.01 ppb(v	100
72) Tetrachloroethene	15.137	166	378581	9.71 ppb(v	100
73) 1,2-Dibromoethane	14.501	107	407443	10.19 ppb(v	99
74) Octane	14.966	43	383588	10.45 ppb(v	97
75) 1,1,1,2-Tetrachloroethane	16.055	131	334111	10.00 ppb(v	99
77) Chlorobenzene	16.073	112	567156	9.16 ppb(v	97
78) Ethylbenzene	16.618	91	897316	9.27 ppb(v	100
79) m,p-Xylene	16.887	91	1361462	18.58 ppb(v	100
80) Styrene	17.407	104	523024	9.36 ppb(v	99
81) Nonane	17.933	43	392157	9.88 ppb(v	99
82) o-Xylene	17.560	91	704943	9.27 ppb(v	99
83) Bromoform	16.966	173	509823	9.29 ppb(v	100
84) 1,1,2,2-Tetrachloroethane	17.560	83	591672	10.21 ppb(v	100
85) 1,2,3-Trichloropropane	17.749	75	403741	9.86 ppb(v	99
86) Isopropylbenzene	18.465	105	1007284	9.36 ppb(v	99
87) Bromobenzene	18.575	156	356712	9.08 ppb(v	96
88) 2-Chlorotoluene	19.175	126	259484	9.44 ppb(v	94
89) n-Propylbenzene	19.248	120	275391	9.85 ppb(v	96
91) 4-Ethyltoluene	19.468	105	941155	9.40 ppb(v	100
92) 1,3,5-Trimethylbenzene	19.591	105	802968	9.13 ppb(v	100
93) alpha-Methylstyrene	19.823	118	417481	9.66 ppb(v	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On : 8 Apr 2016 10:03 am
Operator : THOMASH
Sample : CC693-10
Misc : MS676,v5w701,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Apr 08 13:31:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration

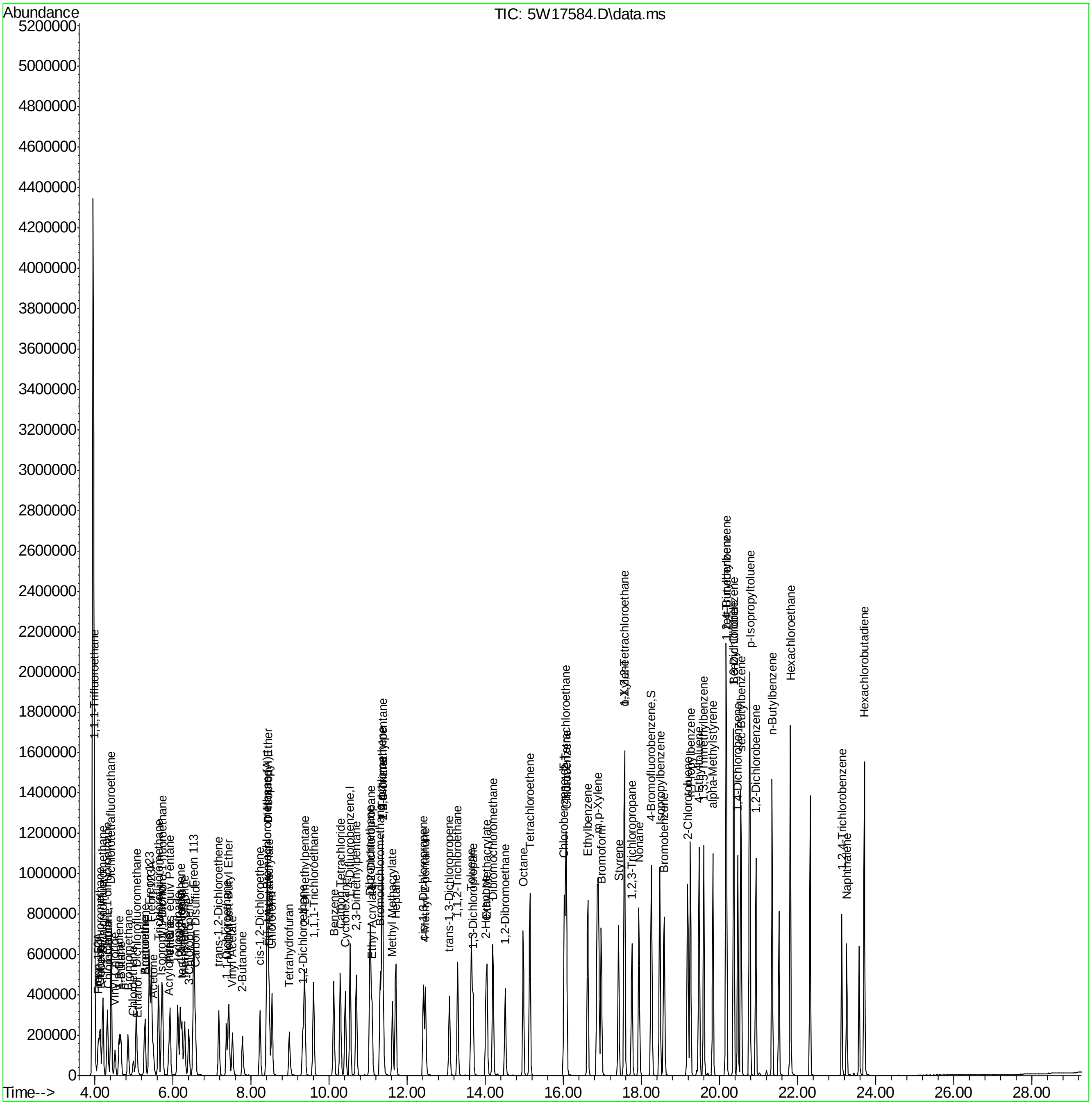
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94)	tert-Butylbenzene	20.160	134	178647	9.47	ppb(v	96
95)	1,2,4-Trimethylbenzene	20.172	105	834132	9.61	ppb(v	90
96)	1,3-Dichlorobenzene	20.362	146	565391	9.06	ppb(v	99
97)	Benzyl Chloride	20.355	91	699618	8.98	ppb(v	100
98)	1,4-Dichlorobenzene	20.459	146	560410	8.68	ppb(v	99
99)	sec-Butylbenzene	20.545	134	222209	9.46	ppb(v	96
100)	p-Isopropyltoluene	20.771	134	250866	9.65	ppb(v	97
101)	1,2-Dichlorobenzene	20.924	146	538569	9.12	ppb(v	100
102)	n-Butylbenzene	21.340	134	223147	9.75	ppb(v	86
103)	Hexachloroethane	21.805	201	353125	9.60	ppb(v	93
104)	1,2,4-Trichlorobenzene	23.127	180	273868	7.23	ppb(v	99
105)	Naphthalene	23.249	128	544210	6.79	ppb(v	100
106)	Hexachlorobutadiene	23.702	225	332305	8.64	ppb(v	99
108)	TVHC as equiv Pentane	5.918	TIC	970327m	10.52	ppb(v	

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

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On    :  8 Apr 2016  10:03 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 13:31:10 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

Sample Number:	V5W701-CC693	**Method:**	TO-15
Lab FileID:	5W17584.D	**Analyst approved:**	04/08/16 14:32 Dana Tryon
Injection Time:	04/08/16 10:03	**Supervisor approved:**	04/08/16 17:19 Kanya Veerawat

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
Freon 152A	75-37-6		4.08	Missed peak
TVHC As Equiv Pentane			5.92	Missed peak

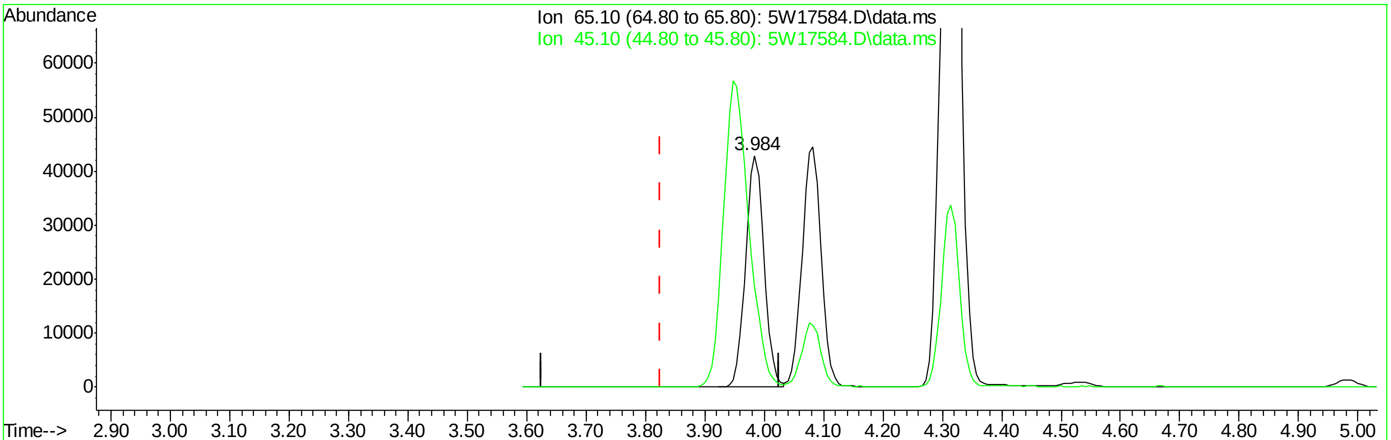
7.7.53.1

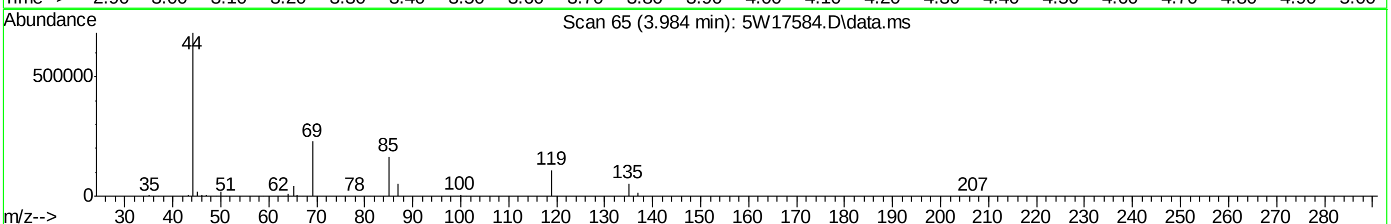
7

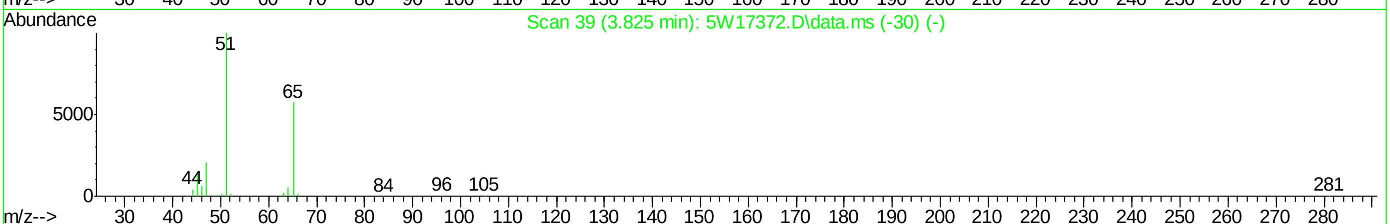
Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On    :  8 Apr 2016  10:03 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS676,v5w701,,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 13:30:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17584.D\data.ms

(3) Freon 152A

3.984min (+0.159) 9.38ppb(v)

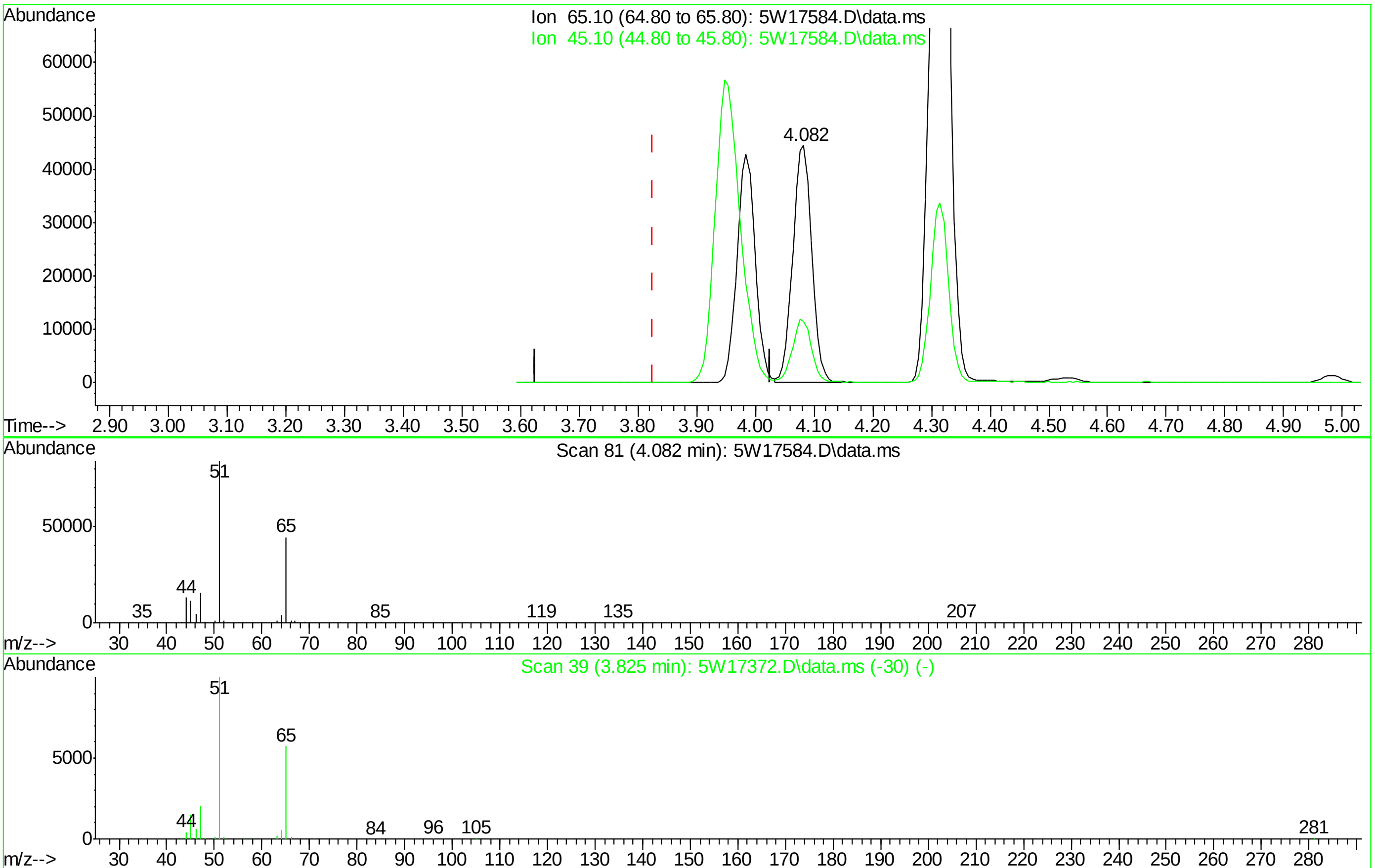
response 92549

Ion	Exp%	Act%
65.10	100	100
45.10	28.20	43.05#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On    :  8 Apr 2016  10:03 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 13:30:23 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17584.D\data.ms

(3) Freon 152A

4.082min (+0.257) 10.14ppb(v) m

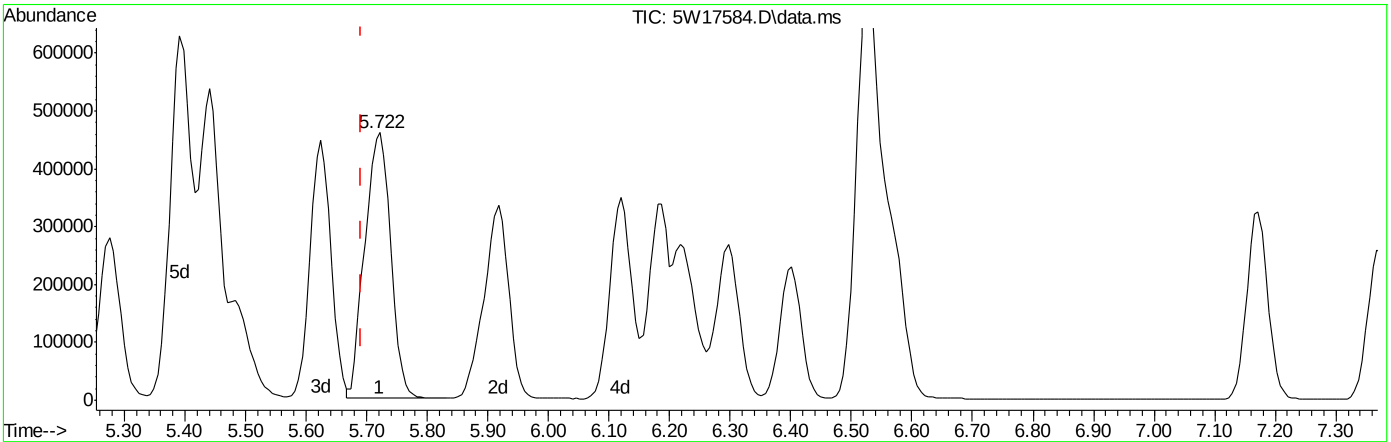
response 100019

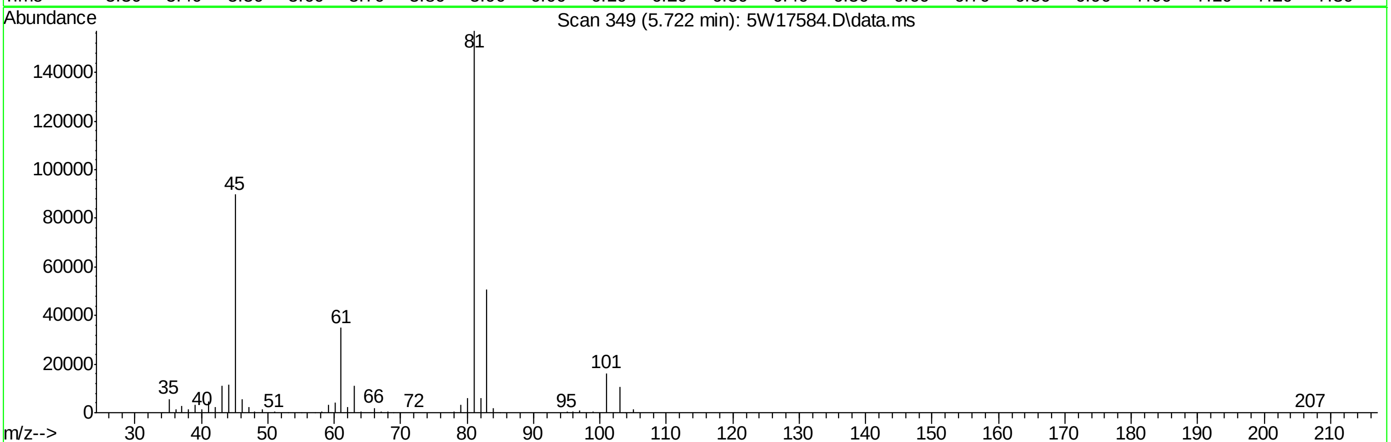
Ion	Exp%	Act%
65.10	100	100
45.10	28.20	26.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On    :  8 Apr 2016  10:03 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 13:30:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```



TIC: 5W17584.D\data.ms

(108) TVHC as equiv Pentane

5.722min (+0.031) 14.81ppb(v)

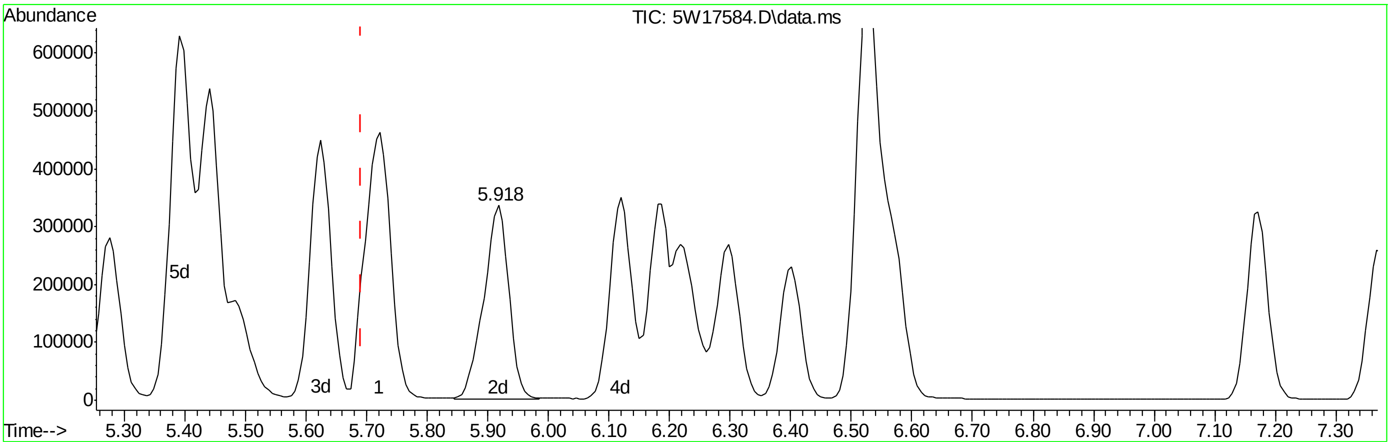
response 1365799

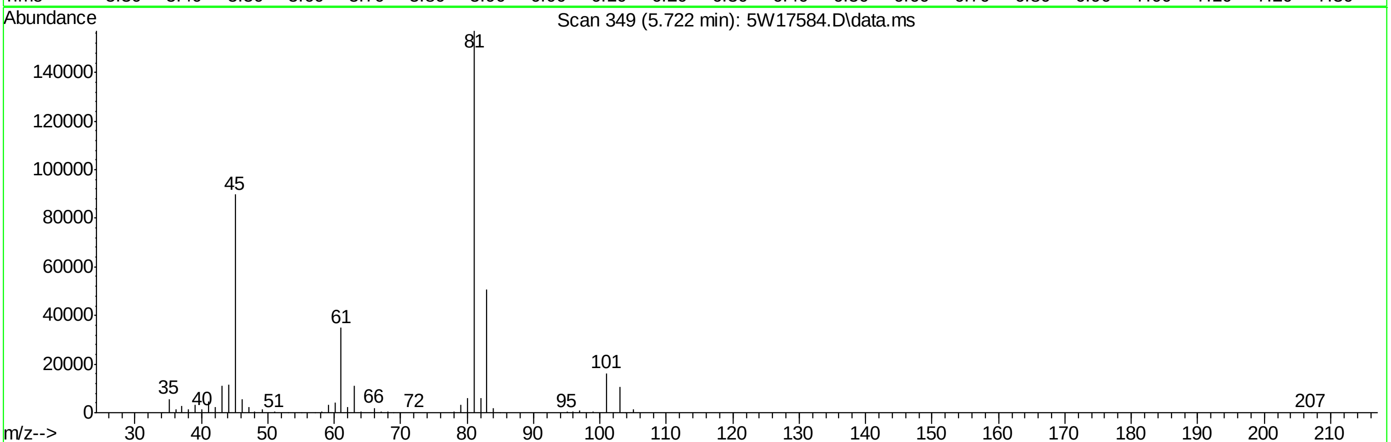
Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\msdchem\1\DATA\
Data File : 5W17584.D
Acq On    :  8 Apr 2016  10:03 am
Operator  : THOMASH
Sample    : CC693-10
Misc      : MS676,v5w701,,,,,1
ALS Vial  : 2   Sample Multiplier: 1

Quant Time: Apr 08 13:30:36 2016
Quant Method : C:\msdchem\1\METHODS\m5w693.M
Quant Title  : TO-15 Full Scan Mode
QLast Update : Wed Mar 30 08:05:45 2016
Response via : Initial Calibration
```





TIC: 5W17584.D\data.ms

(108) TVHC as equiv Pentane

5.918min (+0.226) 10.52ppb(v) m

response 970327

Signal	Exp%	Act%
TIC	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54270.D Vial: 1
Acq On : 17 Mar 2016 11:00 pm Operator: YOUMINH
Sample : ICC2167-10 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:33:42 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Wed Mar 02 09:50:16 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	104086	10.00	PPBV	-0.02
49) 1,4-DIFLUOROBENZENE	10.88	114	542178	10.00	PPBV	-0.02
68) CHLOROBENZENE-D5	15.14	82	246338	10.00	PPBV	-0.02

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.76	95	293675	10.69	PPBV	-0.02

Spiked Amount 10.000 Range 65 - 128 Recovery = 106.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	4.99	65	72598	10.04	PPBV	94
4) CHLORODIFLUOROMETHANE	5.04	67	29534	10.97	PPBV	99
5) DICHLORODIFLUOROMETHANE	5.14	85	305662	10.99	PPBV	99
6) PROPYLENE	5.07	41	91471	9.49	PPBV	97
7) FREON 114	5.38	85	324159	10.83	PPBV	96
9) CHLOROMETHANE	5.30	52	31258	9.66	PPBV #	83
10) VINYL CHLORIDE	5.50	62	116404	9.95	PPBV	98
11) 1,3-BUTADIENE	5.62	54	94096	10.19	PPBV	96
12) n-BUTANE	5.66	58	27043	10.04	PPBV	91
13) BROMOMETHANE	5.87	94	113586	10.97	PPBV	98
14) CHLOROETHANE	6.01	64	67349	10.55	PPBV	99
15) DICHLOROFLUOROMETHANE	6.07	67	261445	10.84	PPBV	99
16) ACROLEIN	6.40	56	52410	9.80	PPBV	100
17) TRICHLOROFLUOROMETHANE	6.66	101	290451	11.31	PPBV	100
18) ISOPROPYL ALCOHOL	6.69	45	266265	12.32	PPBV	100
19) ACETONE	6.51	58	58190	9.79	PPBV	94
21) ACRYLONITRILE	6.90	53	92773	10.90	PPBV	99
22) PENTANE	6.94	57	36951	10.63	PPBV	97
23) IODOMETHANE	7.15	142	328654	11.51	PPBV	98
24) 1,1-DICHLOROETHYLENE	7.20	96	119560	10.81	PPBV	98
25) CARBON DISULFIDE	7.60	76	315375	9.79	PPBV	97
26) ETHANOL	6.08	45	47355	11.20	PPBV	99
27) ACETONITRILE	6.29	41	90808	10.52	PPBV	99
28) BROMOETHENE	6.32	106	122110	11.32	PPBV	100
29) METHYLENE CHLORIDE	7.29	84	97715	9.18	PPBV	99
30) 3-CHLOROPROPENE	7.39	76	53649	10.06	PPBV #	93
31) FREON 113	7.50	151	216999	10.99	PPBV	98
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	114330	10.13	PPBV	97
33) TERTIARY BUTYL ALCOHOL	7.21	59	250460	11.34	PPBV	97
34) METHYL TERTIARY BUTYL ETHE	8.32	73	311112	10.13	PPBV	98
35) TETRAHYDROFURAN	9.64	72	50804	9.44	PPBV	99
36) HEXANE	9.16	57	183451	10.03	PPBV	94
37) VINYL ACETATE	8.36	86	30456	10.23	PPBV #	95
38) 1,1-DICHLOROETHANE	8.27	63	193241	9.89	PPBV	99
39) METHYL ETHYL KETONE	8.61	72	51218	9.62	PPBV	99
40) cis-1,2-DICHLOROETHYLENE	9.00	96	121079	10.15	PPBV	98
41) DI-ISOPROPYL ETHER	9.14	87	103898	10.18	PPBV	97
42) ETHYL ACETATE	9.16	61	36377	10.06	PPBV #	83
43) METHYL ACRYLATE	9.16	55	205876	10.11	PPBV	99
44) CHLOROFORM	9.26	83	231331	10.79	PPBV	99
45) 2,4-DIMETHYLPENTANE	9.95	57	207320	9.84	PPBV	98

(#) = qualifier out of range (m) = manual integration

7.7.54
7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54270.D                Vial: 1
Acq On    : 17 Mar 2016  11:00 pm                  Operator: YOUMINH
Sample    : ICC2167-10                             Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:33:42 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Wed Mar 02 09:50:16 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
46)	1,1,1-TRICHLOROETHANE	10.16	97	246902	11.36 PPBV		100
47)	CARBON TETRACHLORIDE	10.72	117	262515	11.50 PPBV		100
48)	1,2-DICHLOROETHANE	9.93	62	143417	11.69 PPBV		99
50)	BENZENE	10.59	78	359894	10.02 PPBV		100
51)	CYCLOHEXANE	10.84	84	161366	9.56 PPBV		98
52)	2,3-DIMETHYLPENTANE	11.02	71	80931	9.63 PPBV		99
53)	TRICHLOROETHYLENE	11.56	95	166304	10.31 PPBV		98
54)	DIBROMOMETHANE	11.33	174	162498	10.85 PPBV		97
55)	1,2-DICHLOROPROPANE	11.34	63	123748	9.56 PPBV		96
56)	ETHYL ACRYLATE	11.28	55	229669	9.86 PPBV		99
57)	BROMODICHLOROMETHANE	11.52	83	266379	11.19 PPBV		99
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	592319	10.32 PPBV		99
59)	1,4-DIOXANE	11.56	88	75967	11.73 PPBV	#	79
60)	METHYL METHACRYLATE	11.71	69	125470	10.19 PPBV		97
61)	HEPTANE	11.79	43	198271	10.02 PPBV		99
62)	METHYL ISOBUTYL KETONE	12.39	43	232569	9.63 PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.36	75	209312	10.71 PPBV		92
64)	TOLUENE	13.33	92	264521	10.42 PPBV		100
65)	1,3-DICHLOROPROPANE	13.35	76	200900	10.42 PPBV		96
66)	trans-1,3-DICHLOROPROPENE	12.87	75	153262	10.67 PPBV		94
67)	1,1,2-TRICHLOROETHANE	13.05	83	115293	10.31 PPBV		98
69)	ETHYL METHACRYLATE	13.55	69	208013	10.16 PPBV		98
70)	2-HEXANONE	13.56	58	127123	9.80 PPBV		95
71)	TETRACHLOROETHYLENE	14.48	164	196037	9.93 PPBV		99
72)	DIBROMOCHLOROMETHANE	13.77	129	277545	11.38 PPBV		100
73)	1,2-DIBROMOETHANE	14.03	107	202577	11.27 PPBV		100
74)	OCTANE	14.27	43	283422	10.39 PPBV		99
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	207169	10.93 PPBV		98
76)	CHLOROBENZENE	15.19	112	355087	10.70 PPBV		99
77)	ETHYLBENZENE	15.56	91	542074	10.63 PPBV		100
78)	m,p-XYLENE	15.76	106	462423	21.60 PPBV		98
79)	o-XYLENE	16.27	106	220493	10.80 PPBV		98
80)	STYRENE	16.15	104	336215	11.08 PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.41	75	208728	10.28 PPBV		98
82)	NONANE	16.45	43	299023	11.26 PPBV		99
83)	BROMOFORM	15.88	173	264002	11.35 PPBV		99
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	297513	10.49 PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	660659	10.81 PPBV		99
87)	BROMOBENZENE	17.02	156	190372	11.15 PPBV		100
88)	2-CHLOROTOLUENE	17.42	126	153177	10.88 PPBV		93
89)	n-PROPYLBENZENE	17.44	120	174806	11.04 PPBV		98
90)	4-ETHYLTOLUENE	17.60	105	552157	11.32 PPBV		100
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	533761	11.20 PPBV		98
92)	ALPHA-METHYLSTYRENE	17.86	118	239564	11.77 PPBV		99
93)	TERT-BUTYLBENZENE	18.13	134	135767	10.76 PPBV		94
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	496798	11.42 PPBV		99
95)	m-DICHLOROBENZENE	18.32	146	259605	11.63 PPBV		100
96)	BENZYL CHLORIDE	18.30	91	280320	11.39 PPBV		99
97)	p-DICHLOROBENZENE	18.40	146	248352	11.42 PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54270.D Vial: 1
Acq On : 17 Mar 2016 11:00 pm Operator: YOUMINH
Sample : ICC2167-10 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:33:42 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Wed Mar 02 09:50:16 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

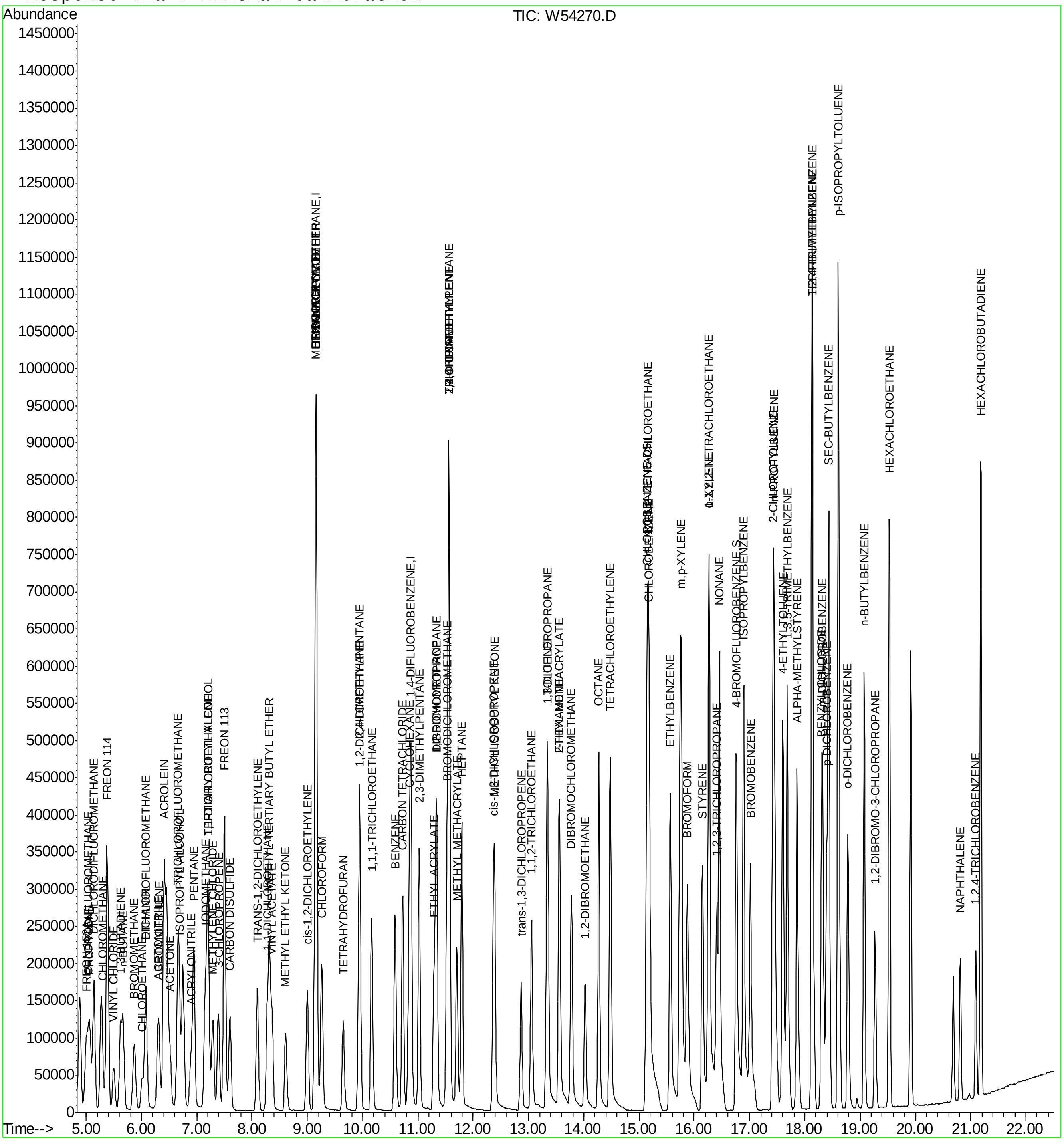
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
98)	SEC-BUTYLBENZENE	18.43	134	158870	11.04	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.61	134	166054	11.16	PPBV	97
100)	o-DICHLOROBENZENE	18.78	146	255068	11.45	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	131613	11.39	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	109573	10.97	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	213330	11.12	PPBV	97
104)	HEXACHLOROBUTADIENE	21.18	225	223592	11.92	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	85402	11.85	PPBV	99
106)	NAPHTHALENE	20.81	128	202386	11.54	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54270.D                    Vial: 1
Acq On    : 17 Mar 2016  11:00 pm                     Operator: YOUMINH
Sample    : ICC2167-10                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:34 2016               Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54271.D                    Vial: 1
Acq On    : 17 Mar 2016  11:42 pm                     Operator: YOUMINH
Sample    : IC2167-5                                  Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:36:11 2016            Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:35:59 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	117094	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	607248	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	264452	10.00 PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.77	95	311886	9.89 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 98.90%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.01	65	44297	5.42 PPBV	100
4) CHLORODIFLUOROMETHANE	5.04	67	17577	5.29 PPBV	95
5) DICHLORODIFLUOROMETHANE	5.15	85	177833	5.17 PPBV	100
6) PROPYLENE	5.07	41	53537	5.20 PPBV	99
7) FREON 114	5.39	85	199303	5.47 PPBV	100
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.28	65	130366	5.30 PPBV	98
9) CHLOROMETHANE	5.30	52	18979	5.40 PPBV	96
10) VINYL CHLORIDE	5.51	62	71094	5.43 PPBV	100
11) 1,3-BUTADIENE	5.63	54	56909	5.38 PPBV	98
12) n-BUTANE	5.68	58	16125	5.30 PPBV	94
13) BROMOMETHANE	5.88	94	70277	5.50 PPBV	99
14) CHLOROETHANE	6.02	64	41505	5.48 PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	161588	5.49 PPBV	100
16) ACROLEIN	6.41	56	34064	5.78 PPBV	99
17) TRICHLOROFLUOROMETHANE	6.67	101	175841	5.38 PPBV	100
18) ISOPROPYL ALCOHOL	6.71	45	165203	5.52 PPBV	99
19) ACETONE	6.52	58	37855	5.78 PPBV	98
20) 1,1-DICHLORO-1-FLUOROETHAN	6.76	81	153948	5.51 PPBV	99
21) ACRYLONITRILE	6.91	53	59645	5.71 PPBV	99
22) PENTANE	6.96	57	23033	5.54 PPBV	92
23) IODOMETHANE	7.16	142	203279	5.50 PPBV	98
24) 1,1-DICHLOROETHYLENE	7.21	96	81397	6.05 PPBV	96
25) CARBON DISULFIDE	7.61	76	204374	5.76 PPBV	99
26) ETHANOL	6.11	45	31796	5.97 PPBV	96
27) ACETONITRILE	6.30	41	57541	5.63 PPBV	98
28) BROMOETHENE	6.32	106	75576	5.50 PPBV	99
29) METHYLENE CHLORIDE	7.30	84	68845	6.26 PPBV	100
30) 3-CHLOROPROPENE	7.40	76	35618	5.90 PPBV	97
31) FREON 113	7.51	151	139982	5.73 PPBV	100
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	74443	5.79 PPBV	99
33) TERTIARY BUTYL ALCOHOL	7.22	59	171280	6.08 PPBV	97
34) METHYL TERTIARY BUTYL ETHE	8.32	73	213841	6.11 PPBV	99
35) TETRAHYDROFURAN	9.66	72	34612	6.06 PPBV	98
36) HEXANE	9.16	57	117416	5.69 PPBV	100
37) VINYL ACETATE	8.37	86	20311	5.93 PPBV	99
38) 1,1-DICHLOROETHANE	8.28	63	126094	5.80 PPBV	99
39) METHYL ETHYL KETONE	8.62	72	34582	6.00 PPBV	99
40) cis-1,2-DICHLOROETHYLENE	9.00	96	78654	5.77 PPBV	99
41) DI-ISOPROPYL ETHER	9.15	87	70065	5.99 PPBV	99
42) ETHYL ACETATE	9.17	61	23958	5.85 PPBV #	83
43) METHYL ACRYLATE	9.17	55	134443	5.80 PPBV	100

(#) = qualifier out of range (m) = manual integration

7.7.55

7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54271.D Vial: 1
Acq On : 17 Mar 2016 11:42 pm Operator: YOUMINH
Sample : IC2167-5 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:36:11 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:35:59 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.27	83	149152	5.73	PPBV		99
45)	2,4-DIMETHYLPENTANE	9.96	57	134023	5.75	PPBV		100
46)	1,1,1-TRICHLOROETHANE	10.17	97	160178	5.77	PPBV		99
47)	CARBON TETRACHLORIDE	10.73	117	168220	5.70	PPBV		100
48)	1,2-DICHLOROETHANE	9.94	62	90533	5.61	PPBV		99
50)	BENZENE	10.60	78	233383	5.79	PPBV		100
51)	CYCLOHEXANE	10.85	84	103821	5.74	PPBV		96
52)	2,3-DIMETHYLPENTANE	11.03	71	52367	5.78	PPBV		99
53)	TRICHLOROETHYLENE	11.56	95	103830	5.57	PPBV		100
54)	DIBROMOMETHANE	11.33	174	100573	5.53	PPBV		100
55)	1,2-DICHLOROPROPANE	11.35	63	79776	5.76	PPBV		99
56)	ETHYL ACRYLATE	11.30	55	148742	5.78	PPBV		99
57)	BROMODICHLOROMETHANE	11.53	83	169103	5.67	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	376016	5.67	PPBV		100
59)	1,4-DIOXANE	11.58	88	47829	5.62	PPBV	#	75
60)	METHYL METHACRYLATE	11.71	69	82047	5.84	PPBV		98
61)	HEPTANE	11.80	43	126397	5.69	PPBV		99
62)	METHYL ISOBUTYL KETONE	12.40	43	151648	5.82	PPBV		99
63)	cis-1,3-DICHLOROPROPENE	12.37	75	129483	5.52	PPBV		100
64)	TOLUENE	13.34	92	172161	5.81	PPBV		100
65)	1,3-DICHLOROPROPANE	13.36	76	129486	5.75	PPBV		100
66)	trans-1,3-DICHLOROPROPENE	12.87	75	92280	5.38	PPBV		98
67)	1,1,2-TRICHLOROETHANE	13.06	83	76028	5.89	PPBV		99
69)	ETHYL METHACRYLATE	13.56	69	133105	5.96	PPBV		100
70)	2-HEXANONE	13.58	58	80850	5.92	PPBV		98
71)	TETRACHLOROETHYLENE	14.49	164	123718	5.88	PPBV		100
72)	DIBROMOCHLOROMETHANE	13.78	129	176166	5.91	PPBV		100
73)	1,2-DIBROMOETHANE	14.03	107	124579	5.73	PPBV		100
74)	OCTANE	14.28	43	177856	5.85	PPBV		100
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	134223	6.04	PPBV	#	81
76)	CHLOROBENZENE	15.19	112	227018	5.96	PPBV		99
77)	ETHYLBENZENE	15.57	91	353442	6.07	PPBV		100
78)	m,p-XYLENE	15.76	106	298850	12.04	PPBV		99
79)	o-XYLENE	16.27	106	141910	6.00	PPBV		100
80)	STYRENE	16.16	104	213829	5.92	PPBV		100
81)	1,2,3-TRICHLOROPROPANE	16.41	75	134211	5.99	PPBV		100
82)	NONANE	16.45	43	183925	5.73	PPBV		100
83)	BROMOFORM	15.87	173	165374	5.84	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	190249	5.96	PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	428642	6.04	PPBV		100
87)	BROMOBENZENE	17.02	156	119322	5.84	PPBV		100
88)	2-CHLOROTOLUENE	17.42	126	98433	5.99	PPBV	#	90
89)	n-PROPYLBENZENE	17.45	120	111713	5.95	PPBV		98
90)	4-ETHYLTOLUENE	17.60	105	351693	5.93	PPBV		100
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	347955	6.07	PPBV		100
92)	ALPHA-METHYLSTYRENE	17.86	118	150867	5.87	PPBV		100
93)	TERT-BUTYLBENZENE	18.13	134	88039	6.04	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	318359	5.97	PPBV		99
95)	m-DICHLOROBENZENE	18.33	146	154810	5.55	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54271.D   Vial: 1
Acq On : 17 Mar 2016 11:42 pm   Operator: YOUMINH
Sample : IC2167-5   Inst : MSW
Misc : MS99296,VW2167,,,,,1   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:36:11 2016   Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:35:59 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

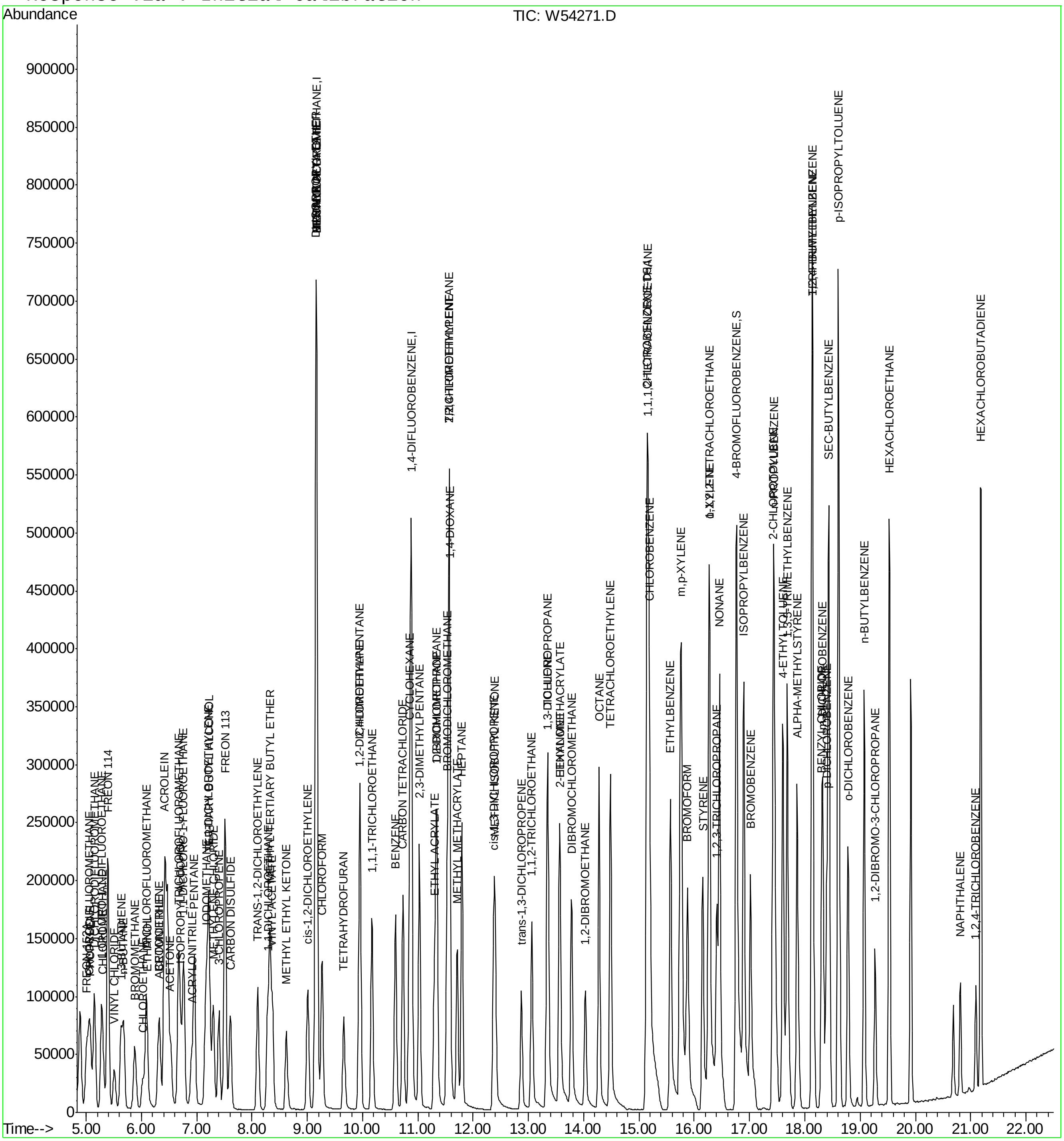
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	161681	5.37	PPBV	100
97)	p-DICHLOROBENZENE	18.40	146	146109	5.48	PPBV	99
98)	SEC-BUTYLBENZENE	18.43	134	102408	6.00	PPBV	98
99)	p-ISOPROPYLTOLUENE	18.61	134	105838	5.94	PPBV	99
100)	o-DICHLOROBENZENE	18.78	146	158099	5.77	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	81184	5.75	PPBV	100
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	62727	5.33	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	136062	5.94	PPBV	100
104)	HEXACHLOROBUTADIENE	21.18	225	135545	5.65	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	38602	4.21	PPBV	98
106)	NAPHTHALENE	20.81	128	100512	4.63	PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54271.D MW2167.M Fri Mar 18 09:08:53 2016 MSW

Quantitation Report   (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54271.D   Vial: 1
Acq On   : 17 Mar 2016 11:42 pm   Operator: YOUMINH
Sample   : IC2167-5   Inst   : MSW
Misc   : MS99296,VW2167,,,,,1   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 8:36 2016   Quant Results File: MW2167.RES

Method   : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title   : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54272.D Vial: 2
Acq On : 18 Mar 2016 12:24 am Operator: YOUMINH
Sample : IC2167-0.5 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:45:34 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:45:02 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	103910	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	540443	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	211386	10.00 PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.76	95	208579	8.30 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 83.00%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.00	65	3456	0.48 PPBV	94
4) CHLORODIFLUOROMETHANE	5.04	67	1377	0.48 PPBV	91
5) DICHLORODIFLUOROMETHANE	5.15	85	15253	0.51 PPBV	98
6) PROPYLENE	5.08	41	4890	0.55 PPBV	97
7) FREON 114	5.38	85	15740	0.49 PPBV	100
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.27	65	10098	0.48 PPBV	96
9) CHLOROMETHANE	5.30	52	1448	0.47 PPBV	96
10) VINYL CHLORIDE	5.50	62	5827	0.50 PPBV	96
11) 1,3-BUTADIENE	5.62	54	4509	0.49 PPBV	95
12) n-BUTANE	5.67	58	1285	0.48 PPBV #	77
13) BROMOMETHANE	5.87	94	5359	0.47 PPBV	87
14) CHLOROETHANE	6.02	64	3092	0.46 PPBV	90
15) DICHLOROFLUOROMETHANE	6.07	67	12579	0.49 PPBV	96
16) ACROLEIN	6.41	56	2992	0.57 PPBV	97
17) TRICHLOROFLUOROMETHANE	6.66	101	13861	0.49 PPBV	98
18) ISOPROPYL ALCOHOL	6.72	45	16058	0.61 PPBV	96
19) ACETONE	6.54	58	2919	0.49 PPBV	98
20) 1,1-DICHLORO-1-FLUOROETHAN	6.75	81	12108	0.49 PPBV	98
21) ACRYLONITRILE	6.91	53	4435	0.47 PPBV	94
22) PENTANE	6.94	57	2241	0.61 PPBV #	82
23) IODOMETHANE	7.16	142	15468	0.47 PPBV	100
24) 1,1-DICHLOROETHYLENE	7.21	96	6451	0.51 PPBV	87
25) CARBON DISULFIDE	7.60	76	15791	0.49 PPBV	95
26) ETHANOL	6.11	45	4341	0.89 PPBV	87
27) ACETONITRILE	6.31	41	4797	0.53 PPBV #	86
28) BROMOETHENE	6.32	106	5868	0.48 PPBV #	97
29) METHYLENE CHLORIDE	7.30	84	4872	0.47 PPBV	97
30) 3-CHLOROPROPENE	7.40	76	2399	0.43 PPBV #	89
31) FREON 113	7.50	151	10153	0.46 PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	5798	0.50 PPBV	90
33) TERTIARY BUTYL ALCOHOL	7.25	59	11094	0.42 PPBV	85
34) METHYL TERTIARY BUTYL ETHE	8.33	73	15060	0.46 PPBV	96
35) TETRAHYDROFURAN	9.68	72	2101	0.39 PPBV	96
36) HEXANE	9.16	57	8056	0.43 PPBV	98
37) VINYL ACETATE	8.38	86	1187	0.37 PPBV #	68
38) 1,1-DICHLOROETHANE	8.28	63	8816	0.44 PPBV	98
39) METHYL ETHYL KETONE	8.63	72	2278	0.42 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	9.00	96	6052	0.49 PPBV	91
41) DI-ISOPROPYL ETHER	9.15	87	4392	0.40 PPBV	93
42) ETHYL ACETATE	9.18	61	1407	0.37 PPBV #	51
43) METHYL ACRYLATE	9.18	55	8448	0.40 PPBV	98

(#) = qualifier out of range (m) = manual integration
W54272.D MW2167.M Fri Mar 18 09:08:59 2016 MSW

Quantitation Report (QT Reviewed)

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Data File : C:\MSDCHEM\1\DATA\W54272.D                    Vial: 2
Acq On    : 18 Mar 2016  12:24 am                     Operator: YOUMINH
Sample    : IC2167-0.5                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:45:34 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:45:02 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
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	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.26	83	10474	0.44	PPBV		97
45)	2,4-DIMETHYLPENTANE	9.95	57	9339	0.44	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.17	97	11116	0.44	PPBV		99
47)	CARBON TETRACHLORIDE	10.72	117	11709	0.44	PPBV		98
48)	1,2-DICHLOROETHANE	9.93	62	6102	0.42	PPBV		98
50)	BENZENE	10.59	78	15882	0.43	PPBV		99
51)	CYCLOHEXANE	10.85	84	7914	0.48	PPBV	#	5
52)	2,3-DIMETHYLPENTANE	11.03	71	3566	0.43	PPBV		90
53)	TRICHLOROETHYLENE	11.55	95	6752	0.40	PPBV		99
54)	DIBROMOMETHANE	11.33	174	6683	0.41	PPBV		98
55)	1,2-DICHLOROPROPANE	11.35	63	5499	0.43	PPBV		93
56)	ETHYL ACRYLATE	11.30	55	8957	0.38	PPBV	#	93
57)	BROMODICHLOROMETHANE	11.53	83	10966	0.41	PPBV		98
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	24514	0.40	PPBV		98
59)	1,4-DIOXANE	11.60	88	2970	0.38	PPBV	#	18
60)	METHYL METHACRYLATE	11.71	69	4810	0.37	PPBV		91
61)	HEPTANE	11.79	43	8803	0.43	PPBV		97
62)	METHYL ISOBUTYL KETONE	12.41	43	9647	0.40	PPBV		94
63)	cis-1,3-DICHLOROPROPENE	12.36	75	7738	0.37	PPBV		97
64)	TOLUENE	13.33	92	10396	0.38	PPBV		96
65)	1,3-DICHLOROPROPANE	13.35	76	7204	0.35	PPBV		94
66)	trans-1,3-DICHLOROPROPENE	12.87	75	5205	0.34	PPBV		95
67)	1,1,2-TRICHLOROETHANE	13.05	83	4471	0.37	PPBV		98
69)	ETHYL METHACRYLATE	13.56	69	7400	0.40	PPBV	#	95
70)	2-HEXANONE	13.58	58	4805	0.42	PPBV	#	76
71)	TETRACHLOROETHYLENE	14.48	164	8130	0.47	PPBV		97
72)	DIBROMOCHLOROMETHANE	13.77	129	10384	0.43	PPBV		96
73)	1,2-DIBROMOETHANE	14.03	107	6767	0.39	PPBV		99
74)	OCTANE	14.27	43	11561	0.47	PPBV		93
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	8461	0.46	PPBV	#	1
76)	CHLOROBENZENE	15.19	112	14133	0.45	PPBV	#	79
77)	ETHYLBENZENE	15.56	91	21152	0.43	PPBV		99
78)	m,p-XYLENE	15.75	106	17798	0.86	PPBV		98
79)	o-XYLENE	16.27	106	8500	0.43	PPBV		99
80)	STYRENE	16.15	104	11690	0.39	PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.40	75	8725	0.47	PPBV		92
82)	NONANE	16.45	43	10454	0.40	PPBV		95
83)	BROMOFORM	15.87	173	9551	0.41	PPBV		92
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	11195	0.42	PPBV		97
86)	ISOPROPYLBENZENE	16.89	105	25390	0.43	PPBV		99
87)	BROMOBENZENE	17.02	156	6948	0.41	PPBV		98
88)	2-CHLOROTOLUENE	17.42	126	5839	0.43	PPBV	#	64
89)	n-PROPYLBENZENE	17.44	120	6197	0.40	PPBV		93
90)	4-ETHYLTOLUENE	17.60	105	18792	0.38	PPBV		98
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	20031	0.42	PPBV		98
92)	ALPHA-METHYLSTYRENE	17.86	118	7678	0.36	PPBV		98
93)	TERT-BUTYLBENZENE	18.12	134	4939	0.41	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	17553	0.40	PPBV		98
95)	m-DICHLOROBENZENE	18.32	146	7911	0.35	PPBV		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54272.D   Vial: 2
Acq On : 18 Mar 2016 12:24 am   Operator: YOUMINH
Sample : IC2167-0.5   Inst : MSW
Misc : MS99296,VW2167,,,,,1   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:45:34 2016   Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:45:02 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

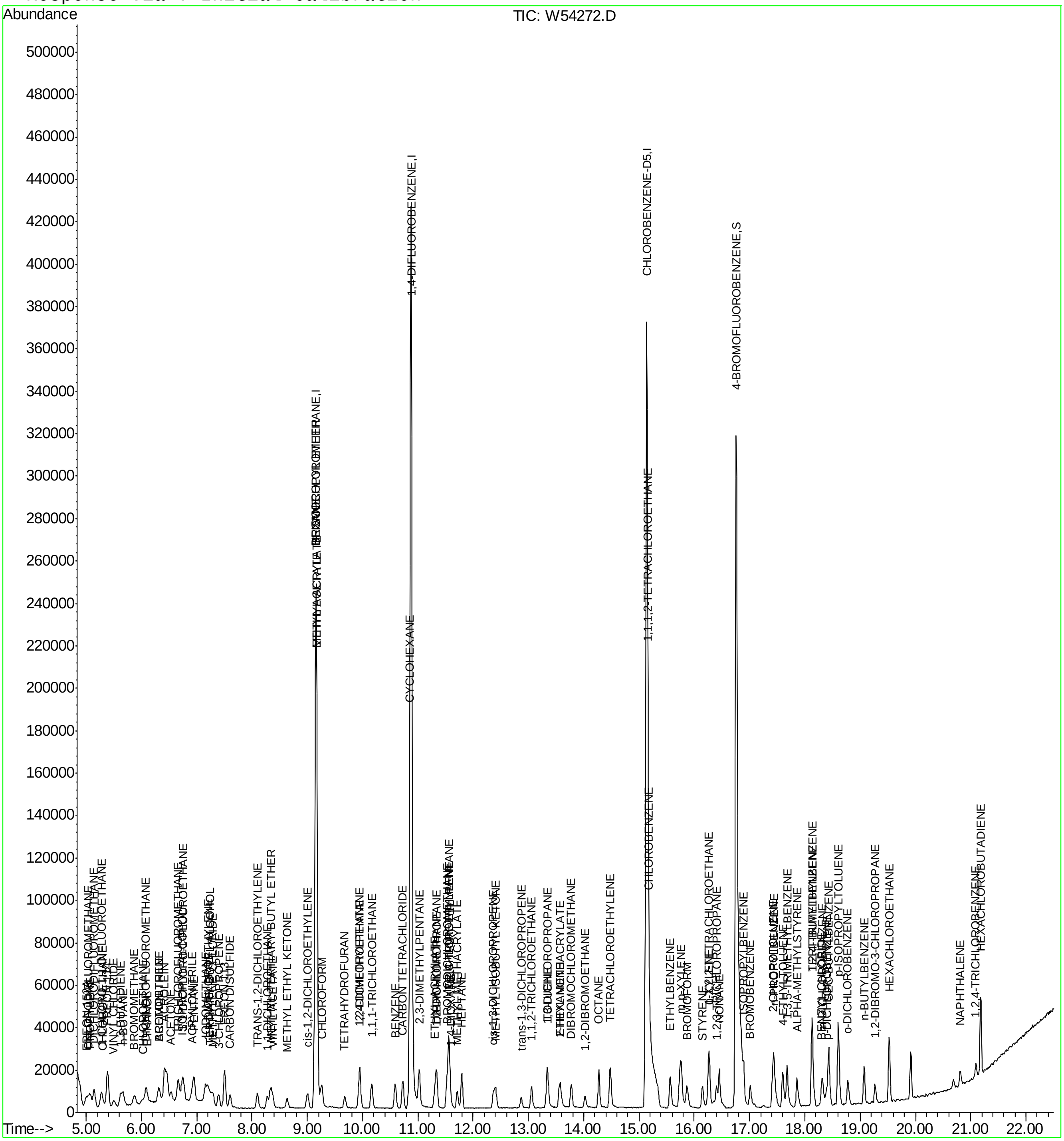
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	8009	0.33	PPBV	98
97)	p-DICHLOROBENZENE	18.39	146	7381	0.34	PPBV	98
98)	SEC-BUTYLBENZENE	18.43	134	5693	0.40	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.60	134	5869	0.40	PPBV	97
100)	o-DICHLOROBENZENE	18.78	146	8880	0.39	PPBV	96
101)	n-BUTYLBENZENE	19.07	134	4395	0.38	PPBV	94
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	4174	0.44	PPBV	98
103)	HEXACHLOROETHANE	19.53	201	7873	0.42	PPBV	96
104)	HEXACHLOROBUTADIENE	21.18	225	9400	0.49	PPBV	95
105)	1,2,4-TRICHLOROBENZENE	21.09	180	3392	0.50	PPBV	97
106)	NAPHTHALENE	20.81	128	7413	0.44	PPBV	99

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54272.D                    Vial: 2
Acq On    : 18 Mar 2016  12:24 am                     Operator: YOUMINH
Sample    : IC2167-0.5                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:46 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```



Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/22/16 12:36

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                   Vial: 2
Acq On    : 18 Mar 2016   1:06 am                     Operator: YOUMINH
Sample    : IC2167-0.2                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:47:32 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:47:24 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	93122	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	480061	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	187576	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.76	95	185004	8.67	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 86.70%

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
3) FREON 152A	4.99	65	1273	0.20	PPBV	#	87
4) CHLORODIFLUOROMETHANE	5.04	67	549	0.22	PPBV	#	42
5) DICHLORODIFLUOROMETHANE	5.14	85	6277	0.23	PPBV		96
6) PROPYLENE	5.07	41	2197	0.27	PPBV		93
7) FREON 114	5.38	85	6334	0.22	PPBV		99
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.27	65	4160	0.22	PPBV	#	92
9) CHLOROMETHANE	5.30	52	473	0.17	PPBV	#	62
10) VINYL CHLORIDE	5.50	62	2330	0.22	PPBV	#	87
11) 1,3-BUTADIENE	5.62	54	1761	0.21	PPBV	#	79
12) n-BUTANE	5.66	58	477	0.20	PPBV	#	1
13) BROMOMETHANE	5.87	94	2185	0.22	PPBV	#	68
14) CHLOROETHANE	6.01	64	1199	0.20	PPBV	#	58
15) DICHLOROFLUOROMETHANE	6.07	67	5082	0.22	PPBV	#	92
16) ACROLEIN	6.41	56	1402	0.29	PPBV	#	80
17) TRICHLOROFLUOROMETHANE	6.66	101	5642	0.22	PPBV		93
18) ISOPROPYL ALCOHOL	6.72	45	7583	0.30	PPBV		76
19) ACETONE	6.54	58	1159	0.22	PPBV	#	86
20) 1,1-DICHLORO-1-FLUOROETHAN	6.75	81	5038	0.23	PPBV	#	94
21) ACRYLONITRILE	6.91	53	1730	0.21	PPBV		92
22) PENTANE	6.94	57	1110	0.32	PPBV	#	58
23) IODOMETHANE	7.16	142	5671	0.20	PPBV		98
24) 1,1-DICHLOROETHYLENE	7.20	96	2736	0.24	PPBV	#	75
25) CARBON DISULFIDE	7.60	76	6097	0.21	PPBV		91
27) ACETONITRILE	6.32	41	1793	0.22	PPBV	#	80
28) BROMOETHENE	6.32	106	2361	0.22	PPBV		99
29) METHYLENE CHLORIDE	7.30	84	1724	0.19	PPBV		97
30) 3-CHLOROPROPENE	7.40	76	796	0.17	PPBV	#	62
31) FREON 113	7.50	151	3780	0.19	PPBV		99
32) TRANS-1,2-DICHLOROETHYLENE	8.09	96	2314	0.22	PPBV	#	83
33) TERTIARY BUTYL ALCOHOL	7.25	59	4213	0.19	PPBV		77
34) METHYL TERTIARY BUTYL ETHE	8.33	73	5495	0.19	PPBV		96
35) TETRAHYDROFURAN	9.69	72	701	0.15	PPBV	#	90
36) HEXANE	9.16	57	3042	0.19	PPBV		95
37) VINYL ACETATE	8.38	86	260	0.10	PPBV	#	1
38) 1,1-DICHLOROETHANE	8.27	63	3281	0.19	PPBV		97
39) METHYL ETHYL KETONE	8.63	72	703	0.15	PPBV	#	95
40) cis-1,2-DICHLOROETHYLENE	8.99	96	2356	0.21	PPBV		84
41) DI-ISOPROPYL ETHER	9.16	87	1559	0.17	PPBV		93
42) ETHYL ACETATE	9.18	61	344	0.11	PPBV	#	24
43) METHYL ACRYLATE	9.18	55	2832	0.16	PPBV	#	85
44) CHLOROFORM	9.26	83	3916	0.19	PPBV		97

(#) = qualifier out of range (m) = manual integration

7.7.57
7

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54273.D Vial: 2
Acq On : 18 Mar 2016 1:06 am Operator: YOUMINH
Sample : IC2167-0.2 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:47:32 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:47:24 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	2,4-DIMETHYLPENTANE	9.95	57	3440	0.19	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.16	97	4390	0.20	PPBV		96
47)	CARBON TETRACHLORIDE	10.72	117	4434	0.19	PPBV		98
48)	1,2-DICHLOROETHANE	9.93	62	2188	0.18	PPBV		93
50)	BENZENE	10.59	78	5593	0.18	PPBV		98
51)	CYCLOHEXANE	10.84	84	3271	0.23	PPBV	#	5
52)	2,3-DIMETHYLPENTANE	11.02	71	1323	0.19	PPBV	#	85
53)	TRICHLOROETHYLENE	11.55	95	2506	0.18	PPBV		98
54)	DIBROMOMETHANE	11.32	174	2471	0.18	PPBV		97
55)	1,2-DICHLOROPROPANE	11.34	63	2016	0.18	PPBV		83
56)	ETHYL ACRYLATE	11.30	55	3003	0.15	PPBV	#	86
57)	BROMODICHLOROMETHANE	11.52	83	4189	0.18	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	9318	0.18	PPBV		98
59)	1,4-DIOXANE	11.60	88	984	0.15	PPBV	#	19
60)	METHYL METHACRYLATE	11.71	69	1543	0.14	PPBV	#	77
61)	HEPTANE	11.79	43	3353	0.19	PPBV		96
62)	METHYL ISOBUTYL KETONE	12.40	43	3337	0.16	PPBV		92
63)	cis-1,3-DICHLOROPROPENE	12.36	75	2608	0.15	PPBV		87
64)	TOLUENE	13.33	92	3442	0.15	PPBV		91
65)	1,3-DICHLOROPROPANE	13.36	76	2399	0.14	PPBV	#	87
66)	trans-1,3-DICHLOROPROPENE	12.87	75	1790	0.14	PPBV		93
67)	1,1,2-TRICHLOROETHANE	13.05	83	1496	0.15	PPBV		95
69)	ETHYL METHACRYLATE	13.56	69	2459	0.16	PPBV	#	88
70)	2-HEXANONE	13.58	58	1423	0.15	PPBV	#	66
71)	TETRACHLOROETHYLENE	14.49	164	2795	0.19	PPBV		97
72)	DIBROMOCHLOROMETHANE	13.77	129	3480	0.17	PPBV		98
73)	1,2-DIBROMOETHANE	14.03	107	2246	0.15	PPBV	#	97
74)	OCTANE	14.27	43	4115	0.19	PPBV		96
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	2950	0.18	PPBV	#	1
76)	CHLOROBENZENE	15.19	112	4658	0.17	PPBV		96
77)	ETHYLBENZENE	15.56	91	7719	0.18	PPBV		95
78)	m,p-XYLENE	15.75	106	6096	0.34	PPBV	#	98
79)	o-XYLENE	16.27	106	2720	0.16	PPBV	#	85
80)	STYRENE	16.14	104	3751	0.15	PPBV		97
81)	1,2,3-TRICHLOROPROPANE	16.39	75	3218	0.20	PPBV	#	77
82)	NONANE	16.45	43	3890	0.18	PPBV		88
83)	BROMOFORM	15.88	173	2915	0.15	PPBV		92
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	4046	0.18	PPBV		95
86)	ISOPROPYLBENZENE	16.89	105	9255	0.18	PPBV		99
87)	BROMOBENZENE	17.02	156	2170	0.15	PPBV		93
88)	2-CHLOROTOLUENE	17.42	126	2027	0.17	PPBV	#	53
89)	n-PROPYLBENZENE	17.44	120	2153	0.16	PPBV		84
90)	4-ETHYLTOLUENE	17.60	105	6914m	0.17	PPBV		
91)	1,3,5-TRIMETHYLBENZENE	17.67	105	7486	0.18	PPBV		96
92)	ALPHA-METHYLSTYRENE	17.86	118	2763	0.16	PPBV		96
93)	TERT-BUTYLBENZENE	18.12	134	1797	0.17	PPBV		94
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	6497	0.17	PPBV		96
95)	m-DICHLOROBENZENE	18.32	146	2975	0.16	PPBV		91
96)	BENZYL CHLORIDE	18.30	91	2708	0.14	PPBV		85

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                    Vial: 2
Acq On    : 18 Mar 2016   1:06 am                      Operator: YOUMINH
Sample    : IC2167-0.2                                 Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:47:32 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:47:24 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

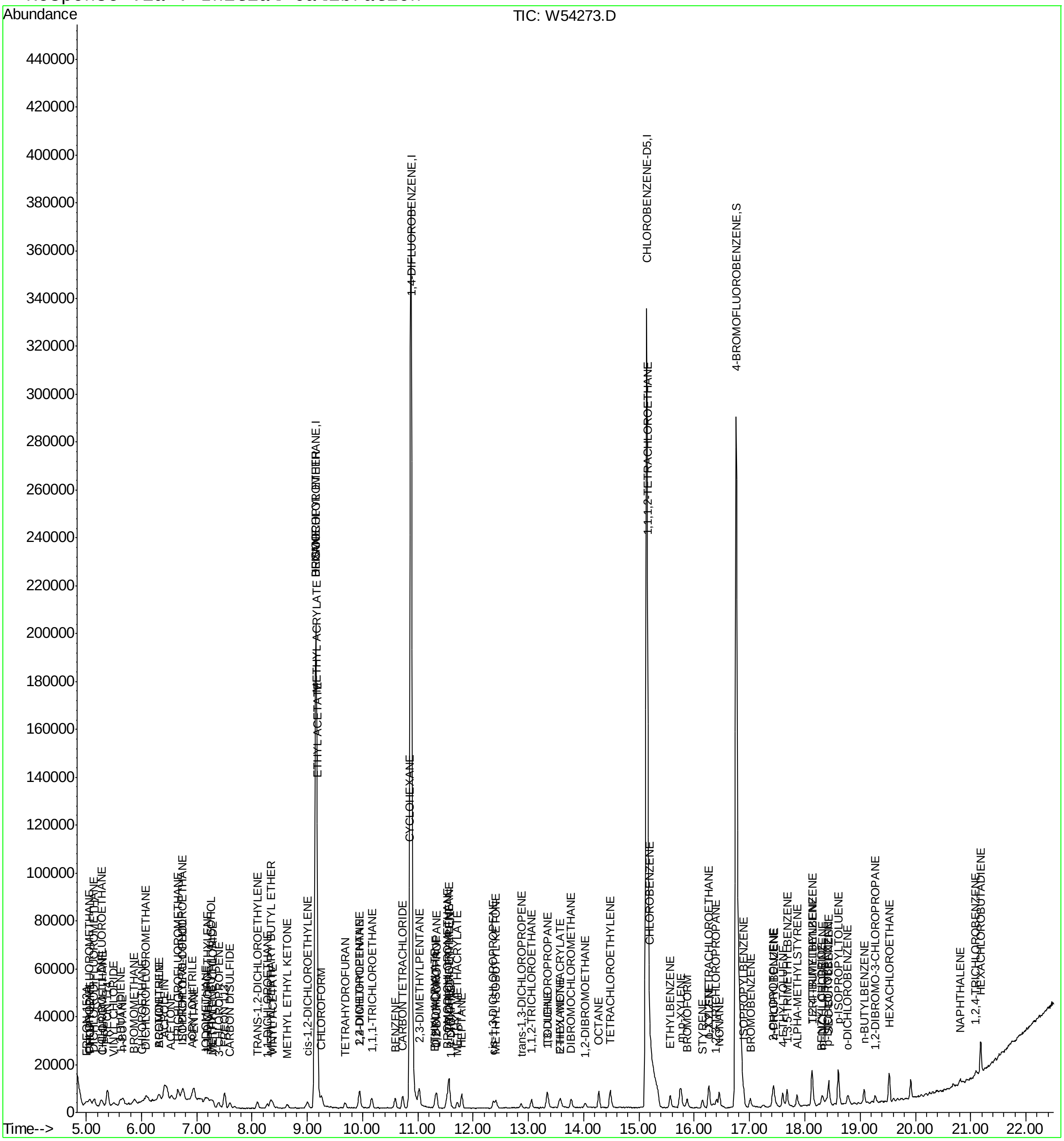
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.41	146	2374m	0.13	PPBV	
98)	SEC-BUTYLBENZENE	18.43	134	2162	0.18	PPBV	97
99)	p-ISOPROPYLTOLUENE	18.61	134	2099	0.17	PPBV	97
100)	o-DICHLOROBENZENE	18.78	146	3138	0.17	PPBV	90
101)	n-BUTYLBENZENE	19.08	134	1475	0.15	PPBV	94
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	1460	0.18	PPBV	98
103)	HEXACHLOROETHANE	19.53	201	2777	0.17	PPBV	86
104)	HEXACHLOROBUTADIENE	21.19	225	3341	0.20	PPBV	92
105)	1,2,4-TRICHLOROBENZENE	21.09	180	1123	0.19	PPBV	96
106)	NAPHTHALENE	20.81	128	2402	0.17	PPBV	90

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

```
                    Quantitation Report    (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54273.D                Vial: 2
Acq On    : 18 Mar 2016   1:06 am                 Operator: YOUMINH
Sample    : IC2167-0.2                            Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:49 2016            Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

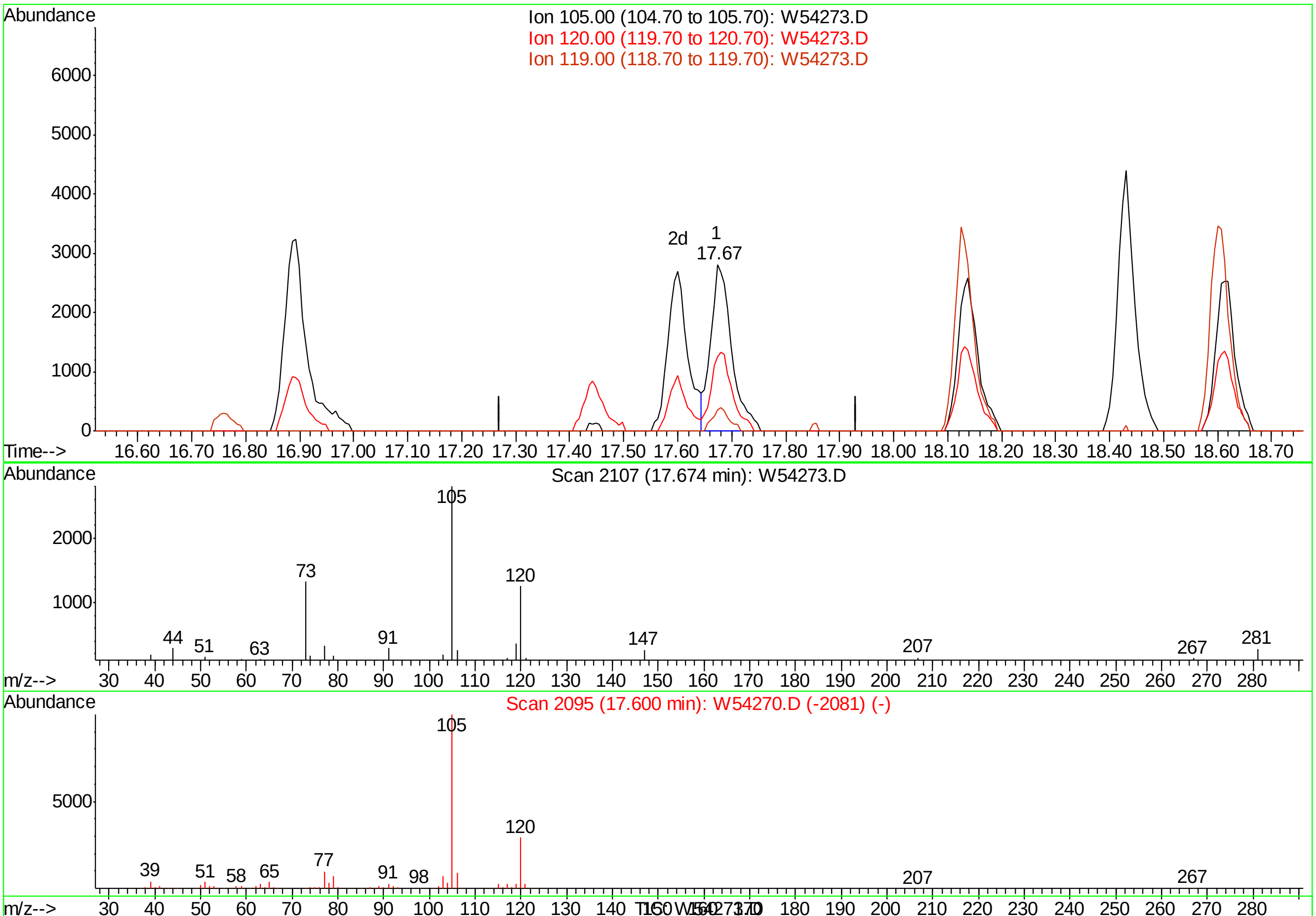
Sample Number:	VW2167-IC2167	**Method:**	TO-15
Lab FileID:	W54273.D	**Analyst approved:**	03/18/16 09:06 Dana Tryon
Injection Time:	03/18/16 01:06	**Supervisor approved:**	03/22/16 12:36 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
4-Ethyltoluene	622-96-8		17.60	Missed peak
p-Dichlorobenzene	106-46-7		18.41	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                  Vial: 2
Acq On    : 18 Mar 2016   1:06 am                   Operator: YOUMINH
Sample    : IC2167-0.2                              Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:48 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:47:24 2016
Response via : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.67min 0.18PPBV

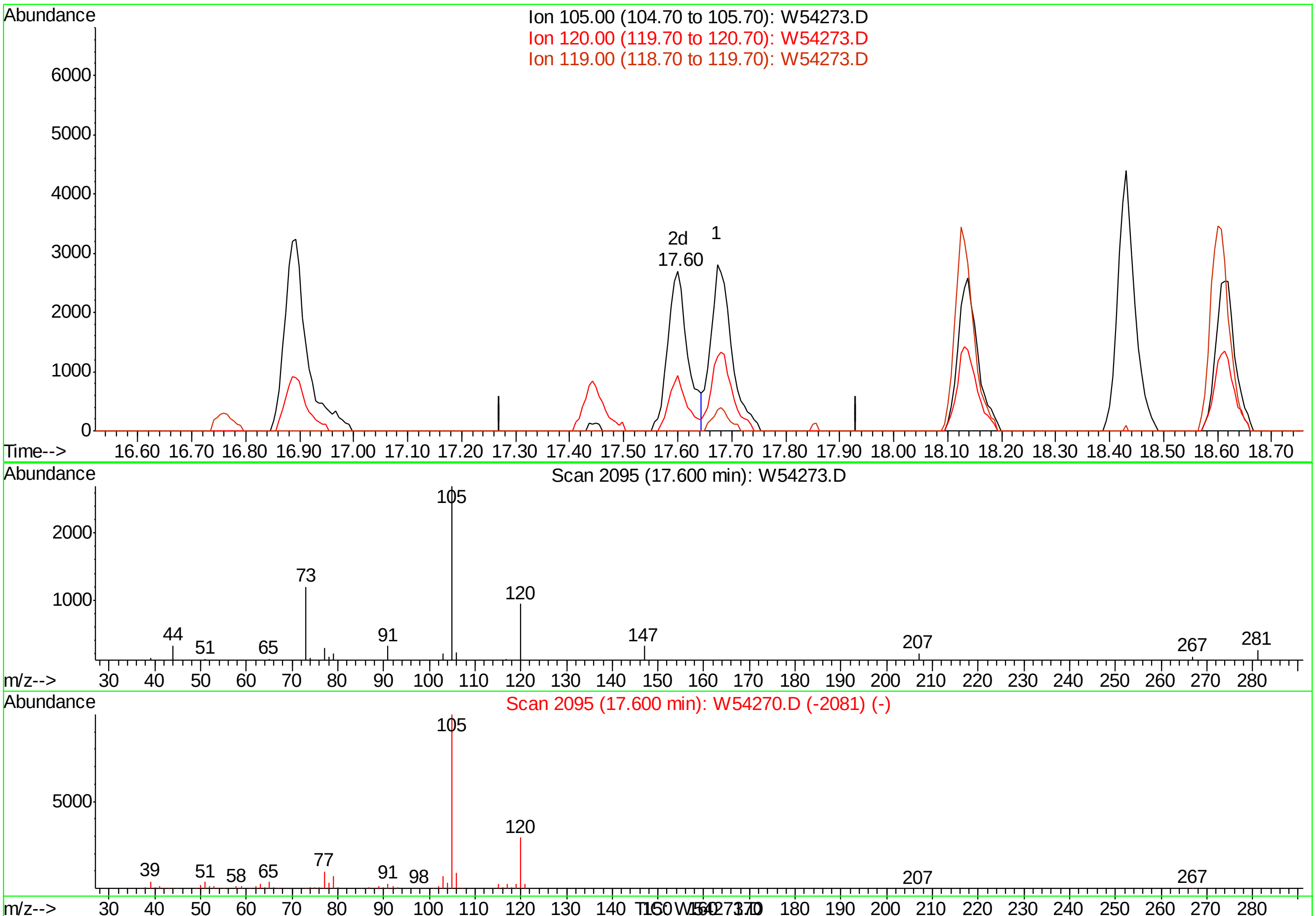
response 7486

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	47.45
119.00	2.30	11.09
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                  Vial: 2
Acq On    : 18 Mar 2016   1:06 am                   Operator: YOUMINH
Sample    : IC2167-0.2                              Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:49 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:47:24 2016
Response via : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.60min 0.17PPBV m

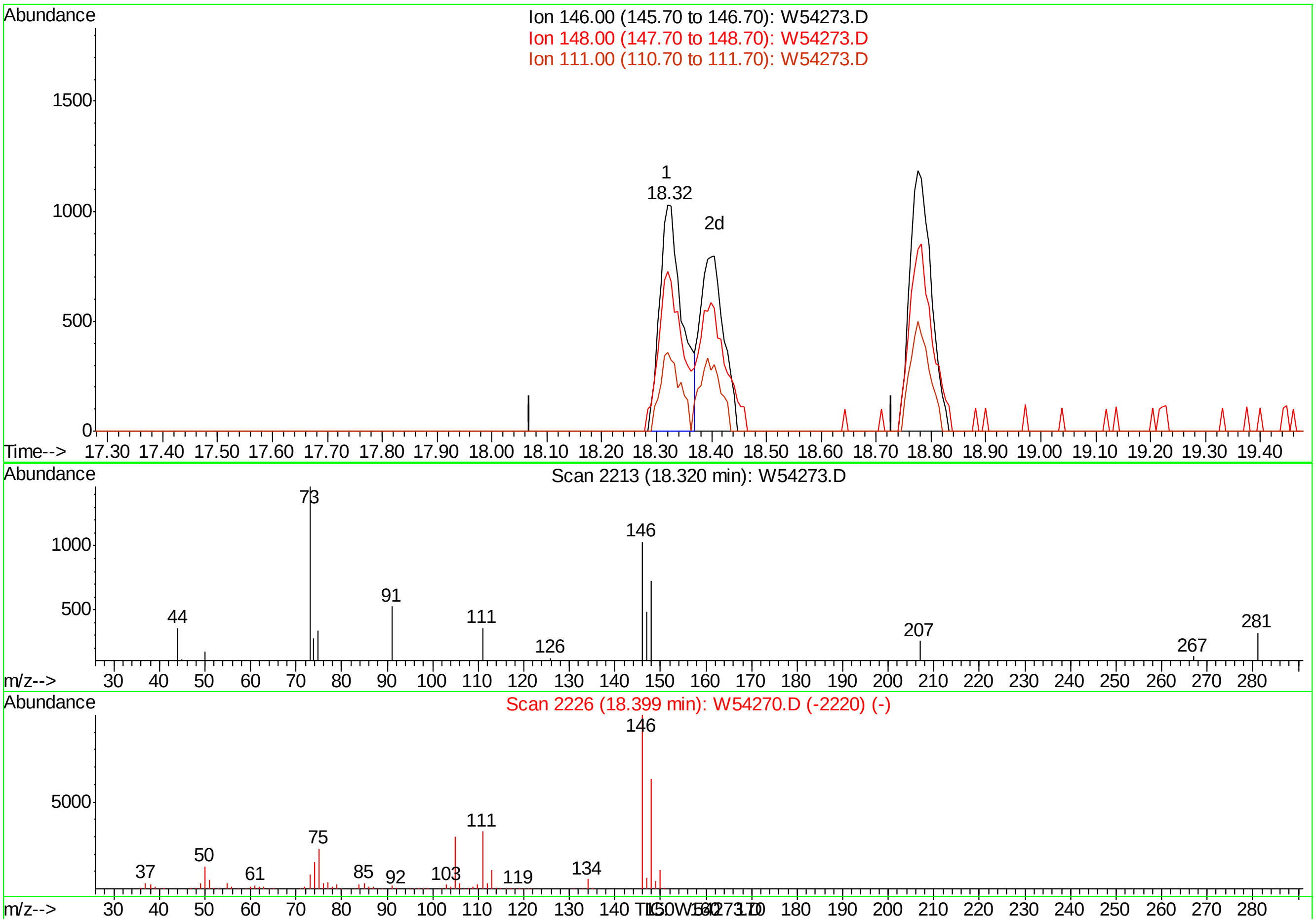
response 6914

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	51.37#
119.00	2.30	12.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                    Vial: 2
Acq On    : 18 Mar 2016   1:06 am                     Operator: YOUMINH
Sample    : IC2167-0.2                                Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:49 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:47:24 2016
Response via  : Multiple Level Calibration
```



(97) p-DICHLOROBENZENE

18.32min 0.17PPBV

response 2975

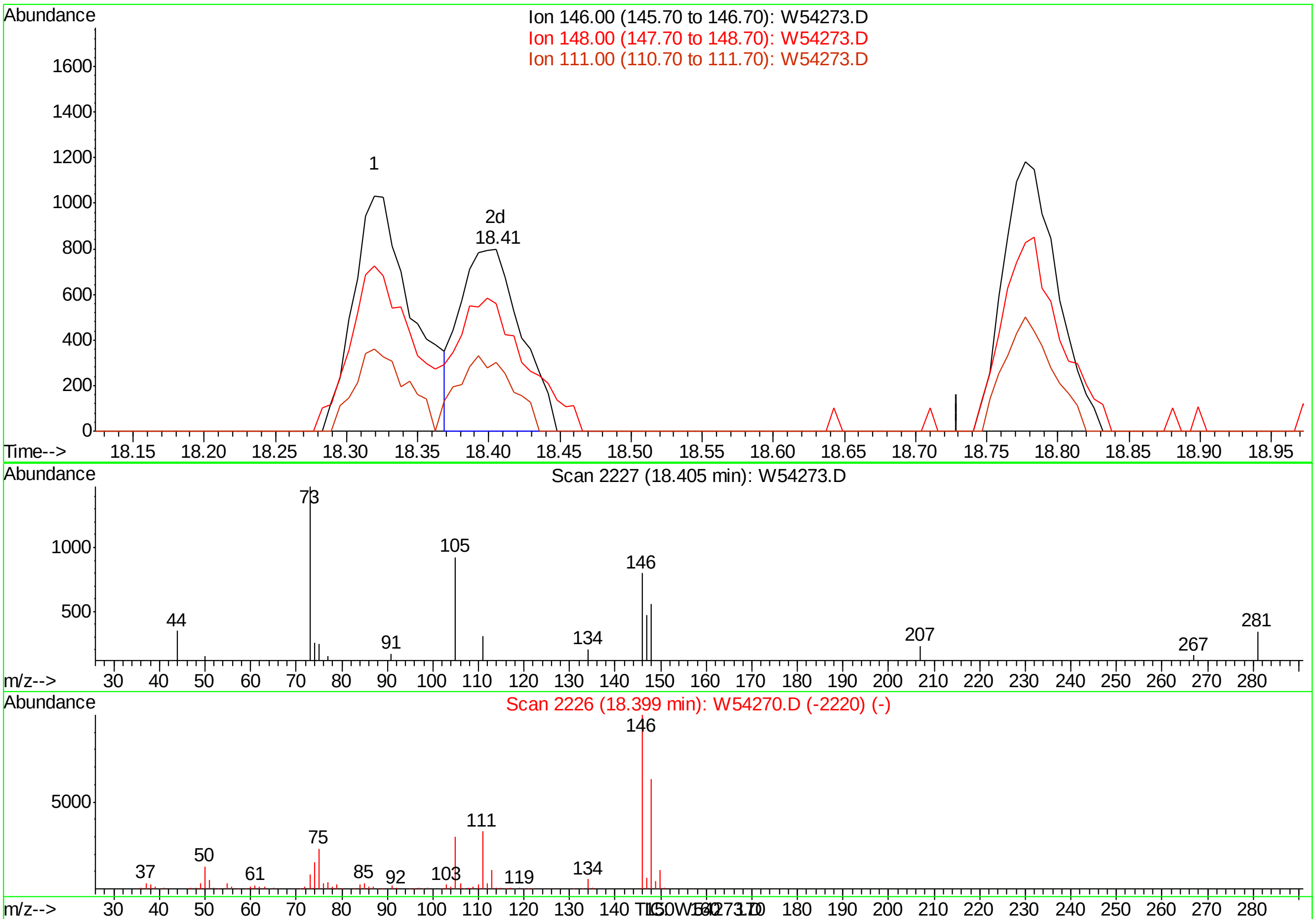
Ion	Exp%	Act%
146.00	100	100
148.00	64.20	71.80
111.00	34.40	31.03
0.00	0.00	0.00

W54273.D edits: p-DICHLOROBENZENE

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54273.D                Vial: 2
Acq On    : 18 Mar 2016   1:06 am                 Operator: YOUMINH
Sample    : IC2167-0.2                            Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:49 2016           Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:47:24 2016
Response via  : Multiple Level Calibration
```



(97) p-DICHLOROBENZENE

18.41min 0.13PPBV m

response 2374

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	89.97#
111.00	34.40	38.88
0.00	0.00	0.00

W54273.D edits: p-DICHLOROBENZENE

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54274.D                    Vial: 1
Acq On    : 18 Mar 2016   1:48 am                     Operator: YOUMINH
Sample    : IC2167-20                                 Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:49:45 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:49:35 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	108133	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	544828	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.15	82	278715	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.77	95	334125	10.82	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 108.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	5.01	65	137640	18.62	PPBV	99
4) CHLORODIFLUOROMETHANE	5.05	67	57147	19.07	PPBV	100
5) DICHLORODIFLUOROMETHANE	5.15	85	590640	18.33	PPBV	100
6) PROPYLENE	5.08	41	171418	16.84	PPBV	99
7) FREON 114	5.39	85	627447	18.44	PPBV	99
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.28	65	428405	19.22	PPBV	99
9) CHLOROMETHANE	5.30	52	58873	19.04	PPBV #	84
10) VINYL CHLORIDE	5.51	62	220713	17.83	PPBV	99
11) 1,3-BUTADIENE	5.63	54	179381	18.45	PPBV	99
12) n-BUTANE	5.68	58	50526	18.35	PPBV	99
13) BROMOMETHANE	5.88	94	217098	18.33	PPBV	99
14) CHLOROETHANE	6.02	64	130284	19.02	PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	519961	19.03	PPBV	100
16) ACROLEIN	6.41	56	108011	17.48	PPBV	95
17) TRICHLOROFLUOROMETHANE	6.67	101	579952	19.28	PPBV	100
18) ISOPROPYL ALCOHOL	6.71	45	555813	17.38	PPBV	99
19) ACETONE	6.52	58	123155	19.70	PPBV	93
20) 1,1-DICHLORO-1-FLUOROETHAN	6.76	81	506284	19.29	PPBV	100
21) ACRYLONITRILE	6.90	53	198195	20.42	PPBV	99
22) PENTANE	6.96	57	72666	16.15	PPBV	95
23) IODOMETHANE	7.16	142	636180	19.00	PPBV	98
24) 1,1-DICHLOROETHYLENE	7.21	96	232962	17.01	PPBV	100
25) CARBON DISULFIDE	7.60	76	575631	17.08	PPBV	99
26) ETHANOL	6.10	45	100914	16.58	PPBV	98
27) ACETONITRILE	6.30	41	196296	20.09	PPBV	99
28) BROMOETHENE	6.32	106	239535	18.74	PPBV	100
29) METHYLENE CHLORIDE	7.30	84	186136	17.76	PPBV	98
30) 3-CHLOROPROPENE	7.40	76	103707	19.24	PPBV	98
31) FREON 113	7.51	151	429170	19.04	PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	218687	17.63	PPBV	98
33) TERTIARY BUTYL ALCOHOL	7.22	59	454479	17.48	PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.32	73	647315	19.47	PPBV	100
35) TETRAHYDROFURAN	9.65	72	104902	20.82	PPBV	100
36) HEXANE	9.16	57	389820	20.88	PPBV	99
37) VINYL ACETATE	8.37	86	63561	22.82	PPBV	99
38) 1,1-DICHLOROETHANE	8.28	63	382429	19.20	PPBV	100
39) METHYL ETHYL KETONE	8.61	72	105446	20.55	PPBV	97
40) cis-1,2-DICHLOROETHYLENE	9.00	96	233248	17.97	PPBV	98
41) DI-ISOPROPYL ETHER	9.15	87	227159	21.68	PPBV	100
42) ETHYL ACETATE	9.17	61	79093	23.57	PPBV #	75
43) METHYL ACRYLATE	9.17	55	452699	22.51	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54274.D Vial: 1
Acq On : 18 Mar 2016 1:48 am Operator: YOUMINH
Sample : IC2167-20 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:49:45 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:49:35 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	CHLOROFORM	9.27	83	464828	19.66 PPBV		100
45)	2,4-DIMETHYLPENTANE	9.96	57	423224	19.95 PPBV		99
46)	1,1,1-TRICHLOROETHANE	10.17	97	498774	19.53 PPBV		100
47)	CARBON TETRACHLORIDE	10.73	117	536845	20.08 PPBV		100
48)	1,2-DICHLOROETHANE	9.94	62	294734	20.94 PPBV		100
50)	BENZENE	10.60	78	710745	20.23 PPBV		100
51)	CYCLOHEXANE	10.85	84	318212	18.83 PPBV		97
52)	2,3-DIMETHYLPENTANE	11.03	71	165435	20.73 PPBV		99
53)	TRICHLOROETHYLENE	11.56	95	361068	23.00 PPBV		99
54)	DIBROMOMETHANE	11.33	174	337621	22.00 PPBV		99
55)	1,2-DICHLOROPROPANE	11.35	63	261478	21.42 PPBV		100
56)	ETHYL ACRYLATE	11.30	55	500276	23.31 PPBV		100
57)	BROMODICHLOROMETHANE	11.53	83	563856	22.07 PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.57	57	1289456	22.56 PPBV		100
59)	1,4-DIOXANE	11.57	88	168458	23.90 PPBV		95
60)	METHYL METHACRYLATE	11.71	69	257249	22.23 PPBV		94
61)	HEPTANE	11.80	43	417905	21.30 PPBV		100
62)	METHYL ISOBUTYL KETONE	12.39	43	505085	22.62 PPBV		100
63)	cis-1,3-DICHLOROPROPENE	12.37	75	442406	23.58 PPBV		100
64)	TOLUENE	13.34	92	573654	23.18 PPBV		100
65)	1,3-DICHLOROPROPANE	13.36	76	441881	24.38 PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.88	75	337737	25.14 PPBV		99
67)	1,1,2-TRICHLOROETHANE	13.06	83	245530	22.84 PPBV		100
69)	ETHYL METHACRYLATE	13.56	69	466951	20.91 PPBV		100
70)	2-HEXANONE	13.57	58	285826	20.85 PPBV		99
71)	TETRACHLOROETHYLENE	14.49	164	419841	19.03 PPBV		100
72)	DIBROMOCHLOROMETHANE	13.78	129	596540	19.91 PPBV		100
73)	1,2-DIBROMOETHANE	14.03	107	449560	21.61 PPBV		100
74)	OCTANE	14.28	43	607287	19.06 PPBV		98
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	453668	19.31 PPBV	#	74
76)	CHLOROBENZENE	15.19	112	785875	19.98 PPBV		99
77)	ETHYLBENZENE	15.57	91	1206434	19.67 PPBV		100
78)	m,p-XYLENE	15.76	106	1041991	40.72 PPBV		99
79)	o-XYLENE	16.27	106	499884	20.74 PPBV		99
80)	STYRENE	16.16	104	764749	21.57 PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.41	75	476202	19.75 PPBV		99
82)	NONANE	16.45	43	655037	20.56 PPBV		99
83)	BROMOFORM	15.88	173	602108	21.63 PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	679897	20.67 PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	1479013	20.02 PPBV		100
87)	BROMOBENZENE	17.02	156	439349	21.70 PPBV		100
88)	2-CHLOROTOLUENE	17.42	126	350753	20.70 PPBV	#	78
89)	n-PROPYLBENZENE	17.45	120	405091	21.52 PPBV		97
90)	4-ETHYLTOLUENE	17.60	105	1295591	21.89 PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	1182656	19.87 PPBV		98
92)	ALPHA-METHYLSTYRENE	17.86	118	558854	22.37 PPBV		100
93)	TERT-BUTYLBENZENE	18.14	134	312420	21.00 PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	1152974	21.33 PPBV		99
95)	m-DICHLOROBENZENE	18.33	146	622044	23.39 PPBV		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54274.D Vial: 1
Acq On : 18 Mar 2016 1:48 am Operator: YOUMINH
Sample : IC2167-20 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:49:45 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:49:35 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	730997	26.35	PPBV	100
97)	p-DICHLOROBENZENE	18.40	146	623107	25.22	PPBV	98
98)	SEC-BUTYLBENZENE	18.44	134	363964	20.87	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.61	134	387792	21.63	PPBV	98
100)	o-DICHLOROBENZENE	18.78	146	601824	22.11	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	312204	22.72	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	265764	22.37	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	477323	20.56	PPBV	99
104)	HEXACHLOROBUTADIENE	21.18	225	456622	18.25	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	168551	18.99	PPBV	100
106)	NAPHTHALENE	20.81	128	488146	23.44	PPBV	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54274.D MW2167.M Fri Mar 18 09:09:13 2016 MSW Page 3

Quantitation Report (QT Reviewed)

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Data File : C:\MSDCHEM\1\DATA\W54274.D                Vial: 1
Acq On    : 18 Mar 2016   1:48 am                 Operator: YOUMINH
Sample    : IC2167-20                             Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:50 2016           Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
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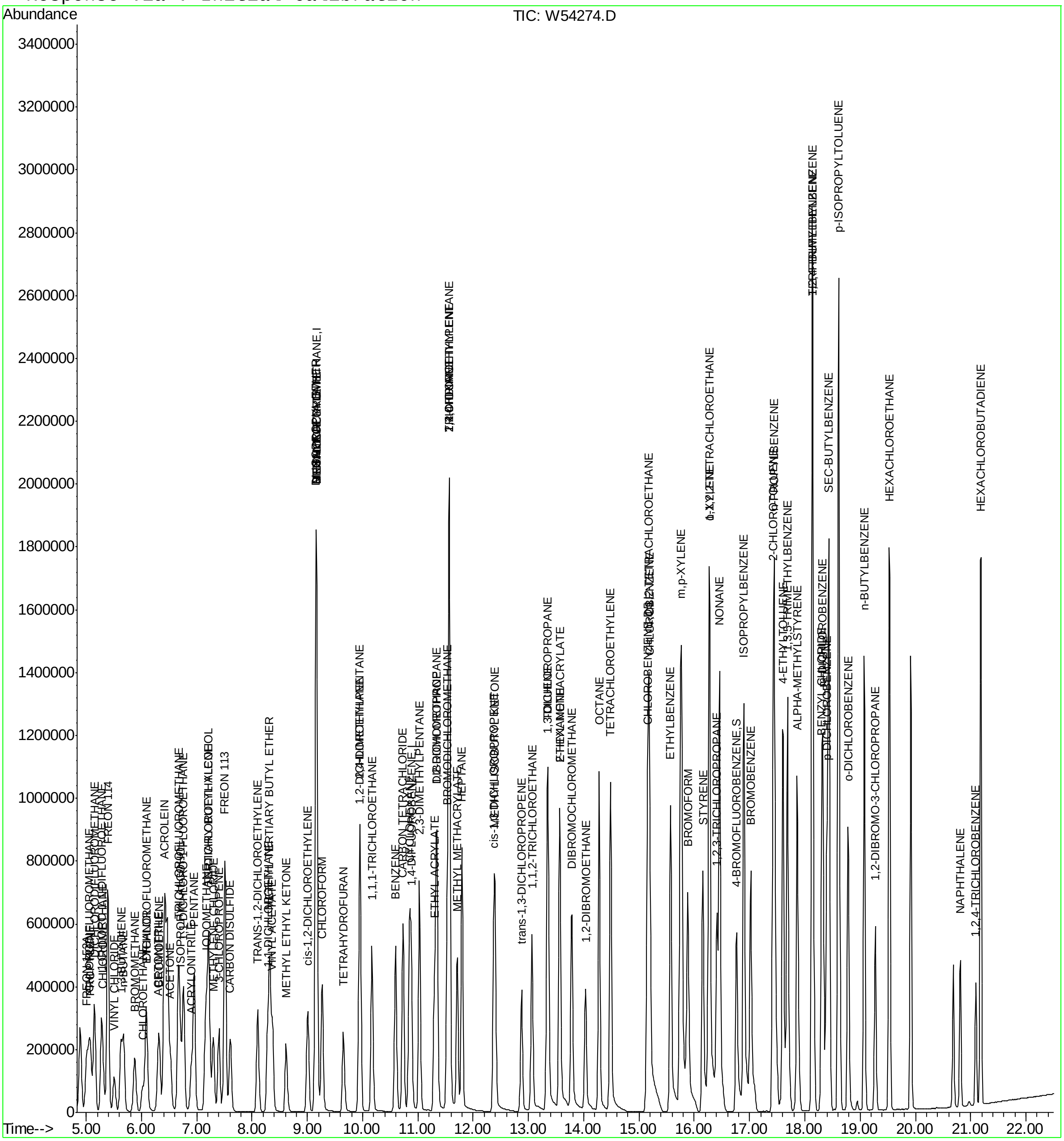

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54275.D Vial: 1
Acq On : 18 Mar 2016 2:29 am Operator: YOUMINH
Sample : IC2167-15 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:42:44 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:42:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	118021	10.00	PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	610114	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	286678	10.00	PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.77	95	342209	10.07	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 100.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	5.00	65	108975	12.70	PPBV	98
4) CHLORODIFLUOROMETHANE	5.05	67	42863	12.44	PPBV	98
5) DICHLORODIFLUOROMETHANE	5.15	85	463468	13.15	PPBV	99
6) PROPYLENE	5.07	41	140214	13.25	PPBV	98
7) FREON 114	5.39	85	493593	12.83	PPBV	100
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.27	65	319123	12.50	PPBV	98
9) CHLOROMETHANE	5.30	52	48288	13.10	PPBV	90
10) VINYL CHLORIDE	5.51	62	180093	13.08	PPBV	99
11) 1,3-BUTADIENE	5.63	54	142851	12.90	PPBV	97
12) n-BUTANE	5.68	58	41520	13.15	PPBV	95
13) BROMOMETHANE	5.88	94	173580	12.84	PPBV	99
14) CHLOROETHANE	6.02	64	101389	12.67	PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	391476	12.58	PPBV	100
16) ACROLEIN	6.41	56	78431	12.25	PPBV	96
17) TRICHLOROFLUOROMETHANE	6.66	101	427611	12.51	PPBV	99
18) ISOPROPYL ALCOHOL	6.70	45	397015	12.51	PPBV	99
19) ACETONE	6.52	58	88722	12.47	PPBV	97
20) 1,1-DICHLORO-1-FLUOROETHAN	6.76	81	369072	12.47	PPBV	99
21) ACRYLONITRILE	6.90	53	140755	12.49	PPBV	99
22) PENTANE	6.95	57	54052	12.24	PPBV	97
23) IODOMETHANE	7.16	142	500921	12.80	PPBV	98
24) 1,1-DICHLOROETHYLENE	7.21	96	191926	12.81	PPBV	97
25) CARBON DISULFIDE	7.60	76	486523	12.64	PPBV	99
26) ETHANOL	6.10	45	73976	12.56	PPBV	97
27) ACETONITRILE	6.30	41	137508	12.56	PPBV	98
28) BROMOETHENE	6.32	106	185604	12.76	PPBV	99
29) METHYLENE CHLORIDE	7.30	84	153772	12.32	PPBV	99
30) 3-CHLOROPROPENE	7.40	76	84804	12.79	PPBV	96
31) FREON 113	7.50	151	347579	13.16	PPBV	100
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	178504	12.76	PPBV	100
33) TERTIARY BUTYL ALCOHOL	7.22	59	405362	12.88	PPBV	98
34) METHYL TERTIARY BUTYL ETHE	8.32	73	510655	13.03	PPBV	99
35) TETRAHYDROFURAN	9.65	72	83167	13.06	PPBV	99
36) HEXANE	9.16	57	297187	13.37	PPBV	97
37) VINYL ACETATE	8.37	86	49671	13.16	PPBV #	94
38) 1,1-DICHLOROETHANE	8.28	63	308566	13.04	PPBV	100
39) METHYL ETHYL KETONE	8.61	72	83870	13.13	PPBV	98
40) cis-1,2-DICHLOROETHYLENE	9.00	96	188479	12.74	PPBV	100
41) DI-ISOPROPYL ETHER	9.15	87	171354	13.23	PPBV	99
42) ETHYL ACETATE	9.16	61	59729	13.34	PPBV #	94
43) METHYL ACRYLATE	9.17	55	332538	13.18	PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54275.D                  Vial: 1
Acq On    : 18 Mar 2016   2:29 am                    Operator: YOUMINH
Sample    : IC2167-15                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:42:44 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:42:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	CHLOROFORM	9.27	83	361682	12.85 PPBV		99
45)	2,4-DIMETHYLPENTANE	9.96	57	333332	13.19 PPBV		100
46)	1,1,1-TRICHLOROETHANE	10.17	97	390420	12.95 PPBV		99
47)	CARBON TETRACHLORIDE	10.73	117	412480	12.96 PPBV		100
48)	1,2-DICHLOROETHANE	9.94	62	218468	12.66 PPBV		100
50)	BENZENE	10.60	78	568175	13.00 PPBV		100
51)	CYCLOHEXANE	10.85	84	254412	13.04 PPBV		98
52)	2,3-DIMETHYLPENTANE	11.03	71	129011	13.14 PPBV		99
53)	TRICHLOROETHYLENE	11.56	95	257263	13.00 PPBV		100
54)	DIBROMOMETHANE	11.33	174	249488	12.96 PPBV		100
55)	1,2-DICHLOROPROPANE	11.35	63	197628	13.19 PPBV		99
56)	ETHYL ACRYLATE	11.29	55	377029	13.53 PPBV		100
57)	BROMODICHLOROMETHANE	11.53	83	415686	13.00 PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.57	57	949571	13.35 PPBV		100
59)	1,4-DIOXANE	11.57	88	125316	13.80 PPBV		95
60)	METHYL METHACRYLATE	11.71	69	202638	13.24 PPBV		100
61)	HEPTANE	11.80	43	314494	13.18 PPBV		99
62)	METHYL ISOBUTYL KETONE	12.39	43	380518	13.44 PPBV		99
63)	cis-1,3-DICHLOROPROPENE	12.37	75	321230	12.96 PPBV		99
64)	TOLUENE	13.34	92	432995	13.46 PPBV		99
65)	1,3-DICHLOROPROPANE	13.36	76	320348	13.18 PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.87	75	244475	13.66 PPBV		99
67)	1,1,2-TRICHLOROETHANE	13.06	83	185133	13.11 PPBV		100
69)	ETHYL METHACRYLATE	13.56	69	343950	12.96 PPBV		100
70)	2-HEXANONE	13.57	58	214260	13.26 PPBV		98
71)	TETRACHLOROETHYLENE	14.49	164	306474	12.35 PPBV		100
72)	DIBROMOCHLOROMETHANE	13.78	129	432651	12.27 PPBV		100
73)	1,2-DIBROMOETHANE	14.03	107	312939	12.37 PPBV		99
74)	OCTANE	14.28	43	442952	12.38 PPBV		99
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	332017	12.48 PPBV	#	80
76)	CHLOROBENZENE	15.19	112	567212	12.53 PPBV		99
77)	ETHYLBENZENE	15.57	91	889923	12.74 PPBV		100
78)	m,p-XYLENE	15.76	106	746434	25.17 PPBV		100
79)	o-XYLENE	16.27	106	355214	12.59 PPBV		100
80)	STYRENE	16.16	104	547646	12.81 PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.41	75	335138	12.55 PPBV		100
82)	NONANE	16.45	43	466455	12.49 PPBV		99
83)	BROMOFORM	15.88	173	426465	12.81 PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	480348	12.66 PPBV		100
86)	ISOPROPYLBENZENE	16.89	105	1057775	12.46 PPBV		100
87)	BROMOBENZENE	17.02	156	309792	12.90 PPBV		99
88)	2-CHLOROTOLUENE	17.42	126	249558	12.74 PPBV	#	87
89)	n-PROPYLBENZENE	17.44	120	284642	12.77 PPBV		99
90)	4-ETHYLTOLUENE	17.60	105	900417	12.82 PPBV		100
91)	1,3,5-TRIMETHYLBENZENE	17.68	105	855883	12.44 PPBV		100
92)	ALPHA-METHYLSTYRENE	17.86	118	389697	12.86 PPBV		100
93)	TERT-BUTYLBENZENE	18.13	134	217452	12.47 PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	808728	12.75 PPBV		98
95)	m-DICHLOROBENZENE	18.33	146	432459	13.56 PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54275.D                    Vial: 1
Acq On    : 18 Mar 2016   2:29 am                     Operator: YOUMINH
Sample    : IC2167-15                                 Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:42:44 2016            Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:42:25 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	488555	14.44	PPBV	100
97)	p-DICHLOROBENZENE	18.40	146	425164	14.04	PPBV	100
98)	SEC-BUTYLBENZENE	18.44	134	255261	12.55	PPBV	100
99)	p-ISOPROPYLTOLUENE	18.61	134	269516	12.75	PPBV	99
100)	o-DICHLOROBENZENE	18.78	146	419486	13.12	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	218354	13.27	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	184090	13.97	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	337067	12.41	PPBV	100
104)	HEXACHLOROBUTADIENE	21.19	225	333217	12.03	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	143188	15.64	PPBV	100
106)	NAPHTHALENE	20.81	128	349601	15.42	PPBV	100

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

Quantitation Report   (QT Reviewed)

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Data File : C:\MSDCHEM\1\DATA\W54275.D                    Vial: 1
Acq On    : 18 Mar 2016   2:29 am                      Operator: YOUMINH
Sample    : IC2167-15                                  Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:43 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
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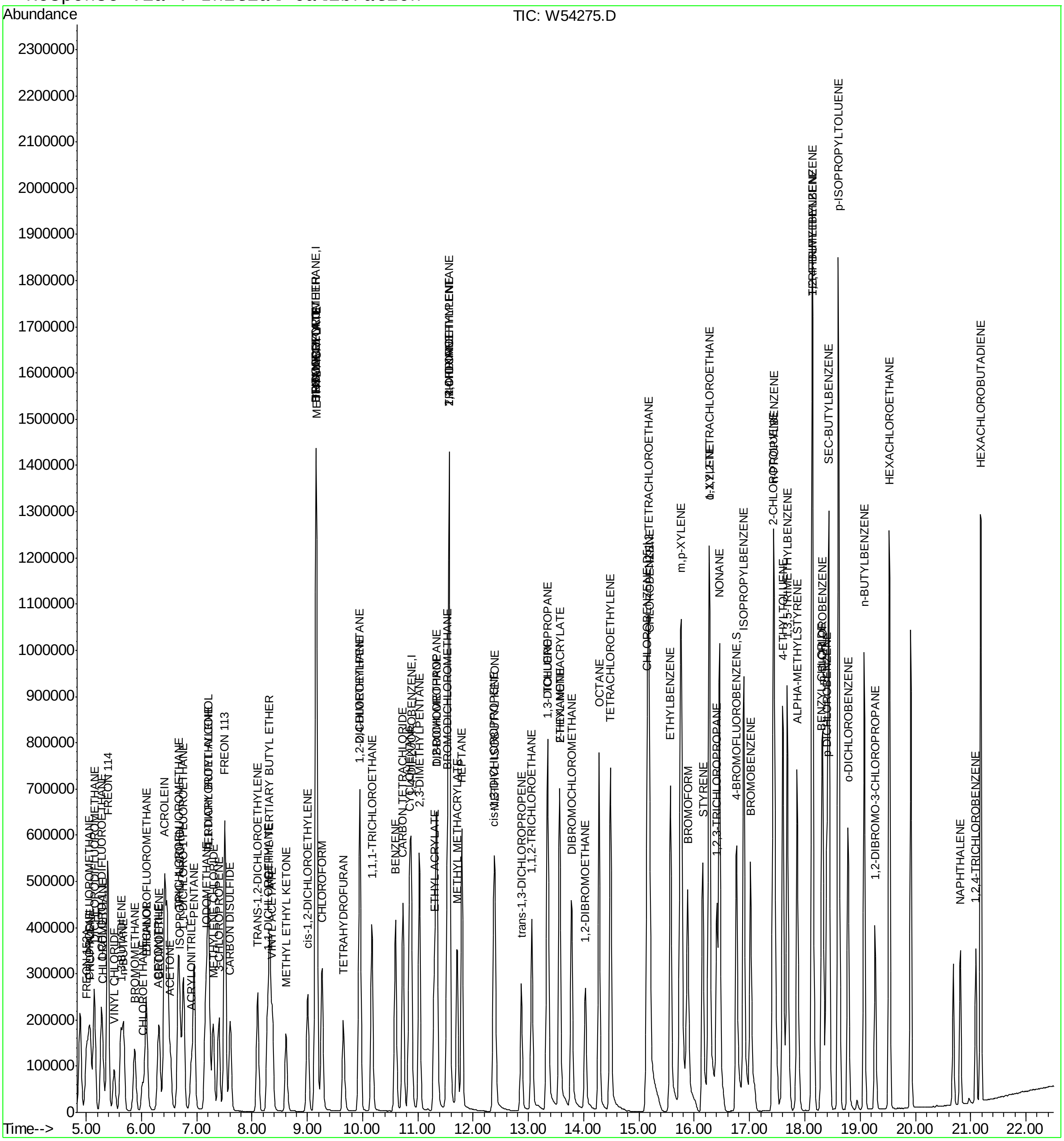


W54275.D   MW2167.M   Fri Mar 18 09:09:21 2016   MSW   Page 4

W54277.D

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/22/16 12:36

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                  Vial: 3
Acq On    : 18 Mar 2016   3:52 am                   Operator: YOUMINH
Sample    : IC2167-0.1                              Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:51:29 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:51:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.17	128	97000	10.00	PPBV	0.01
49) 1,4-DIFLUOROBENZENE	10.88	114	503597	10.00	PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	194782	10.00	PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.76	95	183857	8.41	PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 84.10%

Target Compounds	R.T.	QIon	Response	Conc	Units		Qvalue
3) FREON 152A	5.01	65	513	0.08	PPBV	#	75
5) DICHLORODIFLUOROMETHANE	5.16	85	2971	0.10	PPBV		93
6) PROPYLENE	5.09	41	1193	0.13	PPBV	#	82
7) FREON 114	5.40	85	2991	0.10	PPBV		98
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	1986	0.10	PPBV	#	80
10) VINYL CHLORIDE	5.52	62	1004	0.09	PPBV	#	66
11) 1,3-BUTADIENE	5.65	54	746	0.09	PPBV	#	69
13) BROMOMETHANE	5.89	94	968	0.09	PPBV	#	52
14) CHLOROETHANE	6.04	64	495	0.08	PPBV	#	37
15) DICHLOROFLUOROMETHANE	6.10	67	2432	0.10	PPBV	#	95
17) TRICHLOROFLUOROMETHANE	6.68	101	2745	0.10	PPBV		91
19) ACETONE	6.58	58	487	0.09	PPBV	#	44
20) 1,1-DICHLORO-1-FLUOROETHAN	6.78	81	2569	0.11	PPBV	#	86
21) ACRYLONITRILE	6.95	53	654	0.07	PPBV	#	53
22) PENTANE	6.97	57	493	0.13	PPBV	#	82
23) IODOMETHANE	7.17	142	3048	0.10	PPBV		97
24) 1,1-DICHLOROETHYLENE	7.22	96	2122	0.18	PPBV	#	58
25) CARBON DISULFIDE	7.62	76	3183	0.11	PPBV	#	85
28) BROMOETHENE	6.33	106	1047	0.09	PPBV	#	97
29) METHYLENE CHLORIDE	7.30	84	925	0.10	PPBV		95
31) FREON 113	7.52	151	1846	0.09	PPBV		99
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	1315	0.12	PPBV	#	64
33) TERTIARY BUTYL ALCOHOL	7.35	59	1930	0.08	PPBV	#	85
34) METHYL TERTIARY BUTYL ETHE	8.37	73	3046	0.10	PPBV		85
36) HEXANE	9.17	57	1495	0.09	PPBV		94
38) 1,1-DICHLOROETHANE	8.29	63	1577	0.09	PPBV	#	83
40) cis-1,2-DICHLOROETHYLENE	9.01	96	1262	0.11	PPBV	#	71
41) DI-ISOPROPYL ETHER	9.18	87	667	0.07	PPBV	#	70
44) CHLOROFORM	9.27	83	1861	0.09	PPBV		95
45) 2,4-DIMETHYLPENTANE	9.96	57	1655	0.09	PPBV		96
46) 1,1,1-TRICHLOROETHANE	10.18	97	2124	0.09	PPBV		94
47) CARBON TETRACHLORIDE	10.74	117	2291	0.10	PPBV		95
48) 1,2-DICHLOROETHANE	9.94	62	986	0.08	PPBV	#	79
50) BENZENE	10.60	78	2866	0.09	PPBV		94
51) CYCLOHEXANE	10.86	84	1784	0.12	PPBV	#	5
52) 2,3-DIMETHYLPENTANE	11.04	71	577	0.08	PPBV	#	59
53) TRICHLOROETHYLENE	11.57	95	1199	0.08	PPBV		94
54) DIBROMOMETHANE	11.33	174	1152	0.08	PPBV		98
55) 1,2-DICHLOROPROPANE	11.35	63	999	0.09	PPBV	#	70
57) BROMODICHLOROMETHANE	11.53	83	1992	0.08	PPBV		93
58) 2,2,4-TRIMETHYLPENTANE	11.57	57	4474	0.08	PPBV		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54277.D Vial: 3
Acq On : 18 Mar 2016 3:52 am Operator: YOUMINH
Sample : IC2167-0.1 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:51:29 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:51:19 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

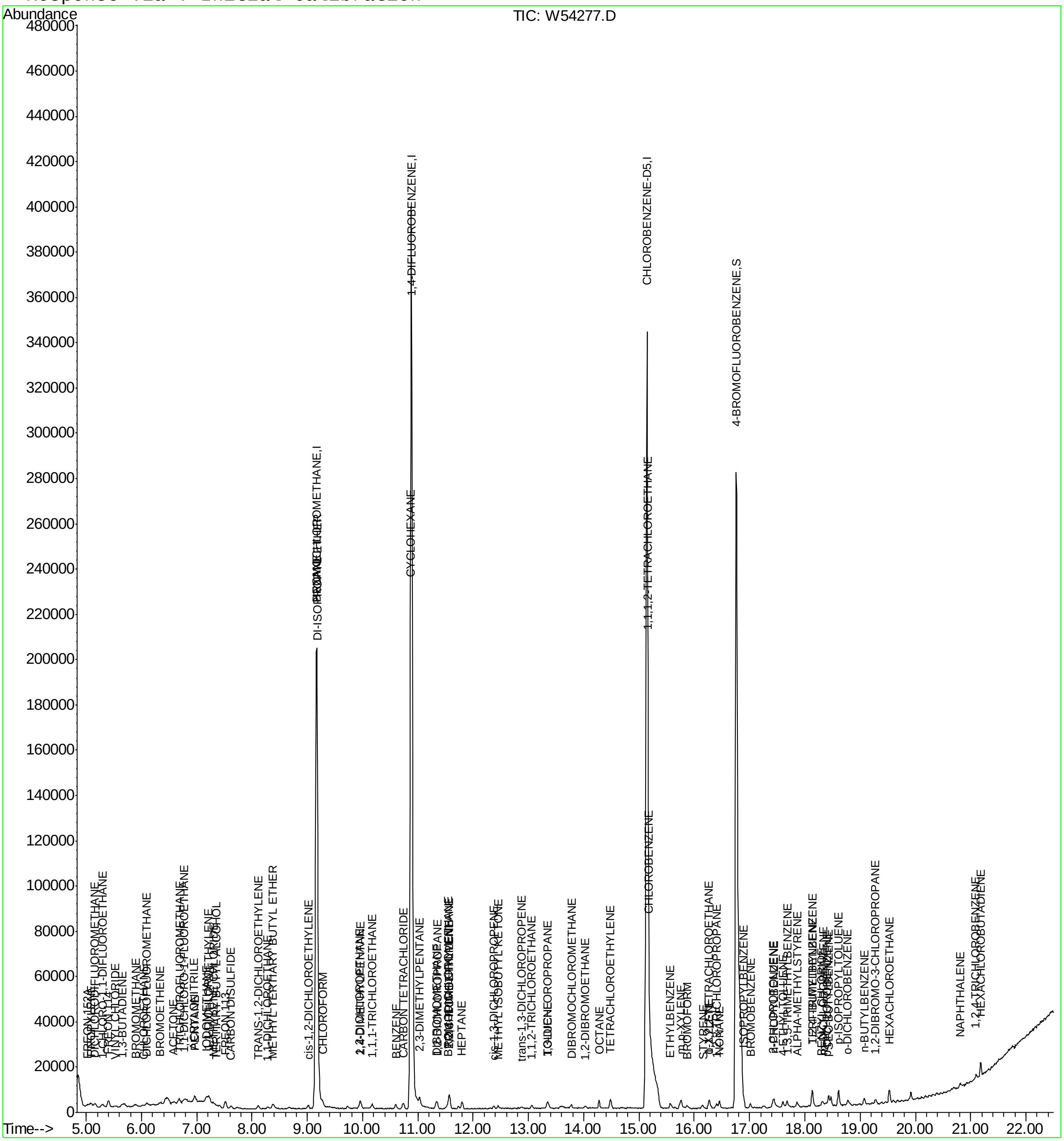
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
61)	HEPTANE	11.80	43	1636	0.09 PPBV		92
62)	METHYL ISOBUTYL KETONE	12.45	43	1577	0.07 PPBV		71
63)	cis-1,3-DICHLOROPROPENE	12.37	75	1256	0.07 PPBV		80
64)	TOLUENE	13.34	92	1671	0.07 PPBV		91
65)	1,3-DICHLOROPROPANE	13.36	76	1098	0.06 PPBV	#	88
66)	trans-1,3-DICHLOROPROPENE	12.88	75	736	0.06 PPBV	#	70
67)	1,1,2-TRICHLOROETHANE	13.06	83	742	0.07 PPBV		95
71)	TETRACHLOROETHYLENE	14.49	164	1323	0.09 PPBV		96
72)	DIBROMOCHLOROMETHANE	13.78	129	1676	0.08 PPBV		92
73)	1,2-DIBROMOETHANE	14.03	107	976	0.07 PPBV	#	97
74)	OCTANE	14.28	43	1973	0.09 PPBV		89
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	1339	0.08 PPBV	#	1
76)	CHLOROBENZENE	15.19	112	2136	0.08 PPBV	#	50
77)	ETHYLBENZENE	15.57	91	3748	0.09 PPBV		90
78)	m,p-XYLENE	15.76	106	2849	0.16 PPBV		89
79)	o-XYLENE	16.27	106	1281	0.08 PPBV	#	78
80)	STYRENE	16.16	104	1643	0.07 PPBV		92
81)	1,2,3-TRICHLOROPROPANE	16.41	75	1671	0.10 PPBV	#	74
82)	NONANE	16.45	43	1714	0.08 PPBV	#	82
83)	BROMOFORM	15.88	173	1322	0.07 PPBV	#	80
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	1814	0.08 PPBV	#	96
86)	ISOPROPYLBENZENE	16.89	105	4545	0.09 PPBV		95
87)	BROMOBENZENE	17.02	156	993	0.07 PPBV		89
88)	2-CHLOROTOLUENE	17.42	126	895	0.08 PPBV	#	65
89)	n-PROPYLBENZENE	17.44	120	983	0.07 PPBV		68
90)	4-ETHYLTOLUENE	17.60	105	3453m	0.08 PPBV		
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	3744	0.09 PPBV		96
92)	ALPHA-METHYLSTYRENE	17.86	118	1290	0.07 PPBV		84
93)	TERT-BUTYLBENZENE	18.13	134	788	0.08 PPBV		80
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	3312	0.09 PPBV		98
95)	m-DICHLOROBENZENE	18.32	146	1611	0.08 PPBV		84
96)	BENZYL CHLORIDE	18.30	91	1613	0.08 PPBV	#	78
97)	p-DICHLOROBENZENE	18.39	146	1308m	0.07 PPBV		
98)	SEC-BUTYLBENZENE	18.43	134	993	0.08 PPBV		87
99)	p-ISOPROPYLTOLUENE	18.61	134	1130	0.09 PPBV		93
100)	o-DICHLOROBENZENE	18.78	146	1770	0.09 PPBV	#	81
101)	n-BUTYLBENZENE	19.08	134	784	0.08 PPBV		88
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	983	0.12 PPBV	#	87
103)	HEXACHLOROETHANE	19.52	201	1301	0.08 PPBV		86
104)	HEXACHLOROBUTADIENE	21.19	225	1614	0.09 PPBV	#	83
105)	1,2,4-TRICHLOROBENZENE	21.09	180	939	0.15 PPBV		94
106)	NAPHTHALENE	20.82	128	2094	0.14 PPBV		82

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54277.D MW2167.M Fri Mar 18 09:09:28 2016 MSW

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                  Vial: 3
Acq On    : 18 Mar 2016   3:52 am                    Operator: YOUMINH
Sample    : IC2167-0.1                               Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:54 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

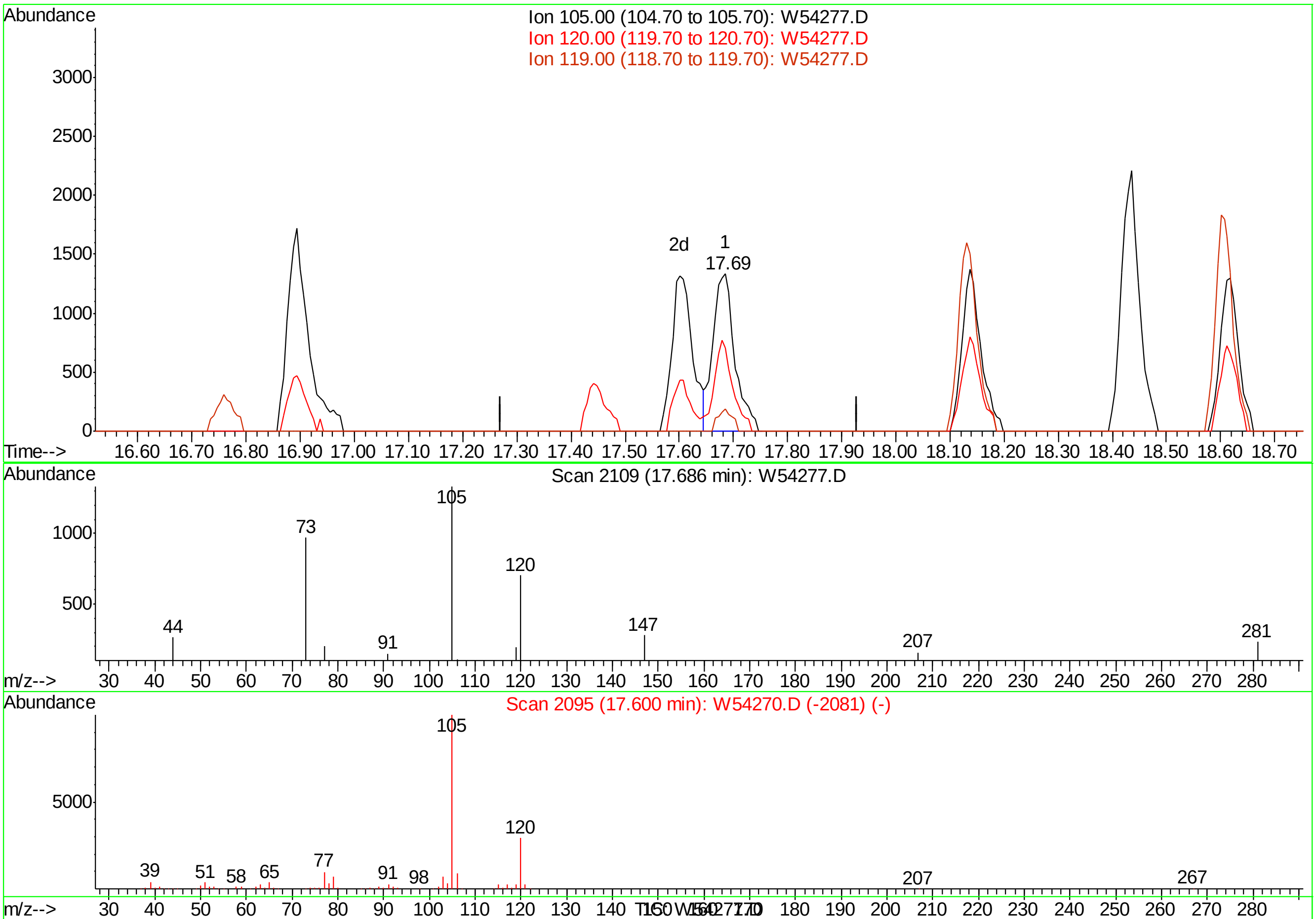
Sample Number:	VW2167-IC2167	**Method:**	TO-15
Lab FileID:	W54277.D	**Analyst approved:**	03/18/16 09:06 Dana Tryon
Injection Time:	03/18/16 03:52	**Supervisor approved:**	03/22/16 12:36 Dana Tryon

Parameter	**CAS**	**Sig#**	**R.T. (min.)**	**Reason**
4-Ethyltoluene	622-96-8		17.60	Missed peak
p-Dichlorobenzene	106-46-7		18.39	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                    Vial: 3
Acq On    : 18 Mar 2016   3:52 am                     Operator: YOUMINH
Sample    : IC2167-0.1                                Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:53 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:51:19 2016
Response via : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.69min 0.09PPBV

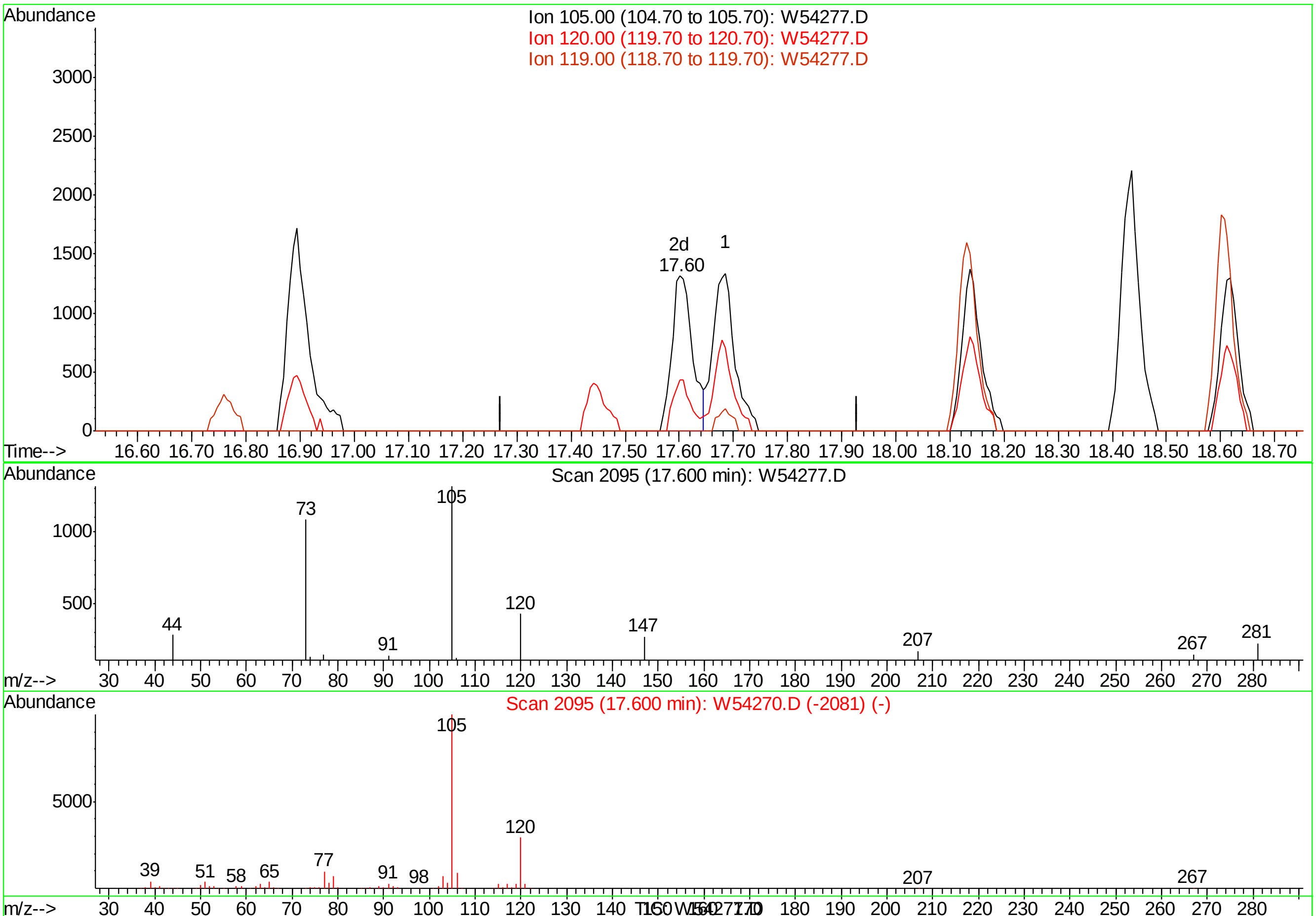
response 3744

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	48.48
119.00	2.30	9.32
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                    Vial: 3
Acq On    : 18 Mar 2016   3:52 am                     Operator: YOUMINH
Sample    : IC2167-0.1                                Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:53 2016               Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:51:19 2016
Response via : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.60min 0.08PPBV m

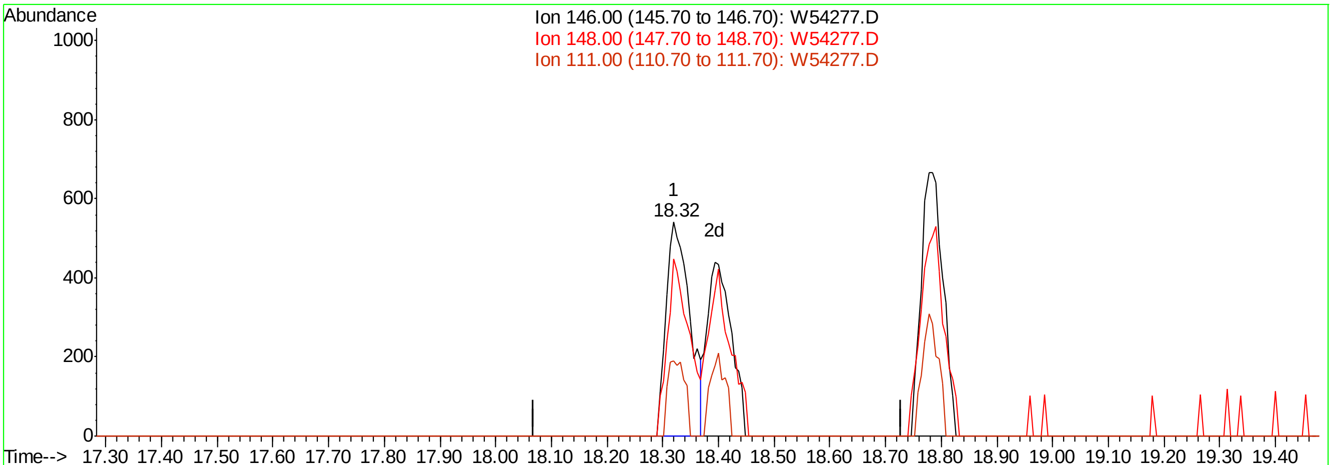
response 3453

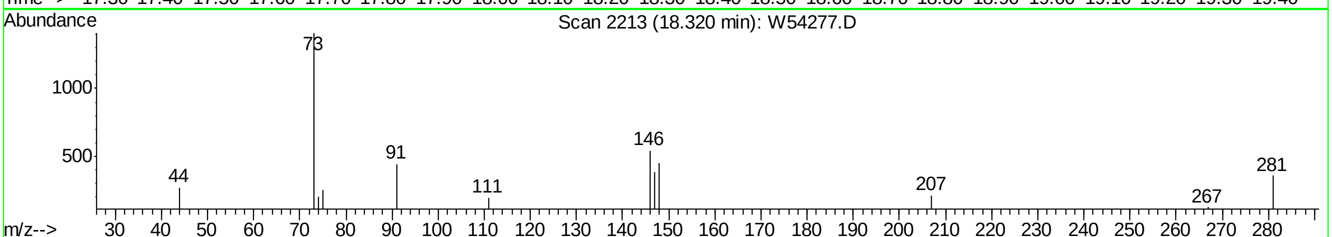
Ion	Exp%	Act%
105.00	100	100
120.00	30.40	52.56#
119.00	2.30	10.11
0.00	0.00	0.00

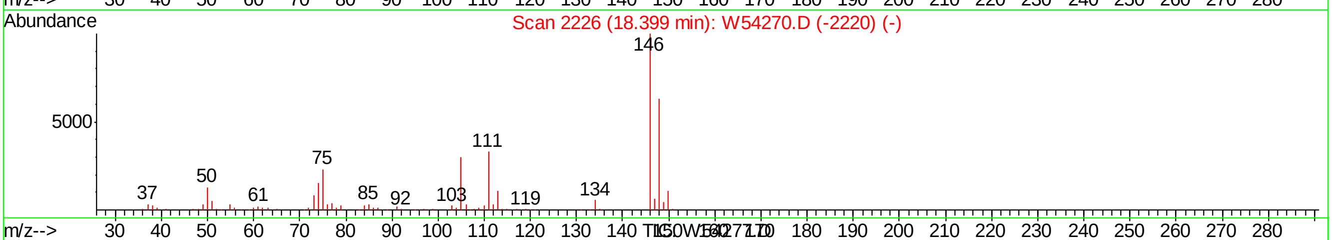
Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                    Vial: 3
Acq On    : 18 Mar 2016   3:52 am                     Operator: YOUMINH
Sample    : IC2167-0.1                                Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:53 2016             Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:51:19 2016
Response via : Multiple Level Calibration
```







(97) p-DICHLOROBENZENE

18.32min 0.09PPBV

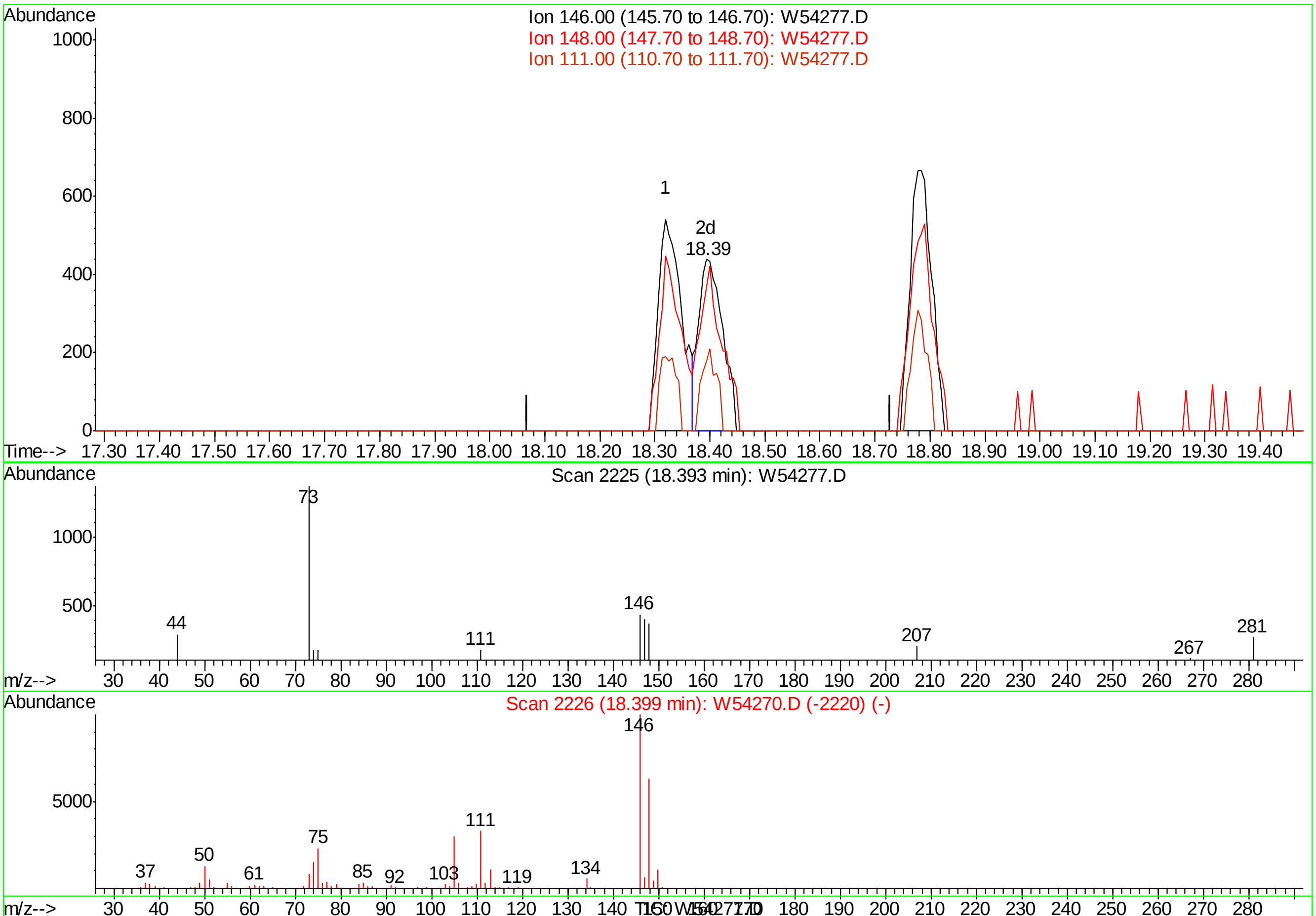
response 1611

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	76.72
111.00	34.40	25.82
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54277.D                    Vial: 3
Acq On    : 18 Mar 2016   3:52 am                      Operator: YOUMINH
Sample    : IC2167-0.1                                 Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:54 2016            Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:51:19 2016
Response via  : Multiple Level Calibration
```



(97) p-DICHLOROBENZENE

18.39min 0.07PPBV m

response 1308

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	94.50#
111.00	34.40	31.80
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Dana Tryon
03/22/16 12:36

7.7.61

7

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                  Vial: 3
Acq On    : 18 Mar 2016   4:35 am                   Operator: YOUMINH
Sample    : IC2167-0.04                             Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:55:27 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:55:18 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) BROMOCHLOROMETHANE	9.16	128	91873	10.00	PPBV		0.00
49) 1,4-DIFLUOROBENZENE	10.88	114	484125	10.00	PPBV		0.00
68) CHLOROBENZENE-D5	15.14	82	191491	10.00	PPBV		0.00
System Monitoring Compounds							
84) 4-BROMOFLUOROBENZENE	16.76	95	185056	8.81	PPBV		0.00
Spiked Amount 10.000	Range 65 - 128		Recovery =	88.10%			
Target Compounds							Qvalue
5) DICHLORODIFLUOROMETHANE	5.15	85	1492	0.05	PPBV	#	78
7) FREON 114	5.40	85	1532	0.05	PPBV		96
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	1084	0.06	PPBV	#	77
10) VINYL CHLORIDE	5.51	62	370	0.04	PPBV	#	49
11) 1,3-BUTADIENE	5.63	54	300	0.04	PPBV	#	10
13) BROMOMETHANE	5.88	94	372	0.04	PPBV	#	1
15) DICHLOROFLUOROMETHANE	6.10	67	1249	0.05	PPBV	#	93
17) TRICHLOROFLUOROMETHANE	6.67	101	1443	0.06	PPBV	#	85
20) 1,1-DICHLORO-1-FLUOROETHAN	6.75	81	1403	0.06	PPBV	#	70
23) IODOMETHANE	7.17	142	1602	0.06	PPBV		97
28) BROMOETHENE	6.33	106	456	0.04	PPBV	#	96
29) METHYLENE CHLORIDE	7.30	84	548	0.06	PPBV		93
31) FREON 113	7.51	151	872	0.05	PPBV		91
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	700	0.07	PPBV	#	56
33) TERTIARY BUTYL ALCOHOL	7.33	59	1207	0.06	PPBV	#	7
34) METHYL TERTIARY BUTYL ETHE	8.36	73	1689	0.06	PPBV		71
36) HEXANE	9.16	57	748	0.05	PPBV		92
38) 1,1-DICHLOROETHANE	8.28	63	810	0.05	PPBV	#	57
40) cis-1,2-DICHLOROETHYLENE	9.00	96	662	0.06	PPBV	#	57
41) DI-ISOPROPYL ETHER	9.18	87	323	0.04	PPBV	#	28
44) CHLOROFORM	9.27	83	1004	0.05	PPBV	#	84
45) 2,4-DIMETHYLPENTANE	9.96	57	890	0.05	PPBV	#	81
46) 1,1,1-TRICHLOROETHANE	10.17	97	1070	0.05	PPBV		91
47) CARBON TETRACHLORIDE	10.73	117	1076	0.05	PPBV		90
48) 1,2-DICHLOROETHANE	9.94	62	422	0.04	PPBV	#	50
50) BENZENE	10.60	78	1459	0.05	PPBV	#	77
52) 2,3-DIMETHYLPENTANE	11.03	71	259	0.04	PPBV	#	25
53) TRICHLOROETHYLENE	11.56	95	616	0.04	PPBV		91
54) DIBROMOMETHANE	11.33	174	595	0.04	PPBV		97
55) 1,2-DICHLOROPROPANE	11.35	63	649	0.06	PPBV	#	38
57) BROMODICHLOROMETHANE	11.53	83	1016	0.05	PPBV		98
58) 2,2,4-TRIMETHYLPENTANE	11.56	57	2537	0.05	PPBV		91
61) HEPTANE	11.80	43	892	0.05	PPBV		86
62) METHYL ISOBUTYL KETONE	12.45	43	925	0.05	PPBV	#	64
63) cis-1,3-DICHLOROPROPENE	12.38	75	710	0.04	PPBV	#	66
64) TOLUENE	13.33	92	883	0.04	PPBV	#	90
65) 1,3-DICHLOROPROPANE	13.36	76	487	0.03	PPBV	#	65
66) trans-1,3-DICHLOROPROPENE	12.87	75	367	0.03	PPBV	#	46
67) 1,1,2-TRICHLOROETHANE	13.06	83	318	0.03	PPBV	#	81
71) TETRACHLOROETHYLENE	14.49	164	681	0.05	PPBV		94
72) DIBROMOCHLOROMETHANE	13.77	129	925	0.05	PPBV	#	79

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                  Vial: 3
Acq On    : 18 Mar 2016   4:35 am                    Operator: YOUMINH
Sample    : IC2167-0.04                              Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                     Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:55:27 2016         Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:55:18 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

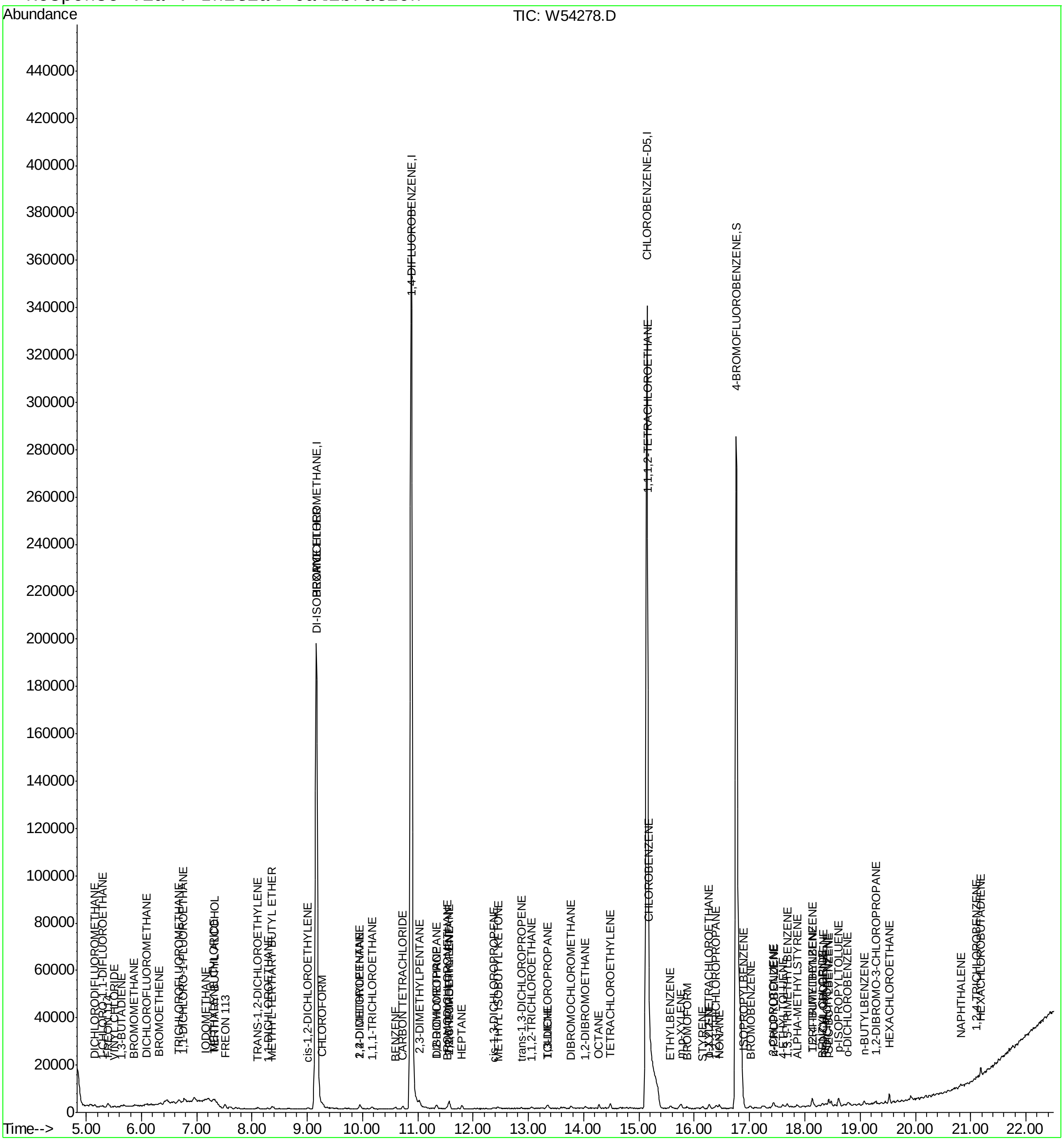
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
73)	1,2-DIBROMOETHANE	14.03	107	547	0.04	PPBV	#	95
74)	OCTANE	14.27	43	1049	0.05	PPBV		90
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	705	0.05	PPBV	#	1
76)	CHLOROBENZENE	15.19	112	1106	0.04	PPBV	#	51
77)	ETHYLBENZENE	15.56	91	1965m	0.05	PPBV		
78)	m,p-XYLENE	15.75	106	1369	0.08	PPBV		87
79)	o-XYLENE	16.27	106	678	0.04	PPBV	#	76
80)	STYRENE	16.14	104	727	0.03	PPBV		83
81)	1,2,3-TRICHLOROPROPANE	16.40	75	965	0.06	PPBV	#	50
82)	NONANE	16.45	43	916	0.04	PPBV	#	79
83)	BROMOFORM	15.88	173	600	0.03	PPBV	#	81
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	896	0.04	PPBV	#	93
86)	ISOPROPYLBENZENE	16.89	105	2497	0.05	PPBV		91
87)	BROMOBENZENE	17.02	156	440	0.03	PPBV		87
88)	2-CHLOROTOLUENE	17.42	126	392	0.03	PPBV	#	82
89)	n-PROPYLBENZENE	17.45	120	489	0.04	PPBV	#	30
90)	4-ETHYLTOLUENE	17.60	105	1815m	0.05	PPBV		
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	2004	0.05	PPBV	#	86
92)	ALPHA-METHYLSTYRENE	17.86	118	610	0.04	PPBV	#	73
93)	TERT-BUTYLBENZENE	18.14	134	341	0.03	PPBV	#	25
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	1733	0.05	PPBV		94
95)	m-DICHLOROBENZENE	18.33	146	777	0.04	PPBV	#	57
96)	BENZYL CHLORIDE	18.31	91	824	0.04	PPBV	#	59
97)	p-DICHLOROBENZENE	18.40	146	722	0.04	PPBV	#	55
98)	SEC-BUTYLBENZENE	18.44	134	452	0.04	PPBV	#	56
99)	p-ISOPROPYLTOLUENE	18.60	134	554	0.05	PPBV		82
100)	o-DICHLOROBENZENE	18.78	146	970	0.05	PPBV	#	78
101)	n-BUTYLBENZENE	19.07	134	369	0.04	PPBV	#	70
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	435	0.05	PPBV	#	87
103)	HEXACHLOROETHANE	19.53	201	694	0.04	PPBV	#	79
104)	HEXACHLOROBUTADIENE	21.18	225	974	0.06	PPBV	#	71
105)	1,2,4-TRICHLOROBENZENE	21.10	180	466	0.07	PPBV		91
106)	NAPHTHALENE	20.82	128	1049	0.07	PPBV	#	70

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                  Vial: 3
Acq On    : 18 Mar 2016   4:35 am                   Operator: YOUMINH
Sample    : IC2167-0.04                             Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  9:45 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Manual Integration Approval Summary

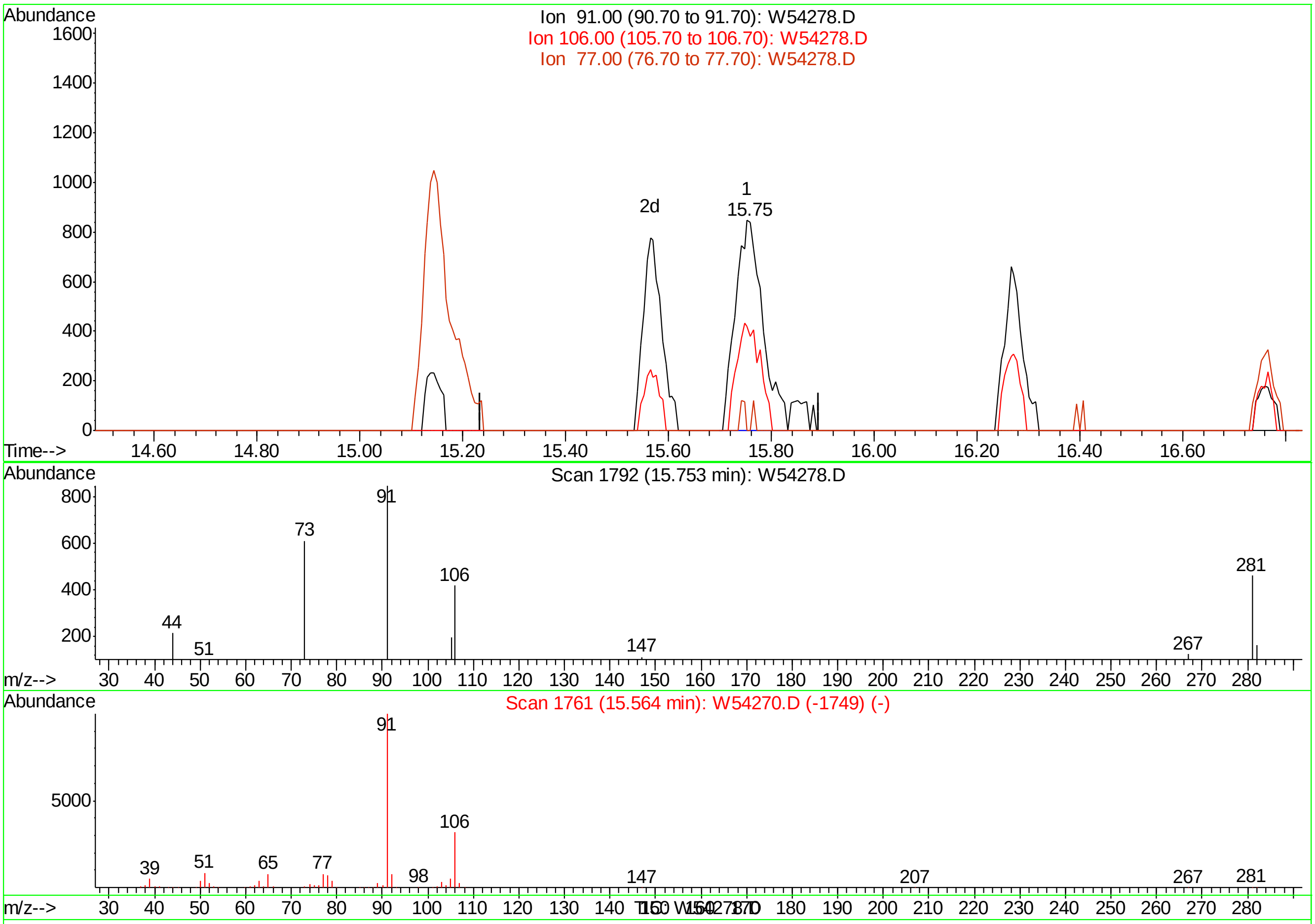
Sample Number:	VW2167-IC2167	**Method:**	TO-15
Lab FileID:	W54278.D	**Analyst approved:**	03/18/16 09:06 Dana Tryon
Injection Time:	03/18/16 04:35	**Supervisor approved:**	03/22/16 12:36 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethylbenzene	100-41-4		15.56	Missed peak
4-Ethyltoluene	622-96-8		17.60	Missed peak

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                  Vial: 3
Acq On    : 18 Mar 2016   4:35 am                   Operator: YOUMINH
Sample    : IC2167-0.04                             Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:57 2016             Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:55:18 2016
Response via  : Multiple Level Calibration
```



(77) ETHYLBENZENE

15.75min 0.08PPBV

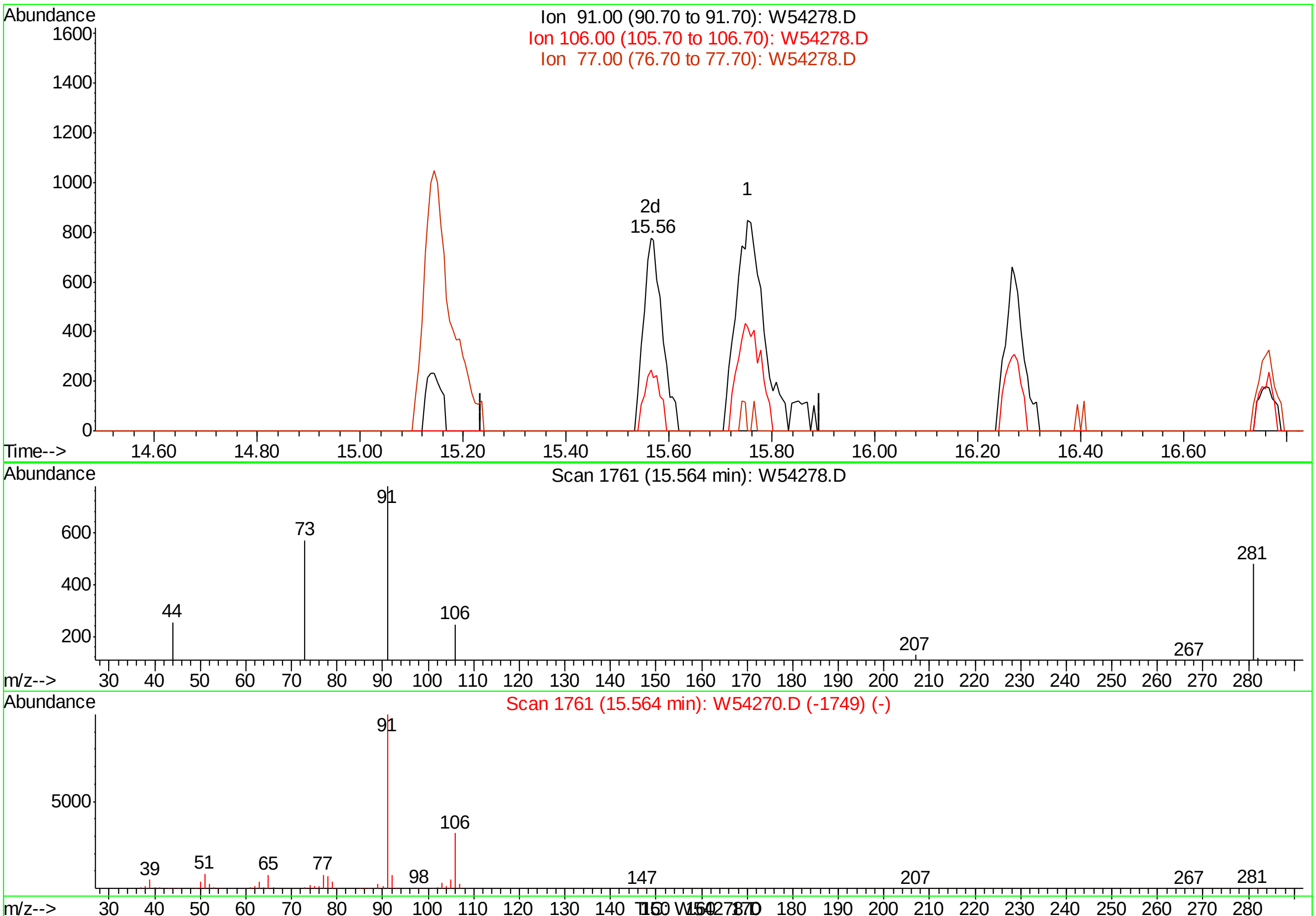
response 3144

Ion	Exp%	Act%
91.00	100	100
106.00	32.30	43.54
77.00	8.10	2.74
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                 Vial: 3
Acq On    : 18 Mar 2016   4:35 am                  Operator: YOUMINH
Sample    : IC2167-0.04                            Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:57 2016            Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:55:18 2016
Response via  : Multiple Level Calibration
```



(77) ETHYLBENZENE

15.56min 0.05PPBV m

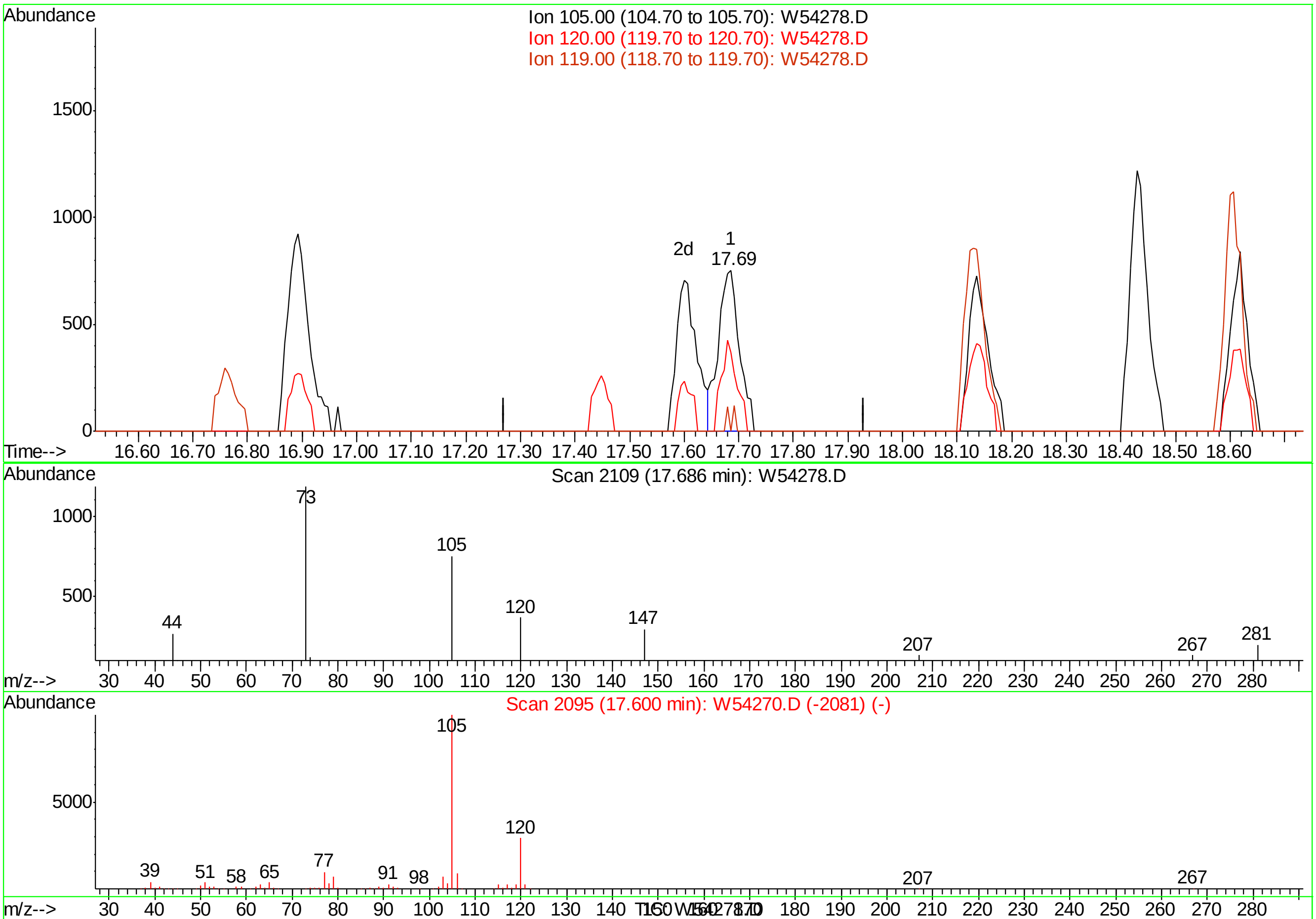
response 1965

Ion	Exp%	Act%
91.00	100	100
106.00	32.30	69.67#
77.00	8.10	4.38
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                    Vial: 3
Acq On    : 18 Mar 2016   4:35 am                     Operator: YOUMINH
Sample    : IC2167-0.04                               Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:57 2016              Quant Results File: temp.res

Method        : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title         : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update   : Fri Mar 18 08:55:18 2016
Response via  : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.69min 0.05PPBV

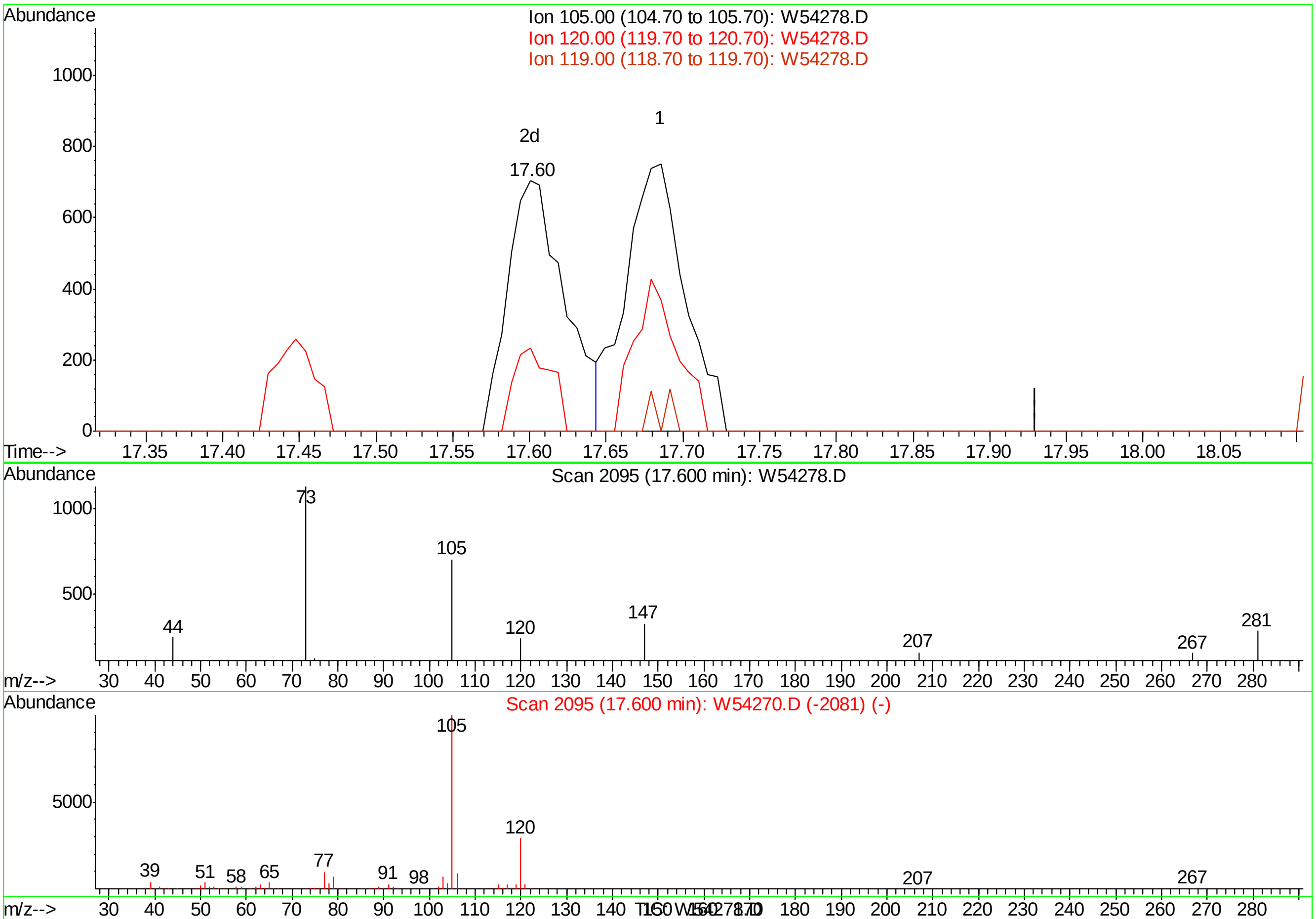
response 2004

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	41.77
119.00	2.30	4.24
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data File : C:\MSDCHEM\1\DATA\W54278.D                Vial: 3
Acq On    : 18 Mar 2016   4:35 am                 Operator: YOUMINH
Sample    : IC2167-0.04                           Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:58 2016          Quant Results File: temp.res

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:55:18 2016
Response via : Multiple Level Calibration
```



(90) 4-ETHYLTOLUENE

17.60min 0.05PPBV m

response 1815

Ion	Exp%	Act%
105.00	100	100
120.00	30.40	46.12
119.00	2.30	4.68
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54279.D                    Vial: 1
Acq On    : 18 Mar 2016   5:17 am                     Operator: YOUMINH
Sample    : IC2167-30                                 Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:59:01 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:58:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.18	128	117266	10.00	PPBV	0.02
49) 1,4-DIFLUOROBENZENE	10.90	114	571091	10.00	PPBV	0.02
68) CHLOROBENZENE-D5	15.16	82	317822	10.00	PPBV	0.02

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.78	95	377096	10.98	PPBV	0.02

Spiked Amount 10.000 Range 65 - 128 Recovery = 109.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	5.02	65	195519	25.46	PPBV	98
4) CHLORODIFLUOROMETHANE	5.05	67	81824	25.37	PPBV	100
5) DICHLORODIFLUOROMETHANE	5.16	85	843774	23.26	PPBV	100
6) PROPYLENE	5.09	41	246256	21.85	PPBV	99
7) FREON 114	5.40	85	891767	23.50	PPBV	100
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	619828	24.47	PPBV	99
9) CHLOROMETHANE	5.32	52	82103	24.68	PPBV #	80
10) VINYL CHLORIDE	5.52	62	303955	23.60	PPBV	99
11) 1,3-BUTADIENE	5.64	54	247606	24.44	PPBV	98
12) n-BUTANE	5.69	58	69531	23.61	PPBV	100
13) BROMOMETHANE	5.89	94	303131	24.36	PPBV	99
14) CHLOROETHANE	6.04	64	178505	24.89	PPBV	98
15) DICHLOROFLUOROMETHANE	6.10	67	723088	23.55	PPBV	100
16) ACROLEIN	6.42	56	153796	23.44	PPBV	96
17) TRICHLOROFLUOROMETHANE	6.68	101	848328	24.79	PPBV	99
18) ISOPROPYL ALCOHOL	6.77	45	812740	23.96	PPBV	92
19) ACETONE	6.54	58	175206	26.39	PPBV	92
20) 1,1-DICHLORO-1-FLUOROETHAN	6.77	81	737503	24.02	PPBV	100
21) ACRYLONITRILE	6.92	53	289917	28.47	PPBV	99
22) PENTANE	6.97	57	104064	21.24	PPBV	93
23) IODOMETHANE	7.18	142	928734	24.44	PPBV	99
24) 1,1-DICHLOROETHYLENE	7.22	96	369360	22.97	PPBV	97
25) CARBON DISULFIDE	7.61	76	828452	22.97	PPBV	99
26) ETHANOL	6.15	45	133277	20.91	PPBV	98
27) ACETONITRILE	6.32	41	272227	25.67	PPBV	98
28) BROMOETHENE	6.33	106	339638	24.81	PPBV	99
29) METHYLENE CHLORIDE	7.31	84	290151	24.28	PPBV	98
30) 3-CHLOROPROPENE	7.41	76	149491	25.74	PPBV	98
31) FREON 113	7.52	151	618322	25.28	PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.11	96	314515	21.44	PPBV	98
33) TERTIARY BUTYL ALCOHOL	7.29	59	750598	26.40	PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.33	73	940644	24.58	PPBV	100
35) TETRAHYDROFURAN	9.67	72	152813	27.78	PPBV	100
36) HEXANE	9.18	57	578052	28.15	PPBV	98
37) VINYL ACETATE	8.39	86	92210	29.82	PPBV	98
38) 1,1-DICHLOROETHANE	8.29	63	550791	25.37	PPBV	99
39) METHYL ETHYL KETONE	8.64	72	154318	27.61	PPBV	98
40) cis-1,2-DICHLOROETHYLENE	9.02	96	339259	22.73	PPBV	98
41) DI-ISOPROPYL ETHER	9.16	87	337848	30.89	PPBV	100
42) ETHYL ACETATE	9.19	61	116192	31.01	PPBV #	35
43) METHYL ACRYLATE	9.19	55	665655	29.90	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54279.D Vial: 1
Acq On : 18 Mar 2016 5:17 am Operator: YOUMINH
Sample : IC2167-30 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:59:01 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 08:58:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.29	83	667770	25.69	PPBV		99
45)	2,4-DIMETHYLPENTANE	9.96	57	625722	26.86	PPBV		99
46)	1,1,1-TRICHLOROETHANE	10.18	97	715532	25.40	PPBV		100
47)	CARBON TETRACHLORIDE	10.74	117	777065	26.33	PPBV		100
48)	1,2-DICHLOROETHANE	9.96	62	430373	29.26	PPBV		100
50)	BENZENE	10.61	78	1024667	27.61	PPBV		99
51)	CYCLOHEXANE	10.86	84	461315	25.73	PPBV		96
52)	2,3-DIMETHYLPENTANE	11.04	71	243214	30.08	PPBV		99
53)	TRICHLOROETHYLENE	11.58	95	541887	32.60	PPBV		99
54)	DIBROMOMETHANE	11.35	174	503934	31.32	PPBV		98
55)	1,2-DICHLOROPROPANE	11.36	63	395543	29.26	PPBV		99
56)	ETHYL ACRYLATE	11.32	55	773716	34.83	PPBV		99
57)	BROMODICHLOROMETHANE	11.55	83	843445	31.24	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.58	57	1945003	31.58	PPBV		99
59)	1,4-DIOXANE	11.60	88	248767	32.61	PPBV	#	53
60)	METHYL METHACRYLATE	11.74	69	406067	32.87	PPBV		98
61)	HEPTANE	11.81	43	624086	29.44	PPBV		100
62)	METHYL ISOBUTYL KETONE	12.42	43	772061	32.74	PPBV		99
63)	cis-1,3-DICHLOROPROPENE	12.39	75	657655	33.58	PPBV		100
64)	TOLUENE	13.36	92	863131	33.72	PPBV		99
65)	1,3-DICHLOROPROPANE	13.38	76	664146	36.65	PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.89	75	517943	38.63	PPBV		99
67)	1,1,2-TRICHLOROETHANE	13.09	83	367321	33.77	PPBV		99
69)	ETHYL METHACRYLATE	13.58	69	725316	28.27	PPBV		99
70)	2-HEXANONE	13.60	58	450101	28.59	PPBV		98
71)	TETRACHLOROETHYLENE	14.50	164	619182	24.82	PPBV		99
72)	DIBROMOCHLOROMETHANE	13.80	129	883746	26.13	PPBV		100
73)	1,2-DIBROMOETHANE	14.05	107	680695	29.78	PPBV		100
74)	OCTANE	14.29	43	914595	25.06	PPBV		99
75)	1,1,1,2-TETRACHLOROETHANE	15.19	131	680089	25.79	PPBV	#	64
76)	CHLOROBENZENE	15.21	112	1192818	27.28	PPBV		99
77)	ETHYLBENZENE	15.58	91	1849433	26.37	PPBV		100
78)	m,p-XYLENE	15.78	106	1571200	55.31	PPBV		100
79)	o-XYLENE	16.29	106	757920	28.21	PPBV		99
80)	STYRENE	16.17	104	1164423	30.77	PPBV		98
81)	1,2,3-TRICHLOROPROPANE	16.42	75	724022	24.98	PPBV		100
82)	NONANE	16.47	43	980858	27.54	PPBV		98
83)	BROMOFORM	15.90	173	911518	30.44	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.28	83	1042869	28.46	PPBV		99
86)	ISOPROPYLBENZENE	16.91	105	2223687	26.03	PPBV		99
87)	BROMOBENZENE	17.03	156	664676	30.40	PPBV		99
88)	2-CHLOROTOLUENE	17.44	126	531942	28.86	PPBV		100
89)	n-PROPYLBENZENE	17.45	120	615006	29.51	PPBV		97
90)	4-ETHYLTOLUENE	17.61	105	1986502	29.27	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	1758623	25.53	PPBV		98
92)	ALPHA-METHYLSTYRENE	17.87	118	850796	30.84	PPBV		100
93)	TERT-BUTYLBENZENE	18.14	134	466403	28.78	PPBV		98
94)	1,2,4-TRIMETHYLBENZENE	18.15	105	1746524	27.95	PPBV		97
95)	m-DICHLOROBENZENE	18.33	146	1001572	32.62	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54279.D                Vial: 1
Acq On    : 18 Mar 2016   5:17 am                 Operator: YOUMINH
Sample    : IC2167-30                             Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                  Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 08:59:01 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 08:58:53 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.31	91	1176545	36.15	PPBV	99
97)	p-DICHLOROBENZENE	18.41	146	939075	32.99	PPBV	99
98)	SEC-BUTYLBENZENE	18.44	134	549199	28.32	PPBV	98
99)	p-ISOPROPYLTOLUENE	18.61	134	584047	28.19	PPBV	98
100)	o-DICHLOROBENZENE	18.79	146	929104	28.74	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	484559	31.20	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	465754	31.85	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	721912	27.56	PPBV	99
104)	HEXACHLOROBUTADIENE	21.19	225	747636	25.41	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	357445	30.14	PPBV	100
106)	NAPHTHALENE	20.81	128	1011138	36.07	PPBV	100

7.7.62

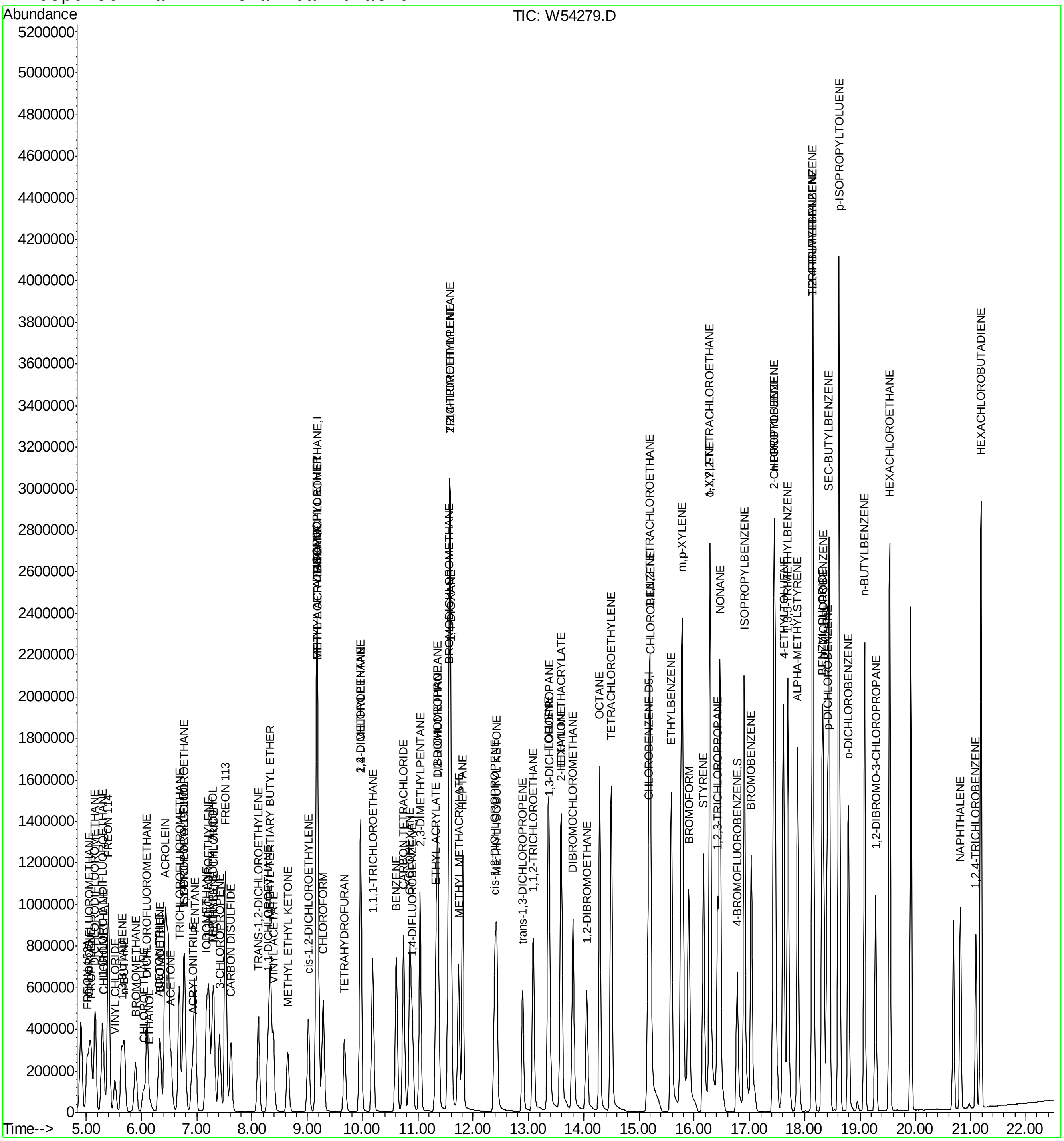
7

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54279.D                 Vial: 1
Acq On    : 18 Mar 2016   5:17 am                   Operator: YOUMINH
Sample    : IC2167-30                               Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  8:59 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```




```
W54279.D  MW2167.M      Fri Mar 18 09:09:50 2016       MSW                    Page 4
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54281.D                 Vial: 1
Acq On    : 18 Mar 2016   6:41 am                  Operator: YOUMINH
Sample    : IC2167-40                              Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:01:51 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:01:11 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

 Internal Standards                  R.T. QIon  Response  Conc Units Dev(Min)
------------------------------------------------------------------------------
  1) BROMOCHLOROMETHANE              9.19  128    116858    10.00 PPBV    0.03
 49) 1,4-DIFLUOROBENZENE            10.92  114    584212    10.00 PPBV    0.04
 68) CHLOROBENZENE-D5               15.17   82    325483    10.00 PPBV    0.03

 System Monitoring Compounds
 84) 4-BROMOFLUOROBENZENE           16.78   95    368391    10.36 PPBV    0.02
   Spiked Amount     10.000   Range  65 - 128     Recovery    =  103.60%

 Target Compounds                                                     Qvalue
  3) FREON 152A                      5.02   65    279786    37.27 PPBV      100
  4) CHLORODIFLUOROMETHANE           5.05   67    113444    36.09 PPBV       99
  5) DICHLORODIFLUOROMETHANE         5.16   85   1193209    33.85 PPBV      100
  6) PROPYLENE                       5.08   41    357161    32.91 PPBV       99
  7) FREON 114                       5.40   85   1287062    34.87 PPBV      100
  8) 1-CHLORO-1,1-DIFLUOROETHAN      5.29   65    863670    34.92 PPBV       99
  9) CHLOROMETHANE                   5.32   52    118260    36.60 PPBV #     72
 10) VINYL CHLORIDE                  5.52   62    439229    35.06 PPBV       99
 11) 1,3-BUTADIENE                   5.64   54    359173    36.33 PPBV      100
 12) n-BUTANE                        5.69   58    101750    35.76 PPBV       98
 13) BROMOMETHANE                    5.89   94    438630    36.12 PPBV       98
 14) CHLOROETHANE                    6.03   64    253839    36.30 PPBV       99
 15) DICHLOROFLUOROMETHANE           6.10   67   1008877    33.78 PPBV      100
 16) ACROLEIN                        6.43   56    208706    32.95 PPBV       99
 17) TRICHLOROFLUOROMETHANE          6.68  101   1174400    35.12 PPBV      100
 18) ISOPROPYL ALCOHOL               6.79   45   1114829    33.96 PPBV       92
 19) ACETONE                         6.54   58    238965    36.68 PPBV       94
 20) 1,1-DICHLORO-1-FLUOROETHAN      6.77   81   1006629    33.65 PPBV       99
 21) ACRYLONITRILE                   6.93   53    381541    37.84 PPBV       98
 22) PENTANE                         6.97   57    143528    30.50 PPBV       96
 23) IODOMETHANE                     7.18  142   1277378    34.44 PPBV      100
 24) 1,1-DICHLOROETHYLENE            7.22   96    509225    32.74 PPBV       99
 25) CARBON DISULFIDE                7.61   76   1183930    33.94 PPBV      100
 26) ETHANOL                         6.16   45    185782    30.80 PPBV       99
 27) ACETONITRILE                    6.32   41    368115    35.57 PPBV       99
 28) BROMOETHENE                     6.33  106    478375    35.76 PPBV      100
 29) METHYLENE CHLORIDE              7.31   84    431858    37.05 PPBV       96
 30) 3-CHLOROPROPENE                 7.41   76    247713    43.69 PPBV #     89
 31) FREON 113                       7.52  151    897677    37.49 PPBV       99
 32) TRANS-1,2-DICHLOROETHYLENE      8.11   96    440361    31.11 PPBV       99
 33) TERTIARY BUTYL ALCOHOL          7.33   59   1066654    38.16 PPBV       96
 34) METHYL TERTIARY BUTYL ETHE      8.34   73   1333064    35.68 PPBV       99
 35) TETRAHYDROFURAN                 9.68   72    215513    39.73 PPBV       99
 36) HEXANE                          9.18   57    807260    39.72 PPBV       97
 37) VINYL ACETATE                   8.40   86    128280    41.67 PPBV       98
 38) 1,1-DICHLOROETHANE              8.30   63    786024    36.97 PPBV       99
 39) METHYL ETHYL KETONE             8.67   72    218671    39.71 PPBV      100
 40) cis-1,2-DICHLOROETHYLENE        9.03   96    469698    32.45 PPBV       99
 41) DI-ISOPROPYL ETHER              9.18   87    477752    43.69 PPBV      100
 42) ETHYL ACETATE                   9.22   61    156934    41.83 PPBV #      1
 43) METHYL ACRYLATE                 9.21   55    902334    40.69 PPBV      100
-----------------------------------------------------------------------------
(#) = qualifier out of range (m) = manual integration
```

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54281.D                  Vial: 1
Acq On    : 18 Mar 2016   6:41 am                   Operator: YOUMINH
Sample    : IC2167-40                               Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:01:51 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:01:11 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44) CHLOROFORM	9.30	83	934422	36.66 PPBV		99
45) 2,4-DIMETHYLPENTANE	9.97	57	908308	39.59 PPBV		99
46) 1,1,1-TRICHLOROETHANE	10.19	97	1012390	36.69 PPBV		100
47) CARBON TETRACHLORIDE	10.75	117	1090832	37.60 PPBV		100
48) 1,2-DICHLOROETHANE	9.97	62	585773	40.07 PPBV		100
50) BENZENE	10.62	78	1454511	38.66 PPBV		100
51) CYCLOHEXANE	10.86	84	657760	36.52 PPBV		95
52) 2,3-DIMETHYLPENTANE	11.05	71	350571	42.37 PPBV		99
53) TRICHLOROETHYLENE	11.59	95	741472	43.19 PPBV		98
54) DIBROMOMETHANE	11.37	174	676858	40.92 PPBV		98
55) 1,2-DICHLOROPROPANE	11.38	63	562188	40.76 PPBV		98
56) ETHYL ACRYLATE	11.35	55	1100008	47.45 PPBV		99
57) BROMODICHLOROMETHANE	11.57	83	1171474	42.22 PPBV		99
58) 2,2,4-TRIMETHYLPENTANE	11.60	57	2752868	43.44 PPBV		99
59) 1,4-DIOXANE	11.62	88	350616	44.37 PPBV	#	36
60) METHYL METHACRYLATE	11.75	69	571390	44.61 PPBV		97
61) HEPTANE	11.82	43	881400	40.73 PPBV		99
62) METHYL ISOBUTYL KETONE	12.45	43	1083322	44.46 PPBV		99
63) cis-1,3-DICHLOROPROPENE	12.41	75	896145	44.14 PPBV		98
64) TOLUENE	13.37	92	1202991	45.32 PPBV		99
65) 1,3-DICHLOROPROPANE	13.39	76	907607	47.78 PPBV		99
66) trans-1,3-DICHLOROPROPENE	12.91	75	708569	50.06 PPBV		98
67) 1,1,2-TRICHLOROETHANE	13.10	83	512144	45.40 PPBV		100
69) ETHYL METHACRYLATE	13.60	69	1019195	39.11 PPBV		100
70) 2-HEXANONE	13.61	58	645912	40.33 PPBV		96
71) TETRACHLOROETHYLENE	14.51	164	850243	33.93 PPBV		99
72) DIBROMOCHLOROMETHANE	13.82	129	1206817	35.35 PPBV		99
73) 1,2-DIBROMOETHANE	14.07	107	916181	39.17 PPBV		100
74) OCTANE	14.30	43	1269463	34.59 PPBV		98
75) 1,1,1,2-TETRACHLOROETHANE	15.20	131	928002	34.91 PPBV	#	59
76) CHLOROBENZENE	15.22	112	1636914	36.93 PPBV		99
77) ETHYLBENZENE	15.59	91	2540850	35.85 PPBV		100
78) m,p-XYLENE	15.78	106	2124167	73.65 PPBV		99
79) o-XYLENE	16.30	106	1019014	37.28 PPBV		99
80) STYRENE	16.17	104	1580661	40.67 PPBV		97
81) 1,2,3-TRICHLOROPROPANE	16.43	75	978282	33.58 PPBV		99
82) NONANE	16.47	43	1328232	36.74 PPBV		97
83) BROMOFORM	15.91	173	1233714	40.17 PPBV		100
85) 1,1,2,2-TETRACHLOROETHANE	16.29	83	1388871	37.23 PPBV		99
86) ISOPROPYLBENZENE	16.91	105	2982630	34.61 PPBV		99
87) BROMOBENZENE	17.03	156	899125	40.09 PPBV		99
88) 2-CHLOROTOLUENE	17.44	126	718308	38.21 PPBV	#	73
89) n-PROPYLBENZENE	17.46	120	826918	38.81 PPBV		96
90) 4-ETHYLTOLUENE	17.61	105	2670049	38.52 PPBV		99
91) 1,3,5-TRIMETHYLBENZENE	17.70	105	2352401	33.91 PPBV		99
92) ALPHA-METHYLSTYRENE	17.87	118	1145131	40.41 PPBV		99
93) TERT-BUTYLBENZENE	18.14	134	615315	37.24 PPBV		98
94) 1,2,4-TRIMETHYLBENZENE	18.15	105	2310473	36.38 PPBV		97
95) m-DICHLOROBENZENE	18.34	146	1344893	42.36 PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54281.D Vial: 1
Acq On : 18 Mar 2016 6:41 am Operator: YOUMINH
Sample : IC2167-40 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:01:51 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:01:11 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.31	91	1619147	47.50	PPBV	99
97)	p-DICHLOROBENZENE	18.41	146	1290355	43.78	PPBV	100
98)	SEC-BUTYLBENZENE	18.44	134	731400	37.06	PPBV	97
99)	p-ISOPROPYLTOLUENE	18.61	134	770320	36.55	PPBV	97
100)	o-DICHLOROBENZENE	18.79	146	1245508	37.79	PPBV	99
101)	n-BUTYLBENZENE	19.08	134	649421	40.65	PPBV	99
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	622623	41.29	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	957743	36.02	PPBV	99
104)	HEXACHLOROBUTADIENE	21.19	225	881813	29.77	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	441720	36.36	PPBV	99
106)	NAPHTHALENE	20.81	128	1289873	43.94	PPBV	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed
W54281.D MW2167.M Fri Mar 18 09:09:55 2016 MSW Page 3

Quantitation Report (QT Reviewed)

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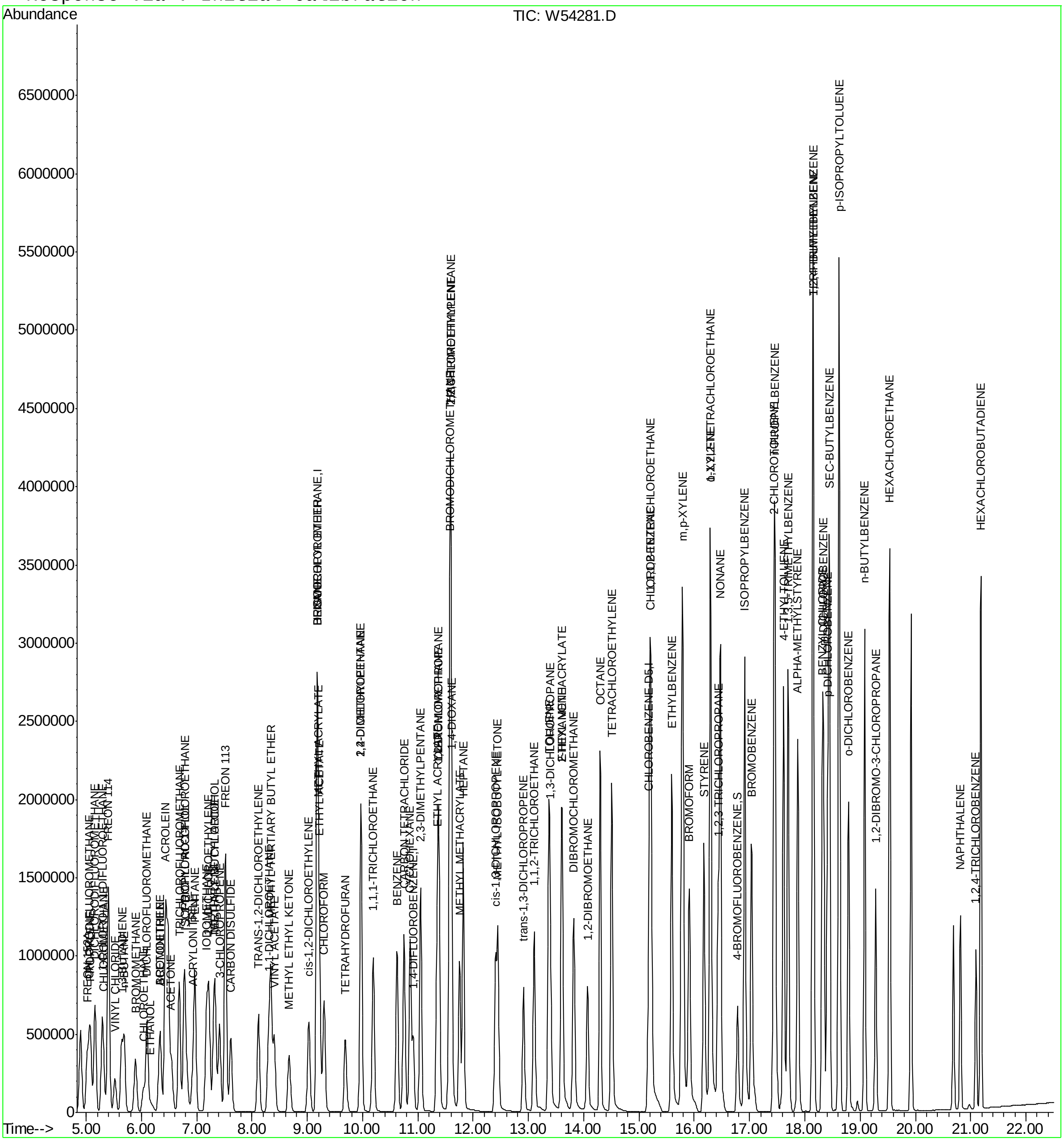
Data File : C:\MSDCHEM\1\DATA\W54281.D                    Vial: 1
Acq On    : 18 Mar 2016   6:41 am                     Operator: YOUMINH
Sample    : IC2167-40                                 Inst     : MSW
Misc      : MS99296,VW2167,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  9:02 2016              Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:03:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54283.D                  Vial: 4
Acq On    : 18 Mar 2016   8:04 am                   Operator: YOUMINH
Sample    : ICV2167-10                              Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:49:48 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.17	128	105615	10.00 PPBV	0.01
49) 1,4-DIFLUOROBENZENE	10.89	114	549119	10.00 PPBV	0.01
68) CHLOROBENZENE-D5	15.15	82	252170	10.00 PPBV	0.00

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.77	95	299211	10.82 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 108.20%

Target Compounds					Qvalue
3) FREON 152A	5.02	65	74903	11.12 PPBV	98
4) CHLORODIFLUOROMETHANE	5.06	67	31698	11.30 PPBV	99
5) DICHLORODIFLUOROMETHANE	5.16	85	325448	10.37 PPBV	99
6) PROPYLENE	5.09	41	98013	10.19 PPBV	97
7) FREON 114	5.40	85	330918	10.05 PPBV	99
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	226610	10.27 PPBV	100
9) CHLOROMETHANE	5.32	52	32257	11.16 PPBV	99
10) VINYL CHLORIDE	5.52	62	118129	10.56 PPBV	100
11) 1,3-BUTADIENE	5.64	54	92030	10.39 PPBV	97
12) n-BUTANE	5.69	58	27359	10.78 PPBV	98
13) BROMOMETHANE	5.89	94	111418	10.25 PPBV	99
14) CHLOROETHANE	6.04	64	65517	10.47 PPBV	99
15) DICHLOROFLUOROMETHANE	6.10	67	267770	10.08 PPBV	99
16) ACROLEIN	6.43	56	52275	9.34 PPBV	100
17) TRICHLOROFLUOROMETHANE	6.68	101	295072	9.88 PPBV	100
18) ISOPROPYL ALCOHOL	6.73	45	220119	7.56 PPBV	100
19) ACETONE	6.54	58	61270	10.50 PPBV	93
21) ACRYLONITRILE	6.91	53	103283	11.40 PPBV	99
22) PENTANE	6.96	57	39675	9.58 PPBV	97
23) IODOMETHANE	7.18	142	330806	10.01 PPBV	100
24) 1,1-DICHLOROETHYLENE	7.22	96	130764	9.49 PPBV	98
25) CARBON DISULFIDE	7.61	76	310802	10.03 PPBV	99
26) ETHANOL	6.13	45	46133	8.75 PPBV	98
27) ACETONITRILE	6.31	41	97830	10.61 PPBV	97
28) BROMOETHENE	6.33	106	119126	9.96 PPBV	99
29) METHYLENE CHLORIDE	7.31	84	105940	10.13 PPBV	99
30) 3-CHLOROPROPENE	7.41	76	53238	10.27 PPBV	97
31) FREON 113	7.52	151	217830	10.13 PPBV	99
32) TRANS-1,2-DICHLOROETHYLENE	8.11	96	113992	9.11 PPBV	99
33) TERTIARY BUTYL ALCOHOL	7.25	59	274699	10.92 PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.33	73	314971	9.43 PPBV	100
35) TETRAHYDROFURAN	9.66	72	51639	10.54 PPBV	99
36) HEXANE	9.17	57	186013	10.13 PPBV	98
37) VINYL ACETATE	8.38	86	31349	11.21 PPBV #	95
38) 1,1-DICHLOROETHANE	8.29	63	195149	10.23 PPBV	100
39) METHYL ETHYL KETONE	8.63	72	51062	10.27 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	9.02	96	116457	9.07 PPBV	98
41) DI-ISOPROPYL ETHER	9.16	87	107968	10.82 PPBV	99
42) ETHYL ACETATE	9.18	61	37532	11.00 PPBV #	92
43) METHYL ACRYLATE	9.18	55	204046	10.16 PPBV	100
44) CHLOROFORM	9.27	83	236390	10.35 PPBV	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54283.D Vial: 4
Acq On : 18 Mar 2016 8:04 am Operator: YOUMINH
Sample : ICV2167-10 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:49:48 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	2,4-DIMETHYLPENTANE	9.96	57	210468	10.16	PPBV		100
46)	1,1,1-TRICHLOROETHANE	10.17	97	250747	10.14	PPBV		99
47)	CARBON TETRACHLORIDE	10.74	117	266351	10.22	PPBV		100
48)	1,2-DICHLOROETHANE	9.94	62	146056	11.05	PPBV		100
50)	BENZENE	10.60	78	358781	10.18	PPBV		100
51)	CYCLOHEXANE	10.85	84	163017	9.72	PPBV		99
52)	2,3-DIMETHYLPENTANE	11.03	71	81526	10.42	PPBV		99
53)	TRICHLOROETHYLENE	11.56	95	164088	10.09	PPBV		100
54)	DIBROMOMETHANE	11.34	174	160454	10.30	PPBV		99
55)	1,2-DICHLOROPROPANE	11.35	63	124136	9.56	PPBV		99
56)	ETHYL ACRYLATE	11.30	55	228688	9.94	PPBV		99
57)	BROMODICHLOROMETHANE	11.53	83	262011	9.99	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.57	57	596258	9.92	PPBV		100
59)	1,4-DIOXANE	11.59	88	73332	9.74	PPBV	#	71
60)	METHYL METHACRYLATE	11.72	69	122213	10.01	PPBV		99
61)	HEPTANE	11.80	43	203462	9.98	PPBV		99
62)	METHYL ISOBUTYL KETONE	12.41	43	229884	9.93	PPBV		99
63)	cis-1,3-DICHLOROPROPENE	12.38	75	194471	10.09	PPBV		97
64)	TOLUENE	13.35	92	264375	10.46	PPBV		100
65)	1,3-DICHLOROPROPANE	13.36	76	197548	10.85	PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.88	75	151287	11.09	PPBV		99
67)	1,1,2-TRICHLOROETHANE	13.07	83	114102	10.62	PPBV		99
69)	ETHYL METHACRYLATE	13.56	69	204997	10.18	PPBV		99
70)	2-HEXANONE	13.58	58	121818	9.81	PPBV		99
71)	TETRACHLOROETHYLENE	14.49	164	191233	10.00	PPBV		99
72)	DIBROMOCHLOROMETHANE	13.79	129	276857	10.59	PPBV		100
73)	1,2-DIBROMOETHANE	14.04	107	196233	10.85	PPBV		100
74)	OCTANE	14.28	43	284847	10.16	PPBV		100
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	212152	10.43	PPBV		89
76)	CHLOROBENZENE	15.20	112	349598	10.26	PPBV		99
77)	ETHYLBENZENE	15.58	91	537023	9.88	PPBV		100
78)	m,p-XYLENE	15.77	106	460545	20.78	PPBV		97
79)	o-XYLENE	16.28	106	221873	10.55	PPBV		99
80)	STYRENE	16.16	104	331735	11.00	PPBV		100
81)	1,2,3-TRICHLOROPROPANE	16.41	75	213258	9.60	PPBV		100
82)	NONANE	16.46	43	301194	10.84	PPBV		100
83)	BROMOFORM	15.89	173	258620	10.86	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.27	83	296754	10.34	PPBV		100
86)	ISOPROPYLBENZENE	16.90	105	668928	10.15	PPBV		100
87)	BROMOBENZENE	17.02	156	185493	10.67	PPBV		99
88)	2-CHLOROTOLUENE	17.42	126	151593	10.46	PPBV	#	72
89)	n-PROPYLBENZENE	17.45	120	173592	10.55	PPBV		98
90)	4-ETHYLTOLUENE	17.61	105	565190	10.56	PPBV		98
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	531133	10.03	PPBV		99
92)	ALPHA-METHYLSTYRENE	17.86	118	243234	11.07	PPBV		100
93)	TERT-BUTYLBENZENE	18.14	134	139934	11.01	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	501927	10.29	PPBV		99
95)	m-DICHLOROBENZENE	18.33	146	259763	10.50	PPBV		100
96)	BENZYL CHLORIDE	18.30	91	272796	10.14	PPBV		100

(#) = qualifier out of range (m) = manual integration
W54283.D MW2167.M Fri Mar 18 09:50:14 2016 MSW

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54283.D Vial: 4
Acq On : 18 Mar 2016 8:04 am Operator: YOUMINH
Sample : ICV2167-10 Inst : MSW
Misc : MS99296,VW2167,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 09:49:48 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

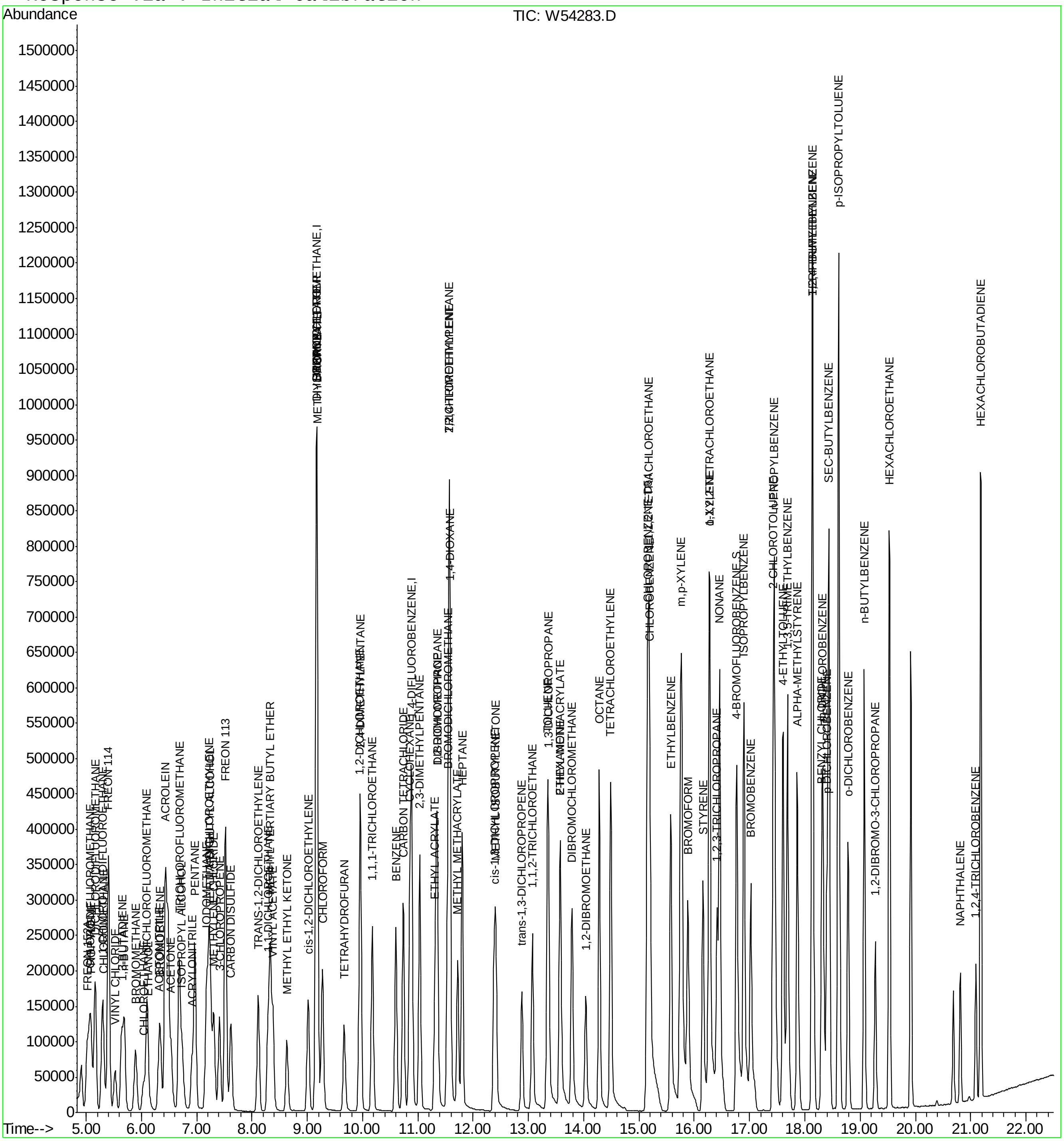
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
97)	p-DICHLOROBENZENE	18.40	146	232565	10.09	PPBV	100
98)	SEC-BUTYLBENZENE	18.44	134	162548	10.71	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.61	134	172898	10.68	PPBV	99
100)	o-DICHLOROBENZENE	18.78	146	253340	9.98	PPBV	100
101)	n-BUTYLBENZENE	19.08	134	133622	10.78	PPBV	98
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	105044	8.96	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	219085	10.74	PPBV	99
104)	HEXACHLOROBUTADIENE	21.18	225	228954	10.24	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	81370	8.72	PPBV	99
106)	NAPHTHALENE	20.81	128	191647	8.34	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54283.D                     Vial: 4
Acq On    : 18 Mar 2016   8:04 am                      Operator: YOUMINH
Sample    : ICV2167-10                                 Inst    : MSW
Misc      : MS99296,VW2167,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18  9:49 2016               Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54285.D Vial: 1
Acq On : 18 Mar 2016 10:14 am Operator: YOUMINH
Sample : cc2167-10 Inst : MSW
Misc : MS99296,VW2168,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:39:37 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.17	128	101499	10.00	PPBV	0.01
49) 1,4-DIFLUOROBENZENE	10.89	114	527175	10.00	PPBV	0.01
68) CHLOROBENZENE-D5	15.16	82	242590	10.00	PPBV	0.01

System Monitoring Compounds

84) 4-BROMOFLUOROBENZENE	16.77	95	299277	11.25	PPBV	0.01

Spiked Amount 10.000 Range 65 - 128 Recovery = 112.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
3) FREON 152A	5.01	65	68666	10.61	PPBV	97
4) CHLORODIFLUOROMETHANE	5.06	67	29463	10.93	PPBV	96
5) DICHLORODIFLUOROMETHANE	5.16	85	306262	10.16	PPBV	99
6) PROPYLENE	5.08	41	90252	9.77	PPBV	98
7) FREON 114	5.40	85	307511	9.72	PPBV	99
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.29	65	218622	10.31	PPBV	99
9) CHLOROMETHANE	5.32	52	29511	10.63	PPBV	98
10) VINYL CHLORIDE	5.52	62	106951	9.95	PPBV	100
11) 1,3-BUTADIENE	5.64	54	84337	9.91	PPBV	95
12) n-BUTANE	5.69	58	24580	10.08	PPBV	99
13) BROMOMETHANE	5.89	94	104973	10.05	PPBV	98
14) CHLOROETHANE	6.03	64	61410	10.21	PPBV	98
15) DICHLOROFLUOROMETHANE	6.10	67	247907	9.71	PPBV	99
16) ACROLEIN	6.42	56	49860	9.27	PPBV	96
17) TRICHLOROFLUOROMETHANE	6.68	101	297157	10.36	PPBV	100
18) ISOPROPYL ALCOHOL	6.75	45	285720	10.21	PPBV	94
19) ACETONE	6.54	58	57962	10.34	PPBV #	88
20) 1,1-DICHLORO-1-FLUOROETHAN	6.77	81	257694	10.08	PPBV	99
21) ACRYLONITRILE	6.91	53	96161	11.05	PPBV	100
22) PENTANE	6.97	57	36867	9.27	PPBV	94
23) IODOMETHANE	7.18	142	315800	9.94	PPBV	99
24) 1,1-DICHLOROETHYLENE	7.22	96	126451	9.55	PPBV	96
25) CARBON DISULFIDE	7.61	76	292433	9.82	PPBV	99
26) ETHANOL	6.14	45	45763	9.03	PPBV	98
27) ACETONITRILE	6.32	41	89055	10.05	PPBV	96
28) BROMOETHENE	6.33	106	116333	10.12	PPBV	99
29) METHYLENE CHLORIDE	7.31	84	109918	10.94	PPBV	94
30) 3-CHLOROPROPENE	7.41	76	52628	10.56	PPBV	98
31) FREON 113	7.52	151	201723	9.76	PPBV	98
32) TRANS-1,2-DICHLOROETHYLENE	8.11	96	103116	8.58	PPBV	97
33) TERTIARY BUTYL ALCOHOL	7.26	59	282878	11.71	PPBV	98
34) METHYL TERTIARY BUTYL ETHE	8.33	73	303116	9.44	PPBV	99
35) TETRAHYDROFURAN	9.67	72	48678	10.34	PPBV	98
36) HEXANE	9.17	57	178324	10.11	PPBV	98
37) VINYL ACETATE	8.38	86	29077	10.82	PPBV #	95
38) 1,1-DICHLOROETHANE	8.29	63	183507	10.01	PPBV	100
39) METHYL ETHYL KETONE	8.63	72	49243	10.30	PPBV	94
40) cis-1,2-DICHLOROETHYLENE	9.01	96	107792	8.74	PPBV	96
41) DI-ISOPROPYL ETHER	9.16	87	101612	10.60	PPBV	100
42) ETHYL ACETATE	9.18	61	35094	10.71	PPBV #	73
43) METHYL ACRYLATE	9.18	55	199136	10.32	PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54285.D                    Vial: 1
Acq On    : 18 Mar 2016  10:14 am                     Operator: YOUMINH
Sample    : cc2167-10                                 Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:39:37 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.27	83	220199	10.03	PPBV		99
45)	2,4-DIMETHYLPENTANE	9.96	57	197861	9.94	PPBV		99
46)	1,1,1-TRICHLOROETHANE	10.17	97	236059	9.93	PPBV		99
47)	CARBON TETRACHLORIDE	10.74	117	252013	10.06	PPBV		100
48)	1,2-DICHLOROETHANE	9.94	62	136657	10.76	PPBV		100
50)	BENZENE	10.60	78	336313	9.94	PPBV		99
51)	CYCLOHEXANE	10.85	84	151777	9.43	PPBV		99
52)	2,3-DIMETHYLPENTANE	11.03	71	77163	10.27	PPBV		98
53)	TRICHLOROETHYLENE	11.57	95	152767	9.78	PPBV		100
54)	DIBROMOMETHANE	11.34	174	149686	10.01	PPBV		98
55)	1,2-DICHLOROPROPANE	11.36	63	119944	9.62	PPBV		99
56)	ETHYL ACRYLATE	11.31	55	222582	10.08	PPBV		98
57)	BROMODICHLOROMETHANE	11.54	83	254152	10.09	PPBV		100
58)	2,2,4-TRIMETHYLPENTANE	11.57	57	567577	9.84	PPBV		99
59)	1,4-DIOXANE	11.60	88	70984	9.82	PPBV	#	53
60)	METHYL METHACRYLATE	11.72	69	120849	10.31	PPBV		96
61)	HEPTANE	11.80	43	194253	9.93	PPBV		98
62)	METHYL ISOBUTYL KETONE	12.41	43	226169	10.17	PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.38	75	191299	10.34	PPBV		97
64)	TOLUENE	13.35	92	253591	10.45	PPBV		99
65)	1,3-DICHLOROPROPANE	13.37	76	190617	10.91	PPBV		98
66)	trans-1,3-DICHLOROPROPENE	12.88	75	146270	11.17	PPBV		97
67)	1,1,2-TRICHLOROETHANE	13.08	83	109441	10.61	PPBV		99
69)	ETHYL METHACRYLATE	13.57	69	197023	10.17	PPBV		99
70)	2-HEXANONE	13.59	58	119879	10.03	PPBV		96
71)	TETRACHLOROETHYLENE	14.49	164	180138	9.79	PPBV		99
72)	DIBROMOCHLOROMETHANE	13.79	129	259377	10.31	PPBV		100
73)	1,2-DIBROMOETHANE	14.04	107	183675	10.56	PPBV		100
74)	OCTANE	14.28	43	269895	10.00	PPBV		99
75)	1,1,1,2-TETRACHLOROETHANE	15.17	131	203231	10.39	PPBV		96
76)	CHLOROBENZENE	15.20	112	336536	10.26	PPBV		100
77)	ETHYLBENZENE	15.58	91	530480	10.15	PPBV		99
78)	m,p-XYLENE	15.77	106	448365	21.03	PPBV		98
79)	o-XYLENE	16.28	106	219006	10.82	PPBV		99
80)	STYRENE	16.16	104	325841	11.23	PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.42	75	209905	9.82	PPBV		100
82)	NONANE	16.46	43	298222	11.16	PPBV		99
83)	BROMOFORM	15.89	173	257318	11.24	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.28	83	297494	10.77	PPBV		100
86)	ISOPROPYLBENZENE	16.90	105	663331	10.47	PPBV		99
87)	BROMOBENZENE	17.02	156	186533	11.16	PPBV		99
88)	2-CHLOROTOLUENE	17.43	126	154232	11.06	PPBV		96
89)	n-PROPYLBENZENE	17.45	120	175862	11.11	PPBV		98
90)	4-ETHYLTOLUENE	17.61	105	567556	11.03	PPBV		100
91)	1,3,5-TRIMETHYLBENZENE	17.69	105	530314	10.41	PPBV		100
92)	ALPHA-METHYLSTYRENE	17.86	118	238912	11.30	PPBV		99
93)	TERT-BUTYLBENZENE	18.14	134	139141	11.38	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.14	105	513068	10.94	PPBV		99
95)	m-DICHLOROBENZENE	18.33	146	264219	11.10	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54285.D Vial: 1
Acq On : 18 Mar 2016 10:14 am Operator: YOUMINH
Sample : cc2167-10 Inst : MSW
Misc : MS99296,VW2168,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 11:39:37 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

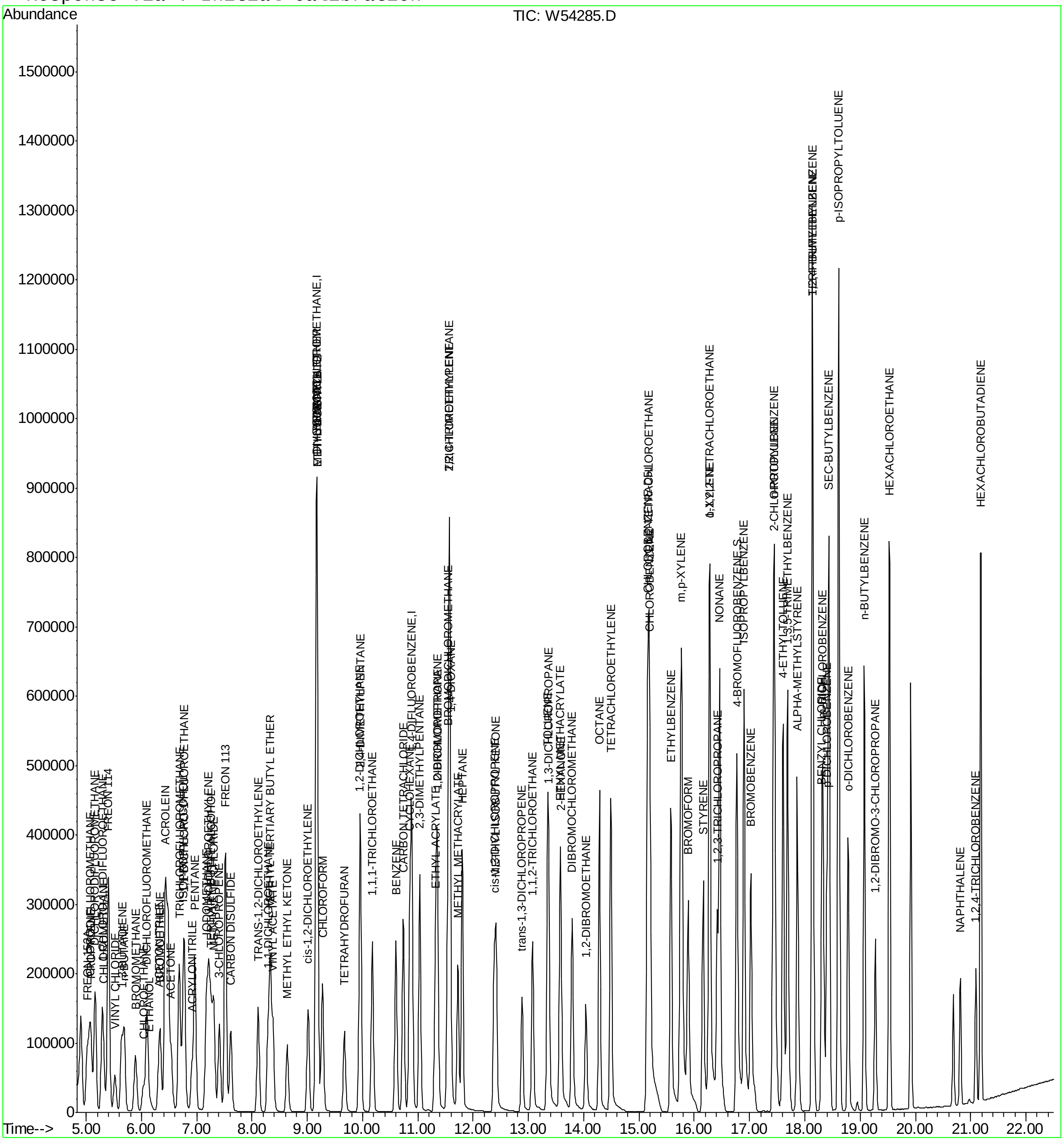
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	284169	10.98	PPBV	99
97)	p-DICHLOROBENZENE	18.40	146	243099	10.96	PPBV	100
98)	SEC-BUTYLBENZENE	18.44	134	162925	11.16	PPBV	99
99)	p-ISOPROPYLTOLUENE	18.61	134	171733	11.03	PPBV	100
100)	o-DICHLOROBENZENE	18.78	146	256519	10.50	PPBV	99
101)	n-BUTYLBENZENE	19.08	134	136142	11.41	PPBV	100
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.28	157	108550	9.63	PPBV	100
103)	HEXACHLOROETHANE	19.53	201	215821	11.00	PPBV	98
104)	HEXACHLOROBUTADIENE	21.18	225	207304	9.64	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	82002	9.14	PPBV	99
106)	NAPHTHALENE	20.81	128	189826	8.59	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54285.D                    Vial: 1
Acq On    : 18 Mar 2016  10:14 am                     Operator: YOUMINH
Sample    : cc2167-10                                 Inst    : MSW
Misc      : MS99296,VW2168,,,,,1                      Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 18 12:15 2016            Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



W54285.D MW2167.M Fri Mar 18 12:15:21 2016 MSW Page 4

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54344.D                  Vial: 2
Acq On    : 21 Mar 2016  12:13 pm                   Operator: YOUMINH
Sample    : CC2167-10                               Inst     : MSW
Misc      : MS99296,VW2170,,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:34 2016          Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	117601	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.87	114	610739	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.13	82	285490	10.00 PPBV	-0.01

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.75	95	323618	10.34 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 103.40%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	4.99	65	80613	10.75 PPBV	97
4) CHLORODIFLUOROMETHANE	5.04	67	30255	9.68 PPBV	98
5) DICHLORODIFLUOROMETHANE	5.13	85	316343	9.06 PPBV	100
6) PROPYLENE	5.07	41	102634	9.59 PPBV	98
7) FREON 114	5.37	85	342196	9.33 PPBV	94
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.27	65	228018	9.28 PPBV	99
9) CHLOROMETHANE	5.29	52	36116	11.23 PPBV	95
10) VINYL CHLORIDE	5.49	62	133614	10.73 PPBV	99
11) 1,3-BUTADIENE	5.62	54	107109	10.86 PPBV	98
12) n-BUTANE	5.66	58	30492	10.79 PPBV	96
13) BROMOMETHANE	5.86	94	115529	9.55 PPBV	99
14) CHLOROETHANE	6.01	64	72735	10.44 PPBV	99
15) DICHLOROFLUOROMETHANE	6.07	67	273694	9.25 PPBV	99
16) ACROLEIN	6.40	56	52066	8.35 PPBV	94
17) TRICHLOROFLUOROMETHANE	6.65	101	283887	8.54 PPBV	99
18) ISOPROPYL ALCOHOL	6.69	45	285240	8.80 PPBV	100
19) ACETONE	6.51	58	62137	9.56 PPBV	96
20) 1,1-DICHLORO-1-FLUOROETHAN	6.74	81	253096	8.54 PPBV	99
21) ACRYLONITRILE	6.89	53	98728	9.79 PPBV	99
22) PENTANE	6.94	57	36155	7.84 PPBV	97
23) IODOMETHANE	7.15	142	313641	8.52 PPBV	97
24) 1,1-DICHLOROETHYLENE	7.19	96	130000	8.48 PPBV	95
25) CARBON DISULFIDE	7.59	76	373245	10.81 PPBV	99
26) ETHANOL	6.08	45	53880	9.18 PPBV	98
27) ACETONITRILE	6.29	41	95826	9.33 PPBV	98
28) BROMOETHENE	6.31	106	112635	8.46 PPBV	100
29) METHYLENE CHLORIDE	7.29	84	114051	9.80 PPBV	95
30) 3-CHLOROPROPENE	7.39	76	63493	11.00 PPBV	95
31) FREON 113	7.49	151	214148	8.94 PPBV	91
32) TRANS-1,2-DICHLOROETHYLENE	8.09	96	129920	9.33 PPBV	94
33) TERTIARY BUTYL ALCOHOL	7.20	59	302622	10.81 PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.31	73	379695	10.21 PPBV	99
35) TETRAHYDROFURAN	9.64	72	65194	11.95 PPBV	97
36) HEXANE	9.15	57	220339	10.78 PPBV	98
37) VINYL ACETATE	8.35	86	36845	11.83 PPBV #	93
38) 1,1-DICHLOROETHANE	8.27	63	236588	11.14 PPBV	99
39) METHYL ETHYL KETONE	8.60	72	66404	11.99 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	8.99	96	139544	9.77 PPBV	96
41) DI-ISOPROPYL ETHER	9.14	87	121493	10.94 PPBV	95
42) ETHYL ACETATE	9.16	61	46647	12.28 PPBV #	70
43) METHYL ACRYLATE	9.16	55	256418	11.46 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54344.D                     Vial: 2
Acq On    : 21 Mar 2016  12:13 pm                      Operator: YOUMINH
Sample    : CC2167-10                                  Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                       Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:34 2016           Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W
```

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.25	83	259763	10.21	PPBV		100
45)	2,4-DIMETHYLPENTANE	9.94	57	257617	11.17	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.16	97	262287	9.52	PPBV		98
47)	CARBON TETRACHLORIDE	10.72	117	264627	9.12	PPBV		100
48)	1,2-DICHLOROETHANE	9.93	62	159682	10.85	PPBV		100
50)	BENZENE	10.58	78	430376	10.98	PPBV		99
51)	CYCLOHEXANE	10.83	84	186970	10.03	PPBV		94
52)	2,3-DIMETHYLPENTANE	11.02	71	97383	11.19	PPBV		97
53)	TRICHLOROETHYLENE	11.55	95	178901	9.89	PPBV		95
54)	DIBROMOMETHANE	11.32	174	160891	9.28	PPBV		91
55)	1,2-DICHLOROPROPANE	11.33	63	151825	10.51	PPBV		96
56)	ETHYL ACRYLATE	11.28	55	290347	11.35	PPBV		98
57)	BROMODICHLOROMETHANE	11.52	83	291320	9.99	PPBV		99
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	702902	10.52	PPBV		99
59)	1,4-DIOXANE	11.56	88	88943	10.62	PPBV		97
60)	METHYL METHACRYLATE	11.70	69	155485	11.45	PPBV		98
61)	HEPTANE	11.78	43	240544	10.61	PPBV		99
62)	METHYL ISOBUTYL KETONE	12.38	43	293023	11.38	PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.36	75	242902	11.33	PPBV		97
64)	TOLUENE	13.33	92	308396	10.97	PPBV		99
65)	1,3-DICHLOROPROPANE	13.35	76	238759	11.79	PPBV		99
66)	trans-1,3-DICHLOROPROPENE	12.86	75	181479	11.96	PPBV		98
67)	1,1,2-TRICHLOROETHANE	13.05	83	136589	11.43	PPBV		98
69)	ETHYL METHACRYLATE	13.55	69	250905	11.01	PPBV		98
70)	2-HEXANONE	13.56	58	160029	11.38	PPBV		99
71)	TETRACHLOROETHYLENE	14.47	164	192549	8.90	PPBV		98
72)	DIBROMOCHLOROMETHANE	13.77	129	283815	9.59	PPBV		100
73)	1,2-DIBROMOETHANE	14.02	107	223084	10.90	PPBV		100
74)	OCTANE	14.27	43	334193	10.52	PPBV		98
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	209060	9.08	PPBV		98
76)	CHLOROBENZENE	15.18	112	381465	9.89	PPBV		97
77)	ETHYLBENZENE	15.56	91	614397	9.99	PPBV		99
78)	m,p-XYLENE	15.75	106	504681	20.11	PPBV		97
79)	o-XYLENE	16.26	106	237826	9.99	PPBV		98
80)	STYRENE	16.14	104	366362	10.73	PPBV		100
81)	1,2,3-TRICHLOROPROPANE	16.39	75	240210	9.55	PPBV		96
82)	NONANE	16.45	43	343178	10.91	PPBV		98
83)	BROMOFORM	15.87	173	260240	9.66	PPBV		100
85)	1,1,2,2-TETRACHLOROETHANE	16.25	83	336388	10.35	PPBV		99
86)	ISOPROPYLBENZENE	16.89	105	709898	9.52	PPBV		99
87)	BROMOBENZENE	17.01	156	191919	9.75	PPBV		93
88)	2-CHLOROTOLUENE	17.42	126	157626	9.60	PPBV	#	91
89)	n-PROPYLBENZENE	17.44	120	184454	9.90	PPBV		93
90)	4-ETHYLTOLUENE	17.59	105	589846	9.74	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.67	105	574191	9.58	PPBV		99
92)	ALPHA-METHYLSTYRENE	17.85	118	247710	9.96	PPBV		99
93)	TERT-BUTYLBENZENE	18.12	134	137938	9.58	PPBV		94
94)	1,2,4-TRIMETHYLBENZENE	18.13	105	524928	9.51	PPBV		98
95)	m-DICHLOROBENZENE	18.31	146	261295	9.33	PPBV		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54344.D Vial: 2
Acq On : 21 Mar 2016 12:13 pm Operator: YOUMINH
Sample : CC2167-10 Inst : MSW
Misc : MS99296,VW2170,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22 09:46:34 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

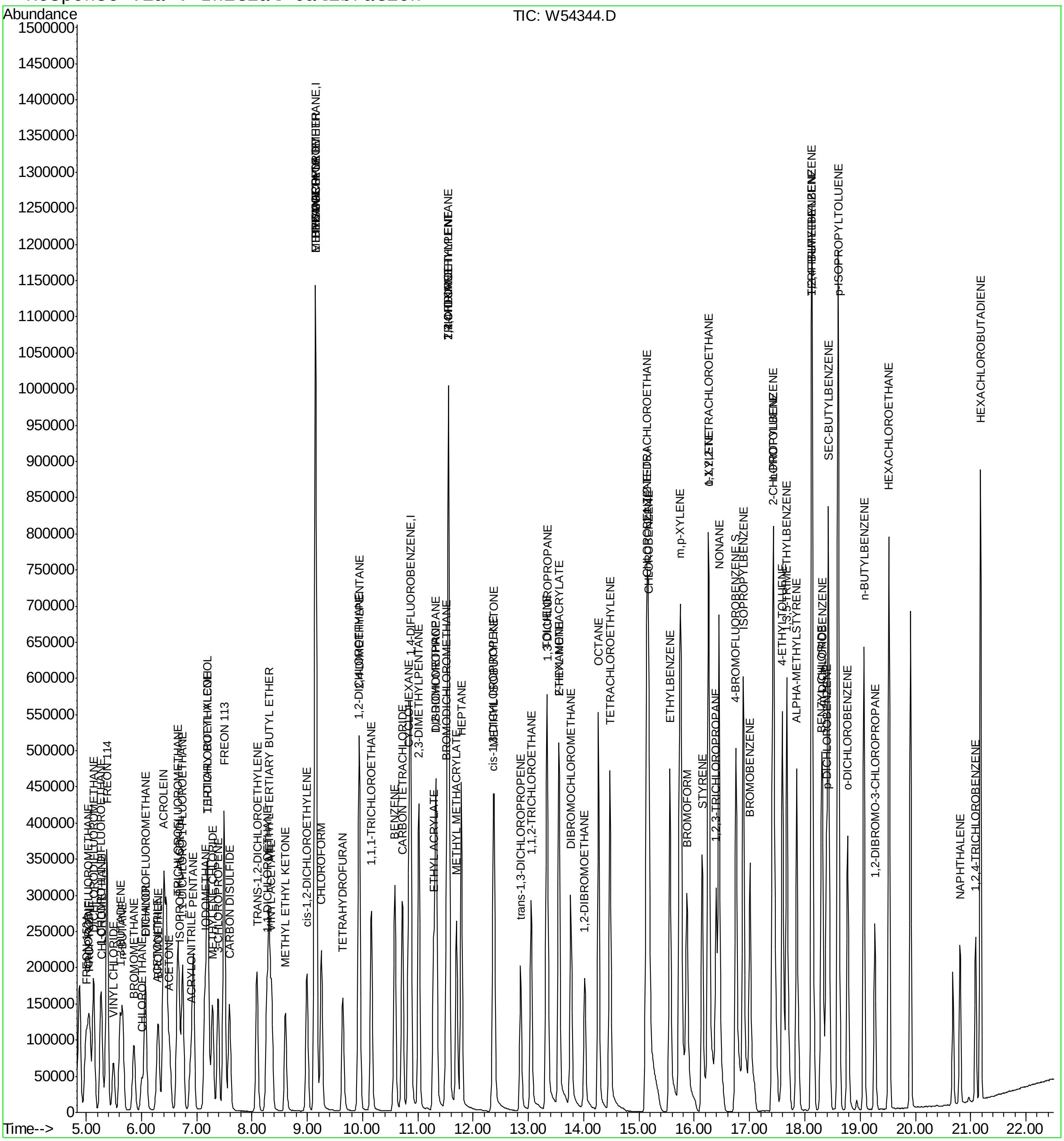
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	310156	10.18	PPBV	98
97)	p-DICHLOROBENZENE	18.39	146	253878	9.73	PPBV	99
98)	SEC-BUTYLBENZENE	18.42	134	161919	9.42	PPBV	93
99)	p-ISOPROPYLTOLUENE	18.60	134	169670	9.26	PPBV	96
100)	o-DICHLOROBENZENE	18.78	146	260076	9.05	PPBV	99
101)	n-BUTYLBENZENE	19.07	134	137740	9.81	PPBV	90
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	112127	8.45	PPBV	100
103)	HEXACHLOROETHANE	19.52	201	203636	8.82	PPBV	93
104)	HEXACHLOROBUTADIENE	21.18	225	214926	8.49	PPBV	100
105)	1,2,4-TRICHLOROBENZENE	21.09	180	93772	8.88	PPBV	99
106)	NAPHTHALENE	20.81	128	226603	8.71	PPBV	100

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54344.D                 Vial: 2
Acq On    : 21 Mar 2016   12:13 pm                 Operator: YOUMINH
Sample    : CC2167-10                              Inst    : MSW
Misc      : MS99296,VW2170,,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 22  9:52 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
```



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54370.D Vial: 2
Acq On : 22 Mar 2016 12:17 pm Operator: YOUMINH
Sample : cc2167-10 Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:31 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	9.15	128	114764	10.00 PPBV	0.00
49) 1,4-DIFLUOROBENZENE	10.87	114	625763	10.00 PPBV	0.00
68) CHLOROBENZENE-D5	15.14	82	275205	10.00 PPBV	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc Units	Dev(Min)
84) 4-BROMOFLUOROBENZENE	16.75	95	313401	10.39 PPBV	0.00

Spiked Amount 10.000 Range 65 - 128 Recovery = 103.90%

Target Compounds	R.T.	QIon	Response	Conc Units	Qvalue
3) FREON 152A	5.00	65	85662	11.71 PPBV	95
4) CHLORODIFLUOROMETHANE	5.05	67	29761	9.76 PPBV	100
5) DICHLORODIFLUOROMETHANE	5.14	85	315043	9.24 PPBV	100
6) PROPYLENE	5.07	41	110156	10.54 PPBV	97
7) FREON 114	5.39	85	346569	9.69 PPBV	95
8) 1-CHLORO-1,1-DIFLUOROETHAN	5.28	65	214865	8.96 PPBV	98
9) CHLOROMETHANE	5.30	52	37714	12.01 PPBV	96
10) VINYL CHLORIDE	5.51	62	137619	11.32 PPBV	99
11) 1,3-BUTADIENE	5.63	54	107436	11.17 PPBV	97
12) n-BUTANE	5.68	58	32170	11.67 PPBV	96
13) BROMOMETHANE	5.88	94	121866	10.32 PPBV	98
14) CHLOROETHANE	6.02	64	76243	11.22 PPBV	99
15) DICHLOROFLUOROMETHANE	6.08	67	280321	9.71 PPBV	99
16) ACROLEIN	6.41	56	53511	8.80 PPBV	97
17) TRICHLOROFLUOROMETHANE	6.66	101	282587	8.71 PPBV	100
18) ISOPROPYL ALCOHOL	6.71	45	269782	8.53 PPBV	99
19) ACETONE	6.52	58	61531	9.71 PPBV	98
20) 1,1-DICHLORO-1-FLUOROETHAN	6.75	81	246435	8.52 PPBV	98
21) ACRYLONITRILE	6.90	53	94191	9.57 PPBV	99
22) PENTANE	6.95	57	36922	8.21 PPBV	96
23) IODOMETHANE	7.16	142	325122	9.05 PPBV	97
24) 1,1-DICHLOROETHYLENE	7.20	96	132609	8.86 PPBV	96
25) CARBON DISULFIDE	7.60	76	384611	11.42 PPBV	98
26) ETHANOL	6.11	45	53780	9.39 PPBV	98
27) ACETONITRILE	6.30	41	96800	9.66 PPBV	99
28) BROMOETHENE	6.32	106	126203	9.71 PPBV	100
29) METHYLENE CHLORIDE	7.29	84	115317	10.15 PPBV	96
30) 3-CHLOROPROPENE	7.40	76	64042	11.37 PPBV #	92
31) FREON 113	7.50	151	223182	9.55 PPBV	94
32) TRANS-1,2-DICHLOROETHYLENE	8.10	96	127938	9.41 PPBV	95
33) TERTIARY BUTYL ALCOHOL	7.21	59	291413	10.66 PPBV	99
34) METHYL TERTIARY BUTYL ETHE	8.32	73	343967	9.48 PPBV	98
35) TETRAHYDROFURAN	9.64	72	61661	11.58 PPBV	97
36) HEXANE	9.16	57	217604	10.91 PPBV	94
37) VINYL ACETATE	8.36	86	34257	11.27 PPBV	98
38) 1,1-DICHLOROETHANE	8.27	63	233673	11.28 PPBV	99
39) METHYL ETHYL KETONE	8.61	72	61830	11.44 PPBV	96
40) cis-1,2-DICHLOROETHYLENE	9.00	96	133588	9.58 PPBV	96
41) DI-ISOPROPYL ETHER	9.14	87	112939	10.42 PPBV	96
42) ETHYL ACETATE	9.16	61	41363	11.16 PPBV #	82
43) METHYL ACRYLATE	9.16	55	231285	10.60 PPBV	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54370.D   Vial: 2
Acq On : 22 Mar 2016 12:17 pm   Operator: YOUMINH
Sample : cc2167-10   Inst : MSW
Misc : MS99636,VW2171,,,,,1   Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:31 2016   Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	CHLOROFORM	9.25	83	245183	9.88	PPBV		99
45)	2,4-DIMETHYLPENTANE	9.94	57	256624	11.40	PPBV		98
46)	1,1,1-TRICHLOROETHANE	10.16	97	244706	9.11	PPBV		98
47)	CARBON TETRACHLORIDE	10.72	117	249610	8.81	PPBV		100
48)	1,2-DICHLOROETHANE	9.93	62	141144	9.83	PPBV		99
50)	BENZENE	10.58	78	426383	10.62	PPBV		100
51)	CYCLOHEXANE	10.84	84	185454	9.71	PPBV		95
52)	2,3-DIMETHYLPENTANE	11.02	71	96593	10.84	PPBV		99
53)	TRICHLOROETHYLENE	11.55	95	166088	8.96	PPBV		98
54)	DIBROMOMETHANE	11.32	174	159134	8.96	PPBV		98
55)	1,2-DICHLOROPROPANE	11.33	63	148246	10.02	PPBV		94
56)	ETHYL ACRYLATE	11.28	55	267630	10.21	PPBV		98
57)	BROMODICHLOROMETHANE	11.52	83	268922	9.00	PPBV		98
58)	2,2,4-TRIMETHYLPENTANE	11.56	57	687493	10.04	PPBV		98
59)	1,4-DIOXANE	11.57	88	83860	9.77	PPBV	#	83
60)	METHYL METHACRYLATE	11.70	69	142646	10.25	PPBV		95
61)	HEPTANE	11.78	43	238538	10.27	PPBV		98
62)	METHYL ISOBUTYL KETONE	12.39	43	271278	10.28	PPBV		98
63)	cis-1,3-DICHLOROPROPENE	12.36	75	220199	10.02	PPBV		93
64)	TOLUENE	13.33	92	293510	10.19	PPBV		100
65)	1,3-DICHLOROPROPANE	13.35	76	216179	10.42	PPBV		98
66)	trans-1,3-DICHLOROPROPENE	12.86	75	159001	10.23	PPBV		95
67)	1,1,2-TRICHLOROETHANE	13.05	83	131233	10.72	PPBV		97
69)	ETHYL METHACRYLATE	13.55	69	231699	10.54	PPBV		98
70)	2-HEXANONE	13.56	58	153014	11.29	PPBV		97
71)	TETRACHLOROETHYLENE	14.47	164	193157	9.26	PPBV		99
72)	DIBROMOCHLOROMETHANE	13.77	129	264022	9.25	PPBV		100
73)	1,2-DIBROMOETHANE	14.02	107	196976	9.98	PPBV		100
74)	OCTANE	14.27	43	325383	10.63	PPBV		97
75)	1,1,1,2-TETRACHLOROETHANE	15.16	131	202729	9.14	PPBV		95
76)	CHLOROBENZENE	15.18	112	360092	9.68	PPBV		98
77)	ETHYLBENZENE	15.56	91	571823	9.64	PPBV		99
78)	m,p-XYLENE	15.75	106	466163	19.27	PPBV		100
79)	o-XYLENE	16.26	106	220614	9.61	PPBV		100
80)	STYRENE	16.14	104	337691	10.26	PPBV		99
81)	1,2,3-TRICHLOROPROPANE	16.40	75	215675	8.90	PPBV		96
82)	NONANE	16.45	43	326803	10.78	PPBV		98
83)	BROMOFORM	15.87	173	246510	9.49	PPBV		99
85)	1,1,2,2-TETRACHLOROETHANE	16.26	83	308959	9.86	PPBV		99
86)	ISOPROPYLBENZENE	16.89	105	651879	9.07	PPBV		100
87)	BROMOBENZENE	17.01	156	181186	9.55	PPBV		97
88)	2-CHLOROTOLUENE	17.42	126	150252	9.50	PPBV		96
89)	n-PROPYLBENZENE	17.44	120	169142	9.42	PPBV		96
90)	4-ETHYLTOLUENE	17.59	105	539203	9.23	PPBV		99
91)	1,3,5-TRIMETHYLBENZENE	17.67	105	508316	8.80	PPBV		99
92)	ALPHA-METHYLSTYRENE	17.85	118	225972	9.42	PPBV		99
93)	TERT-BUTYLBENZENE	18.12	134	127689	9.20	PPBV		99
94)	1,2,4-TRIMETHYLBENZENE	18.13	105	462643	8.69	PPBV		99
95)	m-DICHLOROBENZENE	18.31	146	240888	8.92	PPBV		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\W54370.D Vial: 2
Acq On : 22 Mar 2016 12:17 pm Operator: YOUMINH
Sample : cc2167-10 Inst : MSW
Misc : MS99636,VW2171,,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23 09:50:31 2016 Quant Results File: MW2167.RES

Quant Method : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title : TO15 by GCMS w/Rtx-1, 60m X 0.32mm ID X 1.0 um
Last Update : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
DataAcq Meth : TO15W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
96)	BENZYL CHLORIDE	18.30	91	262971	8.96	PPBV	99
97)	p-DICHLOROBENZENE	18.39	146	229736	9.13	PPBV	100
98)	SEC-BUTYLBENZENE	18.42	134	153121	9.24	PPBV	96
99)	p-ISOPROPYLTOLUENE	18.60	134	154857	8.77	PPBV	99
100)	o-DICHLOROBENZENE	18.77	146	238590	8.61	PPBV	100
101)	n-BUTYLBENZENE	19.07	134	123528	9.13	PPBV	95
102)	1,2-DIBROMO-3-CHLOROPROPAN	19.27	157	100347	7.85	PPBV	99
103)	HEXACHLOROETHANE	19.52	201	201889	9.07	PPBV	95
104)	HEXACHLOROBUTADIENE	21.18	225	185544	7.60	PPBV	99
105)	1,2,4-TRICHLOROBENZENE	21.09	180	78115	7.67	PPBV	99
106)	NAPHTHALENE	20.81	128	186368	7.44	PPBV	99

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

Quantitation Report (QT Reviewed)

```
Data File : C:\MSDCHEM\1\DATA\W54370.D              Vial: 2
Acq On    : 22 Mar 2016  12:17 pm               Operator: YOUMINH
Sample    : cc2167-10                           Inst    : MSW
Misc      : MS99636,VW2171,,,,,1                Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 23  9:59 2016             Quant Results File: MW2167.RES

Method       : C:\MSDCHEM\1\METHODS\MW2167.M (RTE Integrator)
Title        : TO15 by GCMS w/Rtx-1, 60m  X 0.32mm ID X 1.0 um
Last Update  : Fri Mar 18 09:44:17 2016
Response via : Initial Calibration
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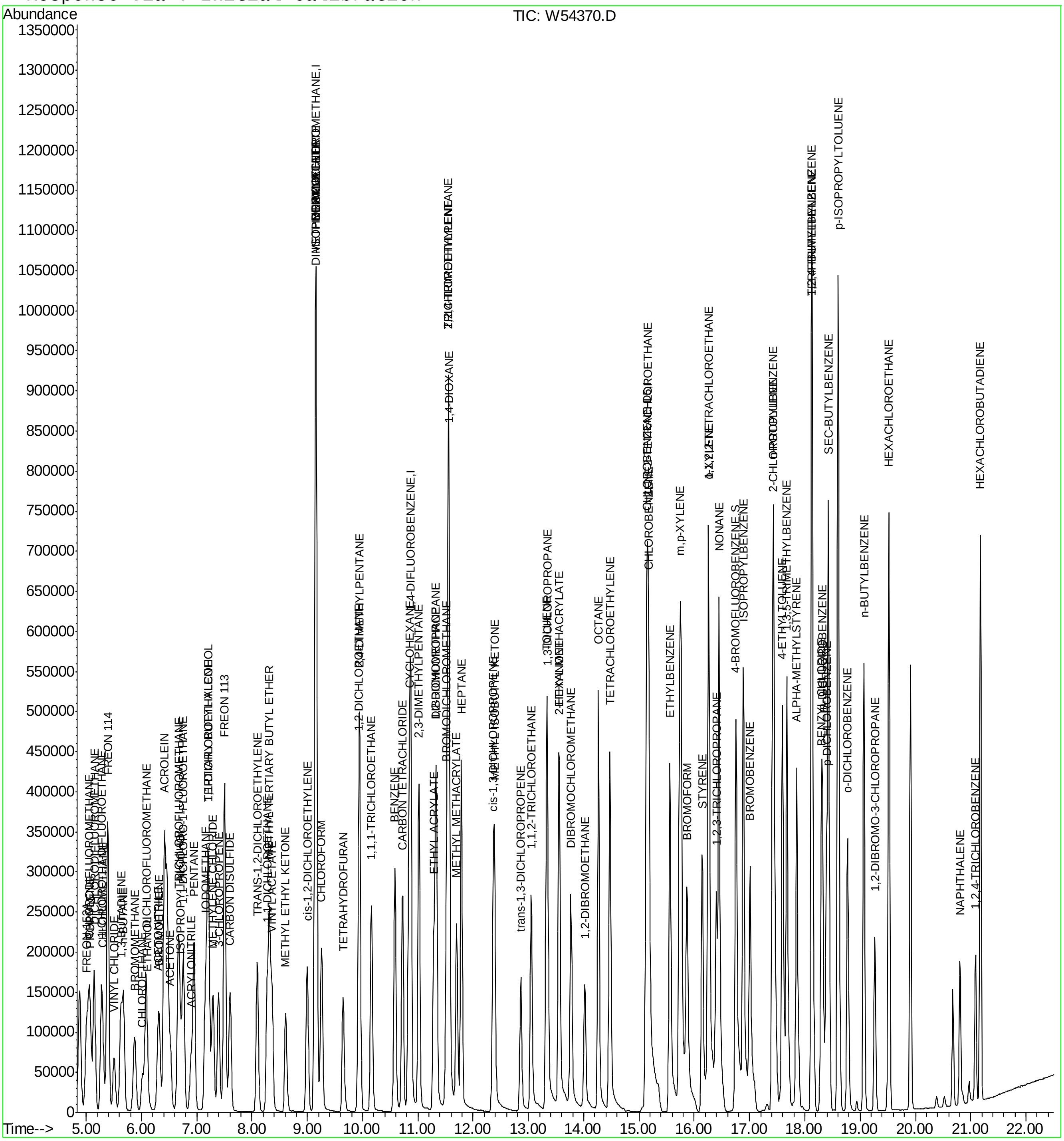

ACCUTEST.

TO-14/TO-15

Batch ID: V3W1994

Date: 3/16/16

Analyst Signature: [signature]

Columns: RTX-1[illegible]MX
Method: TO15 3W.M
Seq. File: 3W031616.S
Initial Cal. Method: M3W1994

AS Data

Method:	TO15.MPT

Standard Data

Lot #	Description	Conc.
AS 6955	IS/Surr	100ppbv

Standard Data

Lot #	Description	Conc.
AS 6951	TO15 STD	40ppbv
AS 6952	TO15 STD	1.0ppbv
AS 6953	TO15 STD	0.4ppbv
AS 6954	TO15 LCS	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/17/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	3W52808	Test bpb		A964	100						reseat preconcentrator rotary valves and moved Int Std Can to different position MJ 3/16/16
1	3W52809			A964	100						
1	3W52810			A964	100						
1	3W52811			A964	100						
1	3W52812	Test 10ppbv		A964	100						replaced 3-way uniconnector
1	3W52813	Test 10ppbv		A964	100						
5	3W52814	IB		A963	100					not used	
5	3W52815	IB		A963	100					not used	
5	3W52816	IB		A963	100					not used	
5	3W52817	BFB		A963	400					on	
1	3W52818	ICC1994-10		A964	100			✓	✓	on	
1	3W52819	IC1994-5		A964	50			✓	✓	on	
2	3W52820	IC1994-0.5		A974	200			✓	✓	on	
2	3W52821	IC1994-0.2		A974	80			✓	✓	on	
1	3W52822	IC1994-20		A964	200			✓	✓	on	
1	3W52823	IC1994-1.5		A964	150			✓	✓	on	
5	3W52824	IB		A963	100			✓	✓	—	
3	3W52825	IC1994-0.1		A968	100			✓	✓	on	
3	3W52826	IC1994-0.04		A968	40			✓	✓	on	
1	3W52827	IC1994-30		A964	300			✓	✓	on	
5	3W52828	IB		A963	100			✓	✓	—	
1	3W52829	IC1994-40		A964	400			✓	✓	on	
5	3W52830	IB		A963	100			✓	✓	—	
4	3W52831	ICV1994-10		A967	100			✓	✓	on	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: V3W1996

Date: 3/18/16

Analyst Signature: [signature]

Columns: RTX-1 60M X 0.32mm
Method: TO153W.M
Seq. File: 3W160318.S
Initial Cal. Method: M3W1994

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6951	TO15STD	40ppbv
AS6954	TO15LCS	40ppbv
AS6955	IS/SWC	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int/STD Areas	Surr	Status Data	Comments
1	3W52852	BFB		open position	400					ok	
2	3W52853	~~CC1995~~ YH		A964	100			/	/	ok	CC1994-10
3	3W52854	BS		A967	100			/	/	ok	
3	3W52855	BSD		A967	100			/	/	ok	
4	3W52856	IB		YH ~~A6~~ A963	100			/	/	-	
4	3W52857	MB		A963	400			/	/	ok	
5	3W52858	JC16139-1	SL	A1179	592	1.48		/	/	ok	RR 50mL
6	3W52859	JC16139-2	↓	A1187	400	1		/	/	ok	
7	3W52860	JC16139-3		A1075	400	1		/	/	ok	
8	3W52861	JC16139-4		A668	400	1		/	/	ok	RR 100mL
9	3W52862	JC16139-5	↓	M148	400	1		/	/	ok	
10	3W52863	SCC		A463	400	1		/	/	ok	CP8340
11	3W52864	JC16139-6	SL	A1058	400	1		/	/	ok	
12	3W52865	JC16139-7		A276	400	1		/	/	ok	
12	3W52866	JC16139-7Dup		A276	400	1		/	/	ok	
13	3W52867	JC16139-8		A1068	100	1		/	/	ok	
14	3W52868	JC16139-9		A856	100	1		/	/	ok	
15	3W52869	JC16139-10	↓	A1197	100	1		/	/	ok	
16	3W52870	SCC		A778	400	1		/	/	ok	CP8343
1	3W52871	JC15740-1	STD	A472	640	1.60		/	/	ok	RR 100mL
2	3W52872	JC15740-2		A1147, A377	200	260		/	/	ok	RR 10mL
3	3W52873	JC15740-3		A510, A270	200	575		/	/	ok	RR 16mL
4	3W52874	JC15740-4		A421, A1066	200	575		/	/	ok	RR 10mL
5	3W52875	JC15740-5		A438, A269	200	575		/	/	ok	RR 20,000x
6	3W52876	JC15740-6		A541, A1161	50	575		/	/	ok	RR 24,000x
7	3W52877	JC15740-7	↓	A498, A329	200	46		/	/	ok	RR 2,000x
8	3W52878	JC15945-1	STD	A603	100	1		/	/	RR	RR possible c/o
9	3W52879	JC15812-1	SL	A412	100	1		/	/	RR	RR c/o 100mL/40mL
10	3W52880	JC15812-2	↓	A534	100	1		/	/	RR	RR c/o

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST Laboratories

Canister Secondary Dilution Log

Date	Initials	Accutest Sample ID	Original Canister Dilution: Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Secondary Canister Dilution: Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/18/16	YH	JC15740-2	A1147	5	1.2	1.3	A377	6000	50	9.8	10,000	200	260
↓	↓	-3	A510	2	1.1	1.15	A210	↓	20	↓	10,000	500	575
↓	↓	-4	A421	2	1.1	1.15	A1066	↓	20	↓	10,000	500	575
↓	↓	-5	A438	2	1.1	1.15	A269	↓	20	↓	10,000	500	575
↓	↓	-6	A541	2	1.1	1.15	A1161	↓	20	↓	10,000	500	575
↓	↓	-7	A498	2	1.1	1.15	A329	1000	50	14.7	2000	40	46

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

ACCUTEST

TO-14/TO-15

Batch ID: V3W1998

Date: 3/22/16

Analyst Signature: [signature]

Columns: RTX-1 60MX0.32mm

Method: TO153W.M

Seq. File: 3W160322.S

Initial Cal. Method: M3W1998

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.
AS 6955	IS/surr	100ppbv

Standard Data

Lot #	Description	Conc.
AS6951	TO15STD	40ppbv
AS6952	TO15STD	1.0ppbv
AS6953	TO15STD	0.4ppbv
AS6954	TO15LCS	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/25/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	3W52923	Test		A964	100					not used	
1	3W52924	Test		A964	100						
5	3W52925	IB		A963	100						
5	3W52926	IB		A963	100						
5	3W52927	IB		A963	100						
5	3W52928	BFB		A963	400					on	
1	3W52929	ICC1998-10		A964	100			✓	✓	ok	
1	3W52930	IC1998-5		A964	50			✓	✓	on	
2	3W52931	IC1998-0.5		A974	200			✓	✓	on	
2	3W52932	IC1998-0.2		A974	80			✓	✓	on	
1	3W52933	IC1998-20		A964	200			✓	✓	on	
1	3W52934	IC1998-15		A964	150			✓	✓	on	
5	3W52935	IB		A963	100			✓	✓	–	
3	3W52936	IC1998-0.1		A968	100			✓	✓	on	
3	3W52937	IC1998-0.04		A968	40			✓	✓	on	
YH ~~8~~ 1	3W52938	IC1998-30		A964	300			✓	✓	on	
5	3W52939	IB		A963	100			✓	✓	–	
1	3W52940	IC1998-40		A964	400			✓	✓	on	
5	3W52941	IB		A963	100			✓	✓	–	
4	3W52942	ICV1998-10		A967	100			✓	✓	on	

YH

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: V3W1999

Date: 3/24/16

Analyst Signature: [signature]

Columns: RTX-160MX0.32mm

Method: TO153W.M

Seq. File: 3W160324.S

Initial Cal. Method: M3W1998

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/25/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	3W52943	BFB		open position	400					on	
2	3W52944	CC1998-10		A977	100			✓	✓	on	
3	3W52945	BS		A967	100			✓	✓	on	
3	3W52946	BSD		A967	100			✓	✓	on	
4	3W52947	IB		A963	100			✓	✓	—	
4	3W52948	MB		A963	400			✓	✓	on	
5	3W52949	JC16847-1	STD	A1022	700	1.75		✓	✓	on	
6	3W52950	JC16847-2	↓	M036	608	1.52		✓	✓	on	
7	3W52951	JC16864-1	SL	A801	100	1		✓	✓	on	
8	3W52952	JC16864-2	↓	M320	165	1.65		✓	✓	on	
9	3W52953	IB		A1177	100	1		✓	✓	—	
9	3W52954	SCC		A1177	400	1		✓	✓	on	CP8351
10	3W52955	JC14973-2	STD	A1056	400	1		✓	✓	on	
11	3W52956	JC14973-3		A304	400	1		✓	✓	on	
11	3W52957	JC14973-3Dup		A304	400	1		✓	✓	on	
12	3W52958	JC14973-4	↓	A895	400	1		✓	✓	on	RR50ml
13	3W52959	JC16571-1	STD	A752	100	1		✓	✓	on	RR20ml
14	3W52960	JC16571-2		A219	100	1		✓	✓	on	RR50ml
15	3W52961	JC16571-3		A364, M206	200	59.2		✓	✓	on	
16	3W52962	~~JC167~~ YM JC16571-4	↓	M111	400	1		✓	✓	on	
1	3W52963	SCC		A016	400	1		✓	✓	on	CP8355
2	3W52964	JC16658-1	NYSVLL	A677	200	1		✓	✓	on	RR20ml
3	3W52965	JC16658-2		A403	200	1		✓	✓	on	RR10ml
YM ~~3~~ 4	3W52966	JC16658-3		A1124	200	1		✓	✓	on	RR10ml
5	3W52967	JC16658-4		A1150	200	1		✓	✓	on	RR100X
6	3W52968	JC16658-5		A699	200	1		↑	✓	on	RR10ml
7	3W52969	JC16658-6	↓	A1145	200	1		✓	✓	RR	Possible CID RR200ml/20ml
8	3W52970	JC16207-1	STD	A002	400	1		✓	✓	on	RR100ml
9	3W52971	JC16207-2	↓	A021	608	1.52		✓	✓	on	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05

Rev. Date: 10/20/09

Canister Secondary Dilution Log

Accutest Laboratories

Date	Initials	Accutest Sample ID	Original Canister Dilution: Canister ID	Original Canister Dilution: Vacuum in "Hg at time of Dilution	Original Canister Dilution: Final Pressure psig	Original Canister Dilution: Dilution Factor	Secondary Canister Dilution: Canister ID	Secondary Canister Dilution: Canister Volume CC	Secondary Canister Dilution: Sample Volume Added CC	Secondary Canister Dilution: Final Pressure psig	Secondary Canister Dilution: Equiv Total Volume CC	Secondary Canister Dilution: Dilution Factor	Final Canister Dilution Factor
3/23/16	YH	JC16571-3	A364	8	1.2	1.48	M206	1000	50	14.7 ~~9.8~~	2,000	40	59.2

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

148

TO-14/TO-15

Batch ID: V5W637

Date: 1/22/16

Analyst Signature: [signature]

Columns: RTX-1 60m X0.32mm X1.0um
Method: 5WT015.M
Seq. File: 160122.S
Initial Cal. Method: M5W634
M5W637

AS Data

Method:	T015.CTD

Standard Data

Lot #	Description	Conc.
AS6861	T015 STD	40ppbv
AS6864	T015 LCS	40ppbv
AS6862	T015 STD	1.0ppbv
AS6863	T015 STD	0.4ppbv

Standard Data

Lot #	Description	Conc.
AS6850	T015 STD	40ppbv
AS6853	T015 LCS	40ppbv
AS6813	IS/Surr.	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 1/26/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W15830	BFB		open position	400					RR	CC-10 failed
2	5W15831	CC634-10		A971	100			✓	✓	RR	
2	5W15832	CC634-10		A971	100			✓	✓	NG	
1	5W15833	BFB		open position	400					not used	
2	5W15834	CC634-10		A971	100			✓	✓	NG	
5	5W15835	IB		A963	100			✓	✓	not used	
5	5W15836	IB		A963	100			✓	✓	not used	
5	5W15837	IB		A963	100			✓	✓	not used	
5	5W15838	IB		A963	100			✓	✓	not used	
5	5W15839	IB		A963	100			✓	✓	not used	
5	5W15840	BFB		A963	100					ok	
1	5W15841	ICC637-10		A971	100			✓	✓	ok	
1	5W15842	IC637-5		A971	50			✓	✓	ok	
2	5W15843	IC637-0.5		A976	200			✓	✓	ok	
2	5W15844	IC637-0.2		A976	80			✓	✓	ok	
1	5W15845	IC637-20		A971	200			✓	✓	ok	
5	5W15846	IB		A963	100			✓	✓	not used	
3	5W15847	IC637-0.1		A970	100			✓	✓	ok	
3	5W15848	IC637-0.04		A970	40			✓	✓	ok	
1	5W15849	IC637-30		A971	~~300~~ 300			✓	✓	ok	
5	5W15850	IB		A963	100			✓	✓	not used	
1	5W15851	IC637-40		A971	400			✓	✓	ok	
5	~~5W15856~~ TH	IB		A963	100			✓	✓	not used	5W15852
4	~~5W1587~~ TH	ICV637-10		A964	100			✓	✓	ok	5W15853
										TH	1/25/16

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST Laboratories

Canister Secondary Dilution Log

Date	Initials	Accutest Sample ID	Original Canister Dilution: Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Secondary Canister Dilution: Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
1/25/16	TH	JC13098-1	A 1149	6.0	1.2	1.35	A783	1000	20	14.7	2000	100	135
1/25/16	TH	JC13098-3	A 575	7.5	1.3	1.45	A 423	1000	40	14.7	2000	50	72.5
1/25/16	TH	JC13098-5	A677	1.5	1.0	1.13	A 698	1000	40	14.7	2000	50	56.5

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

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Form: AT003-03
Rev. Date: 6/13/06.

TO-14/TO-15

ACCUTEST

Batch ID: V5W683

Date: 3/17/16

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm 1.0µm

Method: 5WTO15

Seq. File: 160317.S

Initial Cal. Method: M5W637

AS Data

Method:	TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
As 6905	TO15 STD	40ppbv
As 6931	TO15 LCS	40ppbv
As 6928	IS/Surr	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/18/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17073	BFB		open portion	400					ok	
2	5W17074	CC637-16		A971	100			✓	✓	ok	
3	5W17075	BS		A981	100			✓	✓	not used	
3	5W17076	BS		A981	100			✓	✓	ok	
3	5W17077	BSD		A981	100			✓	✓	ok	
4	5W17078	IB		A962	400			✓	✓	not used	
4	5W17079	MB		A962	400			✓	✓	ok	
5	5W17080	JC16018-1	SL	M152	50	1.70		✓	✓	ok	
6	5W17081	JC16018-3	✓	A869	50	1.70		✓	✓	ok	
7	5W17082	JC15479-10	STD	A610	20	148		✓	✓	ok	
8	5W17083	JC15479-11	✓	A493	50	1		✓	✓	ok	
9	5W17084	JC15479-19	✓	A506	100	1		✓	✓	ok	
10	5W17085	JC15479-20	✓	A526	100	1		✓	✓	ok	
10	5W17086	JC15479-20DUP	✓	A526	100	1		✓	✓	ok	
11	5W17087	SCC		A385	400			✓	✓	NG	recheck
12	5W17088	JC15502-1	DCE, T12DCE, TCE, VC, PCE	A810	640 ~~400~~ 3/18	1.60		✓	✓	ok	
13	5W17089	JC15502-2	✓	A1080	400	1		✓	✓	ok	
14	5W17090	JC15502-3	✓	A814	400	1		✓	✓	ok	
15	5W17091	JC15503-1	STD	A1138	100	1		✓	✓	ok	
16	5W17092	JC15503-2	✓	A693	100	1		✓	✓	ok	
1	5W17093	JC15503-3	✓	A540	100	1		✓	✓	ok	
2	5W17094	JC15509-1	✓	A1240	100	1		✓	✓	ok	
3	5W17095	JC15931-1	STD	A1071	400	1		✓	✓	ok	
4	5W17096	SCC		A360	400			✓	✓	ok	
5	5W17097	JC15484-1	STD+CC	A600	130	1.30		✓	✓	ok	
6	5W17098	JC15484-2	✓	M463	130	1.30		✓	✓	ok	
7	5W17099	JC15484-3	✓	A807	155	1.55		✓	✓	ok	
5	~~5W17099~~ 5W17100	JC15484-1	✓	A600	40	1.30		✓	✓	not used	DL not needed
6	~~5W17100~~ 5W17101	JC15484-2	✓	M463	40	1.30		✓	✓	not used	DL not needed
7	5W17102	JC15484-3	✓	A807	40	1.55		✓	✓	not used	DL not needed

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: V5W683

Date: 3/17/16

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm x 1.0μm
Method: 5UTO15.M
Seq. File: 160317.S
Initial Cal. Method: M5W637

AS Data

Method: TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
As 6905	TO15 STD	40 ppbv
A 6931	TO15 LCS	40 ppbv
As 6928	IS/Surr	100 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/18/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
8	5W17103	JC15931-2	STD	A753	100	1		✓	✓	ok/RR	RR-20mL
9	5W17104	JC15931-3	✓	A371	400	1		✓	✓	ok	RL possible c/o GT 3/18/16

ML 3/18

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error
Form: AT008-05
Rev. Date: 10/20/09

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Canister Secondary Dilution Log

ACCUTEST Laboratories

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/17/16	ML	JC15479-10	A610	8.0	1.2	1.48							1.48

Definition: Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example: Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

ACCUTEST

TO-14/TO-15

Batch ID: V5W684

Date: 3/18/2011

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm x 1.0µm

Method: 5WTO15.M

Seq. File: 1603185.S

Initial Cal. Method: M5W637

AS Data

Method: TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
As 6905	TO15 STD	40ppbv
As 6931	TO15 LCS	40ppbv
As 6928	IS/Surr	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature:________________ Date:________________

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17105	BFB		open portion	400					ok	
2	5W17106	CC637-10		A971	160			✓	✓	ok	
3	5W17107	BS		A981	160			✓	✓	ok	
3	5W17108	BSD		A981	160			✓	✓	ok	
4	5W17109	IB		A962	400			✓	✓	—	
4	5W17110	MB		A962	400			✓	✓	ok	
5	5W17111	SCC		A987	400			✓	✓	ok	
6	5W17112	JC16150-1	STD	A089	592 ~~400~~	1.48		✓	✓	N/A	RR 50mL
7	5W17113	JC15931-2	STD	A753	20	1		✓	✓	ok/ok	+ 5W17103
8	5W17114	JC15571-1	STD	M397	400	1		✓	✓	ok/DL	RR 200mL
9	5W17115	JC15571-2	✓	A881	400	1		✓	✓	ok/DL	RR 200mL
9	5W17116	JC15571-2DUP	✓	A881	400	1		✓	✓	ok	
10	5W17117	JC15581-1	STD	A194	400	1		✓	✓	ok	
11	5W17118 ~~5W17118~~	JC15660-1	NYLL+GC, MAC,CUME,...	A1034	400	1		✓	✓	ok/DL	RR 10mL → SW conc
12	5W17119	JC15660-2	✓	A647	400	1		✓	✓	ok/DL	RR 20mL → N conc
13	5W17120	JC15660-3	✓	A1034	400	1		✓	✓	ok	
14	5W17121	JC15661-1	STD	A286	400	1		✓	✓	ok	
15	5W17122	JC15662-1	STD	A539, M439	100	130		✓	✓	ok	RR 10mL; too dilute
16	5W17123	JC15662-2	✓	A682, A705	100	130		✓	✓	ok	RR 10mL; too dilute
1	5W17124	JC15662-3	✓	A1146, A492	100	69		✓	↑	ok	RR 400mL
2	5W17125	JC15662-4	✓	A508	100	1		✓	✓	ok	
3	5W17126	JC15662-5	✓	A505	100	1		✓	✓	ok	
4	5W17127	JC15662-6	✓	A411	100	1		✓	✓	ok/DL	RR 40mL
5	5W17128	SCC		A373	400			✓	✓	RR	RR possible 40
6	5W17129	JC16150-1	STD	A089	50	1.48		✓	✓	ok/ok	
7	5W17130	JC15931-3	STD	A371	400	1		✓	✓	ok	
8	5W17131	JC15648-1	STD+GC	A848, M325	100	44		TH ~~✓~~	~~✓~~ TH	not run	sequence not entered
9	5W17132	JC15571-2	STD	A881	200	1		TH ~~✓~~	~~✓~~ TH	not run	sequence not entered

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

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Form: AT008-05

Rev. Date: 10/20/09

7.8.7

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ACCUTEST Laboratories

Canister Secondary Dilution Log

Date	Initials	Accutest Sample ID	Original Canister Dilution: Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Secondary Canister Dilution: Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/18/11	ML	JC15662-1	A539	5.0	1.2	1.30	M439	1000	20	14.7	2000	100	130
		JC15662-2	A652	5.0	1.2	1.30	A705	1000	20	14.7	2000	100	130
		JC15662-3	A1146	6.5	1.1	1.38	A492	1000	40	14.7	2000	50	69
		JC15648-1	A848	0.5	1.2	1.10	M325	1000	50	14.7	2000	40	44

Definition:
Final DF = (Original Canister DF) x (Secondary Canister DF)
Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:
Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

TO-14/TO-15

ACCUTEST

Batch ID: V5W685

Analyst Signature: [signature]

Date: 3/19/16

Columns: RTX-1 60m x 0.32mm x 1.0µm
Method: 5WTO15.M
Seq. File: 160319.S
Initial Cal. Method: M5W637

AS Data

Method:	TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6905	TO15 STD	40ppbv
AS6931	TO15 LCS	40ppbv
AS6928	IS/Surr	100ppbv
AS6914	TO15 LCS (A965)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
4	5W17133	BFB		A962 ML 3/19 ~~[illegible]~~	400					ok	
2	5W17134	CC637-10		A971	100			✓	✓	ok	
3	5W17135 ML 3/19	BS		A981	100			✓	✓	RR	
3	5W17136	BSD		A981	100			✓	✓	RR	
3	5W17137	BS		~~A984~~ A965 ML 3/19	100			✓	✓	ok	Nap ↓
3	5W17138	BSD		~~A984~~ A965 ML 3/19	100			✓	✓	ok	Nap ↓ vinyl acetate ↑
4	5W17139	IB		A962	400			✓	✓	—	
4	5W17140	MB		A962	400			✓	✓	ok	
5	5W17141	JC15648-1	STD+GC	A545, M325	100	44		✓	✓	ok	RR ~~400mL~~ 20mL ML 3/19, too dilute
6	5W17142	JC15662-1	STD	A539	10	1.30		✓	↑	ok/DL	
7	5W17143	JC15662-2	✓	A682	10	1.30		✓	↑	ok/DL	
8	5W17144	JC15662-3	✓	A446, ~~A442~~ ML 3/19	~~400~~ 10 ML 3/19	~~1.9~~ 1.38 ML 3/19		✓	↑	ok/DL	
9	5W17145	SCC		A373	400			✓	✓	ok	
10	5W17146	JC15571-1	STD	M397	200	1		✓	✓	ok	
11	5W17147	JC15571-2	✓	A581	200	1		✓	✓	ok	
12	5W17148	JC15662-6	STD	A411	40	1		✓	✓	ok	
13	5W17149	~~JC15666-1~~ JC16025-3	NVLL, IPTOLU NAP, CUME	~~A639~~ A537	~~16~~ 400 ML 3/19	~~C43~~ 1 ML 3/19		✓	✓	ok	
14	5W17150	~~JC15666-2~~ JC16025-4	✓	~~A447~~ A135	~~20~~ 400 ML 3/19	~~1.18~~ 1 ML 3/19		✓	✓	ok	
15	5W17151	JC16353-4	STD+	A694	100	1		✓	✓	ok	
15	5W17152	JC16353-4DUP	✓	A694	100	1		✓	✓	ok	
16	5W17153	JC16019-1	STD MA	A738	100	1		✓	✓	ok/DL	RR 50mL
1	5W17154	JC16019-2	✓	A268	100	1		✓	✓	ok	
2	5W17155	JC16025-1	BENZ	A309	400			✓	✓	ok	
3	5W17156	JC16025-2	✓	A849	400			✓	✓	ok	
4	5W17157	SCC		A478	400			✓	✓	RR	c/o ?
5	5W17158	JC15648-1	STD+GC	A848	20	1.10		✓	✓	ok/DL	~~RR 100mL~~
6	5W17159	~~JC16025-12~~ JC16043-1 ML 3/19	~~BENZ~~ STD ML 3/19	~~A276~~ A742 ML	400	1		✓	✓	ok	~~RR 10mL~~
7	5W17160	~~JC16025-13~~ JC16043-2 ML 3/19	✓	~~A274~~ M297 ML	400	1		✓	✓	ok	
8	5W17161	JC16043-3	✓	M236	800	2.40		✓	✓	ok	
9	5W17162	JC16043-4	✓	A672	400	1		✓	✓	ok	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: ~~V5W684~~ TH 3/21/16 V5W686

Date: 3/21/16

Analyst Signature: [signature]

Columns: RTX-1 60m X 0.32mm X 1.0um

Method: 5WTO15.M

Seq. File: 160321.S

Initial Cal. Method: M5W637

AS Data

Method: TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A56928	IS/Surr.	100 ppbv
A56956	TO15 STD	40 ppbv
A56960	TO15 LCS	40 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/23/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17163	BFB		open position	400					ok	
2	5W17164	CC637-10		A977	100			✓	✓	ok	octane ↑
3	5W17165	BS		A965	100			✓	✓	ok	
3	5W17166	BSD		A965	100			✓	✓	ok	vinyl acetate ↑
4	5W17167	IB		A962	100			✓	✓	—	
4	5W17168	MB		A962	400			✓	✓	ok	
5	5W17169	SCC		A385	400			✓	✓	ok	
6	5W17170	SCC		A478	400			✓	✓	ok	
7	5W17171	JC16043-1	STD	A742	100	1		✓	✓	Not used	DL not needed
8	5W17172	JC16031-1	SL	A452	400	1		✓	✓	ok	
9	5W17173	JC16031-2	✓	M129	400	1		✓	✓	ok	
10	5W17174	JC16031-3	✓	M007	400	1		✓	✓	ok	
10	5W17175	JC16031-3DUP	✓	M007	400	1		✓	✓	ok	
11	5W17176	JC16031-4	✓	A905	100	1		✓	✓	ok	
12	5W17177	JC16031-5	✓	M135	400	1		✓	✓	ok	
13	5W17178	JC16031-6	✓	A1037	400	1		✓	✓	ok	
14	5W17179	SCC		LA2962	400			✓	✓	ok	
15	5W17180	JC16043-5	STD	A1095	400	1		✓	✓	ok	
16	5W17181	JC16043-6	✓	A851	400	1		✓	✓	ok	
1	5W17182	JC16043-7	✓	M138	400	1		✓	✓	ok	
2	5W17183	JC16043-8	✓	A227	400	1		✓	✓	ok	
3	5W17184	JC16043-9	✓	A339	400	1		✓	✓	ok	
4	5W17185	JC16043-10	✓	A989	20	1		✓	✓	ok/DL	RR 10mL
5	5W17186	JC16043-11	✓	A1173	100	1		✓	✓	ok/DL	RR 50mL
6	5W17187	JC16043-12	✓	A1199	100	1		✓	✓	ok	
7	5W17188	JC16043-13	✓	A245	100	1		✓	✓	ok/DL	RR 50mL
											TH 3/22/16

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05

Rev. Date: 10/20/09

SGS ACCUTEST JC17438

ACCUTEST Laboratories

Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/22/16	YH	JC15679-2	M405	6	1.2	1.35							
↓	↓	-2A	M012	7.5	1.3	1.45							
↓	↓	-5	A292	7	1.3	1.43							
↓	↓	↓ -6	M227	7.5	1.3	1.45							
3/22/16	LM	JC16043-17	A746	8	1.2	1.48	A296	6000	50	9.8	10000	200	296
3/22/16	LM	JC16043-18	A1093	9	1.2	1.55	A288	6000	50	9.8	10000	200	310
3/22/16	LM	JC16043-19	A481	8	1.2	1.48	A263	6000	50	9.8	10,000	200	296
3/22/16	LM	JC16043-20	A223	9	1.2	1.55	A265	6000	50	9.8	10,000	200	310
3/22/16	LM	JC16043-21	A204	8.0	1.2	1.48	A324	6000	50	9.8	10,000	200	296
3/22/16	LM	JC16043-22	A1040	8.5	1.3	1.52	A889	6000	50	9.8	10,000	200	304

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

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ACCUTEST

TO-14/TO-15

Batch ID: V5W687

Date: 3/22/16

Analyst Signature: [signature]

Columns: RTX-1 60mX0.32mmX1um

Method: 5WT015.M

Seq. File: 160322.S

Initial Cal. Method: M5W637

AS Data

Method: T015.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6928	IS/Surr.	100ppbv
AS6961 ~~AS6956~~ TH 3/22/16	T015 STD	40ppbv
AS6960	T015 LCS	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17189	BFB		open position	400					ok	
2	5W17190	CC637-10		A971	100			✓	✓	ok	
3	5W17191	BS		A965	100			✓	✓	ok	
3	5W17192	BSD		A965	100			✓	✓	ok	
4	5W17193	IB		A962	100			✓	✓	—	
4	5W17194	MB		A962	400			✓	✓	ok	
5	5W17195	JC15679-1	STD	M016, A569	40	27		✓	✓	ok	
6	5W17196	JC15679-2		M405	20	1.35		✓	✓	ok	
7	5W17197	JC15679-4		M012	50	1.45		✓	✓	ok	
8	5W17198	JC15679-5		A292	50	1.43		✓	✓	ok	
9	5W17199	JC15679-6	↓	M227	20	1.45		✓	✓	ok	
10	5W17200	SCC		A1133	400			✓	✓	ok	
11	5W17201	JC16043-10	STD	A989	10	1		✓	✓	ok	
12	5W17202	JC16043-11	✓	A1173	50	1		✓	✓	ok	
13	5W17203	JC16043-13	✓	A245	50	1		✓	✓	ok	
14	5W17204	JC16~~403~~043-15	STD	A361	100	1		✓	✓	ok	
15	5W17205	JC16043-16	STD	A305	100	1		✓	✓	ok	
16	5W17206	JC16043-14	STD	A212	100	1		✓	✓	ok	
16	5W17207	JC16043-14Dup	STD	A212	100	1		✓	✓	ok	
1	5W17208	JC16043-17	✓	A746, A296	100	296		✓	✓	ok/DL	RR20mL
2	5W17209	JC16043-18	✓	A1093, A288	~~400~~ 400	~~200~~ 310		✓	✓	ok/DL	RR20mL
3	5W17210	JC16043-19	✓	A451, A263	200	296		✓	✓	ok/DL	RR20mL
4	5W17211	JC16043-20	✓	A223, A265	100	310		✓	✓	ok/DL	RR50mL
5	5W17212	JC16043-21	✓	A204, A324	100	296		✓	✓	ok/DL	RR20mL
6	5W17213	JC16043-22	✓	A1040, A889	200	304		✓	✓	ok/DL	RR50mL
7	5W17214	SCC		M076	400	1		✓	✓	ok	
8	5W17215	JC16131-1		A231	400	1		✓	✓	ok	
9	5W17216	JC16131-2		A886	400	1		✓	✓	ok	
10	5W17217	JC16131-3		A774	400	1		✓	✓	ok	
											TH 3/23/16

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05

Rev. Date: 10/20/09

ACCUTEST Laboratories

Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/23/16	TH	X16018-11	A663	11.0	1.1	1.70							

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

96

ACCUTEST

TO-14/TO-15

Batch ID: V5W693

Date: 3/29/16

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm x 1.0um
Method: 5WT015.M
Seq. File: 160329.S
Initial Cal. Method: M5W693

AS Data

Method: T015.CTD

Standard Data

Lot #	Description	Conc.
A56970	T015 STD	1.0ppbv
A56971	T015 STD	0.4 ppbv

Standard Data

Lot #	Description	Conc.
A56969	T015 STD	40ppbv
A56972	T015 LCS	40ppbv
A56928	IS/Surr.	100 ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: YH Date: 3/30/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	5W17366	IB		A962	100					—	
5	5W17367	IB		A962	100					—	
5	5W17368	IB		A962	100					—	
5	5W17369	IB		A962	100					—	
5	5W17370	IB		A962	100					—	
5	5W17371	BFB		A962	100			✓	✓	ok	tune 73s
1	5W17372	ICC693-10		A971	100			✓	✓	ok	
1	5W17373	IC 693-5		A971	50			✓	✓	ok	
2	5W17374	IC693-0.5		A976	200			✓	✓	ok	
2	5W17375	IC693-0.2		A976	80			✓	✓	ok	
1	5W17376	IC693-20		A971	200			✓	✓	ok	
5	5W17377	~~IC693~~ IB		A962	100			✓	✓	ok	
3	5W17378	IC693-0.1		A970	100			✓	✓	ok	
3	5W17379	IC693-0.04		A970	40			✓	✓	ok	
1	5W17380	IC693-30		A971	300			✓	✓	ok	
5	5W17381	IB		A962	100					—	
1	5W17382	IC 693-40		A971	400			✓	✓	ok	
5	5W17383	IB		A962	100					—	
4	5W17384	ICV 693-20		A965	100			✓	✓	ok	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: V5W698

Date: 4/5/16

Analyst Signature: [illegible]

Columns: RTX-1 60m x 0.32mm x 1.0um
Method: 5WT015.M
Seq. File: 160405.S
Initial Cal. Method: M5W693

AS Data

Method:	T015.STD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A36969	T015 STD	40ppbv
A36972	T015 LCS	40ppbv
A36975	IS/Surr.	10ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: YH Date: 4/6/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17496	BFB		open position	400					ok	
2	5W17497	CC693-10		A171	100			✓	✓	ok	
3	5W17498	BS		A965	100			✓	✓	ok	
3	5W17499	BSD		A965	100			✓	✓	ok	
4	5W17500	IB		A962	400			✓	✓	—	TCE c/o?
~~4~~ 6 TH	5W17501	MB		A962	400			✓	✓	RR	TCE c/o ?
6	5W17502	MB		A962	400			✓	✓	ok	
7	5W17503	SCC		A750	400			✓	✓	ok	
8	5W17504	SCC		A819	400			✓	✓	ok	
~~9~~ 10 TH	5W17505	~~JC16845-8~~ SCC TH	STD	~~A341~~ A1093 / A308	~~152~~ ~~400~~ 400 TH	1.52		✓	✓	ok	~~SCC (A1093)~~ TH JC17015-1
~~10~~ 9 TH	5W17506	~~JC17015-1~~ SCC TH	~~STD~~	~~A308~~ A1093	~~152~~ 400	~~1.52~~ TH		✓	✓	ok	SCC (A1093)
11	5W17507	JC17015-2	STD	A441	100	1		✓	✓	ok	
12	5W17508	JC17013-1	✓	A1101	50	1.55		✓	✓	ok/ok	
13	5W17509	JC16845-8	✓	A347	200	1		✓	✓	ok	
14	5W17510	JC17015-3	✓	M172	400	1		✓	✓	ok	
14	5W17511	JC17015-3DUP	✓	M172	400	1		✓	✓	ok	
15	5W17512	JC17015-4	✓	A779	400	1		✓	✓	ok	
16	5W17513	JC17015-5	✓	A247	1.70	1.70		✓	✓	ok ok	
1	5W17514	JC17015-6	✓	A1167	1.60	1.60		↑	↑	RR	RR 10x
2	5W17515	JC17015-7	✓	A1186	400	1		✓	✓	RR	RR canyour
3	5W17516	JC17015-8	✓	A1171	608	1.52		✓	✓	ok	
4	5W17517	JC17015-9	✓	A1069	400	1		✓	✓	ok	
5	5W17518	JC17382-2	✓	A550, A520	100	133		✓	✓	ok/sc	RR 20ml
6	5W17519	JC17382-3	✓	A608, A325	200	67.5		✓	✓	ok/sc	
7	5W17520	JC17438-1	NYLL	A308	400	1		✓	✓	ok/ok	JC17438-1
8	5W17521	JC17438-2	SYSVLL	A987	400	1		✓	✓	ok	
9	5W17522	JC17438-3	NYLL	LA2135	400	1		✓	✓	ok	
10	5W17523	JC17438-4	✓	M122	400	1		✓	✓	ok	
						JT 4/7/16					

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST Laboratories

Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						Final Canister Dilution
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Factor
4/5/16	TH	JC17382-2	A550	5.5	1.2	1.33	A520	1000	20	14.7	2000	100	133
4/5/16	TH	JC17382-3	A608	6.0	1.2	1.35	M325	1000	40	14.7	2000	50	67.5
4/5/16	TH	JC17413-1	A1101	9.0	1.2	1.55							

Definition: Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example: Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

ACCUTEST

TO-14/TO-15

Batch ID: V5W699

Date: 4/6/16

Analyst Signature: [signature]

Columns: RTX-1 60mx0.32mmx1.0um
Method: 5WTO15.M
Seq. File: 160406.S
Initial Cal. Method: M5W693

AS Data

Method: TO15, CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A56969	TO15 STD	40ppbv
A56972	TO15 LCS	40ppbv
A56975	IS/Surr	100ppbv
A56490	TO15 STD	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/8/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17524	BFB		open position	400					not used	
2	5W17525	CC693-10		A971	100					RR	
2	5W17526	CC693-10		A964	100					not used	
1	5W17527	BFB		open position	400					ok	
2	5W17528	CC693-10		A971	100			✓	✓	ok	
3	5W17529	BS		A965	100			✓	✓	ok	NAP↓
3	5W17530	BSD		A965	100			✓	✓	ok	NAP↓
4	5W17531	IB		A962	100			✓	✓	—	
4	5W17532 ~~3~~	MB/SCC		~~A962~~ A314	400			✓	✓	~~ok~~	5W17532
5	5W1753~~4~~3	JC17382-2	STD	A550, A520	20	11.3		✓	✓	ok/OL	5W17533
6	5W17534	JC17015-7	✓	A1186	400	1		✓	✓	ok	
7	5W17535	JC17015-6	✓	A1167, A686	200	80		✓	✓	ok/OL	
8	5W17536	JC17438-5	NYLL	A373	400	1		✓	✓	ok	
9	5W17537	JC17438-6	✓	A463	400	1		✓	✓	ok/OL	RR 20ml
10	5W17538	JC17438-7	✓	LA2962	400	1		✓	✓	RR	RR c/o?
11	5W17539	JC17438-8	✓	A478	400	1		✓	✓	ok/OL	RR 40ml
11	5W17540	JC17438-8DUP	✓	A478	400	1		✓	✓	ok	
12	5W17541	SCC		A766	400			✓	✓	RR	RR possible c/o?
13	5W17542	JC17438-9	NYLL	A016	400	1		✓	✓	ok	
14	5W17543	JC17438-10	✓	A1177	~~400~~ 100	1		✓	✓	ok/OL	RR 10ml
15	5W17544	JC17438-11	✓	M037	400	1		✓	✓	ok/OL	RR 40ml
16	5W17545	JC17438-12	✓	M076	400	1		✓	✓	RR	RR possible c/o
1	5W17546	JC17521-1	STD	A268	400	1		✓	✓	ok	~~RR 10ml~~
2	5W17547	JC17521-2	✓	A876	400	1		✓	✓	ok/OL	RR 10ml
3	5W17548	JC17521-3	✓	M236	400	1		✓	✓	ok/OL	RR 10ml
4	5W17549	JC17521-4	✓	A742	400	1		✓	✓	ok/OL	RR 20ml
5	5W17550	SCC		M128	400			✓	✓	RR	RR possible c/o

4/8/16

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: V5W700

Date: 4/7/16

Analyst Signature: [signature]

Columns: RTX-1 60m X0.32mm X1.0um
Method: 5WT015-M
Seq. File: 160407.S
Initial Cal. Method: M5W693

AS Data

Method: T015.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A56969	T015 STD	40ppbv
A56975	IS/Surr.	100ppbv
A56972	T015 LCS	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/11/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17551	BFB		open position	400					ok	time 755
2	5W17552	cc 693-10		A971	100			✓	✓	ok	
3	5W17553	BS						✓	✓	ok	
3	5W17554	BSD						✓	✓	ok	
4	5W17555	IB									
4	5W17556	MB/SCC		A766				✓	✓	ok	CA 8396
5	5W17557	JC17438-6	NYCL	A463	20	1		✓	✓	ok/OL	
6	SW17558	JC17438-7	✓	LA2962	400	1		✓	✓	ok	
7	SW17559	JC17438-8	✓	A418	40	1		✓	✓	ok/OL	
8	SW17560	JC17438-10	✓	A1177	40	1		✓	✓	ok/OL	RR 50X
9	SW17561	JC17438-11	✓	M037	40	1		✓	✓	ok/OL	
10	SW17562	JC17438-12	✓	M076	400	1		✓	✓	ok	
10	SW17563	JC17438-12 DUP	✓	M076	400	1		✓	✓	ok	
11	SW17564	JC17521-4	STD	A742	20	1		✓	✓	ok/OL	
12	SW17565	JC17521-2	✓	A876	100	1		✓	✓	ok/OL	
13	SW17566	JC17521-3	STD	M236	100	1		✓	✓	ok/OL	
14	SW17567	SCC		A1018	400	1		✓	✓	ok	
15	SW17568	JC17816-1	STD	M014	400	1		✓	✓	ok/OL	over cal ~~RR 40ml~~ 4H RR 40ml
16	SW17569	JC17816-2	✓	A1074	400	1		✓	✓	ok/OL	over cal RR 20ml
1	SW17570	JC17816-3	✓	A1160	400	1		✓	✓	ok	
2	SW17571	JC17137-1	STD	M038	400	1					
3	SW17572	JC17137-2	✓	M238	400	1					
4	SW17573	JC17137-3	✓	LA2800	400	1					
5	SW17574	JC17137-4	✓	M106	400	1					
6	SW17575	JC17137-5	✓	A646	400	1					
7	SW17576	JC17137-6	✓	M025	400	1					
8	SW17577	JC17137-7	✓	A667	860	2.15					
9	SW17578	JC17137-8	✓	A328	400	1					
16	SW17579	JC17816-2	STD	A1074	20			✓	✓	ok/OL	
15	SW17580	JC17816-1	↓	M014	40			✓	✓	ok/OL	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

7.8.14

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SGS ACCUTEST JC17438

ACCUTEST Laboratories

Canister Secondary Dilution Log

Date	Initials	Accutest Sample ID	Original Canister Dilution: Canister ID	Original Canister Dilution: Vacuum in "Hg at time of Dilution	Original Canister Dilution: Final Pressure psig	Original Canister Dilution: Dilution Factor	Secondary Canister Dilution: Canister ID	Secondary Canister Dilution: Canister Volume CC	Secondary Canister Dilution: Sample Volume Added CC	Secondary Canister Dilution: Final Pressure psig	Secondary Canister Dilution: Equiv Total Volume CC	Secondary Canister Dilution: Dilution Factor	Final Canister Dilution Factor
4/8/16	YH	~~A1177~~											
		JC17438-10	A1177	1	14.7	2.07							

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

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Form: AT003-03
Rev. Date: 6/13/06

TO-14/TO-15

ACCUTEST

Batch ID: V5W701

Date: 4/8/16

Analyst Signature: [signature]

Columns: RTX-1 60m X 0.32mm X 1.0um

Method: 5WTO15.M

Seq. File: 160408.S

Initial Cal. Method: M5W693

AS Data

Method:	TO15.CTD

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A56969	TO15 STD	40ppbv
A56972	TO15 LCS	40ppbv
A56975	IS/Surr.	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 4/11/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W17581	BFB		open position	400						
2	5W17582	CC693-10		A971	100					RR	12 ISTD V, Retune mass spec
1	5W17583	BFB		open position	400			✓	✓	ok	time 920
2	5W17584	CC693-10		A971	100			✓	✓	ok	
3	5W17585	BS		A965	100			✓	✓	ok	
3	5W17586	BSD		A965	100			✓	✓	ok	
4	5W17587	IB		A962	100			✓	✓		
4	5W17588	MB		A962	400			✓	✓	ok	
5	5W17589	JC17438-10	NYLL	A1177	15	2.07		✓	✓	ok/ok	
6	5W17590	JC17480-5	STD	A668	400	1		✓	✓	ok	
7	5W17591	JC17480-7	↓	A729	20	1.52		✓	✓	not used - RR, too dilute	
8	5W17592	JC17480-9	↓	A1149	20	1		✓	✓	ok/ok	RR, over cal 100x
9	5W17593	SCC		A599	400	1				RR	carryover
10	5W17594	JC17480-7	STD	A729	152	1.52		✓	✓	ok	
11	5W17595	JC17199-1	SL	A829	400	1					
12	5W17596	JC17199-2	✓	A770	400	1					
13	5W17597	JC17199-3	✓	CA2545	400	1					
14	5W17598	JC17199-4	✓	A1068	400	1					
15	5W17599	JC17199-5	✓	A1075	400	1		✓	✓	ok	
15	5W17600	JC17199-5Dup	✓	A1075	400	1		✓	✓	ok	
16	5W17601	SCC		A712	400						
1	5W17602	JC17200-1	STD	A368	400	1					
2	5W17603	JC17231-1	STD	A871	592	1.48					
3	5W17604	JC17233-1	STD	A1110	640	1.60					
4	5W17605	JC17233-2	✓	A1114	400	1					
5	5W17606	JC17233-3	✓	M174	400	1					
6	5W17607	JC17233-4	✓	M409	400	1					
7	5W17608	JC17233-5	✓	M120	400	1					
8	5W17609	JC17243-1	STD	M430	100	1					
9	5W17610	JC17243-2	✓	A681	100	1					

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

ACCUTEST

TO-14/TO-15

Batch ID: VW2167

Date: 3/17/16 - 3/18/16

Analyst Signature: [signature] 3/18/16

Columns: RTX1 - 60m x 0.32mm x 1.0μm

Method: TO15W.M

Seq. File: W160317.S

Initial Cal. Method: MW2167

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.
AS6929	Int/Surr	100ppbv

Standard Data

Lot #	Description	Conc.
AS6956	TO15 Std (A977)	40ppbv
AS6957	TO15 Std (A974)	1.0ppbv
AS6808	TO15 Std (A968)	0.4ppbv
AS6959	TO15 LCS (A978)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: YH Date: 3/17/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	W54264	IB		open	100						
5	W54265	IB		open	100						
5	W54266	IB		open	100						
5	W54267	IB		open	100						
5	W54268	IB		open	100						
5	W54269	BFB		open	100				✓	OK	
1	W54270	ICC2167-10		A977	100			✓	✓	OK	
1	W54271	IC2167-5		A977	50			✓	~~X~~ ✓ OF 3/18/16	OK	
2	W54272	IC2167-0.5		A974	200			✓	✓	OK	
2	W54273	IC2167-0.2		A974	80			✓	✓	OK	
1	W54274	IC2167-20		A977	200			✓	✓	OK	
1	W54275	IC2167-15		A977	150			✓	✓	OK	
5	W54276	IB		open	100						
3	W54277	IC2167-0.1		A968	100			✓	✓	OK	
3	W54278	IC2167-0.04		A968	40			✓	✓	OK	
1	W54279	IC2167-30		A977	300			✓	✓	OK	
5	W54280	IB		open	400						
1	W54281	IC2167-40		A977	400			✓	✓	OK	
5	W54282	IB		open	100						
4	W54283	ICV2167-10		A978	100			✓	✓	OK	

DO 3/18/16

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05
Rev. Date: 10/20/09

7.8.16

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ACCUTEST

TO-14/TO-15

Batch ID: VW2168

Date: 3/18/16

Analyst Signature: [signature]

Columns: RTX1-60m x 0.32mm x 1.0µm

Method: TO15W.M

Seq. File: W160318.S

Initial Cal. Method: MW2167.M

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6429	Int/Surr	100 ppbV
AS6956	TO15 Std (A977)	40 ppbV
AS6959	TO15LCS (A978)	40 ppbV

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
5	W54284	BFB		open	400					ok	time 9:57
1	W54285	CC2167-10		A977	100			✓	✓	ok	
4	W54286	BS		A978	100			✓	✓	ok	
4	W54287	BSD		A978	100			✓	✓	ok	
5	W54288	IB		A959	400					—	
5	W54289	MB		A959	400			✓	✓	ok	
6	W54290	SCC CP8335		A823	400			✓	✓	ok	
7	W54291	SCC CP8330		M037	400			✓	✓	ok	
8	W54292	SCC CP8337		A1196	400			✓	✓	ok	
9	W54293	SCC CP8341		M179	400			✓	✓	ok	
10	W54294	JC15580-1	STD, Dup	A716	100	1		✓	✓	OK	
10	W54295	JC15580-1Dup	↓	A716	100	1		✓	✓	OK	
11	W54296	JC15697-1	NYLL3NW42A+TO F1142B	A775	400	1		✓	✓	OK	
11	W54297	JC15697-1	↓	A775	20 40 1H	1		✓	✓	ok	
12	W54298	JC15679-1	STD	M016, A569	200	27		✓	✓	ok	RR 40mL
13	W54299	JC15679-2		M405	50	1		✓	✓	ok	RR 20mL
14	W54300	JC15679-3		M042	100	1		✓	✓	ok	
15	W54301	JC15679-4		M012	100	1		✓	✓	ok	RR 40mL
16	W54302	JC15679-5		A292	100	1		✓	✓	ok	RR 50mL
1	W54303	JC15679-6	↓	M227	100	1		✓	✓	ok	RR 20mL
2	W54304	JC16029-4	STD	A1152	50	1		✓	✓	ok	RR 100x
3	W54305	JC16029-5		A1221	100	1		✓	✓	ok	RR 10mL
4	W54306	JC16029-6		A1256	100	1		✓	✓	ok	
5	W54307	JC16029-7	↓	A333	400	1		✓	✓	ok	
6	W54308	JC15929-1	STD	M431	100	1		✓	✓	ok	
7	W54309	JC15929-2	↓	A556	100	1		✓	✓	ok	RR 40mL
8	W54310	JC14973-1	STD	A246	400	1		✓	✓	ok	RR 20mL
9	W54311	JC14973-5	↓	A640	400	1		✓	✓	ok	~~RR 20mL~~ MC 3/18
10	W54312	JC15944-4	STD	A1231	100	1		✓	✓	ok	

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error, # 3 = Computer Miscalculation, # 4 = Analyst's Correction Error

Form: AT008-05

Rev. Date: 10/20/09

Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/18/16	YH	JC15679-1	M016	6	1.2	1.35	A569	1000	100	14.7	2000	20	27

Definition: Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example: Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalclulation, # 4 = Analyst's Correction Error

Form: AT003-03
Rev. Date: 6/13/06

ACCUTEST

TO-14/TO-15

Batch ID: VW2170

Date: 3/21/16

Analyst Signature: [signature]

Columns: RTX-1 60m x 0.32mm/1.0um

Method: TO15W.M

AS Data

Method: TO15.MPT

Seq. File: W160321.S

Initial Cal. Method: MW2167

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6956	TO15STD	40ppbv
AS6954	TO15LCS	40ppbv
AS6929	ISISURR	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/22/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int STD Areas	Surr	Status Data	Comments
1	W54342	BFB		open position	400					on	
2	W54343	CC2167-10		A977	100			/	/	notused	
2	W54344	CC2167-10		A977	100			/	/	on	
3	W54345	BS		A978	100			/	/	notused	
3	W54346	BS		A978	100			/	/	on	
3	W54347	BSD		A978	100			/	/	on	
4	W54348	LB		A963	100			/	/	—	
4	W54349	MB		A963	400			/	/	on	
5	W54350	JC15740-6	STD	A541,A1161,A614	100	11,500		/	/	on	
6	W54351	JC16025-11	SL	A326	100	1.48		/	/	on	
7	W54352	JC16029-4	STD	A1152,A688	100	60.8		/	/	on	
8	W54353	JC16029-5	↓	A1221,A527	200	55.2		/	/	on	
9	W54354	SCC		LA2135	400	1		/	/	on	
10	W54355	JC16053-1	STD	A554	148	1.48		/	/	on	RR30ml
11 ~~12~~	W54356	JC16053-2		A558	152	1.52		/	/	on	
11	W54357	JC16053-2Dup	↓	A558	152	1.52		/	/	on	
12 YH	W54358	JC16079-1	PAVL	A103	400	1		/	/	on	
13	W54359	JC16079-2		M146	400	1		/	/	on	
14	W54360	JC16079-3	↓	A771	400	1		/	/	on	
15	W54361	JC16098-1	STD	M102	400	1		/	/	on	
16	W54362	JC16098-2		M103	400	1		/	/	on	
1	W54363	JC16098-3		A1206	592	1.48		/	/	on	
2	W54364	JC16098-4		A1131	100	1		/	/	on	
3	W54365	JC16098-5		M153	400	1		/	/	on	
4	W54366	JC16098-6	↓	M274	592	1.48		/	/	on	
5	W54367	JC16098-7	STD	A992	400	1		/	/	on	RR200ml
					YH						

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ACCUTEST Laboratories

Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume CC	Sample Volume Added CC	Final Pressure psig	Equiv Total Volume CC	Dilution Factor	Final Canister Dilution Factor
3/21/16	YH	JC16025-11	A326	8	1.2	1.48							
↓	↓	JC15740-6	A1161 ~~A614~~	+14.7	+14.7	575	A614	1000	100	14.7	2000	20	11,500
		JC16029-4	A1152	8.5	1.3	1.52	A688	1000	50	14.7	2000	40	~~60.8~~ 60.8
		↓ -5	A1221	6.5	1.1	1.38	A527	1000	50	14.7	2000	40	55.2

Definition: Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example: Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

Notes:

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ACCUTEST

TO-14/TO-15

Batch ID: VW2171

Date: 3/22/16

Analyst Signature: [signature]

Columns: RTX-1 60MX0.32mm

Method: TO15W.M

Seq. File: W160322.S

Initial Cal. Method: MW2167

AS Data

Method: TO15.MPT

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS6956	TO15STD	40ppbv
AS6959	TO15LCS	40ppbv
AS6929	IS/Surr	100ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] Date: 3/25/16

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int/STD Areas	Surr	Status Data	Comments
1	W54368	BFB		open position	400					OK	tiene 841
2	W54369	CC2167-10		A977	100			✓	✓	RR	fail high
2	W54370	CC2167-10		YH ~~A978~~ A977	100			✓	✓	ok	
3	W54371	BS		A978	100			✓	✓	ok	
3	W54372	BSD		A978	100			✓	✓	ok	
4	W54373	IB		A963	100				✓	—	
4	W54374	MB		A963	400			✓	✓	ok	
5	W54375	JC16053-1	STD	A554	30	1.48		✓	✓	ok/ok	
6	W54376	JC16098-7	STD	A992	200	1.70		✓	✓	ok/ok	
7	W54377	JC16098-8	↓	A875	620	1.55		✓	✓	ok/ok	RR 40ml, over cal
8	W54378	JC16098-9		A228	620	1.55		✓	✓	ok	
9	W54379	JC16098-10	↓	A828	400	1		✓	✓	ok	
10	W54380	SCC		M122	400	1		✓	✓	ok	
11	W54381	JC16098-11	STD	A663	400	1		✓	✓	ok/ok	RR 40ml, over cal
12	W54382	JC16098-12		A357	400	1		✓	✓	ok	
12	W54383	JC16098-12Dup		A357	400	1		✓	✓	ok	
13	W54384	JC16098-13		A1100	400	1		/	/	OK	
14	W54385	JC16098-14		A416	100	1		/	/	OK	
15	W54386	JC16098-15		A590	100	1		/	/	OK	
16	W54387	JC16098-16		A1212	100	1		/	/	OK	RR 20ml, over cal
1	W54388	JC16098-17	↓	A427	100	1		/	/	OK	
2	W54389	SCC		A257	400	1		✓	✓	ok	
3	W54390	~~JC16131-4~~ #4 YH	STD	YH ~~A176~~	400	1		✓	✓	ok	JC16711-1 (A1201)
4	W54391	~~JC16131-2~~ #5 YH		YH ~~A635~~	400	1		✓	✓	ok	JC16711-2 (A901)
5	W54392	~~JC16131-3~~ #6 YH		YH ~~A1043~~	400	1		✓	✓	ok	JC16711-3 (A739)
6	W54393	~~JC16131-4~~ #7 YH		YH ~~A188~~	400	1		✓	✓	ok	JC16711-4 (A340)
7	W54394	~~JC16131-5~~ #8 YH		YH ~~A476~~	400	1		✓	✓	ok	JC16711-5 (A653)
8	W54395	JC16131-9	↓	A266	400	1		/	/	OK	

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Canister Secondary Dilution Log

			Original Canister Dilution				Secondary Canister Dilution						
Date	Initials	Accutest Sample ID	Canister ID	Vacuum in "Hg at time of Dilution	Final Pressure psig	Dilution Factor	Canister ID	Canister Volume cc	Sample Volume Added cc	Final Pressure psig	Equiv Total Volume cc	Dilution Factor	Final Canister Dilution Factor
3/22/16	YH	JC16098-7	A992	11	1.1	1.70							

Definition:

Final DF = (Original Canister DF) x (Secondary Canister DF)

Dilution Factor at Instrument = (Final Canister Dilution Factor) x (Normal Sampling Volume in cc) / (Sample Volume in cc Injected)

Example:

Original Canister is diluted 2x for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is 2 x 10 = 20. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) x 20(from instrument dilution) = 400

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Rev. Date: 6/13/06