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02 January 2024

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SUBJECT: Final SEAD-25 Annual Report for the Former Seneca Army Depot in Romulus, NY; EPA Site ID# NY0213820830 and NY Site ID# 8-50-006

Dear Ms. Treinen, Ms. Sweet, and Mr. Sergott:

On behalf of the Army, please find attached the Final SEAD-25 Annual Report for the Former Seneca Army Depot, located in Romulus, New York. The document details the SEAD-25 long-term monitoring activities conducted in 2023.

If you have any questions about the attached document, please call me at 917-575-1819.

Sincerely,

 Digitally signed by  
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# **SEAD-25 ANNUAL REPORT FINAL**

## **Long-Term Monitoring/Land Use Control Management Former Seneca Army Depot Romulus, New York**

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*PREPARED FOR:*

**U.S. ARMY CORPS OF ENGINEERS,  
ENGINEERING AND SUPPORT CENTER,  
HUNTSVILLE  
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Huntsville, Alabama 35805**



**CONTRACT NO. W912DY22D0131  
TASK ORDER NO. W912DY22F0374**

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December 2023

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**SEAD-25 ANNUAL REPORT**  
**Long-Term Monitoring/Land Use Control**  
**Management**  
**Former Seneca Army Depot**  
**Romulus, New York**

Contract No. W912DY22D0131  
Task Order No. W912DY22F0374

*Prepared for*

U.S. Army Corps of Engineers  
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December 2023



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**LIST OF ACRONYMS AND ABBREVIATIONS**

µg/L	Microgram(s) per liter
AOC	Area of concern
BTEX	Benzene, toluene, ethylbenzene, and xylene
cm/sec	Centimeter(s) per second
COC	Contaminant of concern
cy	Cubic yard(s)
DCE	Dichloroethene
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
ft/ft	Foot (feet) per foot
LTM	Long-term monitoring
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
Parsons	Parsons Engineering Science, Inc.
RI	Remedial investigation
ROD	Record of Decision
SEAD	Former Seneca Army Depot
SEDA	Seneca Army Depot Activity
SVOC	Semivolatile organic compound
TCE	Trichloroethene
VOC	Volatile organic compound

## 1. INTRODUCTION

This Annual Inspection Report was prepared by EA Engineering, Science, and Technology, Inc., PBC (EA) on behalf of the U.S. Army Corps of Engineers, Engineering and Support Center – Huntsville and the Former Seneca Army Depot, herein referred to as "SEAD" or "the Depot" to provide a review of the long-term monitoring (LTM) activities conducted in June 2023 at the Fire Training and Demonstration Pad (SEAD-25) at SEAD in Seneca County, New York (**Figure 1**). This document provides conclusions from this year's LTM activities and recommendations for future LTM.

Groundwater monitoring was required at SEAD-25 as a condition of the Record of Decision (ROD) since contaminant concentrations found in the groundwater prior to the remedial action exceeded applicable groundwater standards. Semi-annual groundwater monitoring of the 10 monitoring wells (MW25-2, MW25-3, MW25-8, MW25-9, MW25-10, MW25-13, MW25-15, MW25-17, MW25-18, and MW25-19) located at SEAD-25 continued through 2013. The U.S. Environmental Protection Agency (EPA) and New York State Department of Environmental Conservation (NYSDEC) agreed, as recommended in the SEAD-25 Fourth Long-Term Monitoring and Site Review Report (Parsons Engineering Science, Inc. [Parsons] 2011a) and Draft Final Five-Year Review Report (Parsons 2011b), to reduce the frequency of the semi-annual monitoring events to annual monitoring events. It was also agreed to reduce the number of wells to be monitored from 10 to 5 since the down-gradient wells have shown no contaminants of concern (COCs) during any of the post-RA sampling events. Beginning in 2014 and through 2020, the focus of the sampling effort shifted to wells MW25-2, MW25-3, MW25-9, MW25-10, and MW25-17 where historic information indicates that COCs of interest were detected. Following two consecutive rounds of sampling where site COCs were non-detect, monitoring wells MW25-3, MW25-9, MW25-10, and MW25-17 were removed from the LTM program (Parsons 2021). The current LTM program consists of annual sampling of MW25-31S (installed in 2020) for five years and sampling MW25-2 every five years starting in 2025 (EA 2023).

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## 2. SITE BACKGROUND

### 2.1 SITE DESCRIPTION

The Seneca Army Depot is a 10,587-acre former military facility located in Seneca County in the towns of Romulus and Varick, New York, which was owned by the United States Government and operated by the Department of the Army between 1941 and 2000. The general location of SEAD is shown on **Figure 1**. In 1999 SEAD's military mission was terminated and the installation was closed in 2000. Since 2000, the Army has assumed a caretaker role at SEAD, pending the close-out of environmental investigations, studies, and remedial activities that are required at the former facility. As part of SEAD close-out activities, more than 8,250 acres of land within the former Depot was transferred to new owners for reuse.

The Seneca Army Depot is located between Seneca Lake and Cayuga Lake in Seneca County and is bordered by New York State Highway 96 on the east, New York State Highway 96A on the west, and sparsely populated farmland to the north and south. The Fire Training and Demonstration Pad (SEAD-25) is located in the eastern-central portion of SEAD. The site is bounded to the east by Administration Avenue, beyond which is undeveloped land covered by deciduous trees; to the south by Ordnance Drive beyond which is an open grassy field and a stand of coniferous trees; to the west by a drainage ditch running from the northeast to the southwest with grassland, brush and conifers between the site and the ditch; and to the north by grassland and a former baseball field. A site map of the SEAD-25 area is included on **Figure 2**. As situated, SEAD-25 sits a minimum of 1,350 feet away from the nearest SEAD boundary, which is located to the east of the area of concern (AOC). SEAD-25 was in use from the late 1960s to the late 1980s. The former pad was used for fire control training. During the 1980s, the pad was used twice for fire-fighting demonstrations, including one demonstration in 1982 or 1983, and one in 1987.

#### 2.1.1 Site Hydrologic and Geologic Conditions

The hydrogeologic setting for SEAD-25 was previously described in detail in Section 3.1.6 of the Final Remedial Investigation (RI) Report (Parsons 1998). A brief summary of hydrologic conditions described in the RI Report and historical groundwater conditions encountered during previous sampling events is presented below. Hydrologic conditions, as observed during the 2023 LTM event, are discussed in Section 3.1 of this LTM report. Groundwater contours presented in the RI Report indicate that shallow groundwater flow below the pad is radial, with a stronger horizontal gradient to the south and west. The radial groundwater flow observed below the pad at SEAD-25 is believed to be a local phenomenon influenced by a bedrock topographic high located beneath the pad. The RI Report identified a west and southwest direction of groundwater flow in the deeper, competent shale bedrock.

The horizontal hydraulic gradients, as presented in the RI Report, ranged from 0.01 feet per foot (ft/ft) to 0.02 ft/ft in both the shallow saturated zone located in the till/weathered shale bedrock and in the deep saturated zone located in the competent shale bedrock. The hydraulic conductivities at SEAD-25 were found to range from  $1.0 \times 10^{-5}$  centimeters per second (cm/sec) to  $3.4 \times 10^{-3}$  cm/sec, with an average of  $6.1 \times 10^{-4}$  cm/sec in the shale/weathered bedrock. Both downward and upward vertical gradients were calculated for SEAD-25; the downward



hydraulic gradients ranged from -0.04 ft/ft to -0.21 ft/ft, and upward hydraulic gradients ranged from 0.01 ft/ft to 0.07 ft/ft.

SEAD-25 is located near a combined topographic and bedrock high within the east central portion of the former Depot. As such, all recharge to the local groundwater table comes from infiltration of storm-event precipitation percolating through the surface into the underlying aquifer at, and in proximity to, the AOC. Infiltration rates are hindered because much of the storm-event precipitation is captured in neighboring drainage ditches and is conveyed to lower elevation areas within the Depot, which are down-gradient of the AOC's well recharge area.

The shallow overburden underlying SEAD-25 is thin, consisting of a till and fractured shale ranging from roughly 5 to 15 feet in thickness, which overlies competent shale bedrock. The monitoring wells sampled as part of SEAD-25 LTM effort are located in the shallow, overburden aquifer where the groundwater contamination was originally identified. As such, the combination of run-off and low infiltration or aquifer recharge periods that occur during extended dry or low water periods cause the overburden water table to thin to levels where samples cannot be collected from many of the wells and historically has not allowed a strict adherence to a semi-annual sampling schedule. This affects the collection of samples from the two source area wells that are in the current LTM program (MW25-2 and MW25-31S). These wells are located closest to the former source area that was removed during the 2005 remedial action activities and historically have shown elevated levels of benzene, toluene, ethylbenzene, and xylene (BTEX) and chlorinated organic compound content.

## 2.2 REMEDIAL HISTORY

As described in the ROD (Parsons 2004), the primary COCs historically observed at SEAD-25 included aromatic volatile organic compounds (VOCs) (e.g., BTEX), specifically benzene, ethylbenzene, toluene and xylene in soil and groundwater and lesser amounts of five chlorinated VOCs, including 1,1,1-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethene (DCE) (total), chloroform, trichloroethene (TCE), and vinyl chloride in groundwater.

The excavation of the BTEX-impacted soil at the SEAD-25 pad consisted of removing approximately 961 cubic yards (cy). The depth of excavation extended to the top of the competent shale bedrock, or approximately 4.5 feet below ground surface. Ten confirmatory soil samples (plus one duplicate sample) were collected from the sidewalls of the excavation area and analyzed for VOCs and semivolatile organic compounds (SVOCs). The analytical results of the confirmatory soil sample analyses achieved the site-specific cleanup goals, and the Army determined that soils at SEAD-25 did not require further action. The EPA and NYSDEC concurred with this determination that the excavation of the soil at the pad removed the source of groundwater contamination.

Excavation of the SVOC-impacted soil in the swale at SEAD-25 extended to bedrock from the toe of slope on one bank to the toe of slope on the other bank, resulting in the removal and off-site disposal of approximately 761 cy of soil from SEAD-25. After the excavation, the swale bottom consisted of exposed competent bedrock, and since no native overburden soil remained in the swale, no confirmatory samples were collected or analyzed.

A total of approximately 1,722 cy (approximately 2,600 tons) of soil were excavated from the pad and the swale at SEAD-25 and disposed off-site at Ontario County Landfill. The pad excavation was backfilled with approximately 793 cy of on-site fill material and 168 cy of fill material obtained from an off-site source and restored to the existing grade.

The current LTM program consists of annual groundwater sampling of MW25-31S (installed in 2020) for five years starting in 2023 and sampling MW25-2 every five years starting in 2025 (EA 2023) to monitor site COCs.

### **2.3 LAND USE CONTROL INSPECTION**

SEAD-25 was inspected during the 2023 LTM event for compliance with the land use control restrictions that are in effect for AOCs located within the Planned Industrial/Office Development and Warehouse Area at the former Depot. Land use controls for the Planned Industrial/Office Development Warehouse Area implement and maintain requirements to:

- Prohibit the development and use of property for residential housing, elementary and secondary schools, childcare facilities, and playgrounds
- Prohibit access to or use of the groundwater, other than for monitoring purposes, until the applicable NYSDEC Class GA Groundwater Standards are met.

No residential housing units, elementary or secondary schools, childcare facilities, or playgrounds were observed at SEAD-25.

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### 3. LONG-TERM MONITORING RESULTS

#### 3.1 2023 SAMPLING EVENT

The 2023 sampling event was completed during the week of 26 June 2023. Field forms documenting the collection of groundwater samples are provided in **Appendix A**. Groundwater laboratory analytical reports for this event are provided in the electronic copy of this report as **Appendix B**. Sampling procedures, sample handling and custody, holding times, and collection of field parameters were conducted in accordance with the *Final Uniform Federal Policy Quality Assurance Protection Plan, Long-Term Monitoring/Land Use Controls Management Former Seneca Army Depot* (EA 2023).

Water level measurements were collected from the 21 monitoring wells at SEAD-25; however, as discussed above, only one well (MW25-31S) was sampled. Groundwater samples were collected using low-flow sampling techniques and were analyzed for VOCs via EPA SW846 Method 8260D. A peristaltic pump was used to purge wells. Samples were submitted to SGS Orlando in Orlando, Florida.

SGS Orlando is certified by the Department of Defense and the National Environmental Laboratory Accreditation Conference National Environmental Laboratory Accreditation Program.

Analytical results reported for the primary COCs (i.e., BTEX, and five chlorinated VOCs) and other detected VOCs were compared to New York State Class GA groundwater standards.

The following indicator and geochemical parameters were measured and recorded in the field:

- pH
- Dissolved oxygen
- Conductivity
- Temperature
- Oxidation-reduction potential
- Turbidity

A summary of these geochemical parameters is detailed in **Table 3**.

#### 3.2 GROUNDWATER ELEVATIONS

SEAD-25 groundwater elevation data was recorded on 26 June 2023. Current groundwater elevation data and the historic post-2005 soil-removal action groundwater elevation range for SEAD-25 are presented in **Table 1**. Groundwater elevations observed during this event are broadly similar to those observed during recent LTM sampling events.

Groundwater contours were generated based on the groundwater elevation data collected on 26 June 2023 and are consistent with historic groundwater contour interpretation supporting the presence of a radial groundwater flow pattern beneath the pad (**Figure 3**). Contour interpretation indicates that shallow groundwater flow is radial, with a predominant flow direction to the

south/southwest. The highest elevations are located in the area of the former Fire Training and Demonstration Pad where soil removal was conducted in 2005.

### 3.3 ANALYTICAL DATA SUMMARY

#### 3.3.1 2023 LTM Results

During the 2023 sampling event, one groundwater sample (including one duplicate sample) was collected for the analysis of VOCs via Method 8260D. A summary of the primary COCs exceedances is presented in **Table 2** and **Figure 4**, along with the applicable NYSDEC Class GA groundwater standards. Full analytical results are provided in **Table 4**. Historical groundwater data for MW25-31S is detailed in **Table 5**. The laboratory analysis reports are provided in the electronic copy of the report as **Appendix B**. The data validation report is provided in **Appendix C**; there were no non-compliance issues reported.

BTEX VOCs were detected in MW25-31S (**Table 2**). Benzene (4.9 micrograms per liter [ $\mu\text{g/L}$ ]), m,p-xylene (60.8  $\mu\text{g/L}$ ), and o-xylene (94.7  $\mu\text{g/L}$ ) exceeded New York State (NYS) Class GA groundwater standards while ethylbenzene (1.5  $\mu\text{g/L}$ ) was detected below NYS Class GA groundwater standard.

#### **4. LONG-TERM MONITORING CONCLUSIONS AND RECOMMENDATIONS**

BTEX VOCs are still detected greater than the NYS Class GA groundwater standards at SEAD-25. Due to the presence of the BTEX VOCs it is recommended to maintain the current sampling schedule which includes sampling MW25-31S annually.

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## 5. REFERENCES

- EA Engineering, Science, and Technology, Inc., PBC (EA). *Final 2023 Uniform Federal Policy Quality Assurance Protection Plan, Long-Term Monitoring/Land Use Controls Management Former Seneca Army Depot*. June.
- Parsons Engineering Science, Inc. (Parsons). 1995. *Final Expanded Site Investigation - Seven High Priority SWMUs SEAD 4, 16, 17, 24, 25, 26, and 45. Seneca Army Depot Activity, Romulus, New York*. December.
- . 2004. *Final Record of Decision (ROD) The Fire Training and Demonstration Pad (SEAD 25) and the Fire Training Pit and Area (SEAD 26)*. September.
- . 2011a. *Draft Fourth Long-Term Monitoring and Site Assessment Report, Fire Training and Demonstration Pad (SEAD-25), Seneca Army Depot Activity*. May.
- . 2011b. *Draft Five-Year Review Report. Former Solid Waste Management Units SEAD 1, 2, 5, 13, 16, 17, 25, 26, 27, 32, 39, 40, 41, 43, 44A, 44B, 52, 56, 59, 62, 64A, 64B, 64C, 64D, 66, 67, 69, 71, 121C, 121I, 122B, 122E, and the Ash Landfill Operable Unit (SEADs 3, 6, 8, 14, and 15) Seneca Army Depot Activity*. July.
- . 2021. *Draft 2021 Technical Memorandum, VOC LTM Program at SEAD-25 at Seneca Army Depot*. October.



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## Tables

**Table 1. SEAD-25 Groundwater Elevation Data**

Monitoring Well	Top of Riser Elevation (ft)	Well Depth (rel. TOC) (ft)	LTM - June 2023			
			Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	GW Elevation (ft)
MW25-1	743.00	7.75	6/26/2023	0.87	6.88	736.12
MW25-2	746.36	11.05	6/26/2023	3.90	7.15	739.21
MW25-3	746.34	9.80	6/26/2023	2.03	7.77	738.57
MW25-6	744.44	14.19	6/26/2023	6.04	8.15	736.29
MW25-8	742.46	5.40	6/26/2023	0.30	5.10	737.36
MW25-9	742.36	5.40	6/26/2023	0.41	4.99	737.37
MW25-10	743.01	6.38	6/26/2023	0.19	6.19	736.82
MW25-13	739.64	5.48	6/26/2023	0.18	5.30	734.34
MW25-15	741.00	7.19	6/26/2023	0.30	6.89	734.11
MW25-17	743.94	11.28	6/26/2023	3.38	7.90	736.04
MW25-18	744.35	11.16	6/26/2023	3.63	7.53	736.82
MW25-19	741.95	11.98	6/26/2023	4.86	7.12	734.83
MW25-20	740.78	13.94	6/26/2023	8.89	5.05	735.73
MW25-21	732.44	8.90	6/26/2023	6.40	2.50	729.94
MW25-22S	733.70	14.35	6/26/2023	12.40	1.95	731.75
MW25-22D	735.61	50.35	6/26/2023	47.91	2.44	733.17
MW25-23	738.54	13.92	6/26/2023	9.33	4.59	733.95
MW25-25	743.74	9.77	6/26/2023	6.82	2.95	740.79
MW25-30	736.13	16.58	6/26/2023	12.87	3.71	732.42
MW25-31	745.34	18.40	6/26/2023	9.85	8.55	736.79
MW25-31D	744.63	82.81	6/26/2023	74.05	8.76	735.87

Notes:

ft = Foot (feet)

LTM = Long-term monitoring

TOC = Top of casing

**Table 2. VOC Detections for MW25-31S**

				Area		SEAD-25	
				Location ID		MW25-31S	
				Matrix		GW	
				Sample Date		6/28/2023	
				QC Type		Parent	
						Duplicate	
Parameter	Unit	Source Criteria	Action Level	Value	Qual	Value	Qual
Benzene	µg/L	NYS CLASS GA	1	<b>4.9</b>		<b>5.1</b>	
<i>cis</i> -1,2-Dichloroethene	µg/L	NYS CLASS GA	5	4.9		4.7	
Ethyl benzene	µg/L	NYS CLASS GA	5	1.5		1.6	
Meta/Para Xylene	µg/L	NYS CLASS GA	5	<b>60.8</b>		<b>66.1</b>	
Ortho Xylene	µg/L	NYS CLASS GA	5	<b>94.7</b>		<b>96.1</b>	
Toluene	µg/L	NYS CLASS GA	5	2.2	J+	2.5	J+
Trichloroethene	µg/L	NYS CLASS GA	5	3.2		3.3	

Notes:

µg/L = Microgram(s) per liter

EPA = U.S. Environmental Protection Agency

GW = Groundwater

ID = Identification

MCL = Maximum contaminant level

NYS = New York State

QC = Quality control

Qual = Qualifier

Chemical results greater than or equal to the action level (depending on criteria) are highlighted

**Bold** and shaded values represent results that are above either a NYS GA Standard or EPA MCL value.

**Table 3. Water Quality Parameters (June 2023)**

<b>Location ID</b>	<b>Site Location</b>	<b>pH (S.U.)</b>	<b>Oxidation Reduction Potential (mV)</b>	<b>Dissolved Oxygen (mg/L)</b>	<b>Specific Conductivity (mS/cm)</b>	<b>Temperature (°C)</b>	<b>Turbidity (NTU)</b>
MW25-31S	SEAD-25	6.47	-84	0.39	1.01	12.5	2.8

Notes:

°C = Degrees Celsius

µS/cm = MicroSiemen(s) per centimeter

ID = Identification

mg/L = Milligram(s) per liter

mV = Millivolt(s)

NTU = Nephelometric turbidity unit

S.U. = Standard units

Table 4. VOC Results for MW25-31S

Parameter	Unit	Source Criteria	Action Level	Area		SEAD-25	
				QC Type	Location ID	MW25-31S	MW25-31S
					Matrix	GW	GW
					Sample Date	6/28/2023	6/28/2023
					QC Type	Parent	Duplicate
Value	Qual	Value	Qual				
1,1,1-Trichloroethane	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
1,1,2,2-Tetrachloroethane	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
1,1,2-Trichloroethane	µg/L	NYS CLASS GA	1	< 1	U	< 1	U
1,1-Dichloroethane	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
1,1-Dichloroethene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
1,2,3-Trichlorobenzene	µg/L	NYS CLASS GA	5	< 2	U	< 2	U
1,2,4-Trichlorobenzene	µg/L	NYS CLASS GA	5	< 2	U	< 2	U
1,2-Dibromo-3-chloropropane	µg/L	NYS CLASS GA	0.04	< 5	U	< 5	U
1,2-Dibromoethane	µg/L	NYS CLASS GA	NSL	< 2	U	< 2	U
1,2-Dichlorobenzene	µg/L	NYS CLASS GA	3	< 1	U	< 1	U
1,2-Dichloroethane	µg/L	NYS CLASS GA	0.6	< 1	U	0.41	J
1,2-Dichloropropane	µg/L	NYS CLASS GA	1	< 1	U	< 1	U
1,3-Dichlorobenzene	µg/L	NYS CLASS GA	3	< 1	U	< 1	U
1,4-Dichlorobenzene	µg/L	NYS CLASS GA	3	< 1	U	< 1	U
2-Butanone	µg/L	NYS CLASS GA	50	< 5	U	< 5	U
2-Hexanone	µg/L	NYS CLASS GA	50	< 10	U	< 10	U
4-Methyl-2-pentanone	µg/L	NYS CLASS GA	NSL	< 5	U	< 5	U
Acetone	µg/L	NYS CLASS GA	50	< 25	U	< 25	U
Benzene	µg/L	NYS CLASS GA	1	<b>4.9</b>		<b>5.1</b>	
Bromochloromethane	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
Bromodichloromethane	µg/L	NYS CLASS GA	50	< 1	U	< 1	U
Bromoform	µg/L	NYS CLASS GA	50	< 1	U	< 1	U
Bromomethane	µg/L	NYS CLASS GA	5	< 5	U	< 5	U
Carbon disulfide	µg/L	NYS CLASS GA	60	< 2	U	< 2	U
Carbon tetrachloride	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
Chlorobenzene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
Chloroethane	µg/L	NYS CLASS GA	5	< 2	U	< 2	U
Chloroform	µg/L	NYS CLASS GA	7	< 1	U	< 1	U
Chloromethane	µg/L	NYS CLASS GA	NSL	< 2	U	< 2	U
cis-1,2-Dichloroethene	µg/L	NYS CLASS GA	5	4.9		4.7	
cis-1,3-Dichloropropene	µg/L	NYS CLASS GA	0.4	< 1	U	< 1	U
Cyclohexane	µg/L	NYS CLASS GA	NSL	< 1	U	< 1	U
Dibromochloromethane	µg/L	NYS CLASS GA	50	< 1	U	< 1	U
Dichlorodifluoromethane	µg/L	NYS CLASS GA	5	< 2	UJ	< 2	UJ
Ethylbenzene	µg/L	NYS CLASS GA	5	1.5		1.6	
Isopropylbenzene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
m- & p-Xylenes	µg/L	NYS CLASS GA	5	<b>60.8</b>		<b>66.1</b>	
Methyl acetate	µg/L	NYS CLASS GA	NSL	< 20	U	< 20	U
Methyl tert-butyl ether	µg/L	NYS CLASS GA	10	< 1	U	< 1	U
Methylcyclohexane	µg/L	NYS CLASS GA	NSL	< 1	U	< 1	U
Methylene chloride	µg/L	NYS CLASS GA	5	< 5	U	< 5	U
o-Xylene	µg/L	NYS CLASS GA	5	<b>94.7</b>		<b>96.1</b>	
Styrene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
Tetrachloroethene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
Toluene	µg/L	NYS CLASS GA	5	2.2	J+	2.5	J+
trans-1,2-Dichloroethene	µg/L	NYS CLASS GA	5	< 1	U	< 1	U
trans-1,3-Dichloropropene	µg/L	NYS CLASS GA	0.4	< 1	U	< 1	U
Trichloroethene	µg/L	NYS CLASS GA	5	3.2		3.3	
Trichlorofluoromethane	µg/L	NYS CLASS GA	5	< 2	UJ	< 2	UJ
Vinyl chloride	µg/L	NYS CLASS GA	2	< 1	U	< 1	U

Notes:

µg/L = Microgram(s) per liter

GW = Groundwater

ID = Identification

U = Analyte not detected

J = Concentration is estimated

NSL = No screening level available

NYS = New York State

QC = Quality control

Qual = Qualifier

**Bold** and shaded values represent results that are above either a NYS GA Standard RO EPA MCL value.

**Table 5. Historical VOC Data for MW25-31S**

Parameter	Unit	Source Criteria	Action Level	Area		SEAD-25		SEAD-25			
				Location ID		MW25-31S		MW25-31S			
				Matrix		GW		GW			
				Sample Date		3/22/2021		5/6/2021		6/28/2023	
				QC Type		None		None		Parent	
				Value	Qual	Value	Qual	Value	Qual		
1,1,1-Trichloroethane	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
1,1,2,2-Tetrachloroethane	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
1,1,2-Trichloro-1,2,2-	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
1,1,2-Trichloroethane	µg/L	NYS CLASS GA	1	<1	U	<1	U	<1	U		
1,1-Dichloroethane	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
1,1-Dichloroethene	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
1,2,3-Trichlorobenzene	µg/L	NYS CLASS GA	5	<2	U	<2	U	<2	U		
1,2,4-Trichlorobenzene	µg/L	NYS CLASS GA	5	<2	U	<2	U	<2	U		
1,2-Dibromo-3-chloropropane	µg/L	NYS CLASS GA	0.04	<5	U	<5	U	<5	U		
1,2-Dibromoethane	µg/L	NYS CLASS GA	NSL	<2	U	<2	U	<2	U		
1,2-Dichlorobenzene	µg/L	NYS CLASS GA	3	<1	U	<1	U	<1	U		
1,2-Dichloroethane	µg/L	NYS CLASS GA	0.6	<1	U	<1	U	<1	U		
1,2-Dichloropropane	µg/L	NYS CLASS GA	1	<1	U	<1	U	<1	U		
1,3-Dichlorobenzene	µg/L	NYS CLASS GA	3	<1	U	<1	U	<1	U		
1,4-Dichlorobenzene	µg/L	NYS CLASS GA	3	<1	U	<1	U	<1	U		
2-Butanone	µg/L	NYS CLASS GA	50	<5	U	<5	U	<5	U		
2-Hexanone	µg/L	NYS CLASS GA	50	<10	U	<10	U	<10	U		
4-Methyl-2-pentanone	µg/L	NYS CLASS GA	NSL	<5	U	<5	U	<5	U		
Acetone	µg/L	NYS CLASS GA	50	<25	U	<25	U	<25	U		
Benzene	µg/L	NYS CLASS GA	1	<b>15</b>	J+	<b>10</b>	J+	<b>4.9</b>			
Bromochloromethane	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
Bromodichloromethane	µg/L	NYS CLASS GA	50	<1	U	<1	U	<1	U		
Bromoform	µg/L	NYS CLASS GA	50	<1	U	<1	U	<1	U		
Bromomethane	µg/L	NYS CLASS GA	5	<5	U	<5	U	<5	U		
Carbon disulfide	µg/L	NYS CLASS GA	60	<2	U	<2	U	<2	U		
Carbon tetrachloride	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
Chlorobenzene	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
Chloroethane	µg/L	NYS CLASS GA	5	<2	U	<2	U	<2	U		
Chloroform	µg/L	NYS CLASS GA	7	<1	U	<1	U	<1	U		
Chloromethane	µg/L	NYS CLASS GA	NSL	<2	U	<2	U	<2	U		
cis-1,2-Dichloroethene	µg/L	NYS CLASS GA	5	4.9	J+	3.8		4.9			
cis-1,3-Dichloropropene	µg/L	NYS CLASS GA	0.4	<1	U	<1	U	<1	U		
Cyclohexane	µg/L	NYS CLASS GA	NSL	5.3	J+	<1	U	<1	U		
Dibromochloromethane	µg/L	NYS CLASS GA	50	<1	U	<1	U	<1	U		
Dichlorodifluoromethane	µg/L	NYS CLASS GA	5	<2	UJ	<2	UJ	<2	UJ		
Ethylbenzene	µg/L	NYS CLASS GA	5	<b>31</b>	J+	<b>38</b>		1.5			
Isopropylbenzene	µg/L	NYS CLASS GA	5	3.0	J+	3.8	U	<1	U		
m- & p-Xylenes	µg/L	NYS CLASS GA	5	<b>260</b>	J+	<b>240</b>		<b>60.8</b>			
Methyl acetate	µg/L	NYS CLASS GA	NSL	<20	U	<20	U	<20	U		
Methyl tert-butyl ether	µg/L	NYS CLASS GA	10	<1	U	<1	U	<1	U		
Methylcyclohexane	µg/L	NYS CLASS GA	NSL	6.0	J+	4.3		<1	U		
Methylene chloride	µg/L	NYS CLASS GA	5	<5	U	<5	U	<5	U		
o-Xylene	µg/L	NYS CLASS GA	5	<b>200</b>		<b>210</b>		<b>94.7</b>			
Styrene	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
Tetrachloroethene	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
Toluene	µg/L	NYS CLASS GA	5	<b>13</b>	J+	<b>9.6</b>		2.2	J+		
trans-1,2-Dichloroethene	µg/L	NYS CLASS GA	5	<1	U	<1	U	<1	U		
trans-1,3-Dichloropropene	µg/L	NYS CLASS GA	0.4	<1	U	<1	U	<1	U		
Trichloroethene	µg/L	NYS CLASS GA	5	2.9	J+	2.6		3.2			
Trichlorofluoromethane	µg/L	NYS CLASS GA	5	<2	UJ	<2	UJ	<2	UJ		
Vinyl chloride	µg/L	NYS CLASS GA	2	<1	U	0.39	J	<1	U		

Notes:

µg/L = Microgram(s) per liter

GW = Groundwater

ID = Identification

U = Analyte not detected

J = Concentration is estimated

NSL = No screening level available

NYS = New York State

QC = Quality control

Qual = Qualifier

**Bold** and shaded values represent results that are above either a NYS GA Standard RO EPA MCL value.

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# Figures



(\\naspl\Departments\Federal\USACE - Huntsville\Projects\01 - Seneca O&M and LUCS\05 - GIS\PROJECTS\637490374 - USACE Huntsville - SenecaArmyDepot\TM - PlanningDocs\637490374 - PlanningDocs.aprx

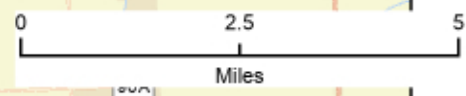


- Legend**
- Former Depot Boundary
  - SEAD-25 Boundary
  - ★ Site Location

**Figure 1**  
 Site Location  
 Former Seneca Army Depot  
 Romulus, New York

Map Date: 9/8/2023 12:17 PM

Projection: NAD 1983 2011 StatePlane  
 New York Central FIPS 3102 Ft US





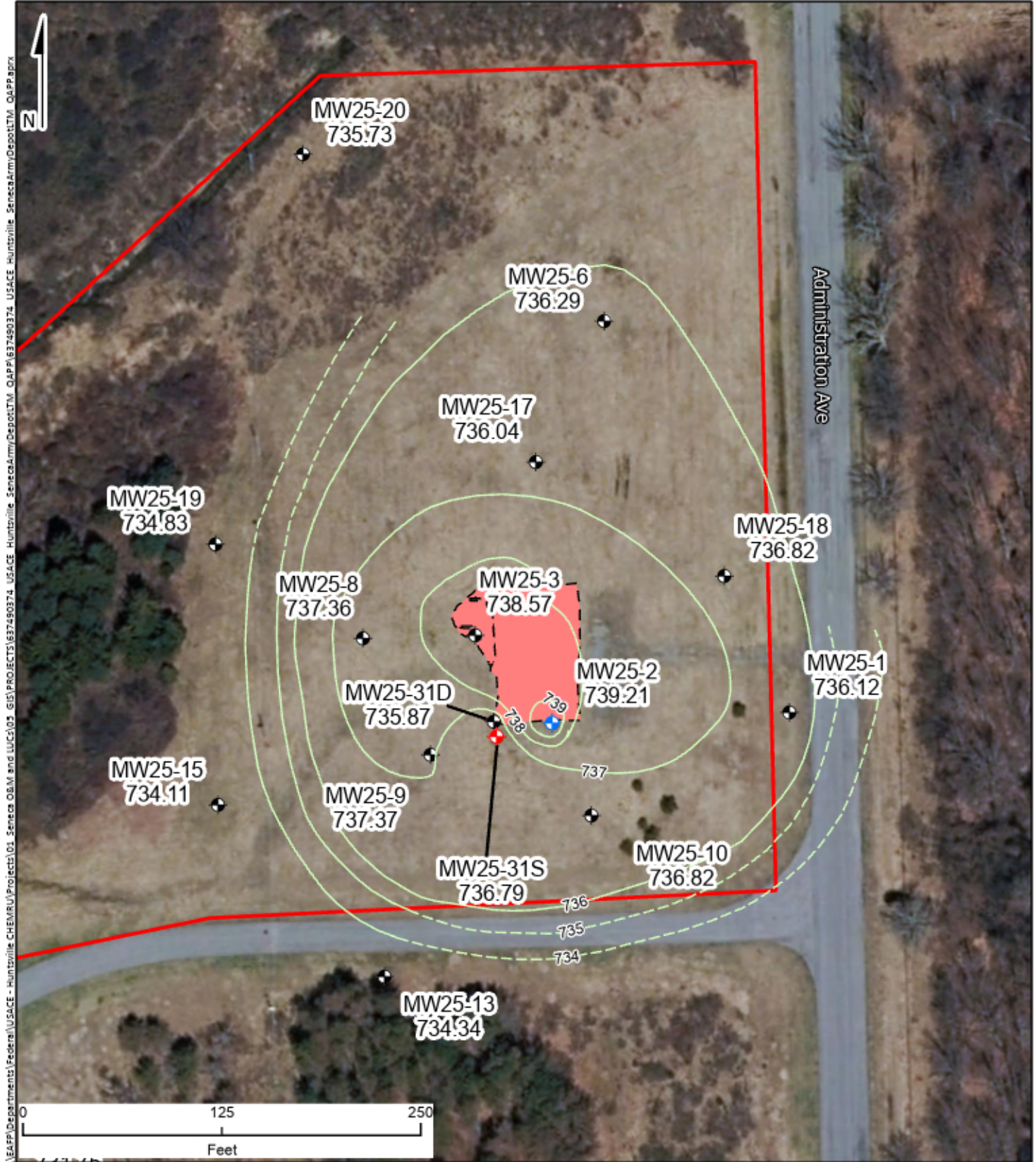


- Legend**
- Former Depot Boundary
  - SEAD-25 Boundary
  - Excavated Area
  - Swale
  - Drainage
  - + Gauge Only
  - + LTM Sampling - Annually, for 5 years
  - + LTM Sampling - Every 5 years, starting in 2025
  - Surface Water Flow

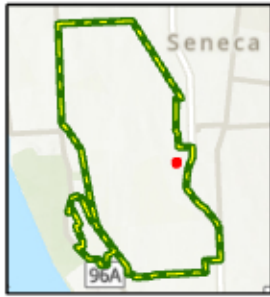
**Figure 2**  
 SEAD-25 Site Features  
 Former Seneca Army Depot  
 Romulus, New York  
 Map Date: 9/8/2023 11:30 AM  
 Projection: NAD 1983 2011 StatePlane  
 New York Central FIPS 3102 Ft US

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**Legend**

- Groundwater Contour (1 ft. interval)
- Former Depot Boundary
- SEAD-25 Boundary
- Excavated Area
- + LTM Sampling - Every 5 years, starting in 2025
- + LTM Sampling - Annually, for 5 years
- ⬤ Gauge Only

**Figure 3**  
 Groundwater Contours - SEAD-25  
 Former Seneca Army Depot  
 Romulus, New York

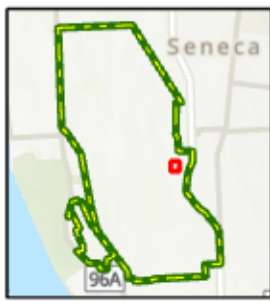
Map Date: 9/8/2023 11:30 AM

Projection: NAD 1983 2011 StatePlane  
 New York Central FIPS 3102 Ft US

Notes:  
 Contour lines are dotted where inferred.  
 Groundwater elevations presented in ft. amsl.  
 ft. amsl. = feet above mean sea level



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- Legend**
- Former Depot Boundary
  - SEAD-25 Boundary
  - Gauge Only
  - LTM Sampling - Annually, for 5 years
  - LTM Sampling - Every 5 years, starting in 2025

Action Levels (June 2023)		
Analyte	Source Criteria	Value (µg/L)
Benzene	NYS CLASS GA	1
Meta/Para Xylene	NYS CLASS GA	5
Ortho Xylene	NYS CLASS GA	5

**Figure 4**  
 VOC Exceedances - SEAD-25  
 Former Seneca Army Depot  
 Romulus, New York

Map Date: 9/11/2023 4:10 PM  
 Projection: NAD 1983 2011 StatePlane  
 New York Central FIPS 3102 Ft US

Note:  
**Bold Text = Concentrations detected at or above Action Level**

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# **Appendix A**

## **Field Forms**







**FIELD CALIBRATION FORM**  
Horiba U-52  
pH, CONDUCTIVITY, AND TURBIDITY

CALIBRATION	
DATE:	6-27-23
TIME:	0728
METER ID:	46899

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.09	3.98

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.60	4.49

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	0.2	0.3

**COMMENTS**

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**SIGNATURE**



**FIELD CALIBRATION FORM**  
Horiba U-52  
**pH, CONDUCTIVITY, AND TURBIDITY**

CALIBRATION	
DATE:	6-27-23
TIME:	0735
METER ID:	801635

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.28	3.97

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	2.68	1.50

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	0.0	0.0

**COMMENTS**

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**SIGNATURE**



**FIELD CALIBRATION FORM**  
Horiba U-52  
pH, CONDUCTIVITY, AND TURBIDITY

CALIBRATION	
DATE:	6-28-23
TIME:	0725
METER ID:	46899

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	5.62	3.98

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.89	4.49

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	8.0	0.0

**COMMENTS**

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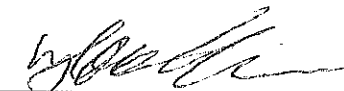
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**SIGNATURE**

  
\_\_\_\_\_

**FIELD CALIBRATION FORM**  
 Horiba U-52  
 pH, CONDUCTIVITY, AND TURBIDITY

CALIBRATION	
DATE:	6/28/23
TIME:	0725
METER ID:	801635

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.30	4.0

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.19	4.47

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	2.0	0.0

**COMMENTS**

NA

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**SIGNATURE**













## WELL PURGING AND SAMPLING RECORD

Site Name/Location	Project No: <u>637490571</u>	Page <u>1</u> of <u>1</u>
Well ID <u>MW 25-315</u>	Date <u>6-27-23</u>	Time <u>0820</u>
Well Site Description <u>Field</u>		
Weather/Temp <u>73° clouds</u>		
Field Technician <u>T. Robinson, M. Wright</u>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <u>—</u>	Screened Interval (ft bgs) <u>—</u>
Well Diameter (in.) <u>2</u>	Nominal Borehole Diameter (in.) <u>8</u>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <u>18.40</u>	Gallons per foot of depth <u>0.183</u>
Depth to product (ft) <u>N/A</u>	Static water level (ft) <u>8.55</u>
Product column height (ft) <u>NA</u>	Water column height (ft) <u>9.85</u>
Product volume (Gallons) <u>NA</u>	Water volume (Gallons) <u>1.61</u>

18.40

### PURGE INFORMATION

Pump Type / ID <u>Piri 36778</u>	Water Quality Meter Type / ID <u>Hoshizumi / 46899</u>
Pump Intake Depth (ft) <u>17.40</u>	Flow-Thru Cell Volume (L) <u>1</u>
Purge Start Time <u>0820</u>	Appearance/Odor (Start) <u>Clear, no odor</u>
Purge End Time <u>0913</u>	Appearance/Odor (End) <u>Clear, no odor</u>
Average Purge Rate (mL/min) <u>250</u>	Total Drawdown (ft) <u>9.85</u>
Well Went Dry (Y/N) <u>Y</u>	Stop Time <u>0913</u>
Recovery Time <u>1 Day</u>	Recovery Rate (mL/min) <u>—</u>
Total Volume Removed (L) <u>12.50</u>	Total Pump Time (min) <u>53</u>

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	0822	0.25	—	6.33	0.968	14.06	-14	12.9	2.74	8.82
	0827	0.25	1.75	6.50	0.948	17.66	-45	5.5	0.59	9.55
	0832	0.25	2.50	6.55	1.01	17.17	-42	1.6	0.56	10.44
	0837	0.25	3.75	6.54	1.02	17.02	-29	8.2	0.63	11.40
	0842	0.25	5.00	6.55	0.943	18.80	-13	21.8	0.72	12.68
	0847	0.25	6.75	6.52	0.985	18.80	-11	27.5	0.80	13.40
	0852	0.25	7.50	6.51	0.973	18.70	-12	28.3	0.82	14.02
	0857	0.25	8.75	6.51	0.970	18.65	-17	16.2	0.74	14.64
	0902	0.25	10.00	6.50	0.962	18.07	-62	29.4	0.67	15.65
	0907	0.25	11.25	6.49	0.967	17.75	-64	8.3	0.69	16.57
	0912	0.25	12.50	6.47	1.01	15.69	-84	2.8	0.39	17.82

COMMENTS well dry will sample with 80% packing

### SAMPLE COLLECTION

Sample Date <u>6/28/23</u>	Sample Time <u>1410</u>
Sample ID <u><del>1410</del> SEAD-25-MW25-315</u>	
QA/QC Collected / ID <u>DUP + MS/MC/D</u>	Sample Appearance/Odor <u>Clear, no odor</u>
Analyses <u>JOC</u>	
Sampler <u>MW</u>	Signature <u>[Signature]</u>

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWZS-30  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)     Flush Mount     Stick up     Multilevel Well\*  
 Well lock/security type: Bolts & Lock  
 Elevation (top of inner casing): 734.13  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 16.58 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 3.71 ftbtoe  
 Date: 6/26/23     Time: 0857

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments N/A

### Recommendations

Well needs to be redeveloped	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be repaired.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be replaced.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
No action necessary.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

### Comments

N/A

Inspected by: Michael Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-25  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)     Flush Mount     Stick up     Multilevel Well\*  
 Well lock/security type: Bolts + NO Lock  
 Elevation (top of inner casing): 743.74  
 Surface casing material: Steel  
 Well casing material: ~~Steel~~ PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 9.77 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 2.95 fbtoc  
 Date: 6/26/23 Time: 0906

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25 - 23  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)     Flush Mount     Stick up     Multilevel Well\*  
 Well lock/security type: Bolts / No Lock  
 Elevation (top of inner casing): 138.54  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 13.92 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 4.59 ftbtoc  
 Date: 6/25/23     Time: 0918

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments NP

### Recommendations

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be repaired.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be replaced.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Comments

Needs work

Inspected by: M. Lee Wright  
 Date of Inspection: 6/26/73  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-220  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

**Well Construction Details**

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 735.61  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 50.35 fttoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 2.44 ftbtoc  
 Date: 6/26/73      Time: 0917

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	Yes	<input checked="" type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments ~~AT~~ well moves around

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	Yes	<input checked="" type="checkbox"/> No
Well needs to be repaired.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Well needs to be replaced.	Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	Yes	<input checked="" type="checkbox"/> No
No action necessary.	Yes	<input checked="" type="checkbox"/> No

### Comments

Stabilize well

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Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-227  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

**Well Construction Details**

Type of well (Circle one) Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 733.70  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 14.35 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 1.95 ftbtoc  
 Date: 09/26/23      Time: 0930

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?                      Yes                       No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	No
Has there been physical damage to the well?	Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<input checked="" type="radio"/> Yes	No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	No

Other Comments NA

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	Yes	<input checked="" type="radio"/> No
Well needs to be repaired.	Yes	<input checked="" type="radio"/> No
Well needs to be replaced.	Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	Yes	<input checked="" type="radio"/> No
No action necessary.	<input checked="" type="radio"/> Yes	No

### Comments

NA

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-21  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

**Well Construction Details**

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Bolts  
 Elevation (top of inner casing): 732.44  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 8.90 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 2.50 ftbtoc  
 Date: 6/26/23 Time: 0934

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): ~~0.3~~ 0.3 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments N/A

### Recommendations

Well needs to be redeveloped	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be repaired.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be replaced.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
No action necessary.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

### Comments

N/A

Inspected by: Mike Wagh  
 Date of Inspection: 6/24/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-13  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 739.64  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 5.48 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 5.30 ftbtoc  
 Date: 6/26/23      Time: 0922

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	No
Has there been physical damage to the well?	<input checked="" type="checkbox"/> Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	No

Other Comments well heaved

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	<input checked="" type="checkbox"/> Yes	No
Well needs to be repaired.	<input checked="" type="checkbox"/> Yes	No
Well needs to be replaced.	Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	Yes	<input checked="" type="checkbox"/> No
No action necessary.	Yes	<input checked="" type="checkbox"/> No

### Comments

well heaved, Resurvey for

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-15  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 741.00  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 71.9 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 6.89 ftbtoc  
 Date: 6/26/23      Time: 0943

\* If multilevel well please see attached worksheet.





**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-19  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

**Well Construction Details**

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 741.95  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 11.98 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 7.12 ftbtoc  
 Date: 6/26/23      Time: 0946

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW75-20  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Bolt S  
 Elevation (top of inner casing): 740.78  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 13.94 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 5.05 ftbtoc  
 Date: 6/26/27      Time: 0950

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments NA

### Recommendations

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be repaired.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be replaced.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Comments

~~HP~~  Needs 1 bolt

Inspected by: Mike Waight  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-6  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 744.44  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 14.19 fttoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 8.15 ftbtoc  
 Date: 6/26/23 Time: 0954

\* If multilevel well please see attached worksheet.





**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-17  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

**Well Construction Details**

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 743.94  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 11.6 ftbgs  
 Well Depth (as measured): 11.28 fttoc  
 Screened interval: 4.6-9.1 ft  
 Open hole interval: - ft  
 Depth to water: 7.40 ftbtoc  
 Date: 6/26/23      Time: 0958

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: NW 25-3  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 746.301  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 0 ftbgs  
 Well Depth (as measured): 9.80 fttoc  
 Screened interval: 4-6 ft  
 Open hole interval: - ft  
 Depth to water: 7.77 ftbtoc  
 Date: 6/26/23      Time: 1001

\* If multilevel well please see attached worksheet.

**EPA Region 2 Superfund Well Assessment Checklist**

**Well Headspace Readings**

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

**Well Condition**

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments well braced

**Recommendations**

Well needs to be redeveloped	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Well needs to be repaired.	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Well needs to be replaced.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
No action necessary.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

**Comments**

Re survey TOC

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-8  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 742.46  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 5.40 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 5.10 fbtoc  
 Date: 6/26/23      Time: 1003

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?                      Yes                       No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<input checked="" type="radio"/> Yes	No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	No

Other Comments well heaved

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input checked="" type="radio"/> Yes	No
Well needs to be repaired.	<input checked="" type="radio"/> Yes	No
Well needs to be replaced.	Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	Yes	<input checked="" type="radio"/> No
No action necessary.	Yes	<input checked="" type="radio"/> No

### Comments

Resurvey TOC?

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-9  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 742.36  
 Surface casing material: steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 4.0 ftbgs  
 Well Depth (as measured): 5.40 fttoc  
 Screened interval: 3.2-4.0 ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 4.99 ftbtoc  
 Date: 6/26/23      Time: 1008

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments well head

### Recommendations

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Well needs to be repaired.	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Well needs to be replaced.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary.	<input type="radio"/> Yes	<input type="radio"/> No

### Comments

Resurvey TOC ?

Inspected by: Mike Wright  
 Date of Inspection: \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-310  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 744.45  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 82.81 fttoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 8.76 ftbtoc  
 Date: 6/26/23      Time: 1012

\* If multilevel well please see attached worksheet.







### EPA Region 2 Superfund Well Assessment Checklist

#### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

#### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW25-315  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

#### Well Construction Details

Type of well (Circle one) Well lock Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 745.34  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 18.40 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.55 ftbtoc  
 Date: 6/26/23 Time: 1014

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="checkbox"/> Yes	No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	No
Has there been physical damage to the well?	Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	No

Other Comments NA

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="checkbox"/> No
Well needs to be re-surveyed.	Yes	<input checked="" type="checkbox"/> No
Well needs to be repaired.	Yes	<input checked="" type="checkbox"/> No
Well needs to be replaced.	Yes	<input checked="" type="checkbox"/> No
Well needs to be properly abandoned.	Yes	<input checked="" type="checkbox"/> No
No action necessary.	<input checked="" type="checkbox"/> Yes	No

### Comments

NA

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25 - 2  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 746.36  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 7.4 ftbgs  
 Well Depth (as measured): 11.05 fttoc  
 Screened interval: 3.41-7.4 ft  
 Open hole interval: - ft  
 Depth to water: 7.15 fttoc  
 Date: 6/26/23      Time: 1017

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments NA

### Recommendations

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be repaired.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be replaced.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Comments

NA

Inspected by: 6/26/25 Michael Wong  
 Date of Inspection: 6/26/25  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-10  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one) Stick up Flush Mount Multilevel Well\*  
 Well lock/security type: Lock  
 Elevation (top of inner casing): 743.01  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 5.2 ftbgs  
 Well Depth (as measured): 6.38 fttoc  
 Screened interval: 3.2 - 5.2 ft  
 Open hole interval: - ft  
 Depth to water: 6.19 ftbtoc  
 Date: 6/26/23 Time: 1022

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW 25-1  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 743.00  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): - ftbgs  
 Well Depth (as measured): 7.75 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 6.88 ftboc  
 Date: 6/26/23 Time: 1025

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW75-18  
 Well Installation date: \_\_\_\_\_

	From Log	By GPS
Ground Surface Elevation		
Latitude		
Longitude		
Northing (State Plane)		
Easting (State Plane)		

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: No Lock  
 Elevation (top of inner casing): 744.35  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 2 4 inches  
 Well Diameter: \_\_\_\_\_ inches  
 Well Depth (as installed): 11 ftbgs  
 Well Depth (as measured): 11.16 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 7.53 ftbtoc  
 Date: 6/26/23      Time: 1027

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0.0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes  No

### Well Condition

Is the concrete pad in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments NA

### Recommendations

Well needs to be redeveloped	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be repaired.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be replaced.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Well needs to be properly abandoned.	<input type="radio"/> Yes	<input checked="" type="radio"/> No
No action necessary.	<input checked="" type="radio"/> Yes	<input type="radio"/> No

### Comments

Tubing Stuck

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

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# **Appendix B**

## **Laboratory Reports**

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

### EA Engineering

Former Seneca Army Depot; NY

SGS Job Number: FC7382

Sampling Date: 06/28/23

#### Report to:

EA Science and Technology  
269 W Jefferson St  
Syracuse, NY 13202  
fdesantis@eaest.com; mwright@eaest.com

ATTN: Frank DeSantis

Total number of pages in report: 399



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 unless noted in the narrative, comments or footnotes.

A handwritten signature in black ink that reads "Norm Farmer".

**Norm Farmer**  
Technical Director

**Client Service contact: Andrea Colby 407-425-6700**

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)

DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),

AL, AK, AR, CT, IA, KY, MA, MI, MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

**Job No:** FC7382

Former Seneca Army Depot; NY

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC7382-1	06/28/23	14:10	MWTR06/29/23	AQ	Ground Water	SEAD-25-MW25-31S-20230628
FC7382-1D	06/28/23	14:10	MWTR06/29/23	AQ	Water Dup/MSD	SEAD-25-MW25-31S-20230628
FC7382-1S	06/28/23	14:10	MWTR06/29/23	AQ	Water Matrix Spike	SEAD-25-MW25-31S-20230628
FC7382-2	06/28/23	00:00	MWTR06/29/23	AQ	Ground Water	DUP-01-20230628
FC7382-3	06/28/23	00:00	MWTR06/29/23	AQ	Trip Blank Water	TB

## SAMPLE DELIVERY GROUP CASE NARRATIVE

2

**Client:** EA Engineering

**Job No:** FC7382

**Site:** Former Seneca Army Depot; NY

**Report Date:** 7/10/2023 1:41:10 PM

On 06/29/2023, 2 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC7382 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.

### MS Volatiles By Method SW846 8260D

**Matrix:** AQ

**Batch ID:** V2O3017

Sample(s) FC7382-1MS, FC7382-1MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for Freon 113, o-Xylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD(s) for MSD for 1,1,1-Trichloroethane, Bromochloromethane, Chloroform, Methylene Chloride are outside control limits for sample FC7382-1MSD. Probable cause is due to sample non-homogeneity.

V2O3017-MB: Sample was treated with an anti-foaming agent.

FC7382-1 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7382-1 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7382-2 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7382-2 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7382-3 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7382-3 for Toluene: Suspected laboratory contaminant.

FC7382-3 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

**Matrix:** AQ

**Batch ID:** VI2963

Sample(s) FC7493-1MS, FC7493-1MSD were used as the QC samples indicated.

VI2963-MB: Sample was treated with an anti-foaming agent.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the 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. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (*Signature on File*)

## Summary of Hits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23



Lab Sample ID	Client Sample ID	Result/ Analyte	LOQ	LOD	Units	Method
<b>FC7382-1</b>	<b>SEAD-25-MW25-31S-20230628</b>					
		Benzene	4.9	1.0	0.50	ug/l SW846 8260D
		cis-1,2-Dichloroethylene	4.9	1.0	0.50	ug/l SW846 8260D
		Ethylbenzene	1.5	1.0	0.50	ug/l SW846 8260D
		Toluene	2.2	1.0	0.50	ug/l SW846 8260D
		Trichloroethylene	3.2	1.0	0.50	ug/l SW846 8260D
		m,p-Xylene	60.8	2.0	1.0	ug/l SW846 8260D
		o-Xylene	94.7	1.0	0.50	ug/l SW846 8260D
<b>FC7382-2</b>	<b>DUP-01-20230628</b>					
		Benzene	5.1	1.0	0.50	ug/l SW846 8260D
		1,2-Dichloroethane	0.41 J	1.0	0.50	ug/l SW846 8260D
		cis-1,2-Dichloroethylene	4.7	1.0	0.50	ug/l SW846 8260D
		Ethylbenzene	1.6	1.0	0.50	ug/l SW846 8260D
		Toluene	2.5	1.0	0.50	ug/l SW846 8260D
		Trichloroethylene	3.3	1.0	0.50	ug/l SW846 8260D
		m,p-Xylene	66.1	2.0	1.0	ug/l SW846 8260D
		o-Xylene	96.1	1.0	0.50	ug/l SW846 8260D
<b>FC7382-3</b>	<b>TB</b>					
		Toluene <sup>a</sup>	0.77 J	1.0	0.50	ug/l SW846 8260D

(a) Suspected laboratory contaminant.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-25-MW25-31S-20230628		
<b>Lab Sample ID:</b>	FC7382-1	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077418.D	1	07/05/23 11:08	JW	n/a	n/a	V203017
Run #2	I757717.D	1	07/06/23 16:05	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	4.9	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	4.9	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	1.5	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection 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

<b>Client Sample ID:</b>	SEAD-25-MW25-31S-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7382-1	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	2.2	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	3.2	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	60.8	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	94.7	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%	96%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	102%	79-125%
2037-26-5	Toluene-D8	101%	97%	85-112%
460-00-4	4-Bromofluorobenzene	97%	98%	83-118%

- (a) Result is from Run# 2
- (b) Associated ICV outside DOD QSM control limits high, sample is ND.
- (c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	DUP-01-20230628		
<b>Lab Sample ID:</b>	FC7382-2	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077419.D	1	07/05/23 11:34	JW	n/a	n/a	V203017
Run #2	I757718.D	1	07/06/23 16:29	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	5.1	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.41	1.0	0.50	0.31	ug/l	J
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	4.7	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	1.6	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection 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

<b>Client Sample ID:</b>	DUP-01-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7382-2	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	2.5	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	3.3	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	66.1 <sup>a</sup>	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	96.1 <sup>a</sup>	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	106%	79-125%
2037-26-5	Toluene-D8	103%	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	97%	83-118%

(a) Result is from Run# 2

(b) Associated ICV outside DOD QSM control limits high, sample is ND.

(c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	TB		
<b>Lab Sample ID:</b>	FC7382-3	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077417.D	1	07/05/23 10:43	JW	n/a	n/a	V203017
Run #2	I757708.D	1	07/06/23 11:19	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection 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

<b>Client Sample ID:</b> TB		
<b>Lab Sample ID:</b> FC7382-3		<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b> AQ - Trip Blank Water		<b>Date Received:</b> 06/29/23
<b>Method:</b> SW846 8260D		<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene <sup>c</sup>	0.77	1.0	0.50	0.30	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>d</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	96%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	102%	79-125%
2037-26-5	Toluene-D8	103%	98%	85-112%
460-00-4	4-Bromofluorobenzene	97%	99%	83-118%

- (a) Result is from Run# 2
- (b) Associated ICV outside DOD QSM control limits high, sample is ND.
- (c) Suspected laboratory contaminant.
- (d) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection 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

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Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits





# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2O3017	SW846 8260D						
V2O3017-BS	67-64-1	Acetone	BSP	REC	122	%	39-160
V2O3017-BS	71-43-2	Benzene	BSP	REC	103	%	79-120
V2O3017-BS	74-97-5	Bromochloromethane	BSP	REC	99	%	78-123
V2O3017-BS	75-27-4	Bromodichloromethane	BSP	REC	102	%	79-125
V2O3017-BS	75-25-2	Bromoform	BSP	REC	108	%	66-130
V2O3017-BS	78-93-3	2-Butanone (MEK)	BSP	REC	101	%	56-143
V2O3017-BS	75-15-0	Carbon Disulfide	BSP	REC	110	%	64-133
V2O3017-BS	56-23-5	Carbon Tetrachloride	BSP	REC	102	%	72-136
V2O3017-BS	108-90-7	Chlorobenzene	BSP	REC	97	%	82-118
V2O3017-BS	67-66-3	Chloroform	BSP	REC	99	%	79-124
V2O3017-BS	110-82-7	Cyclohexane	BSP	REC	91	%	71-130
V2O3017-BS	124-48-1	Dibromochloromethane	BSP	REC	110	%	74-126
V2O3017-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	104	%	62-128
V2O3017-BS	106-93-4	1,2-Dibromoethane	BSP	REC	95	%	77-121
V2O3017-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	127	%	32-152
V2O3017-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	94	%	80-119
V2O3017-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	95	%	80-119
V2O3017-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	99	%	79-118
V2O3017-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	77-125
V2O3017-BS	107-06-2	1,2-Dichloroethane	BSP	REC	98	%	73-128
V2O3017-BS	75-35-4	1,1-Dichloroethylene	BSP	REC	99	%	71-131
V2O3017-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	90	%	78-123
V2O3017-BS	156-60-5	trans-1,2-Dichloroethylene	BSP	REC	95	%	75-124
V2O3017-BS	78-87-5	1,2-Dichloropropane	BSP	REC	104	%	78-122
V2O3017-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	106	%	75-124
V2O3017-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	103	%	73-127
V2O3017-BS	100-41-4	Ethylbenzene	BSP	REC	96	%	79-121
V2O3017-BS	76-13-1	Freon 113	BSP	REC	106	%	70-136
V2O3017-BS	591-78-6	2-Hexanone	BSP	REC	110	%	57-139
V2O3017-BS	98-82-8	Isopropylbenzene	BSP	REC	87	%	72-131
V2O3017-BS	79-20-9	Methyl Acetate	BSP	REC	93	%	56-136
V2O3017-BS	74-83-9	Methyl Bromide	BSP	REC	99	%	53-141
V2O3017-BS	74-87-3	Methyl Chloride	BSP	REC	109	%	50-139
V2O3017-BS	108-87-2	Methylcyclohexane	BSP	REC	91	%	72-132
V2O3017-BS	75-09-2	Methylene Chloride	BSP	REC	104	%	74-124
V2O3017-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	108	%	67-130
V2O3017-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	100	%	71-124
V2O3017-BS	100-42-5	Styrene	BSP	REC	96	%	78-123
V2O3017-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	104	%	71-121
V2O3017-BS	127-18-4	Tetrachloroethylene	BSP	REC	98	%	74-129
V2O3017-BS	108-88-3	Toluene	BSP	REC	100	%	80-121
V2O3017-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	90	%	69-129

\* Sample used for QC is not from job FC7382

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V203017-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	98	%	74-131
V203017-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	103	%	80-119
V203017-BS	79-01-6	Trichloroethylene	BSP	REC	96	%	79-123
V203017-BS	75-69-4	Trichlorofluoromethane	BSP	REC	124	%	65-141
V203017-BS	75-01-4	Vinyl Chloride	BSP	REC	116	%	58-137
V203017-BS		m,p-Xylene	BSP	REC	98	%	80-121
V203017-BS	95-47-6	o-Xylene	BSP	REC	88	%	78-122
V203017-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	80-119
V203017-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	104	%	81-118
V203017-BS	2037-26-5	Toluene-D8	BSP	SURR	100	%	89-112
V203017-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	97	%	85-114
FC7382-1MS	67-64-1	Acetone	MS	REC	92	%	39-160
FC7382-1MS	71-43-2	Benzene	MS	REC	116	%	79-120
FC7382-1MS	74-97-5	Bromochloromethane	MS	REC	109	%	78-123
FC7382-1MS	75-27-4	Bromodichloromethane	MS	REC	104	%	79-125
FC7382-1MS	75-25-2	Bromoform	MS	REC	97	%	66-130
FC7382-1MS	78-93-3	2-Butanone (MEK)	MS	REC	94	%	56-143
FC7382-1MS	75-15-0	Carbon Disulfide	MS	REC	133	%	64-133
FC7382-1MS	56-23-5	Carbon Tetrachloride	MS	REC	125	%	72-136
FC7382-1MS	108-90-7	Chlorobenzene	MS	REC	102	%	82-118
FC7382-1MS	67-66-3	Chloroform	MS	REC	112	%	79-124
FC7382-1MS	110-82-7	Cyclohexane	MS	REC	117	%	71-130
FC7382-1MS	124-48-1	Dibromochloromethane	MS	REC	110	%	74-126
FC7382-1MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	98	%	62-128
FC7382-1MS	106-93-4	1,2-Dibromoethane	MS	REC	95	%	77-121
FC7382-1MS	75-71-8	Dichlorodifluoromethane	MS	REC	152	%	32-152
FC7382-1MS	95-50-1	1,2-Dichlorobenzene	MS	REC	95	%	80-119
FC7382-1MS	541-73-1	1,3-Dichlorobenzene	MS	REC	97	%	80-119
FC7382-1MS	106-46-7	1,4-Dichlorobenzene	MS	REC	103	%	79-118
FC7382-1MS	75-34-3	1,1-Dichloroethane	MS	REC	113	%	77-125
FC7382-1MS	107-06-2	1,2-Dichloroethane	MS	REC	102	%	73-128
FC7382-1MS	75-35-4	1,1-Dichloroethylene	MS	REC	114	%	71-131
FC7382-1MS	156-59-2	cis-1,2-Dichloroethylene	MS	REC	100	%	78-123
FC7382-1MS	156-60-5	trans-1,2-Dichloroethylene	MS	REC	112	%	75-124
FC7382-1MS	78-87-5	1,2-Dichloropropane	MS	REC	112	%	78-122
FC7382-1MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	97	%	75-124
FC7382-1MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	101	%	73-127
FC7382-1MS	100-41-4	Ethylbenzene	MS	REC	104	%	79-121
FC7382-1MS	76-13-1	Freon 113	MS	REC	139	%	70-136
FC7382-1MS	591-78-6	2-Hexanone	MS	REC	109	%	57-139
FC7382-1MS	98-82-8	Isopropylbenzene	MS	REC	90	%	72-131
FC7382-1MS	79-20-9	Methyl Acetate	MS	REC	86	%	56-136
FC7382-1MS	74-83-9	Methyl Bromide	MS	REC	78	%	53-141
FC7382-1MS	74-87-3	Methyl Chloride	MS	REC	126	%	50-139
FC7382-1MS	108-87-2	Methylcyclohexane	MS	REC	110	%	72-132

\* Sample used for QC is not from job FC7382

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MS	75-09-2	Methylene Chloride	MS	REC	114	%	74-124
FC7382-1MS	108-10-1	4-Methyl-2-pentanone (MIBK)	MS	REC	104	%	67-130
FC7382-1MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	100	%	71-124
FC7382-1MS	100-42-5	Styrene	MS	REC	96	%	78-123
FC7382-1MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	104	%	71-121
FC7382-1MS	127-18-4	Tetrachloroethylene	MS	REC	111	%	74-129
FC7382-1MS	108-88-3	Toluene	MS	REC	100	%	80-121
FC7382-1MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	92	%	69-129
FC7382-1MS	71-55-6	1,1,1-Trichloroethane	MS	REC	119	%	74-131
FC7382-1MS	79-00-5	1,1,2-Trichloroethane	MS	REC	108	%	80-119
FC7382-1MS	79-01-6	Trichloroethylene	MS	REC	107	%	79-123
FC7382-1MS	75-69-4	Trichlorofluoromethane	MS	REC	143	%	65-141
FC7382-1MS	75-01-4	Vinyl Chloride	MS	REC	135	%	58-137
FC7382-1MS		m,p-Xylene	MS	REC	102	%	80-121
FC7382-1MS	95-47-6	o-Xylene	MS	REC	77 <sup>a</sup>	%	78-122
FC7382-1MS	1868-53-7	Dibromofluoromethane	MS	SURR	107	%	80-119
FC7382-1MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	103	%	81-118
FC7382-1MS	2037-26-5	Toluene-D8	MS	SURR	92	%	89-112
FC7382-1MS	460-00-4	4-Bromofluorobenzene	MS	SURR	95	%	85-114
FC7382-1MSD	67-64-1	Acetone	MSD	REC	86	%	39-160
FC7382-1MSD	67-64-1	Acetone	MSD	RPD	6	%	20
FC7382-1MSD	71-43-2	Benzene	MSD	REC	110	%	79-120
FC7382-1MSD	71-43-2	Benzene	MSD	RPD	4	%	20
FC7382-1MSD	74-97-5	Bromochloromethane	MSD	REC	92	%	78-123
FC7382-1MSD	74-97-5	Bromochloromethane	MSD	RPD	17	%	20
FC7382-1MSD	75-27-4	Bromodichloromethane	MSD	REC	97	%	79-125
FC7382-1MSD	75-27-4	Bromodichloromethane	MSD	RPD	7	%	20
FC7382-1MSD	75-25-2	Bromoform	MSD	REC	95	%	66-130
FC7382-1MSD	75-25-2	Bromoform	MSD	RPD	2	%	20
FC7382-1MSD	78-93-3	2-Butanone (MEK)	MSD	REC	86	%	56-143
FC7382-1MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	10	%	20
FC7382-1MSD	75-15-0	Carbon Disulfide	MSD	REC	113	%	64-133
FC7382-1MSD	75-15-0	Carbon Disulfide	MSD	RPD	16	%	20
FC7382-1MSD	56-23-5	Carbon Tetrachloride	MSD	REC	104	%	72-136
FC7382-1MSD	56-23-5	Carbon Tetrachloride	MSD	RPD	18	%	20
FC7382-1MSD	108-90-7	Chlorobenzene	MSD	REC	96	%	82-118
FC7382-1MSD	108-90-7	Chlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD	67-66-3	Chloroform	MSD	REC	95	%	79-124
FC7382-1MSD	67-66-3	Chloroform	MSD	RPD	17	%	20
FC7382-1MSD	110-82-7	Cyclohexane	MSD	REC	100	%	71-130
FC7382-1MSD	110-82-7	Cyclohexane	MSD	RPD	15	%	20
FC7382-1MSD	124-48-1	Dibromochloromethane	MSD	REC	96	%	74-126
FC7382-1MSD	124-48-1	Dibromochloromethane	MSD	RPD	14	%	20
FC7382-1MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	97	%	62-128
FC7382-1MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	1	%	20

\* Sample used for QC is not from job FC7382

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD	106-93-4	1,2-Dibromoethane	MSD	REC	88	%	77-121
FC7382-1MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	7	%	20
FC7382-1MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	146	%	32-152
FC7382-1MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	4	%	20
FC7382-1MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	90	%	80-119
FC7382-1MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	91	%	80-119
FC7382-1MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	96	%	79-118
FC7382-1MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	7	%	20
FC7382-1MSD	75-34-3	1,1-Dichloroethane	MSD	REC	98	%	77-125
FC7382-1MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	14	%	20
FC7382-1MSD	107-06-2	1,2-Dichloroethane	MSD	REC	98	%	73-128
FC7382-1MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	4	%	20
FC7382-1MSD	75-35-4	1,1-Dichloroethylene	MSD	REC	98	%	71-131
FC7382-1MSD	75-35-4	1,1-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	83	%	78-123
FC7382-1MSD	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD	156-60-5	trans-1,2-Dichloroethylene	MSD	REC	97	%	75-124
FC7382-1MSD	156-60-5	trans-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD	78-87-5	1,2-Dichloropropane	MSD	REC	105	%	78-122
FC7382-1MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	7	%	20
FC7382-1MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	89	%	75-124
FC7382-1MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	93	%	73-127
FC7382-1MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD	100-41-4	Ethylbenzene	MSD	REC	101	%	79-121
FC7382-1MSD	100-41-4	Ethylbenzene	MSD	RPD	3	%	20
FC7382-1MSD	76-13-1	Freon 113	MSD	REC	117	%	70-136
FC7382-1MSD	76-13-1	Freon 113	MSD	RPD	18	%	20
FC7382-1MSD	591-78-6	2-Hexanone	MSD	REC	111	%	57-139
FC7382-1MSD	591-78-6	2-Hexanone	MSD	RPD	2	%	20
FC7382-1MSD	98-82-8	Isopropylbenzene	MSD	REC	92	%	72-131
FC7382-1MSD	98-82-8	Isopropylbenzene	MSD	RPD	3	%	20
FC7382-1MSD	79-20-9	Methyl Acetate	MSD	REC	75	%	56-136
FC7382-1MSD	79-20-9	Methyl Acetate	MSD	RPD	14	%	20
FC7382-1MSD	74-83-9	Methyl Bromide	MSD	REC	87	%	53-141
FC7382-1MSD	74-83-9	Methyl Bromide	MSD	RPD	11	%	20
FC7382-1MSD	74-87-3	Methyl Chloride	MSD	REC	122	%	50-139
FC7382-1MSD	74-87-3	Methyl Chloride	MSD	RPD	3	%	20
FC7382-1MSD	108-87-2	Methylcyclohexane	MSD	REC	108	%	72-132
FC7382-1MSD	108-87-2	Methylcyclohexane	MSD	RPD	2	%	20
FC7382-1MSD	75-09-2	Methylene Chloride	MSD	REC	96	%	74-124
FC7382-1MSD	75-09-2	Methylene Chloride	MSD	RPD	18	%	20
FC7382-1MSD	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	REC	101	%	67-130

\* Sample used for QC is not from job FC7382

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	RPD	3	%	20
FC7382-1MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	88	%	71-124
FC7382-1MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	13	%	20
FC7382-1MSD	100-42-5	Styrene	MSD	REC	96	%	78-123
FC7382-1MSD	100-42-5	Styrene	MSD	RPD	0	%	20
FC7382-1MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	97	%	71-121
FC7382-1MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	7	%	20
FC7382-1MSD	127-18-4	Tetrachloroethylene	MSD	REC	98	%	74-129
FC7382-1MSD	127-18-4	Tetrachloroethylene	MSD	RPD	12	%	20
FC7382-1MSD	108-88-3	Toluene	MSD	REC	98	%	80-121
FC7382-1MSD	108-88-3	Toluene	MSD	RPD	2	%	20
FC7382-1MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	86	%	69-129
FC7382-1MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	100	%	74-131
FC7382-1MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	18	%	20
FC7382-1MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	95	%	80-119
FC7382-1MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	13	%	20
FC7382-1MSD	79-01-6	Trichloroethylene	MSD	REC	103	%	79-123
FC7382-1MSD	79-01-6	Trichloroethylene	MSD	RPD	3	%	20
FC7382-1MSD	75-69-4	Trichlorofluoromethane	MSD	REC	137	%	65-141
FC7382-1MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	4	%	20
FC7382-1MSD	75-01-4	Vinyl Chloride	MSD	REC	132	%	58-137
FC7382-1MSD	75-01-4	Vinyl Chloride	MSD	RPD	2	%	20
FC7382-1MSD		m,p-Xylene	MSD	REC	118	%	80-121
FC7382-1MSD		m,p-Xylene	MSD	RPD	7	%	20
FC7382-1MSD	95-47-6	o-Xylene	MSD	REC	121	%	78-122
FC7382-1MSD	95-47-6	o-Xylene	MSD	RPD	9	%	20
FC7382-1MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	92	%	80-119
FC7382-1MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7382-1MSD	2037-26-5	Toluene-D8	MSD	SURR	96	%	89-112
FC7382-1MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	93	%	85-114
V203017-MB	1868-53-7	Dibromofluoromethane	MB	SURR	106	%	80-119
V203017-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	102	%	81-118
V203017-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V203017-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	110	%	85-114
FC7382-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	109	%	80-119
FC7382-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7382-1	2037-26-5	Toluene-D8	SAMP	SURR	101	%	89-112
FC7382-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	85-114
FC7382-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	80-119
FC7382-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	81-118
FC7382-2	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
FC7382-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7382-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	80-119
FC7382-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	81-118

\* Sample used for QC is not from job FC7382

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-3	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
FC7382-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	85-114
VI2963	SW846 8260D						
VI2963-BS	75-00-3	Chloroethane	BSP	REC	87	%	60-138
VI2963-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	93	%	69-130
VI2963-BS		m,p-Xylene	BSP	REC	97	%	80-121
VI2963-BS	95-47-6	o-Xylene	BSP	REC	90	%	78-122
VI2963-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	101	%	80-119
VI2963-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	105	%	81-118
VI2963-BS	2037-26-5	Toluene-D8	BSP	SURR	102	%	89-112
VI2963-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	100	%	85-114
FC7493-1MS*	75-00-3	Chloroethane	MS	REC	144	%	60-138
FC7493-1MS*	120-82-1	1,2,4-Trichlorobenzene	MS	REC	93	%	69-130
FC7493-1MS*		m,p-Xylene	MS	REC	107	%	80-121
FC7493-1MS*	95-47-6	o-Xylene	MS	REC	99	%	78-122
FC7493-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	101	%	80-119
FC7493-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	107	%	81-118
FC7493-1MS*	2037-26-5	Toluene-D8	MS	SURR	103	%	89-112
FC7493-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	98	%	85-114
FC7493-1MSD*	75-00-3	Chloroethane	MSD	REC	127	%	60-138
FC7493-1MSD*	75-00-3	Chloroethane	MSD	RPD	12	%	20
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	86	%	69-130
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	7	%	20
FC7493-1MSD*		m,p-Xylene	MSD	REC	96	%	80-121
FC7493-1MSD*		m,p-Xylene	MSD	RPD	11	%	20
FC7493-1MSD*	95-47-6	o-Xylene	MSD	REC	89	%	78-122
FC7493-1MSD*	95-47-6	o-Xylene	MSD	RPD	11	%	20
FC7493-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
FC7493-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7493-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	102	%	89-112
FC7493-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	100	%	85-114
VI2963-MB	1868-53-7	Dibromofluoromethane	MB	SURR	97	%	80-119
VI2963-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	100	%	81-118
VI2963-MB	2037-26-5	Toluene-D8	MB	SURR	97	%	89-112
VI2963-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	99	%	85-114
FC7382-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	96	%	80-119
FC7382-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7382-1	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7382-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	85-114
FC7382-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7382-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118
FC7382-2	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7382-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	85-114

\* Sample used for QC is not from job FC7382

5.2  
5

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7382  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	96	%	80-119
FC7382-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7382-3	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7382-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114

(a) Outside control limits due to high level in sample relative to spike amount.

\* Sample used for QC is not from job FC7382



## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

**Method Blank Summary**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.4	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.39	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
76-13-1	Freon 113	ND	1.0	0.48	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.44	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	

## Method Blank Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.23	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 83-118%
17060-07-0	1,2-Dichloroethane-D4	102% 79-125%
2037-26-5	Toluene-D8	103% 85-112%
460-00-4	4-Bromofluorobenzene	110% 83-118%

(a) Sample was treated with an anti-foaming agent.

**Method Blank Summary**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-MB <sup>a</sup>	I757706.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Result	RL	MDL	Units	Q
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

(a) Sample was treated with an anti-foaming agent.

**Blank Spike Summary**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2077413.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	153	122	50-147
71-43-2	Benzene	25	25.7	103	81-122
74-97-5	Bromochloromethane	25	24.8	99	76-123
75-27-4	Bromodichloromethane	25	25.4	102	79-123
75-25-2	Bromoform	25	26.9	108	66-123
78-93-3	2-Butanone (MEK)	125	126	101	56-143
75-15-0	Carbon Disulfide	25	27.6	110	66-148
56-23-5	Carbon Tetrachloride	25	25.6	102	76-136
108-90-7	Chlorobenzene	25	24.3	97	82-124
67-66-3	Chloroform	25	24.7	99	80-124
110-82-7	Cyclohexane	25	22.7	91	73-138
124-48-1	Dibromochloromethane	25	27.5	110	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.9	104	64-123
106-93-4	1,2-Dibromoethane	25	23.8	95	75-120
75-71-8	Dichlorodifluoromethane	25	31.7	127	42-167
95-50-1	1,2-Dichlorobenzene	25	23.6	94	82-124
541-73-1	1,3-Dichlorobenzene	25	23.7	95	84-125
106-46-7	1,4-Dichlorobenzene	25	24.8	99	78-120
75-34-3	1,1-Dichloroethane	25	23.7	95	81-122
107-06-2	1,2-Dichloroethane	25	24.4	98	75-125
75-35-4	1,1-Dichloroethylene	25	24.8	99	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.8	95	76-127
78-87-5	1,2-Dichloropropane	25	26.0	104	76-124
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	75-118
10061-02-6	trans-1,3-Dichloropropene	25	25.8	103	80-120
100-41-4	Ethylbenzene	25	24.1	96	81-121
76-13-1	Freon 113	25	26.4	106	72-134
591-78-6	2-Hexanone	125	137	110	61-129
98-82-8	Isopropylbenzene	25	21.8	87	83-132
79-20-9	Methyl Acetate	125	116	93	65-126
74-83-9	Methyl Bromide	25	24.7	99	59-143
74-87-3	Methyl Chloride	25	27.3	109	50-159
108-87-2	Methylcyclohexane	25	22.8	91	76-129
75-09-2	Methylene Chloride	25	26.1	104	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	135	108	66-122

\* = Outside of Control Limits.



# Blank Spike Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2O77413.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	25	24.9	100	72-117
100-42-5	Styrene	25	24.0	96	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	26.1	104	72-120
127-18-4	Tetrachloroethylene	25	24.6	98	76-135
108-88-3	Toluene	25	24.9	100	80-120
87-61-6	1,2,3-Trichlorobenzene	25	22.4	90	68-131
71-55-6	1,1,1-Trichloroethane	25	24.5	98	75-130
79-00-5	1,1,2-Trichloroethane	25	25.8	103	76-119
79-01-6	Trichloroethylene	25	24.0	96	81-126
75-69-4	Trichlorofluoromethane	25	31.0	124	71-156
75-01-4	Vinyl Chloride	25	29.0	116	69-159
	m,p-Xylene	50	48.9	98	79-126
95-47-6	o-Xylene	25	21.9	88	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-BS	I757704.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-00-3	Chloroethane	25	21.8	87	62-144
120-82-1	1,2,4-Trichlorobenzene	25	23.2	93	73-129
	m,p-Xylene	50	48.3	97	79-126
95-47-6	o-Xylene	25	22.4	90	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	FC7382-1		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	25 U		125	115	92	125	108	86	6	50-147/21
71-43-2	Benzene	4.9		25	33.8	116	25	32.5	110	4	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	27.3	109	25	23.0	92	17*	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	26.0	104	25	24.3	97	7	79-123/19
75-25-2	Bromoform	1.0 U		25	24.2	97	25	23.8	95	2	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		125	118	94	125	107	86	10	56-143/18
75-15-0	Carbon Disulfide	2.0 U		25	33.2	133	25	28.2	113	16	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		25	31.2	125	25	26.0	104	18	76-136/23
108-90-7	Chlorobenzene	1.0 U		25	25.5	102	25	23.9	96	6	82-124/14
67-66-3	Chloroform	1.0 U		25	28.1	112	25	23.7	95	17*	80-124/15
110-82-7	Cyclohexane	1.0 U		25	29.2	117	25	25.0	100	15	73-138/18
124-48-1	Dibromochloromethane	1.0 U		25	27.5	110	25	24.0	96	14	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U		25	24.4	98	25	24.2	97	1	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U		25	23.8	95	25	22.1	88	7	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U		25	37.9	152	25	36.5	146	4	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U		25	23.8	95	25	22.4	90	6	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		25	24.3	97	25	22.8	91	6	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		25	25.8	103	25	24.0	96	7	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		25	28.3	113	25	24.5	98	14	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		25	25.6	102	25	24.5	98	4	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		25	28.6	114	25	24.6	98	15	78-137/18
156-59-2	cis-1,2-Dichloroethylene	4.9		25	29.8	100	25	25.6	83	15	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	28.0	112	25	24.2	97	15	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		25	28.0	112	25	26.2	105	7	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	24.3	97	25	22.3	89	9	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	25.3	101	25	23.2	93	9	80-120/22
100-41-4	Ethylbenzene	1.5		25	27.5	104	25	26.8	101	3	81-121/14
76-13-1	Freon 113	1.0 U		25	34.8	139*	25	29.2	117	18	72-134/20
591-78-6	2-Hexanone	10 U		125	136	109	125	139	111	2	61-129/18
98-82-8	Isopropylbenzene	1.0 U		25	22.4	90	25	23.1	92	3	83-132/15
79-20-9	Methyl Acetate	20 U		125	108	86	125	94.1	75	14	65-126/18
74-83-9	Methyl Bromide	5.0 U		25	19.5	78	25	21.8	87	11	59-143/19
74-87-3	Methyl Chloride	2.0 U		25	31.5	126	25	30.6	122	3	50-159/19
108-87-2	Methylcyclohexane	1.0 U		25	27.6	110	25	27.0	108	2	76-129/17
75-09-2	Methylene Chloride	5.0 U		25	28.5	114	25	23.9	96	18*	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		125	130	104	125	126	101	3	66-122/16

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V203017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	FC7382-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	25.0	100	25	21.9	88	13	72-117/14
100-42-5	Styrene	1.0 U	25	24.0	96	25	24.0	96	0	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	26.0	104	25	24.3	97	7	72-120/14
127-18-4	Tetrachloroethylene	1.0 U	25	27.7	111	25	24.6	98	12	76-135/16
108-88-3	Toluene	2.2	25	27.2	100	25	26.7	98	2	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U	25	22.9	92	25	21.6	86	6	68-131/25
71-55-6	1,1,1-Trichloroethane	1.0 U	25	29.7	119	25	24.9	100	18*	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0 U	25	27.0	108	25	23.8	95	13	76-119/14
79-01-6	Trichloroethylene	3.2	25	29.9	107	25	29.0	103	3	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U	25	35.7	143	25	34.3	137	4	71-156/21
75-01-4	Vinyl Chloride	1.0 U	25	33.7	135	25	33.0	132	2	69-159/18
	m,p-Xylene	60.8	50	112	102	50	120	118	7	79-126/15
95-47-6	o-Xylene	94.7	25	114	77* a	25	125	121	9	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FC7382-1	Limits
1868-53-7	Dibromofluoromethane	107%	92%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	107%	103%	79-125%
2037-26-5	Toluene-D8	92%	96%	101%	85-112%
460-00-4	4-Bromofluorobenzene	95%	93%	97%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

**Matrix Spike/Matrix Spike Duplicate Summary**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7493-1MS	I757724.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1MSD	I757725.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1	I757710.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7382-1, FC7382-2, FC7382-3

CAS No.	Compound	FC7493-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-00-3	Chloroethane	2.0 U	125	180	144	125	159	127	12	62-144/20
120-82-1	1,2,4-Trichlorobenzene	2.0 U	125	116	93	125	108	86	7	73-129/20
	m,p-Xylene	1.2	I 250	269	107	250	242	96	11	79-126/15
95-47-6	o-Xylene	0.81	I 125	125	99	125	112	89	11	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FC7493-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	107%	102%	79-125%
2037-26-5	Toluene-D8	103%	102%	97%	85-112%
460-00-4	4-Bromofluorobenzene	98%	100%	99%	83-118%

\* = Outside of Control Limits.



**Instrument Performance Check (BFB)**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V202981-BFB	<b>Injection Date:</b> 06/07/23
<b>Lab File ID:</b> 2076618.D	<b>Injection Time:</b> 09:26
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15441	17.4	Pass
75	30.0 - 60.0% of mass 95	44797	50.5	Pass
95	Base peak, 100% relative abundance	88696	100.0	Pass
96	5.0 - 9.0% of mass 95	6368	7.18	Pass
173	Less than 2.0% of mass 174	520	0.59 (0.77) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	67133	75.7	Pass
175	5.0 - 9.0% of mass 174	5047	5.69 (7.52) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	64680	72.9 (96.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4269	4.81 (6.60) <sup>b</sup>	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
V202981-IC2981	2076622.D	06/07/23	11:22	01:56	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23	11:47	02:21	Initial cal 5
V202981-IC2981	2076624.D	06/07/23	12:13	02:47	Initial cal 6
V202981-IC2981	2076625.D	06/07/23	12:38	03:12	Initial cal 7
V202981-IC2981	2076627.D	06/07/23	13:55	04:29	Initial cal 1
V202981-IC2981	2076628.D	06/07/23	14:20	04:54	Initial cal 2
V202981-IC2981	2076629.D	06/07/23	14:46	05:20	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23	15:37	06:11	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23	16:02	06:36	Initial cal verification 4

**Instrument Performance Check (BFB)**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2077411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12065	17.5	Pass
75	30.0 - 60.0% of mass 95	34259	49.7	Pass
95	Base peak, 100% relative abundance	68939	100.0	Pass
96	5.0 - 9.0% of mass 95	4613	6.69	Pass
173	Less than 2.0% of mass 174	233	0.34 (0.44) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	52733	76.5	Pass
175	5.0 - 9.0% of mass 174	3978	5.77 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	51037	74.0 (96.8) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3462	5.02 (6.78) <sup>b</sup>	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
V2O3017-CC2981	2077412.D	07/05/23	08:36	00:26	Continuing cal 4
V2O3017-BS	2077413.D	07/05/23	09:01	00:51	Blank Spike
V2O3017-MB	2077415.D	07/05/23	09:52	01:42	Method Blank
ZZZZZZ	2077416.D	07/05/23	10:17	02:07	(unrelated sample)
FC7382-3	2077417.D	07/05/23	10:43	02:33	TB
FC7382-1	2077418.D	07/05/23	11:08	02:58	SEAD-25-MW25-31S-20230628
FC7382-2	2077419.D	07/05/23	11:34	03:24	DUP-01-20230628
ZZZZZZ	2077420.D	07/05/23	11:59	03:49	(unrelated sample)
ZZZZZZ	2077421.D	07/05/23	12:25	04:15	(unrelated sample)
ZZZZZZ	2077422.D	07/05/23	12:50	04:40	(unrelated sample)
ZZZZZZ	2077423.D	07/05/23	13:16	05:06	(unrelated sample)
ZZZZZZ	2077424.D	07/05/23	13:41	05:31	(unrelated sample)
ZZZZZZ	2077425.D	07/05/23	14:07	05:57	(unrelated sample)
ZZZZZZ	2077426.D	07/05/23	14:32	06:22	(unrelated sample)
ZZZZZZ	2077427.D	07/05/23	14:58	06:48	(unrelated sample)
ZZZZZZ	2077428.D	07/05/23	15:23	07:13	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23	15:49	07:39	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23	16:14	08:04	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23	16:40	08:30	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23	17:05	08:55	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23	17:30	09:20	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23	17:56	09:46	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23	18:21	10:11	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23	18:47	10:37	Matrix Spike

# Instrument Performance Check (BFB)

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2O77411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC7382-1MSD	2O77437.D	07/05/23	19:12	11:02	Matrix Spike Duplicate
V2O3017-ECC2981	2O77438.D	07/05/23	19:38	11:28	Ending cal 4

6.4.2

6

**Instrument Performance Check (BFB)**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	37549	17.4	Pass
75	30.0 - 60.0% of mass 95	102373	47.6	Pass
95	Base peak, 100% relative abundance	215275	100.0	Pass
96	5.0 - 9.0% of mass 95	14176	6.59	Pass
173	Less than 2.0% of mass 174	1477	0.69 (0.72) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	205205	95.3	Pass
175	5.0 - 9.0% of mass 174	15382	7.15 (7.50) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	207019	96.2 (100.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	13947	6.48 (6.74) <sup>b</sup>	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
VI2948-IC2948	I757261.D	06/15/23	10:43	00:35	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23	11:16	01:08	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23	11:40	01:32	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23	12:04	01:56	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23	12:28	02:20	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23	12:52	02:44	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23	13:15	03:07	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23	14:04	03:56	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23	14:04	03:56	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23	14:27	04:19	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23	14:27	04:19	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23	14:51	04:43	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23	15:39	05:31	Method Blank
ZZZZZZ	I757274.D	06/15/23	16:03	05:55	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23	16:27	06:19	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23	16:51	06:43	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23	17:15	07:07	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23	17:39	07:31	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23	18:03	07:55	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23	18:27	08:19	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23	18:51	08:43	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23	19:15	09:07	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23	19:39	09:31	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23	20:03	09:55	(unrelated sample)

# Instrument Performance Check (BFB)

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	I757285.D	06/15/23	20:27	10:19	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23	20:51	10:43	Ending cal 5



**Instrument Performance Check (BFB)**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	30253	18.0	Pass
75	30.0 - 60.0% of mass 95	80371	47.8	Pass
95	Base peak, 100% relative abundance	168107	100.0	Pass
96	5.0 - 9.0% of mass 95	11934	7.10	Pass
173	Less than 2.0% of mass 174	1301	0.77 (0.78) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	167299	99.5	Pass
175	5.0 - 9.0% of mass 174	12607	7.50 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	162133	96.4 (96.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	10891	6.48 (6.72) <sup>b</sup>	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
VI2963-CC2948	I757703.D	07/06/23	09:12	00:31	Continuing cal 5
VI2963-BS	I757704.D	07/06/23	09:43	01:02	Blank Spike
VI2963-MB	I757706.D	07/06/23	10:31	01:50	Method Blank
ZZZZZZ	I757707.D	07/06/23	10:55	02:14	(unrelated sample)
FC7382-3	I757708.D	07/06/23	11:19	02:38	TB
ZZZZZZ	I757709.D	07/06/23	11:42	03:01	(unrelated sample)
FC7493-1	I757710.D	07/06/23	12:06	03:25	(used for QC only; not part of job FC7382)
ZZZZZZ	I757711.D	07/06/23	12:30	03:49	(unrelated sample)
ZZZZZZ	I757712.D	07/06/23	12:54	04:13	(unrelated sample)
ZZZZZZ	I757713.D	07/06/23	13:18	04:37	(unrelated sample)
ZZZZZZ	I757716.D	07/06/23	15:41	07:00	(unrelated sample)
FC7382-1	I757717.D	07/06/23	16:05	07:24	SEAD-25-MW25-31S-20230628
FC7382-2	I757718.D	07/06/23	16:29	07:48	DUP-01-20230628
ZZZZZZ	I757720.D	07/06/23	16:53	08:12	(unrelated sample)
ZZZZZZ	I757721.D	07/06/23	17:36	08:55	(unrelated sample)
ZZZZZZ	I757722.D	07/06/23	18:00	09:19	(unrelated sample)
ZZZZZZ	I757723.D	07/06/23	18:24	09:43	(unrelated sample)
FC7493-1MS	I757724.D	07/06/23	18:48	10:07	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23	19:12	10:31	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23	19:35	10:54	Ending cal 5
VI2964-CC2948	I757728.D	07/06/23	20:23	11:42	Continuing cal 5
VI2964-BS	I757729.D	07/06/23	20:47	12:06	Blank Spike
FC7465-35MS	I757731.D	07/06/23	21:34	12:53	Matrix Spike
FC7465-35MSD	I757732.D	07/06/23	21:58	13:17	Matrix Spike Duplicate

# Instrument Performance Check (BFB)

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2964-MB	I757733.D	07/06/23	22:22	13:41	Method Blank
FC7465-35	I757734.D	07/06/23	22:46	14:05	(used for QC only; not part of job FC7382)
ZZZZZZ	I757735.D	07/06/23	23:10	14:29	(unrelated sample)
ZZZZZZ	I757736.D	07/06/23	23:34	14:53	(unrelated sample)
ZZZZZZ	I757737.D	07/06/23	23:57	15:16	(unrelated sample)
ZZZZZZ	I757738.D	07/07/23	00:21	15:40	(unrelated sample)
ZZZZZZ	I757739.D	07/07/23	00:45	16:04	(unrelated sample)
ZZZZZZ	I757740.D	07/07/23	01:09	16:28	(unrelated sample)
ZZZZZZ	I757741.D	07/07/23	01:33	16:52	(unrelated sample)
ZZZZZZ	I757742.D	07/07/23	01:56	17:15	(unrelated sample)
ZZZZZZ	I757743.D	07/07/23	02:20	17:39	(unrelated sample)
ZZZZZZ	I757744.D	07/07/23	02:44	18:03	(unrelated sample)
ZZZZZZ	I757745.D	07/07/23	03:08	18:27	(unrelated sample)
ZZZZZZ	I757746.D	07/07/23	03:32	18:51	(unrelated sample)
ZZZZZZ	I757747.D	07/07/23	03:56	19:15	(unrelated sample)
ZZZZZZ	I757748.D	07/07/23	04:19	19:38	(unrelated sample)
VI2964-ECC2948	I757749.D	07/07/23	04:43	20:02	Ending cal 5

# Internal Standard Area Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	V203017-CC2981	<b>Injection Date:</b>	07/05/23
<b>Lab File ID:</b>	2077412.D	<b>Injection Time:</b>	08:36
<b>Instrument ID:</b>	GCMS20	<b>Method:</b>	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal <sup>a</sup>	426373	4.01	320814	6.02	169764	7.78
Check Std <sup>b</sup>	359075	4.01	259734	6.02	128361	7.77
Upper Limit <sup>c</sup>	718150	4.18	519468	6.19	256722	7.94
Lower Limit <sup>d</sup>	179538	3.84	129867	5.85	64181	7.60

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V203017-BS	375787	4.01	268562	6.02	130962	7.77
V203017-MB <sup>e</sup>	305171	4.01	212296	6.02	106160	7.77
ZZZZZZ	307795	4.01	207791	6.02	102460	7.77
FC7382-3	295871	4.01	202621	6.02	100594	7.77
FC7382-1	287082	4.01	203554	6.02	107311	7.77
FC7382-2	293485	4.01	208261	6.02	109256	7.77
ZZZZZZ	298800	4.01	206484	6.02	101616	7.77
ZZZZZZ	288193	4.01	200565	6.02	101494	7.77
ZZZZZZ	289053	4.01	200590	6.02	100630	7.77
ZZZZZZ	276019	4.01	188682	6.02	95947	7.77
ZZZZZZ	306458	4.01	218049	6.02	98605	7.77
ZZZZZZ	290311	4.01	210115	6.02	99698	7.77
ZZZZZZ	283394	4.01	199620	6.02	96494	7.77
ZZZZZZ	286100	4.01	194122	6.02	97409	7.77
ZZZZZZ	277881	4.01	192893	6.02	100044	7.77
ZZZZZZ	280453	4.01	203470	6.02	99642	7.77
ZZZZZZ	275927	4.01	210916	6.02	96845	7.77
ZZZZZZ	271508	4.01	197292	6.02	94862	7.77
ZZZZZZ	280005	4.01	198038	6.02	99912	7.77
ZZZZZZ	275653	4.01	205001	6.02	94959	7.77
ZZZZZZ	273621	4.01	192311	6.02	94927	7.77
ZZZZZZ	273377	4.01	204421	6.02	92519	7.77

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: V202981-ICC2981 2076623.D 06/07/23 11:47
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

6.5.1  
6

# Internal Standard Area Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	VI2963-CC2948	<b>Injection Date:</b>	07/06/23
<b>Lab File ID:</b>	I757703.D	<b>Injection Time:</b>	09:12
<b>Instrument ID:</b>	GCMSI	<b>Method:</b>	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal <sup>a</sup>	1166537	7.85	854326	11.01	520019	13.37
Check Std <sup>b</sup>	1008433	7.85	708930	11.01	426284	13.37
Upper Limit <sup>c</sup>	2016866	8.02	1417860	11.18	852568	13.54
Lower Limit <sup>d</sup>	504217	7.68	354465	10.84	213142	13.20

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VI2963-BS	1010121	7.85	711222	11.01	434708	13.37
VI2963-MB <sup>e</sup>	999716	7.86	726062	11.01	408938	13.37
ZZZZZZ	984662	7.85	712109	11.01	402091	13.37
FC7382-3	994618	7.85	713341	11.01	402073	13.37
ZZZZZZ	988961	7.85	727616	11.01	409494	13.37
FC7493-1	990994	7.85	719769	11.01	406831	13.37
ZZZZZZ	996407	7.85	720604	11.01	410778	13.37
ZZZZZZ	974708	7.85	699585	11.01	395276	13.37
ZZZZZZ	961151	7.86	700073	11.01	395687	13.37
ZZZZZZ	788833	7.85	570982	11.01	314511	13.37
FC7382-1	804929	7.86	586014	11.01	328099	13.37
FC7382-2	830537	7.85	609896	11.01	351405	13.37
ZZZZZZ	804783	7.85	578173	11.01	320890	13.37
ZZZZZZ	852030	7.85	607371	11.01	349193	13.37
ZZZZZZ	862581	7.85	620681	11.01	349831	13.37
ZZZZZZ	861541	7.85	625358	11.01	348540	13.37

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: VI2948-ICC2948 I757265.D 06/15/23 12:28
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

# Surrogate Recovery Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Method:</b> SW846 8260D	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC7382-1	I757717.D	96	102	97	98
FC7382-1	2O77418.D	109	103	101	97
FC7382-2	I757718.D	98	106	97	97
FC7382-2	2O77419.D	108	104	103	99
FC7382-3	I757708.D	96	102	98	99
FC7382-3	2O77417.D	107	104	103	97
FC7382-1MS	2O77436.D	107	103	92	95
FC7382-1MSD	2O77437.D	92	107	96	93
FC7493-1MS	I757724.D	101	107	103	98
FC7493-1MSD	I757725.D	101	107	102	100
V2O3017-BS	2O77413.D	100	104	100	97
V2O3017-MB	2O77415.D	106	102	103	110
VI2963-BS	I757704.D	101	105	102	100
VI2963-MB	I757706.D	97	100	97	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

6.6.1  
6



# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

## Response Factor Report MSVOA12

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

### Calibration Files

1 =2076627.D 2 =2076628.D 3 =2076629.D 4 =2076622.D  
 5 =2076623.D 6 =2076624.D 7 =2076625.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.199	0.193	0.169	0.190	0.193	0.170	0.179	0.185	6.50
3) P Chloromethane	0.242	0.184	0.170	0.181	0.183	0.175	0.182	0.188	12.81
4) 1,3-butadiene	0.184	0.219	0.262	0.220	0.202	0.170	0.176	0.205	15.75
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9941								
	Response Ratio = 0.00000 + 0.22857 *A + -0.03029 *A^2								
5) C Vinyl Chloride	0.224	0.193	0.177	0.194	0.202	0.183	0.186	0.194	7.89
6) Bromomethane	0.216	0.145	0.152	0.146	0.158	0.150	0.160	0.161	15.43
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.14854 *A + 0.00475 *A^2								
7) Chloroethane	0.181	0.147	0.137	0.137	0.109	0.049		0.127	35.18
	---- Quadratic regression ---- Coefficient = 0.9957								
	Response Ratio = -0.00294 + 0.19150 *A + -0.10024 *A^2								
8) Trichlorofluorome	0.387	0.389	0.344	0.382	0.397	0.348	0.315	0.366	8.33
9) Ethyl Ether	0.199	0.149	0.169	0.168	0.182	0.170	0.171	0.173	8.72
10) Ethanol		0.004	0.004	0.004	0.003	0.004	0.004	0.004	8.47
11) 1,2-Dichlorotrifl	0.260	0.218	0.254	0.243	0.269	0.227	0.242	0.245	7.39
12) C 1,1-Dichloroethen	0.341	0.268	0.305	0.307	0.341	0.282	0.308	0.307	8.84
13) Freon 113	0.218	0.196	0.217	0.222	0.246	0.195	0.217	0.216	7.93
14) Carbon Disulfide	0.839	0.488	0.554	0.559	0.629	0.531	0.584	0.598	19.24
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9950								
	Response Ratio = 0.00000 + 0.57110 *A + 0.00043 *A^2								
15) Iodomethane	0.186	0.130	0.141	0.186	0.225	0.214	0.224	0.186	20.67
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9944								
	Response Ratio = 0.00000 + 0.17722 *A + 0.02549 *A^2								
16) Acrolein	0.038	0.067	0.052	0.055	0.056	0.058	0.058	0.055	16.38
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983								
	Response Ratio = 0.00000 + 0.05486 *A + 0.00033 *A^2								
17) Allyl chloride	0.170	0.221	0.277	0.231	0.227	0.215	0.226	0.224	13.96
18) Methylene Chlorid	0.495	0.287	0.279	0.271	0.289	0.264	0.267	0.307	27.05
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.28145 *A + -0.00783 *A^2								
19) Acetone	0.149	0.117	0.096	0.111	0.110	0.113	0.113	0.115	13.91
20) Methyl acetate	0.338	0.244	0.254	0.264	0.273	0.267	0.266	0.272	11.24
21) trans-1,2-Dichlor	0.368	0.280	0.297	0.304	0.332	0.287	0.306	0.310	9.75
22) Hexane	0.177	0.152	0.155	0.157	0.170	0.142	0.152	0.158	7.45
23) Methyl Tert Butyl	0.681	0.546	0.581	0.602	0.672	0.639	0.650	0.624	7.96
24) Tert Butyl Alcoho	0.037	0.031	0.034	0.039	0.040	0.044	0.046	0.039	13.65
25) Acetonitrile	0.050	0.049	0.055	0.042	0.039	0.041	0.040	0.045	13.89

6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

26)	Di-isopropyl ethe	0.677	0.525	0.593	0.601	0.659	0.617	0.628	0.614	8.07
27)	Chloroprene	0.185	0.280	0.363	0.312	0.300	0.272	0.290	0.286	18.76
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9961								
	Response Ratio = 0.00000 + 0.31146 *A + -0.01485 *A^2									
28)P	1,1-Dichloroethan	0.456	0.359	0.396	0.393	0.432	0.384	0.403	0.403	7.90
29)	Acrylonitrile	0.137	0.109	0.099	0.116	0.105	0.106	0.109	0.111	10.94
30)	ETBE	0.605	0.487	0.543	0.576	0.649	0.606	0.624	0.584	9.36
31)	Vinyl acetate	0.390	0.406	0.394	0.491	0.461	0.452	0.470	0.438	9.25
32)	cis-1,2-Dichloroe	0.330	0.234	0.257	0.250	0.275	0.248	0.256	0.264	11.97
33)	2,2-Dichloropropa	0.290	0.221	0.256	0.263	0.302	0.266	0.289	0.270	10.04
34)	Bromochloromethan	0.148	0.121	0.130	0.131	0.134	0.117	0.119	0.129	8.45
35)	Cyclohexane	0.289	0.276	0.319	0.318	0.346	0.292	0.315	0.308	7.68
36)C	Chloroform	0.518	0.407	0.442	0.452	0.487	0.435	0.448	0.456	7.99
37)	Ethyl acetate	0.321	0.318	0.293	0.363	0.328	0.331	0.340	0.328	6.60
38)	Tetrahydrofuran	0.134	0.110	0.113	0.113	0.116	0.123	0.114	0.117	7.06
39)S	Dibromofluorometh	0.271	0.272	0.268	0.273	0.273	0.275	0.273	0.272	0.82
40)	Carbon Tetrachlor	0.302	0.231	0.279	0.296	0.342	0.291	0.314	0.294	11.62
41)	1,1,1-Trichloroet	0.371	0.308	0.342	0.366	0.405	0.351	0.374	0.360	8.45
42)	2-Butanone	0.213	0.178	0.141	0.178	0.176	0.183	0.181	0.178	11.74
43)	1,1-Dichloroprope	0.315	0.265	0.301	0.301	0.335	0.287	0.304	0.301	7.25
44)	tert-Butyl format	0.054	0.061	0.065	0.072	0.089	0.089	0.089	0.074	20.04
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.07340 *A + 0.00178 *A^2									
45)	Propionitrile	0.044	0.057	0.065	0.056	0.052	0.056	0.056	0.055	11.67
46)	Methacrylonitrile	0.148	0.194	0.235	0.198	0.187	0.193	0.190	0.192	13.12
47)	Benzene	1.049	0.798	0.880	0.890	0.983	0.871	0.897	0.910	9.00
48)	TAME	0.546	0.456	0.509	0.540	0.625	0.594	0.608	0.554	10.76
49)	Isobutyl alcohol	0.008	0.014	0.017	0.017	0.016	0.018	0.018	0.016	22.24
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
	Response Ratio = 0.00000 + 0.01574 *A + 0.00006 *A^2									
50)S	1,2-Dichloroethan	0.307	0.327	0.296	0.319	0.331	0.336	0.344	0.323	5.21
51)	1,2-Dichloroethan	0.479	0.333	0.354	0.361	0.387	0.353	0.353	0.374	13.09
52)	Tert Amyl Alcohol	0.026	0.021	0.024	0.028	0.031	0.034	0.035	0.028	18.39
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9995								
	Response Ratio = 0.00000 + 0.02749 *A + 0.00040 *A^2									
53)	Trichloroethene	0.314	0.233	0.258	0.259	0.281	0.245	0.256	0.264	10.11
54)	Methylcyclohexane	0.334	0.282	0.318	0.332	0.368	0.306	0.328	0.324	8.20
55)	Dibromomethane	0.233	0.156	0.169	0.173	0.184	0.171	0.172	0.180	13.82
56)C	1,2-Dichloropropa	0.245	0.185	0.216	0.211	0.233	0.215	0.219	0.218	8.66
57)	Bromodichlorometh	0.327	0.246	0.280	0.304	0.340	0.315	0.322	0.305	10.54
58)	Methyl methacryla	0.137	0.197	0.273	0.229	0.228	0.242	0.246	0.222	19.64
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9978								
	Response Ratio = 0.00000 + 0.22704 *A + 0.00940 *A^2									
59)	1,4-Dioxane	0.006	0.004	0.004	0.004	0.004	0.005	0.005	0.005	16.01
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9989								
	Response Ratio = 0.00000 + 0.00413 *A + 0.00002 *A^2									
60)	2-Chloroethyl vin	0.153	0.174	0.175	0.178	0.197	0.190	0.178	0.178	7.82
61)	cis-1,3-Dichlorop	0.311	0.267	0.303	0.328	0.380	0.355	0.364	0.329	11.94
62) I	Chlorobenzene-d5	-----ISTD-----								
63)S	Toluene-d8	1.354	1.343	1.371	1.315	1.306	1.318	1.323	1.333	1.77
64)C	Toluene	1.589	1.201	1.315	1.295	1.397	1.255	1.299	1.336	9.48
65)	2-Nitropropane	0.073	0.058	0.068	0.096	0.109	0.114	0.117	0.091	26.68
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9955								

# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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Response Ratio = 0.00000 + 0.08537 \*A + 0.00351 \*A^2

66)	4-Methyl-2-pentan	0.434	0.405	0.345	0.428	0.427	0.433	0.433	0.415	7.83
67)	trans-1,3-Dichlor	0.471	0.357	0.407	0.448	0.503	0.479	0.490	0.451	11.50
68)	Tetrachloroethene	0.383	0.310	0.351	0.344	0.372	0.324	0.346	0.347	7.29
69)	Ethyl methacrylat	0.166	0.341	0.440	0.390	0.381	0.404	0.414	0.363	25.30
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983										
Response Ratio = 0.00000 + 0.37690 *A + 0.01862 *A^2										
70)	1,1,2-Trichloroet	0.309	0.253	0.283	0.279	0.293	0.273	0.273	0.281	6.28
71)	Dibromochlorometh	0.282	0.250	0.290	0.321	0.363	0.349	0.356	0.316	13.59
72)	1,3-Dichloropropa	0.645	0.486	0.514	0.518	0.556	0.517	0.513	0.536	9.77
73)	1,2-Dibromoethane	0.463	0.304	0.347	0.348	0.379	0.358	0.362	0.366	13.25
74)	3,3-dimethyl-1-bu	0.039	0.049	0.051	0.057	0.060	0.067	0.066	0.055	17.95
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987										
Response Ratio = 0.00000 + 0.05396 *A + 0.00013 *A^2										
75)	2-hexanone	0.405	0.410	0.369	0.431	0.429	0.445	0.443	0.419	6.34
76)	1-Chlorohexane	0.504	0.356	0.403	0.395	0.433	0.375	0.397	0.409	11.78
77)C	Ethylbenzene	1.690	1.287	1.457	1.435	1.536	1.386	1.427	1.460	8.66
78)P	Chlorobenzene	1.125	0.831	0.910	0.897	0.961	0.874	0.901	0.929	10.24
79)	1,1,1,2-Tetrachlo	0.272	0.243	0.291	0.305	0.333	0.312	0.325	0.297	10.60
80)	m,p-Xylene	1.289	1.004	1.147	1.142	1.233	1.109	1.147	1.153	7.85
81)	o-Xylene	1.278	0.979	1.132	1.153	1.245	1.137	1.186	1.159	8.34
82)	Styrene	0.836	0.730	0.859	0.889	0.988	0.928	0.954	0.883	9.74
83)P	Bromoform	0.174	0.131	0.162	0.190	0.217	0.221	0.230	0.189	18.98
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9974										
Response Ratio = 0.00000 + 0.17818 *A + 0.02789 *A^2										
84)	Isopropylbenzene	1.370	1.142	1.311	1.340	1.465	1.316	1.393	1.334	7.48
85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86)S	4-Bromofluorobenz	0.734	0.732	0.744	0.722	0.723	0.725	0.734	0.731	1.05
87)	cis-1,4-Dichloro-	0.162	0.231	0.180	0.182	0.200	0.217	0.195		13.22
88)	n-Propylbenzene	3.526	2.613	3.159	3.009	3.236	2.904	3.049	3.071	9.24
89)	Bromobenzene	0.840	0.595	0.700	0.654	0.712	0.660	0.662	0.689	11.11
90)P	1,1,2,2-Tetrachlo	1.164	0.841	1.013	0.970	1.024	0.976	0.985	0.996	9.57
91)	1,3,5-Trimethylbe	2.352	1.834	2.275	2.154	2.359	2.159	2.231	2.195	8.16
92)	2-Chlorotoluene	2.369	1.941	2.231	2.122	2.243	2.048	2.102	2.151	6.58
93)	trans-1,4-Dichlor	0.135	0.183	0.172	0.191	0.194	0.204	0.180		13.56
94)	1,2,3-Trichloropr	0.387	0.280	0.320	0.302	0.328	0.311	0.307	0.319	10.44
95)	Cyclohexanone	0.028	0.028	0.037	0.033	0.037	0.040	0.034		14.46
96)	4-Chlorotoluene	2.448	1.737	2.111	1.957	2.125	1.940	2.005	2.046	10.71
97)	tert-Butylbenzene	1.314	1.027	1.204	1.162	1.273	1.149	1.214	1.192	7.81
98)	a-Methyl styrene							0.000		-1.00
99)	1,2,4-Trimethylbe	2.319	1.797	2.292	2.156	2.374	2.191	2.258	2.198	8.72
100)	Pentachloroethane	0.123	0.256	0.367	0.314	0.316	0.327	0.347	0.293	28.20
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976										
Response Ratio = 0.00000 + 0.30147 *A + 0.02163 *A^2										
101)	sec-Butylbenzene	2.742	2.152	2.584	2.498	2.686	2.408	2.546	2.516	7.79
102)	4-Isopropyltoluen	2.178	1.762	2.198	2.130	2.339	2.173	2.262	2.149	8.56
103)	1,3-Dichlorobenze	1.666	1.184	1.393	1.304	1.396	1.308	1.329	1.369	10.91
104)	1,2,3-Trimethylbe	2.609	1.981	2.416	2.229	2.457	2.311	2.347	2.336	8.46
105)	1,4-Dichlorobenze	1.896	1.251	1.424	1.317	1.419	1.307	1.348	1.423	15.28
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986										
Response Ratio = 0.00000 + 1.37713 *A + -0.02106 *A^2										
106)	n-Butylbenzene	1.229	0.878	1.103	1.082	1.167	1.098	1.151	1.101	10.06
107)	Benzyl Chloride	0.175	0.137	0.182	0.221	0.269	0.284	0.306	0.225	28.33

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6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969
		Response Ratio = 0.00000 + 0.19871 *A + 0.05689 *A^2	
108)	1,2-Dichlorobenze	1.554 1.186 1.342 1.238 1.329 1.252 1.270 1.310	9.17
109)	1,2-Dibromo-3-Chl	0.158 0.154 0.175 0.199 0.213 0.225 0.231 0.194	16.31
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9989
		Response Ratio = 0.00000 + 0.18574 *A + 0.02424 *A^2	
110)	Hexachlorobutadie	0.520 0.232 0.259 0.239 0.250 0.227 0.243 0.281	37.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9966
		Response Ratio = 0.00000 + 0.24940 *A + -0.00637 *A^2	
111)	1,2,4-Trichlorobe	1.101 0.645 0.751 0.730 0.772 0.744 0.750 0.785	18.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9987
		Response Ratio = 0.00000 + 0.74777 *A + 0.00083 *A^2	
112)	Naphthalene	2.978 2.093 2.574 2.649 2.954 2.902 2.930 2.726	11.77
113)	1,2,3-Trichlorobe	0.959 0.646 0.727 0.695 0.748 0.712 0.718 0.744	13.50

-----  
(#) = Out of Range

V20\_06-07-2023.M

Thu Jun 08 09:33:23 2023

## Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076631.D Vial: 14  
 Acq On : 7 Jun 2023 3:37 pm Operator: joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	97	0.00	4.01
2	Dichlorodifluoromethane			NA			
3 P	Chloromethane			NA			
	----- Amount		Calc.	%Drift			
4	1,3-butadiene			NA			
	----- AvgRF		CCRF	%Dev			
5 C	Vinyl Chloride			NA			
	----- Amount		Calc.	%Drift			
6	Bromomethane			NA			
7	Chloroethane			NA			
	----- AvgRF		CCRF	%Dev			
8	Trichlorofluoromethane			NA			
9	Ethyl Ether			NA			
10	Ethanol	0.004	0.004	0.0	104	0.00	2.16
11	1,2-Dichlorotrifluoroetha			NA			
12 C	1,1-Dichloroethene			NA			
13	Freon 113			NA			
	----- Amount		Calc.	%Drift			
14	Carbon Disulfide			NA			
15	Iodomethane			NA			
16	Acrolein			NA			
	----- AvgRF		CCRF	%Dev			
17	Allyl chloride	0.224	0.266	-18.8	114	0.00	2.47
	----- Amount		Calc.	%Drift			
18	Methylene Chloride			NA			
	----- AvgRF		CCRF	%Dev			
19	Acetone			NA			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert Butyl Alcohol			NA			
25	Acetonitrile			NA			
26	Di-isopropyl ether			NA			

# Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

		Amount	Calc.	%Drift			
27	Chloroprene			NA			
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane			NA			
29	Acrylonitrile			NA			
30	ETBE			NA			
31	Vinyl acetate			NA			
32	cis-1,2-Dichloroethene			NA			
33	2,2-Dichloropropane			NA			
34	Bromochloromethane			NA			
35	Cyclohexane			NA			
36 C	Chloroform			NA			
37	Ethyl acetate			NA			
38	Tetrahydrofuran			NA			
39 S	Dibromofluoromethane	0.272	0.273	-0.4	97	0.00	3.54
40	Carbon Tetrachloride			NA			
41	1,1,1-Trichloroethane			NA			
42	2-Butanone			NA			
43	1,1-Dichloropropene			NA			
		Amount	Calc.	%Drift			
44	tert-Butyl formate			NA			
		AvgRF	CCRF	%Dev			
45	Propionitrile			NA			
46	Methacrylonitrile			NA			
47	Benzene			NA			
48	TAME			NA			
		Amount	Calc.	%Drift			
49	Isobutyl alcohol			NA			
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.329	-1.9	97	0.00	3.85
51	1,2-Dichloroethane			NA			
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol			NA			
		AvgRF	CCRF	%Dev			
53	Trichloroethene			NA			
54	Methylcyclohexane			NA			
55	Dibromomethane			NA			
56 C	1,2-Dichloropropane			NA			
57	Bromodichloromethane			NA			
		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether			NA			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00	6.02
63 S	Toluene-d8	1.333	1.340	-0.5	98	0.00	4.98
64 C	Toluene			NA			

6.7.2  
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# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

		Amount	Calc.	%Drift			
65	2-Nitropropane			NA			
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone			NA			
67	trans-1,3-Dichloropropene			NA			
68	Tetrachloroethene			NA			
		Amount	Calc.	%Drift			
69	Ethyl methacrylate			NA			
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane			NA			
71	Dibromochloromethane			NA			
72	1,3-Dichloropropane			NA			
73	1,2-Dibromoethane			NA			
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol			NA			
		AvgRF	CCRF	%Dev			
75	2-hexanone			NA			
76	1-Chlorohexane			NA			
77 C	Ethylbenzene			NA			
78 P	Chlorobenzene			NA			
79	1,1,1,2-Tetrachloroethane			NA			
80	m,p-Xylene			NA			
81	o-Xylene			NA			
82	Styrene			NA			
		Amount	Calc.	%Drift			
83 P	Bromoform			NA			
		AvgRF	CCRF	%Dev			
84	Isopropylbenzene			NA			
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	7.78
86 S	4-Bromofluorobenzene	0.731	0.729	0.3	94	0.00	6.92
87	cis-1,4-Dichloro-2-butene			NA			
88	n-Propylbenzene			NA			
89	Bromobenzene			NA			
90 P	1,1,2,2-Tetrachloroethane			NA			
91	1,3,5-Trimethylbenzene			NA			
92	2-Chlorotoluene			NA			
93	trans-1,4-Dichloro-2-Bute			NA			
94	1,2,3-Trichloropropane			NA			
95	Cyclohexanone			NA			
96	4-Chlorotoluene			NA			
97	tert-Butylbenzene			NA			
98	a-Methyl styrene			NA			
99	1,2,4-Trimethylbenzene			NA			
		Amount	Calc.	%Drift			
100	Pentachloroethane			NA			
		AvgRF	CCRF	%Dev			
101	sec-Butylbenzene			NA			
102	4-Isopropyltoluene			NA			
103	1,3-Dichlorobenzene			NA			
104	1,2,3-Trimethylbenzene			NA			

# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift
105	1,4-Dichlorobenzene		NA
	AvgRF	CCRF	%Dev
106	n-Butylbenzene		NA
	Amount	Calc.	%Drift
107	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
108	1,2-Dichlorobenzene		NA
	Amount	Calc.	%Drift
109	1,2-Dibromo-3-Chloropropa		NA
110	Hexachlorobutadiene		NA
111	1,2,4-Trichlorobenzene		NA
	AvgRF	CCRF	%Dev
112	Naphthalene		NA
113	1,2,3-Trichlorobenzene		NA

(#) = Out of Range                      SPCC's out = 4    CCC's out = 6  
 2076623.D V20\_06-07-2023.M            Thu Jun 08 09:32:40 2023

6.7.2  
6

## Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076632.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076632.D Vial: 15  
 Acq On : 7 Jun 2023 4:02 pm Operator: joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.239	-29.2#	133	0.00	1.22
3 P	Chloromethane	0.188	0.199	-5.9	116	0.00	1.37
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	21.916	12.3	91	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.207	-6.7	112	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	27.914	-11.7	122	0.00	1.67
7	Chloroethane	25.000	24.999	0.0	104	0.00	1.75
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.376	-2.7	104	0.00	1.85
9	Ethyl Ether	0.173	0.177	-2.3	111	0.00	2.06
10	Ethanol			-----NA-----			
11	1,2-Dichlorotrifluoroetha	0.245	0.252	-2.9	109	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.291	5.2	100	0.00	2.18
13	Freon 113	0.216	0.219	-1.4	104	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	23.805	4.8	103	0.00	2.20
15	Iodomethane	25.000	26.121	-4.5	113	0.00	2.27
16	Acrolein	125.000	134.322	-7.5	116	0.00	2.39
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride			-----NA-----			
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	24.748	1.0	107	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.099	13.9	94	0.00	2.56
20	Methyl acetate	0.272	0.239	12.1	95	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.297	4.2	103	0.00	2.63
22	Hexane	0.158	0.152	3.8	102	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.624	0.0	109	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.040	-2.6	110	0.00	2.74
25	Acetonitrile	0.045	0.050	-11.1	127	0.00	2.83
26	Di-isopropyl ether	0.614	0.605	1.5	106	0.00	2.91

# Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V2O2981-ICV2981  
 Lab FileID: 2076632.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	23.540	5.8	97	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.384	4.7	103	0.00	2.98
29	Acrylonitrile	0.111	0.103	7.2	94	0.00	3.01
30	ETBE	0.584	0.598	-2.4	110	0.00	3.12
31	Vinyl acetate	0.438	0.463	-5.7	100	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.243	8.0	103	0.00	3.29
33	2,2-Dichloropropane	0.270	0.283	-4.8	113	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	103	0.00	3.40
35	Cyclohexane	0.308	0.297	3.6	99	0.00	3.41
36 C	Chloroform	0.456	0.448	1.8	105	0.00	3.44
37	Ethyl acetate	0.328	0.315	4.0	91	0.00	3.50
38	Tetrahydrofuran	0.117	0.117	0.0	109	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.270	0.7	105	0.00	3.54
40	Carbon Tetrachloride	0.294	0.285	3.1	101	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.350	2.8	101	0.00	3.57
42	2-Butanone	0.178	0.160	10.1	95	0.00	3.61
43	1,1-Dichloropropene	0.301	0.298	1.0	104	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	156.333	-25.1#	144	0.00	3.70
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.063	-14.5	118	0.00	3.78
46	Methacrylonitrile	0.192	0.216	-12.5	115	0.00	3.79
47	Benzene	0.910	0.907	0.3	108	0.00	3.78
48	TAME	0.554	0.561	-1.3	110	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	579.850	-16.0	122	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.321	0.6	106	0.00	3.85
51	1,2-Dichloroethane	0.374	0.355	5.1	104	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	254.654	-1.9	112	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.254	3.8	103	0.00	4.12
54	Methylcyclohexane	0.324	0.305	5.9	97	0.00	4.12
55	Dibromomethane	0.180	0.175	2.8	107	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.226	-3.7	113	0.00	4.43
57	Bromodichloromethane	0.305	0.290	4.9	101	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	26.725	-6.9	114	0.00	4.54
59	1,4-Dioxane	500.000	523.964	-4.8	114	0.00	4.59
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.173	2.8	102	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.330	-0.3	106	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00	6.02
63 S	Toluene-d8	1.333	1.346	-1.0	106	0.00	4.98
64 C	Toluene	1.336	1.330	0.4	106	0.00	5.01

6.7.3  
6

# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	117.093	6.3	94	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.385	7.2	93	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.430	4.7	99	0.00 5.27
68	Tetrachloroethene	0.347	0.351	-1.2	106	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	29.496	-18.0	121	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.273	2.8	101	0.00 5.38
71	Dibromochloromethane	0.316	0.336	-6.3	108	0.00 5.51
72	1,3-Dichloropropane	0.536	0.559	-4.3	111	0.00 5.57
73	1,2-Dibromoethane	0.366	0.363	0.8	108	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1246.189	0.3	104	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.406	3.1	97	0.00 5.81
76	1-Chlorohexane	0.409	0.388	5.1	101	0.00 6.01
77 C	Ethylbenzene	1.460	1.458	0.1	105	0.00 6.05
78 P	Chlorobenzene	0.929	0.912	1.8	105	0.00 6.04
79	1,1,1,2-Tetrachloroethane	0.297	0.307	-3.4	104	0.00 6.08
80	m,p-Xylene	1.153	1.175	-1.9	106	0.00 6.15
81	o-Xylene	1.159	1.154	0.4	104	0.00 6.47
82	Styrene	0.883	0.921	-4.3	107	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	24.139	3.4	101	0.00 6.53
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.350	-1.2	104	0.00 6.71
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00 7.78
86 S	4-Bromofluorobenzene	0.731	0.734	-0.4	104	0.00 6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.238	-22.1#	135	0.00 6.96
88	n-Propylbenzene	3.071	3.058	0.4	104	0.00 7.02
89	Bromobenzene	0.689	0.705	-2.3	110	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	0.995	0.1	105	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.284	-4.1	108	0.00 7.18
92	2-Chlorotoluene	2.151	2.176	-1.2	105	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.171	5.0	102	0.00 7.21
94	1,2,3-Trichloropropane	0.319	0.329	-3.1	111	0.00 7.18
95	Cyclohexanone	0.034	0.043	-26.5#	118	0.00 7.21
96	4-Chlorotoluene	2.046	2.027	0.9	106	0.00 7.27
97	tert-Butylbenzene	1.192	1.194	-0.2	105	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.261	-2.9	107	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	28.469	-13.9	117	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.390	5.0	98	0.00 7.56
102	4-Isopropyltoluene	2.149	2.158	-0.4	104	0.00 7.67
103	1,3-Dichlorobenzene	1.369	1.300	5.0	102	0.00 7.73
104	1,2,3-Trimethylbenzene	2.336	2.275	2.6	104	0.00 7.81

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# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V2O2981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	25.028	-0.1	106	0.00	7.79
	AvgRF	CCRF	%Dev				
106	n-Butylbenzene	1.101	1.149	-4.4	109	0.00	7.99
	Amount	Calc.	%Drift				
107	Benzyl Chloride	25.000	24.864	0.5	104	0.00	7.98
	AvgRF	CCRF	%Dev				
108	1,2-Dichlorobenzene	1.310	1.251	4.5	103	0.00	8.10
	Amount	Calc.	%Drift				
109	1,2-Dibromo-3-Chloropropa	25.000	25.422	-1.7	104	0.00	8.68
110	Hexachlorobutadiene	25.000	23.736	5.1	100	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	24.530	1.9	103	0.00	9.15
	AvgRF	CCRF	%Dev				
112	Naphthalene	2.726	2.735	-0.3	106	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.708	4.8	104	0.00	9.50

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2076622.D V2O\_06-07-2023.M            Thu Jun 08 09:33:10 2023

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## Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-07-05\2077412.D Vial: 2  
 Acq On : 5 Jul 2023 8:36 am Operator: jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	87	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.205	-10.8	94	0.00	1.23
3 P	Chloromethane	0.188	0.191	-1.6	92	0.00	1.38
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	22.143	11.4	76	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.211	-8.8	95	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	21.721	13.1	78	0.00	1.67
7	Chloroethane	25.000	41.988	-68.0#	111	0.00	1.75
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.444	-21.3#	102	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	78	0.00	2.06
10	Ethanol	0.004	0.004	0.0	84	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.248	-1.2	89	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.297	3.3	84	0.00	2.18
13	Freon 113	0.216	0.217	-0.5	85	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	25.599	-2.4	91	0.00	2.20
15	Iodomethane	25.000	21.449	14.2	76	0.00	2.27
16	Acrolein	125.000	98.324	21.3#	70	0.00	2.38
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride	0.224	0.224	0.0	84	0.00	2.47
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	24.219	3.1	86	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.134	-16.5	106	0.00	2.56
20	Methyl acetate	0.272	0.263	3.3	87	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.285	8.1	82	0.00	2.63
22	Hexane	0.158	0.149	5.7	83	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.552	11.5	80	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.036	7.7	81	0.00	2.73
25	Acetonitrile	0.045	0.045	0.0	95	0.00	2.82
26	Di-isopropyl ether	0.614	0.531	13.5	77	0.00	2.90

# Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	20.213	19.1	69	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.385	4.5	85	0.00	2.98
29	Acrylonitrile	0.111	0.099	10.8	74	0.00	3.00
30	ETBE	0.584	0.544	6.8	82	0.00	3.11
31	Vinyl acetate	0.438	0.412	5.9	73	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.228	13.6	80	0.00	3.29
33	2,2-Dichloropropane	0.270	0.273	-1.1	91	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	85	0.00	3.40
35	Cyclohexane	0.308	0.275	10.7	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	83	0.00	3.43
37	Ethyl acetate	0.328	0.299	8.8	72	0.00	3.49
38	Tetrahydrofuran	0.117	0.106	9.4	81	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.281	-3.3	90	0.00	3.54
40	Carbon Tetrachloride	0.294	0.305	-3.7	90	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.346	3.9	83	0.00	3.56
42	2-Butanone	0.178	0.166	6.7	81	0.00	3.60
43	1,1-Dichloropropene	0.301	0.285	5.3	83	0.00	3.63
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	147.105	-17.7	112	0.00	3.69
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.057	-3.6	89	0.00	3.78
46	Methacrylonitrile	0.192	0.200	-4.2	88	0.00	3.79
47	Benzene	0.910	0.884	2.9	87	0.00	3.78
48	TAME	0.554	0.538	2.9	87	0.00	3.83
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	510.021	-2.0	88	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.336	-4.0	92	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	83	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	242.602	3.0	88	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.248	6.1	84	0.00	4.11
54	Methylcyclohexane	0.324	0.293	9.6	77	0.00	4.12
55	Dibromomethane	0.180	0.161	10.6	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.207	5.0	86	0.00	4.42
57	Bromodichloromethane	0.305	0.309	-1.3	89	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	21.475	14.1	76	0.00	4.54
59	1,4-Dioxane	500.000	410.808	17.8	73	0.00	4.58
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.161	9.6	79	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.326	0.9	87	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.00	6.02
63 S	Toluene-d8	1.333	1.314	1.4	85	0.00	4.97
64 C	Toluene	1.336	1.248	6.6	82	0.00	5.00

# Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	135.487	-8.4	92	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.407	1.9	81	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.466	-3.3	89	0.00 5.26
68	Tetrachloroethene	0.347	0.318	8.4	79	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	21.707	13.2	73	0.00 5.36
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.279	0.7	85	0.00 5.37
71	Dibromochloromethane	0.316	0.319	-0.9	85	0.00 5.49
72	1,3-Dichloropropane	0.536	0.486	9.3	80	0.00 5.56
73	1,2-Dibromoethane	0.366	0.324	11.5	80	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1196.776	4.3	82	0.00 5.77
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.418	0.2	83	0.00 5.80
76	1-Chlorohexane	0.409	0.345	15.6	75	0.00 6.01
77 C	Ethylbenzene	1.460	1.342	8.1	80	0.00 6.04
78 P	Chlorobenzene	0.929	0.864	7.0	82	0.00 6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.309	-4.0	87	0.00 6.07
80	m,p-Xylene	1.153	1.049	9.0	79	0.00 6.15
81	o-Xylene	1.159	0.960	17.2	71	0.00 6.46
82	Styrene	0.883	0.782	11.4	75	0.00 6.50
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	25.379	-1.5	88	0.00 6.52
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.107	17.0	71	0.00 6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	-0.01 7.77
86 S	4-Bromofluorobenzene	0.731	0.702	4.0	78	0.00 6.91
87	cis-1,4-Dichloro-2-butene	0.195	0.170	12.8	76	0.00 6.96
88	n-Propylbenzene	3.071	2.759	10.2	73	0.00 7.01
89	Bromobenzene	0.689	0.625	9.3	77	0.00 6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.963	3.3	79	0.00 7.06
91	1,3,5-Trimethylbenzene	2.195	1.956	10.9	73	0.00 7.16
92	2-Chlorotoluene	2.151	1.911	11.2	72	0.00 7.13
93	trans-1,4-Dichloro-2-Bute	0.180	0.154	14.4	72	-0.01 7.20
94	1,2,3-Trichloropropane	0.319	0.302	5.3	80	0.00 7.17
95	Cyclohexanone	0.034	0.030	11.8	64	-0.01 7.20
96	4-Chlorotoluene	2.046	1.810	11.5	74	-0.01 7.26
97	tert-Butylbenzene	1.192	1.006	15.6	69	0.00 7.41
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	1.947	11.4	72	0.00 7.47
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	27.047	-8.2	86	0.00 7.43
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.163	14.0	69	0.00 7.56
102	4-Isopropyltoluene	2.149	1.812	15.7	68	0.00 7.66
103	1,3-Dichlorobenzene	1.369	1.235	9.8	76	0.00 7.72
104	1,2,3-Trimethylbenzene	2.336	2.071	11.3	74	-0.01 7.80

6.7.4  
6

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-CC2981  
**Lab FileID:** 2077412.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	23.202	7.2	77	-0.01	7.78
		AvgRF	CCRF	%Dev			
106	n-Butylbenzene	1.101	0.965	12.4	71	0.00	7.98
		Amount	Calc.	%Drift			
107	Benzyl Chloride	25.000	28.811	-15.2	97	0.00	7.97
		AvgRF	CCRF	%Dev			
108	1,2-Dichlorobenzene	1.310	1.156	11.8	75	-0.01	8.09
		Amount	Calc.	%Drift			
109	1,2-Dibromo-3-Chloropropa	25.000	23.998	4.0	76	-0.01	8.66
110	Hexachlorobutadiene	25.000	22.357	10.6	74	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	19.913	20.3#	65	-0.01	9.14
		AvgRF	CCRF	%Dev			
112	Naphthalene	2.726	2.109	22.6#	64	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.613	17.6	71	-0.01	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Wed Jul 05 09:17:00 2023

6.7.4

6

## Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...023\V203017\2077438.d Vial: 28  
 Acq On : 5 Jul 2023 7:38 pm Operator: jeniferw  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54357,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\1\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	84	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.217	-17.3	97	0.00	1.22
3 P	Chloromethane	0.188	0.217	-15.4	101	0.00	1.37
	----- True Calc. % Drift -----						
4	1,3-butadiene	25.000	23.781	4.9	78	0.00	1.44
	----- AvgRF CCRF % Dev -----						
5 C	Vinyl Chloride	0.194	0.238	-22.7#	103	0.00	1.43
	----- True Calc. % Drift -----						
6	Bromomethane	25.000	24.004	4.0	84	0.00	1.67
7	Chloroethane	25.000	-50.000	300.0#	117	0.00	1.75
	----- AvgRF CCRF % Dev -----						
8	Trichlorofluoromethane	0.366	0.484	-32.2	107	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	76	0.00	2.05
10	Ethanol	0.004	0.004	0.0	81	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.245	0.0	85	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.285	7.2	78	0.00	2.18
13	Freon 113	0.216	0.207	4.2	78	0.00	2.20
	----- True Calc. % Drift -----						
14	Carbon Disulfide	25.000	24.135	3.5	83	0.00	2.20
15	Iodomethane	25.000	25.017	-0.1	86	0.00	2.27
16	Acrolein	125.000	103.707	17.0	71	0.00	2.38
	----- AvgRF CCRF % Dev -----						
17	Allyl chloride	0.224	0.224	0.0	82	0.00	2.46
	----- True Calc. % Drift -----						
18	Methylene Chloride	25.000	24.895	0.4	86	0.00	2.53
	----- AvgRF CCRF % Dev -----						
19	Acetone	0.115	0.116	-0.9	89	0.00	2.55
20	Methyl acetate	0.272	0.286	-5.1	91	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.292	5.8	81	0.00	2.62
22	Hexane	0.158	0.142	10.1	76	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.553	11.4	77	0.00	2.68
24	Tert Butyl Alcohol	0.039	0.035	10.3	77	0.00	2.73
25	Acetonitrile	0.045	0.042	6.7	86	0.00	2.82
26	Di-isopropyl ether	0.614	0.544	11.4	76	0.00	2.90

# Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

		True	Calc.	% Drift			
27	Chloroprene	25.000	21.632	13.5	71	0.00	2.97
		AvgRF	CCRF	% Dev			
28 P	1,1-Dichloroethane	0.403	0.399	1.0	86	0.00	2.98
29	Acrylonitrile	0.111	0.108	2.7	79	0.00	3.00
30	ETBE	0.584	0.536	8.2	78	0.00	3.11
31	Vinyl acetate	0.438	0.375	14.4	64	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.233	11.7	79	0.00	3.29
33	2,2-Dichloropropane	0.270	0.252	6.7	81	0.00	3.35
34	Bromochloromethane	0.129	0.122	5.4	78	0.00	3.40
35	Cyclohexane	0.308	0.285	7.5	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	80	0.00	3.43
37	Ethyl acetate	0.328	0.306	6.7	71	0.00	3.49
38	Tetrahydrofuran	0.117	0.105	10.3	78	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.274	-0.7	85	0.00	3.54
40	Carbon Tetrachloride	0.294	0.299	-1.7	85	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.353	1.9	81	0.00	3.56
42	2-Butanone	0.178	0.177	0.6	84	0.00	3.60
43	1,1-Dichloropropene	0.301	0.294	2.3	82	0.00	3.63
		True	Calc.	% Drift			
44	tert-Butyl formate	125.000	149.736	-19.8	110	0.00	3.69
		AvgRF	CCRF	% Dev			
45	Propionitrile	0.055	0.058	-5.5	86	0.00	3.78
46	Methacrylonitrile	0.192	0.206	-7.3	88	0.00	3.79
47	Benzene	0.910	0.889	2.3	84	0.00	3.78
48	TAME	0.554	0.521	6.0	81	0.00	3.83
		True	Calc.	% Drift			
49	Isobutyl alcohol	500.000	497.354	0.5	83	0.00	3.87
		AvgRF	CCRF	% Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.330	-2.2	87	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	80	0.00	3.89
		True	Calc.	% Drift			
52	Tert Amyl Alcohol	250.000	224.537	10.2	78	0.00	3.93
		AvgRF	CCRF	% Dev			
53	Trichloroethene	0.264	0.250	5.3	81	0.00	4.11
54	Methylcyclohexane	0.324	0.296	8.6	75	0.00	4.12
55	Dibromomethane	0.180	0.165	8.3	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.212	2.8	85	0.00	4.42
57	Bromodichloromethane	0.305	0.297	2.6	82	0.00	4.46
		True	Calc.	% Drift			
58	Methyl methacrylate	25.000	23.711	5.2	81	0.00	4.54
59	1,4-Dioxane	500.000	434.217	13.2	75	0.00	4.58
		AvgRF	CCRF	% Dev			
60	2-Chloroethyl vinyl ether	0.178	0.170	4.5	81	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.318	3.3	82	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00	6.02
63 S	Toluene-d8	1.333	1.309	1.8	83	0.00	4.97
64 C	Toluene	1.336	1.300	2.7	83	0.00	5.01

6.7.5  
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# Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

		True	Calc.	% Drift			
65	2-Nitropropane	125.000	124.910	0.1	81	0.00	5.15
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.415	0.456	-9.9	89	0.00	5.24
67	trans-1,3-Dichloropropene	0.451	0.458	-1.6	85	0.00	5.27
68	Tetrachloroethene	0.347	0.347	0.0	84	0.00	5.26
		True	Calc.	% Drift			
69	Ethyl methacrylate	25.000	22.664	9.3	74	0.00	5.37
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.281	0.274	2.5	81	0.00	5.37
71	Dibromochloromethane	0.316	0.302	4.4	78	0.00	5.50
72	1,3-Dichloropropane	0.536	0.484	9.7	78	0.00	5.56
73	1,2-Dibromoethane	0.366	0.320	12.6	76	0.00	5.67
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	1250.000	1292.659	-3.4	87	0.00	5.78
		AvgRF	CCRF	% Dev			
75	2-hexanone	0.419	0.463	-10.5	89	0.00	5.81
76	1-Chlorohexane	0.409	0.352	13.9	74	0.00	6.01
77 C	Ethylbenzene	1.460	1.372	6.0	79	0.00	6.05
78 P	Chlorobenzene	0.929	0.872	6.1	81	0.00	6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.299	-0.7	82	0.00	6.07
80	m,p-Xylene	1.153	1.088	5.6	79	0.00	6.15
81	o-Xylene	1.159	1.001	13.6	72	0.00	6.46
82	Styrene	0.883	0.793	10.2	74	0.00	6.50
		True	Calc.	% Drift			
83 P	Bromoform	25.000	23.522	5.9	79	0.00	6.52
		AvgRF	CCRF	% Dev			
84	Isopropylbenzene	1.334	1.162	12.9	72	0.00	6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	78	0.00	7.77
86 S	4-Bromofluorobenzene	0.731	0.709	3.0	77	0.00	6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.150	23.1	65	0.00	6.96
88	n-Propylbenzene	3.071	2.899	5.6	75	0.00	7.02
89	Bromobenzene	0.689	0.628	8.9	75	0.00	6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.966	3.0	78	0.00	7.06
91	1,3,5-Trimethylbenzene	2.195	2.056	6.3	75	0.00	7.17
92	2-Chlorotoluene	2.151	2.011	6.5	74	0.00	7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.137	23.9	62	0.00	7.20
94	1,2,3-Trichloropropane	0.319	0.304	4.7	79	0.00	7.17
95	Cyclohexanone	0.034	0.033	2.9	69	0.00	7.21
96	4-Chlorotoluene	2.046	1.885	7.9	75	0.00	7.27
97	tert-Butylbenzene	1.192	1.067	10.5	72	0.00	7.42
98	a-Methyl styrene			NA			
99	1,2,4-Trimethylbenzene	2.198	2.006	8.7	73	0.00	7.47
		True	Calc.	% Drift			
100	Pentachloroethane	25.000	25.532	-2.1	79	0.00	7.43
		AvgRF	CCRF	% Dev			
101	sec-Butylbenzene	2.516	2.285	9.2	71	0.00	7.56
102	4-Isopropyltoluene	2.149	1.912	11.0	70	0.00	7.66
103	1,3-Dichlorobenzene	1.369	1.268	7.4	76	0.00	7.72
104	1,2,3-Trimethylbenzene	2.336	2.153	7.8	75	0.00	7.81

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-ECC2981  
**Lab FileID:** 2077438.D

	----- True	Calc.	% Drift	-----			
105	1,4-Dichlorobenzene	25.000	23.794	4.8	77	0.00	7.79
	----- AvgRF	CCRF	% Dev	-----			
106	n-Butylbenzene	1.101	0.993	9.8	72	0.00	7.98
	----- True	Calc.	% Drift	-----			
107	Benzyl Chloride	25.000	23.837	4.7	76	0.00	7.97
	----- AvgRF	CCRF	% Dev	-----			
108	1,2-Dichlorobenzene	1.310	1.182	9.8	75	0.00	8.10
	----- True	Calc.	% Drift	-----			
109	1,2-Dibromo-3-Chloropropa	25.000	22.423	10.3	69	0.00	8.67
110	Hexachlorobutadiene	25.000	23.961	4.2	77	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	21.023	15.9	67	0.00	9.15
	----- AvgRF	CCRF	% Dev	-----			
112	Naphthalene	2.726	2.152	21.1	63	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.625	16.0	70	0.00	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 1  
 Wed Jul 05 21:12:29 2023

6.7.5

6

# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

## Response Factor Report MSVOA16

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

### Calibration Files

1 =I757261.D 2 =I757262.D 3 =I757263.D 4 =I757264.D  
 5 =I757265.D 6 =I757266.D 7 =I757267.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.230	0.235	0.217	0.216	0.196	0.216	0.228	0.220	5.90
3)P Chloromethane	0.329	0.277	0.233	0.214	0.216	0.227	0.224	0.246	17.15
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987								
	Response Ratio = 0.00000 + 0.22695 *A + -0.00178 *A^2								
4)C Vinyl Chloride	0.226	0.253	0.218	0.211	0.205	0.222	0.228	0.223	6.91
5) 1,3-Butadiene	0.240	0.260	0.194	0.205	0.165	0.184	0.185	0.205	16.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9940								
	Response Ratio = 0.00000 + 0.19523 *A + -0.00710 *A^2								
6) Bromomethane	0.282	0.109	0.074	0.069	0.073	0.081	0.077	0.109	70.57
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.07544 *A + 0.00124 *A^2								
7) Chloroethane	0.233	0.158	0.117	0.095	0.089	0.092	0.090	0.125	43.28
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9947								
	Response Ratio = 0.00000 + 0.09359 *A								
8) Trichlorofluorome	0.318	0.327	0.303	0.289	0.277	0.298	0.300	0.302	5.56
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9989								
	Response Ratio = 0.00000 + 0.29537 *A								
9) Ethyl Ether	0.156	0.151	0.138	0.154	0.153	0.168	0.163	0.155	6.18
10) 1,2-Dichlorotrifl	0.210	0.215	0.192	0.207	0.183	0.215	0.218	0.206	6.39
11)C 1,1-Dichloroethen	0.269	0.282	0.247	0.276	0.246	0.287	0.292	0.271	6.81
12) Ethanol	0.012	0.009	0.008	0.008	0.007	0.008	0.007	0.008	22.81
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9954								
	Response Ratio = 0.00000 + 0.00796 *A + -0.00003 *A^2								
13) Freon 113	0.163	0.172	0.158	0.172	0.146	0.178	0.190	0.169	8.46
14) Carbon Disulfide	0.640	0.581	0.490	0.544	0.488	0.574	0.583	0.557	9.76
15) Iodomethane	0.113	0.084	0.081	0.132	0.141	0.141		0.115	23.88
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
	Response Ratio = 0.00000 + 0.12493 *A + 0.01219 *A^2								
16) Acrolein	0.093	0.058	0.074	0.071	0.068	0.080	0.077	0.075	14.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9971								
	Response Ratio = 0.00000 + 0.06843 *A + 0.00104 *A^2								
17) Allyl chloride	0.322	0.349	0.252	0.261	0.239	0.266	0.256	0.278	14.79
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.26329 *A + -0.00342 *A^2								
18) Methylene Chlorid	0.554	0.326	0.258	0.268	0.261	0.274	0.260	0.314	34.39
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9977								

# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.28093 \*A + -0.00979 \*A^2

19)	Acetone	0.210	0.110	0.158	0.129	0.127	0.140	0.133	0.144	22.61
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9957								
		Response Ratio = 0.00000 + 0.13453 *A + 0.00001 *A^2								
20)	Methyl acetate	0.262	0.249	0.256	0.290	0.287	0.323	0.306	0.282	9.76
21)	trans-1,2-Dichlor	0.288	0.304	0.255	0.280	0.268	0.301	0.298	0.285	6.42
22)	Hexane	0.152	0.140	0.124	0.146	0.123	0.144	0.148	0.140	8.23
23)	Methyl Tert Butyl	0.615	0.576	0.544	0.602	0.597	0.648	0.628	0.601	5.70
24)	Tert butyl alchoh	0.080	0.070	0.075	0.085	0.083	0.094	0.088	0.082	9.98
25)	Acetonitrile	0.121	0.071	0.059	0.056	0.050	0.053	0.047	0.065	39.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9962								
		Response Ratio = 0.00000 + 0.06065 *A + -0.00067 *A^2								
26)	Di-isopropyl ethe	0.645	0.625	0.566	0.627	0.621	0.672	0.648	0.629	5.23
27)	Chloroprene	0.276	0.347	0.262	0.280	0.248	0.292	0.301	0.287	11.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964								
		Response Ratio = 0.00000 + 0.26060 *A + 0.01926 *A^2								
28)P	1,1-Dichloroethan	0.359	0.411	0.334	0.372	0.357	0.397	0.385	0.374	6.99
29)	Acrylonitrile	0.119	0.112	0.138	0.151	0.139	0.153	0.147	0.137	11.57
30)	ETBE	0.626	0.623	0.535	0.598	0.595	0.642	0.620	0.606	5.78
31)	Vinyl acetate	0.333	0.298	0.357	0.415	0.405	0.445	0.431	0.384	14.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9979								
		Response Ratio = 0.00000 + 0.38215 *A + 0.00599 *A^2								
32)	cis-1,2-Dichloroe	0.220	0.238	0.197	0.221	0.219	0.242	0.236	0.225	6.96
33)	2,2-Dichloropropa	0.294	0.306	0.255	0.280	0.263	0.299	0.298	0.285	6.81
34)	Bromochloromethan	0.121	0.120	0.105	0.114	0.114	0.121	0.116	0.116	4.77
35)	Cyclohexane	0.310	0.310	0.290	0.318	0.265	0.315	0.332	0.305	7.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.27692 *A + 0.02616 *A^2								
36)C	Chloroform	0.414	0.413	0.348	0.380	0.369	0.408	0.397	0.390	6.47
37)	Ethyl acetate	0.261	0.236	0.301	0.346	0.328	0.367	0.358	0.314	15.99
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978								
		Response Ratio = 0.00000 + 0.31225 *A + 0.00542 *A^2								
38)	Tetrahydrofuran	0.169	0.147	0.146	0.156	0.149	0.164	0.157	0.155	5.64
39)S	Dibromofluorometh	0.278	0.279	0.280	0.290	0.287	0.284	0.289	0.284	1.73
40)	Carbon Tetrachlor	0.274	0.283	0.243	0.276	0.247	0.292	0.303	0.274	8.05
41)	1,1,1-Trichloroet	0.324	0.339	0.291	0.322	0.298	0.341	0.343	0.323	6.45
42)	2-Butanone	0.168	0.136	0.230	0.198	0.204	0.231	0.227	0.199	17.98
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
		Response Ratio = 0.00000 + 0.19383 *A + 0.00380 *A^2								
43)	1,1-Dichloropropo	0.232	0.269	0.235	0.259	0.238	0.273	0.275	0.255	7.51
44)	tert-Butyl Format	0.149	0.146	0.144	0.150	0.159	0.176	0.171	0.156	8.16
45)	Propionitrile	0.063	0.076	0.065	0.070	0.064	0.072	0.070	0.069	6.66
46)	Methacrylonitrile	0.207	0.238	0.196	0.195	0.182	0.200	0.193	0.201	8.76
47)	Benzene	0.790	0.830	0.720	0.769	0.742	0.814	0.798	0.780	5.01
48)	TAME	0.628	0.598	0.520	0.574	0.574	0.616	0.594	0.586	6.05
49)S	1,2-Dichloroethan	0.260	0.256	0.260	0.269	0.254	0.249	0.259	0.258	2.50
50)	Isobutyl alcohol	0.019	0.016	0.016	0.018	0.017	0.020	0.021	0.018	11.24
51)	1,2-Dichloroethan	0.299	0.271	0.246	0.265	0.260	0.283	0.274	0.271	6.18
52)	Tert Amyl Alcohol	0.062	0.053	0.061	0.071	0.069	0.079	0.077	0.068	13.63
53)	Trichloroethene	0.263	0.214	0.190	0.210	0.199	0.226	0.226	0.218	10.87
54)	Methylcyclohexane	0.269	0.282	0.263	0.287	0.238	0.289	0.303	0.276	7.72
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9966								

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# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.24923 \*A + 0.02580 \*A^2

55)	Dibromomethane	0.148	0.134	0.124	0.134	0.138	0.150	0.148	0.139	6.94
56)C	1,2-Dichloropropa	0.206	0.202	0.181	0.196	0.197	0.217	0.210	0.201	5.76
57)	Bromodichlorometh	0.264	0.275	0.250	0.273	0.276	0.305	0.298	0.277	6.84
58)	Methyl methacryla	0.053	0.205	0.185	0.226	0.226	0.256	0.252	0.200	34.65
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.20577 *A + 0.02624 *A^2								
59)	1,4-Dioxane	0.005	0.005	0.006	0.007	0.006	0.007	0.007	0.006	15.55
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.00610 *A + 0.00002 *A^2								
60)	2-Chloroethyl vin	0.074	0.112	0.116	0.119	0.127	0.138	0.132	0.117	17.92
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 0.11892 *A + 0.00165 *A^2								
61)	cis-1,3-Dichlorop	0.286	0.306	0.277	0.312	0.317	0.351	0.340	0.313	8.52
62) I	Chlorobenzene-d5	-----ISTD-----								
63)S	Toluene-d8	1.370	1.360	1.434	1.445	1.457	1.464	1.451	1.426	3.01
64)C	Toluene	1.152	1.163	1.039	1.121	1.098	1.230	1.183	1.141	5.40
65)	2-Nitropropane	0.095	0.082	0.089	0.107	0.111	0.128	0.124	0.105	16.56
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.09900 *A + 0.00290 *A^2								
66)	4-Methyl-2-pentan	0.476	0.378	0.593	0.486	0.491	0.534	0.504	0.494	13.16
67)	trans-1,3-Dichlor	0.208	0.351	0.329	0.389	0.397	0.436	0.420	0.361	21.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.36809 *A + 0.03171 *A^2								
68)	Tetrachloroethene	0.341	0.348	0.323	0.345	0.320	0.372	0.367	0.345	5.69
69)	Ethyl methacrylat	0.194	0.365	0.320	0.372	0.364	0.407	0.390	0.344	20.83
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.35184 *A + 0.02388 *A^2								
70)	1,1,2-Trichloroet	0.237	0.230	0.216	0.229	0.232	0.249	0.235	0.233	4.32
71)	Dibromochlorometh	0.311	0.293	0.285	0.324	0.330	0.362	0.348	0.322	8.67
72)	1,3-Dichloropropa	0.361	0.382	0.368	0.411	0.422	0.459	0.435	0.405	9.03
73)	1,2-Dibromoethane	0.290	0.269	0.273	0.303	0.306	0.337	0.323	0.300	8.33
74)	3,3-dimethyl-1-bu	0.063	0.060	0.080	0.088	0.092	0.106	0.099	0.084	20.80
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9959								
		Response Ratio = 0.00000 + 0.08317 *A + 0.00020 *A^2								
75)	2-hexanone	0.296	0.276	0.468	0.387	0.392	0.433	0.421	0.382	18.64
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9961								
		Response Ratio = 0.00000 + 0.38610 *A + 0.00420 *A^2								
76)	1-Chlorohexane	0.346	0.310	0.296	0.319	0.292	0.346	0.349	0.323	7.51
77)C	Ethylbenzene	1.306	1.240	1.131	1.209	1.169	1.308	1.260	1.232	5.45
78)P	Chlorobenzene	0.740	0.779	0.703	0.750	0.735	0.802	0.768	0.754	4.31
79)	1,1,1,2-Tetrachlo	0.305	0.283	0.260	0.288	0.288	0.316	0.303	0.292	6.29
80)	m,p-Xylene	0.860	0.927	0.854	0.926	0.907	1.015	0.985	0.925	6.45
81)	o-Xylene	1.002	0.996	0.922	0.976	0.962	1.072	1.031	0.994	4.87
82)	Styrene	0.498	0.625	0.611	0.702	0.711	0.800	0.771	0.674	15.44
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9982								
		Response Ratio = 0.00000 + 0.66427 *A + 0.06420 *A^2								
83)P	Bromoform	0.243	0.238	0.240	0.272	0.287	0.317	0.303	0.271	11.82
84)	Isopropylbenzene	1.168	1.191	1.080	1.163	1.114	1.254	1.221	1.170	5.10

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# Initial Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

85)	I	1,4-Dichlorobenzene-d	-----ISTD-----								
86)	S	4-Bromofluorobenz	0.828	0.841	0.833	0.838	0.855	0.856	0.842	0.842	1.25
87)		cis-1,4-Dichloro-	0.152	0.175	0.156	0.175	0.182	0.212	0.204	0.179	12.53
88)		n-Propylbenzene	2.223	2.363	1.993	2.137	2.074	2.369	2.249	2.201	6.44
89)		Bromobenzene	0.567	0.589	0.512	0.546	0.553	0.614	0.570	0.564	5.75
90)	P	1,1,2,2-Tetrachlo	0.827	0.773	0.705	0.749	0.756	0.823	0.754	0.769	5.61
91)		1,3,5-Trimethylbe	1.547	1.703	1.450	1.534	1.510	1.704	1.595	1.577	6.10
92)		2-Chlorotoluene	1.516	1.610	1.392	1.468	1.430	1.604	1.490	1.501	5.50
93)		trans-1,4-Dichlor	0.108	0.140	0.147	0.185	0.193	0.226	0.214	0.173	24.85
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9960											
Response Ratio = 0.00000 + 0.19294 *A + 0.01285 *A^2											
94)		1,2,3-Trichloropr	0.229	0.239	0.221	0.237	0.235	0.264	0.240	0.238	5.58
95)		Cyclohexanone	0.060	0.045	0.052	0.054	0.050	0.057	0.053	0.053	9.27
96)		4-Chlorotoluene	1.337	1.391	1.230	1.302	1.331	1.483	1.384	1.351	5.86
97)		tert-Butylbenzene	0.849	0.896	0.785	0.804	0.786	0.894	0.856	0.838	5.71
98)		1,2,4-Trimethylbe	1.550	1.650	1.395	1.501	1.511	1.695	1.573	1.554	6.40
99)		Pentachloroethane	0.339	0.405	0.299	0.331	0.327	0.369	0.345	0.345	9.82
100)		sec-Butylbenzene	1.972	1.970	1.708	1.760	1.670	1.932	1.846	1.837	6.87
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978											
Response Ratio = 0.00000 + 1.73377 *A + 0.07069 *A^2											
101)		4-Isopropyltoluen	1.497	1.699	1.441	1.535	1.494	1.710	1.624	1.571	6.77
102)		1,3-Dichlorobenze	0.930	1.003	0.869	0.948	0.967	1.078	1.012	0.972	6.85
103)		1,2,3-Trimethylbe	1.731	1.736	1.467	1.539	1.567	1.747	1.607	1.628	6.85
104)		1,4-Dichlorobenze	1.163	1.088	0.943	0.993	1.002	1.108	1.020	1.045	7.35
105)		n-Butylbenzene	0.669	0.803	0.700	0.777	0.756	0.870	0.833	0.773	9.19
106)		Benzyl Chloride	0.207	0.234	0.222	0.263	0.282	0.325	0.298	0.262	16.43
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9951											
Response Ratio = 0.00000 + 0.25719 *A + 0.02740 *A^2											
107)		1,2-Dichlorobenze	0.946	0.990	0.863	0.917	0.939	1.048	0.967	0.953	6.08
108)		1,2-Dibromo-3-Chl	0.190	0.166	0.172	0.192	0.198	0.229	0.215	0.194	11.46
109)		Hexachlorobutadie	0.336	0.349	0.298	0.312	0.294	0.335	0.337	0.323	6.65
110)		1,2,4-Trichlorobe	0.682	0.721	0.618	0.675	0.701	0.798	0.734	0.704	7.93
111)		Naphthalene	2.074	2.030	1.942	2.175	2.267	2.569	2.358	2.202	9.76
112)		1,2,3-Trichlorobe	0.725	0.722	0.609	0.670	0.693	0.776	0.719	0.702	7.44

(#) = Out of Range

VI-2023-06-15.m

Thu Jun 15 14:54:00 2023



## Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757269.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757269.D Vial: 10  
 Acq On : 15 Jun 2023 2:04 pm Operator: joannel  
 Sample : ICV2948-5 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	100	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.195	11.4	99	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	35.621	10.9	93	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.185	17.0	90	0.00	2.77
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	35.861	10.3	94	0.00	3.23
7	Chloroethane	40.000	32.753	18.1	87	0.00	3.40
8	Trichlorofluoromethane	40.000	32.473	18.8	87	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.165	-6.5	108	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.189	8.3	103	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.231	14.8	94	0.00	4.28
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	755.110	5.6	107	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.150	11.2	103	0.00	4.32
14	Carbon Disulfide	0.557	0.460	17.4	94	0.00	4.33
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	41.691	-4.2	100	0.00	4.46
16	Acrolein	200.000	185.924	7.0	99	0.00	4.68
17	Allyl chloride	40.000	34.765	13.1	95	0.00	4.85
18	Methylene Chloride	40.000	38.344	4.1	101	0.00	4.98
19	Acetone	200.000	194.726	2.6	103	0.00	5.03
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.279	1.1	97	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.259	9.1	97	0.00	5.18
22	Hexane	0.140	0.124	11.4	101	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.617	-2.7	103	0.00	5.30
24	Tert butyl alcohol	0.082	0.091	-11.0	110	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

25	Acetonitrile	400.000	389.314	2.7	108	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.606	3.7	98	0.00	5.73
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene			-----NA-----			
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.339	9.4	95	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	105	0.00	5.92
30	ETBE	0.606	0.611	-0.8	103	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	208.013	-4.0	105	0.00	6.14
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.208	7.6	95	0.00	6.51
33	2,2-Dichloropropane	0.285	0.272	4.6	103	0.00	6.62
34	Bromochloromethane	0.116	0.109	6.0	96	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	34.412	14.0	96	0.00	6.76
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.365	6.4	99	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	196.355	1.8	100	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.152	1.9	102	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.290	-2.1	101	0.00	6.99
40	Carbon Tetrachloride	0.274	0.238	13.1	96	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.289	10.5	97	0.00	7.04
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	199.356	0.3	102	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.234	8.2	98	0.00	7.17
44	tert-Butyl Formate	0.156	0.205	-31.4#	129	0.00	7.26
45	Propionitrile	0.069	0.064	7.2	100	0.00	7.41
46	Methacrylonitrile	0.201	0.178	11.4	98	0.00	7.44
47	Benzene	0.780	0.729	6.5	98	0.00	7.43
48	TAME	0.586	0.575	1.9	100	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.257	0.4	101	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	106	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	99	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.075	-10.3	109	0.00	7.70
53	Trichloroethene	0.218	0.195	10.6	98	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	33.591	16.0	94	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.138	0.7	100	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.201	0.0	102	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	96	0.00	8.62

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	36.540	8.7	91	0.00	8.74
59	1,4-Dioxane	800.000	806.023	-0.8	104	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	188.357	5.8	93	0.00	9.16
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.314	-0.3	99	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.437	-0.8	100	0.00	9.45
64 C	Toluene	1.141	1.073	6.0	99	0.00	9.50
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	193.743	3.1	97	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.478	3.2	98	0.00	9.83
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	37.046	7.4	92	0.00	9.90
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.311	9.9	98	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	39.786	0.5	103	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.223	4.3	97	0.00	10.05
71	Dibromochloromethane	0.322	0.336	-4.3	103	0.00	10.26
72	1,3-Dichloropropane	0.405	0.439	-8.4	105	0.00	10.34
73	1,2-Dibromoethane	0.300	0.304	-1.3	101	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2073.237	-3.7	105	0.00	10.62
75	2-hexanone	200.000	194.984	2.5	101	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.275	14.9	95	0.00	10.96
77 C	Ethylbenzene	1.232	1.133	8.0	98	0.00	11.02
78 P	Chlorobenzene	0.754	0.709	6.0	98	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.281	3.8	99	0.00	11.07
80	m,p-Xylene	0.925	0.887	4.1	99	0.00	11.16
81	o-Xylene	0.994	0.917	7.7	96	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	39.073	2.3	99	0.00	11.66
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.278	-2.6	98	0.00	11.71
84	Isopropylbenzene	1.170	1.068	8.7	97	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.842	0.0	102	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.196	-9.5	111	0.00	12.26
88	n-Propylbenzene	2.201	1.942	11.8	97	0.00	12.33
89	Bromobenzene	0.564	0.558	1.1	104	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.739	3.9	101	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.462	7.3	100	0.00	12.51
92	2-Chlorotoluene	1.501	1.408	6.2	102	0.00	12.52

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	36.749	8.1	100	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.255	-7.1	112	0.00 12.55
95	Cyclohexanone	0.053	0.065	-22.6#	136	0.00 12.61
96	4-Chlorotoluene	1.351	1.259	6.8	98	0.00 12.68
97	tert-Butylbenzene	0.838	0.736	12.2	97	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.455	6.4	99	0.00 12.93
99	Pentachloroethane	0.345	0.298	13.6	94	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	33.776	15.6	93	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.385	11.8	96	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.918	5.6	98	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.532	5.9	101	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.968	7.4	100	0.00 13.39
105	n-Butylbenzene	0.773	0.743	3.9	101	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	40.140	-0.4	103	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.913	4.2	100	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.208	-7.2	109	0.00 14.58
109	Hexachlorobutadiene	0.323	0.276	14.6	97	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.691	1.8	102	0.00 15.19
111	Naphthalene	2.202	2.224	-1.0	101	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.687	2.1	102	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jun 15 14:53:16 2023

6.7.7  
 6

## Initial Calibration Verification

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757270.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757270.D Vial: 11  
 Acq On : 15 Jun 2023 2:27 pm Operator: joannel  
 Sample : ICV2948-4 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.85
2	Dichlorodifluoromethane			NA			
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride			NA			
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	25.000	19.946	20.2#	76	0.00	2.79
6	Bromomethane			NA			
7	Chloroethane			NA			
8	Trichlorofluoromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroetha			NA			
11 C	1,1-Dichloroethene			NA			
	----- Amount	Calc.	%Drift	-----			
12	Ethanol			NA			
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
	----- Amount	Calc.	%Drift	-----			





# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
60	2-Chloroethyl vinyl ether			NA			
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.445	-1.3	101	0.00	9.44
64 C	Toluene			NA			
		Amount	Calc.	%Drift			
65	2-Nitropropane			NA			
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone			NA			
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene			NA			
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene			NA			
		Amount	Calc.	%Drift			
69	Ethyl methacrylate			NA			
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane			NA			
71	Dibromochloromethane			NA			
72	1,3-Dichloropropene			NA			
73	1,2-Dibromoethane			NA			
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol			NA			
75	2-hexanone			NA			
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane			NA			
77 C	Ethylbenzene			NA			
78 P	Chlorobenzene			NA			
79	1,1,1,2-Tetrachloroethane			NA			
80	m,p-Xylene			NA			
81	o-Xylene			NA			
		Amount	Calc.	%Drift			
82	Styrene			NA			
		AvgRF	CCRF	%Dev			
83 P	Bromoform			NA			
84	Isopropylbenzene			NA			
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.848	-0.7	103	0.00	12.22
87	cis-1,4-Dichloro-2-butene			NA			
88	n-Propylbenzene			NA			
89	Bromobenzene			NA			
90 P	1,1,2,2-Tetrachloroethane			NA			
91	1,3,5-Trimethylbenzene			NA			
92	2-Chlorotoluene			NA			

6.7.8  
6

# Initial Calibration Verification

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757264.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 6  
 Thu Jun 15 14:51:38 2023

6.7.8  
 6

## Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-07-06\I757703.D Vial: 2  
 Acq On : 6 Jul 2023 9:12 am Operator: jeniferw  
 Sample : CC2948-5 Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	86	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.193	12.3	85	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	39.416	1.5	89	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.217	2.7	92	0.00	2.76
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	40.000	33.751	15.6	84	0.00	2.79
6	Bromomethane	40.000	47.012	-17.5	107	0.00	3.23
7	Chloroethane	40.000	41.422	-3.6	95	0.00	3.39
8	Trichlorofluoromethane	40.000	43.279	-8.2	100	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.149	3.9	84	0.00	4.01
10	1,2-Dichlorotrifluoroetha	0.206	0.206	0.0	97	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.265	2.2	93	0.00	4.27
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	761.083	4.9	93	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.169	0.0	100	0.00	4.32
14	Carbon Disulfide	0.557	0.491	11.8	87	0.00	4.32
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	46.415	-16.0	97	0.00	4.46
16	Acrolein	200.000	154.896	22.6#	71	0.00	4.68
17	Allyl chloride	40.000	37.162	7.1	88	0.00	4.85
18	Methylene Chloride	40.000	39.657	0.9	90	0.00	4.98
19	Acetone	200.000	202.594	-1.3	93	0.00	5.02
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.303	-7.4	91	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.279	2.1	90	0.00	5.18
22	Hexane	0.140	0.139	0.7	97	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.576	4.2	83	0.00	5.29
24	Tert butyl alcohol	0.082	0.082	0.0	85	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

25	Acetonitrile	400.000	383.823	4.0	92	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.603	4.1	84	0.00	5.72
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene	40.000	37.181	7.0	89	0.00	5.86
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.369	1.3	89	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	91	0.00	5.92
30	ETBE	0.606	0.572	5.6	83	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	202.486	-1.2	88	0.00	6.13
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.218	3.1	86	0.00	6.50
33	2,2-Dichloropropane	0.285	0.272	4.6	89	0.00	6.62
34	Bromochloromethane	0.116	0.112	3.4	85	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	39.744	0.6	96	0.00	6.75
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.377	3.3	88	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	215.682	-7.8	95	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.150	3.2	87	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.286	-0.7	86	0.00	6.99
40	Carbon Tetrachloride	0.274	0.274	0.0	96	0.00	6.97
41	1,1,1-Trichloroethane	0.323	0.320	0.9	93	0.00	7.03
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	204.750	-2.4	91	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.255	0.0	92	0.00	7.17
44	tert-Butyl Formate	0.156	0.150	3.8	82	0.00	7.25
45	Propionitrile	0.069	0.067	2.9	90	0.00	7.41
46	Methacrylonitrile	0.201	0.187	7.0	89	0.00	7.43
47	Benzene	0.780	0.757	2.9	88	0.00	7.43
48	TAME	0.586	0.549	6.3	83	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.256	0.8	87	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	94	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	86	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.067	1.5	84	0.00	7.70
53	Trichloroethene	0.218	0.208	4.6	90	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	39.285	1.8	96	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.137	1.4	85	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.193	4.0	85	0.00	8.56
57	Bromodichloromethane	0.277	0.277	0.0	87	0.00	8.62

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	39.190	2.0	85	0.00	8.74
59	1,4-Dioxane	800.000	704.760	11.9	78	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	208.331	-4.2	89	0.00	9.15
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.307	1.9	84	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00	11.01
63 S	Toluene-d8	1.426	1.478	-3.6	84	0.00	9.44
64 C	Toluene	1.141	1.153	-1.1	87	0.00	9.49
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	227.932	-14.0	96	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.536	-8.5	91	0.00	9.82
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	40.373	-0.9	83	0.00	9.89
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.354	-2.6	92	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	40.517	-1.3	86	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.242	-3.9	87	0.00	10.05
71	Dibromochloromethane	0.322	0.335	-4.0	84	0.00	10.26
72	1,3-Dichloropropane	0.405	0.429	-5.9	84	0.00	10.34
73	1,2-Dibromoethane	0.300	0.312	-4.0	85	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2404.753	-20.2#	101	0.00	10.61
75	2-hexanone	200.000	209.264	-4.6	89	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.328	-1.5	93	0.00	10.96
77 C	Ethylbenzene	1.232	1.235	-0.2	88	0.00	11.02
78 P	Chlorobenzene	0.754	0.772	-2.4	87	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.298	-2.1	86	0.00	11.07
80	m,p-Xylene	0.925	0.949	-2.6	87	0.00	11.16
81	o-Xylene	0.994	0.975	1.9	84	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	40.341	-0.9	84	0.00	11.65
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.289	-6.6	84	0.00	11.71
84	Isopropylbenzene	1.170	1.183	-1.1	88	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.841	0.1	81	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.190	-6.1	86	0.00	12.26
88	n-Propylbenzene	2.201	2.285	-3.8	90	0.00	12.33
89	Bromobenzene	0.564	0.588	-4.3	87	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.808	-5.1	88	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.587	-0.6	86	0.00	12.51
92	2-Chlorotoluene	1.501	1.561	-4.0	89	0.00	12.52

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	38.172	4.6	82	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.243	-2.1	85	0.00 12.54
95	Cyclohexanone	0.053	0.050	5.7	82	0.00 12.61
96	4-Chlorotoluene	1.351	1.375	-1.8	85	0.00 12.68
97	tert-Butylbenzene	0.838	0.852	-1.7	89	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.585	-2.0	86	0.00 12.92
99	Pentachloroethane	0.345	0.372	-7.8	93	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	41.588	-4.0	91	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.611	-2.5	88	0.00 13.17
102	1,3-Dichlorobenzene	0.972	1.022	-5.1	87	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.651	-1.4	86	0.00 13.38
104	1,4-Dichlorobenzene	1.045	1.061	-1.5	87	0.00 13.38
105	n-Butylbenzene	0.773	0.827	-7.0	90	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	39.969	0.1	81	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.994	-4.3	87	0.00 13.82
108	1,2-Dibromo-3-Chloropropa	0.194	0.202	-4.1	84	0.00 14.58
109	Hexachlorobutadiene	0.323	0.339	-5.0	95	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.712	-1.1	83	0.00 15.19
111	Naphthalene	2.202	2.249	-2.1	81	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.725	-3.3	86	0.00 15.63

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 I757265.D VI-2023-06-15.m            Thu Jul 06 10:07:04 2023

6.7.9  
6



## Continuing Calibration Summary

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...2023\VI2963\I757726.d Vial: 23  
 Acq On : 6 Jul 2023 7:35 pm Operator: jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	74	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.224	-1.8	85	0.00	2.35
	----- True	Calc.	% Drift	-----			
3 P	Chloromethane	40.000	41.338	-3.3	80	0.00	2.64
	----- AvgRF	CCRF	% Dev	-----			
4 C	Vinyl Chloride	0.223	0.226	-1.3	82	0.00	2.76
	----- True	Calc.	% Drift	-----			
5	1,3-Butadiene	40.000	36.496	8.8	78	0.00	2.79
6	Bromomethane	40.000	41.047	-2.6	80	0.00	3.23
7	Chloroethane	40.000	40.725	-1.8	80	0.00	3.39
8	Trichlorofluoromethane	40.000	41.671	-4.2	83	0.00	3.59
	----- AvgRF	CCRF	% Dev	-----			
9	Ethyl Ether	0.155	0.145	6.5	71	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.205	0.5	84	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.266	1.8	81	0.00	4.27
	----- True	Calc.	% Drift	-----			
12	Ethanol	800.000	777.605	2.8	82	0.00	4.21
	----- AvgRF	CCRF	% Dev	-----			
13	Freon 113	0.169	0.165	2.4	84	0.00	4.32
14	Carbon Disulfide	0.557	0.476	14.5	72	0.00	4.33
	----- True	Calc.	% Drift	-----			
15	Iodomethane	40.000	53.441	-33.6	97	0.00	4.46
16	Acrolein	200.000	150.162	24.9	59	0.00	4.68
17	Allyl chloride	40.000	35.316	11.7	72	0.00	4.85
18	Methylene Chloride	40.000	43.090	-7.7	84	0.00	4.98
19	Acetone	200.000	200.836	-0.4	79	0.00	5.03
	----- AvgRF	CCRF	% Dev	-----			
20	Methyl acetate	0.282	0.310	-9.9	80	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.273	4.2	76	0.00	5.18
22	Hexane	0.140	0.135	3.6	81	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.549	8.7	69	0.00	5.30
24	Tert butyl alcohol	0.082	0.083	-1.2	75	0.00	5.39
	----- True	Calc.	% Drift	-----			

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

25	Acetonitrile	400.000	380.970	4.8	79	0.00	5.56
	----- AvgRF	CCRF	% Dev	-----			
26	Di-isopropyl ether	0.629	0.607	3.5	73	0.00	5.73
	----- True	Calc.	% Drift	-----			
27	Chloroprene	40.000	36.284	9.3	75	0.00	5.87
	----- AvgRF	CCRF	% Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.361	3.5	75	0.00	5.88
29	Acrylonitrile	0.137	0.143	-4.4	76	0.00	5.92
30	ETBE	0.606	0.569	6.1	71	0.00	6.13
	----- True	Calc.	% Drift	-----			
31	Vinyl acetate	200.000	190.409	4.8	71	0.00	6.14
	----- AvgRF	CCRF	% Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.206	8.4	70	0.00	6.51
33	2,2-Dichloropropane	0.285	0.247	13.3	70	0.00	6.62
34	Bromochloromethane	0.116	0.101	12.9	66	0.00	6.73
	----- True	Calc.	% Drift	-----			
35	Cyclohexane	40.000	39.776	0.6	83	0.00	6.76
	----- AvgRF	CCRF	% Dev	-----			
36 C	Chloroform	0.390	0.363	6.9	73	0.00	6.79
	----- True	Calc.	% Drift	-----			
37	Ethyl acetate	200.000	213.337	-6.7	81	0.00	6.88
	----- AvgRF	CCRF	% Dev	-----			
38	Tetrahydrofuran	0.155	0.154	0.6	77	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.289	-1.8	75	0.00	6.99
40	Carbon Tetrachloride	0.274	0.264	3.6	80	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.311	3.7	78	0.00	7.04
	----- True	Calc.	% Drift	-----			
42	2-Butanone	200.000	205.186	-2.6	78	0.00	7.10
	----- AvgRF	CCRF	% Dev	-----			
43	1,1-Dichloropropene	0.255	0.249	2.4	78	0.00	7.17
44	tert-Butyl Formate	0.156	0.137	12.2	64	0.00	7.26
45	Propionitrile	0.069	0.067	2.9	77	0.00	7.41
46	Methacrylonitrile	0.201	0.188	6.5	77	0.00	7.44
47	Benzene	0.780	0.734	5.9	74	0.00	7.43
48	TAME	0.586	0.537	8.4	70	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.284	-10.1	83	0.00	7.56
50	Isobutyl alcohol	0.018	0.019	-5.6	85	0.00	7.59
51	1,2-Dichloroethane	0.271	0.254	6.3	73	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.068	0.0	74	0.00	7.70
53	Trichloroethene	0.218	0.203	6.9	76	0.00	8.04
	----- True	Calc.	% Drift	-----			
54	Methylcyclohexane	40.000	38.733	3.2	82	0.00	8.05
	----- AvgRF	CCRF	% Dev	-----			
55	Dibromomethane	0.139	0.129	7.2	69	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.192	4.5	72	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	71	0.00	8.63

6.7.10  
6

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

		True	Calc.	% Drift			
58	Methyl methacrylate	40.000	38.612	3.5	72	0.00	8.74
59	1,4-Dioxane	800.000	734.020	8.2	70	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	183.339	8.3	67	0.00	9.16
		AvgRF	CCRF	% Dev			
61	cis-1,3-Dichloropropene	0.313	0.294	6.1	69	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	73	0.00	11.01
63 S	Toluene-d8	1.426	1.461	-2.5	73	0.00	9.45
64 C	Toluene	1.141	1.091	4.4	72	0.00	9.50
		True	Calc.	% Drift			
65	2-Nitropropane	200.000	231.683	-15.8	86	0.00	9.70
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.494	0.525	-6.3	78	0.00	9.83
		True	Calc.	% Drift			
67	trans-1,3-Dichloropropene	40.000	38.716	3.2	70	0.00	9.90
		AvgRF	CCRF	% Dev			
68	Tetrachloroethene	0.345	0.355	-2.9	81	0.00	9.91
		True	Calc.	% Drift			
69	Ethyl methacrylate	40.000	38.052	4.9	71	0.00	10.01
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.233	0.227	2.6	71	0.00	10.05
71	Dibromochloromethane	0.322	0.311	3.4	69	0.00	10.26
72	1,3-Dichloropropane	0.405	0.408	-0.7	71	0.00	10.34
73	1,2-Dibromoethane	0.300	0.293	2.3	70	0.00	10.51
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	2000.000	2392.114	-19.6	88	0.00	10.61
75	2-hexanone	200.000	207.413	-3.7	78	0.00	10.66
		AvgRF	CCRF	% Dev			
76	1-Chlorohexane	0.323	0.312	3.4	78	0.00	10.96
77 C	Ethylbenzene	1.232	1.198	2.8	75	0.00	11.02
78 P	Chlorobenzene	0.754	0.724	4.0	72	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.279	4.5	71	0.00	11.07
80	m,p-Xylene	0.925	0.909	1.7	73	0.00	11.16
81	o-Xylene	0.994	0.948	4.6	72	0.00	11.60
		True	Calc.	% Drift			
82	Styrene	40.000	38.360	4.1	70	0.00	11.66
		AvgRF	CCRF	% Dev			
83 P	Bromoform	0.271	0.263	3.0	67	0.00	11.71
84	Isopropylbenzene	1.170	1.137	2.8	74	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.838	0.5	71	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.155	13.4	62	0.00	12.26
88	n-Propylbenzene	2.201	2.174	1.2	76	0.00	12.33
89	Bromobenzene	0.564	0.543	3.7	71	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.759	1.3	73	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.527	3.2	73	0.00	12.52
92	2-Chlorotoluene	1.501	1.486	1.0	75	0.00	12.52

6.7.10  
6

# Continuing Calibration Summary

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

	True	Calc.	% Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	33.718	15.7	64	0.00 12.57
	AvgRF	CCRF	% Dev			
94	1,2,3-Trichloropropane	0.238	0.235	1.3	73	0.00 12.55
95	Cyclohexanone	0.053	0.051	3.8	74	0.00 12.61
96	4-Chlorotoluene	1.351	1.318	2.4	72	0.00 12.68
97	tert-Butylbenzene	0.838	0.813	3.0	75	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.498	3.6	72	0.00 12.93
99	Pentachloroethane	0.345	0.314	9.0	70	0.00 12.90
	True	Calc.	% Drift			
100	sec-Butylbenzene	40.000	39.940	0.2	78	0.00 13.04
	AvgRF	CCRF	% Dev			
101	4-Isopropyltoluene	1.571	1.539	2.0	75	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.955	1.7	72	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.563	4.0	73	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.996	4.7	72	0.00 13.39
105	n-Butylbenzene	0.773	0.777	-0.5	75	0.00 13.61
	True	Calc.	% Drift			
106	Benzyl Chloride	40.000	32.740	18.1	58	0.00 13.63
	AvgRF	CCRF	% Dev			
107	1,2-Dichlorobenzene	0.953	0.934	2.0	72	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.197	-1.5	72	0.00 14.58
109	Hexachlorobutadiene	0.323	0.311	3.7	77	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.653	7.2	68	0.00 15.19
111	Naphthalene	2.202	2.085	5.3	67	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.653	7.0	68	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jul 06 23:13:42 2023

6.7.10  
 6

**Run Sequence Report**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V2O2981	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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<b>Lab Sample ID</b>	<b>Lab File ID</b>	<b>Date/Time Analyzed</b>	<b>Prep QC Batch</b>	<b>Client Sample ID</b>
V2O2981-BFB	2076618.D	06/07/23 09:26	n/a	BFB Tune
V2O2981-IC2981	2076622.D	06/07/23 11:22	n/a	Initial cal 4
V2O2981-ICC2981	2076623.D	06/07/23 11:47	n/a	Initial cal 5
V2O2981-IC2981	2076624.D	06/07/23 12:13	n/a	Initial cal 6
V2O2981-IC2981	2076625.D	06/07/23 12:38	n/a	Initial cal 7
V2O2981-IC2981	2076627.D	06/07/23 13:55	n/a	Initial cal 1
V2O2981-IC2981	2076628.D	06/07/23 14:20	n/a	Initial cal 2
V2O2981-IC2981	2076629.D	06/07/23 14:46	n/a	Initial cal 3
V2O2981-ICV2981	2076631.D	06/07/23 15:37	n/a	Initial cal verification 5
V2O2981-ICV2981	2076632.D	06/07/23 16:02	n/a	Initial cal verification 4

## Run Sequence Report

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V203017	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V203017-BFB	2077411.D	07/05/23 08:10	n/a	BFB Tune
V203017-CC2981	2077412.D	07/05/23 08:36	n/a	Continuing cal 4
V203017-BS	2077413.D	07/05/23 09:01	n/a	Blank Spike
V203017-MB	2077415.D	07/05/23 09:52	n/a	Method Blank
ZZZZZZ	2077416.D	07/05/23 10:17	n/a	(unrelated sample)
FC7382-3	2077417.D	07/05/23 10:43	n/a	TB
FC7382-1	2077418.D	07/05/23 11:08	n/a	SEAD-25-MW25-31S-20230628
FC7382-2	2077419.D	07/05/23 11:34	n/a	DUP-01-20230628
ZZZZZZ	2077420.D	07/05/23 11:59	n/a	(unrelated sample)
ZZZZZZ	2077421.D	07/05/23 12:25	n/a	(unrelated sample)
ZZZZZZ	2077422.D	07/05/23 12:50	n/a	(unrelated sample)
ZZZZZZ	2077423.D	07/05/23 13:16	n/a	(unrelated sample)
ZZZZZZ	2077424.D	07/05/23 13:41	n/a	(unrelated sample)
ZZZZZZ	2077425.D	07/05/23 14:07	n/a	(unrelated sample)
ZZZZZZ	2077426.D	07/05/23 14:32	n/a	(unrelated sample)
ZZZZZZ	2077427.D	07/05/23 14:58	n/a	(unrelated sample)
ZZZZZZ	2077428.D	07/05/23 15:23	n/a	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23 15:49	n/a	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23 16:14	n/a	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23 16:40	n/a	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23 17:05	n/a	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23 17:30	n/a	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23 17:56	n/a	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23 18:21	n/a	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23 18:47	n/a	Matrix Spike
FC7382-1MSD	2077437.D	07/05/23 19:12	n/a	Matrix Spike Duplicate
V203017-ECC2981	2077438.D	07/05/23 19:38	n/a	Ending cal 4



## Run Sequence Report

Job Number: FC7382  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot; NY

Run ID: VI2948	Method: SW846 8260D	Instrument ID: GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2948-BFB	I757260.D	06/15/23 10:08	n/a	BFB Tune
VI2948-IC2948	I757261.D	06/15/23 10:43	n/a	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23 11:16	n/a	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23 11:40	n/a	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23 12:04	n/a	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23 12:28	n/a	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23 12:52	n/a	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23 13:15	n/a	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23 14:04	n/a	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23 14:04	n/a	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23 14:27	n/a	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23 14:27	n/a	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23 14:51	n/a	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23 15:39	n/a	Method Blank
ZZZZZZ	I757274.D	06/15/23 16:03	n/a	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23 16:27	n/a	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23 16:51	n/a	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23 17:15	n/a	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23 17:39	n/a	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23 18:03	n/a	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23 18:27	n/a	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23 18:51	n/a	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23 19:15	n/a	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23 19:39	n/a	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23 20:03	n/a	(unrelated sample)
ZZZZZZ	I757285.D	06/15/23 20:27	n/a	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23 20:51	n/a	Ending cal 5

**Run Sequence Report**

**Job Number:** FC7382  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2963	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2963-BFB	I757702.D	07/06/23 08:41	n/a	BFB Tune
VI2963-CC2948	I757703.D	07/06/23 09:12	n/a	Continuing cal 5
VI2963-BS	I757704.D	07/06/23 09:43	n/a	Blank Spike
VI2963-MB	I757706.D	07/06/23 10:31	n/a	Method Blank
ZZZZZZ	I757707.D	07/06/23 10:55	n/a	(unrelated sample)
FC7382-3	I757708.D	07/06/23 11:19	n/a	TB
ZZZZZZ	I757709.D	07/06/23 11:42	n/a	(unrelated sample)
FC7493-1	I757710.D	07/06/23 12:06	n/a	(used for QC only; not part of job FC7382)
ZZZZZZ	I757711.D	07/06/23 12:30	n/a	(unrelated sample)
ZZZZZZ	I757712.D	07/06/23 12:54	n/a	(unrelated sample)
ZZZZZZ	I757713.D	07/06/23 13:18	n/a	(unrelated sample)
ZZZZZZ	I757716.D	07/06/23 15:41	n/a	(unrelated sample)
FC7382-1	I757717.D	07/06/23 16:05	n/a	SEAD-25-MW25-31S-20230628
FC7382-2	I757718.D	07/06/23 16:29	n/a	DUP-01-20230628
ZZZZZZ	I757720.D	07/06/23 16:53	n/a	(unrelated sample)
ZZZZZZ	I757721.D	07/06/23 17:36	n/a	(unrelated sample)
ZZZZZZ	I757722.D	07/06/23 18:00	n/a	(unrelated sample)
ZZZZZZ	I757723.D	07/06/23 18:24	n/a	(unrelated sample)
FC7493-1MS	I757724.D	07/06/23 18:48	n/a	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23 19:12	n/a	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23 19:35	n/a	Ending cal 5

MS Volatiles

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Raw Data

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7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077418.d  
 Acq On : 5 Jul 2023 11:08 am  
 Operator : jeniferw  
 Sample : FC7382-1  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 05 21:33:18 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

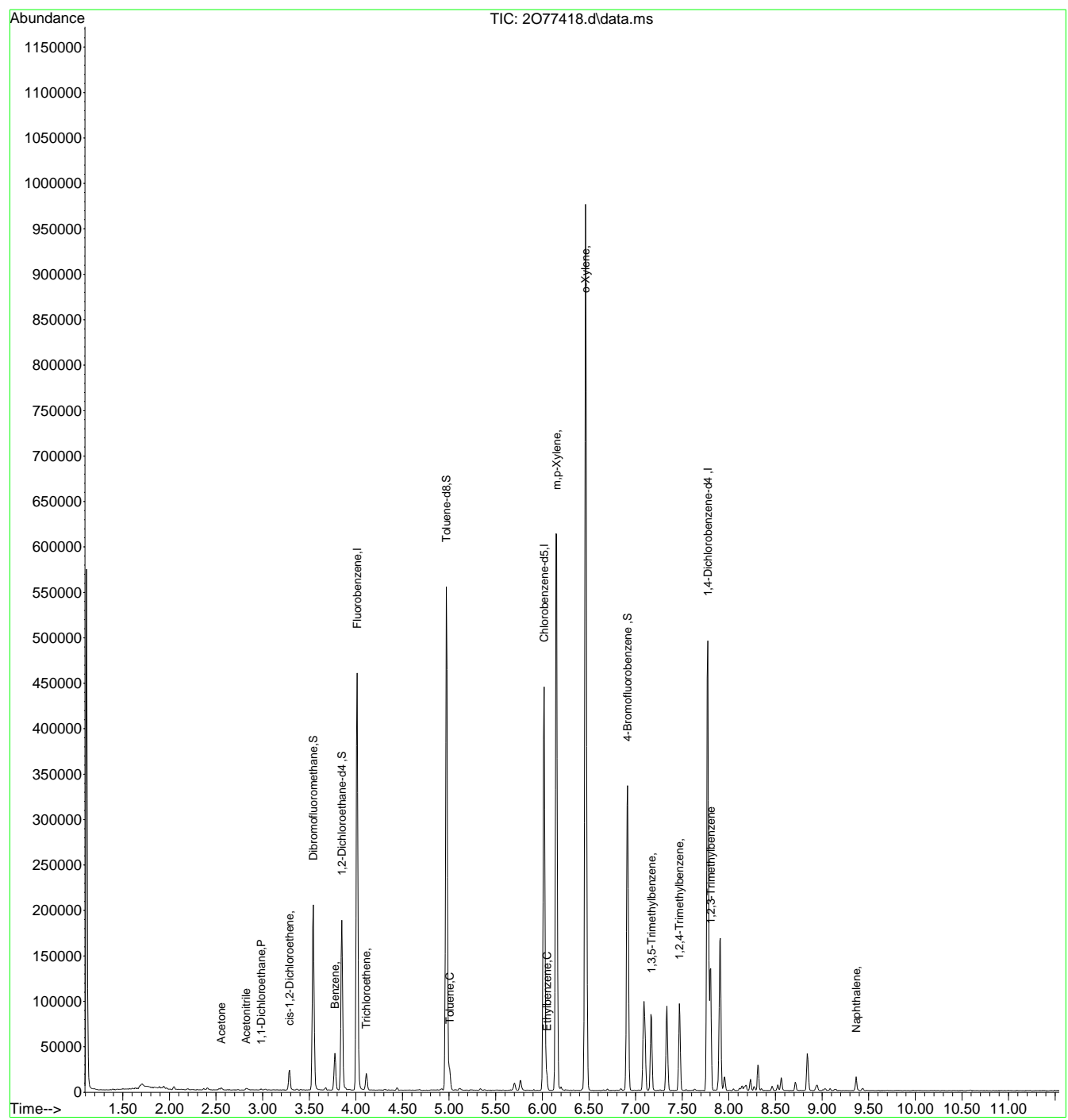
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	287082	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	203554	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	107311	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	85349	54.67	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	109.34%	
50) 1,2-Dichloroethane-d4	3.848	65	95203	51.37	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.74%	
63) Toluene-d8	4.970	98	275296	50.73	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.46%	
86) 4-Bromofluorobenzene	6.915	174	75877	48.39	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.78%	
Target Compounds						
						Qvalue
19) Acetone	2.556	43	2396	3.62	ug/L	99
25) Acetonitrile	2.824	41	1984	7.69	ug/L	79
28) 1,1-Dichloroethane	2.983	63	746	0.32	ug/L	86
32) cis-1,2-Dichloroethene	3.288	96	7464	4.92	ug/L	97
47) Benzene	3.775	78	25342	4.85	ug/L	75
53) Trichloroethene	4.111	95	4848	3.20	ug/L	85
64) Toluene	5.007	91	12089	2.22	ug/L	97
77) Ethylbenzene	6.049	91	9174	1.54	ug/L	92
80) m,p-Xylene	6.153	91	285348	60.78	ug/L	99
81) o-Xylene	6.464	91	446498	94.66	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	39621	8.41	ug/L	99
99) 1,2,4-Trimethylbenzene	7.470	105	43540	9.23	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	64638	12.89	ug/L	100
112) Naphthalene	9.366	128	9530	1.63	ug/L	92
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(#) = qualifier out of range (m) = manual integration (+) = signals summed

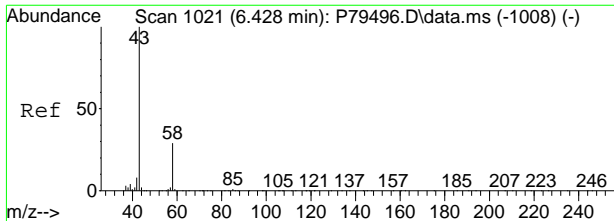
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077418.d  
Acq On : 5 Jul 2023 11:08 am  
Operator : jeniferw  
Sample : FC7382-1  
Misc : MS54357,V203017,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 05 21:33:18 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration

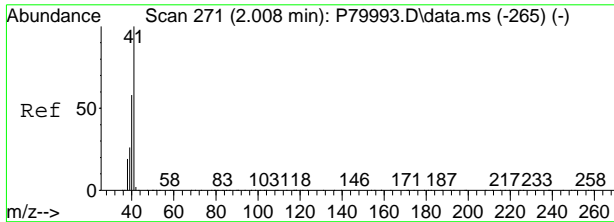
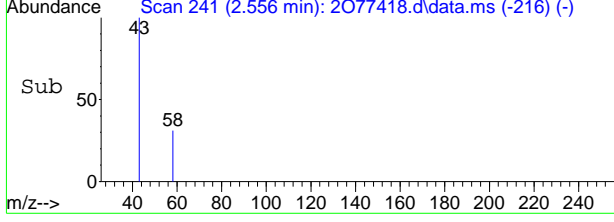
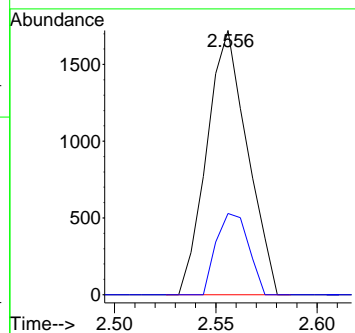
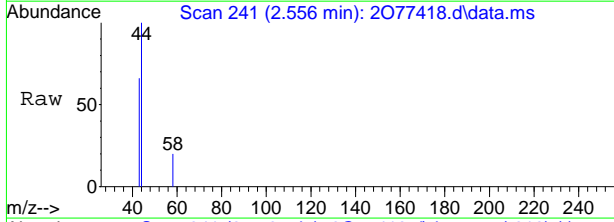


7.1.7



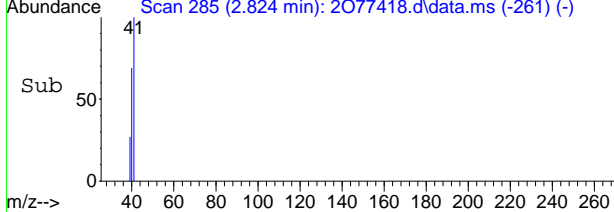
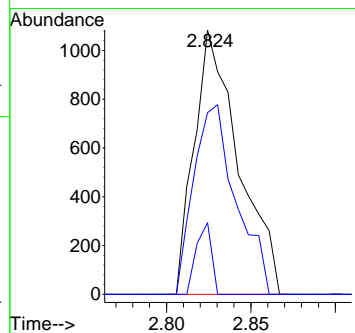
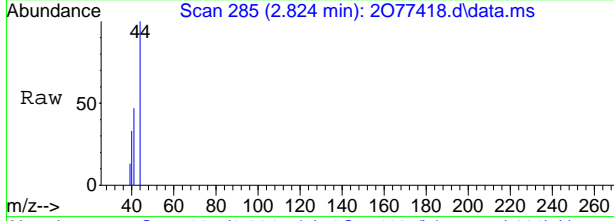
#19  
 Acetone  
 Concen: 3.62 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. 0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Resp	Lower	Upper
43	2396		
58	30.8	0.1	60.1



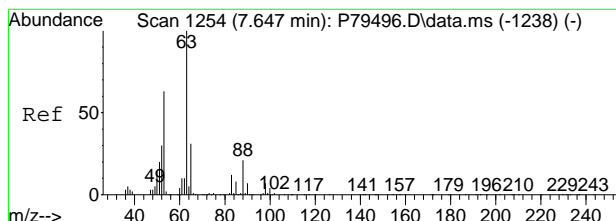
#25  
 Acetonitrile  
 Concen: 7.69 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Resp	Lower	Upper
41	1984		
40	68.7	32.7	72.7
39	27.1	0.0	39.4



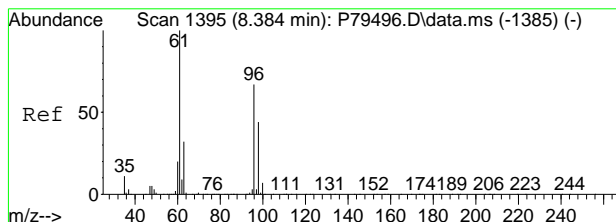
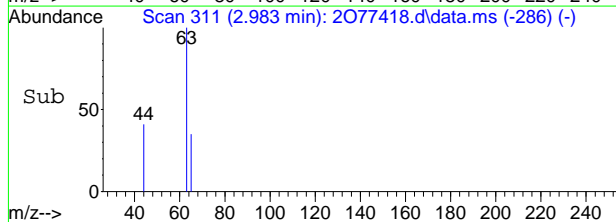
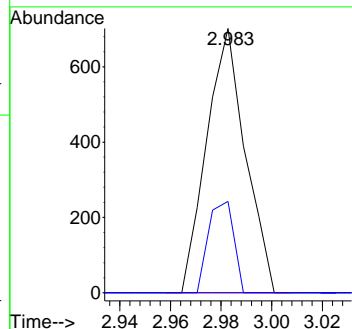
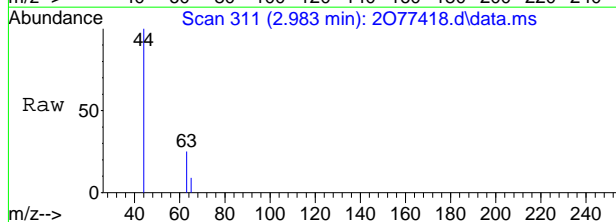
7.1.1  
7





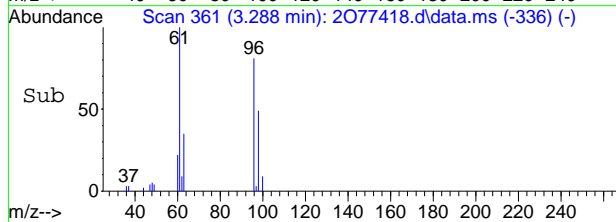
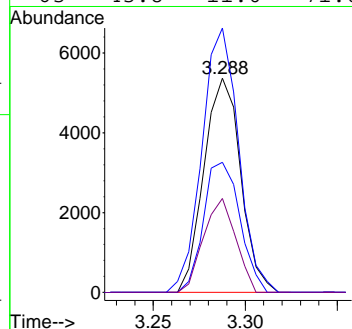
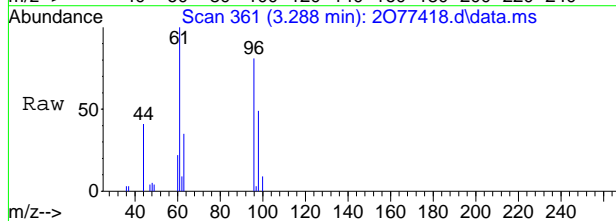
#28  
 1,1-Dichloroethane  
 Concen: 0.32 ug/L  
 RT: 2.983 min Scan# 311  
 Delta R.T. -0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Resp	Lower	Upper
63	746		
63	100		
65	34.6	1.8	61.8
83	0.0	0.0	44.3

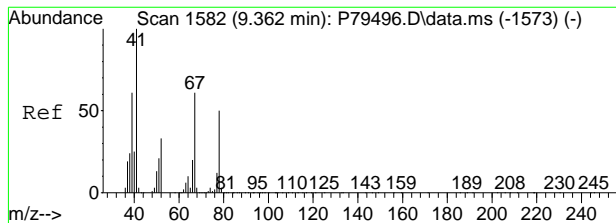


#32  
 cis-1,2-Dichloroethene  
 Concen: 4.92 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

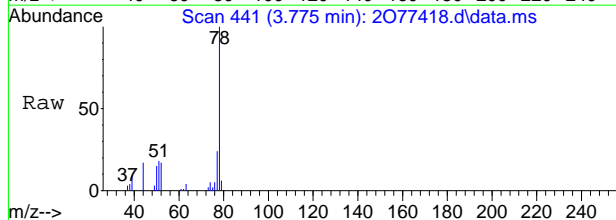
Tgt Ion	Resp	Lower	Upper
96	7464		
96	100		
61	123.4	95.8	155.8
98	60.7	32.6	92.6
63	43.8	11.0	71.0



7.1.1  
7

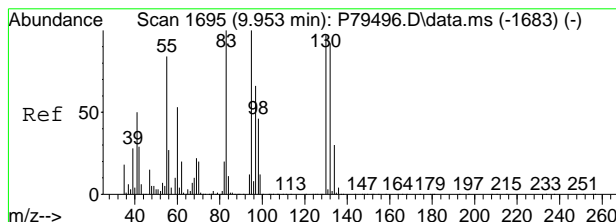
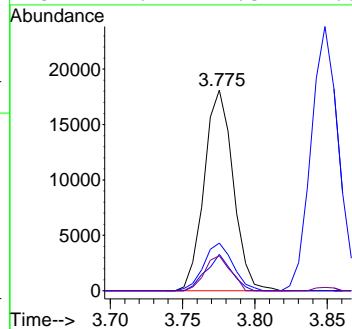
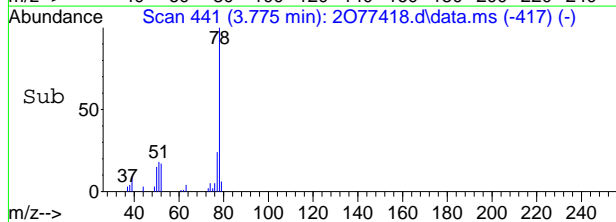


#47  
Benzene  
Concen: 4.85 ug/L  
RT: 3.775 min Scan# 441  
Delta R.T. -0.006 min  
Lab File: 2077418.d  
Acq: 5 Jul 2023 11:08 am

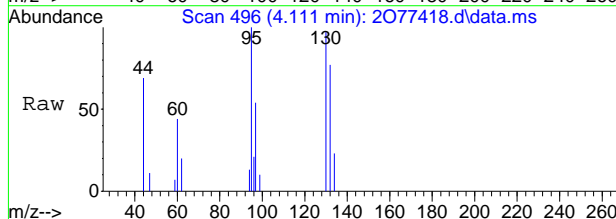


Tgt Ion: 78 Resp: 25342

Ion	Ratio	Lower	Upper
78	100		
51	18.2	3.0	63.0
77	23.8	0.0	54.1
52	17.4	11.3	71.3

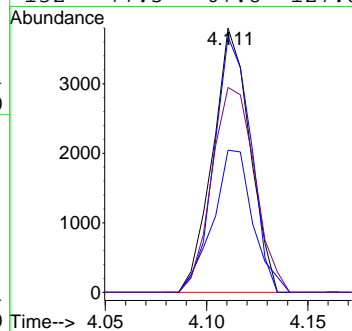
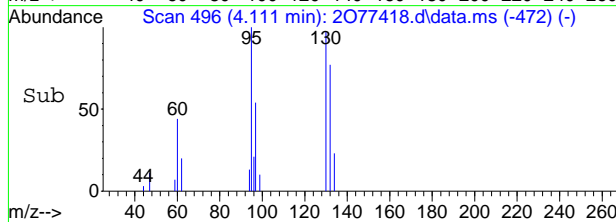


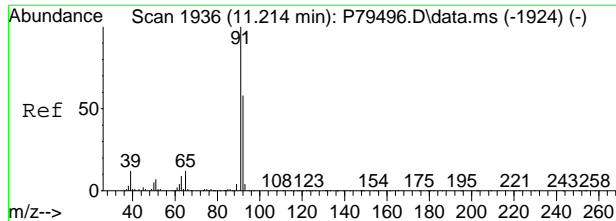
#53  
Trichloroethene  
Concen: 3.20 ug/L  
RT: 4.111 min Scan# 496  
Delta R.T. -0.006 min  
Lab File: 2077418.d  
Acq: 5 Jul 2023 11:08 am



Tgt Ion: 95 Resp: 4848

Ion	Ratio	Lower	Upper
95	100		
130	96.6	76.7	136.7
97	53.7	36.5	96.5
132	77.5	67.8	127.8

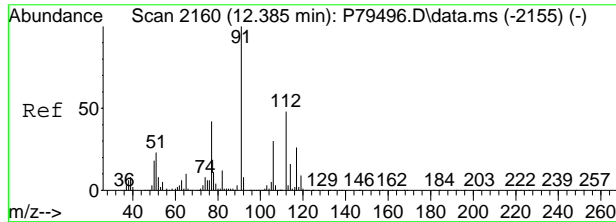
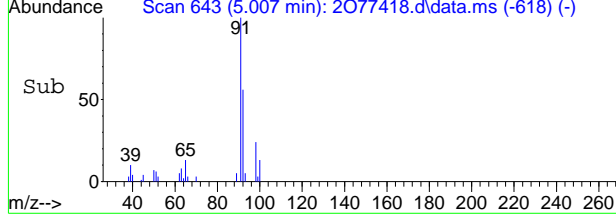
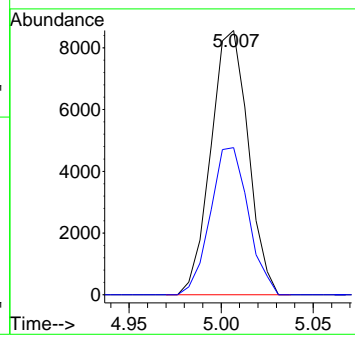
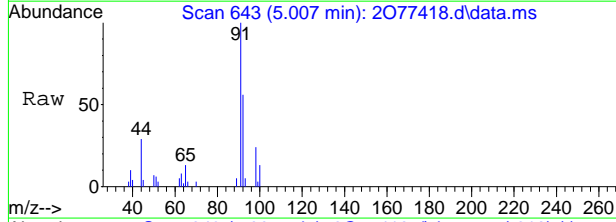




#64  
 Toluene  
 Concen: 2.22 ug/L  
 RT: 5.007 min Scan# 643  
 Delta R.T. -0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion: 91 Resp: 12089

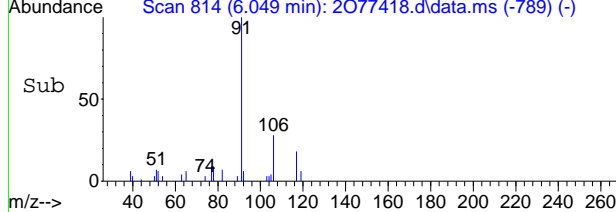
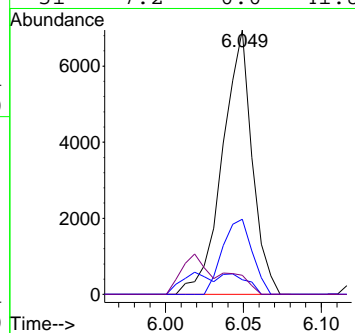
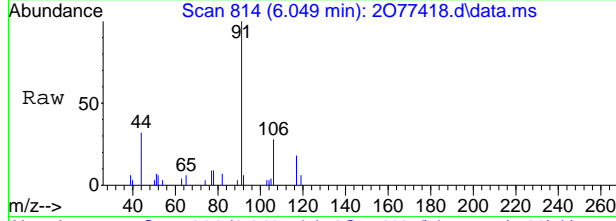
Ion	Ratio	Lower	Upper
91	100		
92	55.7	27.6	87.6



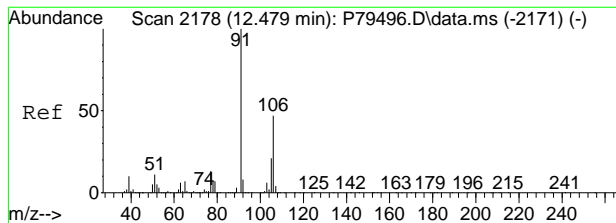
#77  
 Ethylbenzene  
 Concen: 1.54 ug/L  
 RT: 6.049 min Scan# 814  
 Delta R.T. 0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion: 91 Resp: 9174

Ion	Ratio	Lower	Upper
91	100		
106	28.4	2.3	62.3
65	5.5	0.0	38.9
51	7.2	0.0	41.8

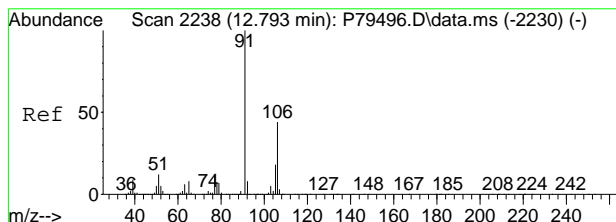
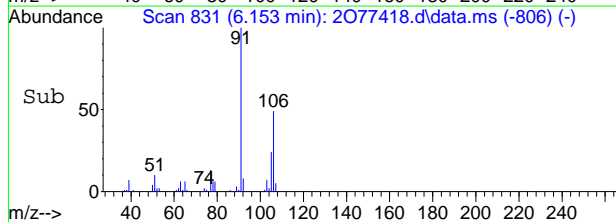
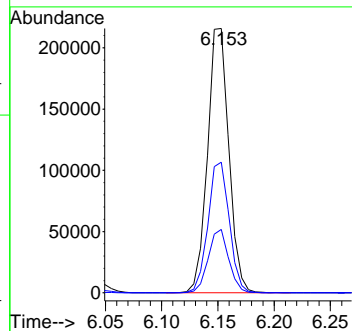
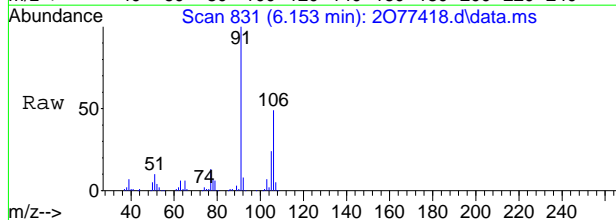


7.1.1  
7



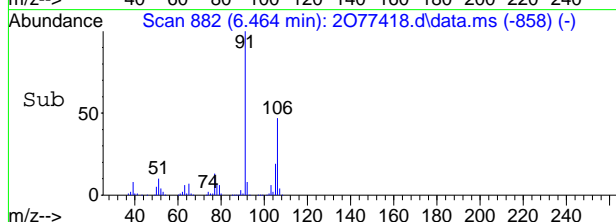
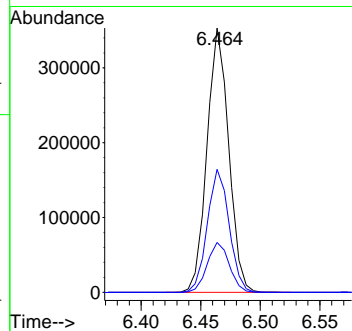
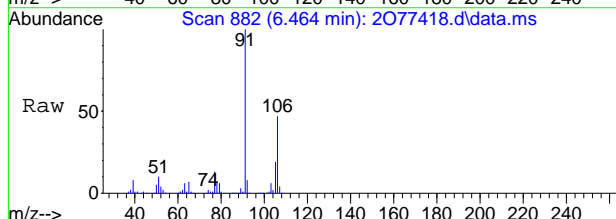
#80  
 m,p-Xylene  
 Concen: 60.78 ug/L  
 RT: 6.153 min Scan# 831  
 Delta R.T. -0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Resp	Lower	Upper
91	285348		
106	49.4	19.3	79.3
105	24.0	0.0	52.3

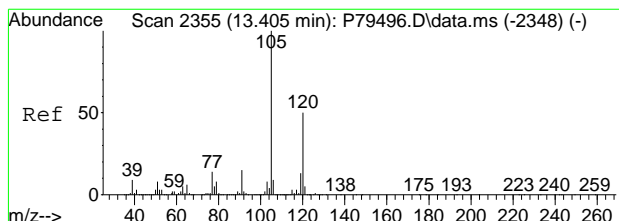


#81  
 o-Xylene  
 Concen: 94.66 ug/L  
 RT: 6.464 min Scan# 882  
 Delta R.T. -0.006 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Resp	Lower	Upper
91	446498		
106	46.5	15.9	75.9
105	18.9	0.0	48.9

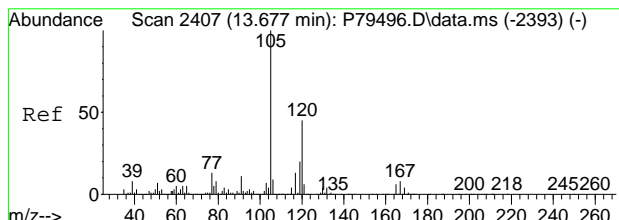
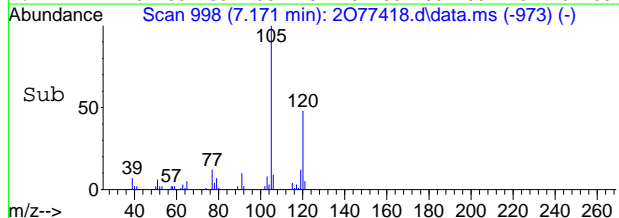
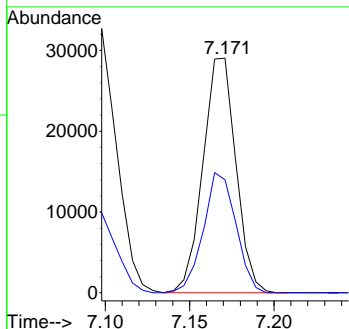
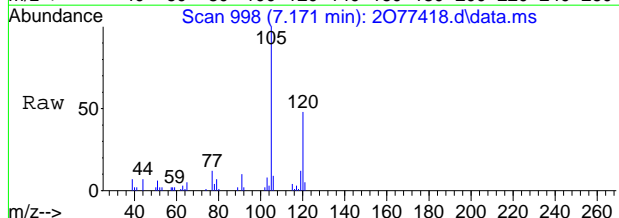


7.1.1  
7



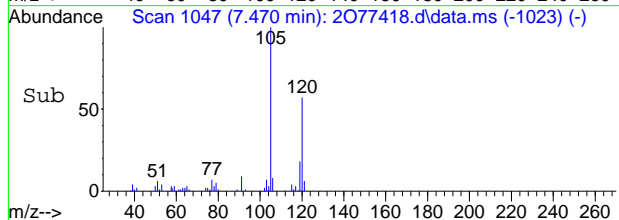
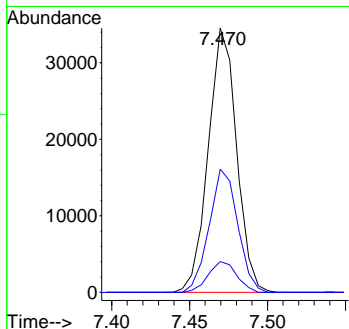
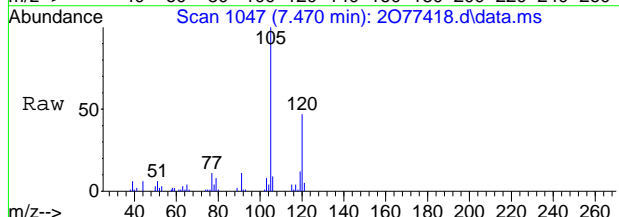
#91  
 1,3,5-Trimethylbenzene  
 Concen: 8.41 ug/L  
 RT: 7.171 min Scan# 998  
 Delta R.T. -0.000 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

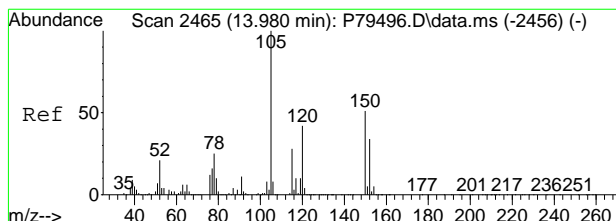
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.1	18.6	78.6



#99  
 1,2,4-Trimethylbenzene  
 Concen: 9.23 ug/L  
 RT: 7.470 min Scan# 1047  
 Delta R.T. -0.006 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

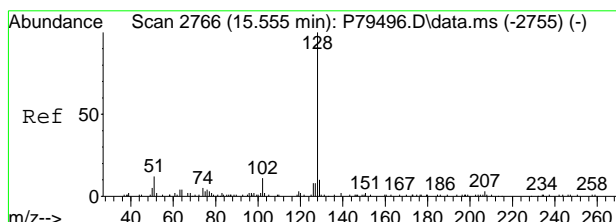
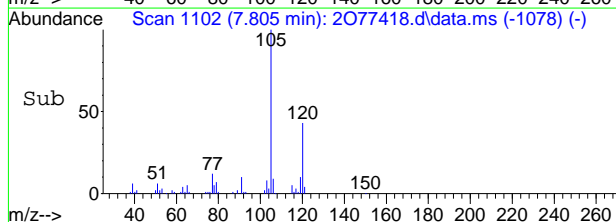
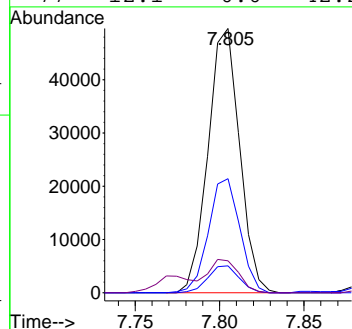
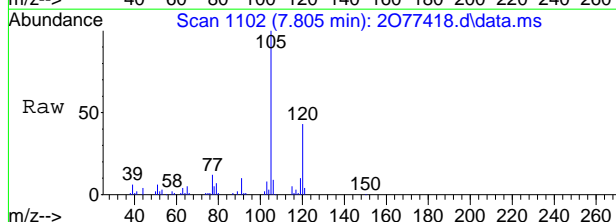
Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.6	15.6	75.6
119	11.7	0.0	42.1





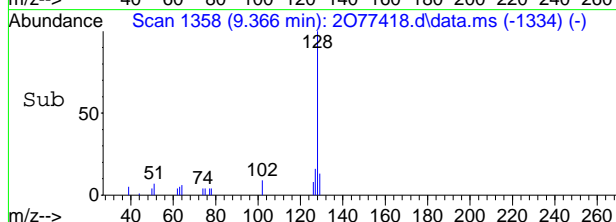
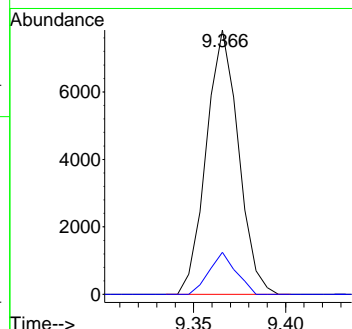
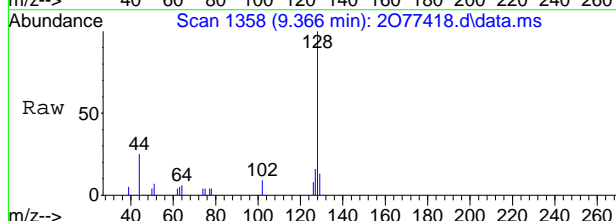
#104  
 1,2,3-Trimethylbenzene  
 Concen: 12.89 ug/L  
 RT: 7.805 min Scan# 1102  
 Delta R.T. -0.006 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	43.1	13.3	73.3
119	10.2	0.0	39.8
77	12.1	0.0	42.2



#112  
 Naphthalene  
 Concen: 1.63 ug/L  
 RT: 9.366 min Scan# 1358  
 Delta R.T. -0.006 min  
 Lab File: 2077418.d  
 Acq: 5 Jul 2023 11:08 am

Tgt Ion	Ratio	Lower	Upper
128	100		
127	15.9	0.0	42.7





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757717.d  
 Acq On : 6 Jul 2023 4:05 pm  
 Operator : jeniferw  
 Sample : FC7382-1 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:32:34 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

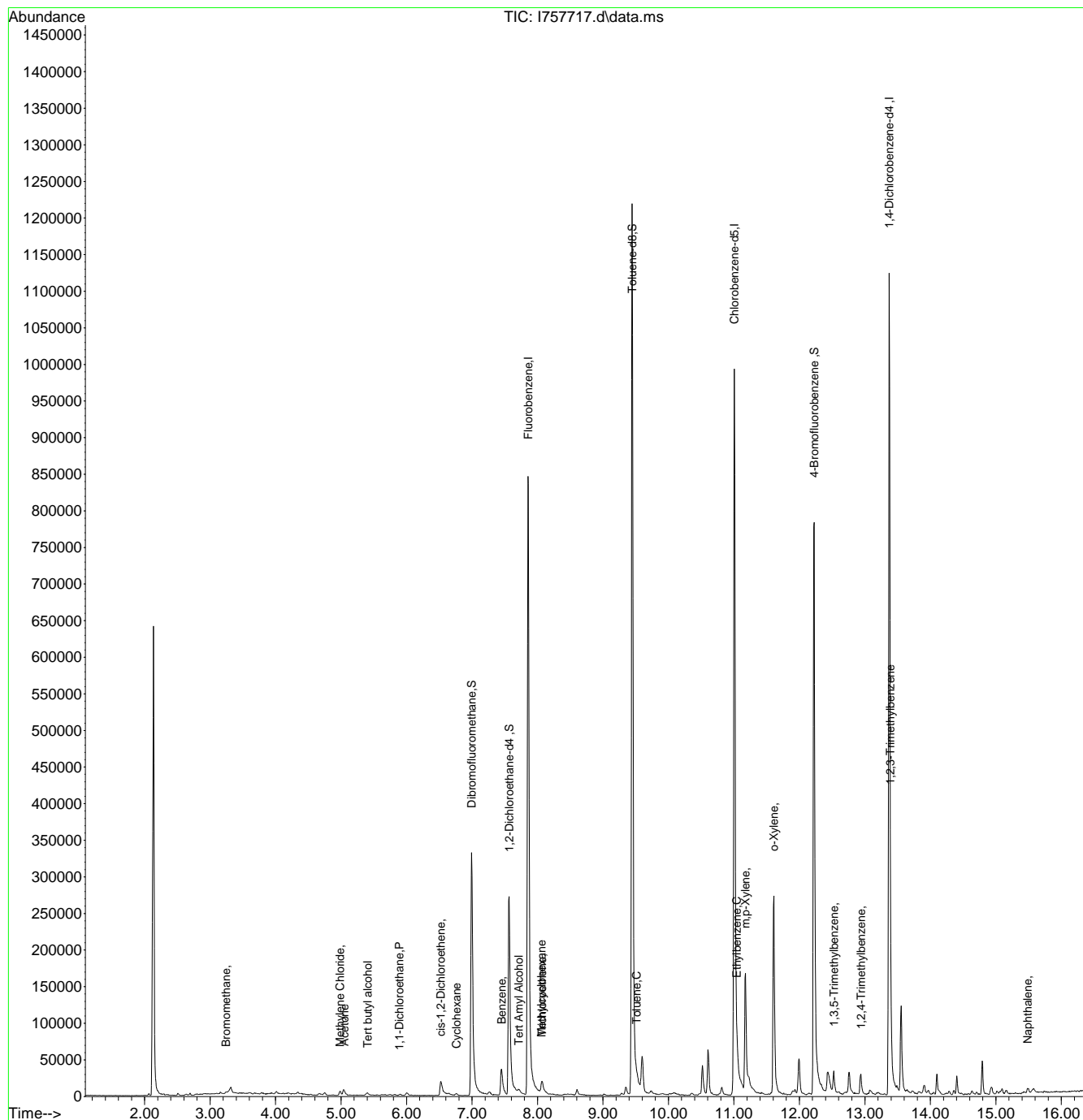
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.860	96	804929	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	586014	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	328099	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	220409	48.24	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.48%	
49) 1,2-Dichloroethane-d4	7.567	65	212647	51.19	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.38%	
63) Toluene-d8	9.445	98	812888	48.64	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.28%	
86) 4-Bromofluorobenzene	12.225	174	271854	49.21	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.42%	
Target Compounds						
						Qvalue
6) Bromomethane	3.239	94	966	0.80	ug/L	75
18) Methylene Chloride	4.983	49	3493	0.77	ug/L	89
19) Acetone	5.050	43	8642	3.99	ug/L	98
24) Tert butyl alcohol	5.403	59	5057	3.82	ug/L	94
28) 1,1-Dichloroethane	5.891	63	2424	0.40	ug/L	81
32) cis-1,2-Dichloroethene	6.525	96	13341	3.69	ug/L	99
35) Cyclohexane	6.763	56	1081	0.24	ug/L #	69
47) Benzene	7.452	78	42208	3.36	ug/L #	49
52) Tert Amyl Alcohol	7.714	59	3311	3.05	ug/L	89
53) Trichloroethene	8.067	95	7200	2.05	ug/L	97
54) Methylcyclohexane	8.061	83	841	0.21	ug/L	82
64) Toluene	9.512	91	10207	0.76	ug/L	79
77) Ethylbenzene	11.042	91	23628	1.64	ug/L	92
80) m,p-Xylene	11.176	91	107176	9.89	ug/L	98
81) o-Xylene	11.609	91	173653	14.90	ug/L	99
91) 1,3,5-Trimethylbenzene	12.524	105	18101	1.75	ug/L	94
98) 1,2,4-Trimethylbenzene	12.938	105	20462	2.01	ug/L	97
103) 1,2,3-Trimethylbenzene	13.389	105	29697	2.78	ug/L	92
111) Naphthalene	15.487	128	5329	0.37	ug/L	91

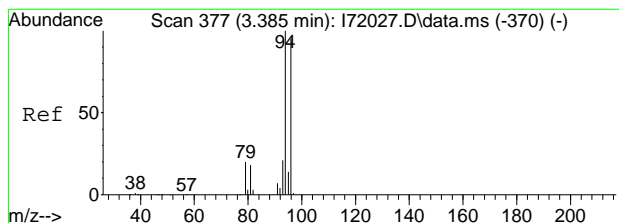
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

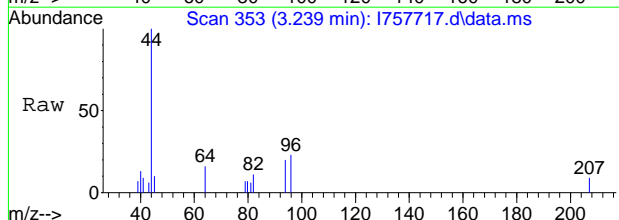
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757717.d  
 Acq On : 6 Jul 2023 4:05 pm  
 Operator : jeniferw  
 Sample : FC7382-1 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:32:34 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



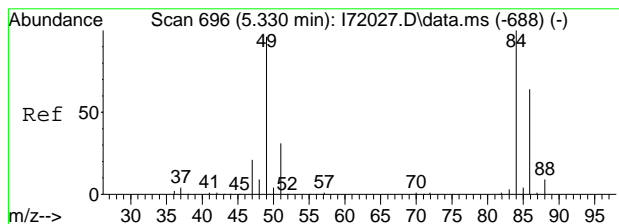
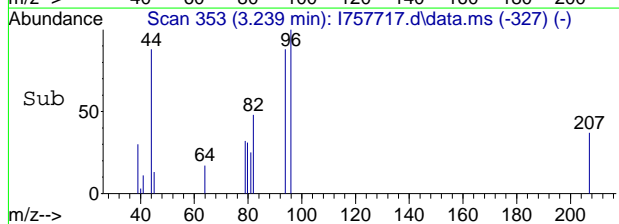
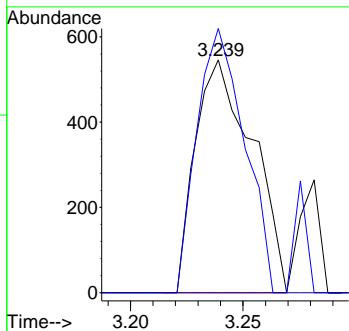


#6  
 Bromomethane  
 Concen: 0.80 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

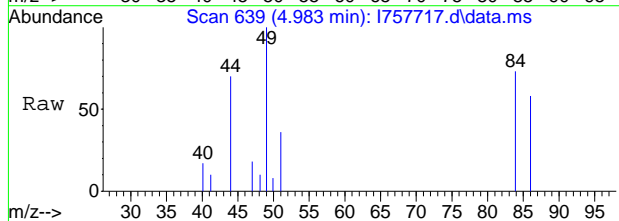


Tgt Ion: 94 Resp: 966

Ion	Ratio	Lower	Upper
94	100		
96	113.6	63.7	123.7
93	0.0	0.0	50.9

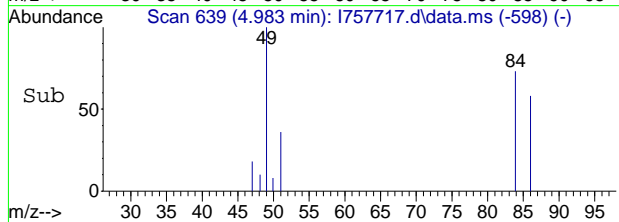
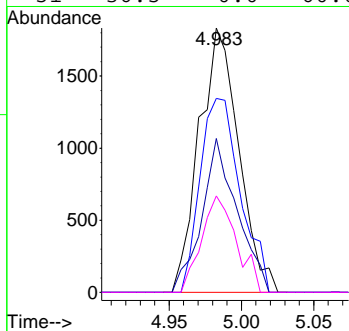


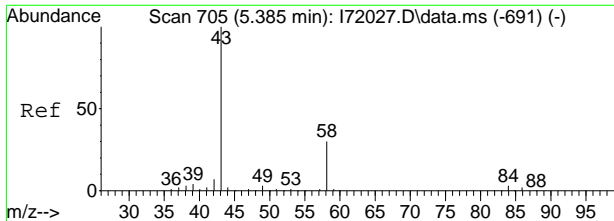
#18  
 Methylene Chloride  
 Concen: 0.77 ug/L  
 RT: 4.983 min Scan# 639  
 Delta R.T. 0.001 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm



Tgt Ion: 49 Resp: 3493

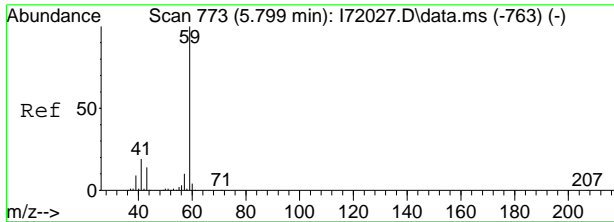
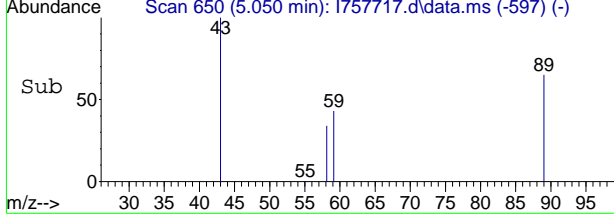
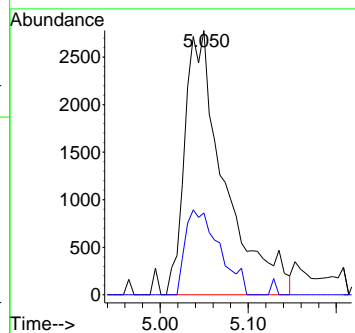
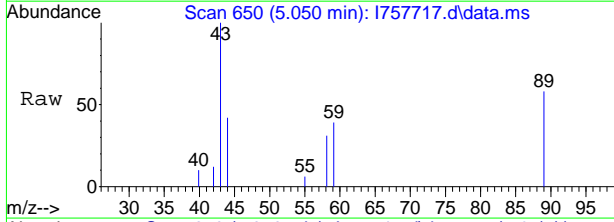
Ion	Ratio	Lower	Upper
49	100		
84	73.4	51.5	111.5
86	58.2	19.4	79.4
51	36.5	0.0	60.0





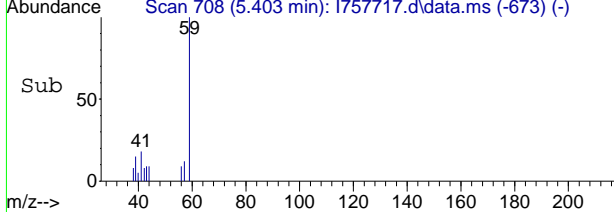
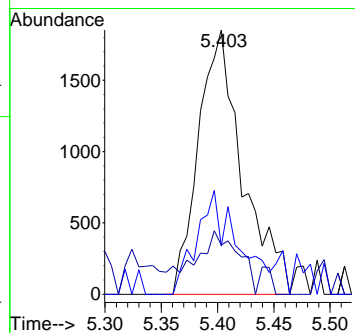
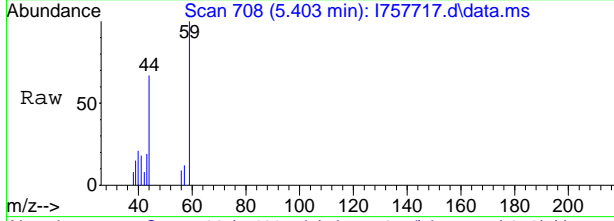
#19  
 Acetone  
 Concen: 3.99 ug/L  
 RT: 5.050 min Scan# 650  
 Delta R.T. 0.025 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	31.0	2.3	62.3

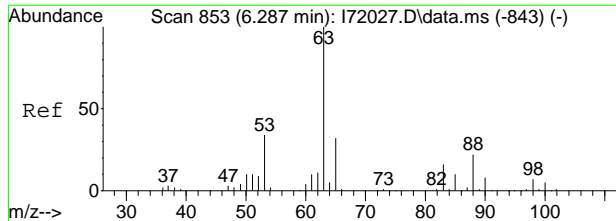


#24  
 Tert butyl alcohol  
 Concen: 3.82 ug/L  
 RT: 5.403 min Scan# 708  
 Delta R.T. 0.012 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Ratio	Lower	Upper
59	100		
41	18.2	0.0	47.2
43	18.7	0.0	44.0

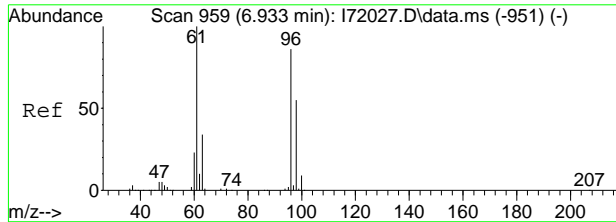
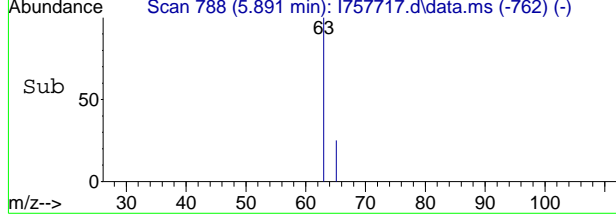
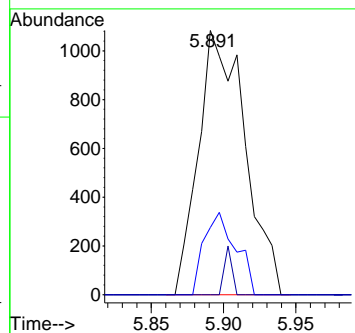
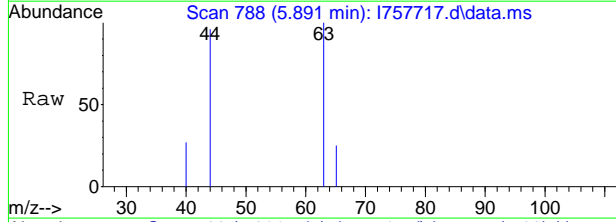


7.12  
7



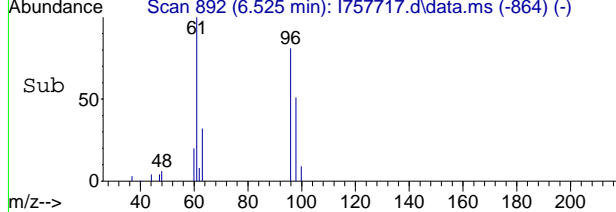
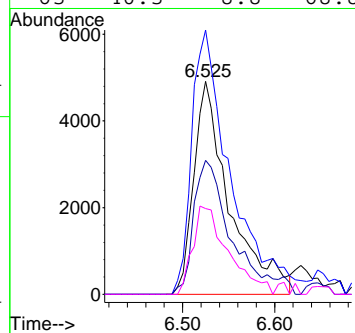
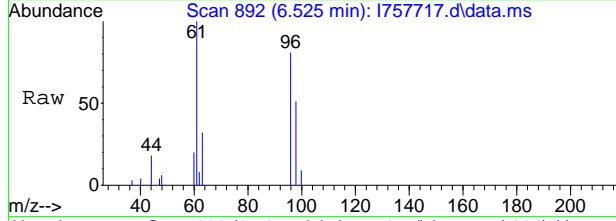
#28  
 1,1-Dichloroethane  
 Concen: 0.40 ug/L  
 RT: 5.891 min Scan# 788  
 Delta R.T. 0.006 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

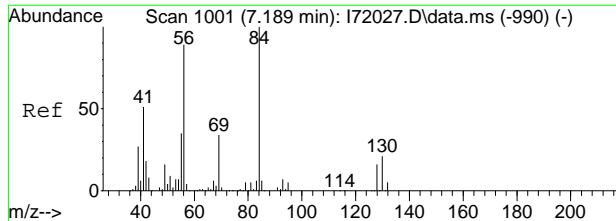
Tgt Ion	Resp	Lower	Upper
63	2424		
65	25.5	2.0	62.0
83	0.0	0.0	44.2



#32  
 cis-1,2-Dichloroethene  
 Concen: 3.69 ug/L  
 RT: 6.525 min Scan# 892  
 Delta R.T. 0.018 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

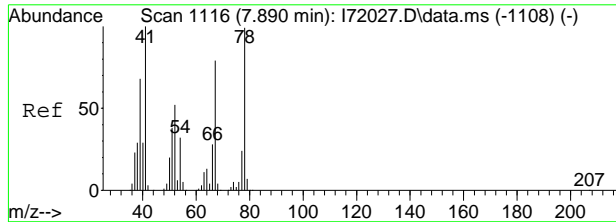
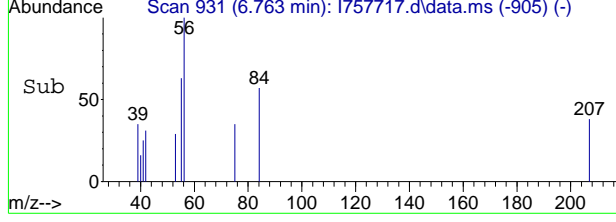
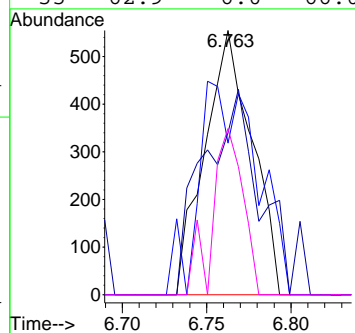
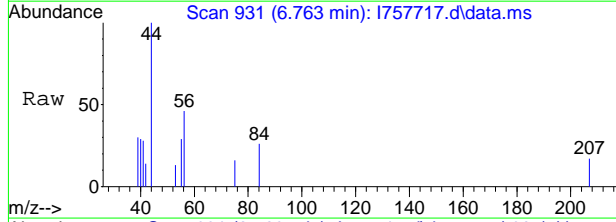
Tgt Ion	Resp	Lower	Upper
96	13341		
61	124.1	92.6	152.6
98	62.9	33.8	93.8
63	40.3	8.8	68.8





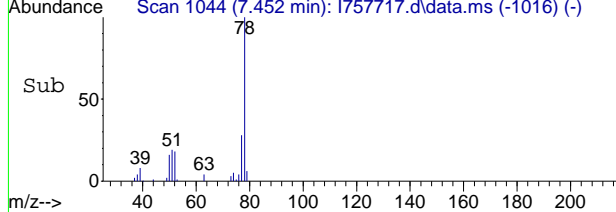
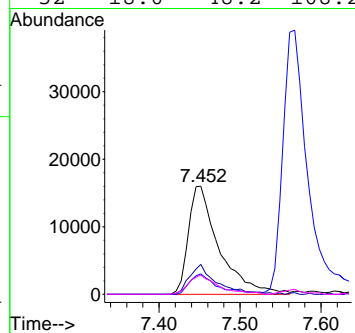
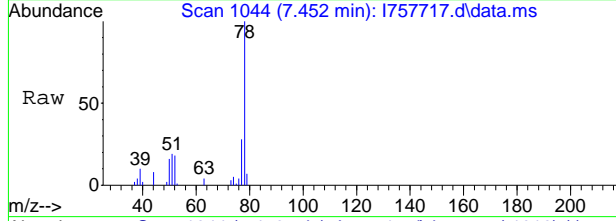
#35  
 Cyclohexane  
 Concen: 0.24 ug/L  
 RT: 6.763 min Scan# 931  
 Delta R.T. 0.007 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
56	1081		
84	57.3	57.9	117.9#
41	61.3	19.8	79.8
55	62.9	6.0	66.0



#47  
 Benzene  
 Concen: 3.36 ug/L  
 RT: 7.452 min Scan# 1044  
 Delta R.T. 0.019 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

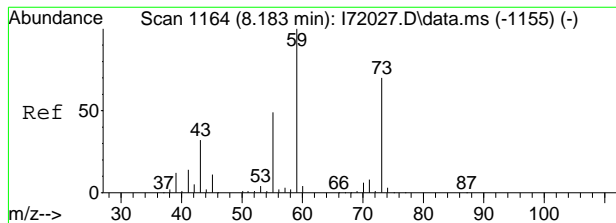
Tgt Ion	Resp	Lower	Upper
78	42208		
51	19.0	19.4	79.4#
77	27.8	0.0	54.0
52	18.0	48.2	108.2#



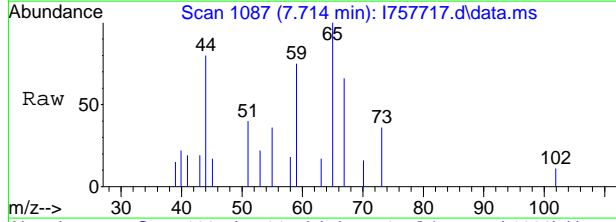
7.12  
7





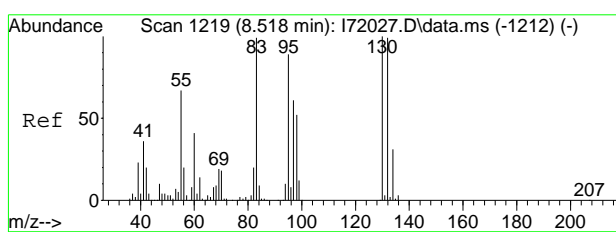
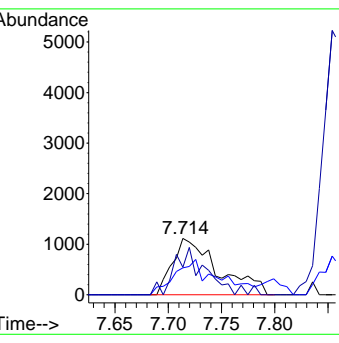
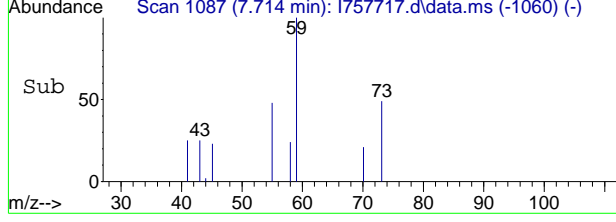


#52  
 Tert Amyl Alcohol  
 Concen: 3.05 ug/L  
 RT: 7.714 min Scan# 1087  
 Delta R.T. 0.013 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

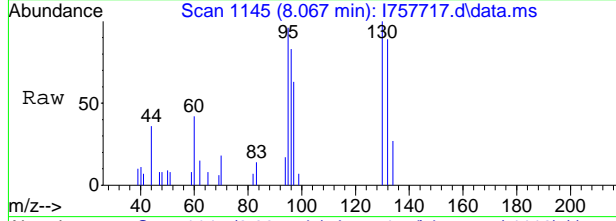


Tgt Ion: 59 Resp: 3311

Ion	Ratio	Lower	Upper
59	100		
55	47.8	12.6	72.6
73	48.5	28.4	88.4

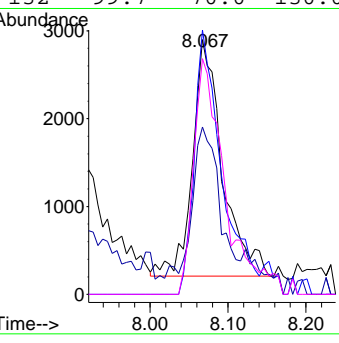
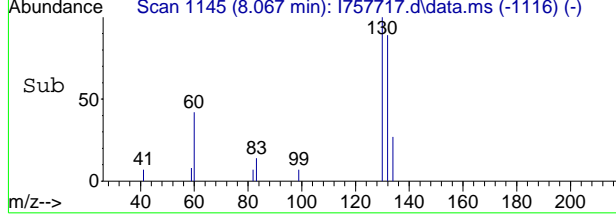


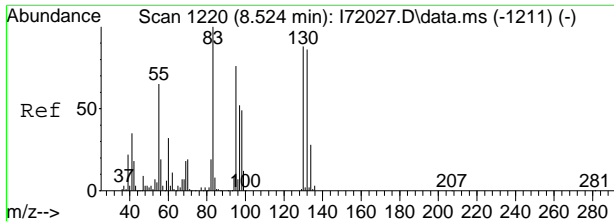
#53  
 Trichloroethene  
 Concen: 2.05 ug/L  
 RT: 8.067 min Scan# 1145  
 Delta R.T. 0.024 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm



Tgt Ion: 95 Resp: 7200

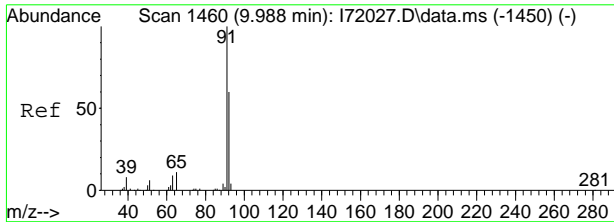
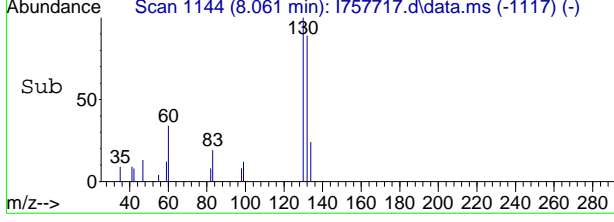
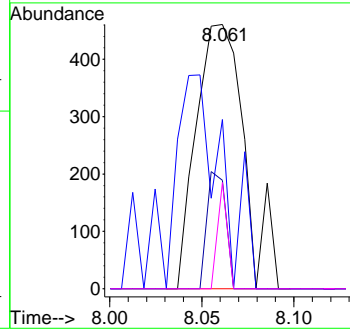
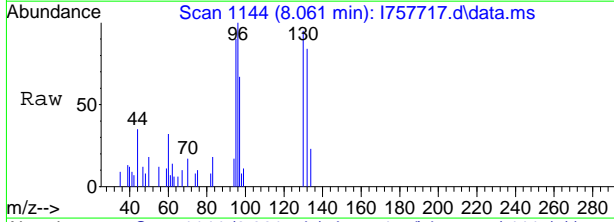
Ion	Ratio	Lower	Upper
95	100		
130	111.8	75.2	135.2
97	64.0	32.6	92.6
132	99.7	70.0	130.0





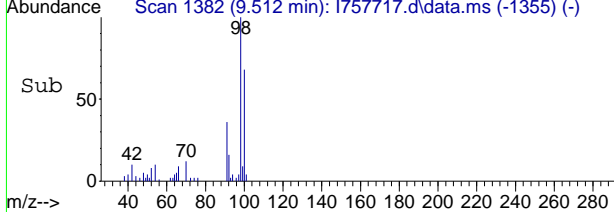
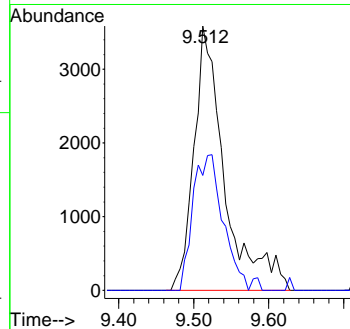
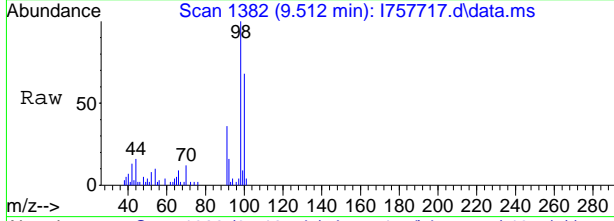
#54  
 Methylcyclohexane  
 Concen: 0.21 ug/L  
 RT: 8.061 min Scan# 1144  
 Delta R.T. 0.012 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Ratio	Lower	Upper
83	100		
55	64.0	50.3	110.3
98	41.0	17.8	77.8
42	40.1	0.0	53.5

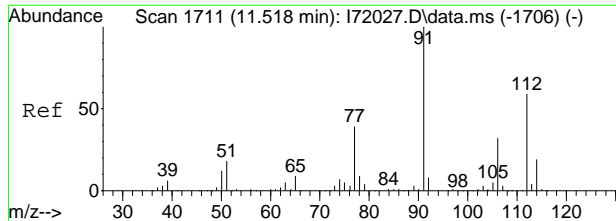


#64  
 Toluene  
 Concen: 0.76 ug/L  
 RT: 9.512 min Scan# 1382  
 Delta R.T. 0.012 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
92	43.4	29.2	89.2

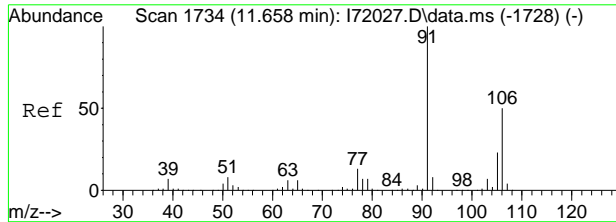
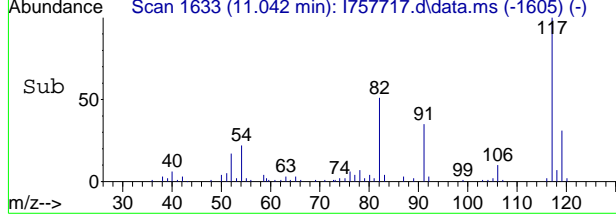
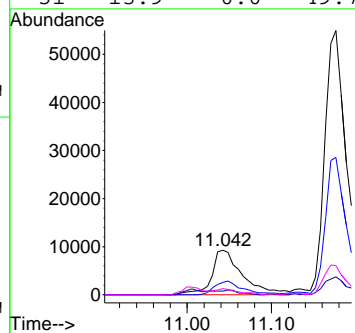
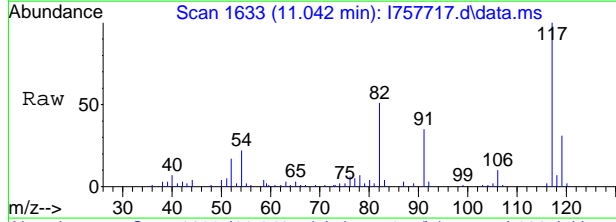


7.12  
7



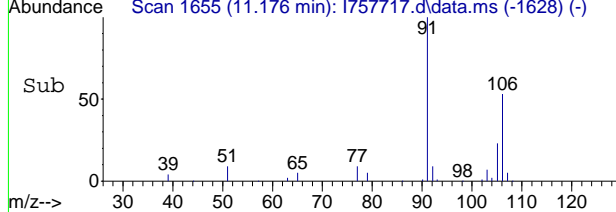
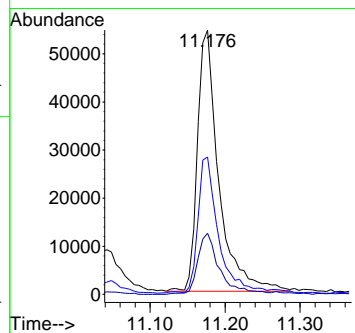
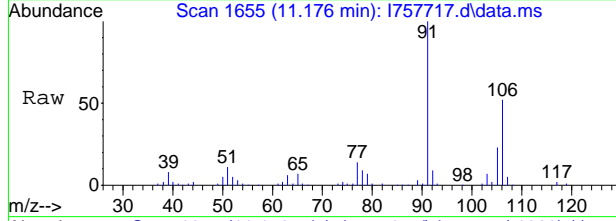
#77  
 Ethylbenzene  
 Concen: 1.64 ug/L  
 RT: 11.042 min Scan# 1633  
 Delta R.T. 0.018 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
91	23628		
106	27.8	1.9	61.9
65	8.6	0.0	38.8
51	13.9	0.0	49.7



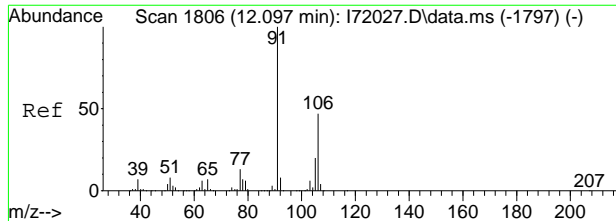
#80  
 m,p-Xylene  
 Concen: 9.89 ug/L  
 RT: 11.176 min Scan# 1655  
 Delta R.T. 0.012 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
91	107176		
106	51.9	20.2	80.2
105	23.4	0.0	52.6



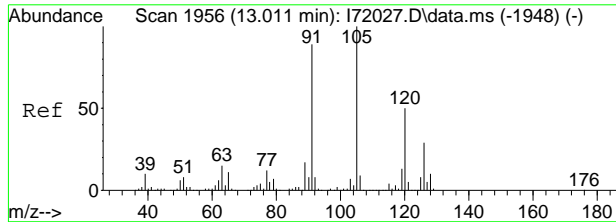
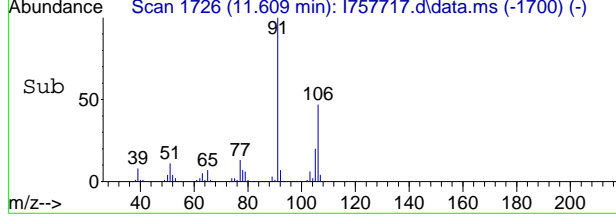
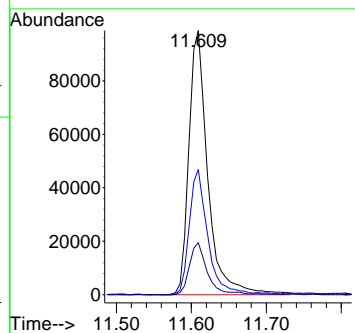
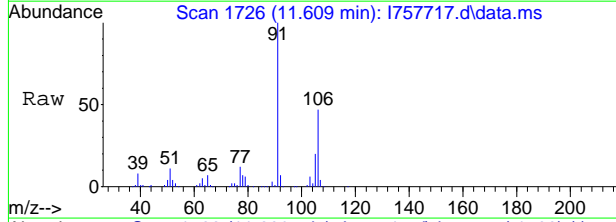
7.12  
7





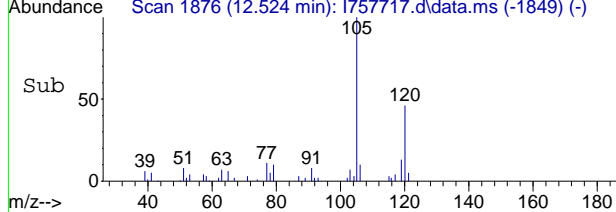
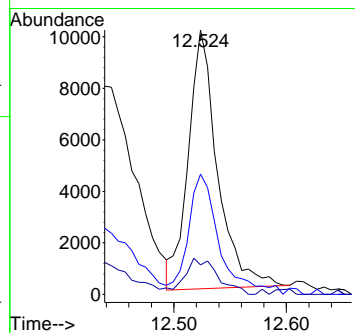
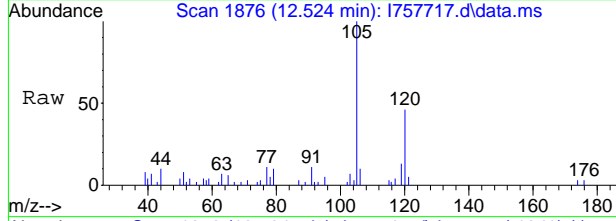
#81  
 o-Xylene  
 Concen: 14.90 ug/L  
 RT: 11.609 min Scan# 1726  
 Delta R.T. 0.006 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
91	173653		
106	47.4	16.8	76.8
105	19.7	0.0	49.1



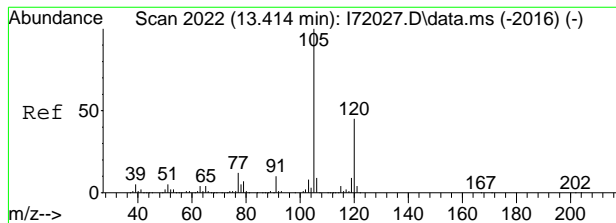
#91  
 1,3,5-Trimethylbenzene  
 Concen: 1.75 ug/L  
 RT: 12.524 min Scan# 1876  
 Delta R.T. 0.013 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
105	18101		
120	44.6	18.5	78.5
77	9.4	0.0	42.7



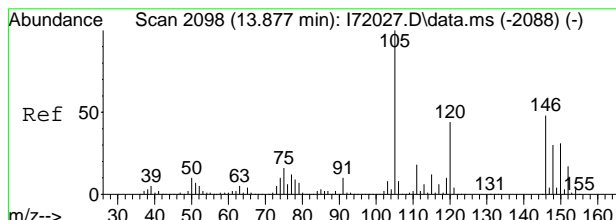
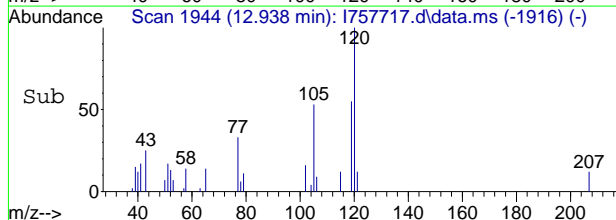
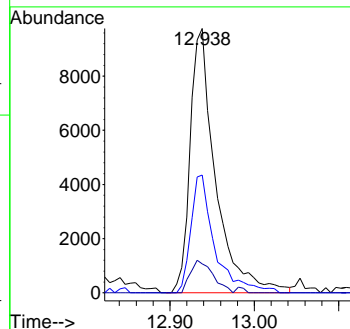
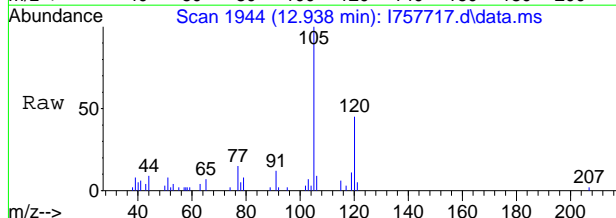
7.12  
7





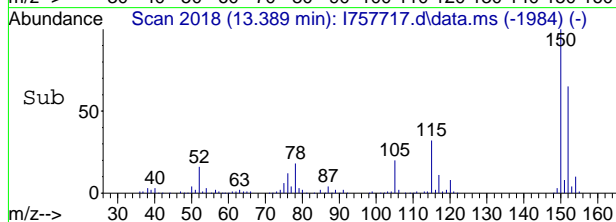
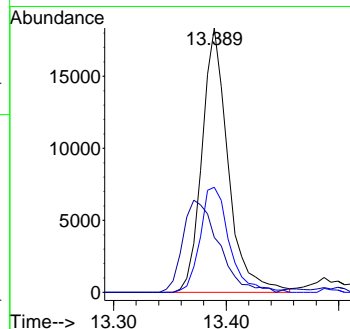
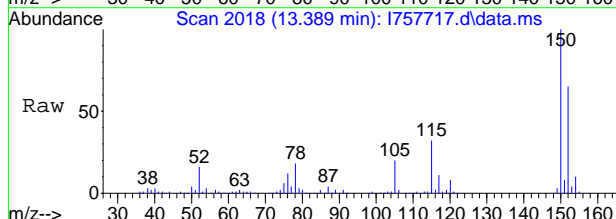
#98  
 1,2,4-Trimethylbenzene  
 Concen: 2.01 ug/L  
 RT: 12.938 min Scan# 1944  
 Delta R.T. 0.018 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
105	20462		
105	100		
120	44.6	15.4	75.4
119	10.9	0.0	43.8

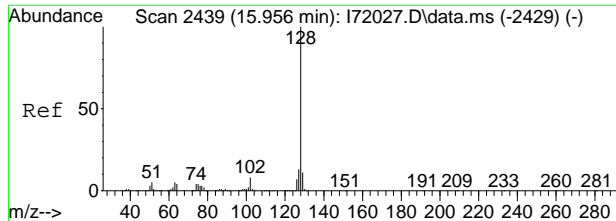


#103  
 1,2,3-Trimethylbenzene  
 Concen: 2.78 ug/L  
 RT: 13.389 min Scan# 2018  
 Delta R.T. 0.006 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Resp	Lower	Upper
105	29697		
105	100		
120	39.8	12.9	72.9
77	19.7	0.0	42.8

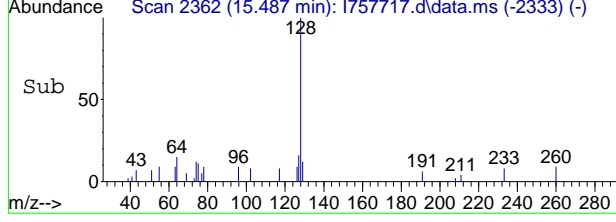
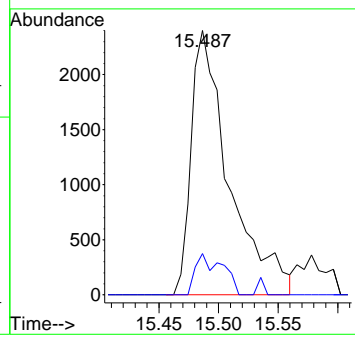
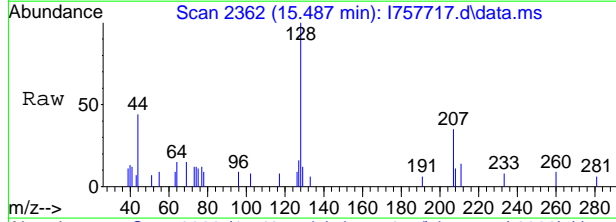


7.12  
7



#111  
 Naphthalene  
 Concen: 0.37 ug/L  
 RT: 15.487 min Scan# 2362  
 Delta R.T. 0.025 min  
 Lab File: I757717.d  
 Acq: 6 Jul 2023 4:05 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	15.6	0.0	42.0



7.1.2  
7





## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077419.d  
 Acq On : 5 Jul 2023 11:34 am  
 Operator : jeniferw  
 Sample : FC7382-2  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 05 21:34:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

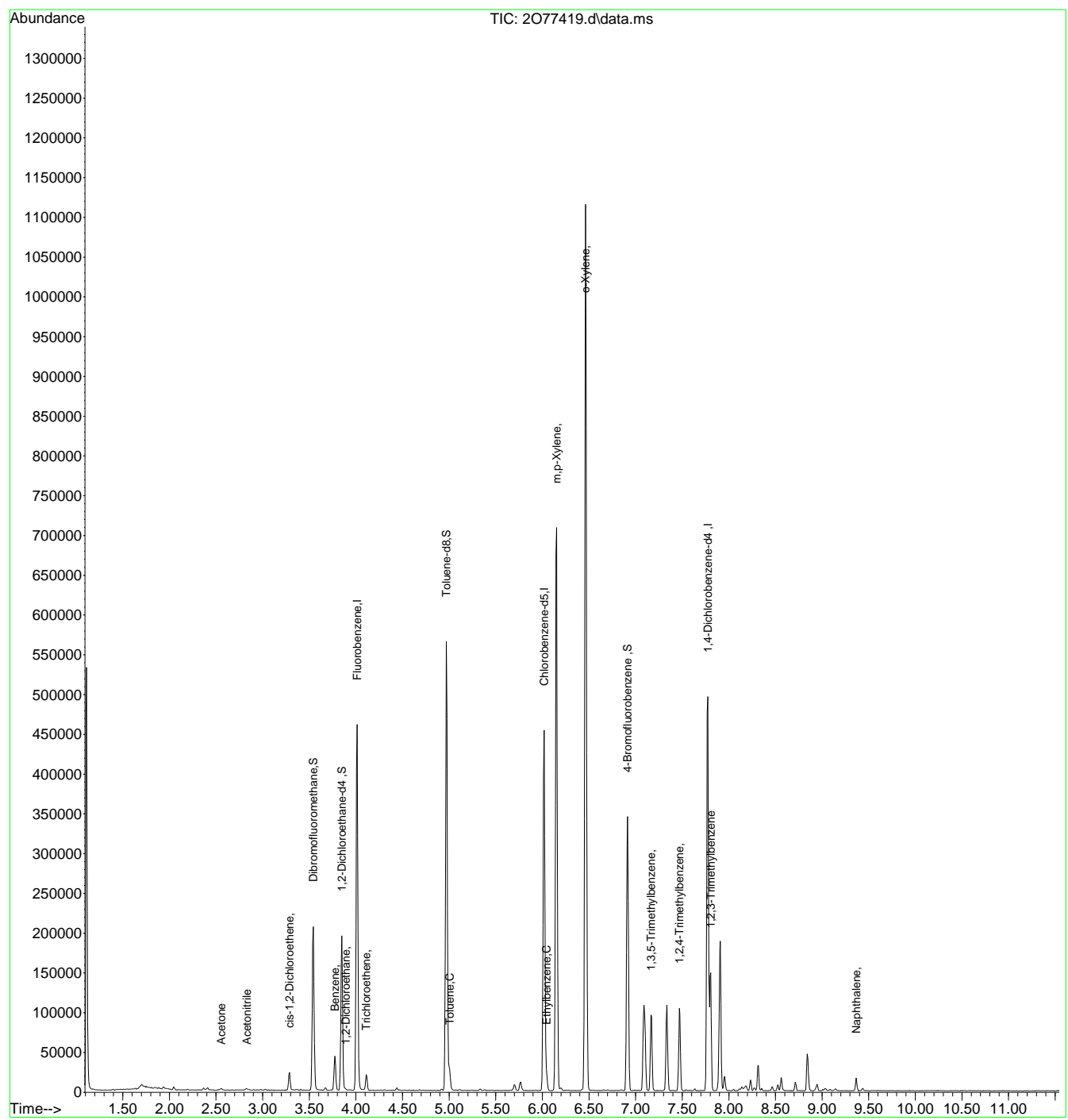
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	293485	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	208261	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	109256	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	85812	53.77	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	107.54%	
50) 1,2-Dichloroethane-d4	3.848	65	98297	51.88	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.76%	
63) Toluene-d8	4.970	98	285363	51.39	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.78%	
86) 4-Bromofluorobenzene	6.915	174	78745	49.32	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.64%	
Target Compounds						
						Qvalue
19) Acetone	2.556	43	2248	3.32	ug/L	83
25) Acetonitrile	2.830	41	2197	8.33	ug/L	90
32) cis-1,2-Dichloroethene	3.287	96	7365	4.75	ug/L	95
47) Benzene	3.775	78	27023	5.06	ug/L	72
51) 1,2-Dichloroethane	3.891	62	905	0.41	ug/L #	46
53) Trichloroethene	4.111	95	5095	3.29	ug/L	91
64) Toluene	5.007	91	14003	2.52	ug/L	94
77) Ethylbenzene	6.043	91	9881	1.63	ug/L	97
80) m,p-Xylene	6.153	91	323380	67.33	ug/L	99
81) o-Xylene	6.464	91	512778	106.26	ug/L	99
91) 1,3,5-Trimethylbenzene	7.165	105	46801	9.76	ug/L	99
99) 1,2,4-Trimethylbenzene	7.470	105	48023	10.00	ug/L	98
104) 1,2,3-Trimethylbenzene	7.805	105	71689	14.05	ug/L	98
112) Naphthalene	9.366	128	10295	1.73	ug/L	98
-----						

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

Quantitation Report (QT Reviewed)

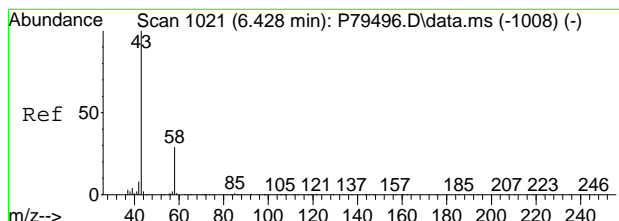
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077419.d  
Acq On : 5 Jul 2023 11:34 am  
Operator : jeniferw  
Sample : FC7382-2  
Misc : MS54357,V203017,,,,,  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 05 21:34:23 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



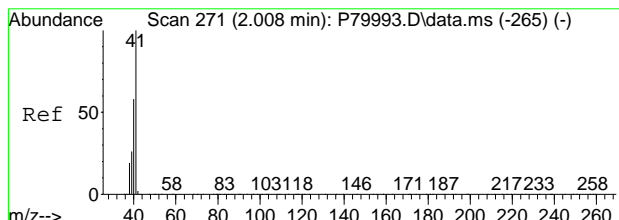
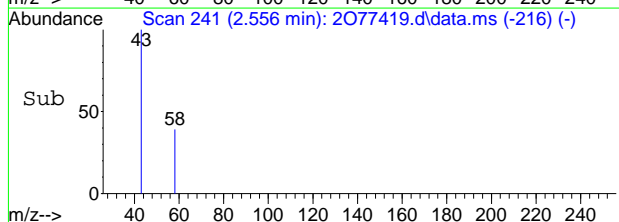
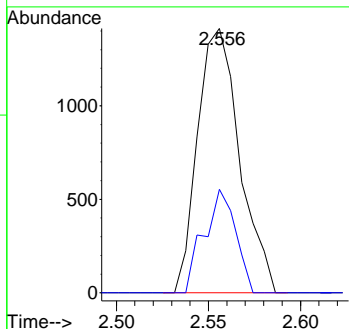
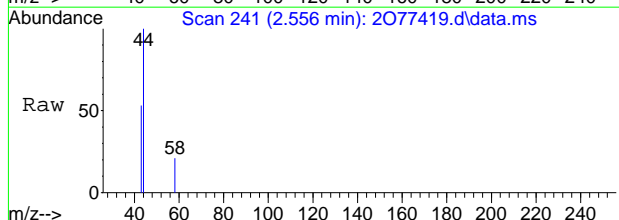
7.1.3  
7





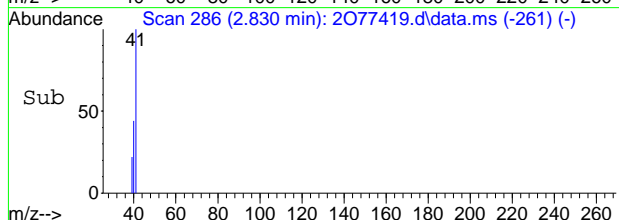
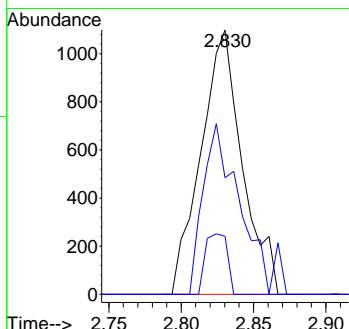
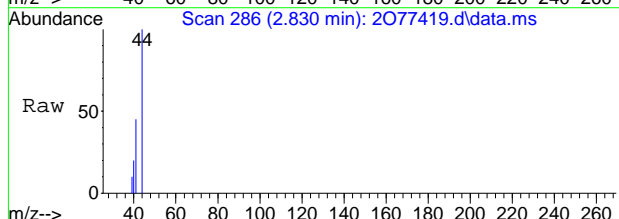
#19  
 Acetone  
 Concen: 3.32 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. -0.000 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Resp	Lower	Upper
43	100		
58	39.2	0.1	60.1

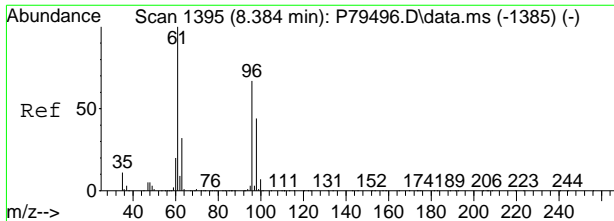


#25  
 Acetonitrile  
 Concen: 8.33 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

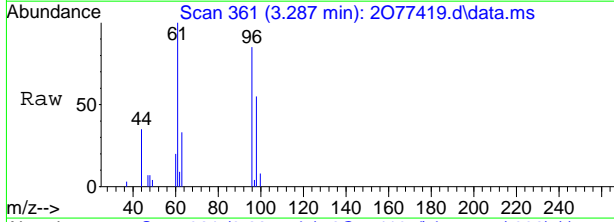
Tgt Ion	Resp	Lower	Upper
41	100		
40	44.1	32.7	72.7
39	21.9	0.0	39.4



7.1.3  
7

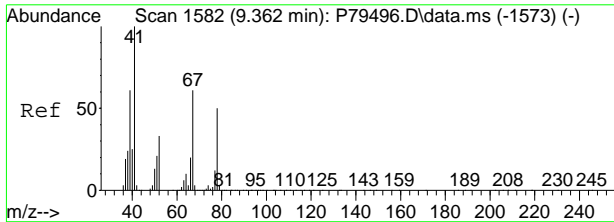
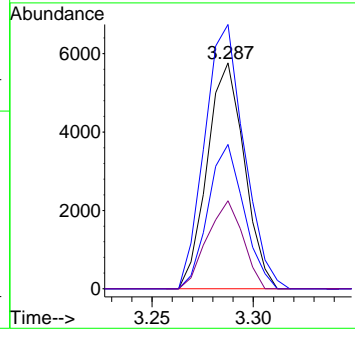
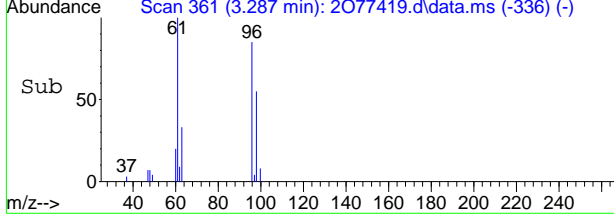


#32  
 cis-1,2-Dichloroethene  
 Concen: 4.75 ug/L  
 RT: 3.287 min Scan# 361  
 Delta R.T. -0.001 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

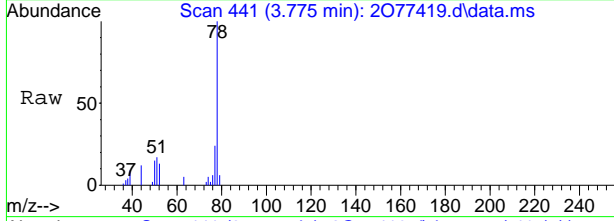


Tgt Ion: 96 Resp: 7365

Ion	Ratio	Lower	Upper
96	100		
61	117.0	95.8	155.8
98	63.9	32.6	92.6
63	38.9	11.0	71.0

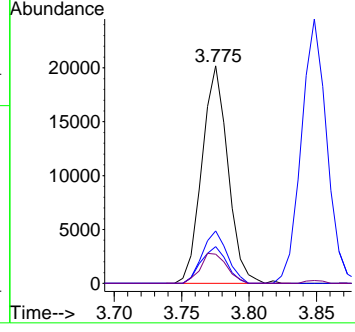
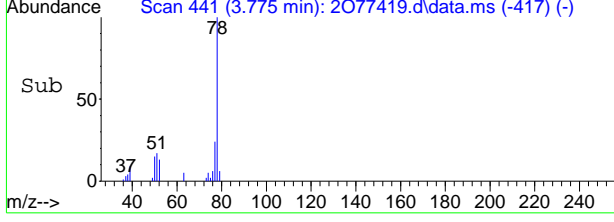


#47  
 Benzene  
 Concen: 5.06 ug/L  
 RT: 3.775 min Scan# 441  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

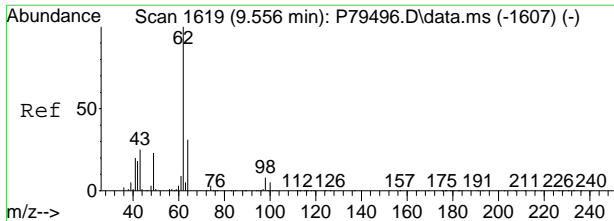


Tgt Ion: 78 Resp: 27023

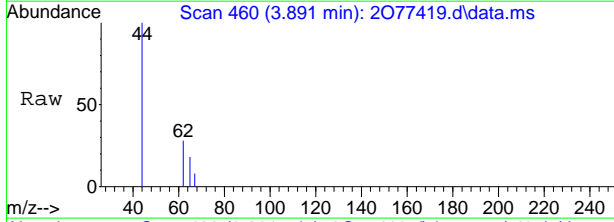
Ion	Ratio	Lower	Upper
78	100		
51	17.0	3.0	63.0
77	24.1	0.0	54.1
52	13.4	11.3	71.3



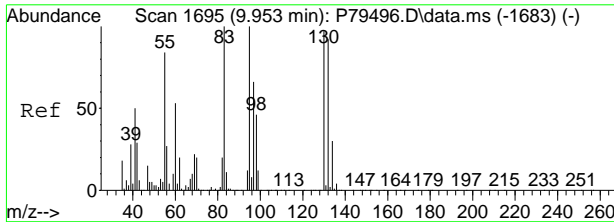
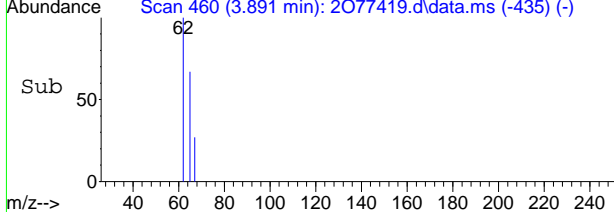
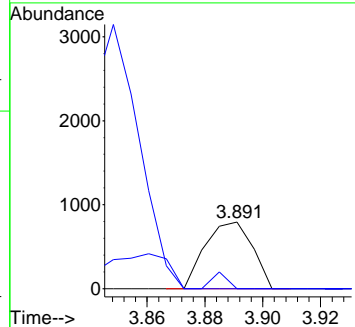
7.13  
7



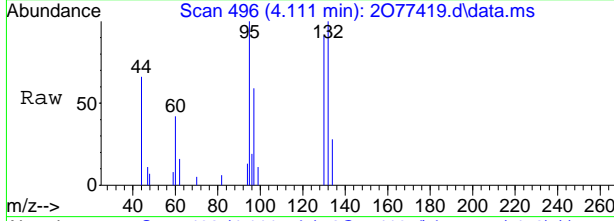
#51  
 1,2-Dichloroethane  
 Concen: 0.41 ug/L  
 RT: 3.891 min Scan# 460  
 Delta R.T. 0.000 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am



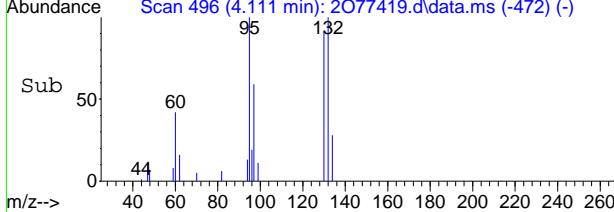
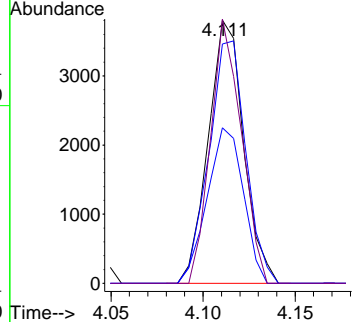
Tgt Ion	Ratio	Lower	Upper
62	100		
49	0.0	0.0	54.9
64	0.0	2.0	62.0#



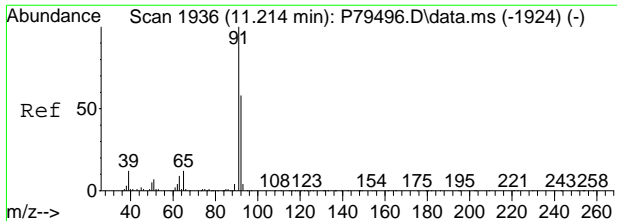
#53  
 Trichloroethene  
 Concen: 3.29 ug/L  
 RT: 4.111 min Scan# 496  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am



Tgt Ion	Ratio	Lower	Upper
95	100		
130	91.0	76.7	136.7
97	59.1	36.5	96.5
132	100.5	67.8	127.8



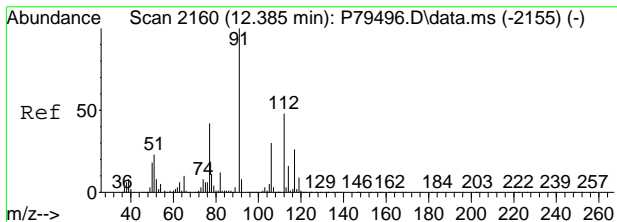
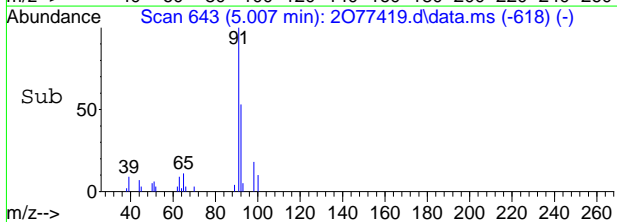
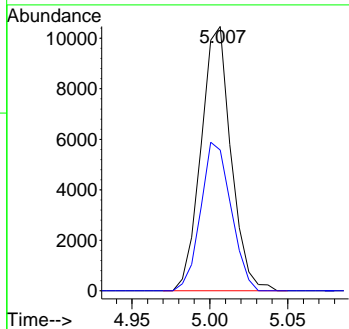
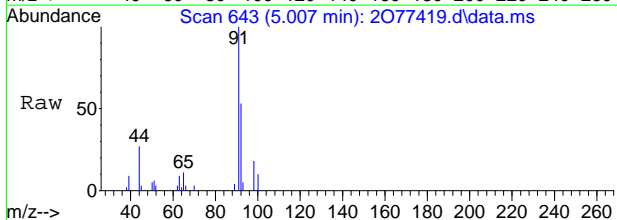
7.1.3  
7



#64  
 Toluene  
 Concen: 2.52 ug/L  
 RT: 5.007 min Scan# 643  
 Delta R.T. -0.000 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion: 91 Resp: 14003

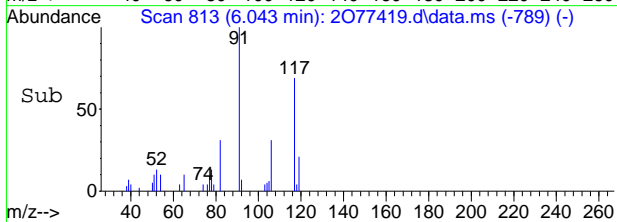
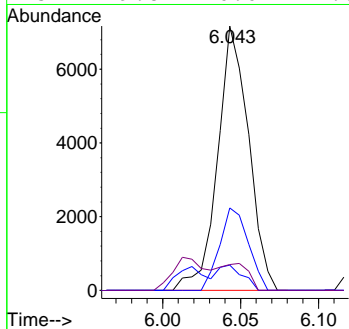
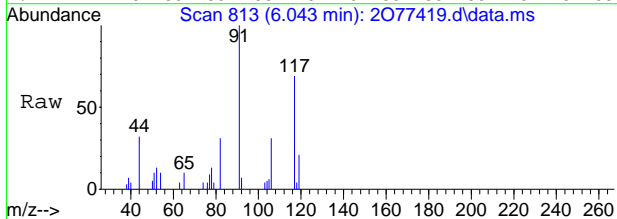
Ion	Ratio	Lower	Upper
91	100		
92	53.2	27.6	87.6

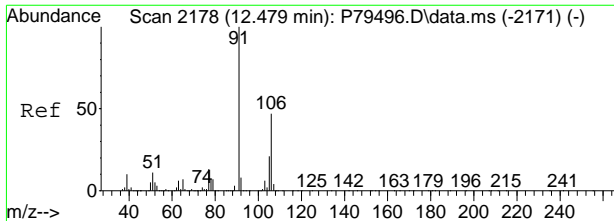


#77  
 Ethylbenzene  
 Concen: 1.63 ug/L  
 RT: 6.043 min Scan# 813  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion: 91 Resp: 9881

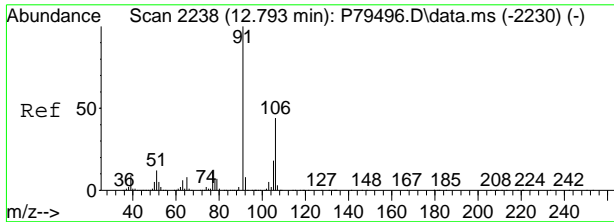
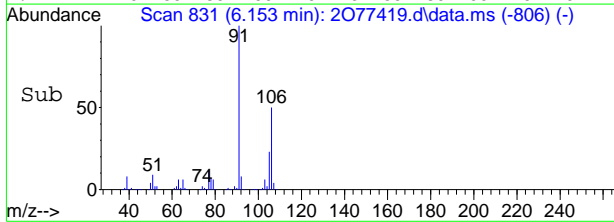
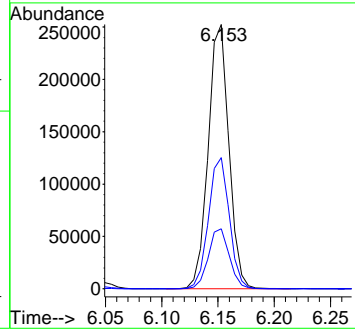
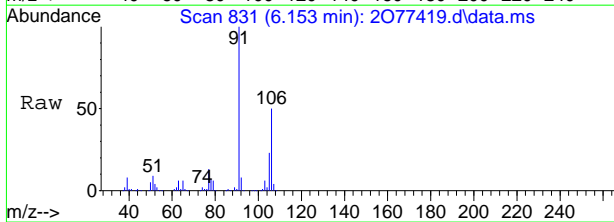
Ion	Ratio	Lower	Upper
91	100		
106	31.2	2.3	62.3
65	9.6	0.0	38.9
51	9.8	0.0	41.8





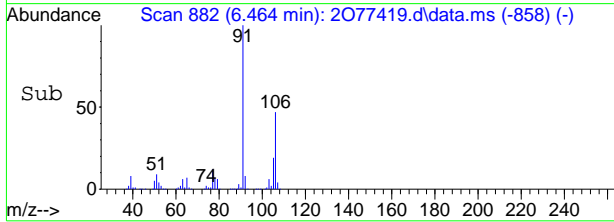
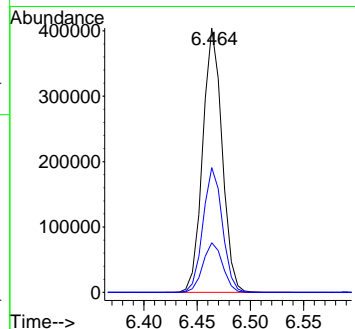
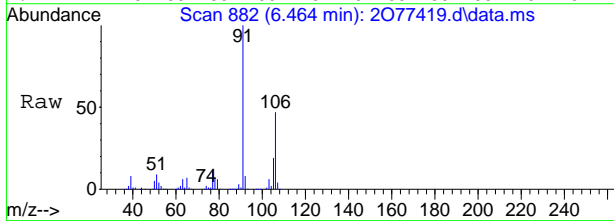
#80  
 m,p-Xylene  
 Concen: 67.33 ug/L  
 RT: 6.153 min Scan# 831  
 Delta R.T. -0.000 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Resp	Lower	Upper
91	323380		
106	49.6	19.3	79.3
105	22.7	0.0	52.3



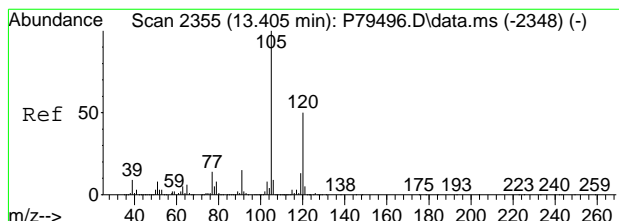
#81  
 o-Xylene  
 Concen: 106.26 ug/L  
 RT: 6.464 min Scan# 882  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Resp	Lower	Upper
91	512778		
106	47.2	15.9	75.9
105	18.8	0.0	48.9



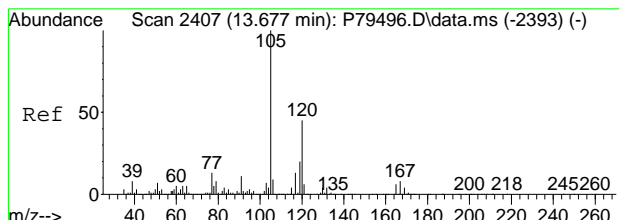
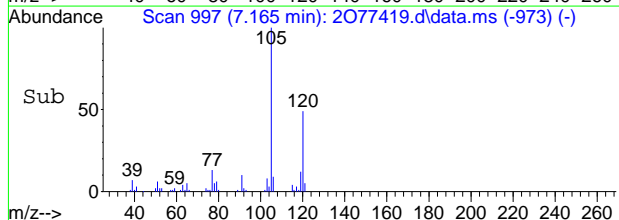
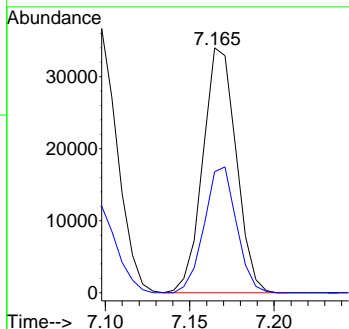
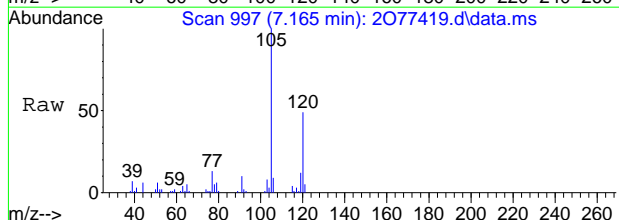
7.1.3  
7





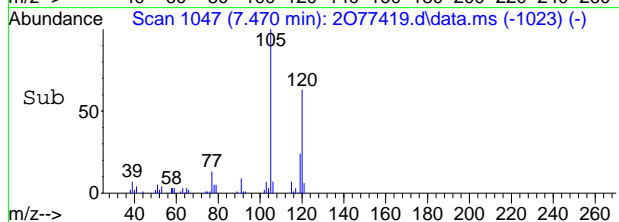
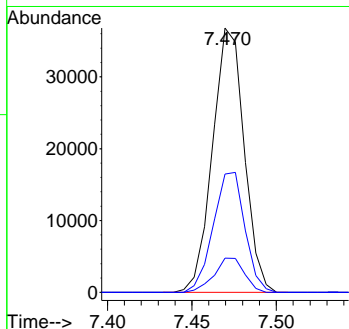
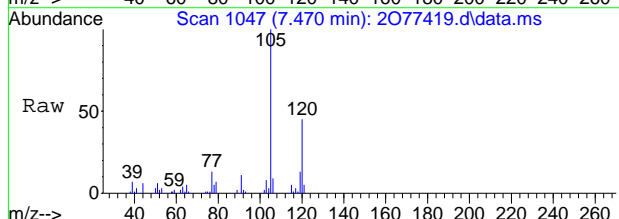
#91  
 1,3,5-Trimethylbenzene  
 Concen: 9.76 ug/L  
 RT: 7.165 min Scan# 997  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Resp	Lower	Upper
105	46801	100	
120	49.4	18.6	78.6

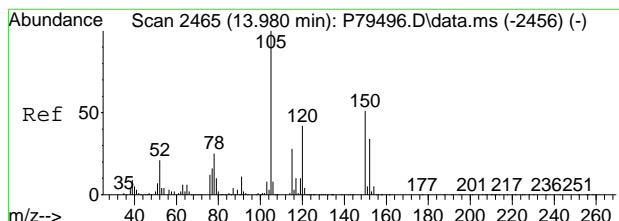


#99  
 1,2,4-Trimethylbenzene  
 Concen: 10.00 ug/L  
 RT: 7.470 min Scan# 1047  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Resp	Lower	Upper
105	48023	100	
120	44.7	15.6	75.6
119	13.0	0.0	42.1

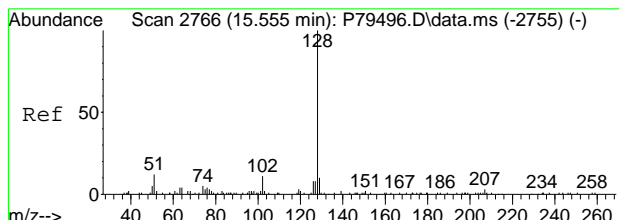
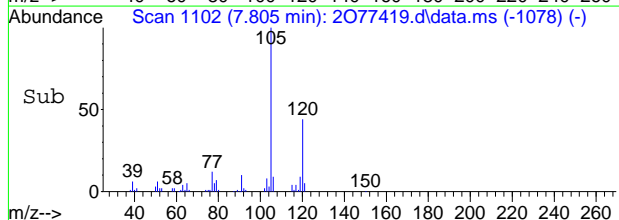
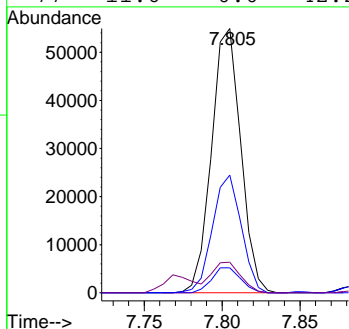
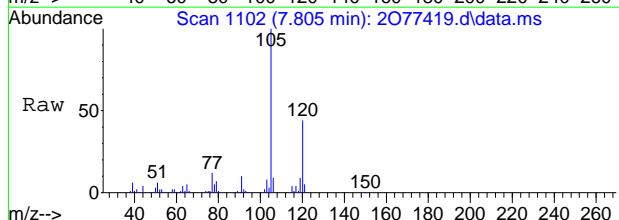


7.1.3  
7



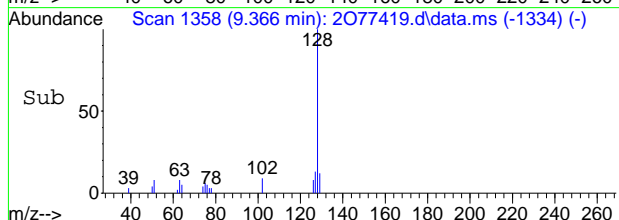
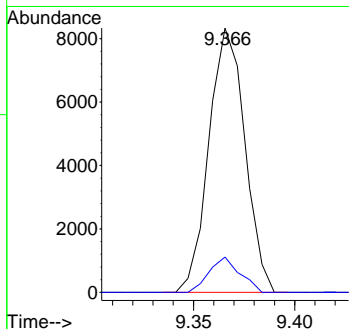
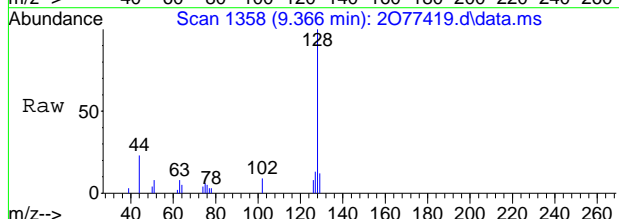
#104  
 1,2,3-Trimethylbenzene  
 Concen: 14.05 ug/L  
 RT: 7.805 min Scan# 1102  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	44.5	13.3	73.3
119	9.4	0.0	39.8
77	11.6	0.0	42.2



#112  
 Naphthalene  
 Concen: 1.73 ug/L  
 RT: 9.366 min Scan# 1358  
 Delta R.T. -0.006 min  
 Lab File: 2077419.d  
 Acq: 5 Jul 2023 11:34 am

Tgt Ion	Ratio	Lower	Upper
128	100		
127	13.4	0.0	42.7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757718.d  
 Acq On : 6 Jul 2023 4:29 pm  
 Operator : jeniferw  
 Sample : FC7382-2 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:36:16 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

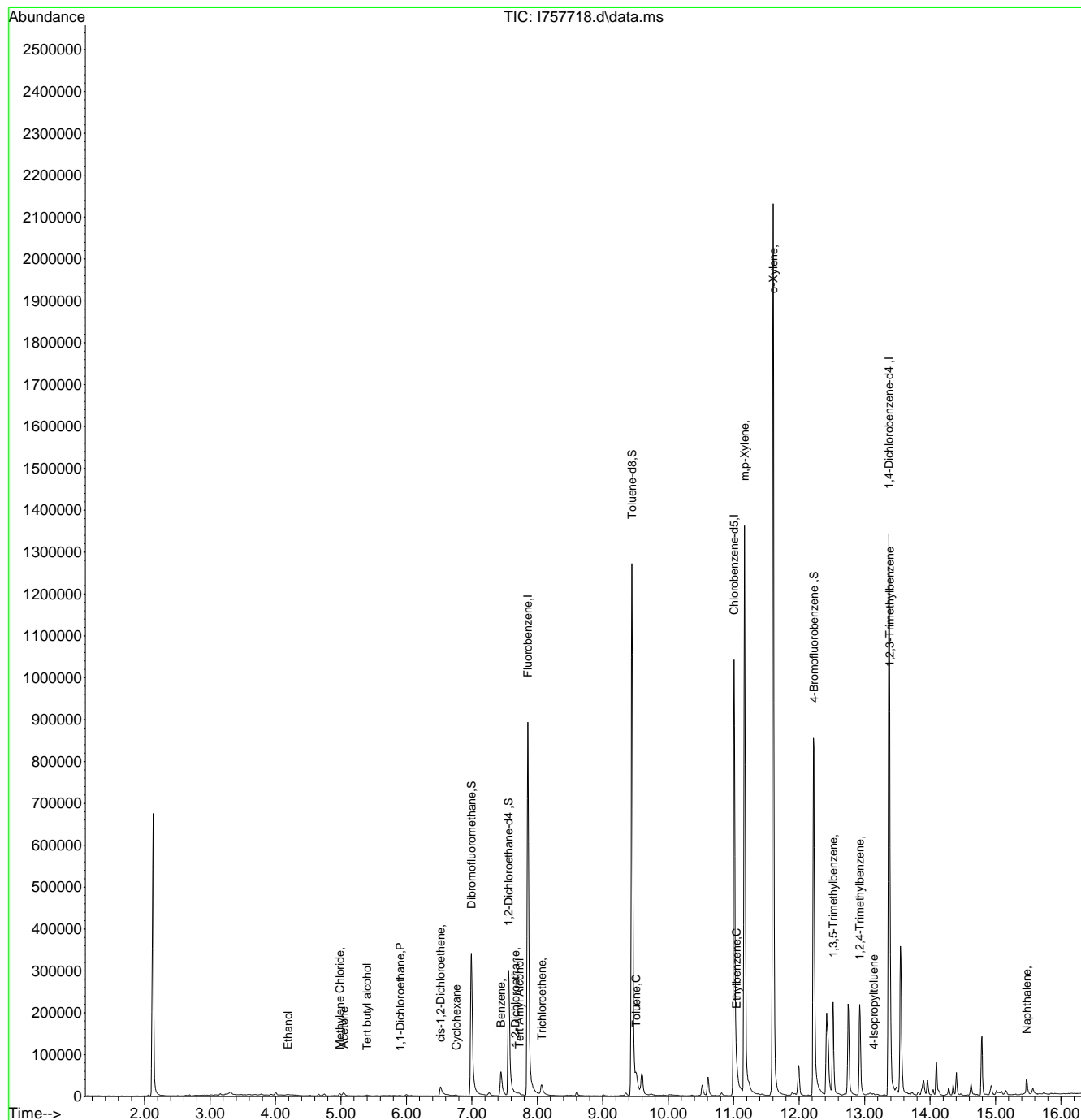
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	830537	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	609896	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	351405	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	230056	48.80	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.60%		
49) 1,2-Dichloroethane-d4	7.561	65	226858	52.92	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	105.84%		
63) Toluene-d8	9.445	98	841613	48.39	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	96.78%		
86) 4-Bromofluorobenzene	12.225	174	287955	48.67	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.34%		
Target Compounds							
							Qvalue
12) Ethanol	4.190	45	2909	22.04	ug/L		76
18) Methylene Chloride	4.982	49	3790	0.81	ug/L		87
19) Acetone	5.043	43	8497	3.80	ug/L		94
24) Tert butyl alcohol	5.397	59	2944	2.15	ug/L		70
28) 1,1-Dichloroethane	5.903	63	1683	0.27	ug/L		72
32) cis-1,2-Dichloroethene	6.525	96	16424	4.40	ug/L		93
35) Cyclohexane	6.762	56	1224	0.27	ug/L #		73
47) Benzene	7.445	78	64587	4.98	ug/L #		48
51) 1,2-Dichloroethane	7.665	62	1404	0.31	ug/L		82
52) Tert Amyl Alcohol	7.726	59	2029	1.81	ug/L		79
53) Trichloroethene	8.067	95	9818	2.71	ug/L		95
64) Toluene	9.506	91	33577	2.41	ug/L		95
77) Ethylbenzene	11.042	91	24374	1.62	ug/L		92
80) m,p-Xylene	11.164	91	745679	66.10	ug/L		100
81) o-Xylene	11.603	91	1166210	96.14	ug/L		100
91) 1,3,5-Trimethylbenzene	12.517	105	119699	10.80	ug/L		100
98) 1,2,4-Trimethylbenzene	12.926	105	124606	11.41	ug/L		98
101) 4-Isopropyltoluene	13.139	119	3437	0.31	ug/L		84
103) 1,2,3-Trimethylbenzene	13.383	105	175399	15.33	ug/L		97
111) Naphthalene	15.474	128	30896	2.00	ug/L		98
-----							

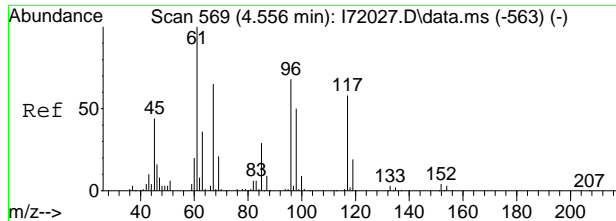
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757718.d  
 Acq On : 6 Jul 2023 4:29 pm  
 Operator : jeniferw  
 Sample : FC7382-2 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

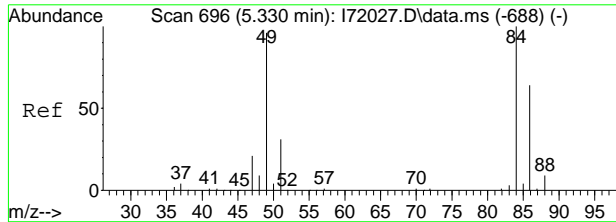
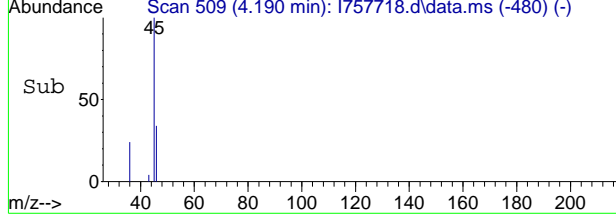
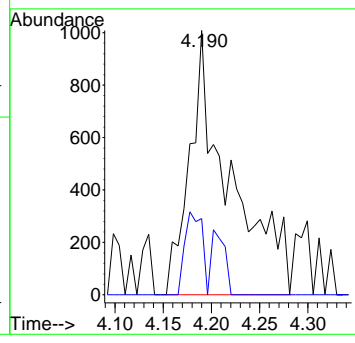
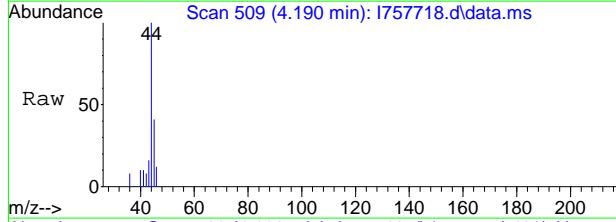
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:36:16 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration





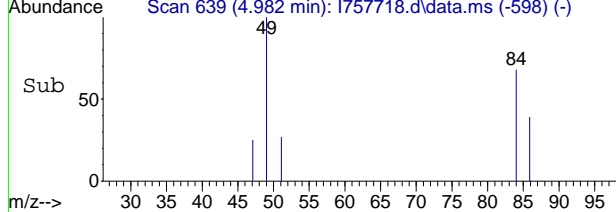
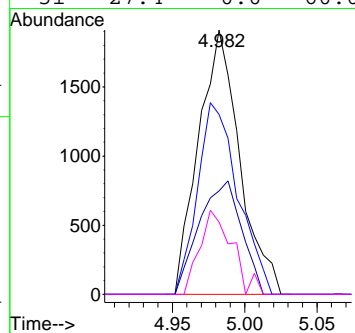
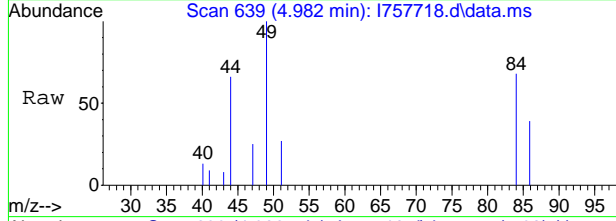
#12  
 Ethanol  
 Concen: 22.04 ug/L  
 RT: 4.190 min Scan# 509  
 Delta R.T. -0.024 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
45	2909	100	
46	28.8	14.4	74.4



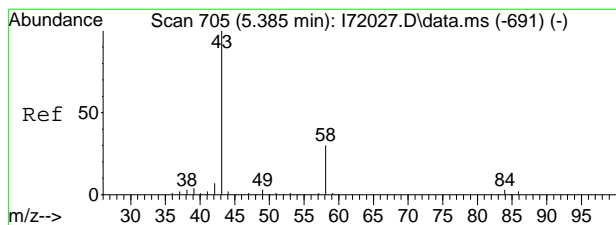
#18  
 Methylene Chloride  
 Concen: 0.81 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
49	3790	100	
84	68.0	51.5	111.5
86	39.1	19.4	79.4
51	27.4	0.0	60.0



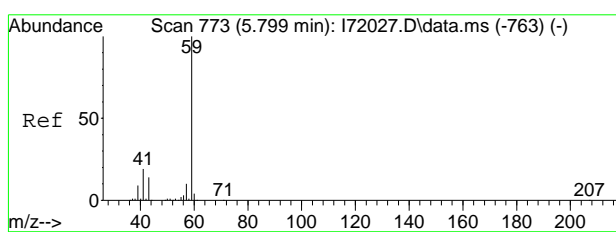
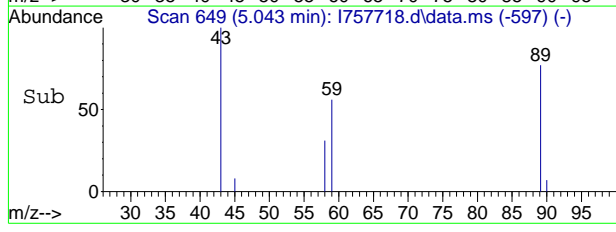
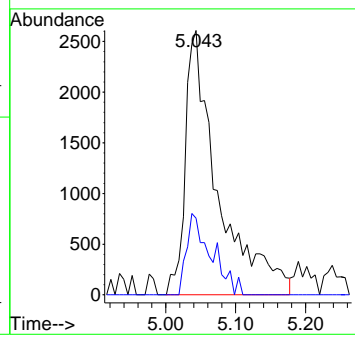
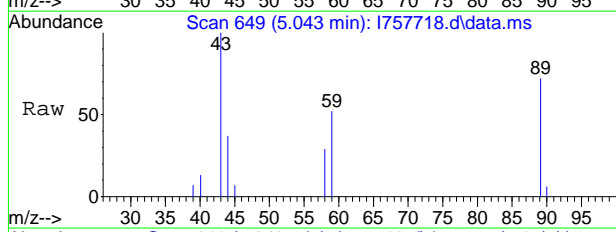
7.14  
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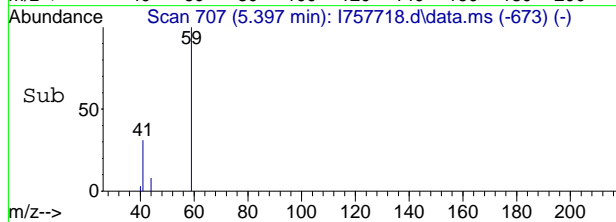
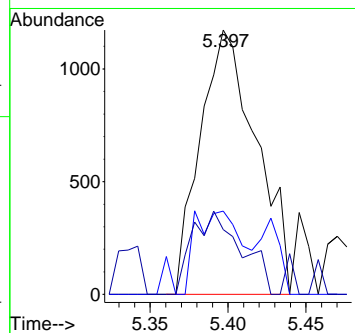
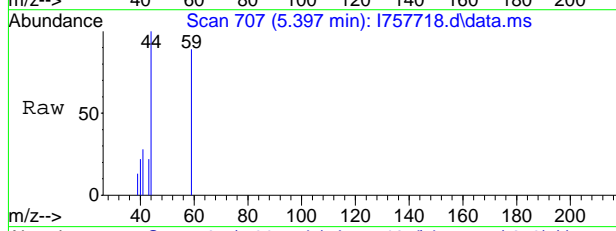
#19  
 Acetone  
 Concen: 3.80 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	29.0	2.3	62.3

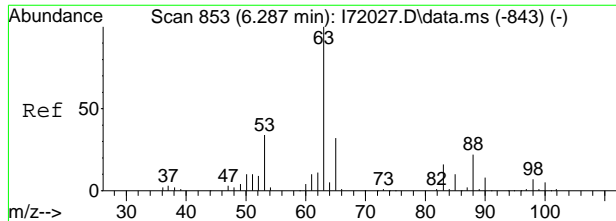


#24  
 Tert butyl alcohol  
 Concen: 2.15 ug/L  
 RT: 5.397 min Scan# 707  
 Delta R.T. 0.006 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Ratio	Lower	Upper
59	100		
41	31.5	0.0	47.2
43	24.6	0.0	44.0

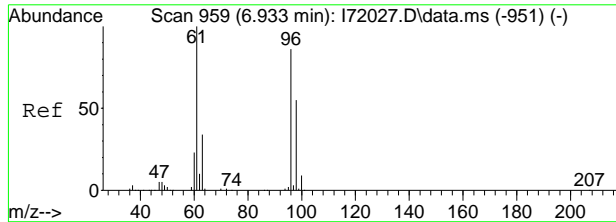
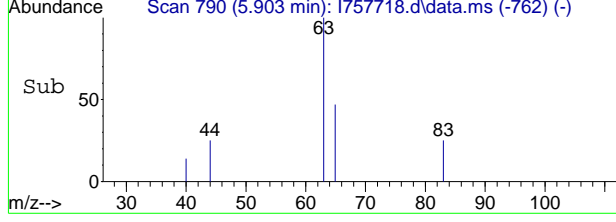
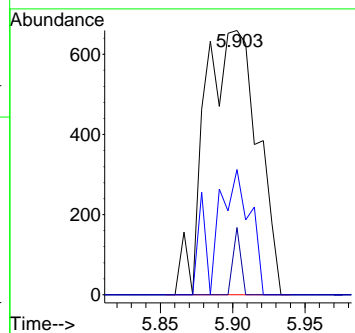
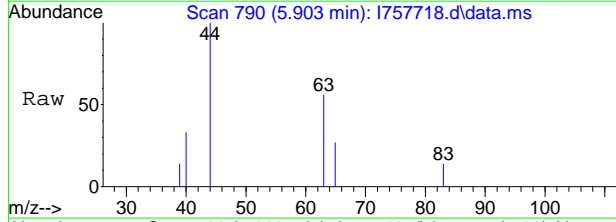


7.14  
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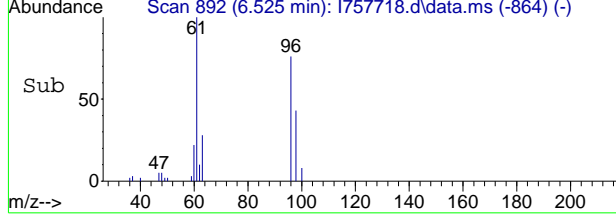
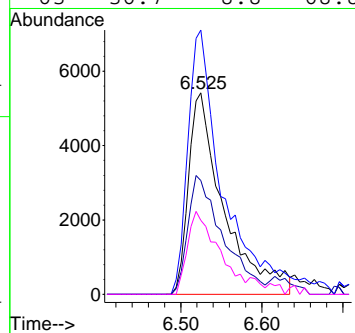
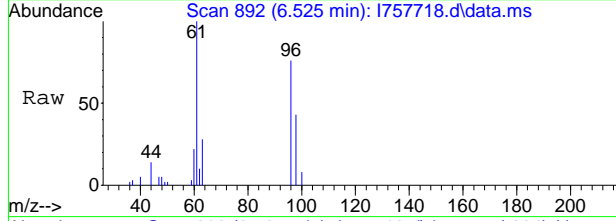
#28  
 1,1-Dichloroethane  
 Concen: 0.27 ug/L  
 RT: 5.903 min Scan# 790  
 Delta R.T. 0.018 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
63	1683		
65	47.4	2.0	62.0
83	25.5	0.0	44.2

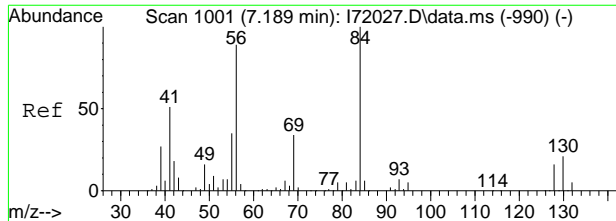


#32  
 cis-1,2-Dichloroethene  
 Concen: 4.40 ug/L  
 RT: 6.525 min Scan# 892  
 Delta R.T. 0.018 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
96	16424		
61	131.1	92.6	152.6
98	56.5	33.8	93.8
63	36.7	8.8	68.8

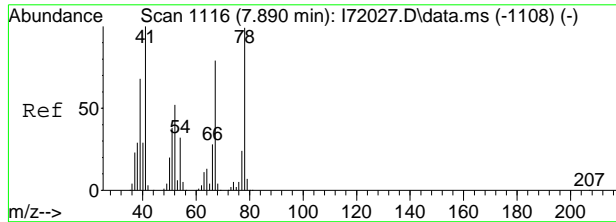
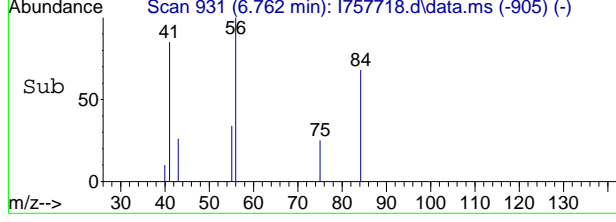
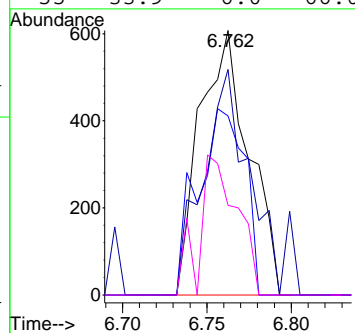
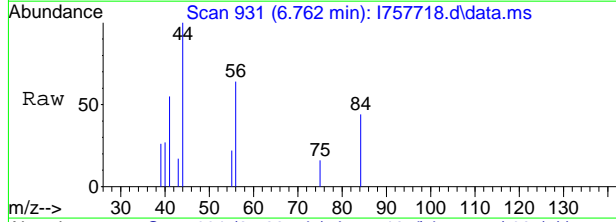






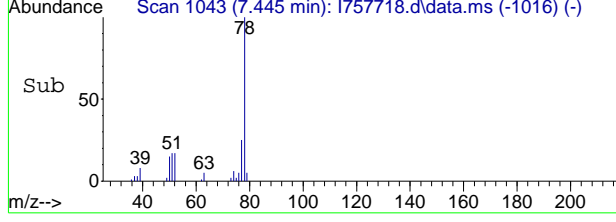
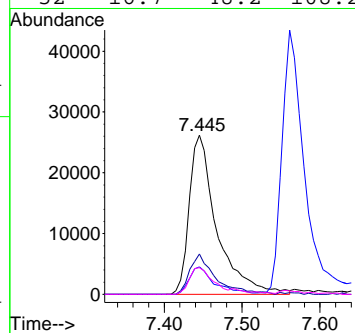
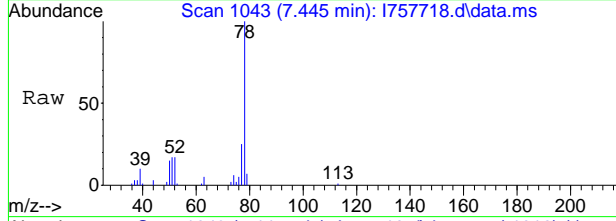
#35  
 Cyclohexane  
 Concen: 0.27 ug/L  
 RT: 6.762 min Scan# 931  
 Delta R.T. 0.006 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Ratio	Lower	Upper
56	100		
84	67.6	57.9	117.9
41	85.2	19.8	79.8#
55	33.9	6.0	66.0



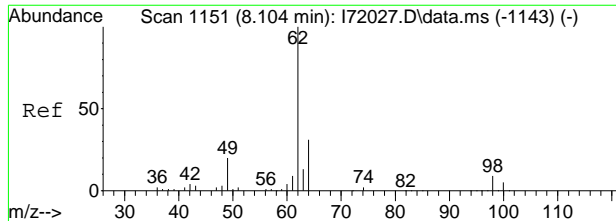
#47  
 Benzene  
 Concen: 4.98 ug/L  
 RT: 7.445 min Scan# 1043  
 Delta R.T. 0.012 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
51	17.3	19.4	79.4#
77	25.3	0.0	54.0
52	16.7	48.2	108.2#



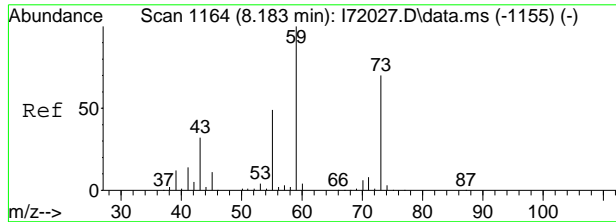
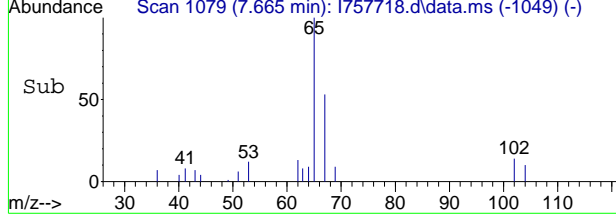
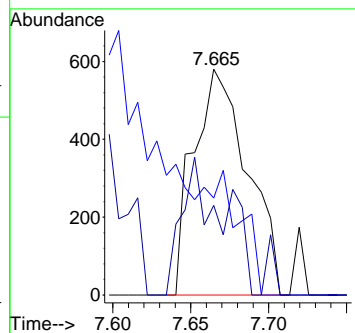
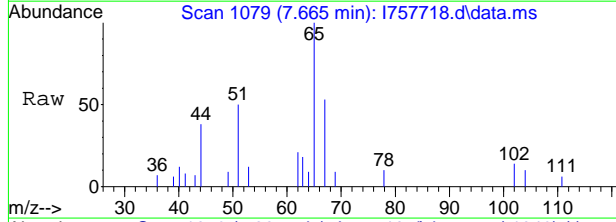
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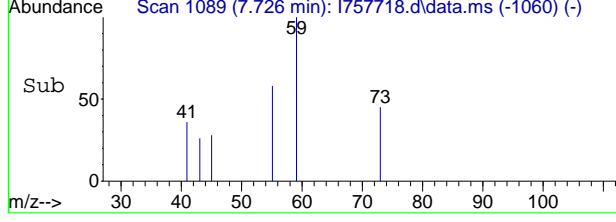
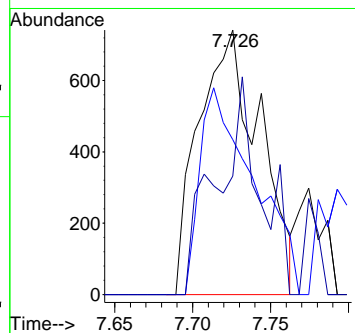
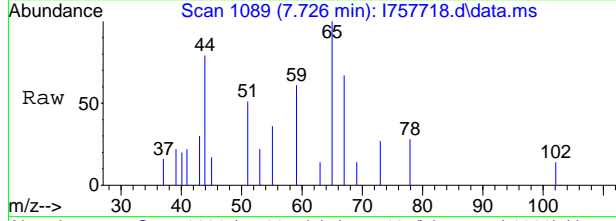
#51  
 1,2-Dichloroethane  
 Concen: 0.31 ug/L  
 RT: 7.665 min Scan# 1079  
 Delta R.T. 0.031 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
62	1404		
49	42.9	0.0	59.6
64	39.7	2.7	62.7



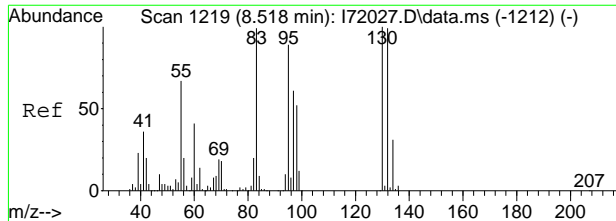
#52  
 Tert Amyl Alcohol  
 Concen: 1.81 ug/L  
 RT: 7.726 min Scan# 1089  
 Delta R.T. 0.025 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
59	2029		
55	58.5	12.6	72.6
73	44.7	28.4	88.4



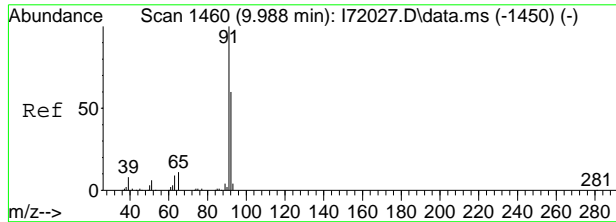
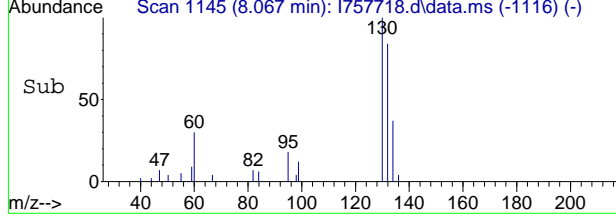
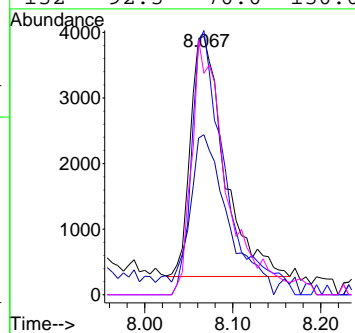
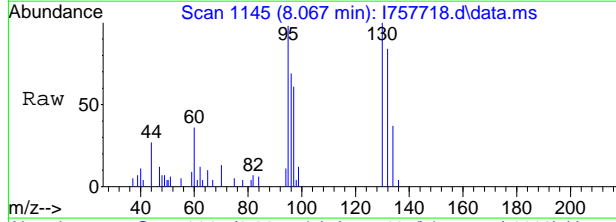
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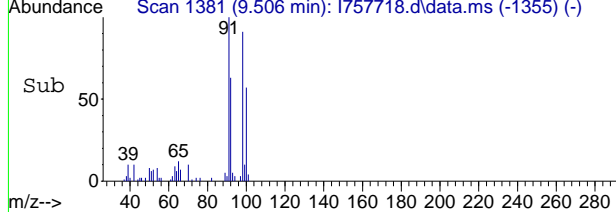
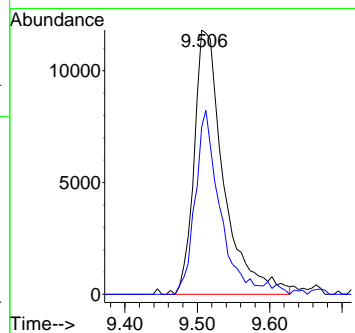
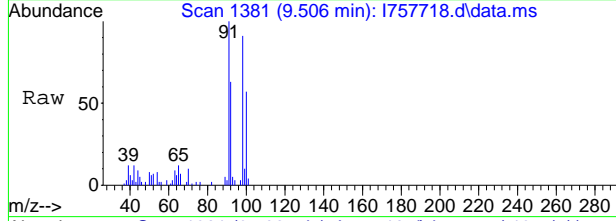
#53  
 Trichloroethene  
 Concen: 2.71 ug/L  
 RT: 8.067 min Scan# 1145  
 Delta R.T. 0.024 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
95	9818		
130	110.2	75.2	135.2
97	62.2	32.6	92.6
132	92.3	70.0	130.0



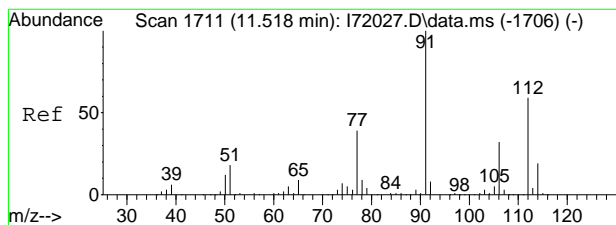
#64  
 Toluene  
 Concen: 2.41 ug/L  
 RT: 9.506 min Scan# 1381  
 Delta R.T. 0.006 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
91	33577		
92	63.3	29.2	89.2



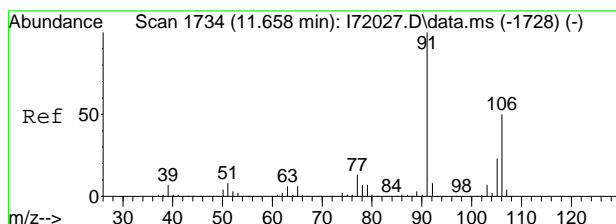
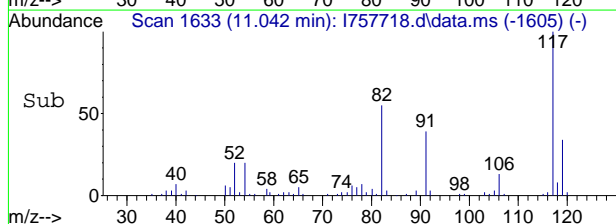
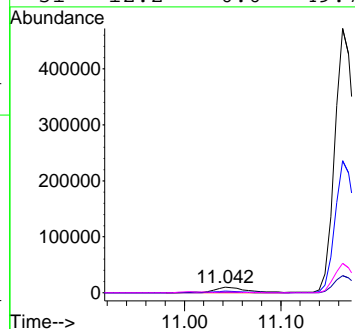
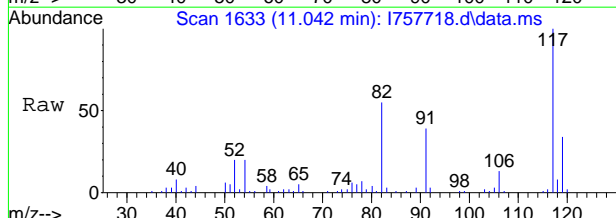
7.14  
7





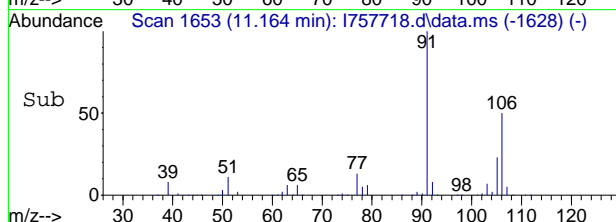
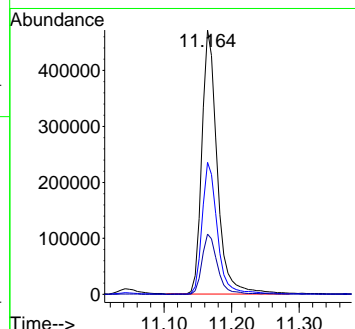
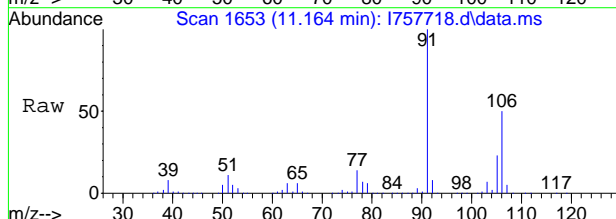
#77  
 Ethylbenzene  
 Concen: 1.62 ug/L  
 RT: 11.042 min Scan# 1633  
 Delta R.T. 0.018 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
91	24374		
106	32.8	1.9	61.9
65	11.8	0.0	38.8
51	12.2	0.0	49.7

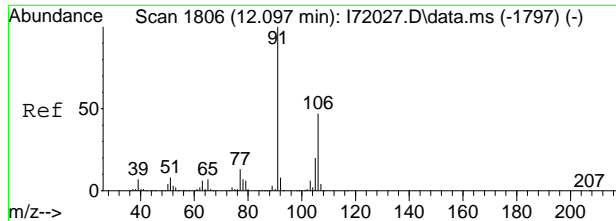


#80  
 m,p-Xylene  
 Concen: 66.10 ug/L  
 RT: 11.164 min Scan# 1653  
 Delta R.T. 0.000 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
91	745679		
106	49.9	20.2	80.2
105	22.8	0.0	52.6



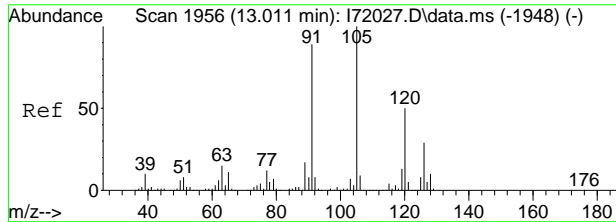
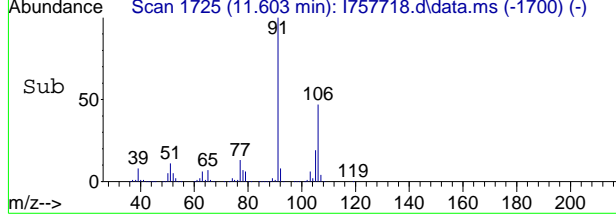
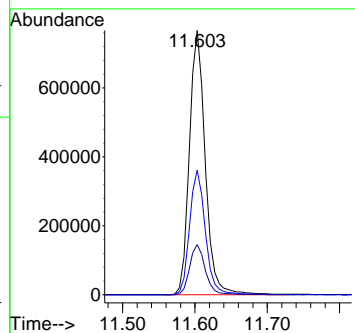
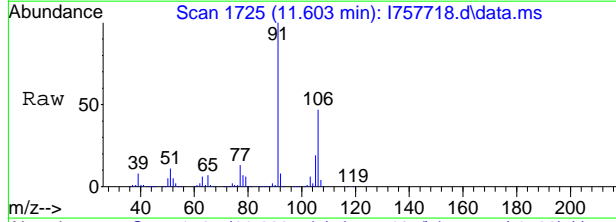
7.14  
7



#81  
 o-Xylene  
 Concen: 96.14 ug/L  
 RT: 11.603 min Scan# 1725  
 Delta R.T. 0.000 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion: 91 Resp: 1166210

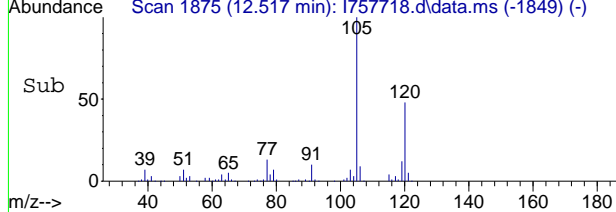
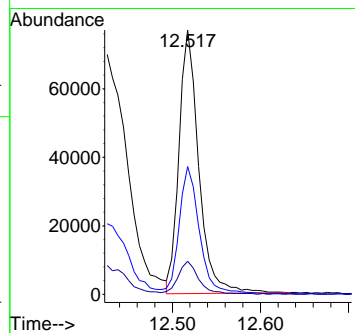
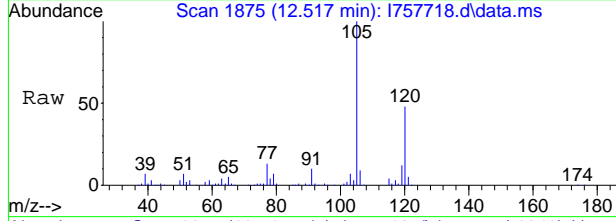
Ion	Ratio	Lower	Upper
91	100		
106	47.1	16.8	76.8
105	19.0	0.0	49.1



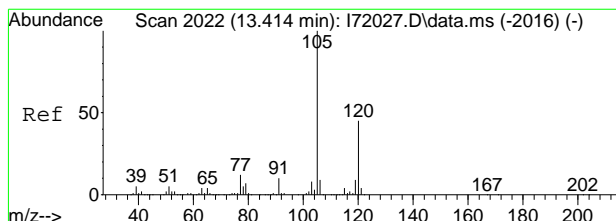
#91  
 1,3,5-Trimethylbenzene  
 Concen: 10.80 ug/L  
 RT: 12.517 min Scan# 1875  
 Delta R.T. 0.006 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion: 105 Resp: 119699

Ion	Ratio	Lower	Upper
105	100		
120	48.4	18.5	78.5
77	12.4	0.0	42.7

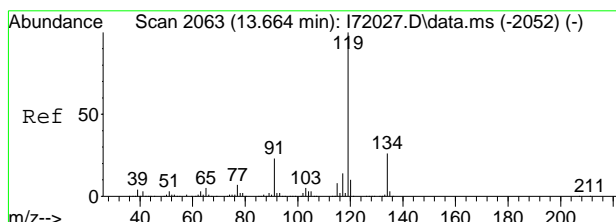
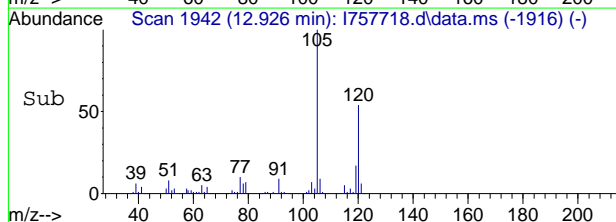
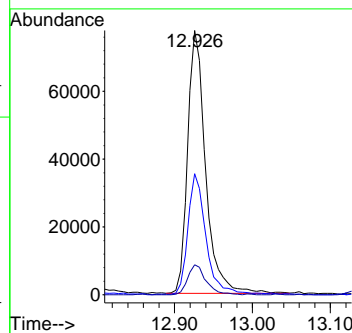
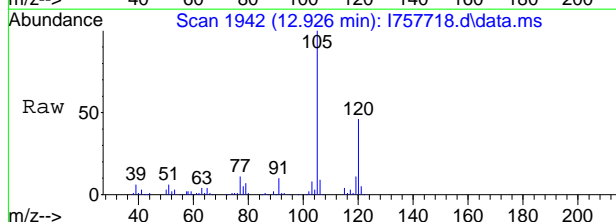


7.14  
7



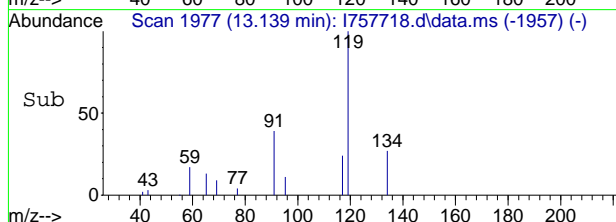
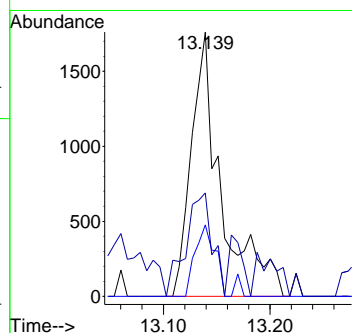
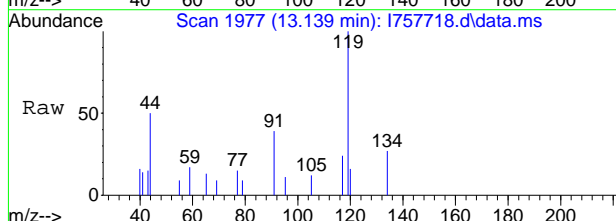
#98  
 1,2,4-Trimethylbenzene  
 Concen: 11.41 ug/L  
 RT: 12.926 min Scan# 1942  
 Delta R.T. 0.006 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
105	124606		
105	100		
120	45.9	15.4	75.4
119	11.4	0.0	43.8

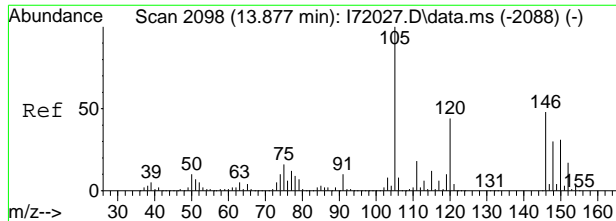


#101  
 4-Isopropyltoluene  
 Concen: 0.31 ug/L  
 RT: 13.139 min Scan# 1977  
 Delta R.T. -0.031 min  
 Lab File: I757718.d  
 Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
119	3437		
119	100		
134	27.1	0.0	56.6
91	39.1	0.0	53.4

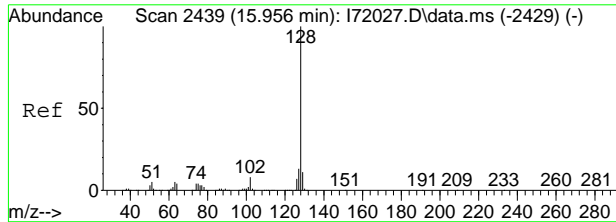
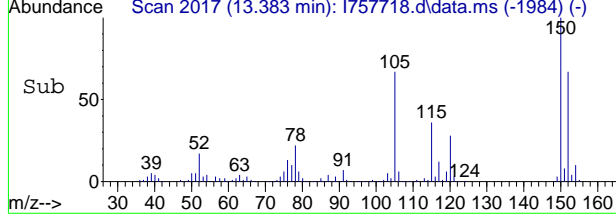
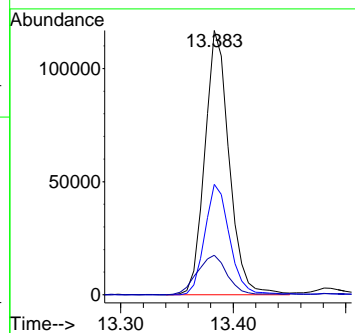
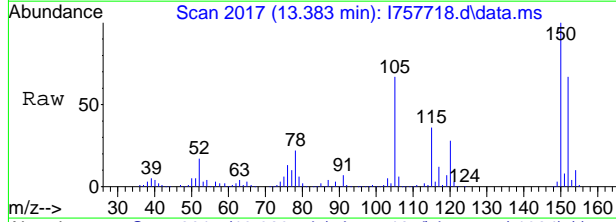


7.14  
7



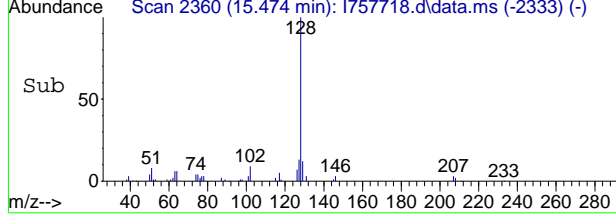
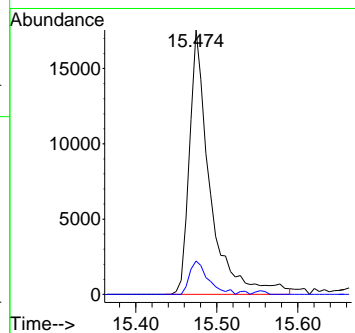
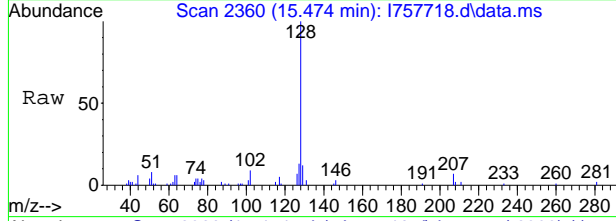
#103  
1,2,3-Trimethylbenzene  
Concen: 15.33 ug/L  
RT: 13.383 min Scan# 2017  
Delta R.T. 0.000 min  
Lab File: I757718.d  
Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
105	175399		
120	41.8	12.9	72.9
77	15.0	0.0	42.8



#111  
Naphthalene  
Concen: 2.00 ug/L  
RT: 15.474 min Scan# 2360  
Delta R.T. 0.012 min  
Lab File: I757718.d  
Acq: 6 Jul 2023 4:29 pm

Tgt Ion	Resp	Lower	Upper
128	30896		
127	12.7	0.0	42.0





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077417.d  
 Acq On : 5 Jul 2023 10:43 am  
 Operator : jeniferw  
 Sample : FC7382-3  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 05 21:30:17 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	295871	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	202621	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	100594	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	86409	53.70	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	107.40%	
50) 1,2-Dichloroethane-d4	3.848	65	99627	52.16	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.32%	
63) Toluene-d8	4.970	98	278679	51.59	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.18%	
86) 4-Bromofluorobenzene	6.915	174	71018	48.31	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.62%	
Target Compounds						
18) Methylene Chloride	2.532	49	1147	0.69	ug/L	92
19) Acetone	2.556	43	2470	3.62	ug/L	87
25) Acetonitrile	2.824	41	2008	7.55	ug/L #	76
64) Toluene	5.007	91	4193	0.77	ug/L	88
-----						

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

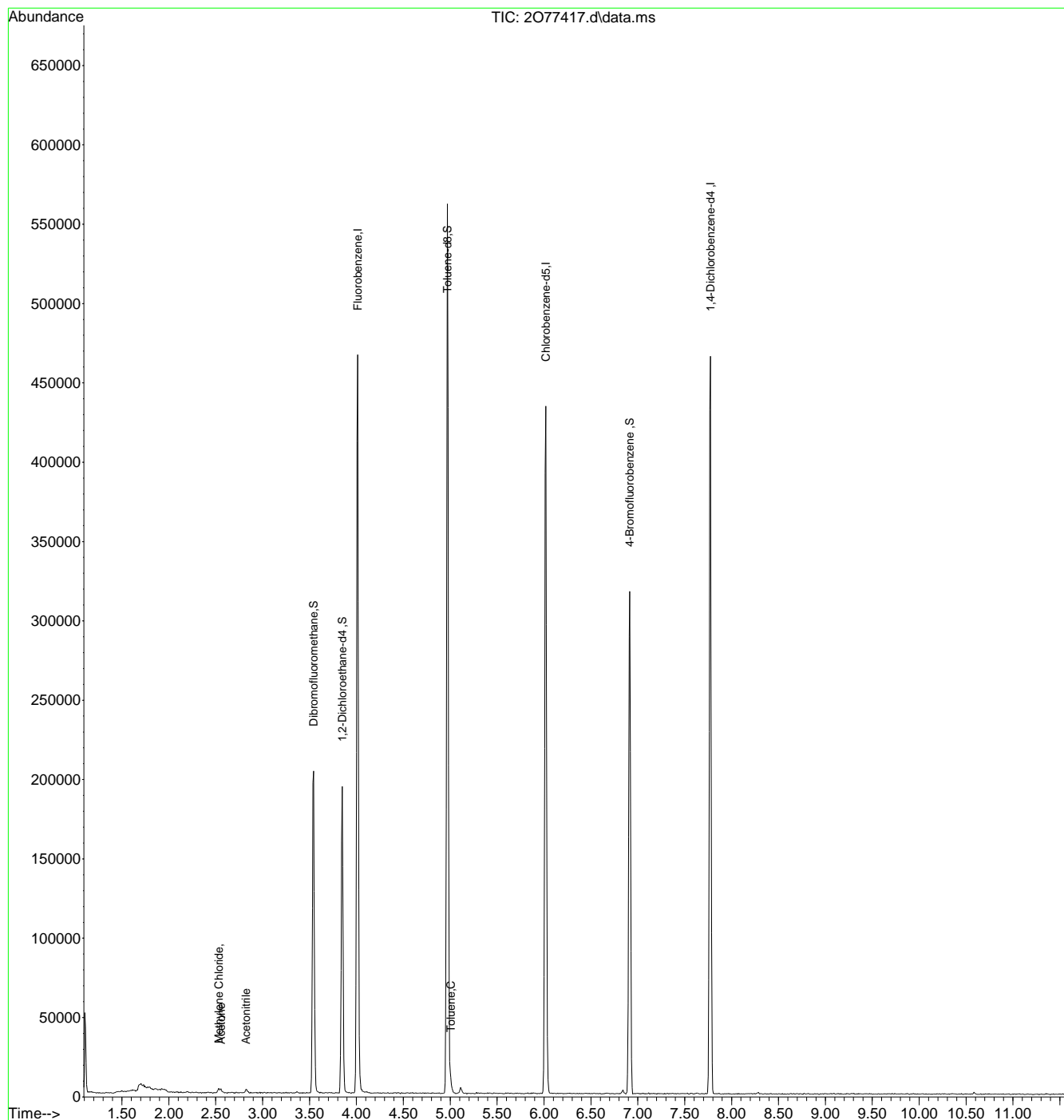
7.15  
7



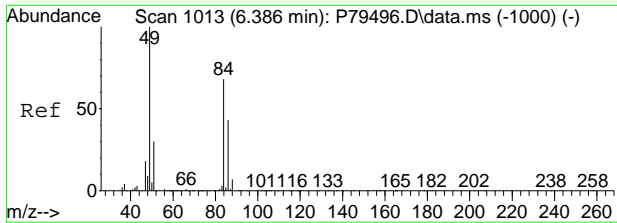
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077417.d  
 Acq On : 5 Jul 2023 10:43 am  
 Operator : jeniferw  
 Sample : FC7382-3  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 05 21:30:17 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

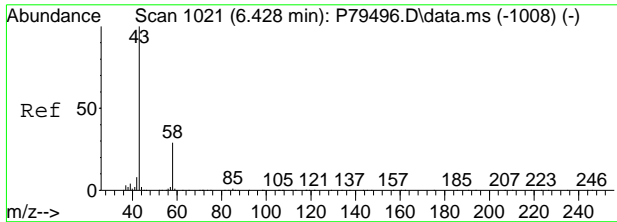
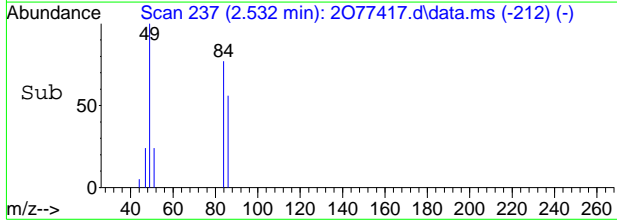
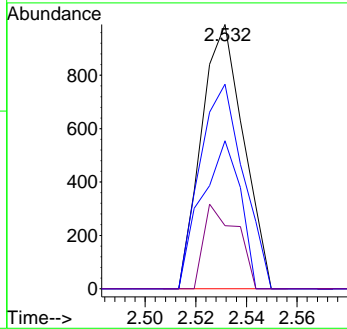
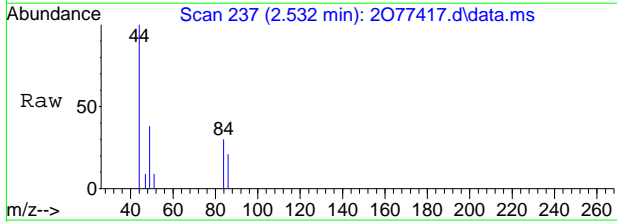


7.1.5  
7



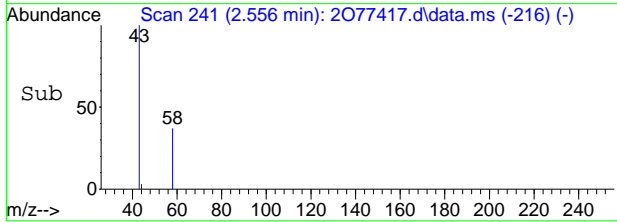
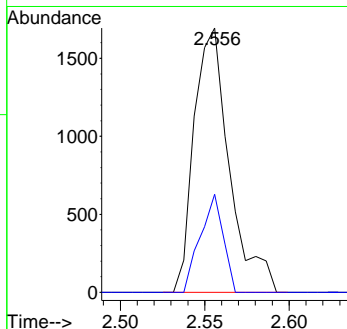
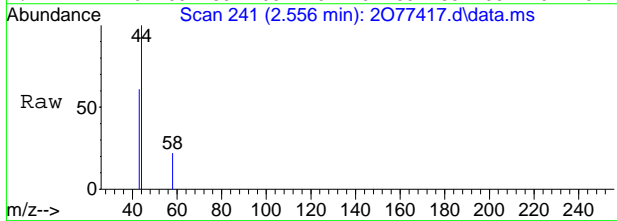
#18  
 Methylene Chloride  
 Concen: 0.69 ug/L  
 RT: 2.532 min Scan# 237  
 Delta R.T. -0.000 min  
 Lab File: 2077417.d  
 Acq: 5 Jul 2023 10:43 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	77.4	58.2	118.2
86	56.0	26.1	86.1
51	23.8	1.8	61.8

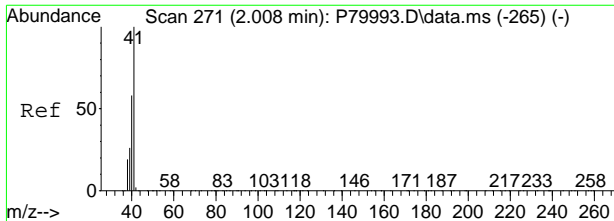


#19  
 Acetone  
 Concen: 3.62 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. -0.000 min  
 Lab File: 2077417.d  
 Acq: 5 Jul 2023 10:43 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.1	0.1	60.1

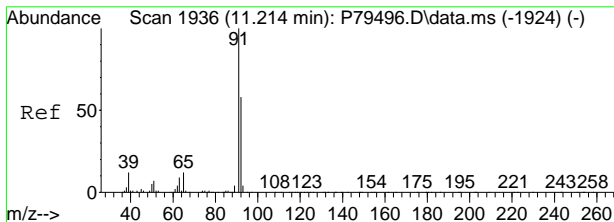
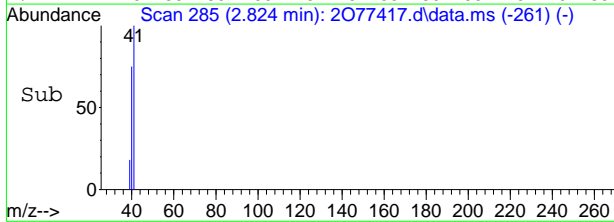
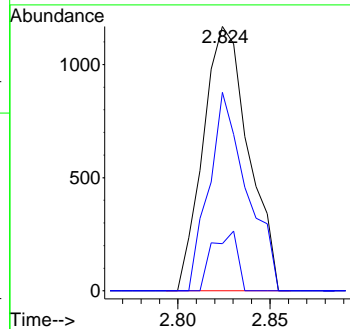
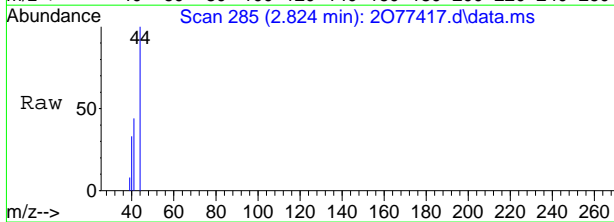


7.15  
7



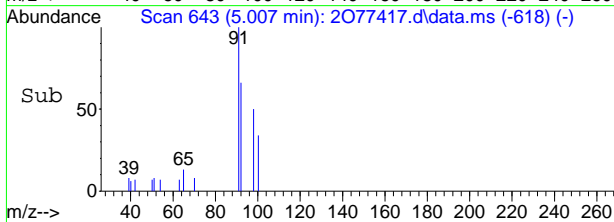
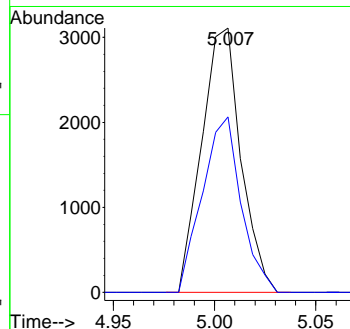
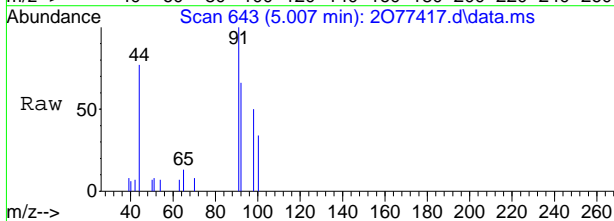
#25  
 Acetonitrile  
 Concen: 7.55 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077417.d  
 Acq: 5 Jul 2023 10:43 am

Tgt Ion	Ratio	Lower	Upper
41	100		
40	75.0	32.7	72.7#
39	17.9	0.0	39.4



#64  
 Toluene  
 Concen: 0.77 ug/L  
 RT: 5.007 min Scan# 643  
 Delta R.T. -0.000 min  
 Lab File: 2077417.d  
 Acq: 5 Jul 2023 10:43 am

Tgt Ion	Ratio	Lower	Upper
91	100		
92	66.4	27.6	87.6



7.15  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757708.d  
 Acq On : 6 Jul 2023 11:19 am  
 Operator : jeniferw  
 Sample : FC7382-3 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:21:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

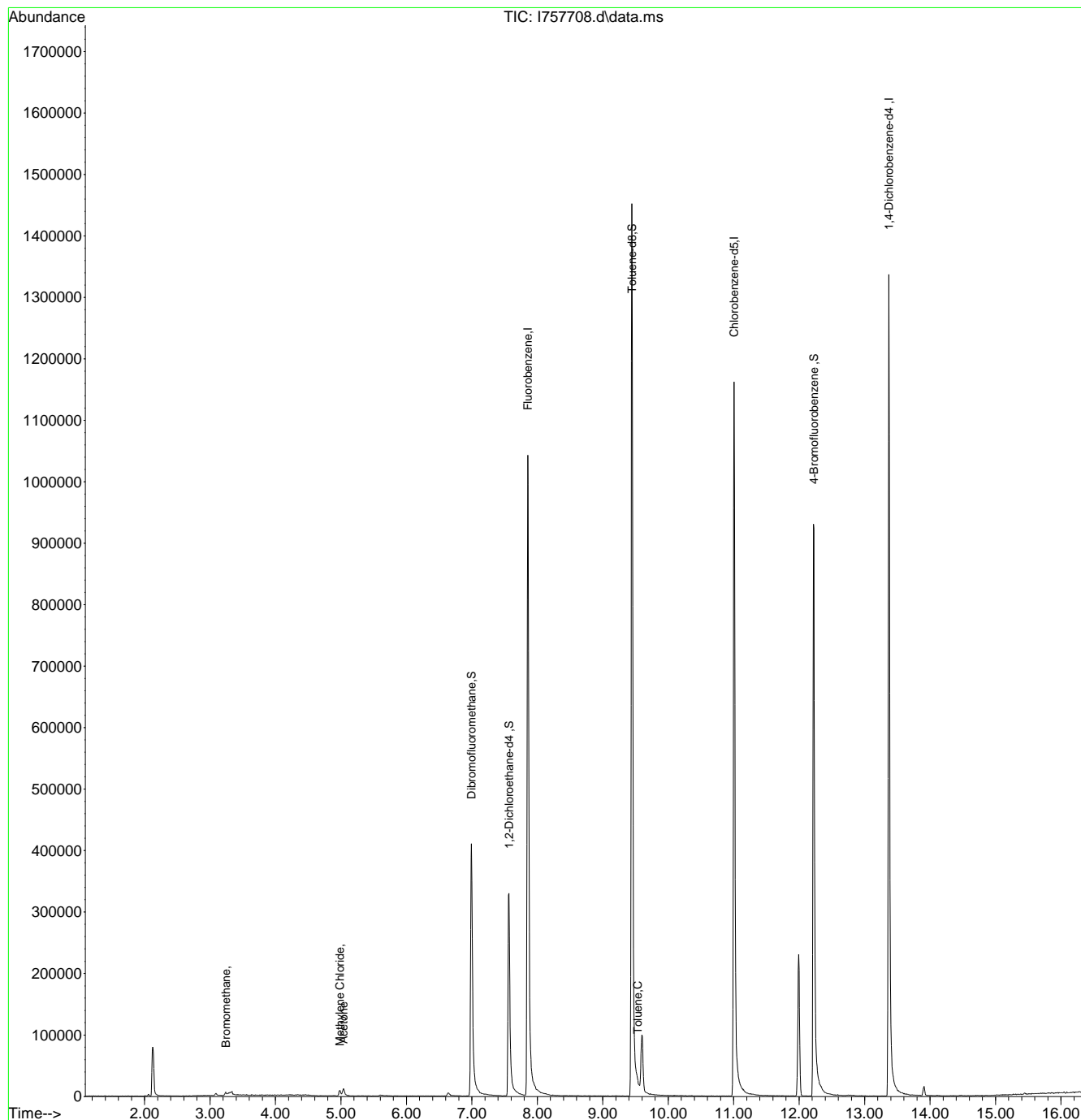
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	994618	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	713341	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	402073	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	271616	48.11	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.22%	
49) 1,2-Dichloroethane-d4	7.567	65	261180	50.88	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.76%	
63) Toluene-d8	9.445	98	994411	48.88	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.76%	
86) 4-Bromofluorobenzene	12.225	174	335090	49.50	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.00%	
Target Compounds						
						Qvalue
6) Bromomethane	3.239	94	2804	1.87	ug/L	85
18) Methylene Chloride	4.982	49	5899	1.06	ug/L	88
19) Acetone	5.037	43	5539	2.07	ug/L	98
64) Toluene	9.530	91	7920	0.49	ug/L	87
-----						

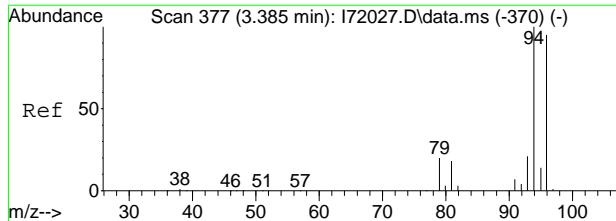
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

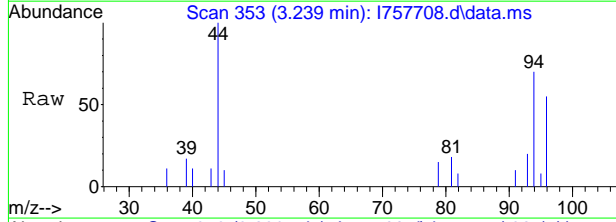
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757708.d  
Acq On : 6 Jul 2023 11:19 am  
Operator : jeniferw  
Sample : FC7382-3 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:21:09 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



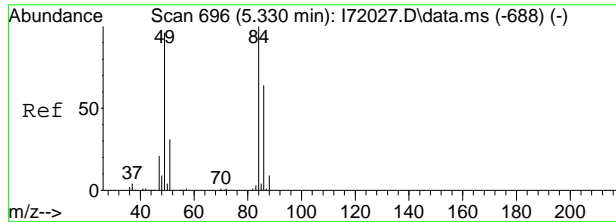
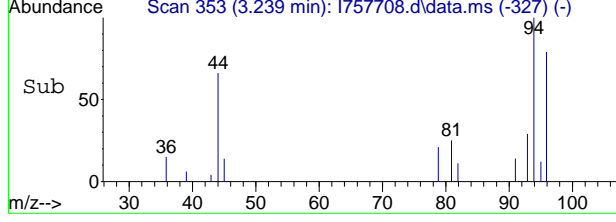
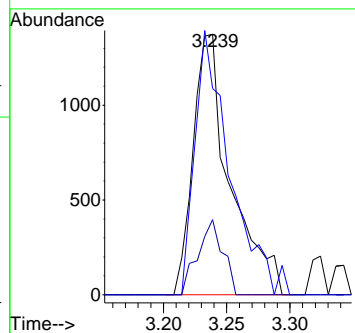


#6  
 Bromomethane  
 Concen: 1.87 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757708.d  
 Acq: 6 Jul 2023 11:19 am

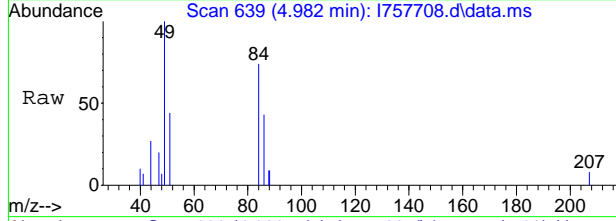


Tgt Ion: 94 Resp: 2804

Ion	Ratio	Lower	Upper
94	100		
96	79.2	63.7	123.7
93	28.8	0.0	50.9

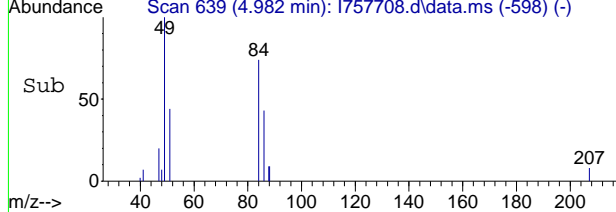
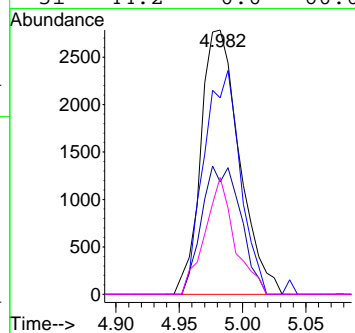


#18  
 Methylene Chloride  
 Concen: 1.06 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757708.d  
 Acq: 6 Jul 2023 11:19 am

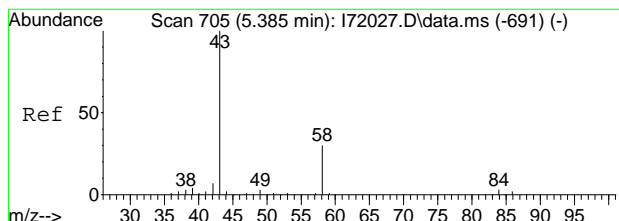


Tgt Ion: 49 Resp: 5899

Ion	Ratio	Lower	Upper
49	100		
84	74.3	51.5	111.5
86	42.5	19.4	79.4
51	44.2	0.0	60.0

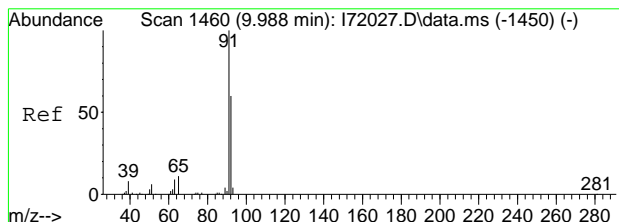
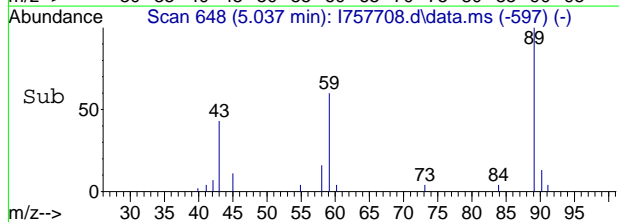
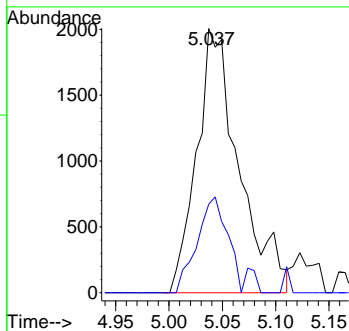
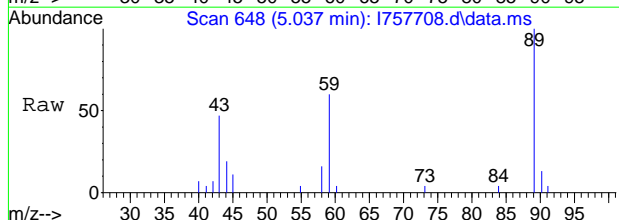






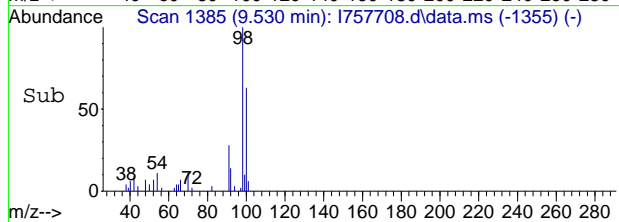
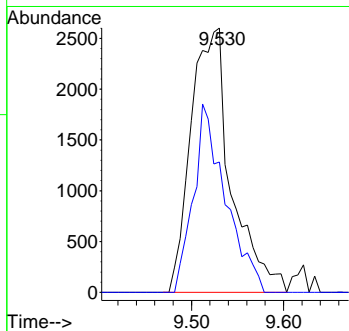
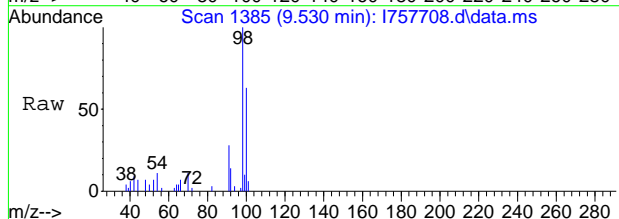
#19  
 Acetone  
 Concen: 2.07 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757708.d  
 Acq: 6 Jul 2023 11:19 am

Tgt Ion	Resp	Lower	Upper
43	5539		
43	100		
58	33.5	2.3	62.3



#64  
 Toluene  
 Concen: 0.49 ug/L  
 RT: 9.530 min Scan# 1385  
 Delta R.T. 0.030 min  
 Lab File: I757708.d  
 Acq: 6 Jul 2023 11:19 am

Tgt Ion	Resp	Lower	Upper
91	7920		
91	100		
92	49.3	29.2	89.2



7.16  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	305171	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	212296	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	106160	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	88250	53.18	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	106.36%	
50) 1,2-Dichloroethane-d4	3.849	65	100635	51.08	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.16%	
63) Toluene-d8	4.970	98	292071	51.60	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.20%	
86) 4-Bromofluorobenzene	6.915	174	85000	54.79	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	109.58%	
Target Compounds						
18) Methylene Chloride	2.532	49	947	0.55	ug/L	78
19) Acetone	2.550	43	18610	26.43	ug/L	96
25) Acetonitrile	2.830	41	5224	19.04	ug/L	95
-----						

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

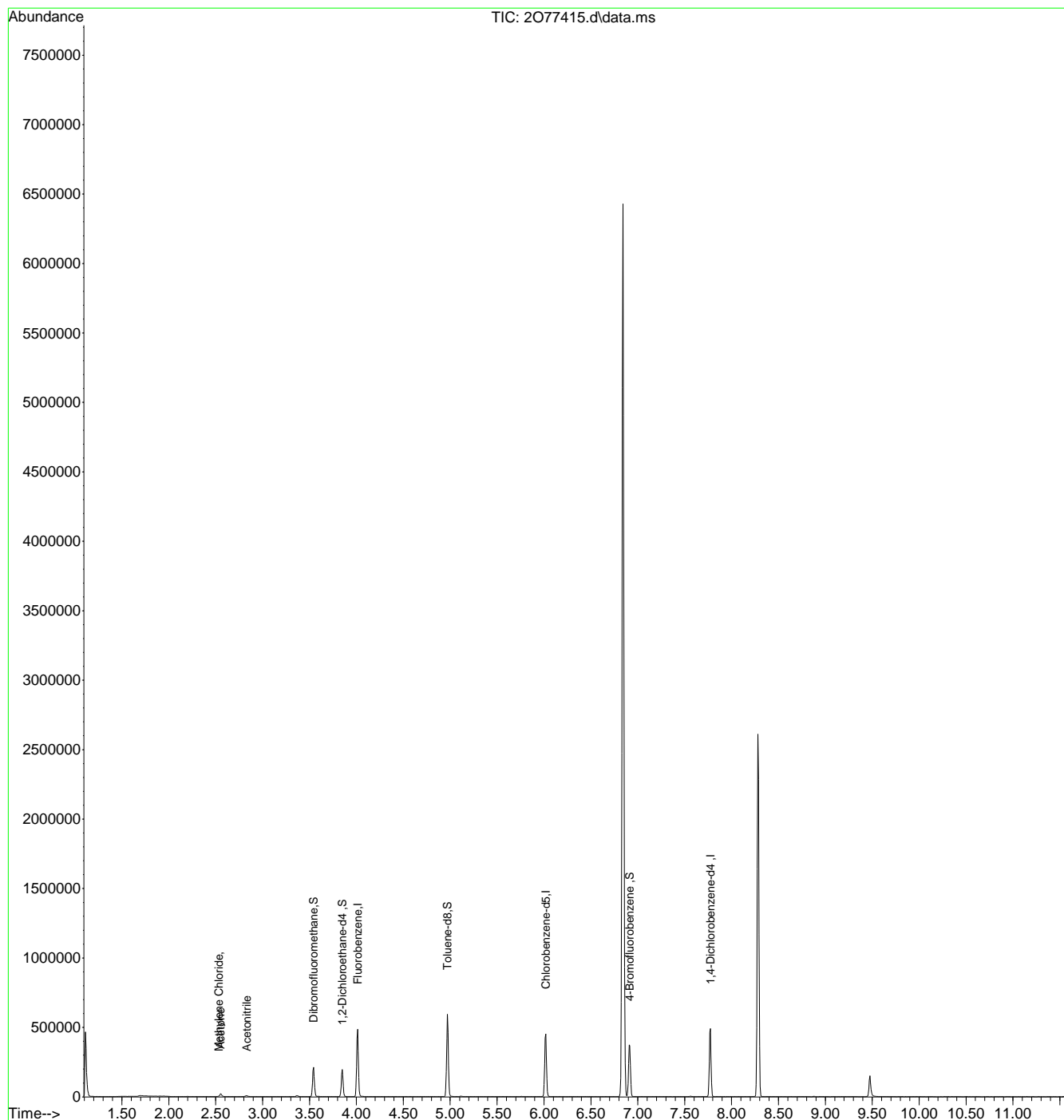
7.2.1  
7



Quantitation Report (QT Reviewed)

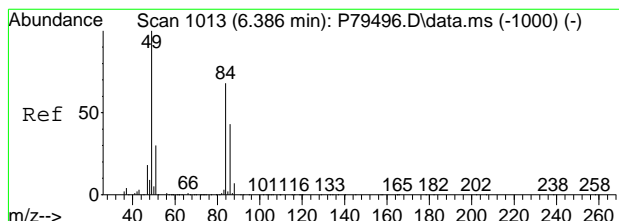
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



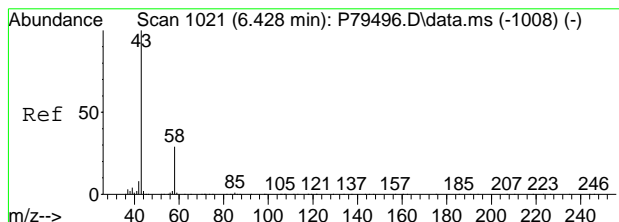
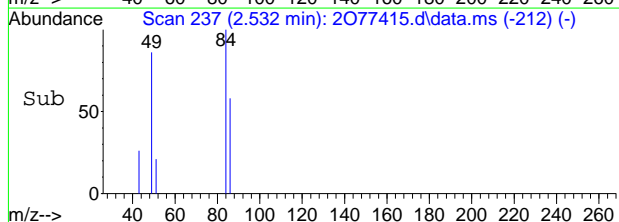
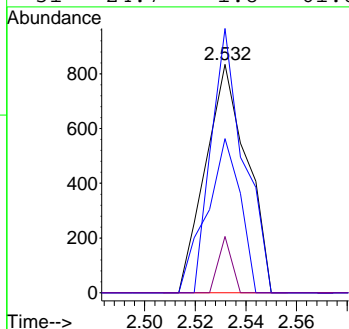
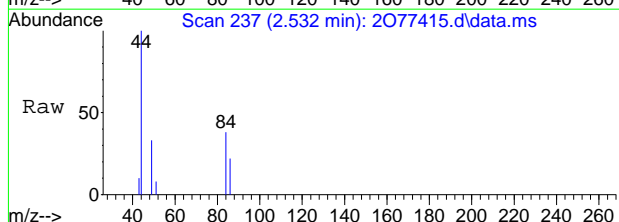
7.2.1  
7





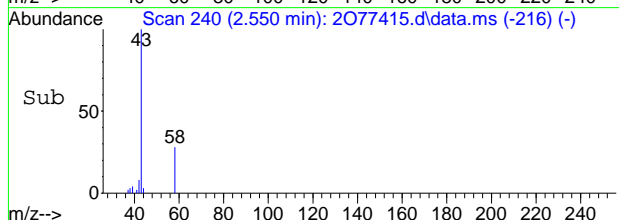
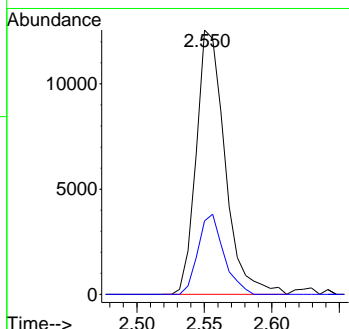
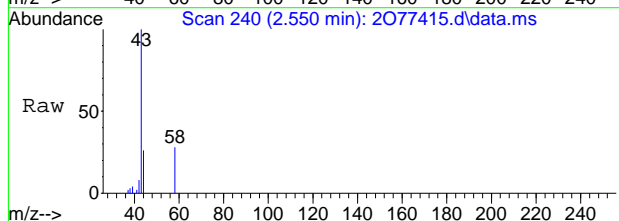
#18  
 Methylene Chloride  
 Concen: 0.55 ug/L  
 RT: 2.532 min Scan# 237  
 Delta R.T. -0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	115.8	58.2	118.2
86	67.5	26.1	86.1
51	24.7	1.8	61.8

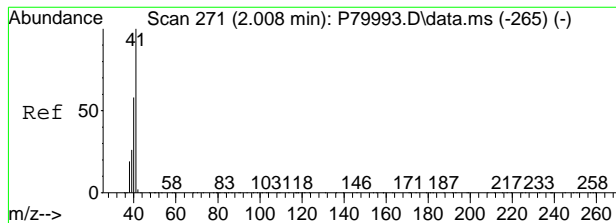


#19  
 Acetone  
 Concen: 26.43 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.8	0.1	60.1

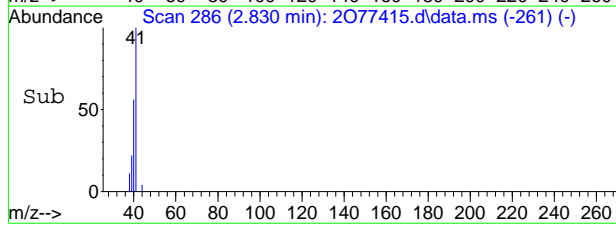
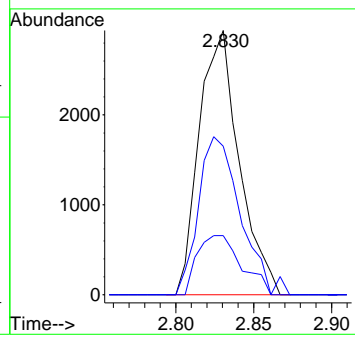
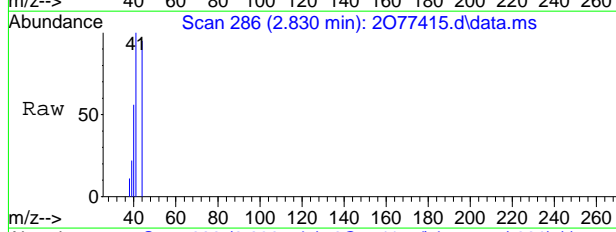


7.2.1  
7



#25  
 Acetonitrile  
 Concen: 19.04 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
41	100		
40	56.2	32.7	72.7
39	22.4	0.0	39.4



7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757706.d  
 Acq On : 6 Jul 2023 10:31 am  
 Operator : jeniferw  
 Sample : MB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.860	96	999716	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.005	117	726062	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	408938	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	274709	48.41	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.82%	
49) 1,2-Dichloroethane-d4	7.567	65	256784	49.77	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.54%	
63) Toluene-d8	9.445	98	1007111	48.64	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.28%	
86) 4-Bromofluorobenzene	12.225	174	339637	49.33	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.66%	
-----						
Target Compounds						Qvalue
6) Bromomethane	3.239	94	3627	2.40	ug/L	97
15) Iodomethane	4.470	142	1917	0.77	ug/L	82
18) Methylene Chloride	4.976	49	3157	0.56	ug/L	77
19) Acetone	5.043	43	5232	1.95	ug/L	90
-----						

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

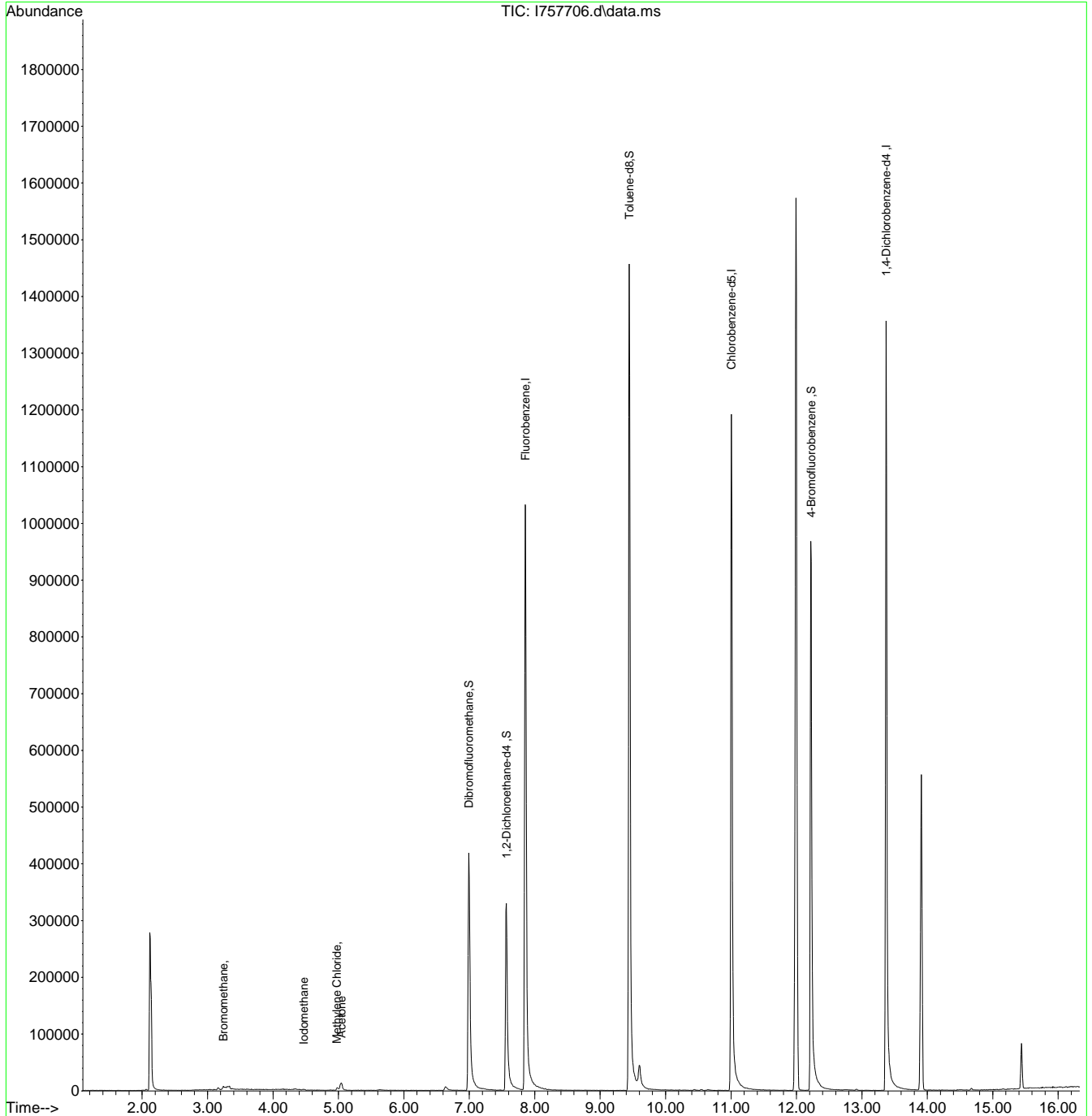
7.22  
7



Quantitation Report (QT Reviewed)

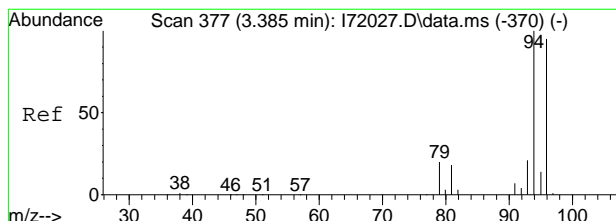
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757706.d  
 Acq On : 6 Jul 2023 10:31 am  
 Operator : jeniferw  
 Sample : MB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



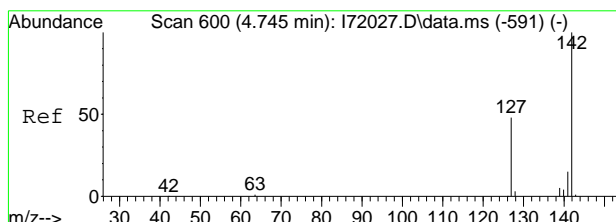
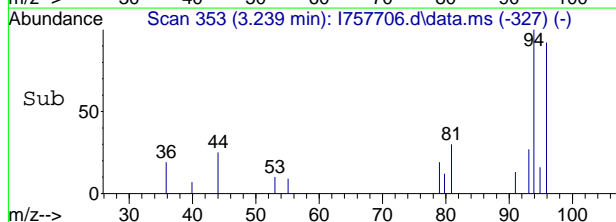
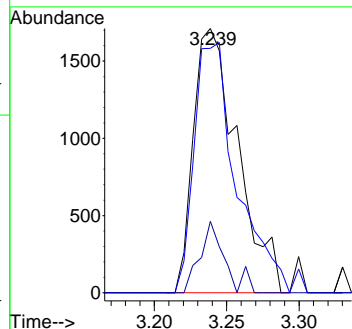
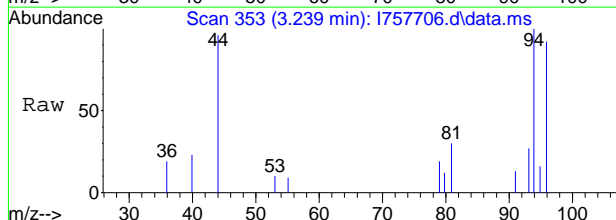
7.2.2  
7





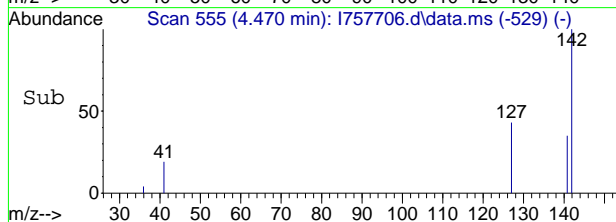
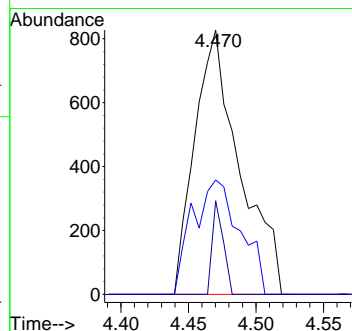
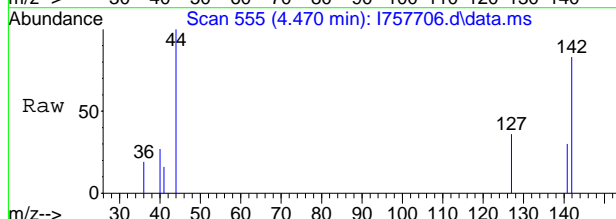
#6  
 Bromomethane  
 Concen: 2.40 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

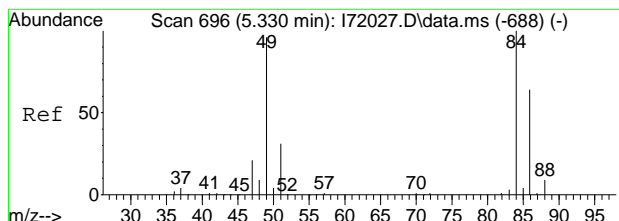
Tgt Ion	Resp	Lower	Upper
94	3627		
96	92.4	63.7	123.7
93	27.0	0.0	50.9



#15  
 Iodomethane  
 Concen: 0.77 ug/L  
 RT: 4.470 min Scan# 555  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

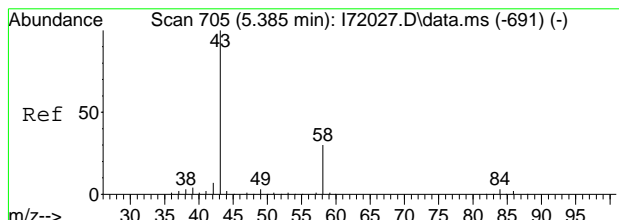
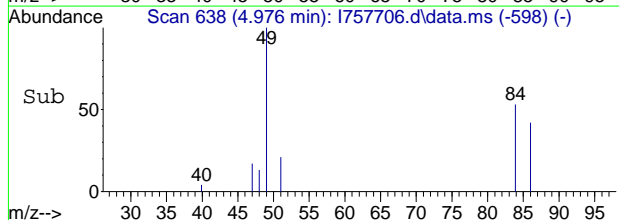
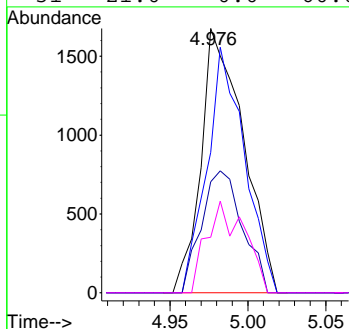
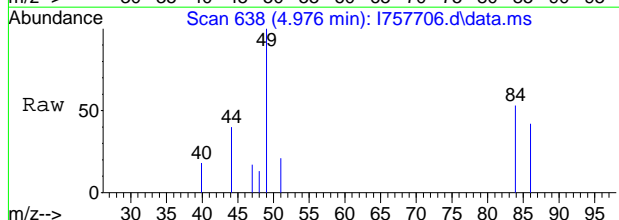
Tgt Ion	Resp	Lower	Upper
142	1917		
127	43.2	9.6	69.6
141	35.4	0.0	43.4





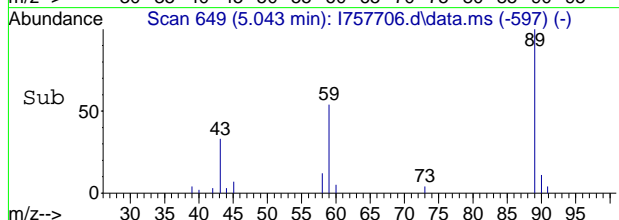
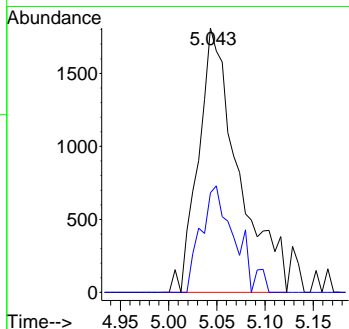
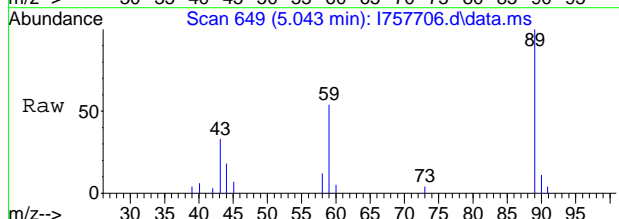
#18  
 Methylene Chloride  
 Concen: 0.56 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	53.1	51.5	111.5
86	42.0	19.4	79.4
51	21.0	0.0	60.0



#19  
 Acetone  
 Concen: 1.95 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.7	2.3	62.3



7.22  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	375787	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	268562	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.769	152	130962	50.00	ug/L	-0.01
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	102408	50.11	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.22%		
50) 1,2-Dichloroethane-d4	3.849	65	125574	51.76	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	103.52%		
63) Toluene-d8	4.970	98	358023	50.00	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.00%		
86) 4-Bromofluorobenzene	6.915	174	93058	48.63	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	97.26%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	43952	31.68	ug/L	97
3) Chloromethane	1.380	50	38582	27.28	ug/L	96
4) 1,3-butadiene	1.447	39	36635	22.69	ug/L	97
5) Vinyl Chloride	1.434	62	42386	29.05	ug/L	99
6) Bromomethane	1.666	94	27976	24.67	ug/L	98
7) Chloroethane	1.751	64	30428	34.04	ug/L	99
8) Trichlorofluoromethane	1.849	101	85382	31.02	ug/L	100
9) Ethyl Ether	2.056	59	33474	25.82	ug/L	99
10) Ethanol	2.148	45	18164	621.12	ug/L	97
11) 1,2-Dichlorotrifluoro...	2.178	67	51006	27.75	ug/L	99
12) 1,1-Dichloroethene	2.178	61	57358	24.85	ug/L	97
13) Freon 113	2.209	101	42865	26.42	ug/L	98
14) Carbon Disulfide	2.196	76	118612	27.62	ug/L	100
15) Iodomethane	2.270	142	34448	24.18	ug/L	96
16) Acrolein	2.379	56	55364	132.20	ug/L	100
17) Allyl chloride	2.471	41	46862	27.85	ug/L	98
18) Methylene Chloride	2.532	49	54488	26.14	ug/L	97
19) Acetone	2.556	43	132659	153.01	ug/L	98
20) Methyl acetate	2.629	43	237278	115.90	ug/L	99
21) trans-1,2-Dichloroethene	2.629	61	55590	23.83	ug/L	97
22) Hexane	2.678	56	28724	24.21	ug/L	93
23) Methyl Tert Butyl Ether	2.690	73	116801	24.90	ug/L	92
24) Tert Butyl Alcohol	2.739	59	75420	259.64	ug/L	88
25) Acetonitrile	2.824	41	98119	290.39	ug/L	99
26) Di-isopropyl ether	2.904	45	110767	23.99	ug/L	97
27) Chloroprene	2.971	53	44373	19.31	ug/L	98
28) 1,1-Dichloroethane	2.983	63	71999	23.75	ug/L	99
29) Acrylonitrile	3.007	52	100547	120.11	ug/L	98
30) ETBE	3.111	59	112837	25.70	ug/L	98
31) Vinyl acetate	3.117	43	460163	139.86	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	44803	22.55	ug/L	98
33) 2,2-Dichloropropane	3.349	77	55678	27.48	ug/L	100
34) Bromochloromethane	3.397	128	23943	24.77	ug/L	95
35) Cyclohexane	3.410	56	52430	22.66	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	84523	24.68	ug/L	99
37) Ethyl acetate	3.495	43	302711	122.91	ug/L	99
38) Tetrahydrofuran	3.532	42	21125	23.94	ug/L	94
40) Carbon Tetrachloride	3.525	117	56407m	25.56	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	66085	24.46	ug/L	98
42) 2-Butanone	3.605	43	168538	125.74	ug/L	100
43) 1,1-Dichloropropene	3.629	75	55675	24.58	ug/L	98
44) tert-Butyl formate	3.690	59	124204	204.80	ug/L	92
45) Propionitrile	3.775	54	116812	281.35	ug/L	87
46) Methacrylonitrile	3.794	41	415149	287.55	ug/L	96
47) Benzene	3.775	78	175851	25.72	ug/L	98
48) TAME	3.830	73	110097	26.44	ug/L	96
49) Isobutyl alcohol	3.873	43	74033m	596.56	ug/L	
51) 1,2-Dichloroethane	3.885	62	68796	24.45	ug/L	98
52) Tert Amyl Alcohol	3.934	59	60057	269.73	ug/L	96
53) Trichloroethene	4.111	95	47684	24.04	ug/L	97
54) Methylcyclohexane	4.117	83	55433	22.76	ug/L	98
55) Dibromomethane	4.361	93	32857	24.32	ug/L	93
56) 1,2-Dichloropropane	4.422	63	42588	26.03	ug/L	98
57) Bromodichloromethane	4.458	83	58150	25.38	ug/L	98
58) Methyl methacrylate	4.544	41	39379	22.65	ug/L	97
59) 1,4-Dioxane	4.580	88	15135	470.62	ug/L	99
60) 2-Chloroethyl vinyl ether	4.800	63	160751	120.15	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	65689	26.53	ug/L	96
64) Toluene	5.001	91	178539	24.88	ug/L	99
65) 2-Nitropropane	5.147	41	71996	140.74	ug/L	99
66) 4-Methyl-2-pentanone	5.239	43	299973	134.53	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	62491	25.80	ug/L	93
68) Tetrachloroethene	5.257	166	45947	24.64	ug/L	97
69) Ethyl methacrylate	5.360	69	54269	26.13	ug/L	93
70) 1,1,2-Trichloroethane	5.373	83	38871	25.79	ug/L	94
71) Dibromochloromethane	5.501	129	46597	27.49	ug/L	98
72) 1,3-Dichloropropane	5.562	76	74081	25.75	ug/L	99
73) 1,2-Dibromoethane	5.665	107	46711	23.78	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	417459	1350.13	ug/L	100
75) 2-hexanone	5.799	43	308215	136.95	ug/L	97
76) 1-Chlorohexane	6.007	91	49783m	22.65	ug/L	
77) Ethylbenzene	6.043	91	188956	24.10	ug/L	99
78) Chlorobenzene	6.031	112	121327	24.32	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	43131	27.02	ug/L	98
80) m,p-Xylene	6.147	91	302939	48.91	ug/L	100
81) o-Xylene	6.464	91	136073	21.87	ug/L	99
82) Styrene	6.500	104	113716	23.97	ug/L	99
83) Bromoform	6.525	173	27950	26.93	ug/L	98
84) Isopropylbenzene	6.696	105	156292	21.81	ug/L	97
87) cis-1,4-Dichloro-2-butene	6.958	53	13356	26.10	ug/L	95
88) n-Propylbenzene	7.013	91	194336	24.16	ug/L	98
89) Bromobenzene	6.994	156	45564	25.25	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	68227	26.15	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	142185	24.73	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.135	91	132522	23.52	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	9956	21.13	ug/L	99
94) 1,2,3-Trichloropropane	7.171	110	22855	27.34	ug/L	97
95) Cyclohexanone	7.202	55	17395	195.76	ug/L	97
96) 4-Chlorotoluene	7.263	91	127716	23.83	ug/L	97
97) tert-Butylbenzene	7.415	91	71944	23.05	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	138743	24.10	ug/L	99
100) Pentachloroethane	7.433	167	23909	29.07	ug/L #	78
101) sec-Butylbenzene	7.555	105	146855	22.28	ug/L	99
102) 4-Isopropyltoluene	7.665	119	126890	22.54	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	84975	23.71	ug/L	98
104) 1,2,3-Trimethylbenzene	7.799	105	155388	25.40	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	88898	24.83	ug/L	94
106) n-Butylbenzene	7.976	92	70940	24.60	ug/L	96
107) Benzyl Chloride	7.970	126	18851	30.79	ug/L	96
108) 1,2-Dichlorobenzene	8.092	146	80823	23.56	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.665	75	13473	25.94	ug/L	91
110) Hexachlorobutadiene	9.128	225	15613	24.20	ug/L	98
111) 1,2,4-Trichlorobenzene	9.140	180	43983	22.45	ug/L	98
112) Naphthalene	9.366	128	155351	21.76	ug/L	99
113) 1,2,3-Trichlorobenzene	9.488	180	43705	22.44	ug/L	96

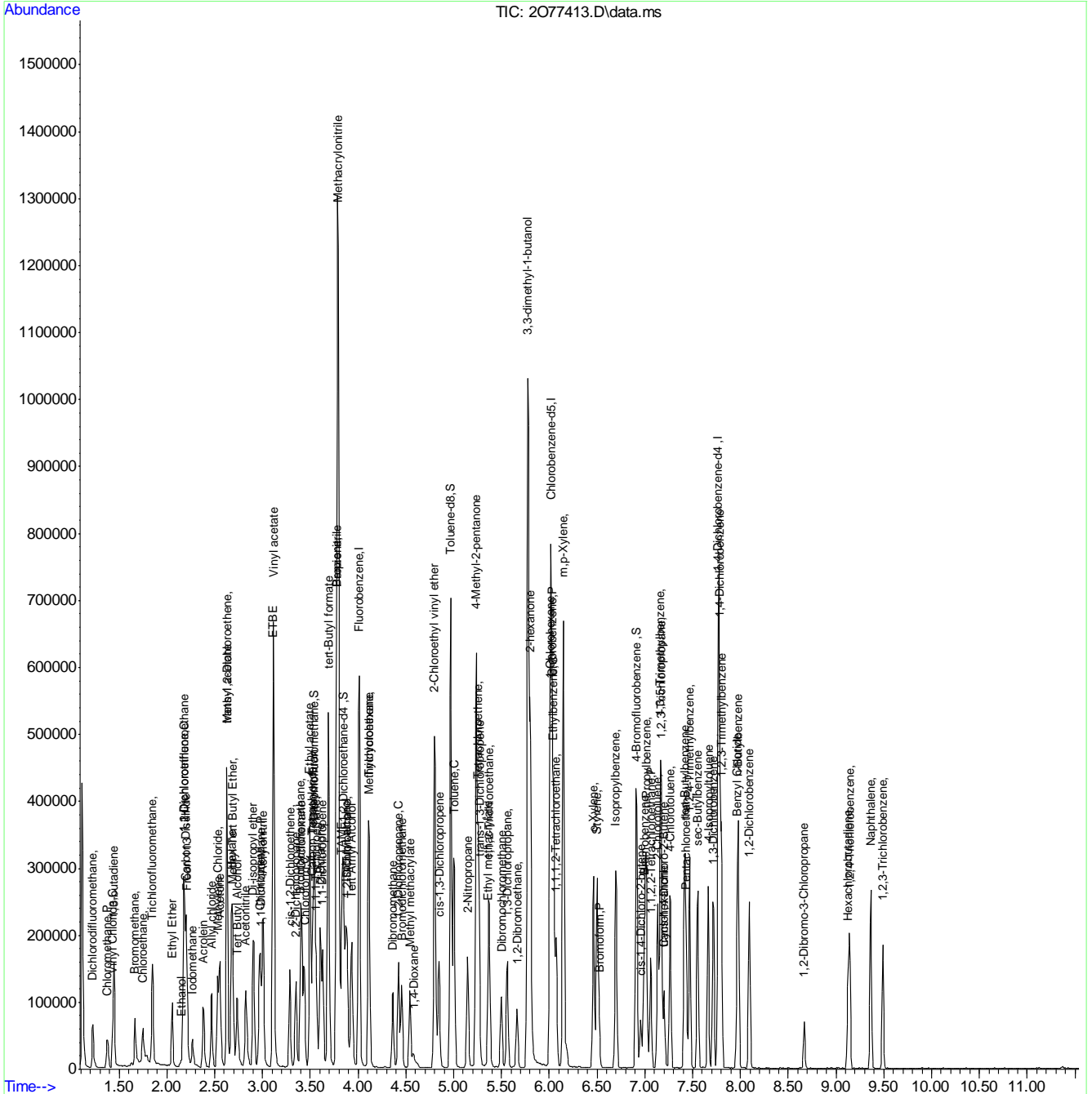
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
Data File : 2077413.D  
Acq On : 5 Jul 2023 9:01 am  
Operator : jeniferw  
Sample : BS  
Misc : MS54349,V203017,,,,,  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 09:15:48 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



7.3.1  
7

# Manual Integration Approval Summary

**Sample Number:** V2O3017-BS      **Method:** SW846 8260D  
**Lab FileID:** 2O77413.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 09:01      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.3.1.1

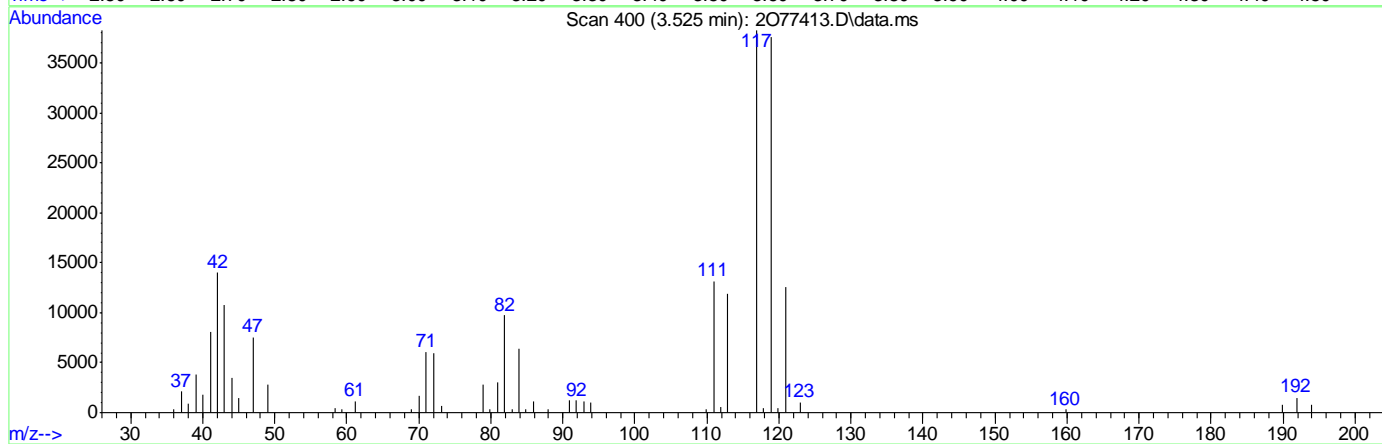
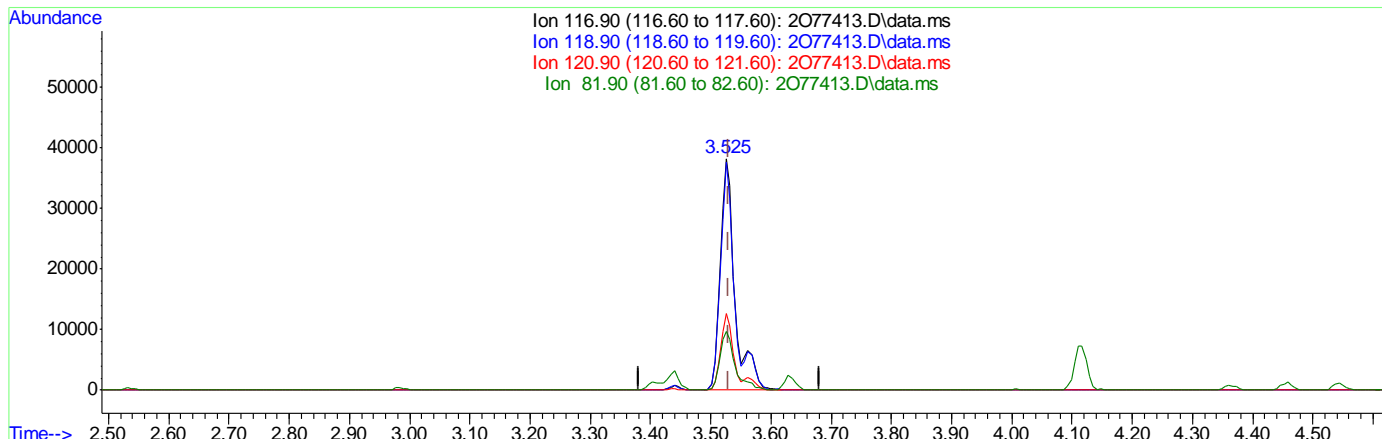
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.59ug/L

response 65312

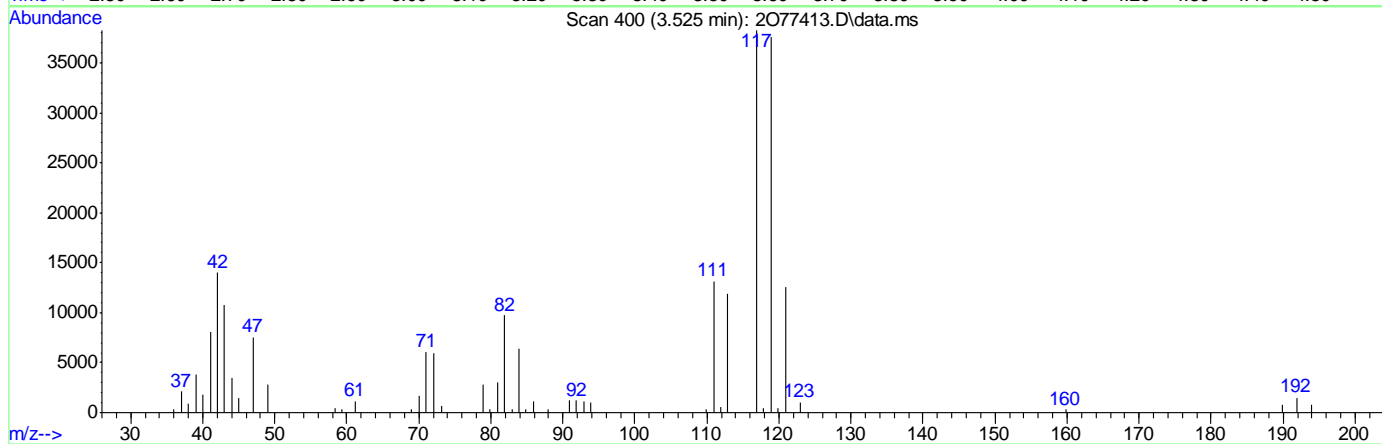
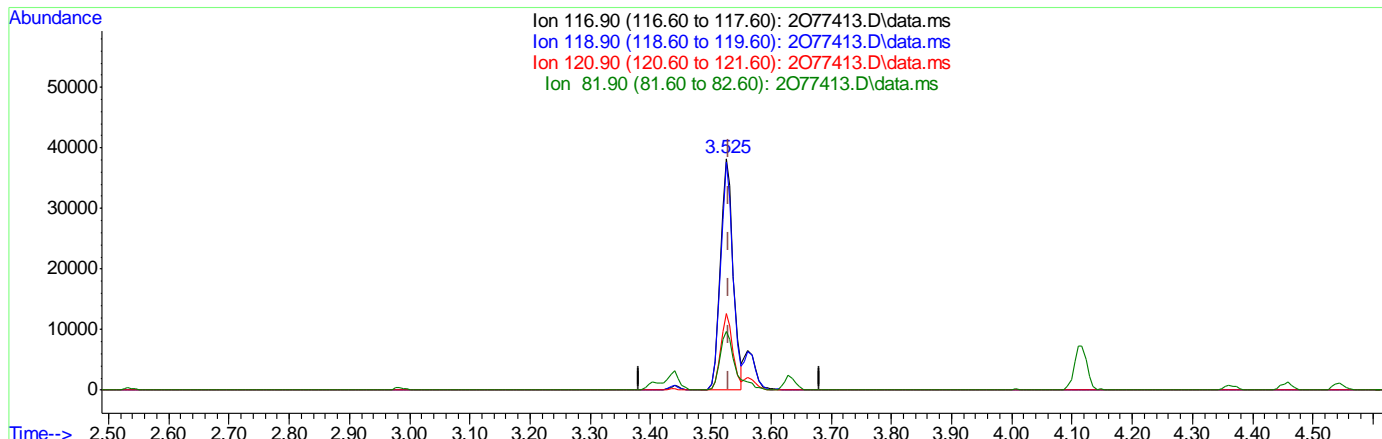
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

7.3.12  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.56ug/L m  
 response 56407

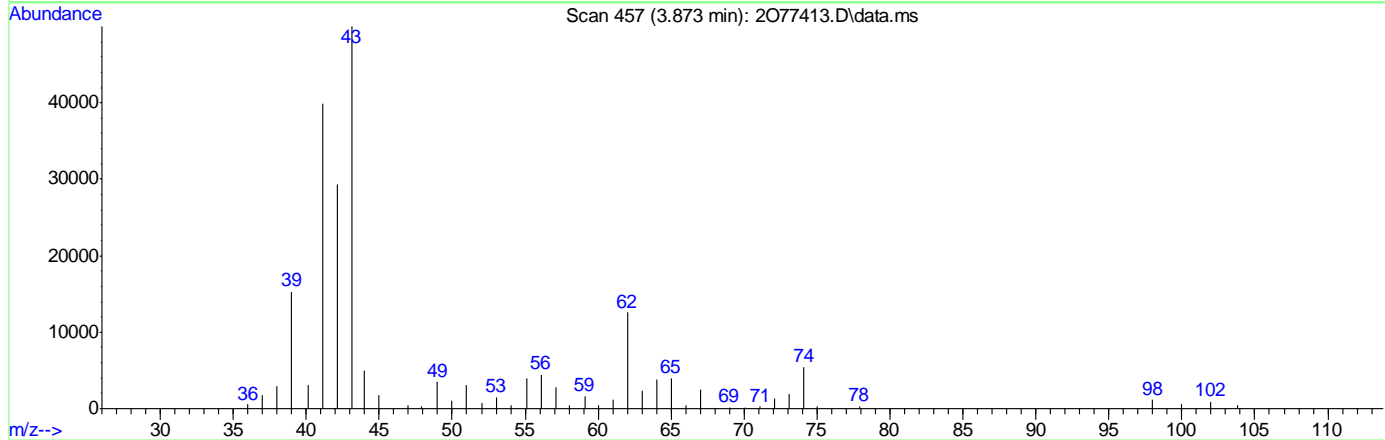
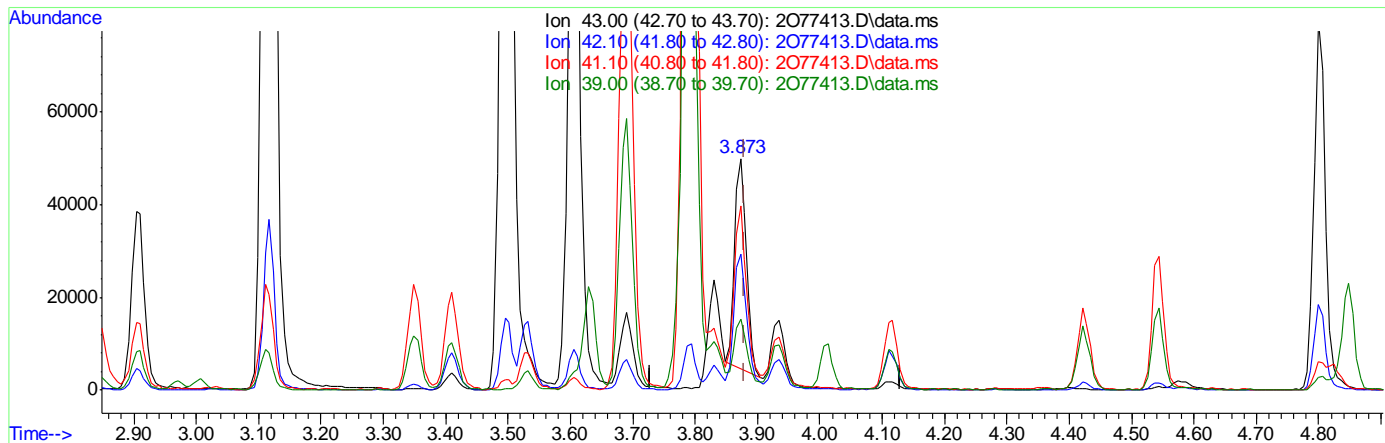
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

7.3.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 475.66ug/L  
 response 58473

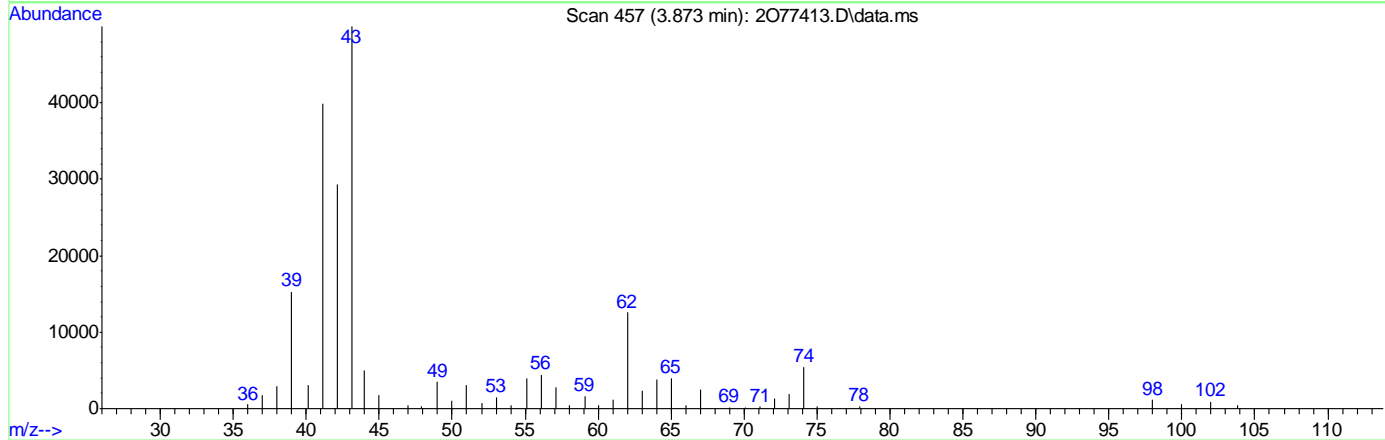
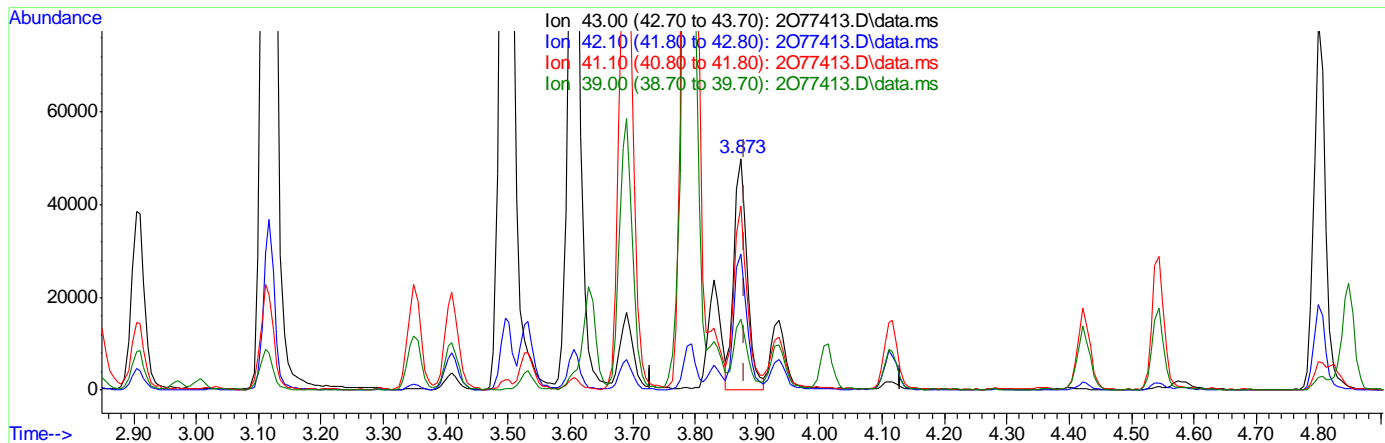
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.28
41.10	77.50	77.47
39.00	31.30	28.78

7.3.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 596.56ug/L m  
 response 74033

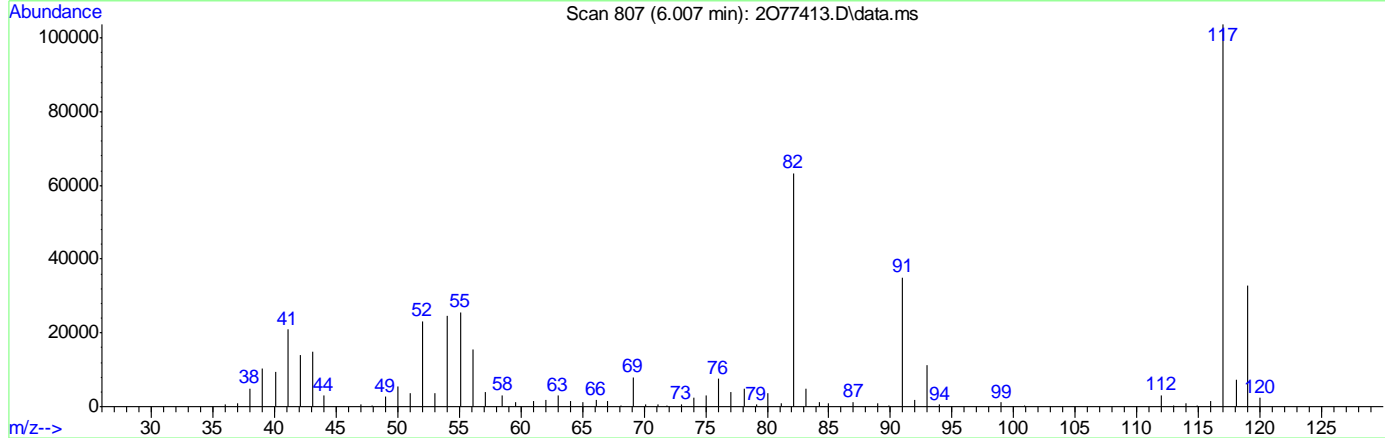
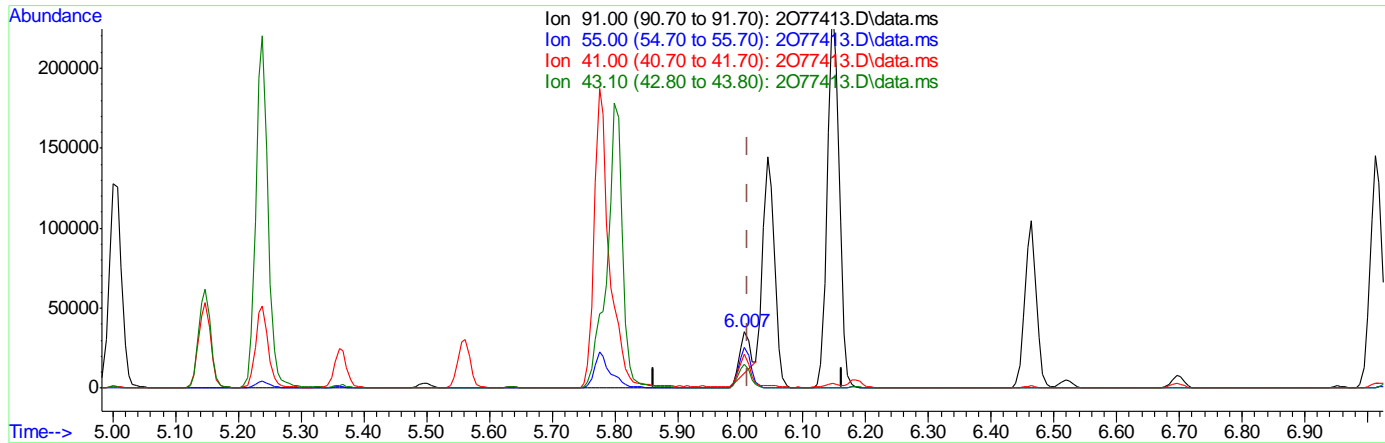
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.52
41.10	77.50	79.68
39.00	31.30	30.61

7.3.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 13.09ug/L  
 response 28762

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.39
41.00	55.00	56.93
43.10	42.40	41.31

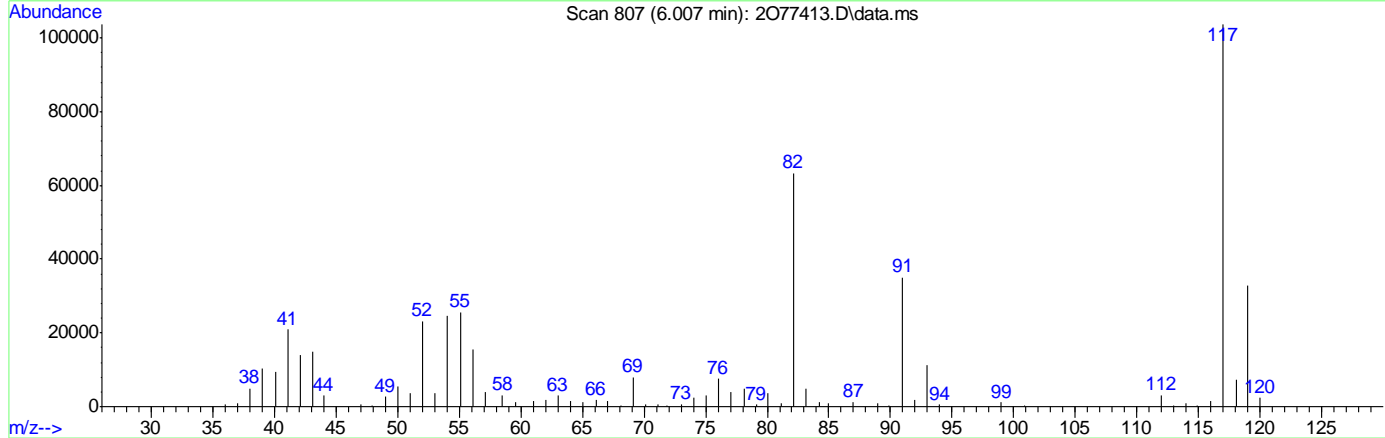
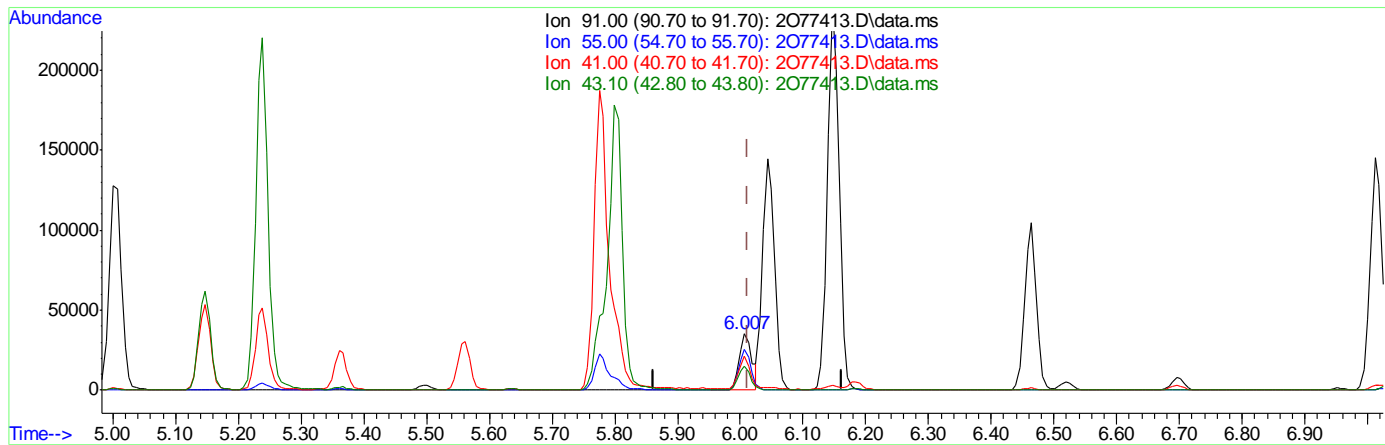
7.3.1.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 22.65ug/L m  
 response 49783

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.10
41.00	55.00	59.87
43.10	42.40	42.47

7.3.1.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1010121	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	711222	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	434708	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288440	50.31	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.62%		
49) 1,2-Dichloroethane-d4	7.561	65	272870	52.34	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.68%		
63) Toluene-d8	9.445	98	1037109	51.14	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.28%		
86) 4-Bromofluorobenzene	12.219	174	364342	49.78	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.56%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	63099	14.22	ug/L		96
3) Chloromethane	2.635	50	76923	16.82	ug/L		95
4) Vinyl Chloride	2.763	62	75302	16.70	ug/L		100
5) 1,3-Butadiene	2.794	39	76421	19.66	ug/L		95
6) Bromomethane	3.227	94	42381	27.56	ug/L		98
7) Chloroethane	3.391	64	41251	21.82	ug/L		97
8) Trichlorofluoromethane	3.599	101	114796	19.24	ug/L		99
9) Ethyl Ether	4.013	59	79363	25.41	ug/L		97
10) 1,2-Dichlorotrifluoro...	4.239	67	112083	26.98	ug/L		98
11) 1,1-Dichloroethene	4.269	61	135068	24.64	ug/L		98
12) Ethanol	4.190	45	64989	416.67	ug/L		99
13) Freon 113	4.318	101	97048	28.50	ug/L		97
14) Carbon Disulfide	4.330	76	265035	23.54	ug/L		99
15) Iodomethane	4.458	142	92166	34.23	ug/L		93
16) Acrolein	4.678	56	152841	107.07	ug/L		97
17) Allyl chloride	4.848	41	123012	23.27	ug/L		98
18) Methylene Chloride	4.976	49	139233	24.97	ug/L		97
19) Acetone	5.019	43	303460	111.64	ug/L		97
20) Methyl acetate	5.165	43	625387	109.77	ug/L		98
21) trans-1,2-Dichloroethene	5.178	61	135321	23.53	ug/L		97
22) Hexane	5.275	56	74625	26.47	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	283544	23.34	ug/L		85
24) Tert butyl alcohol	5.379	59	360233	216.70	ug/L		96
25) Acetonitrile	5.555	41	261193	224.28	ug/L		98
26) Di-isopropyl ether	5.720	45	288121	22.67	ug/L		97
27) Chloroprene	5.866	53	110676	20.41	ug/L		99
28) 1,1-Dichloroethane	5.879	63	171905	22.77	ug/L		98
29) Acrylonitrile	5.921	53	329833	119.10	ug/L		99
30) ETBE	6.135	59	288762	23.60	ug/L		99
31) Vinyl acetate	6.135	43	1009244	125.76	ug/L		99
32) cis-1,2-Dichloroethene	6.500	96	102751	22.65	ug/L		94
33) 2,2-Dichloropropane	6.616	77	140169	24.36	ug/L		98
34) Bromochloromethane	6.726	128	55612	23.75	ug/L		96
35) Cyclohexane	6.756	56	151808	25.87	ug/L		98
36) Chloroform	6.787	83	184670	23.45	ug/L		100
37) Ethyl acetate	6.884	43	800262	121.72	ug/L		99
38) Tetrahydrofuran	6.982	42	68200	21.72	ug/L		95
40) Carbon Tetrachloride	6.970	117	137913	24.94	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	155365	23.85	ug/L		100
42) 2-Butanone	7.098	43	457465	111.92	ug/L		98
43) 1,1-Dichloropropene	7.171	75	127014	24.70	ug/L		98
44) tert-Butyl Formate	7.250	59	457334	144.77	ug/L		91



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	313008	225.52	ug/L	95
46) Methacrylonitrile	7.433	41	918845	225.80	ug/L	99
47) Benzene	7.427	78	371697	23.57	ug/L	96
48) TAME	7.525	73	269841	22.78	ug/L	97
50) Isobutyl alcohol	7.586	42	161308	438.84	ug/L	98
51) 1,2-Dichloroethane	7.634	62	124618	22.75	ug/L	98
52) Tert Amyl Alcohol	7.695	59	292578	214.43	ug/L	95
53) Trichloroethene	8.043	95	99502	22.56	ug/L	97
54) Methylcyclohexane	8.049	83	132965	25.10	ug/L	97
55) Dibromomethane	8.482	93	67175	23.85	ug/L	97
56) 1,2-Dichloropropane	8.567	63	98415	24.22	ug/L	95
57) Bromodichloromethane	8.622	83	125082	22.33	ug/L	98
58) Methyl methacrylate	8.744	41	97271	22.15	ug/L	98
59) 1,4-Dioxane	8.811	88	46680	368.48	ug/L	93
60) 2-Chloroethyl vinyl ether	9.158	63	279282	112.72	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	146179	23.15	ug/L	99
64) Toluene	9.500	91	388207	23.92	ug/L	98
65) 2-Nitropropane	9.695	41	198254	130.77	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	829616	117.95	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	121483	22.34	ug/L	92
68) Tetrachloroethene	9.908	166	121394	24.72	ug/L	98
69) Ethyl methacrylate	10.012	69	133741	25.82	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	80723	24.39	ug/L	97
71) Dibromochloromethane	10.256	129	114386	24.98	ug/L	98
72) 1,3-Dichloropropane	10.335	76	151148	26.21	ug/L	96
73) 1,2-Dibromoethane	10.518	107	105128	24.62	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1576760	1256.91	ug/L	99
75) 2-hexanone	10.652	43	663893	117.86	ug/L	99
76) 1-Chlorohexane	10.963	91	108616	23.66	ug/L	96
77) Ethylbenzene	11.024	91	417250	23.81	ug/L	99
78) Chlorobenzene	11.024	112	256911	23.96	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.073	131	97541	23.50	ug/L	97
80) m,p-Xylene	11.164	91	635142	48.28	ug/L	99
81) o-Xylene	11.603	91	316650	22.38	ug/L	98
82) Styrene	11.658	104	234833	23.76	ug/L	99
83) Bromoform	11.713	173	92905	24.08	ug/L	98
84) Isopropylbenzene	11.908	105	388071	23.32	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	40959	26.27	ug/L	87
88) n-Propylbenzene	12.329	91	447112	23.36	ug/L	99
89) Bromobenzene	12.347	156	121967	24.86	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	160337	23.97	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	319026	23.26	ug/L	99
92) 2-Chlorotoluene	12.518	91	312010	23.90	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	36272	21.03	ug/L	86
94) 1,2,3-Trimethylpropane	12.542	110	53332	25.79	ug/L	97
95) Cyclohexanone	12.603	55	67687	146.44	ug/L	95
96) 4-Chlorotoluene	12.682	91	273762	23.30	ug/L	98
97) tert-Butylbenzene	12.853	91	169189	23.21	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	314073	23.25	ug/L	97
99) Pentachloroethane	12.902	167	75522	25.18	ug/L	99
100) sec-Butylbenzene	13.036	105	357180	23.25	ug/L	99
101) 4-Isopropyltoluene	13.170	119	312540	22.88	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	198228	23.45	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	341806	24.15	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	214469	23.60	ug/L	97
105) n-Butylbenzene	13.615	92	168781	25.13	ug/L	89
106) Benzyl Chloride	13.627	126	52062	22.23	ug/L #	71
107) 1,2-Dichlorobenzene	13.822	146	200339	24.18	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

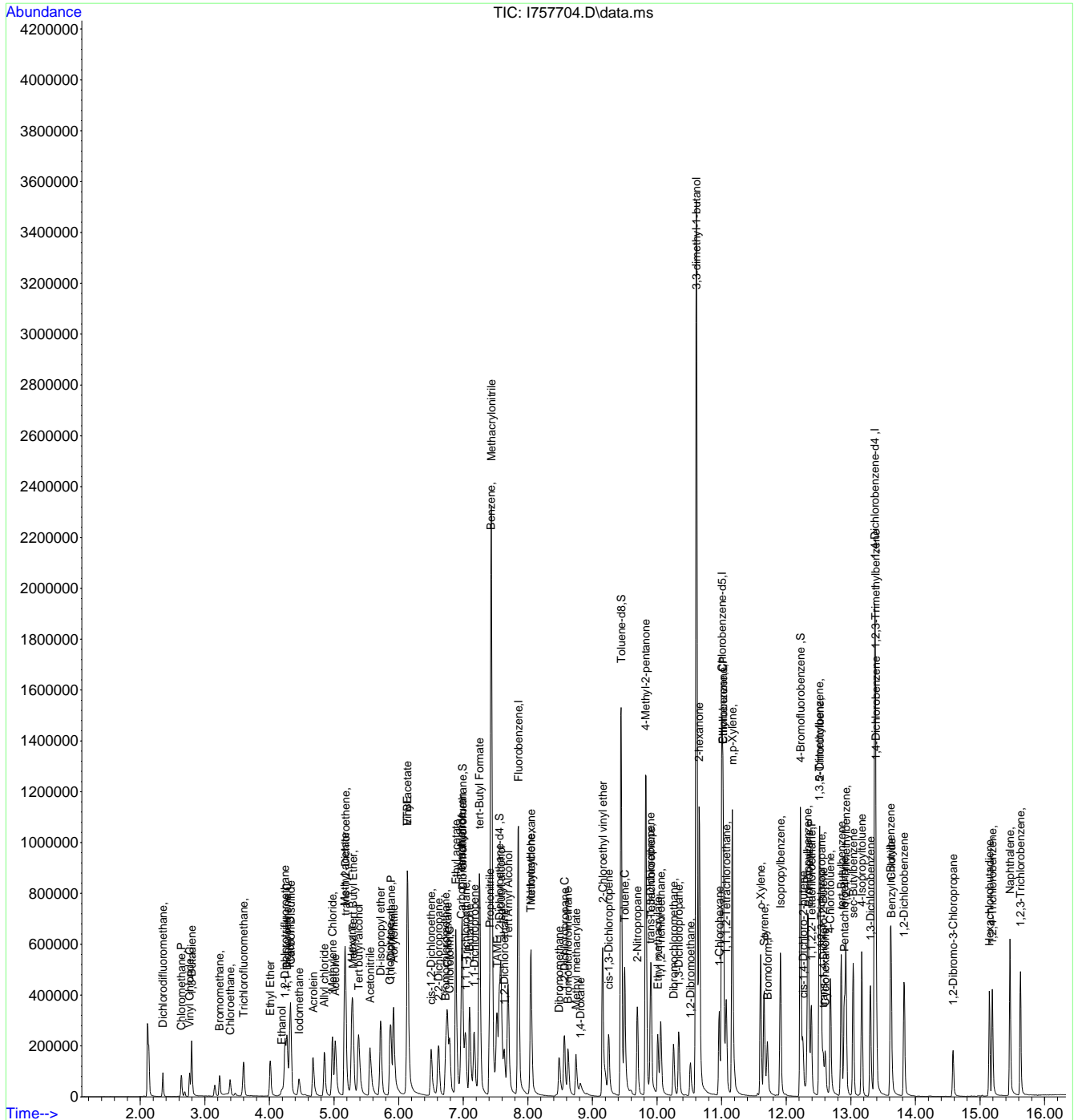
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	39549	23.39	ug/L	94
109) Hexachlorobutadiene	15.145	225	71404	25.44	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	141776	23.16	ug/L	97
111) Naphthalene	15.462	128	429180	22.42	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	143003	23.42	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.3.2  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	314648	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	245177	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.774	152	117244	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91140	53.26	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	106.52%	
50) 1,2-Dichloroethane-d4	3.848	65	104161	51.28	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	102.56%	
63) Toluene-d8	4.970	98	300629	45.99	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	91.98%	
86) 4-Bromofluorobenzene	6.915	174	81133	47.36	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	94.72%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	43971	37.86	ug/L		99
3) Chloromethane	1.367	50	37346	31.53	ug/L		100
4) 1,3-butadiene	1.440	39	37037	27.80	ug/L		95
5) Vinyl Chloride	1.428	62	41164	33.69	ug/L		94
6) Bromomethane	1.660	94	18415	19.46	ug/L		96
7) Chloroethane	1.745	64	35254	Below	Cal		98
8) Trichlorofluoromethane	1.849	101	82330	35.72	ug/L		100
9) Ethyl Ether	2.050	59	28423	26.18	ug/L		97
10) Ethanol	2.148	45	10002	408.48	ug/L		94
11) 1,2-Dichlorotrifluoro...	2.172	67	53165	34.55	ug/L		92
12) 1,1-Dichloroethene	2.178	61	55359	28.64	ug/L		97
13) Freon 113	2.202	101	47285	34.81	ug/L		98
14) Carbon Disulfide	2.196	76	119459	33.22	ug/L		100
15) Iodomethane	2.263	142	26170	22.07	ug/L		98
16) Acrolein	2.379	56	45254	129.10	ug/L		97
17) Allyl chloride	2.465	41	41077	29.16	ug/L		98
18) Methylene Chloride	2.526	49	49604	28.46	ug/L		93
19) Acetone	2.550	43	83678	115.27	ug/L		99
20) Methyl acetate	2.623	43	185019	107.94	ug/L		99
21) trans-1,2-Dichloroethene	2.623	61	54763	28.04	ug/L		97
22) Hexane	2.678	56	30387	30.59	ug/L	#	93
23) Methyl Tert Butyl Ether	2.684	73	98383	25.04	ug/L		87
24) Tert Butyl Alcohol	2.733	59	70149	288.42	ug/L		80
25) Acetonitrile	2.824	41	73641	260.29	ug/L		97
26) Di-isopropyl ether	2.903	45	93594	24.21	ug/L		95
27) Chloroprene	2.964	53	42015	21.89	ug/L		97
28) 1,1-Dichloroethane	2.977	63	71755	28.27	ug/L		98
29) Acrylonitrile	3.001	52	86067	122.79	ug/L		98
30) ETBE	3.111	59	95642	26.02	ug/L		98
31) Vinyl acetate	3.117	43	373681	135.64	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	49536	29.78	ug/L		95
33) 2,2-Dichloropropane	3.349	77	48742	28.73	ug/L		98
34) Bromochloromethane	3.397	128	22129	27.34	ug/L		96
35) Cyclohexane	3.409	56	56592	29.22	ug/L		97
36) Chloroform	3.434	83	80487	28.07	ug/L		99
37) Ethyl acetate	3.495	43	240268	116.51	ug/L		98
38) Tetrahydrofuran	3.525	42	16578	22.44	ug/L		91
40) Carbon Tetrachloride	3.525	117	57658m	31.20	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	67095	29.66	ug/L		97
42) 2-Butanone	3.605	43	132928	118.44	ug/L		99
43) 1,1-Dichloropropene	3.629	75	57613	30.37	ug/L		98
44) tert-Butyl formate	3.684	59	2781	6.00	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	88976	255.95	ug/L	99
46) Methacrylonitrile	3.787	41	331491	274.22	ug/L	99
47) Benzene	3.775	78	193301	33.76	ug/L	92
48) TAME	3.830	73	83578	23.97	ug/L	93
49) Isobutyl alcohol	3.873	43	45942m	447.34	ug/L	
51) 1,2-Dichloroethane	3.885	62	60344	25.61	ug/L	97
52) Tert Amyl Alcohol	3.934	59	39871	216.93	ug/L	92
53) Trichloroethene	4.111	95	49730	29.94	ug/L	97
54) Methylcyclohexane	4.117	83	56250	27.58	ug/L	98
55) Dibromomethane	4.361	93	29783	26.32	ug/L	97
56) 1,2-Dichloropropane	4.421	63	38404	28.04	ug/L	95
57) Bromodichloromethane	4.458	83	49915	26.02	ug/L	99
58) Methyl methacrylate	4.543	41	29799	20.51	ug/L	96
59) 1,4-Dioxane	4.580	88	9047	339.22	ug/L	96
61) cis-1,3-Dichloropropene	4.848	75	50450	24.33	ug/L	100
64) Toluene	5.007	91	178200	27.21	ug/L	98
65) 2-Nitropropane	5.147	41	59518	128.60	ug/L	95
66) 4-Methyl-2-pentanone	5.238	43	264573	129.97	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	56000	25.33	ug/L	94
68) Tetrachloroethene	5.263	166	47198	27.73	ug/L	94
69) Ethyl methacrylate	5.366	69	43287	22.90	ug/L	87
70) 1,1,2-Trichloroethane	5.373	83	37137	26.99	ug/L	98
71) Dibromochloromethane	5.501	129	42579	27.51	ug/L	100
72) 1,3-Dichloropropane	5.561	76	68267	25.99	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42620	23.76	ug/L	99
74) 3,3-dimethyl-1-butanol	5.781	57	410329	1447.12	ug/L	98
75) 2-hexanone	5.805	43	280362	136.46	ug/L	94
76) 1-Chlorohexane	6.013	91	46343m	23.10	ug/L	
77) Ethylbenzene	6.043	91	196886	27.51	ug/L	98
78) Chlorobenzene	6.031	112	116275	25.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	37906	26.01	ug/L	97
80) m,p-Xylene	6.153	91	634605	112.23	ug/L	98
81) o-Xylene	6.464	91	650471	114.50	ug/L	98
82) Styrene	6.500	104	104088	24.03	ug/L	99
83) Bromoform	6.525	173	22705	24.16	ug/L	98
84) Isopropylbenzene	6.702	105	146458	22.39	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9228	20.15	ug/L	95
88) n-Propylbenzene	7.019	91	188021	26.11	ug/L	99
89) Bromobenzene	6.994	156	40837	25.28	ug/L	98
90) 1,1,2,2-Tetrachloroethane	7.061	83	60831	26.04	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	192745	37.45	ug/L	99
92) 2-Chlorotoluene	7.140	91	134148	26.60	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.201	53	7411	17.57	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19843	26.51	ug/L	94
95) Cyclohexanone	7.208	55	8798	110.60	ug/L	88
96) 4-Chlorotoluene	7.268	91	117505	24.49	ug/L	99
97) tert-Butylbenzene	7.421	91	69211	24.77	ug/L	98
99) 1,2,4-Trimethylbenzene	7.470	105	194548	37.74	ug/L	100
100) Pentachloroethane	7.433	167	20236	27.54	ug/L	93
101) sec-Butylbenzene	7.555	105	143556	24.33	ug/L	98
102) 4-Isopropyltoluene	7.665	119	123204	24.45	ug/L	100
103) 1,3-Dichlorobenzene	7.720	146	77912	24.28	ug/L	98
104) 1,2,3-Trimethylbenzene	7.805	105	230257	42.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	82602	25.78	ug/L	97
106) n-Butylbenzene	7.982	92	71433	27.67	ug/L #	77
107) Benzyl Chloride	7.970	126	12822	24.17	ug/L #	86
108) 1,2-Dichlorobenzene	8.098	146	73076	23.79	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11300	24.39	ug/L	94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077436.d  
Acq On : 5 Jul 2023 6:47 pm  
Operator : jeniferw  
Sample : FC7382-1MS  
Misc : MS54357,V203017,,,,,  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration

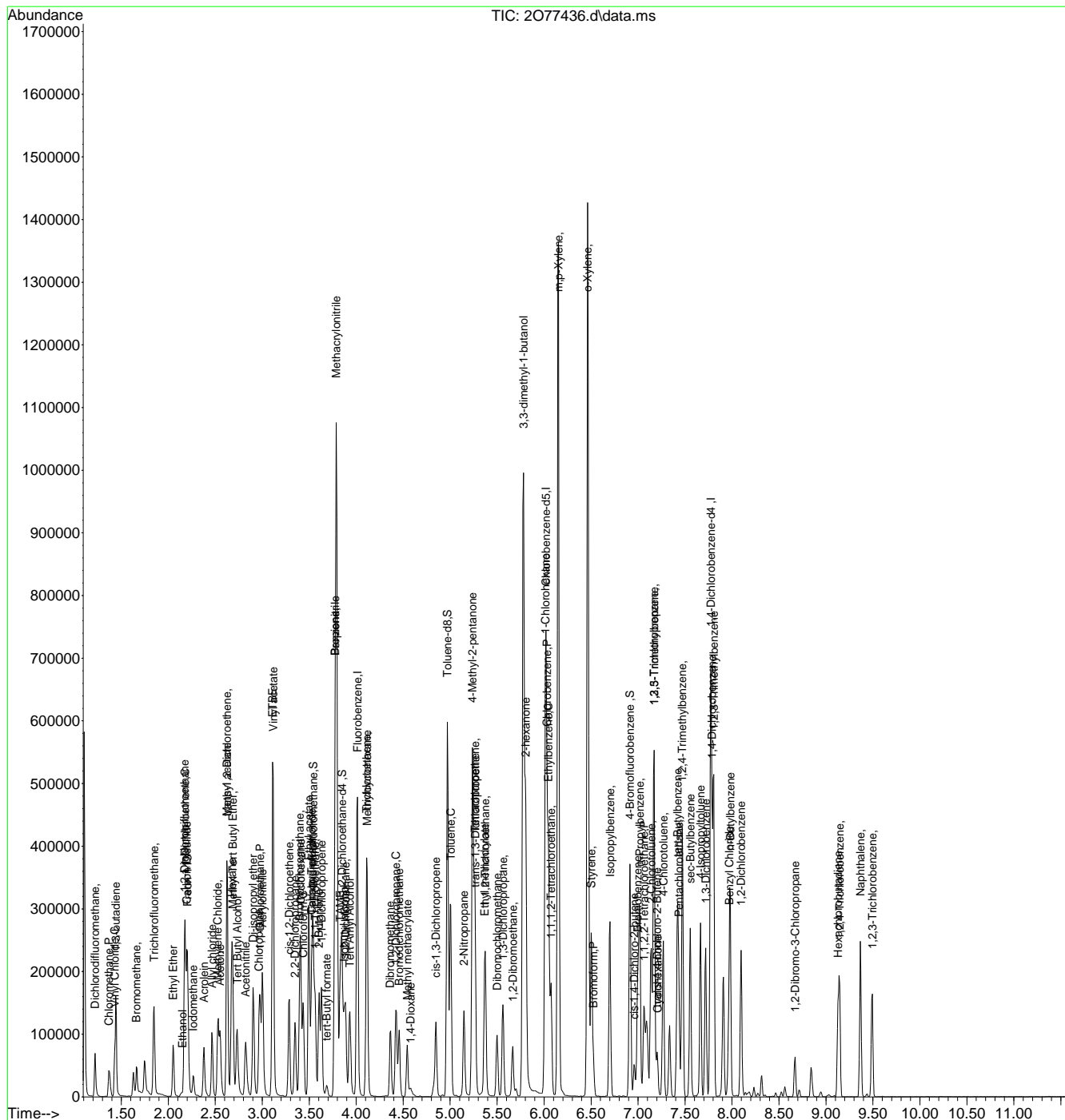
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16533	28.69	ug/L	95
111) 1,2,4-Trichlorobenzene	9.146	180	42002	23.94	ug/L	95
112) Naphthalene	9.366	128	147038	23.01	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39988	22.94	ug/L	96

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.4.1  
7



# Manual Integration Approval Summary

**Sample Number:** FC7382-1MS      **Method:** SW846 8260D  
**Lab FileID:** 2077436.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 18:47      **Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
-----------	-----	------	-------------	--------

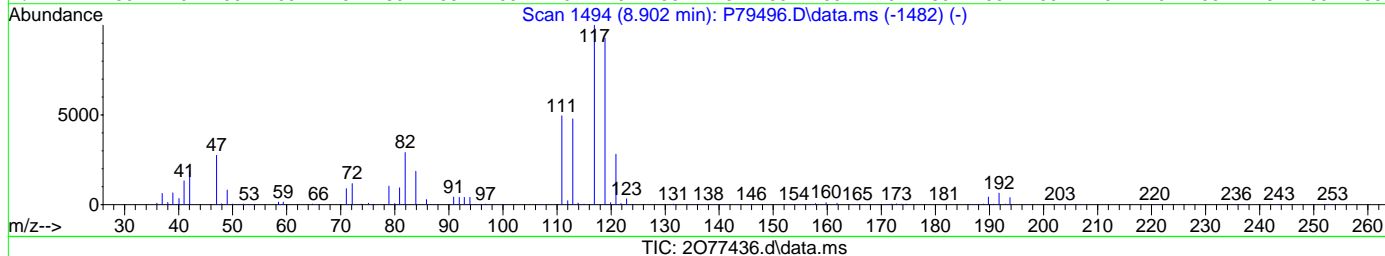
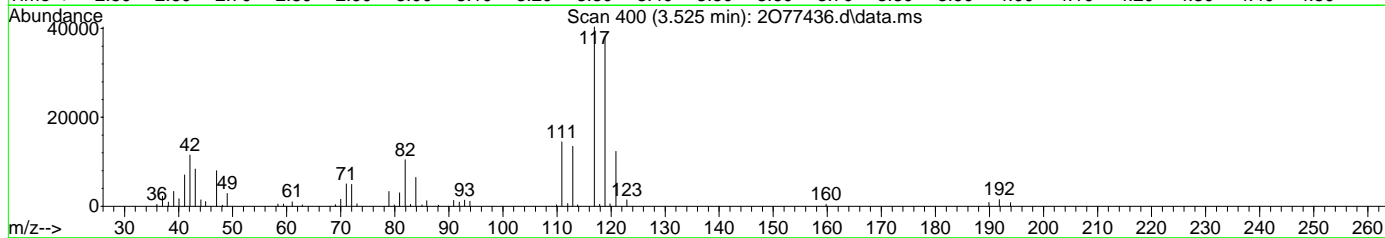
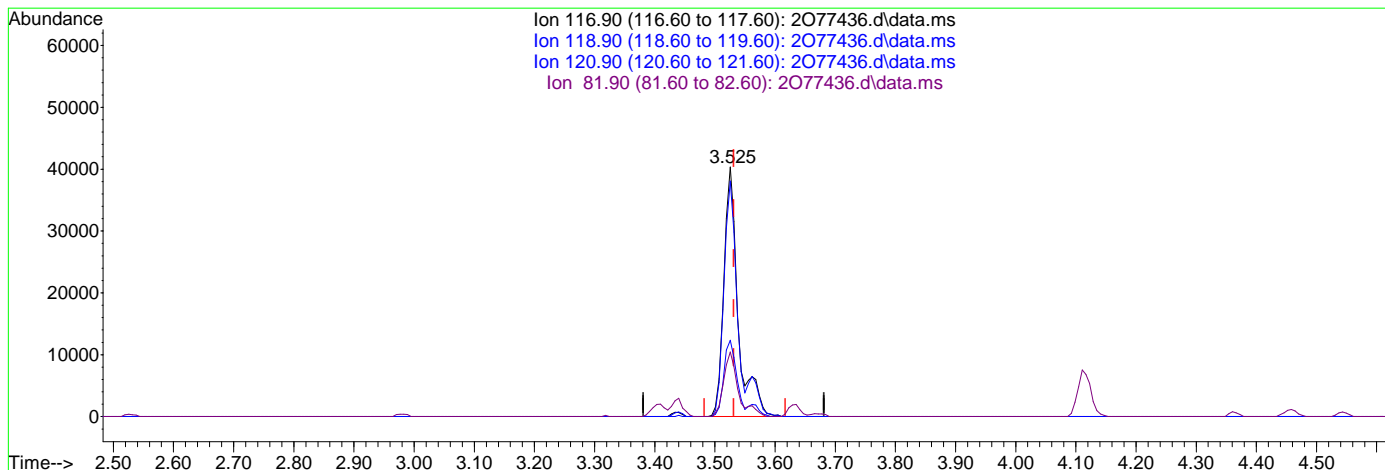
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.4.1.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 36.06ug/L

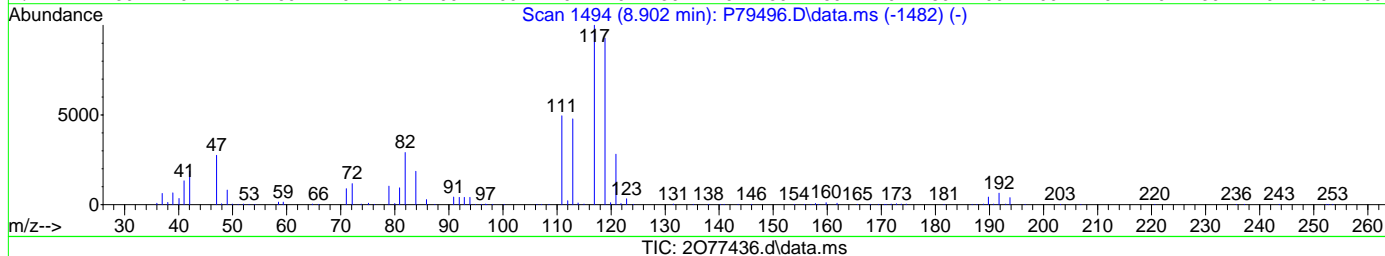
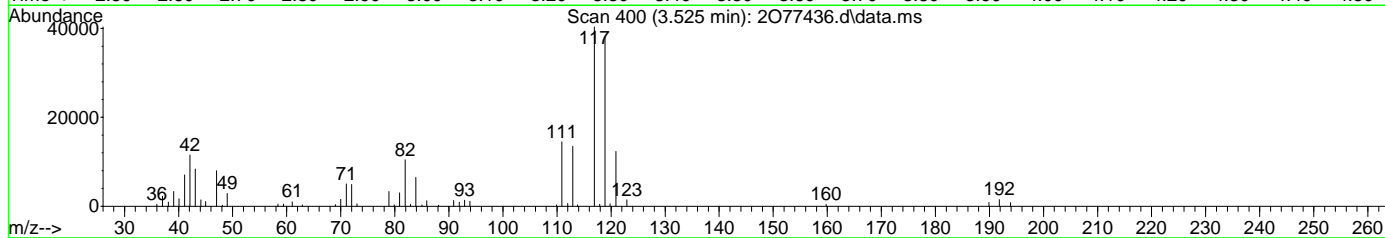
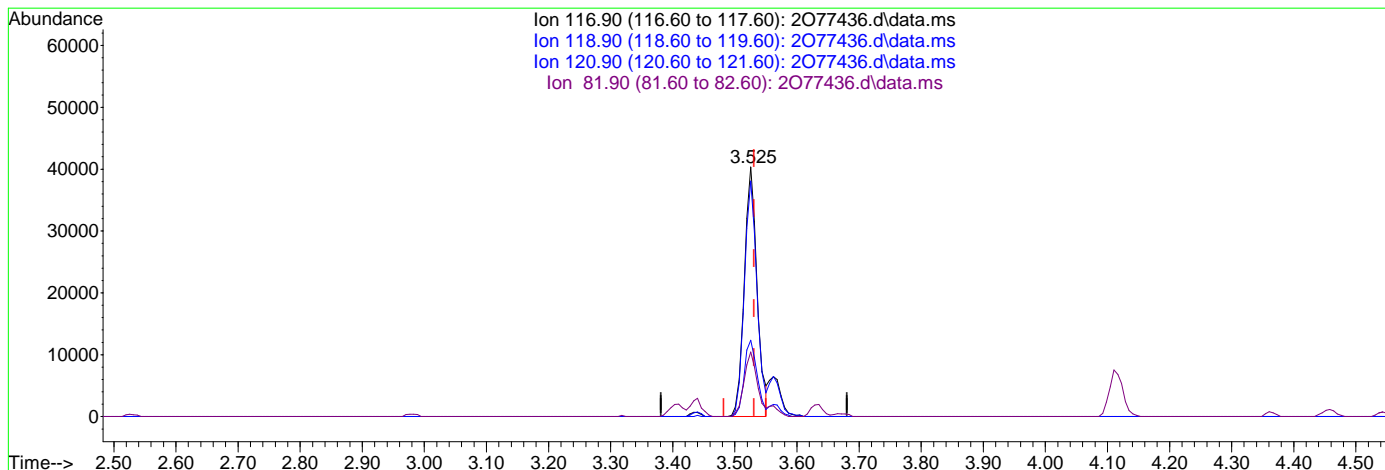
response 66637

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.33
120.90	31.50	30.57
81.90	24.40	25.92

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 31.20ug/L m

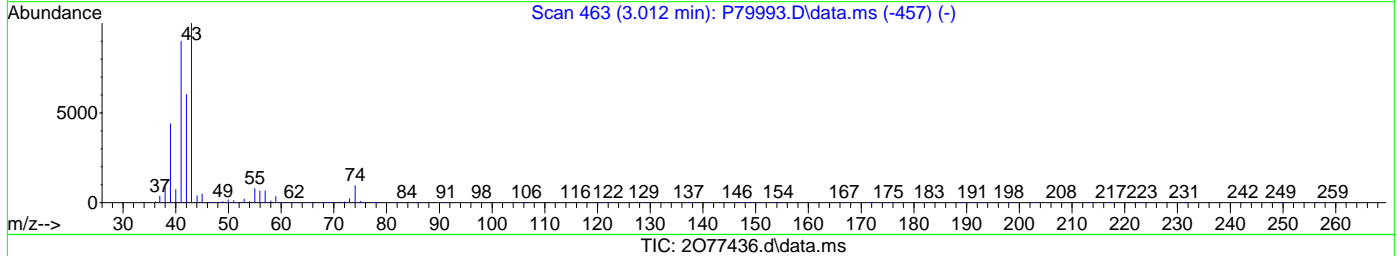
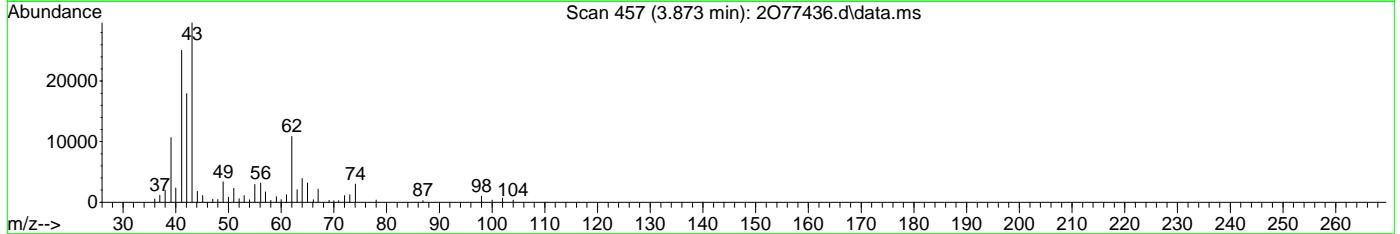
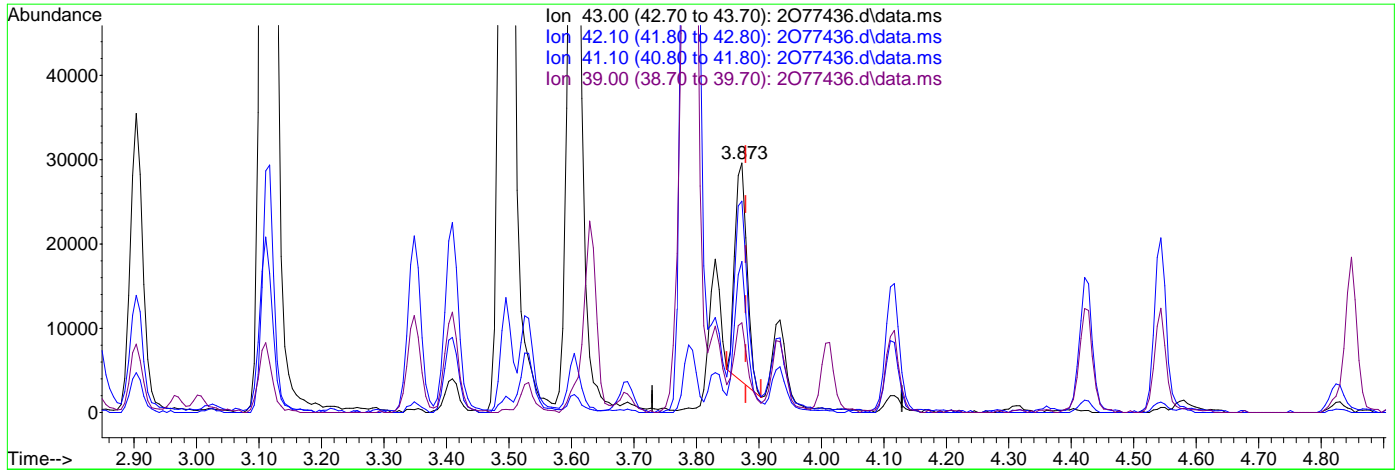
response 57658

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.33
120.90	31.50	30.57
81.90	24.40	25.92

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol

3.873min (-0.006) 339.18ug/L

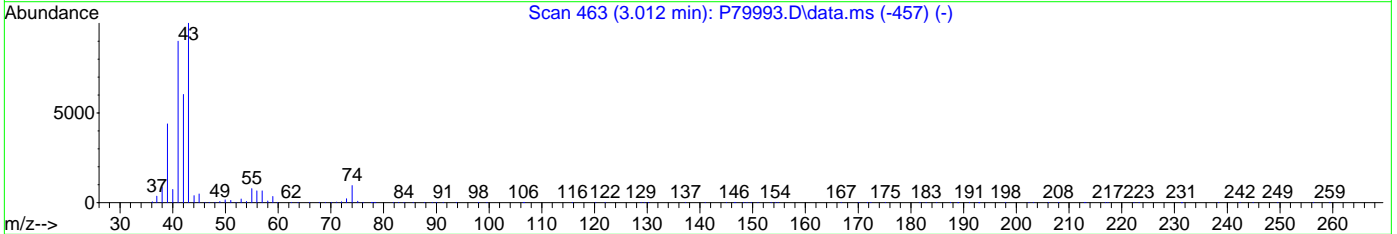
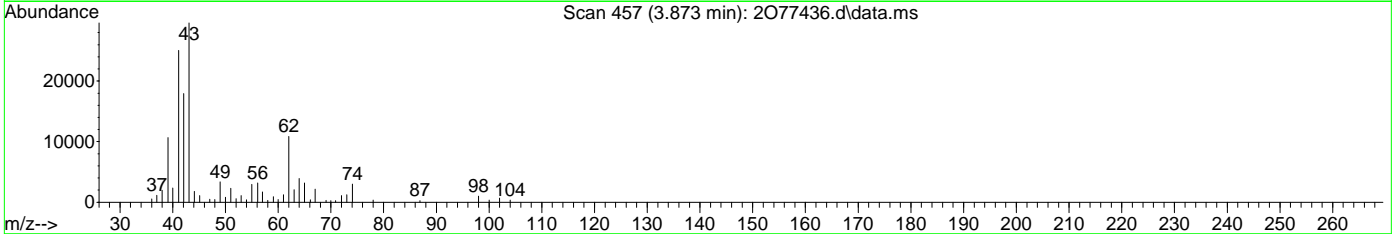
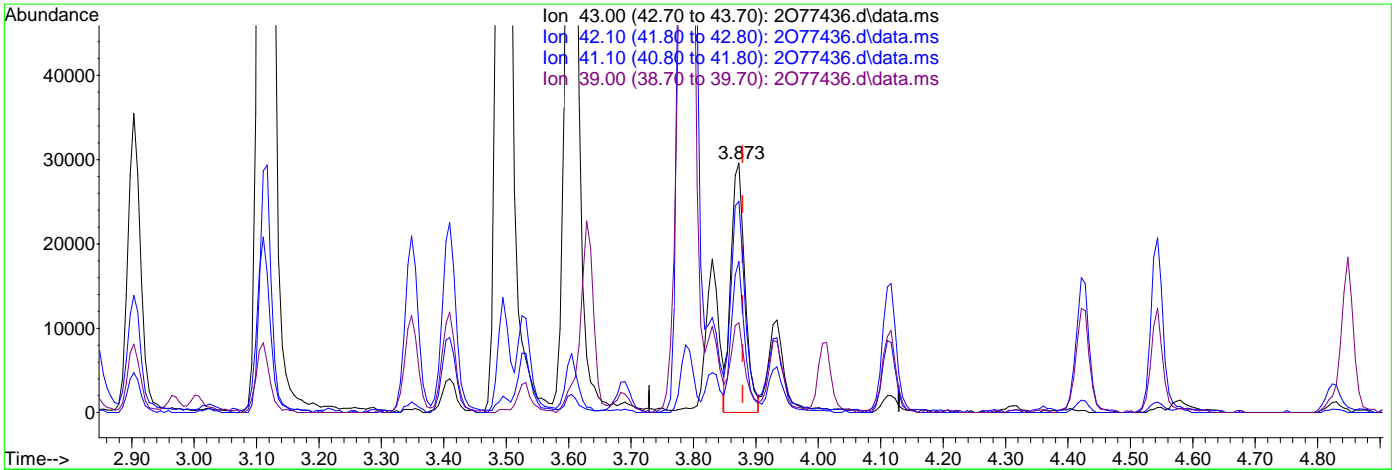
response 34537

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.03
41.10	77.50	83.44
39.00	31.30	34.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077436.d\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 447.34ug/L m

response 45942

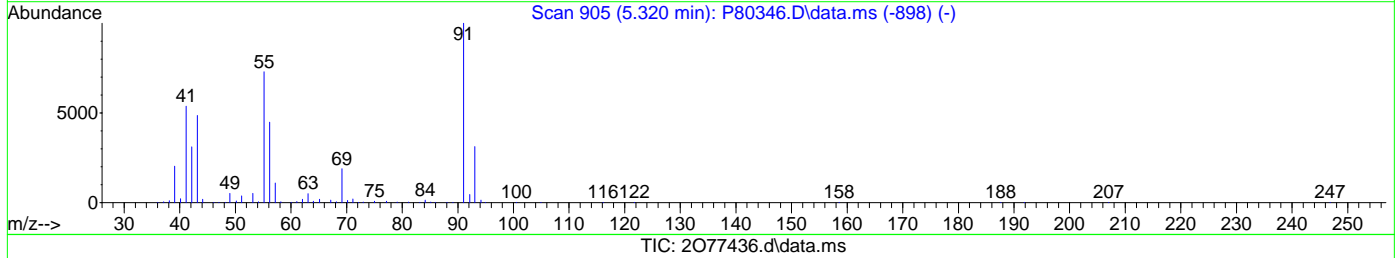
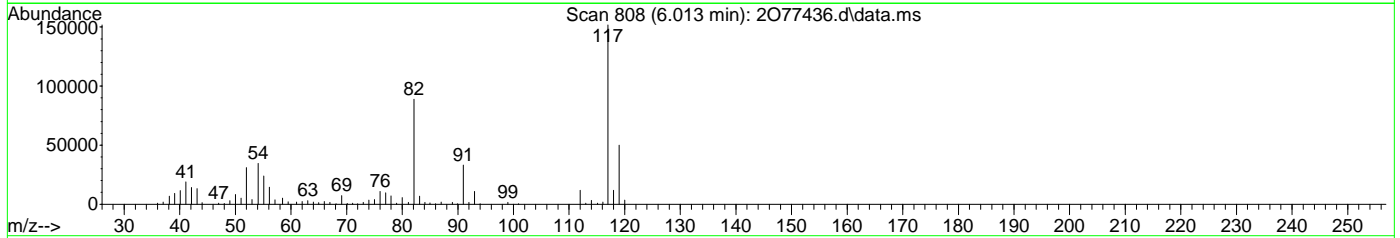
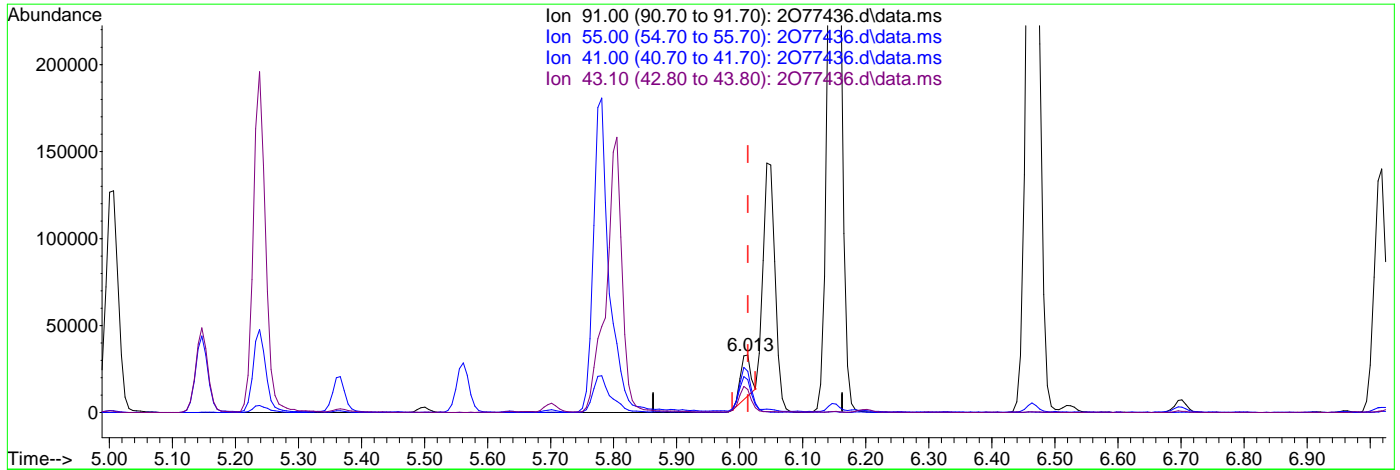
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.53
41.10	77.50	84.66
39.00	31.30	35.96

7.4.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.013min (-0.000) 14.80ug/L

response 29685

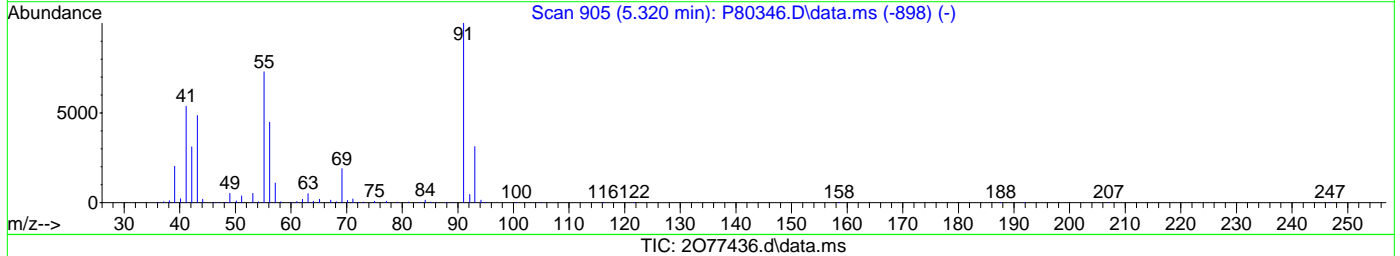
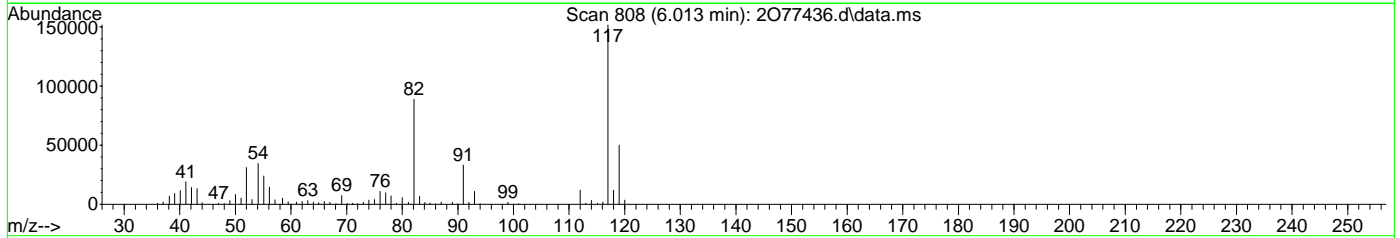
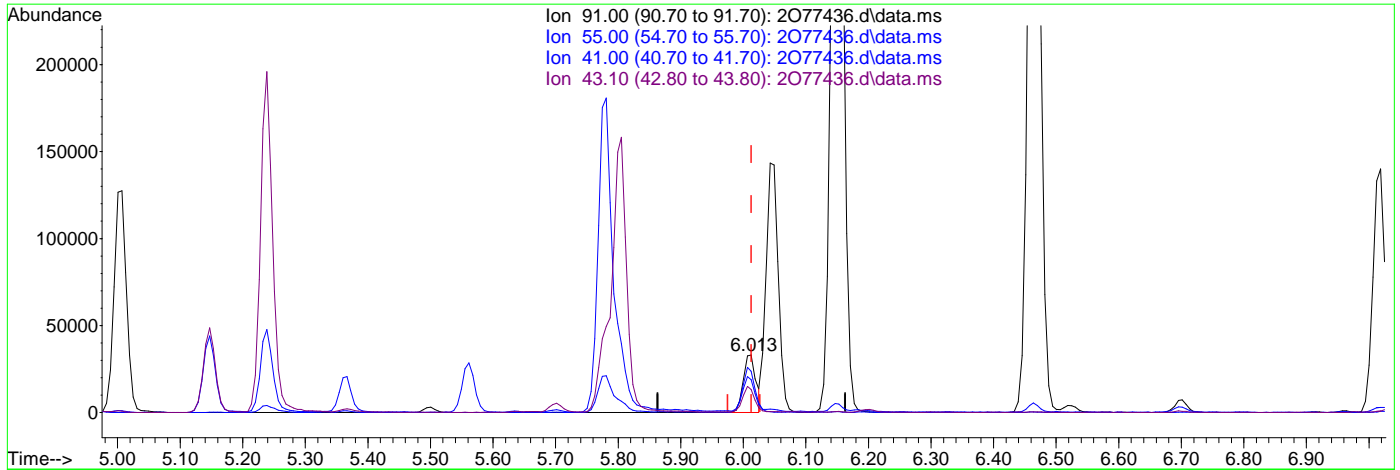
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	70.44
41.00	55.00	52.85
43.10	42.40	37.60

7.4.1.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.013min (-0.000) 23.10ug/L m  
 response 46343

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.03
41.00	55.00	57.36
43.10	42.40	39.96

7.4.1.7  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	364378	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	244262	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	123741	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91074	45.96	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	91.92%	
50) 1,2-Dichloroethane-d4	3.849	65	125364	53.30	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.60%	
63) Toluene-d8	4.970	98	311944	47.90	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.915	174	84168	46.55	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	93.10%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	49147	36.54	ug/L		98
3) Chloromethane	1.373	50	41903	30.55	ug/L		100
4) 1,3-butadiene	1.441	39	40827	26.35	ug/L		99
5) Vinyl Chloride	1.428	62	46735	33.03	ug/L		98
6) Bromomethane	1.666	94	23914	21.79	ug/L		95
7) Chloroethane	1.751	64	35137	Below	Cal		99
8) Trichlorofluoromethane	1.849	101	91581	34.31	ug/L		98
9) Ethyl Ether	2.050	59	28388	22.58	ug/L		97
10) Ethanol	2.148	45	12973	457.50	ug/L		95
11) 1,2-Dichlorotrifluoro...	2.178	67	52043	29.20	ug/L		97
12) 1,1-Dichloroethene	2.178	61	55076	24.61	ug/L		97
13) Freon 113	2.209	101	45920	29.19	ug/L		98
14) Carbon Disulfide	2.196	76	117393	28.19	ug/L		99
15) Iodomethane	2.270	142	35438	25.56	ug/L		98
16) Acrolein	2.379	56	49099	121.07	ug/L		99
17) Allyl chloride	2.465	41	48028	29.44	ug/L		96
18) Methylene Chloride	2.532	49	48352	23.89	ug/L		96
19) Acetone	2.550	43	90704	107.89	ug/L		98
20) Methyl acetate	2.623	43	186847	94.13	ug/L		99
21) trans-1,2-Dichloroethene	2.623	61	54802	24.23	ug/L		97
22) Hexane	2.678	56	30299	26.34	ug/L		95
23) Methyl Tert Butyl Ether	2.684	73	99450	21.86	ug/L		84
24) Tert Butyl Alcohol	2.733	59	79063	280.70	ug/L #		63
25) Acetonitrile	2.824	41	80481	245.64	ug/L		98
26) Di-isopropyl ether	2.904	45	95278	21.28	ug/L		95
27) Chloroprene	2.971	53	47406	21.32	ug/L		99
28) 1,1-Dichloroethane	2.977	63	71889	24.46	ug/L		99
29) Acrylonitrile	3.001	52	92380	113.81	ug/L		96
30) ETBE	3.111	59	96403	22.64	ug/L		98
31) Vinyl acetate	3.117	43	407914	127.86	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	49240	25.56	ug/L		98
33) 2,2-Dichloropropane	3.349	77	49528	25.21	ug/L		99
34) Bromochloromethane	3.397	128	21600	23.04	ug/L		93
35) Cyclohexane	3.410	56	56187	25.05	ug/L		93
36) Chloroform	3.434	83	78639	23.68	ug/L		98
37) Ethyl acetate	3.495	43	256701	107.49	ug/L		99
38) Tetrahydrofuran	3.532	42	17778	20.78	ug/L		95
40) Carbon Tetrachloride	3.525	117	55700m	26.03	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	65294	24.92	ug/L		97
42) 2-Butanone	3.605	43	138608	106.65	ug/L		100
43) 1,1-Dichloropropene	3.629	75	55375	25.21	ug/L		98
44) tert-Butyl formate	3.690	59	2610	4.87	ug/L #		81

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	109361	271.65	ug/L	94
46) Methacrylonitrile	3.788	41	411294	293.80	ug/L	99
47) Benzene	3.775	78	215791	32.55	ug/L	92
48) TAME	3.830	73	97176	24.07	ug/L	93
49) Isobutyl alcohol	3.873	43	62930m	525.86	ug/L	
51) 1,2-Dichloroethane	3.885	62	66878	24.51	ug/L	98
52) Tert Amyl Alcohol	3.934	59	49722	232.61	ug/L	94
53) Trichloroethene	4.111	95	55716	28.97	ug/L	93
54) Methylcyclohexane	4.117	83	63702	26.97	ug/L	98
55) Dibromomethane	4.367	93	30217	23.06	ug/L	97
56) 1,2-Dichloropropane	4.422	63	41556	26.20	ug/L	97
57) Bromodichloromethane	4.458	83	53936	24.28	ug/L	97
58) Methyl methacrylate	4.544	41	38055	22.58	ug/L	96
59) 1,4-Dioxane	4.580	88	12855	413.95	ug/L	97
61) cis-1,3-Dichloropropene	4.848	75	53458	22.26	ug/L	96
64) Toluene	5.007	91	174490	26.74	ug/L	99
65) 2-Nitropropane	5.147	41	54355	118.75	ug/L	95
66) 4-Methyl-2-pentanone	5.239	43	254695	125.59	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	51191	23.24	ug/L	96
68) Tetrachloroethene	5.263	166	41700	24.59	ug/L	97
69) Ethyl methacrylate	5.367	69	46206	24.50	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	32663	23.82	ug/L	95
71) Dibromochloromethane	5.501	129	37082	24.05	ug/L	96
72) 1,3-Dichloropropane	5.562	76	62924	24.04	ug/L	98
73) 1,2-Dibromoethane	5.665	107	39446	22.08	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	428706	1512.99	ug/L	100
75) 2-hexanone	5.806	43	285253	139.36	ug/L	93
76) 1-Chlorohexane	6.007	91	44857m	22.44	ug/L	
77) Ethylbenzene	6.049	91	191405	26.84	ug/L	97
78) Chlorobenzene	6.031	112	108590	23.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	36545	25.17	ug/L	97
80) m,p-Xylene	6.153	91	678692	120.47	ug/L	100
81) o-Xylene	6.464	91	705273	124.61	ug/L	99
82) Styrene	6.500	104	103600	24.01	ug/L	98
83) Bromoform	6.525	173	22302	23.84	ug/L	99
84) Isopropylbenzene	6.702	105	150697	23.13	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	10621	21.97	ug/L	92
88) n-Propylbenzene	7.019	91	187249	24.64	ug/L	98
89) Bromobenzene	6.994	156	41095	24.10	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.061	83	59886	24.29	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	195634	36.02	ug/L	98
92) 2-Chlorotoluene	7.141	91	130211	24.46	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.202	53	7620	17.11	ug/L	97
94) 1,2,3-Trichloropropane	7.171	110	20285	25.68	ug/L	94
95) Cyclohexanone	7.202	55	10290	122.56	ug/L	95
96) 4-Chlorotoluene	7.269	91	117005	23.11	ug/L	99
97) tert-Butylbenzene	7.415	91	70324	23.84	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	198521	36.49	ug/L	99
100) Pentachloroethane	7.433	167	22786	29.31	ug/L	98
101) sec-Butylbenzene	7.555	105	144266	23.17	ug/L	98
102) 4-Isopropyltoluene	7.665	119	124457	23.40	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	77239	22.80	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	232550	40.23	ug/L	98
105) 1,4-Dichlorobenzene	7.787	146	81143	23.98	ug/L	97
106) n-Butylbenzene	7.982	92	71614	26.28	ug/L #	78
107) Benzyl Chloride	7.970	126	12859	23.09	ug/L #	92
108) 1,2-Dichlorobenzene	8.098	146	72504	22.36	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11810	24.17	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

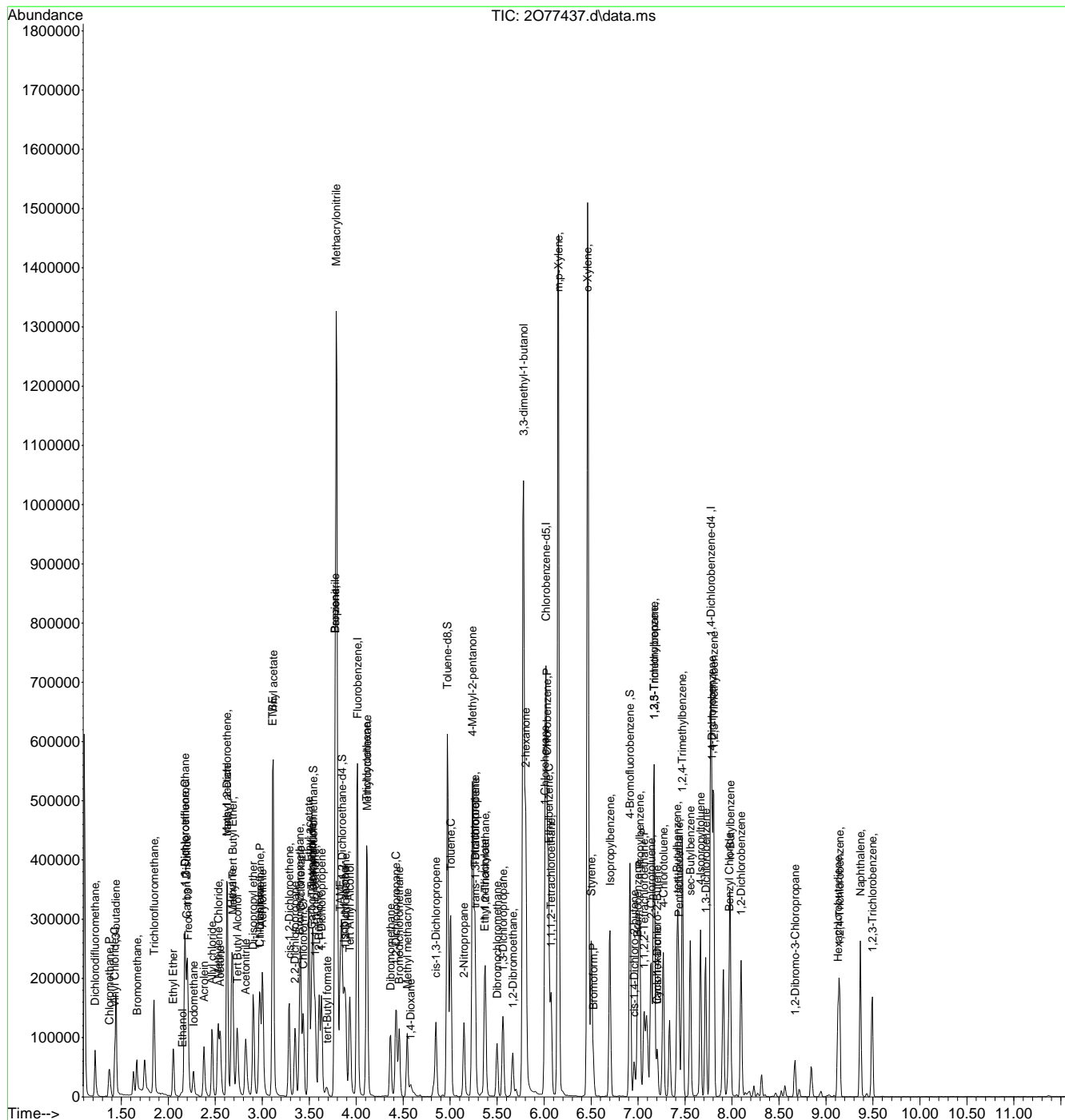
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16646	27.35	ug/L	98
111) 1,2,4-Trichlorobenzene	9.146	180	42035	22.70	ug/L	99
112) Naphthalene	9.366	128	153113	22.70	ug/L	100
113) 1,2,3-Trichlorobenzene	9.494	180	39736	21.60	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077437.d  
Acq On : 5 Jul 2023 7:12 pm  
Operator : jeniferw  
Sample : FC7382-1MSD  
Misc : MS54357,V203017,,,,,  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



7.4.2  
7

# Manual Integration Approval Summary

**Sample Number:** FC7382-1MSD      **Method:** SW846 8260D  
**Lab FileID:** 2077437.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 19:12      **Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

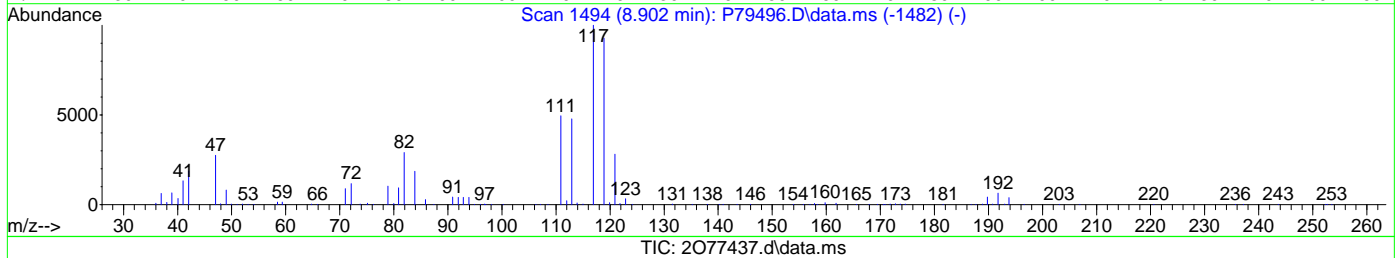
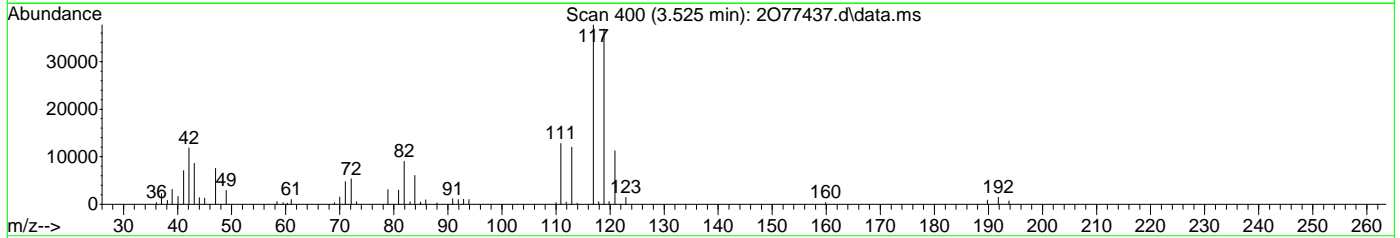
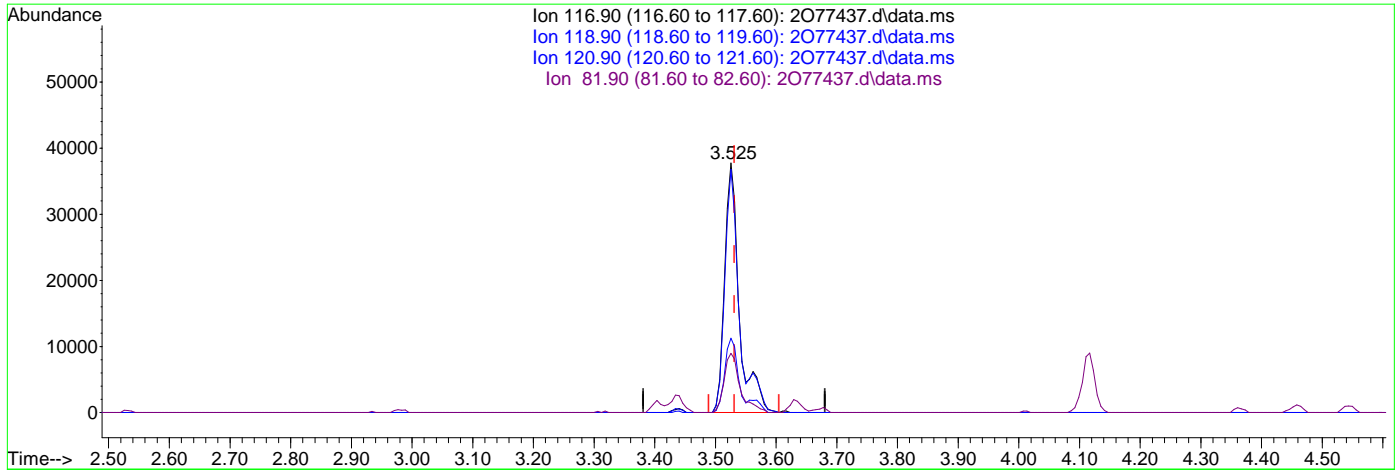
7.4.2.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.81ug/L

response 63780

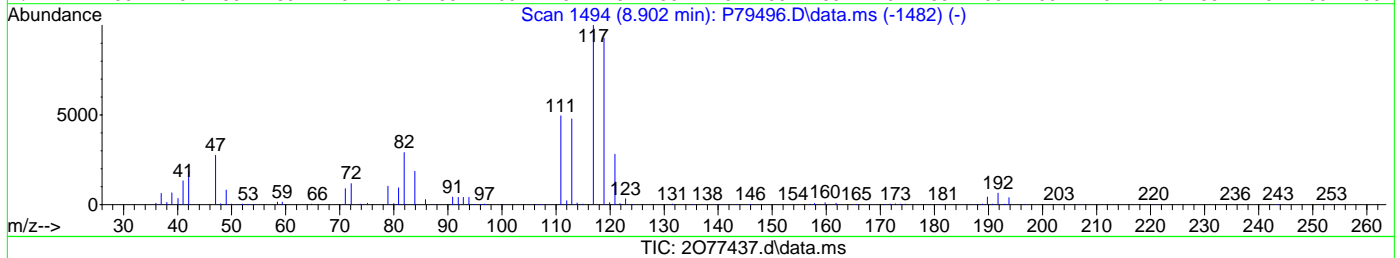
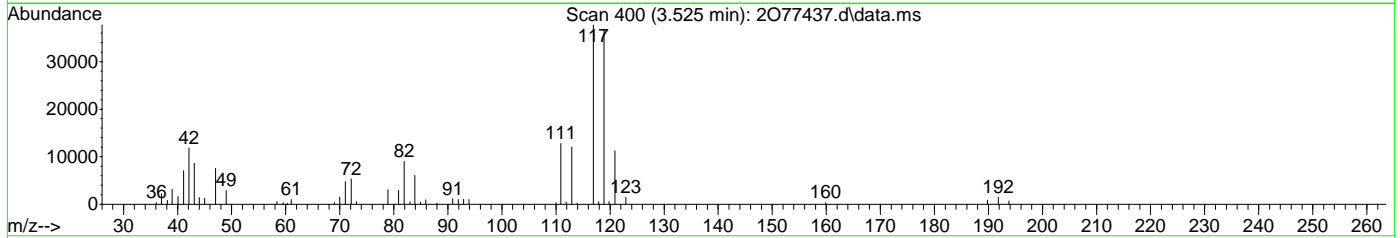
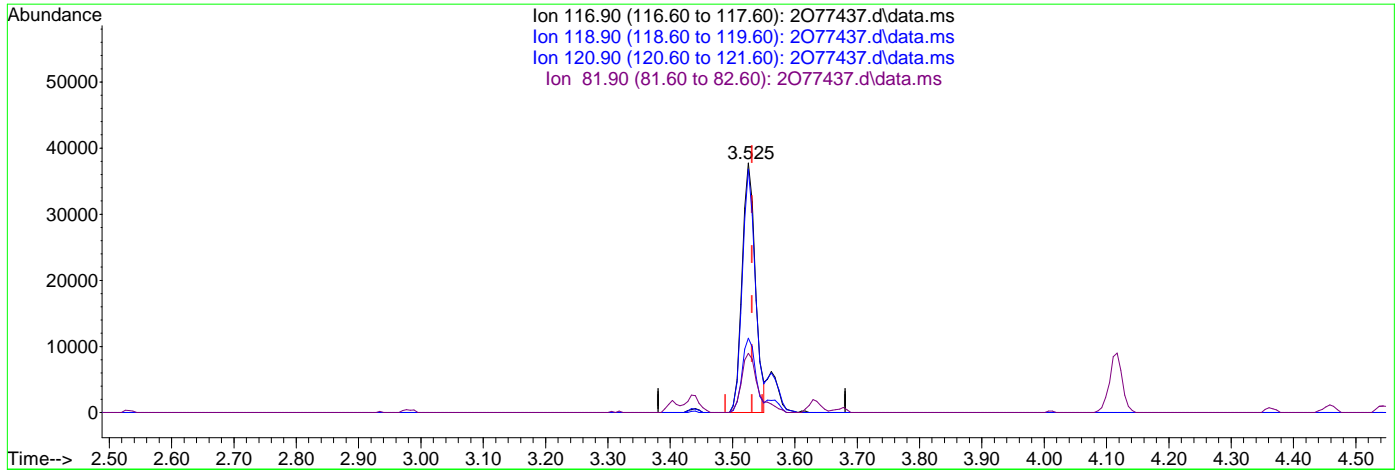
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

7.4.2.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 26.03ug/L m

response 55700

Ion Exp% Act%

116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

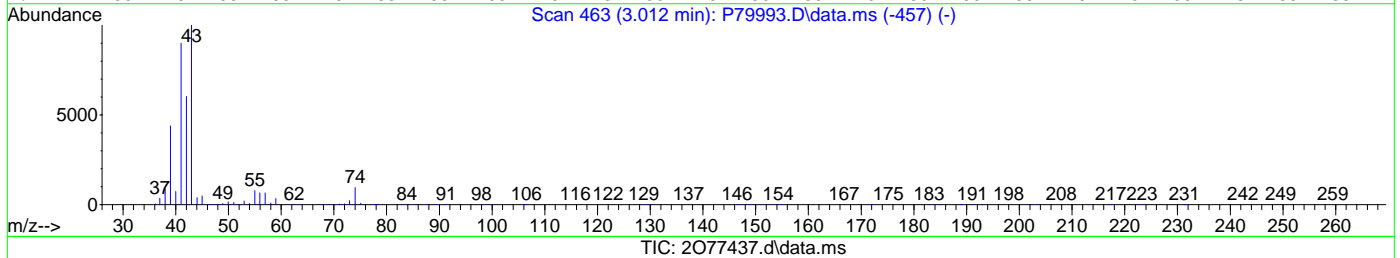
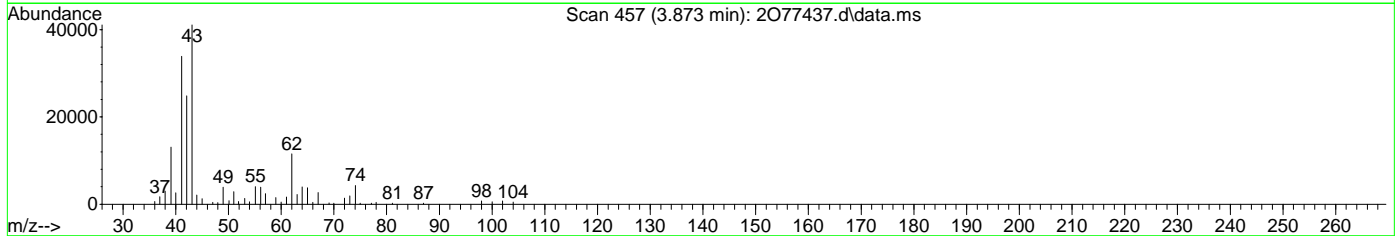
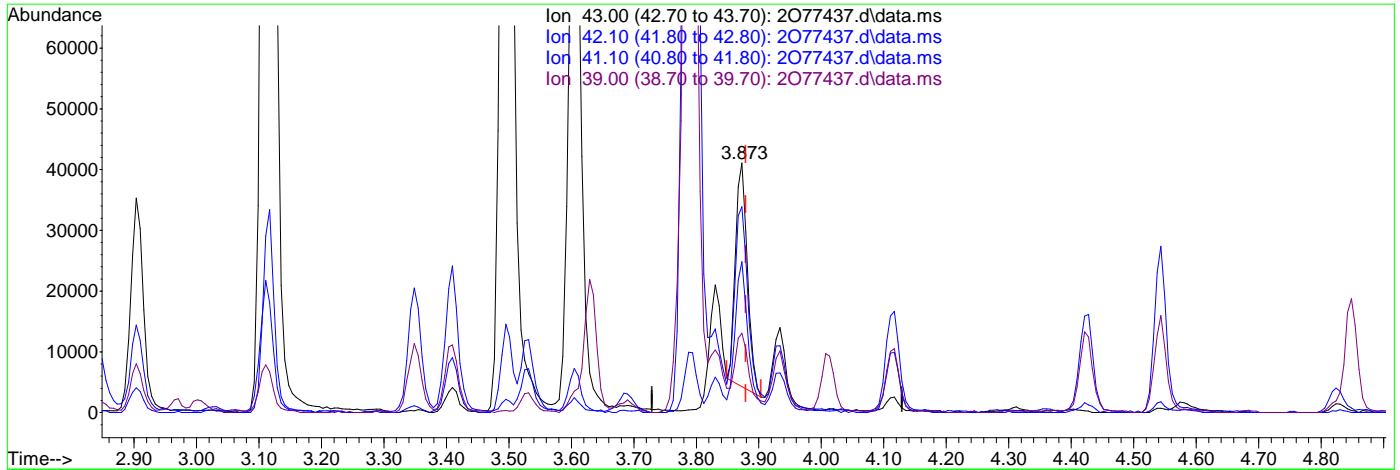
7.4.2.3  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol

3.873min (-0.006) 409.08ug/L

response 48507

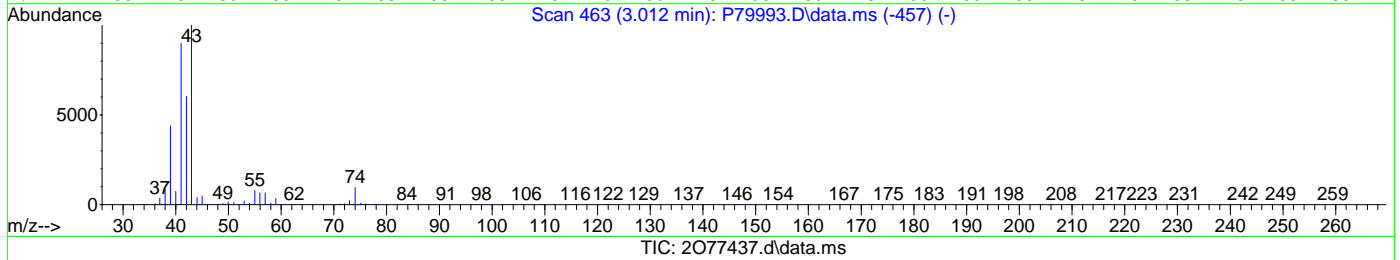
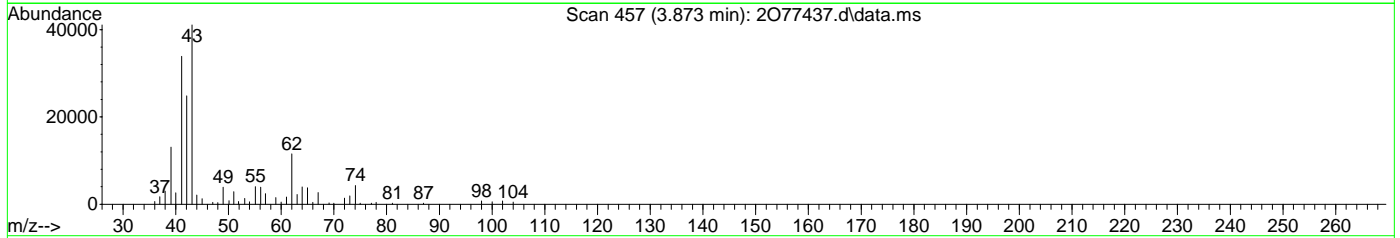
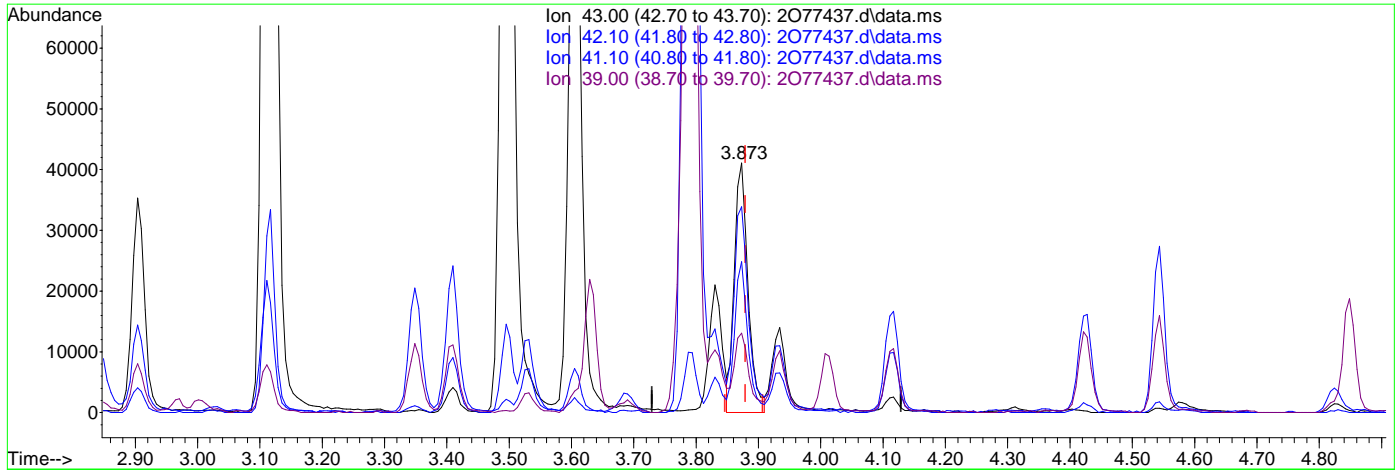
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.22
41.10	77.50	79.92
39.00	31.30	29.03

7.4.2.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 525.86ug/L m  
 response 62930

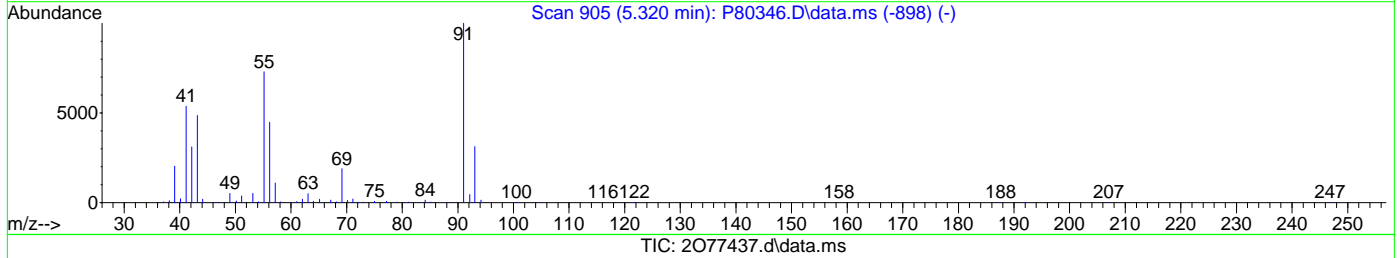
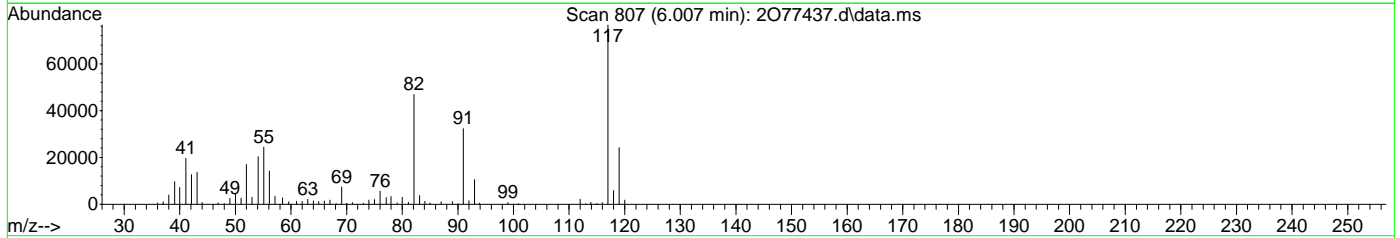
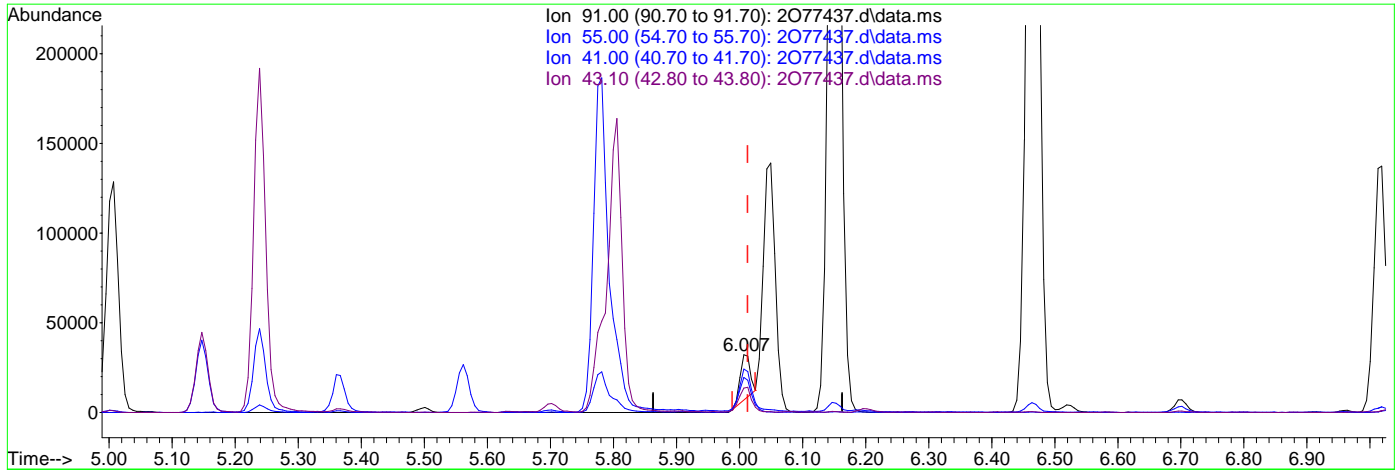
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.39
41.10	77.50	82.40
39.00	31.30	31.85

7.4.2.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 14.74ug/L  
 response 29454

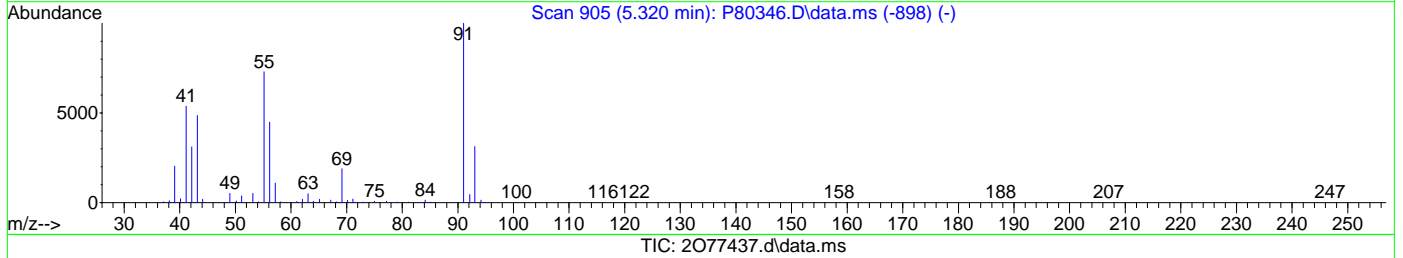
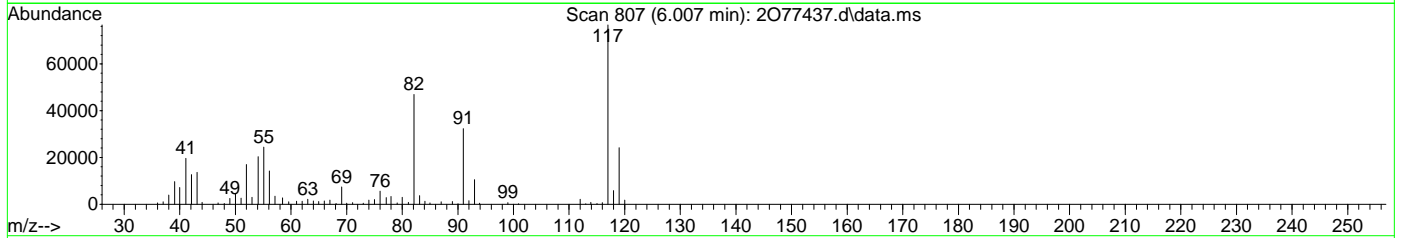
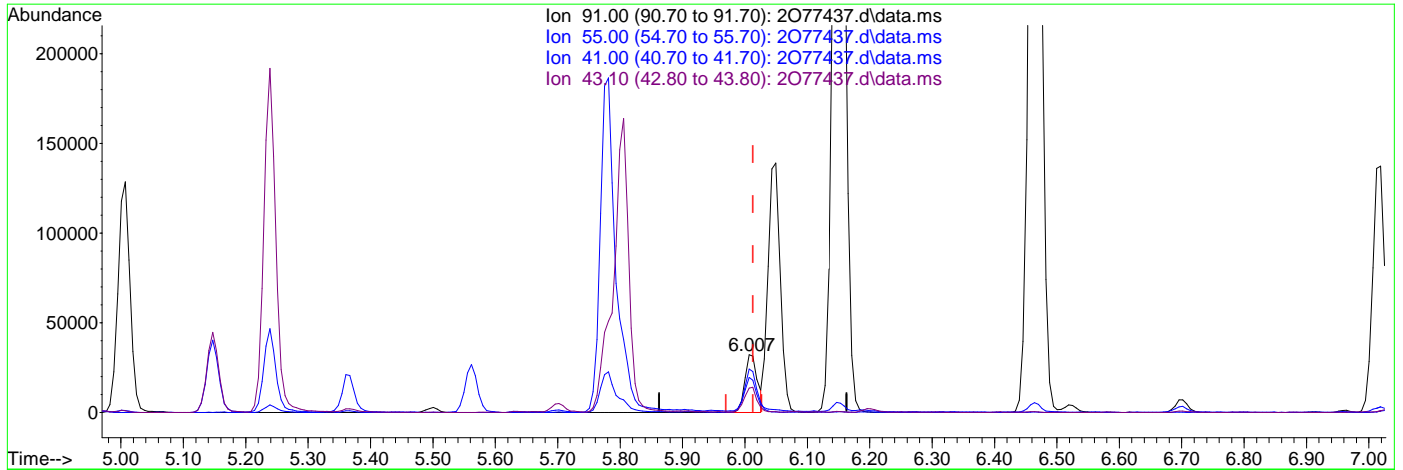
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.93
41.00	55.00	56.64
43.10	42.40	40.48

7.4.2.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 22.44ug/L m  
 response 44857

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	75.48
41.00	55.00	60.58
43.10	42.40	42.32

7.4.27  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	847446	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	593693	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	358049	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	242387	50.39	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.78%		
49) 1,2-Dichloroethane-d4	7.561	65	233694	53.43	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.86%		
63) Toluene-d8	9.445	98	867991	51.27	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.54%		
86) 4-Bromofluorobenzene	12.225	174	296385	49.16	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.32%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	113413	30.46	ug/L		98
3) Chloromethane	2.635	50	112606	29.41	ug/L		100
4) Vinyl Chloride	2.763	62	105041	27.77	ug/L		97
5) 1,3-Butadiene	2.794	39	84592	26.06	ug/L		90
6) Bromomethane	3.233	94	23363	18.16	ug/L		99
7) Chloroethane	3.391	64	57119	36.01	ug/L		98
8) Trichlorofluoromethane	3.598	101	142760	28.52	ug/L		99
9) Ethyl Ether	4.013	59	74365	28.38	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	109550	31.43	ug/L		96
11) 1,1-Dichloroethene	4.275	61	129758	28.22	ug/L		99
12) Ethanol	4.196	45	56641	433.39	ug/L		91
13) Freon 113	4.318	101	93640	32.77	ug/L		97
14) Carbon Disulfide	4.330	76	263071	27.85	ug/L		99
15) Iodomethane	4.458	142	84433	37.18	ug/L		94
16) Acrolein	4.678	56	146959	122.17	ug/L		96
17) Allyl chloride	4.854	41	117424	26.50	ug/L		98
18) Methylene Chloride	4.976	49	143883	30.88	ug/L		93
19) Acetone	5.025	43	308145	135.13	ug/L		100
20) Methyl acetate	5.165	43	600080	125.55	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	125489	26.01	ug/L		98
22) Hexane	5.281	56	69627	29.43	ug/L		92
23) Methyl Tert Butyl Ether	5.293	73	264676	25.97	ug/L		77
24) Tert butyl alcohol	5.385	59	382618	274.34	ug/L		95
25) Acetonitrile	5.561	41	245718	253.19	ug/L		97
26) Di-isopropyl ether	5.726	45	274835	25.78	ug/L		96
27) Chloroprene	5.866	53	104075	22.80	ug/L		97
28) 1,1-Dichloroethane	5.885	63	163014	25.74	ug/L		97
29) Acrylonitrile	5.921	53	317880	136.82	ug/L		96
30) ETBE	6.135	59	271145	26.42	ug/L		98
31) Vinyl acetate	6.141	43	1014865	149.66	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	95135	24.99	ug/L		95
33) 2,2-Dichloropropane	6.622	77	120852	25.03	ug/L		99
34) Bromochloromethane	6.732	128	48845	24.87	ug/L		91
35) Cyclohexane	6.756	56	145065	29.29	ug/L		96
36) Chloroform	6.793	83	170741	25.85	ug/L		99
37) Ethyl acetate	6.891	43	783221	141.08	ug/L		98
38) Tetrahydrofuran	6.976	42	67038	25.45	ug/L		92
40) Carbon Tetrachloride	6.976	117	126193	27.20	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	146004	26.71	ug/L		96
42) 2-Butanone	7.098	43	462976	133.91	ug/L		95
43) 1,1-Dichloropropene	7.171	75	120034	27.83	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	217948	82.24	ug/L	85
45) Propionitrile	7.409	54	290069	249.11	ug/L	99
46) Methacrylonitrile	7.439	41	873943	255.99	ug/L	98
47) Benzene	7.433	78	351265	26.55	ug/L	99
48) TAME	7.525	73	243436	24.50	ug/L	93
50) Isobutyl alcohol	7.585	42	150564	488.24	ug/L	97
51) 1,2-Dichloroethane	7.640	62	119153	25.93	ug/L	97
52) Tert Amyl Alcohol	7.695	59	277611	242.52	ug/L	94
53) Trichloroethene	8.049	95	90203	24.38	ug/L	94
54) Methylcyclohexane	8.049	83	121509	27.23	ug/L	100
55) Dibromomethane	8.488	93	60169	25.47	ug/L	98
56) 1,2-Dichloropropane	8.567	63	92063	27.01	ug/L	98
57) Bromodichloromethane	8.628	83	116916	24.88	ug/L	97
58) Methyl methacrylate	8.750	41	86261	23.34	ug/L	97
59) 1,4-Dioxane	8.811	88	38281	360.41	ug/L	95
61) cis-1,3-Dichloropropene	9.262	75	123813	23.37	ug/L	99
64) Toluene	9.500	91	364831	26.93	ug/L	97
65) 2-Nitropropane	9.695	41	201422	156.93	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	828597	141.12	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	106121	23.34	ug/L	89
68) Tetrachloroethene	9.908	166	108813	26.54	ug/L	98
69) Ethyl methacrylate	10.012	69	118291	27.30	ug/L	96
70) 1,1,2-Trichloroethane	10.061	83	72761	26.34	ug/L	99
71) Dibromochloromethane	10.256	129	102857	26.91	ug/L	99
72) 1,3-Dichloropropane	10.341	76	140725	29.23	ug/L	98
73) 1,2-Dibromoethane	10.518	107	94253	26.44	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	1510852	1431.46	ug/L	99
75) 2-hexanone	10.658	43	669826	141.74	ug/L	97
76) 1-Chlorohexane	10.963	91	98088	25.59	ug/L	91
77) Ethylbenzene	11.024	91	395467	27.04	ug/L	99
78) Chlorobenzene	11.024	112	236031	26.37	ug/L	95
79) 1,1,1,2-Tetrachloroethane	11.073	131	90401	26.10	ug/L	96
80) m,p-Xylene	11.164	91	590956	53.82	ug/L	98
81) o-Xylene	11.603	91	294117	24.91	ug/L	98
82) Styrene	11.658	104	216449	26.12	ug/L	100
83) Bromoform	11.713	173	80162	24.89	ug/L	97
84) Isopropylbenzene	11.914	105	357265	25.72	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.261	53	30575	23.81	ug/L	88
88) n-Propylbenzene	12.335	91	417792	26.51	ug/L	99
89) Bromobenzene	12.347	156	110158	27.26	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	153219	27.81	ug/L	97
91) 1,3,5-Trimethylbenzene	12.517	105	296483	26.25	ug/L	98
92) 2-Chlorotoluene	12.517	91	284222	26.44	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.578	53	26769	18.90	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	49318	28.95	ug/L	96
95) Cyclohexanone	12.609	55	40570	106.56	ug/L	96
96) 4-Chlorotoluene	12.682	91	247799	25.61	ug/L	95
97) tert-Butylbenzene	12.853	91	154416	25.72	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	293609	26.39	ug/L	97
99) Pentachloroethane	12.902	167	68093	27.56	ug/L	98
100) sec-Butylbenzene	13.036	105	323902	25.56	ug/L	98
101) 4-Isopropyltoluene	13.170	119	281946	25.06	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	179329	25.75	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	316933	27.19	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	191207	25.55	ug/L	98
105) n-Butylbenzene	13.615	92	149779	27.07	ug/L #	80
106) Benzyl Chloride	13.627	126	40427	21.01	ug/L #	43

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2-Dichlorobenzene	13.828	146	176305	25.84	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	38318	27.52	ug/L	88
109) Hexachlorobutadiene	15.145	225	58169	25.16	ug/L	98
110) 1,2,4-Trichlorobenzene	15.194	180	116886	23.18	ug/L	98
111) Naphthalene	15.462	128	374014	23.72	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	119089	23.68	ug/L	97

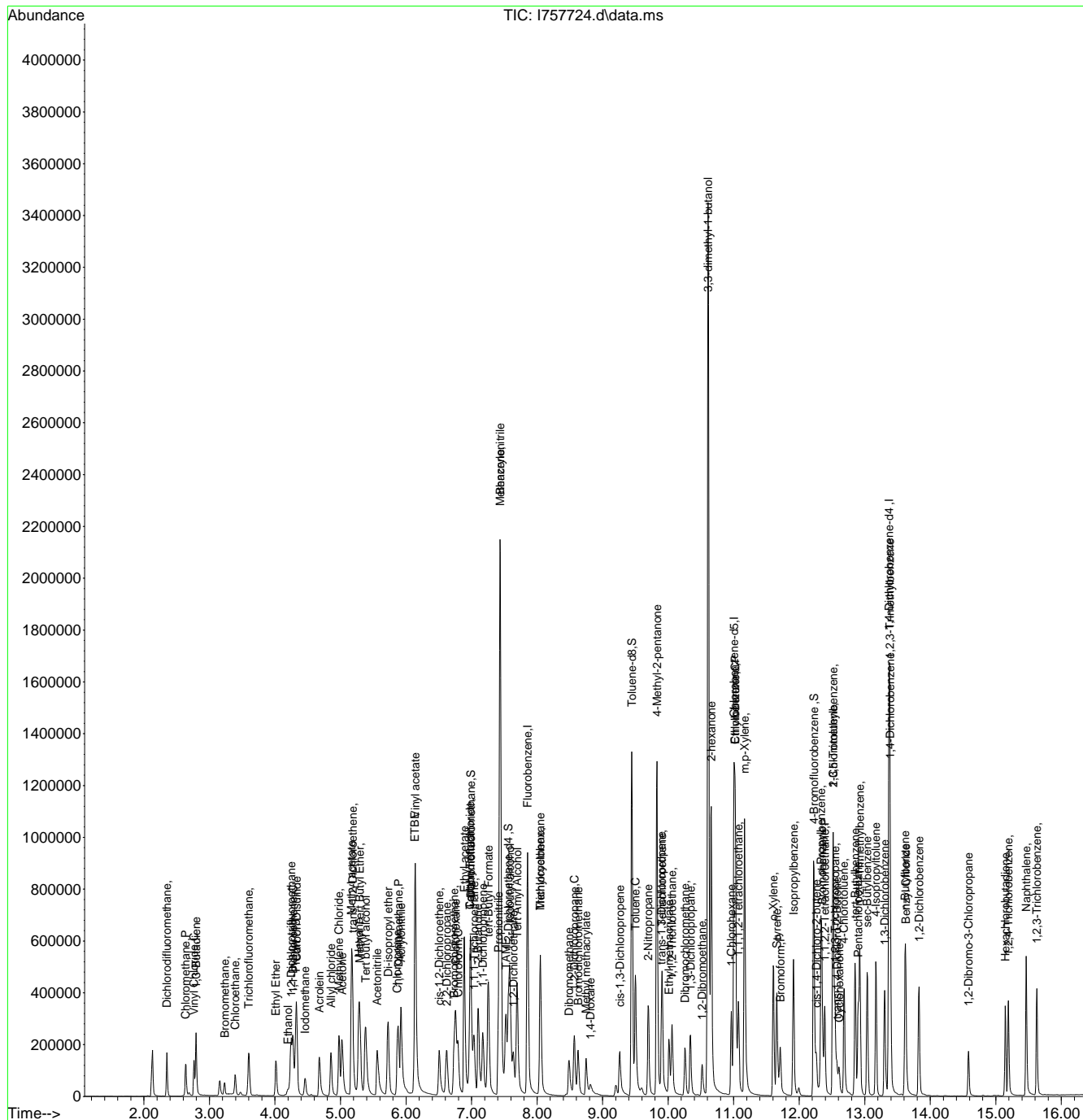
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.4.3  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	862228	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	609356	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	360534	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	246048	50.27	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.54%	
49) 1,2-Dichloroethane-d4	7.561	65	238015	53.49	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.98%	
63) Toluene-d8	9.445	98	884321	50.89	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.78%	
86) 4-Bromofluorobenzene	12.225	174	302209	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	100791	26.60	ug/L		99
3) Chloromethane	2.641	50	103527	26.56	ug/L		98
4) Vinyl Chloride	2.763	62	95555	24.83	ug/L		97
5) 1,3-Butadiene	2.800	39	76455	23.10	ug/L		94
6) Bromomethane	3.233	94	31894	24.32	ug/L		98
7) Chloroethane	3.397	64	51363	31.83	ug/L		98
8) Trichlorofluoromethane	3.605	101	126302	24.80	ug/L		99
9) Ethyl Ether	4.013	59	68133	25.55	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	98725	27.84	ug/L		98
11) 1,1-Dichloroethene	4.275	61	117794	25.18	ug/L		96
12) Ethanol	4.202	45	55422	416.27	ug/L		93
13) Freon 113	4.318	101	80639	27.74	ug/L		94
14) Carbon Disulfide	4.330	76	227267	23.65	ug/L		95
15) Iodomethane	4.458	142	92599	39.88	ug/L		94
16) Acrolein	4.678	56	141313	115.68	ug/L		97
17) Allyl chloride	4.854	41	104845	23.23	ug/L		97
18) Methylene Chloride	4.976	49	132761	27.95	ug/L		94
19) Acetone	5.025	43	302186	130.24	ug/L		99
20) Methyl acetate	5.165	43	566388	116.47	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	118824	24.21	ug/L		97
22) Hexane	5.281	56	62609	26.01	ug/L		94
23) Methyl Tert Butyl Ether	5.299	73	243151	23.44	ug/L		89
24) Tert butyl alcohol	5.385	59	381530	268.87	ug/L		94
25) Acetonitrile	5.562	41	235317	237.44	ug/L		97
26) Di-isopropyl ether	5.726	45	255111	23.52	ug/L		96
27) Chloroprene	5.872	53	96000	20.73	ug/L		97
28) 1,1-Dichloroethane	5.885	63	150533	23.36	ug/L		99
29) Acrylonitrile	5.921	53	301995	127.75	ug/L		98
30) ETBE	6.135	59	253406	24.27	ug/L		97
31) Vinyl acetate	6.141	43	960509	139.64	ug/L		99
32) cis-1,2-Dichloroethene	6.506	96	87666	22.64	ug/L		94
33) 2,2-Dichloropropane	6.616	77	109065	22.20	ug/L		97
34) Bromochloromethane	6.732	128	43698	21.86	ug/L		90
35) Cyclohexane	6.756	56	130903	26.12	ug/L		93
36) Chloroform	6.793	83	156688	23.31	ug/L		98
37) Ethyl acetate	6.891	43	748406	132.86	ug/L		98
38) Tetrahydrofuran	6.982	42	63758	23.79	ug/L		95
40) Carbon Tetrachloride	6.976	117	113117	23.96	ug/L		99
41) 1,1,1-Trichloroethane	7.037	97	131198	23.59	ug/L		94
42) 2-Butanone	7.104	43	433528	123.71	ug/L		96
43) 1,1-Dichloropropene	7.171	75	108081	24.63	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	192256	71.30	ug/L	86
45) Propionitrile	7.409	54	276186	233.12	ug/L	99
46) Methacrylonitrile	7.439	41	817743	235.43	ug/L	99
47) Benzene	7.433	78	320335	23.80	ug/L	97
48) TAME	7.525	73	225646	22.32	ug/L	98
50) Isobutyl alcohol	7.586	42	148606	473.63	ug/L	98
51) 1,2-Dichloroethane	7.640	62	111626	23.88	ug/L	98
52) Tert Amyl Alcohol	7.695	59	267582	229.75	ug/L	96
53) Trichloroethene	8.049	95	81583	21.67	ug/L	97
54) Methylcyclohexane	8.049	83	111194	24.62	ug/L	98
55) Dibromomethane	8.488	93	56744	23.61	ug/L	97
56) 1,2-Dichloropropane	8.567	63	84264	24.29	ug/L	96
57) Bromodichloromethane	8.628	83	107786	22.54	ug/L	94
58) Methyl methacrylate	8.750	41	81430	21.74	ug/L	96
59) 1,4-Dioxane	8.817	88	39245	363.07	ug/L	92
60) 2-Chloroethyl vinyl ether	9.268	63	569	0.28	ug/L #	33
61) cis-1,3-Dichloropropene	9.262	75	114743	21.29	ug/L	98
64) Toluene	9.500	91	333500	23.99	ug/L	100
65) 2-Nitropropane	9.695	41	189439	144.75	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	770674	127.88	ug/L	98
67) trans-1,3-Dichloropropene	9.902	75	100916	21.69	ug/L	89
68) Tetrachloroethene	9.908	166	97878	23.26	ug/L	98
69) Ethyl methacrylate	10.012	69	108172	24.42	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	69217	24.41	ug/L	97
71) Dibromochloromethane	10.256	129	96746	24.66	ug/L	98
72) 1,3-Dichloropropane	10.341	76	128272	25.96	ug/L	98
73) 1,2-Dibromoethane	10.518	107	85540	23.38	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	1469501	1360.82	ug/L	98
75) 2-hexanone	10.658	43	625721	129.34	ug/L	98
76) 1-Chlorohexane	10.963	91	88562	22.51	ug/L	91
77) Ethylbenzene	11.030	91	365149	24.32	ug/L	99
78) Chlorobenzene	11.024	112	217406	23.66	ug/L	94
79) 1,1,1,2-Tetrachloroethane	11.073	131	83623	23.52	ug/L	97
80) m,p-Xylene	11.164	91	544682	48.33	ug/L	99
81) o-Xylene	11.603	91	272024	22.44	ug/L	99
82) Styrene	11.658	104	196560	23.24	ug/L	98
83) Bromoform	11.713	173	75015	22.69	ug/L	98
84) Isopropylbenzene	11.914	105	326287	22.88	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	28197	21.81	ug/L	90
88) n-Propylbenzene	12.335	91	383321	24.15	ug/L	99
89) Bromobenzene	12.347	156	101746	25.00	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	143596	25.88	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	276690	24.32	ug/L	99
92) 2-Chlorotoluene	12.517	91	260720	24.08	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.572	53	24810	17.43	ug/L #	81
94) 1,2,3-Trichloropropane	12.548	110	45113	26.30	ug/L	96
95) Cyclohexanone	12.609	55	42116	109.86	ug/L	96
96) 4-Chlorotoluene	12.682	91	229486	23.55	ug/L	99
97) tert-Butylbenzene	12.853	91	141709	23.44	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	275242	24.57	ug/L	97
99) Pentachloroethane	12.902	167	62738	25.22	ug/L	95
100) sec-Butylbenzene	13.036	105	298851	23.46	ug/L	98
101) 4-Isopropyltoluene	13.170	119	256724	22.66	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	164076	23.40	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	291564	24.84	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	175761	23.32	ug/L	99
105) n-Butylbenzene	13.615	92	136044	24.42	ug/L #	79

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

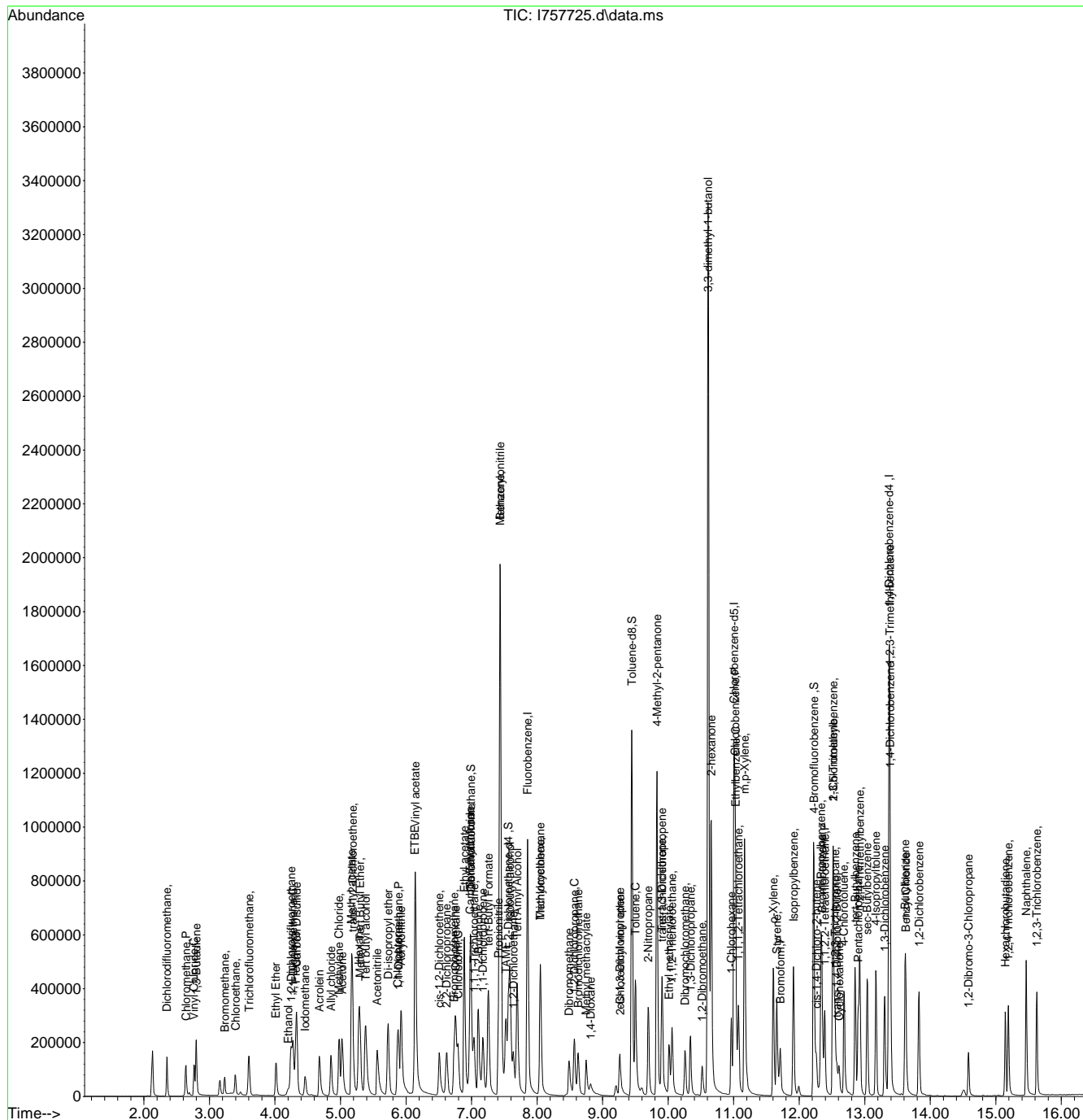
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	37134	19.24	ug/L #	32
107) 1,2-Dichlorobenzene	13.828	146	163615	23.81	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	14.584	75	35128	25.05	ug/L	94
109) Hexachlorobutadiene	15.145	225	54652	23.48	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	110122	21.69	ug/L	99
111) Naphthalene	15.462	128	349545	22.01	ug/L	96
112) 1,2,3-Trichlorobenzene	15.627	180	112483	22.21	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\
Data File : I757725.d
Acq On : 6 Jul 2023 7:12 pm
Operator : jeniferw
Sample : FC7493-1MSD 5X Inst : MSVOA16
Misc : MS54368,VI2963,,,,,5
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m
Quant Results File: VI-2023-06-15.RES
Quant Time: Jul 06 23:08:08 2023
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Thu Jun 15 14:39:51 2023
Response via : Initial Calibration

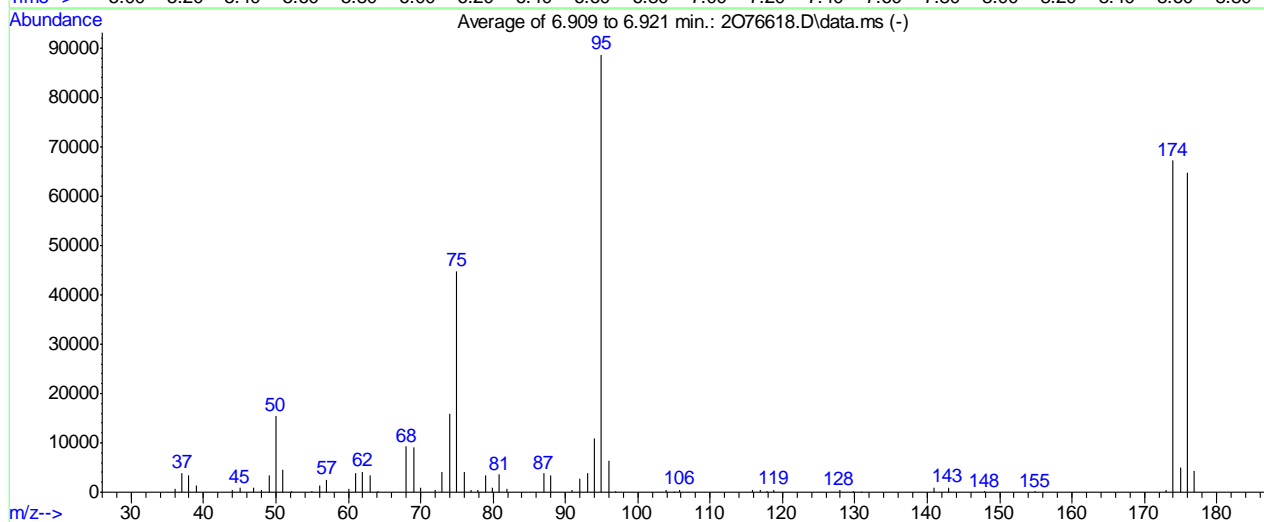
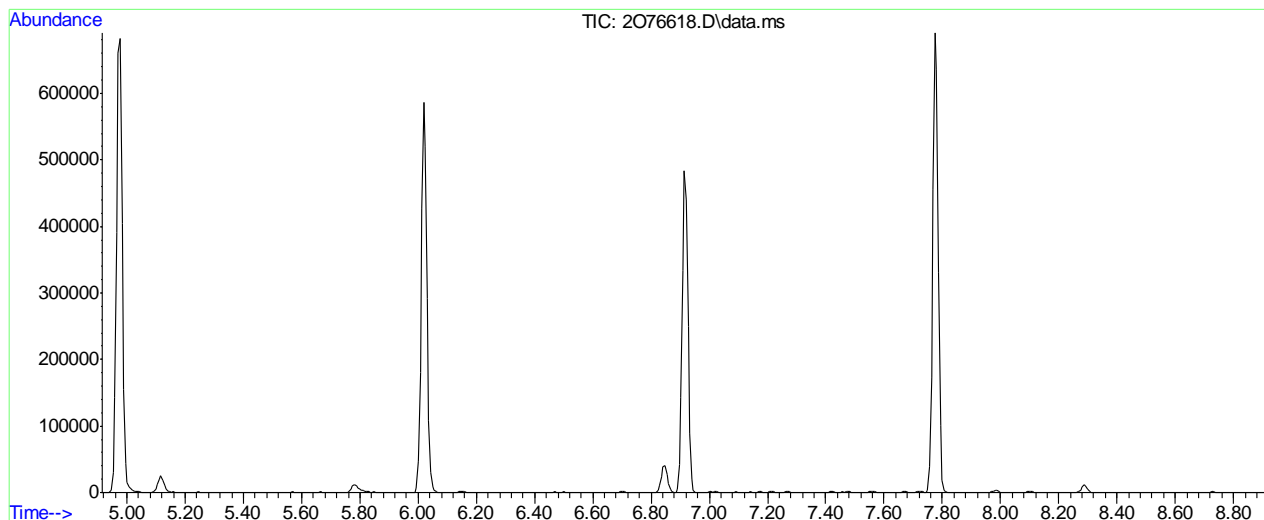


7.4.4

Methods: SW-846 8260B

Data File : C:\msdchem\2\data\2023-06-07\2076618.D Vial: 1  
 Acq On : 7 Jun 2023 9:26 am Operator: joannel  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54147,V2O2981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



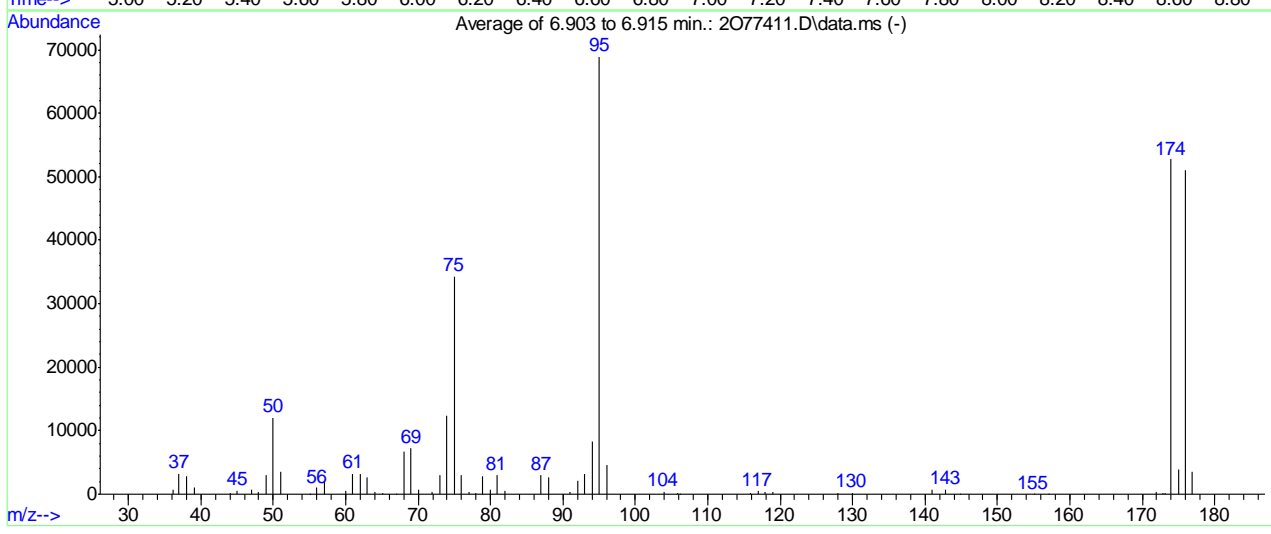
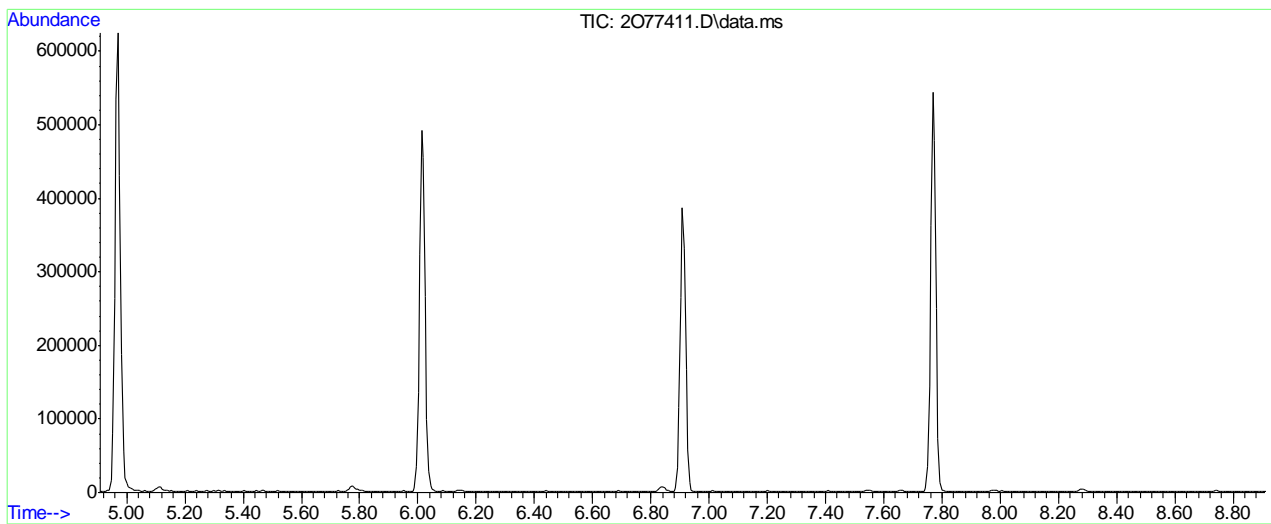
AutoFind: Scans 955, 956, 957; Background Corrected with Scan 949

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	15441	PASS
75	95	30	60	50.5	44797	PASS
95	95	100	100	100.0	88696	PASS
96	95	5	9	7.2	6368	PASS
173	174	0.00	2	0.8	520	PASS
174	95	50	100	75.7	67133	PASS
175	174	5	9	7.5	5047	PASS
176	174	95	101	96.3	64680	PASS
177	176	5	9	6.6	4269	PASS

2076618.D V2O\_06-07-2023.M

Thu Jun 08 09:37:41 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\2\data\2023-07-05\2077411.D Vial: 1  
 Acq On : 5 Jul 2023 8:10 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54349,V2O3017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p  
 Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 954, 955, 956; Background Corrected with Scan 948

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	12065	PASS
75	95	30	60	49.7	34259	PASS
95	95	100	100	100.0	68939	PASS
96	95	5	9	6.7	4613	PASS
173	174	0.00	2	0.4	233	PASS
174	95	50	100	76.5	52733	PASS
175	174	5	9	7.5	3978	PASS
176	174	95	101	96.8	51037	PASS
177	176	5	9	6.8	3462	PASS

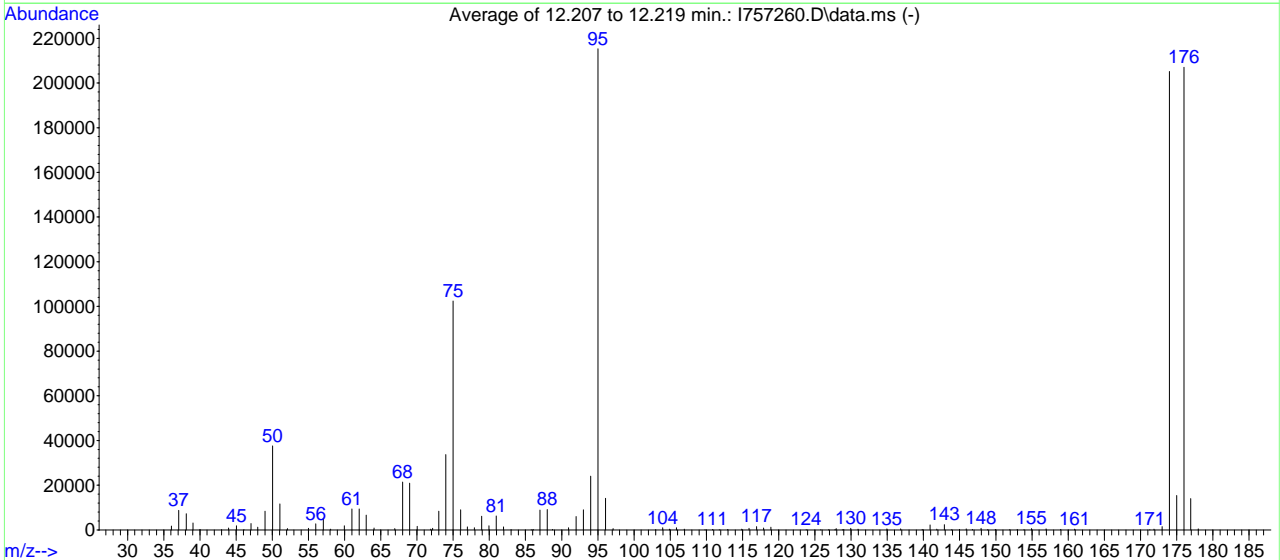
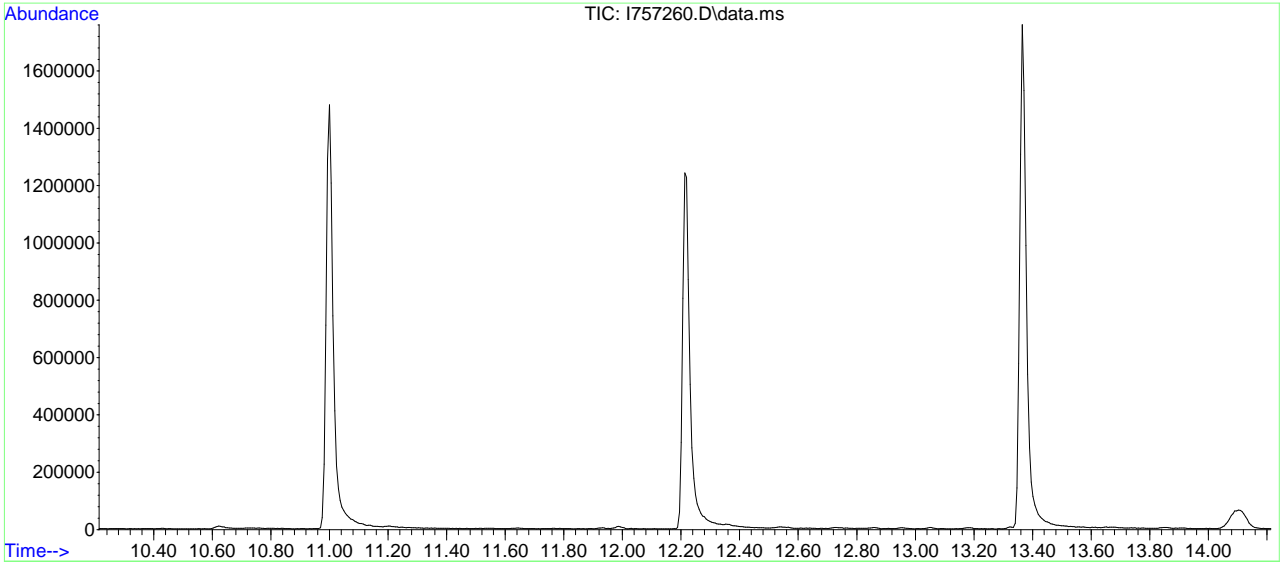
7.5.2  
7



Methods: SW-846 8260B

Data File : C:\msdchem\1\data\2023-06-15\I757260.D Vial: 1  
 Acq On : 15 Jun 2023 10:08 am Operator: joannel  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



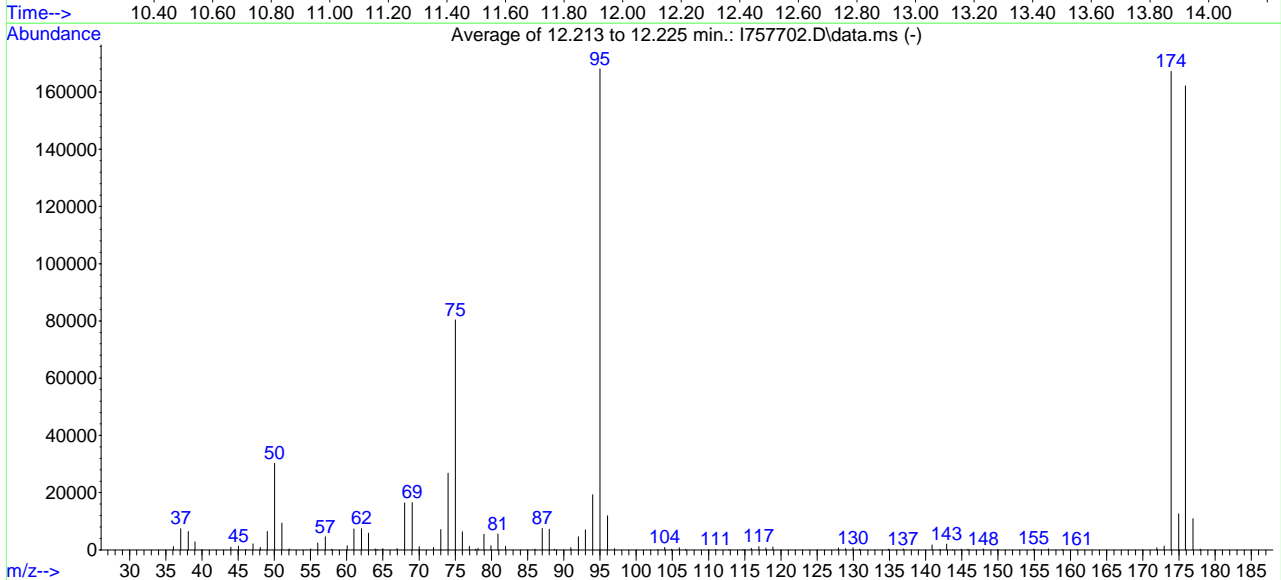
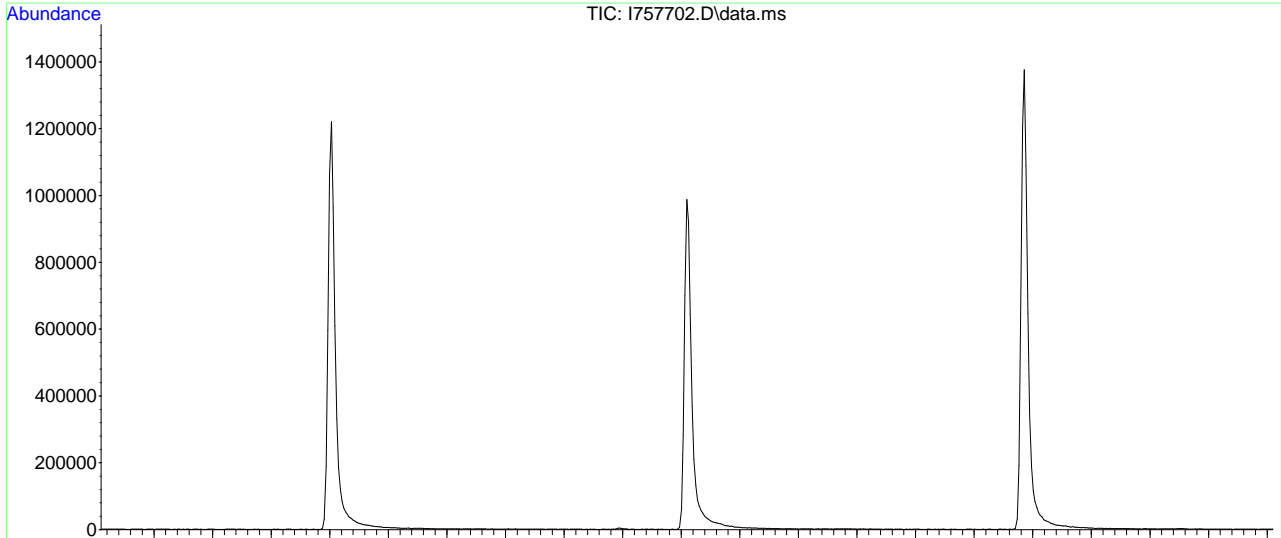
AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	37549	PASS
75	95	30	60	47.6	102373	PASS
95	95	100	100	100.0	215275	PASS
96	95	5	9	6.6	14176	PASS
173	174	0.00	2	0.7	1477	PASS
174	95	50	100	95.3	205205	PASS
175	174	5	9	7.5	15382	PASS
176	174	95	101	100.9	207019	PASS
177	176	5	9	6.7	13947	PASS

I757260.D VI-2023-06-15.m Thu Jun 15 14:53:06 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\1\data\2023-07-06\I757702.D Vial: 1  
 Acq On : 6 Jul 2023 8:41 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1819

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	30253	PASS
75	95	30	60	47.8	80371	PASS
95	95	100	100	100.0	168107	PASS
96	95	5	9	7.1	11934	PASS
173	174	0.00	2	0.8	1301	PASS
174	95	50	100	99.5	167299	PASS
175	174	5	9	7.5	12607	PASS
176	174	95	101	96.9	162133	PASS
177	176	5	9	6.7	10891	PASS

7.5.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	411508	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	303637	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160349	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112234	49.21	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.42%	
50) 1,2-Dichloroethane-d4	3.854	65	131197	54.12	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	108.24%	
63) Toluene-d8	4.976	98	399385	48.23	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	96.46%	
86) 4-Bromofluorobenzene	6.921	174	115732	47.30	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.60%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	38994	23.26	ug/L		95
3) Chloromethane	1.373	50	37269	20.56	ug/L		97
4) 1,3-butadiene	1.446	39	45293	24.92	ug/L		92
5) Vinyl Chloride	1.434	62	39991	22.22	ug/L		97
6) Bromomethane	1.666	94	29963	21.74	ug/L		99
7) Chloroethane	1.751	64	28233	32.05	ug/L		98
8) Trichlorofluoromethane	1.849	101	78549	24.57	ug/L		97
9) Ethyl Ether	2.056	59	34624	24.42	ug/L		96
10) Ethanol	2.154	45	15818	426.52	ug/L		100
11) 1,2-Dichlorotrifluoro...	2.178	67	49983	23.68	ug/L		98
12) 1,1-Dichloroethene	2.178	61	63089	23.27	ug/L		99
13) Freon 113	2.208	101	45779	25.37	ug/L		98
14) Carbon Disulfide	2.202	76	115077	21.86	ug/L		96
15) Iodomethane	2.269	142	38298	13.60	ug/L		93
16) Acrolein	2.385	56	56093	108.73	ug/L		99
17) Allyl chloride	2.471	41	47627	22.69	ug/L		92
18) Methylene Chloride	2.532	49	55845	22.36	ug/L		98
19) Acetone	2.556	43	113944	110.08	ug/L		98
20) Methyl acetate	2.629	43	272095	114.32	ug/L		98
21) trans-1,2-Dichloroethene	2.629	61	62555	24.14	ug/L		97
22) Hexane	2.678	56	32375	23.65	ug/L		97
23) Methyl Tert Butyl Ether	2.690	73	123824	24.90	ug/L		89
24) Tert Butyl Alcohol	2.739	59	79255	204.00	ug/L		90
25) Acetonitrile	2.830	41	85863	220.28	ug/L		99
26) Di-isopropyl ether	2.910	45	123738	23.46	ug/L		96
27) Chloroprene	2.970	53	64253	25.91	ug/L		98
28) 1,1-Dichloroethane	2.983	63	80909	24.04	ug/L		99
29) Acrylonitrile	3.007	52	119356	119.06	ug/L		99
30) ETBE	3.117	59	118570	24.78	ug/L		98
31) Vinyl acetate	3.117	43	505207	131.33	ug/L		100
32) cis-1,2-Dichloroethene	3.287	96	51375	24.58	ug/L		98
33) 2,2-Dichloropropane	3.355	77	54158	23.96	ug/L		98
34) Bromochloromethane	3.403	128	27012	23.97	ug/L		98
35) Cyclohexane	3.416	56	65417	23.53	ug/L		96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	93084	25.54	ug/L	98
37) Ethyl acetate	3.501	43	373906	123.71	ug/L	100
38) Tetrahydrofuran	3.537	42	23310	20.06	ug/L	98
40) Carbon Tetrachloride	3.531	117	60973	26.71	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	75228	25.43	ug/L	96
42) 2-Butanone	3.611	43	183385	106.81	ug/L	98
43) 1,1-Dichloropropene	3.635	75	61988	24.28	ug/L	98
44) tert-Butyl formate	3.696	59	74360	108.64	ug/L	98
45) Propionitrile	3.781	54	115924	227.52	ug/L	97
46) Methacrylonitrile	3.793	41	408203	236.70	ug/L	99
47) Benzene	3.781	78	183039	24.25	ug/L	84
48) TAME	3.836	73	111128	24.81	ug/L	97
49) Isobutyl alcohol	3.879	43	68115m	441.44	ug/L	
51) 1,2-Dichloroethane	3.891	62	74362	27.65	ug/L	97
52) Tert Amyl Alcohol	3.934	59	58406	190.60	ug/L	91
53) Trichloroethene	4.117	95	53300	24.50	ug/L	97
54) Methylcyclohexane	4.117	83	68228	23.96	ug/L	97
55) Dibromomethane	4.367	93	35521	25.96	ug/L	93
56) 1,2-Dichloropropane	4.428	63	43341	24.48	ug/L	96
57) Bromodichloromethane	4.464	83	62579	25.81	ug/L	98
58) Methyl methacrylate	4.549	41	47116	23.79	ug/L	97
59) 1,4-Dioxane	4.580	88	17127	454.51	ug/L	95
60) 2-Chloroethyl vinyl ether	4.805	63	183297	119.22	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	67468	24.31	ug/L	96
64) Toluene	5.007	91	196545	23.62	ug/L	99
65) 2-Nitropropane	5.153	41	72851	137.45	ug/L	99
66) 4-Methyl-2-pentanone	5.244	43	325265	109.40	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	68013	24.87	ug/L	95
68) Tetrachloroethene	5.263	166	52210	22.14	ug/L	96
69) Ethyl methacrylate	5.366	69	59216	24.49	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	42378	25.24	ug/L	97
71) Dibromochloromethane	5.507	129	48706	24.88	ug/L	99
72) 1,3-Dichloropropane	5.568	76	78704	25.59	ug/L	97
73) 1,2-Dibromoethane	5.671	107	52840	25.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	431695	1077.04	ug/L	99
75) 2-hexanone	5.811	43	327136	110.75	ug/L	94
76) 1-Chlorohexane	6.013	91	60017m	22.91	ug/L	
77) Ethylbenzene	6.049	91	217796	24.27	ug/L	97
78) Chlorobenzene	6.037	112	136215	24.22	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	46330	26.31	ug/L	98
80) m,p-Xylene	6.153	91	346730	49.64	ug/L	97
81) o-Xylene	6.470	91	175043	24.82	ug/L	97
82) Styrene	6.506	104	134964	24.36	ug/L	98
83) Bromoform	6.531	173	28902	23.20	ug/L	93
84) Isopropylbenzene	6.701	105	203447	23.93	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	14431	19.87	ug/L #	79
88) n-Propylbenzene	7.018	91	241207	24.26	ug/L	98
89) Bromobenzene	7.000	156	52433	23.77	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	77797	25.70	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	172688	24.61	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	170133	25.38	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.207	53	13783	21.66	ug/L #	84
94) 1,2,3-Trichloropropane	7.177	110	24220	24.31	ug/L	97
95) Cyclohexanone	7.214	55	14856	107.54	ug/L	95
96) 4-Chlorotoluene	7.274	91	156888	25.43	ug/L	99
97) tert-Butylbenzene	7.421	91	93142	24.57	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	172851	24.93	ug/L	98
100) Pentachloroethane	7.439	167	25143	26.32	ug/L #	84
101) sec-Butylbenzene	7.561	105	200239	23.84	ug/L	98
102) 4-Isopropyltoluene	7.671	119	170775	23.30	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	104575	23.99	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	178723	24.63	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	105572	23.91	ug/L	97
106) n-Butylbenzene	7.988	92	86734	23.55	ug/L	89
107) Benzyl Chloride	7.976	126	17727	21.51	ug/L #	45
108) 1,2-Dichlorobenzene	8.104	146	99217	24.12	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15955	25.36	ug/L	82
110) Hexachlorobutadiene	9.134	225	19122	21.48	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	58507	23.43	ug/L	99
112) Naphthalene	9.372	128	212372	24.04	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	55697	23.49	ug/L	94

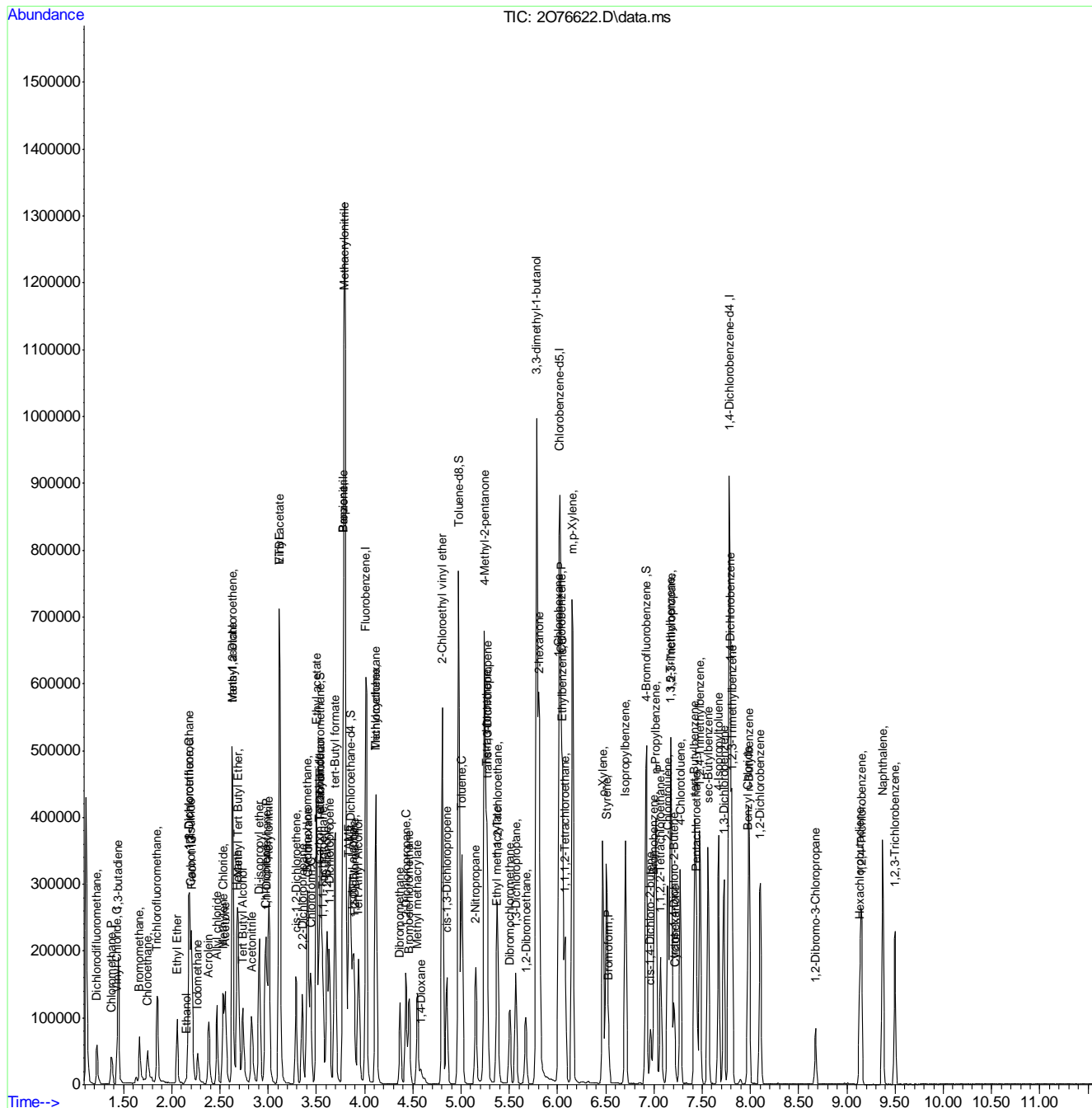
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



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# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76622.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:22      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.6.1.1

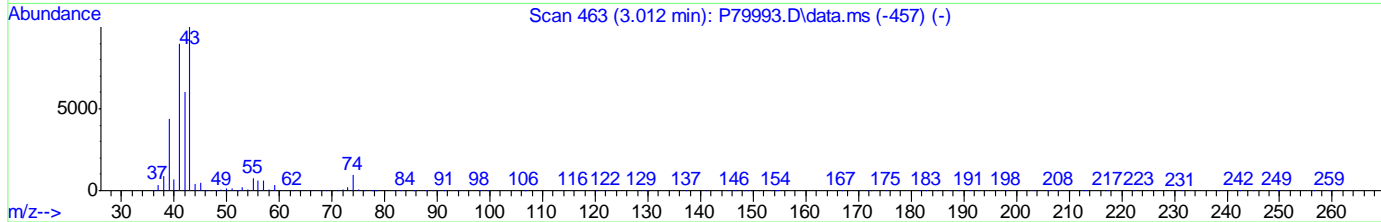
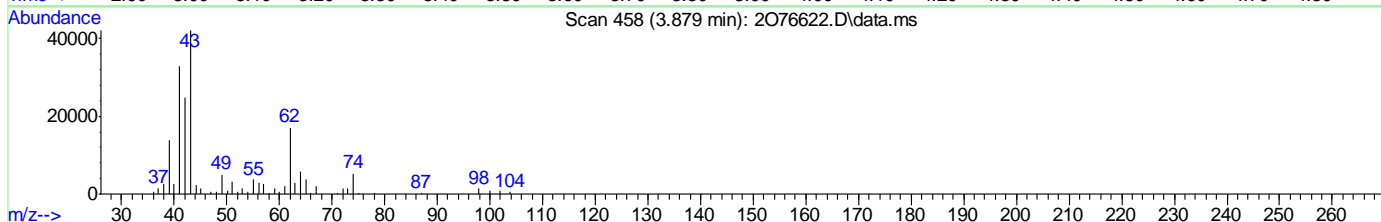
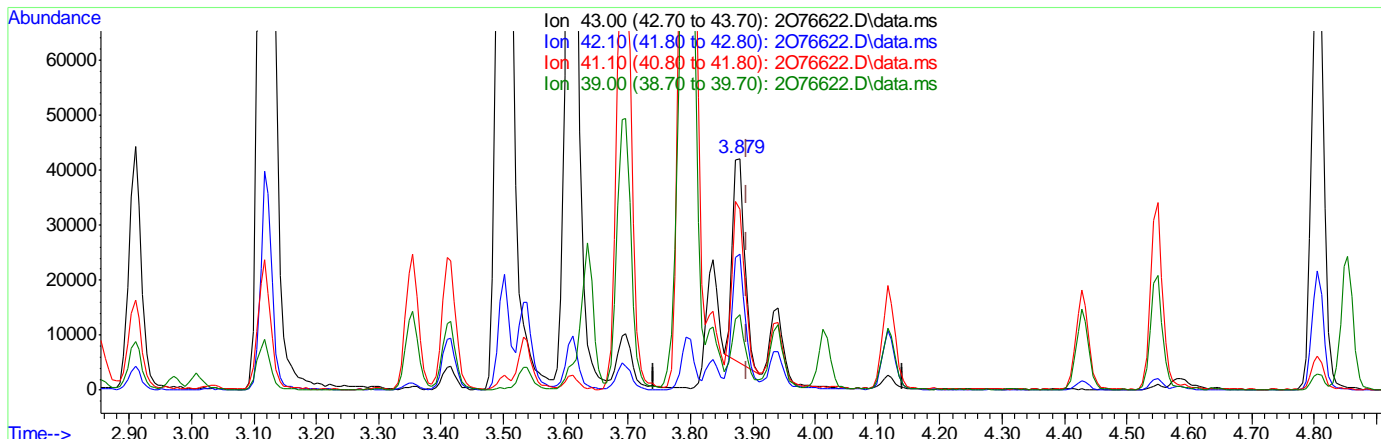
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V2O\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 328.80ug/L  
 response 49985

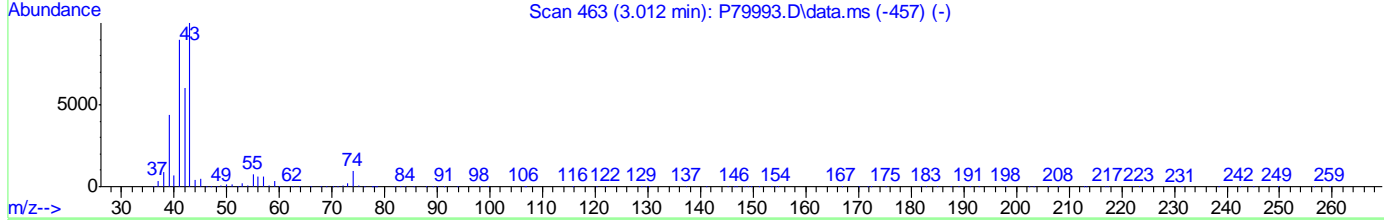
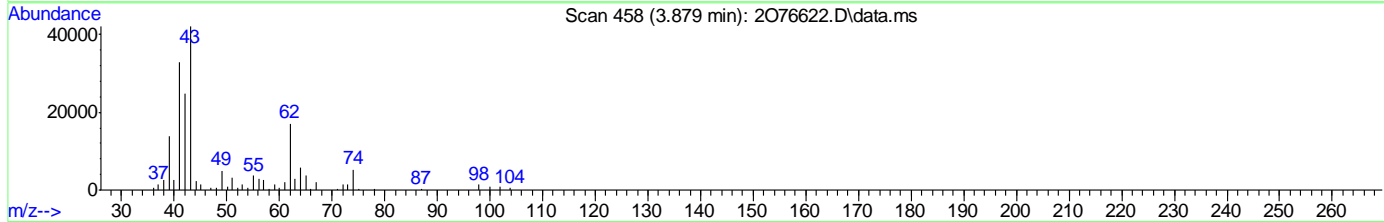
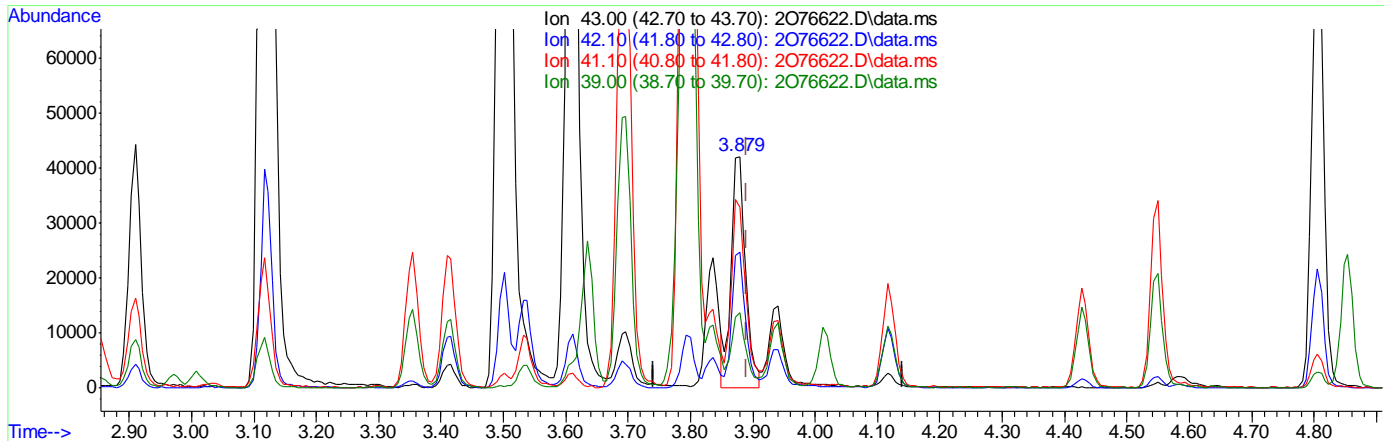
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.52
41.10	73.50	75.72
39.00	30.20	30.39

7.6.1.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 441.44ug/L m  
 response 68115

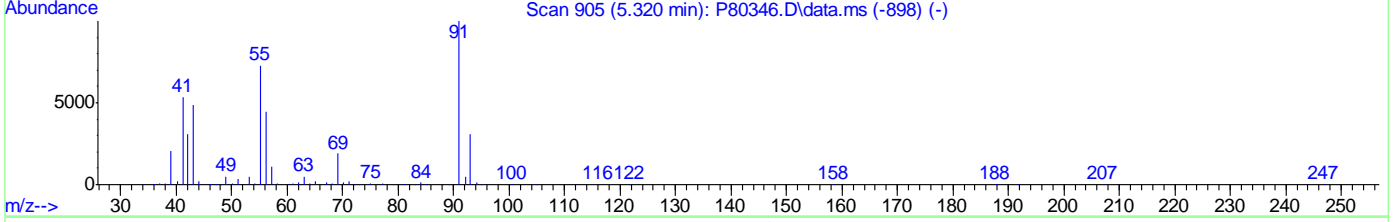
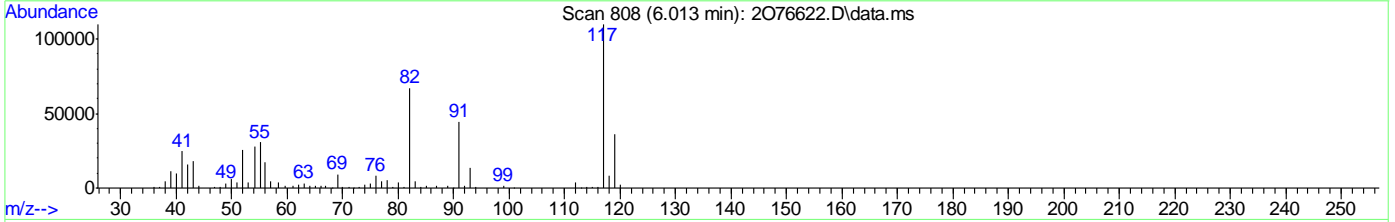
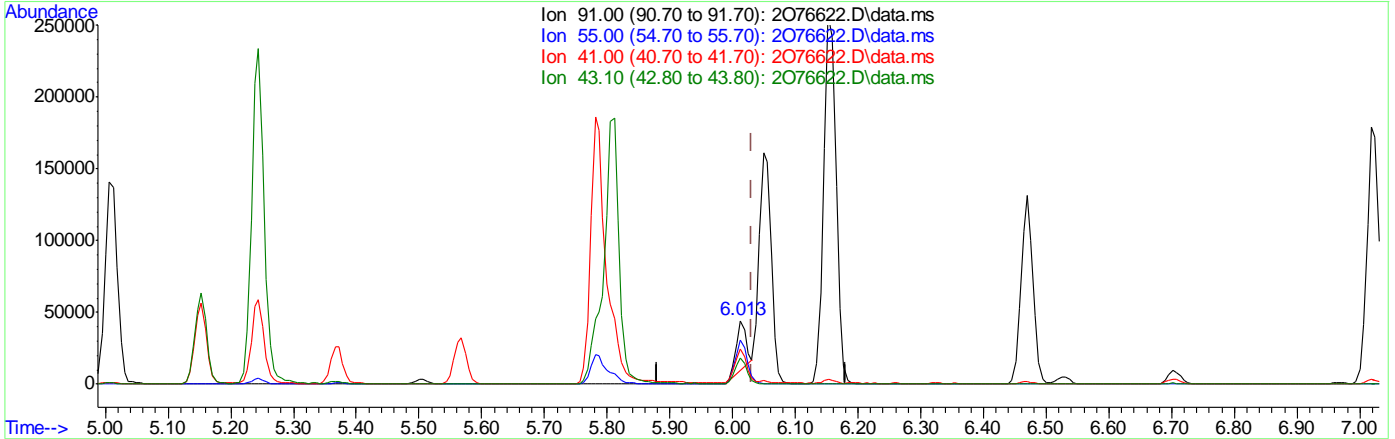
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.75
41.10	73.50	78.06
39.00	30.20	32.70

7.6.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 14.59ug/L

response 38213

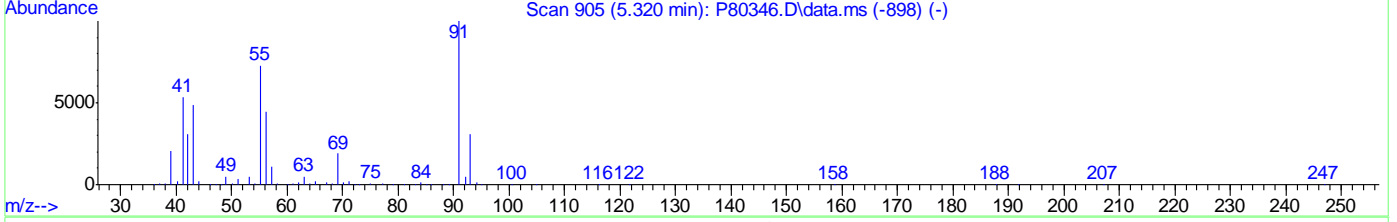
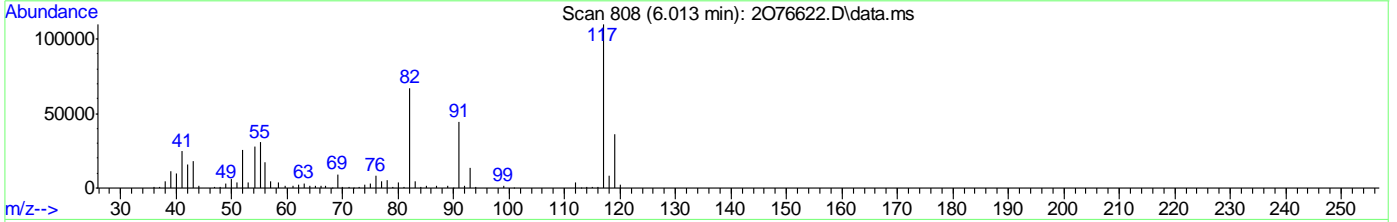
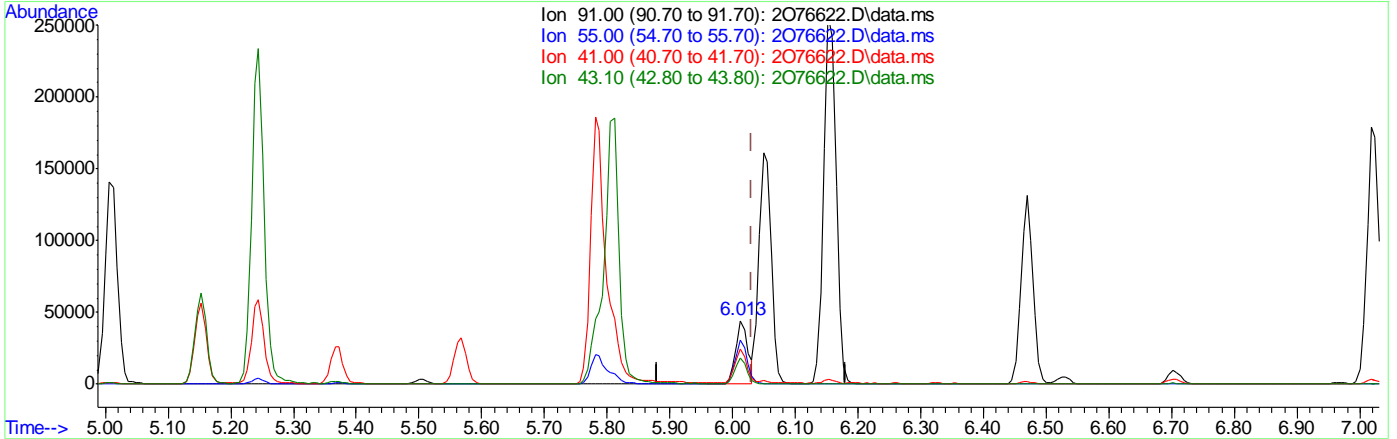
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.16
41.00	53.70	53.18
43.10	42.30	40.30

7.6.1.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 22.91ug/L m

response 60017

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.66
41.00	53.70	55.68
43.10	42.30	41.44

7.6.1.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	426373	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	320814	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	169764	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116224	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.854	65	141050	56.15	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	112.30%	
63) Toluene-d8	4.976	98	419102	47.90	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.921	174	122824	47.41	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.82%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	65826	37.90	ug/L		99
3) Chloromethane	1.379	50	62443	33.25	ug/L		99
4) 1,3-butadiene	1.446	39	68924	36.60	ug/L		98
5) Vinyl Chloride	1.434	62	68903	36.95	ug/L		96
6) Bromomethane	1.672	94	53773	37.65	ug/L		98
7) Chloroethane	1.751	64	37179	Below Cal			98
8) Trichlorofluoromethane	1.849	101	135489	40.91	ug/L		100
9) Ethyl Ether	2.056	59	61952	42.17	ug/L		98
10) Ethanol	2.154	45	23426	610.76	ug/L		99
11) 1,2-Dichlorotrifluoro...	2.178	67	91695	41.93	ug/L		97
12) 1,1-Dichloroethene	2.178	61	116171	41.36	ug/L		97
13) Freon 113	2.208	101	83745	44.79	ug/L		95
14) Carbon Disulfide	2.202	76	214433	39.31	ug/L		95
15) Iodomethane	2.269	142	76584	26.24	ug/L		93
16) Acrolein	2.385	56	95417	178.50	ug/L		99
17) Allyl chloride	2.471	41	77458	35.62	ug/L		94
18) Methylene Chloride	2.532	49	98407	38.46	ug/L		96
19) Acetone	2.556	43	187001	174.37	ug/L		97
20) Methyl acetate	2.629	43	465679	188.83	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	113274	42.18	ug/L		98
22) Hexane	2.678	56	57910	40.83	ug/L		98
23) Methyl Tert Butyl Ether	2.690	73	229067	44.46	ug/L		89
24) Tert Butyl Alcohol	2.739	59	137160	331.52	ug/L		96
25) Acetonitrile	2.830	41	131978	326.78	ug/L		98
26) Di-isopropyl ether	2.910	45	224834	41.13	ug/L		96
27) Chloroprene	2.971	53	102290	39.81	ug/L		100
28) 1,1-Dichloroethane	2.983	63	147398	42.28	ug/L		100
29) Acrylonitrile	3.007	52	178389	171.74	ug/L		98
30) ETBE	3.117	59	221218	44.62	ug/L		99
31) Vinyl acetate	3.117	43	786299	197.27	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	93812	43.31	ug/L		96
33) 2,2-Dichloropropane	3.355	77	102880	43.93	ug/L		98
34) Bromochloromethane	3.403	128	45659	39.10	ug/L		97
35) Cyclohexane	3.416	56	118080	40.99	ug/L		92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	166135	43.99	ug/L	100
37) Ethyl acetate	3.501	43	559095	178.53	ug/L	100
38) Tetrahydrofuran	3.531	42	39579	32.87	ug/L	98
40) Carbon Tetrachloride	3.531	117	116593m	49.30	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	138307	45.13	ug/L	98
42) 2-Butanone	3.611	43	300446	168.90	ug/L	99
43) 1,1-Dichloropropene	3.635	75	114328	43.23	ug/L	97
44) tert-Butyl formate	3.696	59	151609	200.97	ug/L	90
45) Propionitrile	3.781	54	178462	338.06	ug/L	92
46) Methacrylonitrile	3.794	41	638344	357.25	ug/L	99
47) Benzene	3.781	78	335332	42.87	ug/L	90
48) TAME	3.836	73	213020	45.90	ug/L	99
49) Isobutyl alcohol	3.879	43	109378m	664.69	ug/L	
51) 1,2-Dichloroethane	3.891	62	132126	47.41	ug/L	98
52) Tert Amyl Alcohol	3.940	59	105000	320.82	ug/L	97
53) Trichloroethene	4.117	95	95946	42.56	ug/L	97
54) Methylcyclohexane	4.117	83	125578	42.56	ug/L	97
55) Dibromomethane	4.367	93	62808	44.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	79539	43.36	ug/L	97
57) Bromodichloromethane	4.464	83	115870	46.13	ug/L	99
58) Methyl methacrylate	4.549	41	77860	37.95	ug/L	99
59) 1,4-Dioxane	4.586	88	30335	760.40	ug/L	95
60) 2-Chloroethyl vinyl ether	4.806	63	336704	211.37	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	129473	43.92	ug/L	98
64) Toluene	5.007	91	358502	40.78	ug/L	99
65) 2-Nitropropane	5.153	41	139242	229.70	ug/L	95
66) 4-Methyl-2-pentanone	5.244	43	547884	174.40	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	129149	43.80	ug/L	96
68) Tetrachloroethene	5.263	166	95581	38.37	ug/L	95
69) Ethyl methacrylate	5.366	69	97892	37.68	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	75298	42.45	ug/L	98
71) Dibromochloromethane	5.501	129	93044	43.54	ug/L	98
72) 1,3-Dichloropropane	5.568	76	142612	43.88	ug/L	97
73) 1,2-Dibromoethane	5.671	107	97238	43.80	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	770515	1768.71	ug/L	99
75) 2-hexanone	5.805	43	550862	176.51	ug/L	100
76) 1-Chlorohexane	6.013	91	111025m	40.12	ug/L	
77) Ethylbenzene	6.049	91	394127	41.56	ug/L	98
78) Chlorobenzene	6.037	112	246538	41.49	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	85432	45.91	ug/L	98
80) m,p-Xylene	6.153	91	632914	85.76	ug/L	97
81) o-Xylene	6.470	91	319474	42.88	ug/L	96
82) Styrene	6.506	104	253553	43.31	ug/L	97
83) Bromoform	6.531	173	55711	40.32	ug/L	98
84) Isopropylbenzene	6.702	105	375983	41.85	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	24681	32.10	ug/L #	87
88) n-Propylbenzene	7.019	91	439449	41.76	ug/L	98
89) Bromobenzene	7.000	156	96668	41.39	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	139025	43.38	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	320425	43.12	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	304666	42.93	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.207	53	25988	37.37	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	44519	42.21	ug/L	97
95) Cyclohexanone	7.214	55	22436	153.41	ug/L	97
96) 4-Chlorotoluene	7.275	91	288538	44.18	ug/L	99
97) tert-Butylbenzene	7.421	91	172894	43.07	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	322431	43.92	ug/L	97
100) Pentachloroethane	7.439	167	42913	40.81	ug/L #	85
101) sec-Butylbenzene	7.561	105	364792	41.02	ug/L	99
102) 4-Isopropyltoluene	7.671	119	317715	40.94	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	189630	41.09	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	333706	43.43	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	192691	41.21	ug/L	99
106) n-Butylbenzene	7.982	92	158519	40.22	ug/L #	80
107) Benzyl Chloride	7.976	126	36514	38.61	ug/L #	60
108) 1,2-Dichlorobenzene	8.104	146	180515	41.45	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	28987	41.99	ug/L	83
110) Hexachlorobutadiene	9.134	225	34012	35.64	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	104883	39.67	ug/L	98
112) Naphthalene	9.372	128	401231	42.90	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	101571	40.46	ug/L	99

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

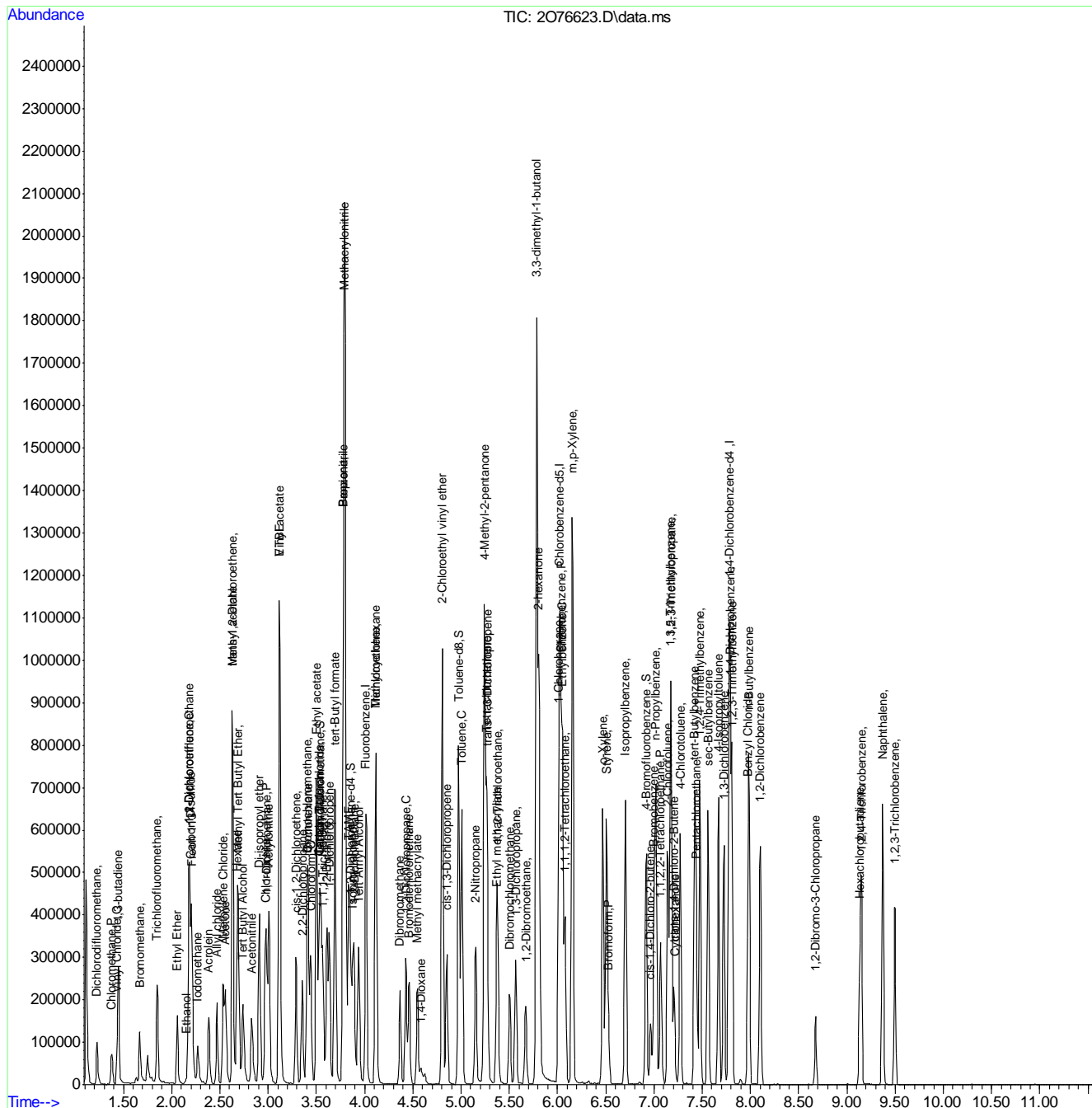


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.2  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76623.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:47      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

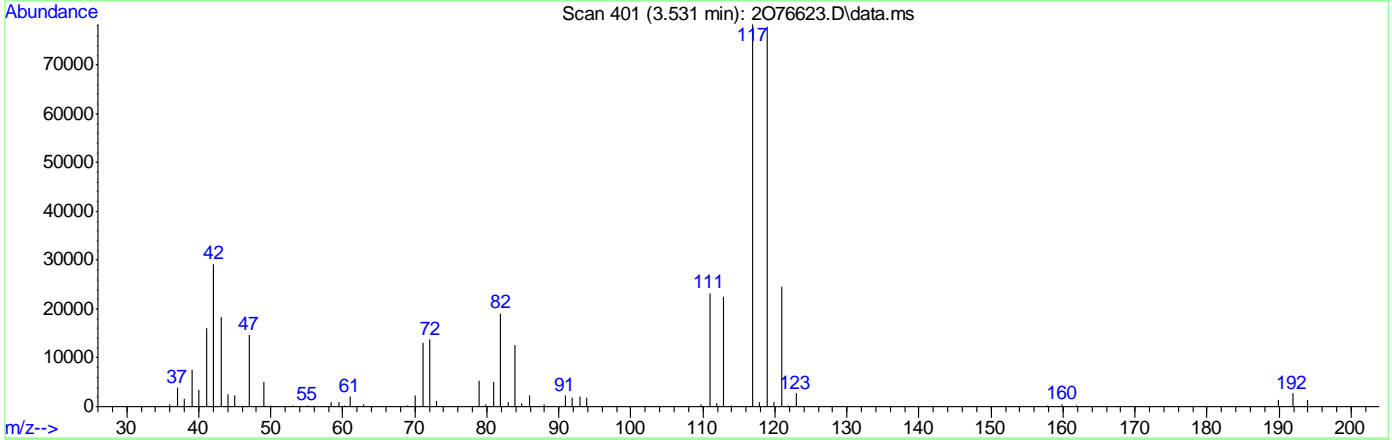
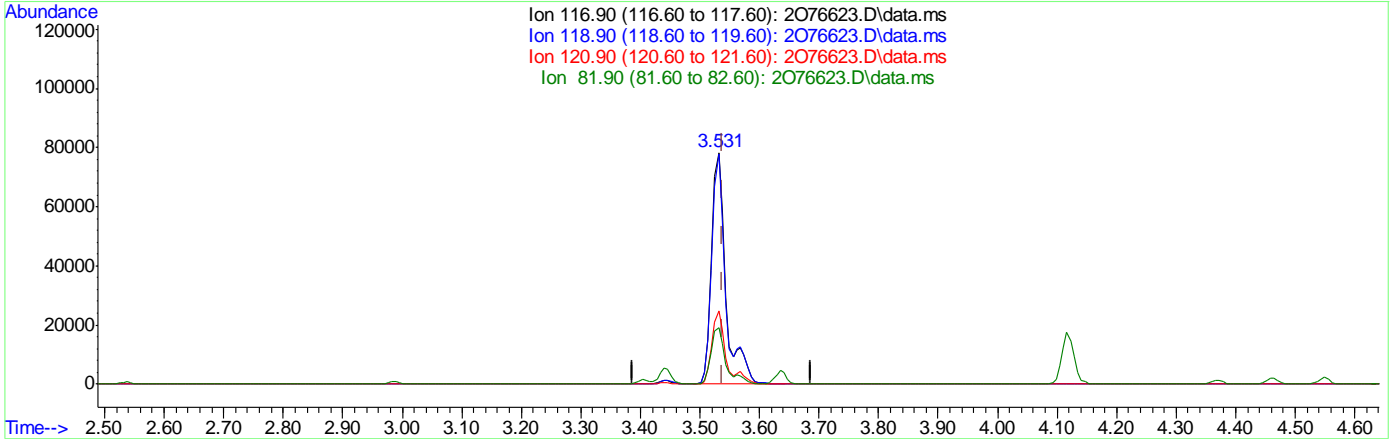
7.6.2.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.007) 56.30ug/L

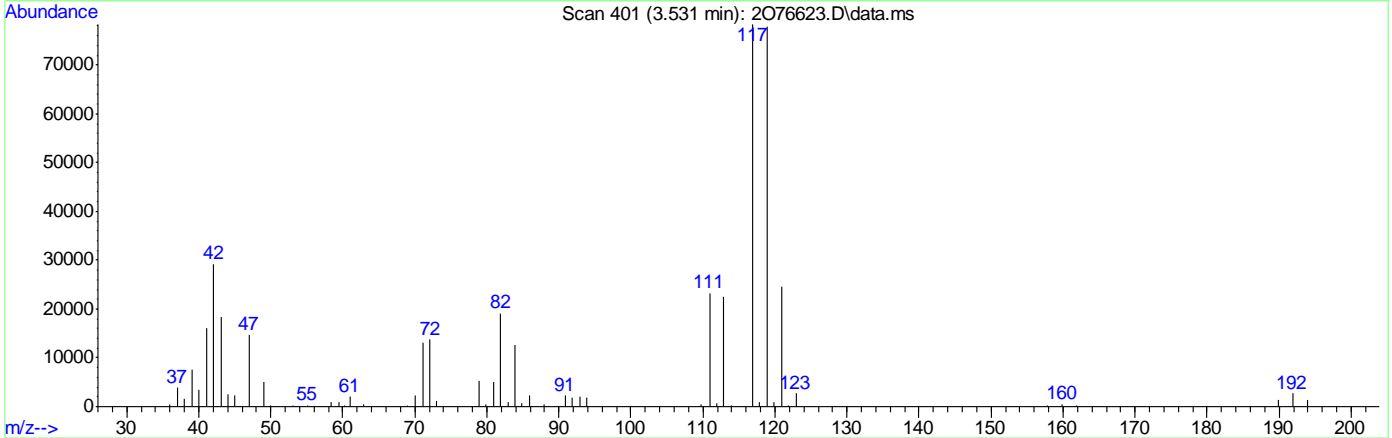
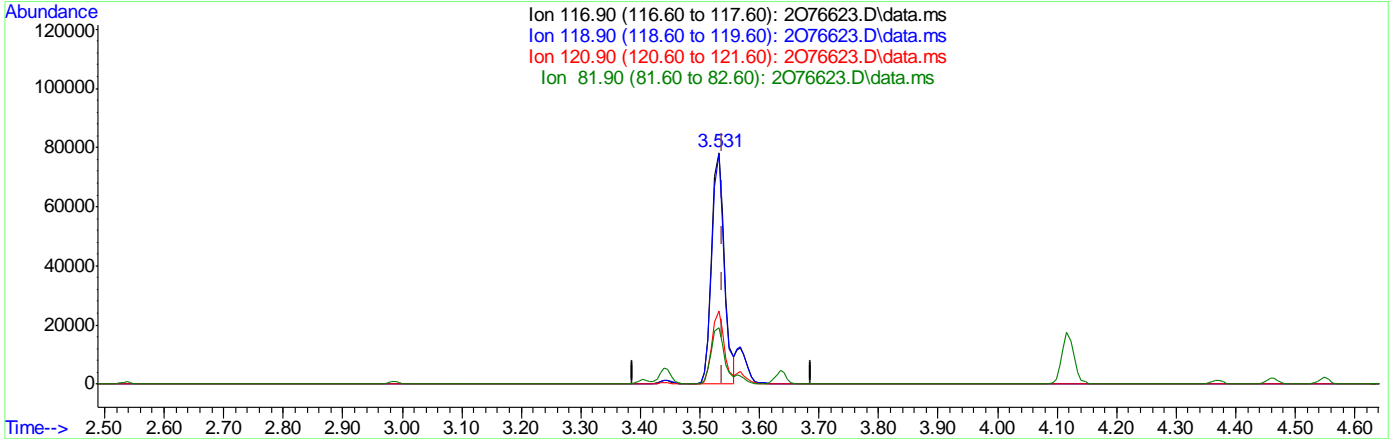
response 133150

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.531min (-0.007) 49.30ug/L m  
 response 116593

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

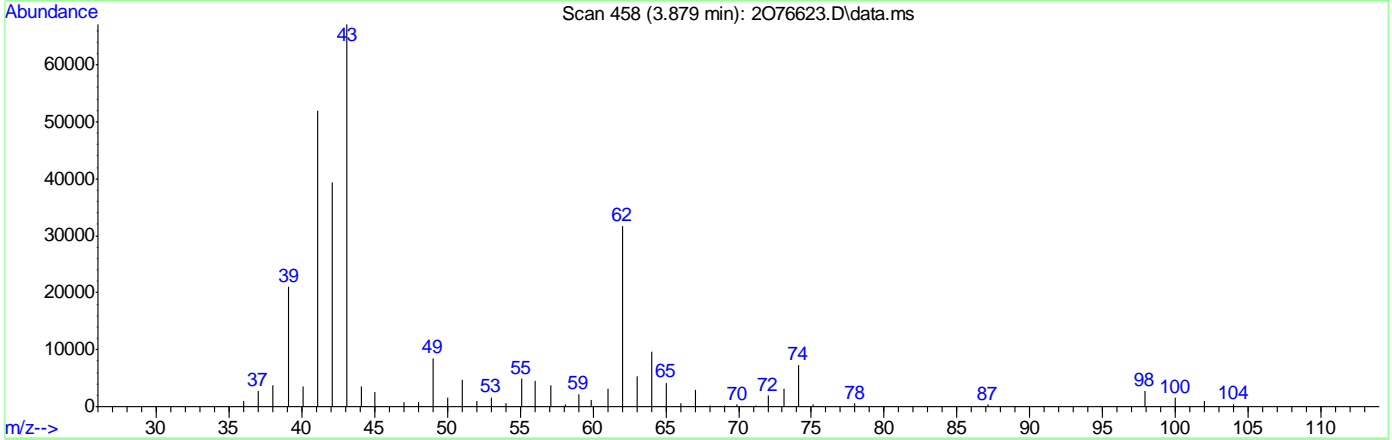
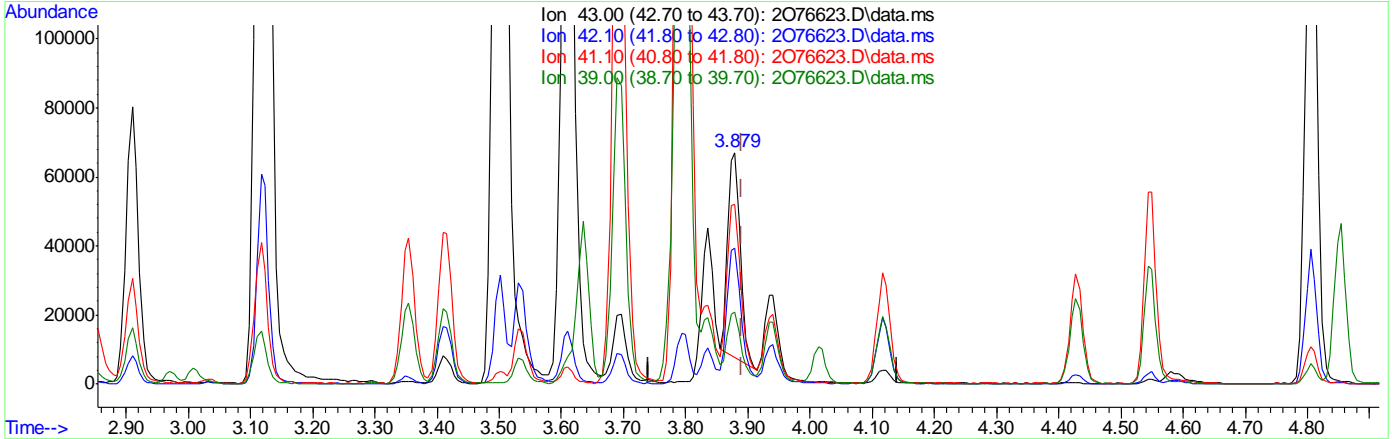
7.6.2.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 498.42ug/L  
 response 80281

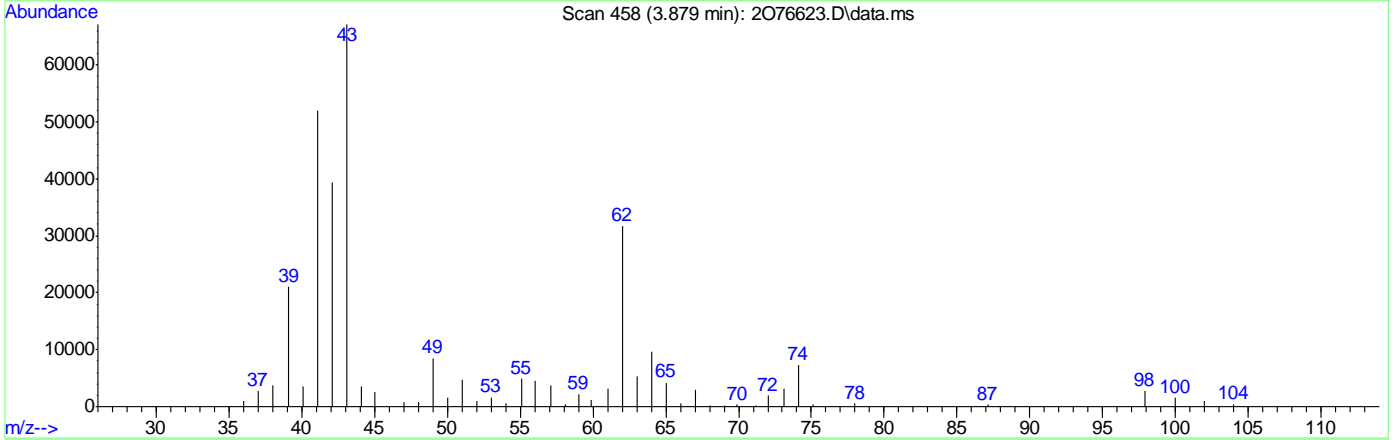
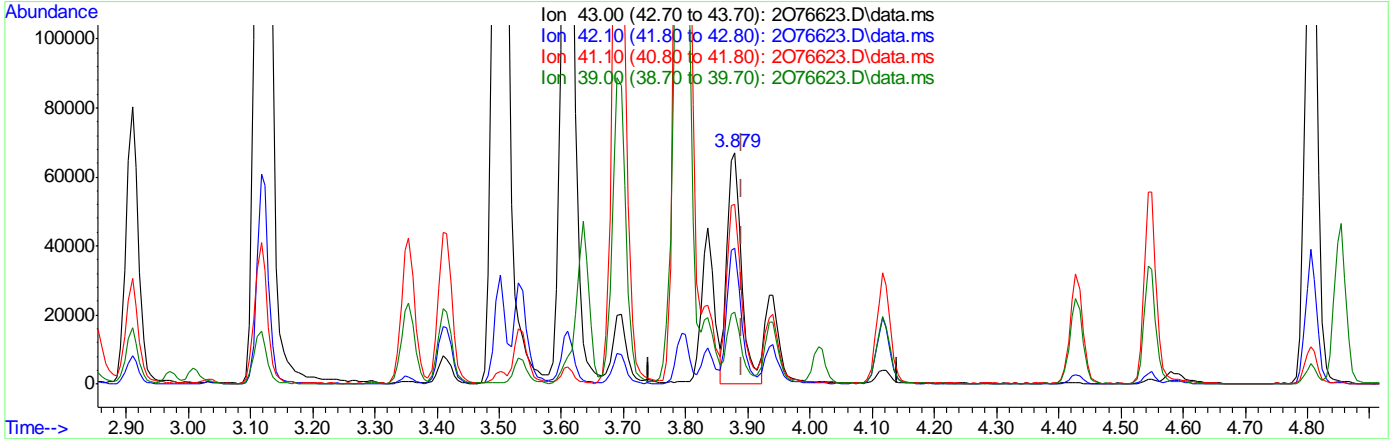
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.10
41.10	73.50	75.61
39.00	30.20	29.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 664.69ug/L m  
 response 109378

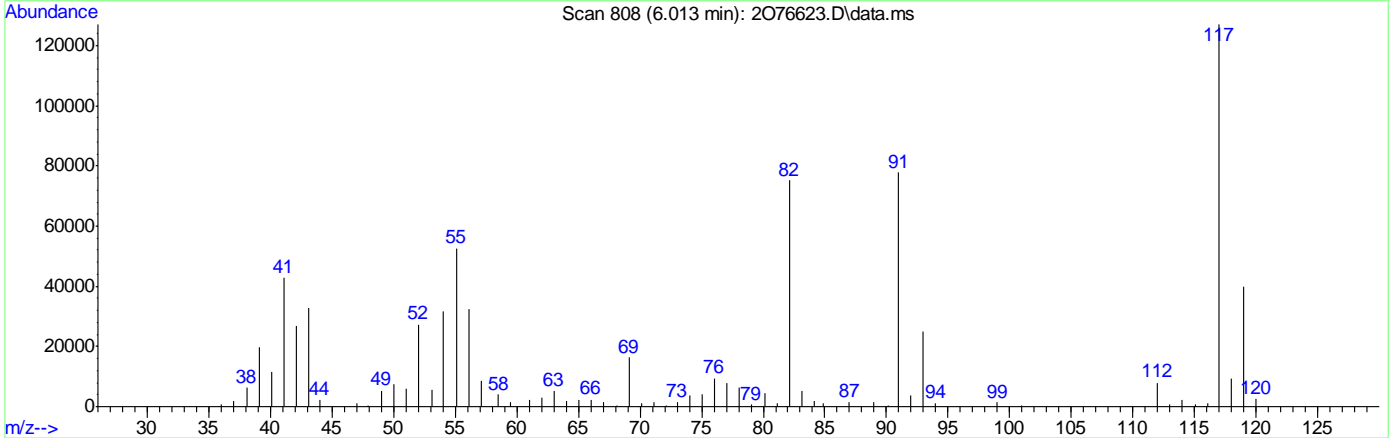
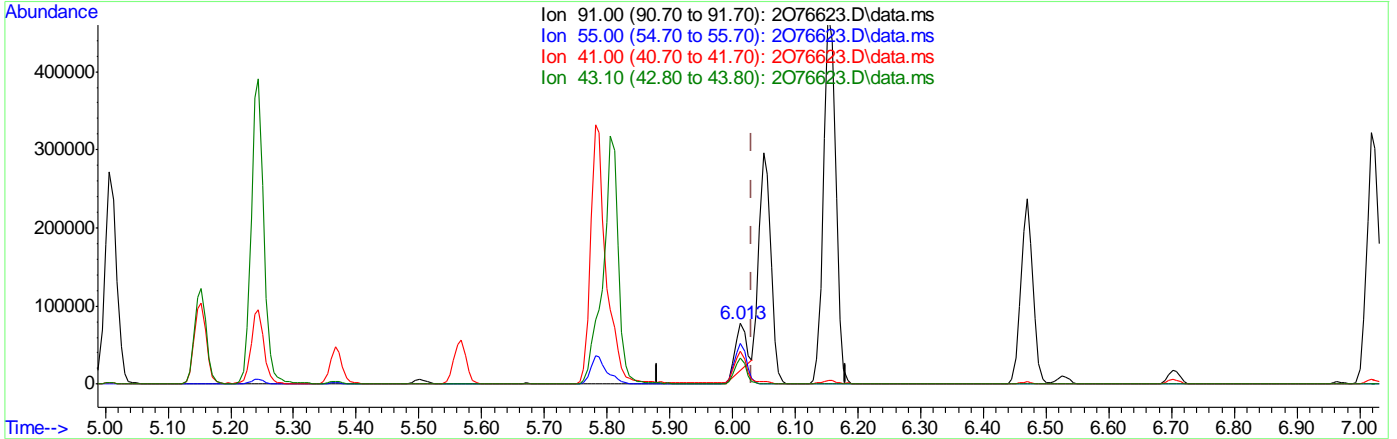
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.52
41.10	73.50	77.53
39.00	30.20	31.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 25.37ug/L  
 response 70207

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.82
41.00	53.70	53.12
43.10	42.30	41.64

7.6.2.6  
7

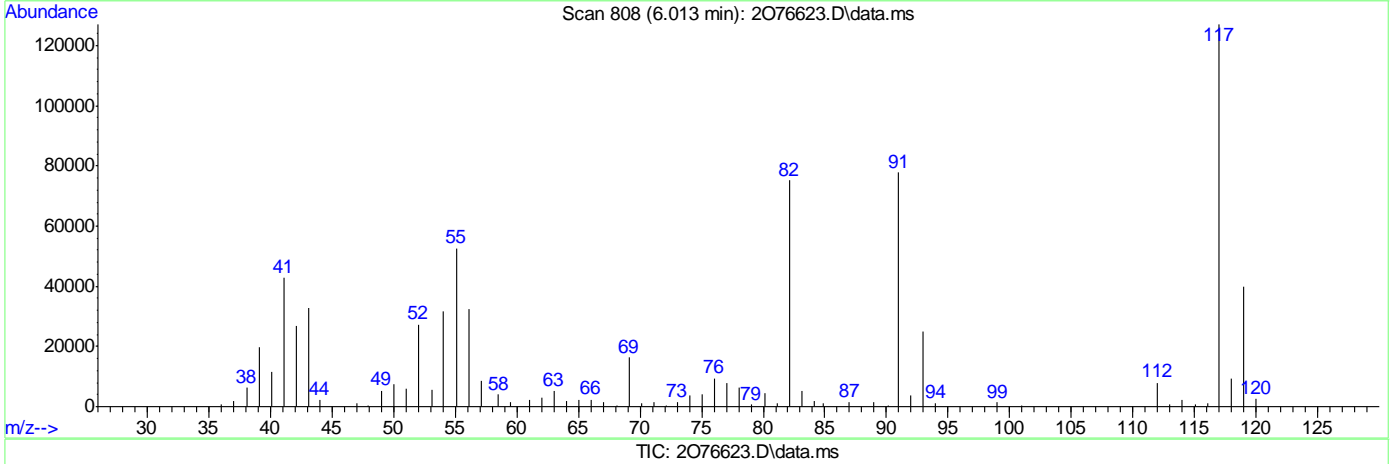
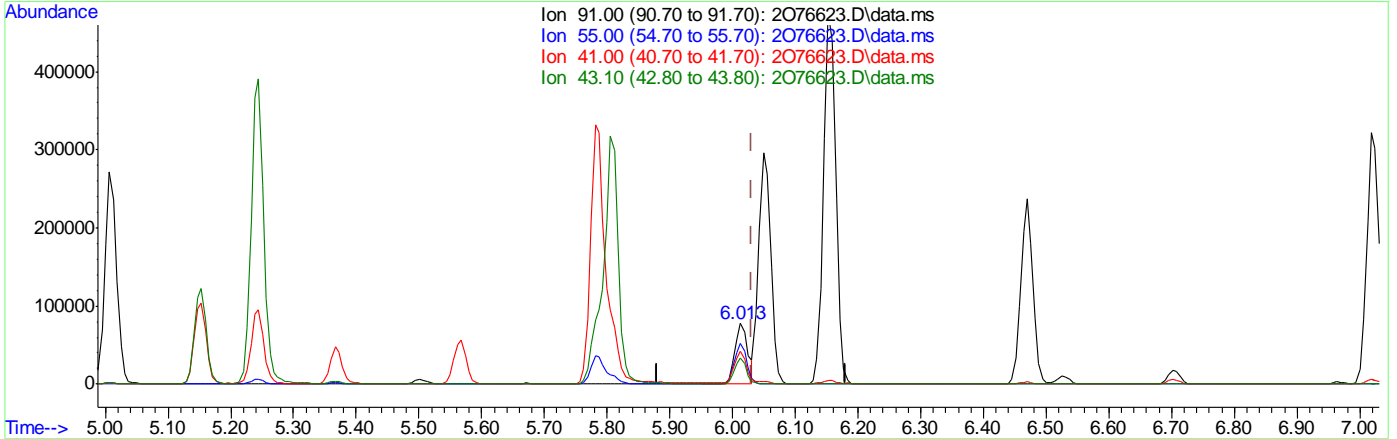


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 40.12ug/L m  
 response 111025

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	67.57
41.00	53.70	55.03
43.10	42.30	42.37

7.6.27  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	423665	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	315924	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	168870	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	116494	49.61	ug/L	-0.01
Spiked Amount	50.000	Range 83	- 118	Recovery =	99.22%	
50) 1,2-Dichloroethane-d4	3.855	65	142277	57.00	ug/L	-0.01
Spiked Amount	50.000	Range 79	- 125	Recovery =	114.00%	
63) Toluene-d8	4.976	98	416533	48.35	ug/L	-0.01
Spiked Amount	50.000	Range 85	- 112	Recovery =	96.70%	
86) 4-Bromofluorobenzene	6.921	174	122505	47.54	ug/L	-0.02
Spiked Amount	50.000	Range 83	- 118	Recovery =	95.08%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	100849	58.43	ug/L	99
3) Chloromethane	1.373	50	103507	55.46	ug/L	97
4) 1,3-butadiene	1.446	39	100557	53.74	ug/L	94
5) Vinyl Chloride	1.434	62	108811	58.72	ug/L	99
6) Bromomethane	1.666	94	89131	62.81	ug/L	99
7) Chloroethane	1.745	64	28937	31.72	ug/L	97
8) Trichlorofluoromethane	1.843	101	206704	62.81	ug/L	99
9) Ethyl Ether	2.056	59	100657	68.95	ug/L	97
10) Ethanol	2.166	45	45124	1190.84	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	134609	61.95	ug/L	98
12) 1,1-Dichloroethene	2.178	61	167189	59.91	ug/L	98
13) Freon 113	2.209	101	115717	62.28	ug/L	97
14) Carbon Disulfide	2.196	76	314715	58.06	ug/L	97
15) Iodomethane	2.269	142	127042	43.80	ug/L	93
16) Acrolein	2.385	56	171860	323.56	ug/L	99
17) Allyl chloride	2.471	41	127695	59.09	ug/L	93
18) Methylene Chloride	2.532	49	156334	62.56	ug/L	97
19) Acetone	2.556	43	336383	315.66	ug/L	97
20) Methyl acetate	2.629	43	791518	323.01	ug/L	100
21) trans-1,2-Dichloroethene	2.629	61	170176	63.78	ug/L	97
22) Hexane	2.678	56	84377	59.87	ug/L	# 87
23) Methyl Tert Butyl Ether	2.690	73	379116	74.05	ug/L	98
24) Tert Butyl Alcohol	2.745	59	262994	604.66	ug/L	96
25) Acetonitrile	2.830	41	243690	607.24	ug/L	99
26) Di-isopropyl ether	2.910	45	365675	67.33	ug/L	97
27) Chloroprene	2.971	53	161613	63.30	ug/L	99
28) 1,1-Dichloroethane	2.983	63	227817	65.76	ug/L	99
29) Acrylonitrile	3.007	52	313540	303.79	ug/L	100
30) ETBE	3.117	59	359432	72.96	ug/L	97
31) Vinyl acetate	3.117	43	1341282	338.65	ug/L	100
32) cis-1,2-Dichloroethene	3.288	96	146825	68.22	ug/L	99
33) 2,2-Dichloropropane	3.355	77	157544	67.70	ug/L	99
34) Bromochloromethane	3.403	128	69690	60.06	ug/L	97
35) Cyclohexane	3.410	56	172963	60.42	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	257838	68.71	ug/L	98
37) Ethyl acetate	3.501	43	980406	315.07	ug/L	99
38) Tetrahydrofuran	3.531	42	72748	60.80	ug/L	99
40) Carbon Tetrachloride	3.531	117	172538	73.42	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	208373	68.43	ug/L	99
42) 2-Butanone	3.611	43	541327	306.25	ug/L	100
43) 1,1-Dichloropropene	3.635	75	170522	64.88	ug/L	96
44) tert-Butyl formate	3.696	59	265084	326.95	ug/L #	86
45) Propionitrile	3.781	54	333946	636.63	ug/L	96
46) Methacrylonitrile	3.794	41	1143273	643.92	ug/L	100
47) Benzene	3.775	78	516853	66.50	ug/L	96
48) TAME	3.836	73	352467	76.43	ug/L	99
49) Isobutyl alcohol	3.879	43	218491m	1244.36	ug/L	
51) 1,2-Dichloroethane	3.891	62	209385	75.62	ug/L	97
52) Tert Amyl Alcohol	3.940	59	199779	579.86	ug/L	99
53) Trichloroethene	4.117	95	145175	64.81	ug/L	97
54) Methylcyclohexane	4.117	83	181410	61.88	ug/L	97
55) Dibromomethane	4.367	93	101623	72.12	ug/L	97
56) 1,2-Dichloropropane	4.428	63	127319	69.86	ug/L	97
57) Bromodichloromethane	4.464	83	186925	74.89	ug/L	99
58) Methyl methacrylate	4.543	41	143720	70.50	ug/L	97
59) 1,4-Dioxane	4.586	88	55008	1334.34	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	564785	356.82	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	210443	69.62	ug/L	97
64) Toluene	5.007	91	555074	64.12	ug/L	100
65) 2-Nitropropane	5.153	41	252315	376.86	ug/L	96
66) 4-Methyl-2-pentanone	5.245	43	957840	309.62	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	211865	70.94	ug/L	98
68) Tetrachloroethene	5.263	166	143361	58.44	ug/L	95
69) Ethyl methacrylate	5.366	69	178886	67.40	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	120928	69.22	ug/L	97
71) Dibromochloromethane	5.507	129	154347	70.15	ug/L	98
72) 1,3-Dichloropropane	5.568	76	228588	71.43	ug/L	98
73) 1,2-Dibromoethane	5.671	107	158388	72.45	ug/L	99
74) 3,3-dimethyl-1-butanol	5.787	57	1473088	3241.40	ug/L	98
75) 2-hexanone	5.805	43	984752	320.43	ug/L	94
76) 1-Chlorohexane	6.013	91	165854m	60.86	ug/L	
77) Ethylbenzene	6.049	91	613129	65.66	ug/L	96
78) Chlorobenzene	6.037	112	386620	66.07	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	137976	75.30	ug/L	99
80) m,p-Xylene	6.153	91	980876	134.97	ug/L	97
81) o-Xylene	6.470	91	502925	68.55	ug/L	97
82) Styrene	6.506	104	410291	71.17	ug/L	98
83) Bromoform	6.531	173	97638	66.87	ug/L	98
84) Isopropylbenzene	6.702	105	581839	65.77	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	47332	61.88	ug/L #	90
88) n-Propylbenzene	7.019	91	686570	65.58	ug/L	99
89) Bromobenzene	7.000	156	156022	67.16	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	230627	72.35	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	510371	69.05	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	484219	68.60	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.208	53	45900	63.10	ug/L	97
94) 1,2,3-Trichloropropane	7.177	110	73408	69.98	ug/L	98
95) Cyclohexanone	7.214	55	44123	303.29	ug/L	97
96) 4-Chlorotoluene	7.275	91	458711	70.60	ug/L	99
97) tert-Butylbenzene	7.421	91	271714	68.05	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	518007	70.93	ug/L	99
100) Pentachloroethane	7.439	167	77272	68.77	ug/L	92
101) sec-Butylbenzene	7.561	105	569271	64.35	ug/L	99
102) 4-Isopropyltoluene	7.671	119	513765	66.55	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	309150	67.34	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	546431	71.49	ug/L	100
105) 1,4-Dichlorobenzene	7.793	146	309008	66.44	ug/L	99
106) n-Butylbenzene	7.988	92	259526	65.14	ug/L	97
107) Benzyl Chloride	7.976	126	67210	64.09	ug/L #	75
108) 1,2-Dichlorobenzene	8.104	146	295952	68.32	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.677	75	53148	72.66	ug/L	82
110) Hexachlorobutadiene	9.134	225	53585	55.45	ug/L	97
111) 1,2,4-Trichlorobenzene	9.152	180	175830	66.86	ug/L	99
112) Naphthalene	9.372	128	686038	73.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	168246	67.37	ug/L	99

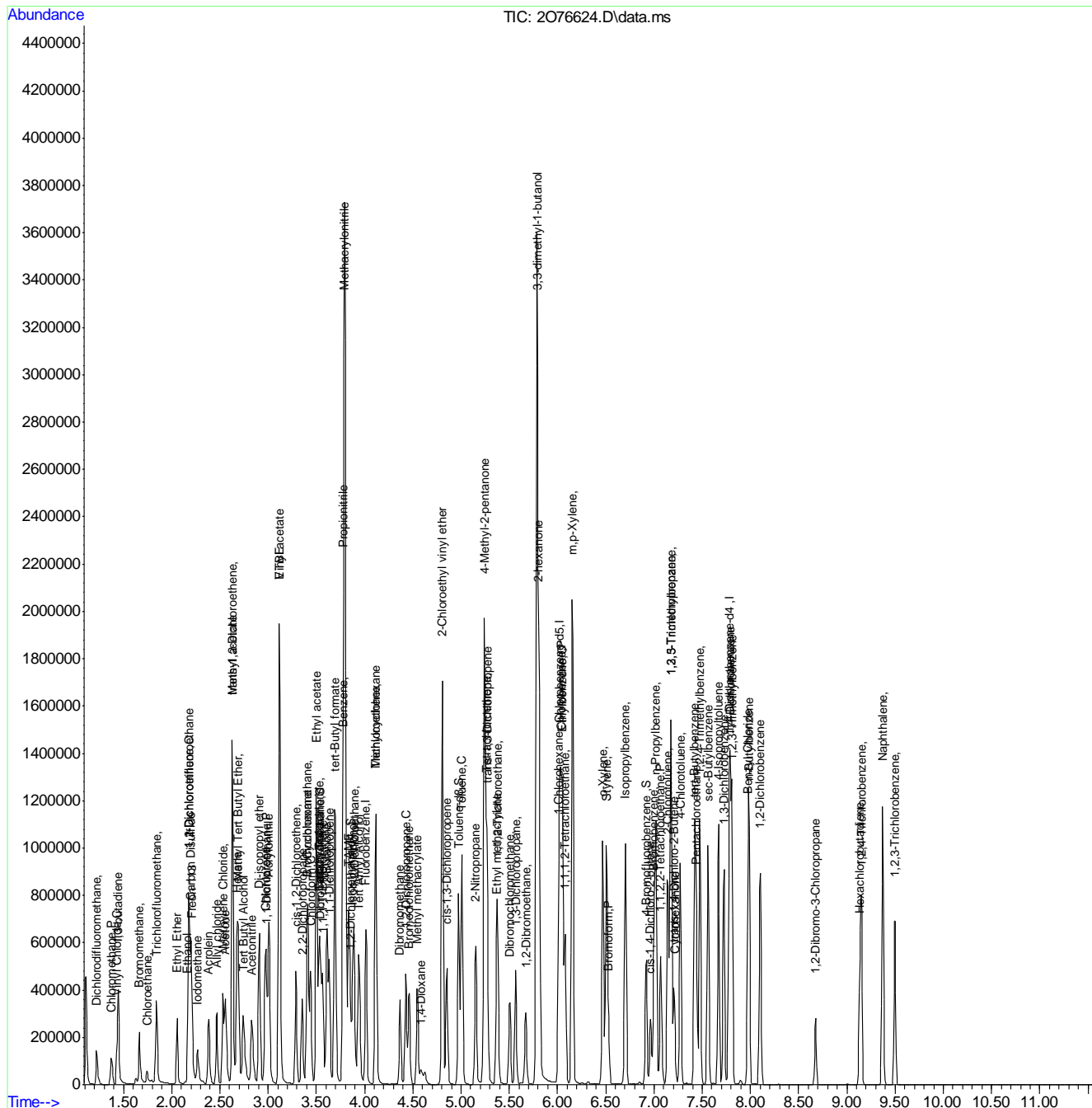
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
Data File : 2076624.D  
Acq On : 7 Jun 2023 12:13 pm  
Operator : joannel  
Sample : IC2981-6  
Misc : MS54147,V202981,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:55 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Tue Apr 11 14:22:12 2023  
Response via : Initial Calibration



7.6.3  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76624.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:13      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

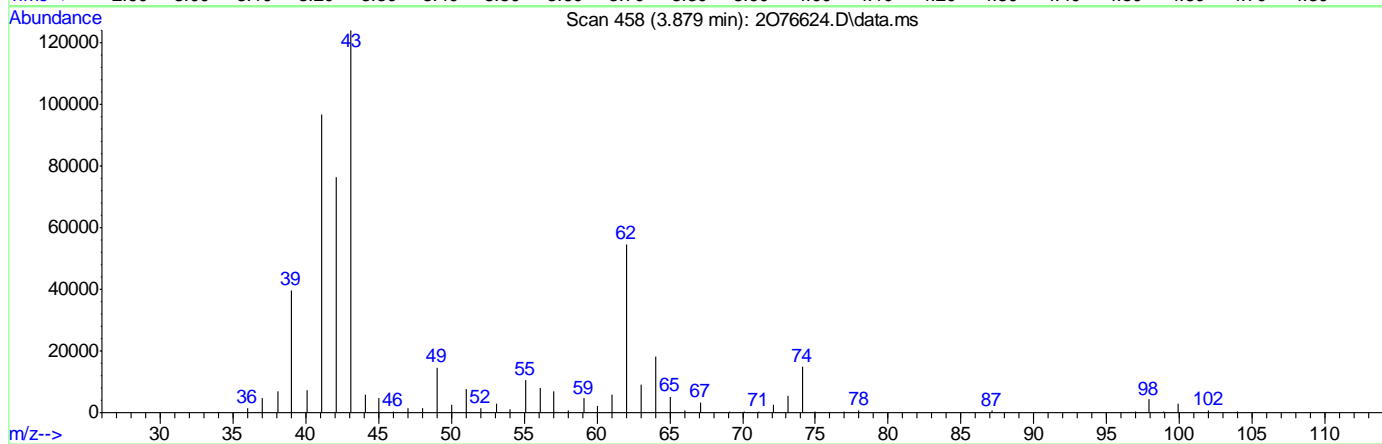
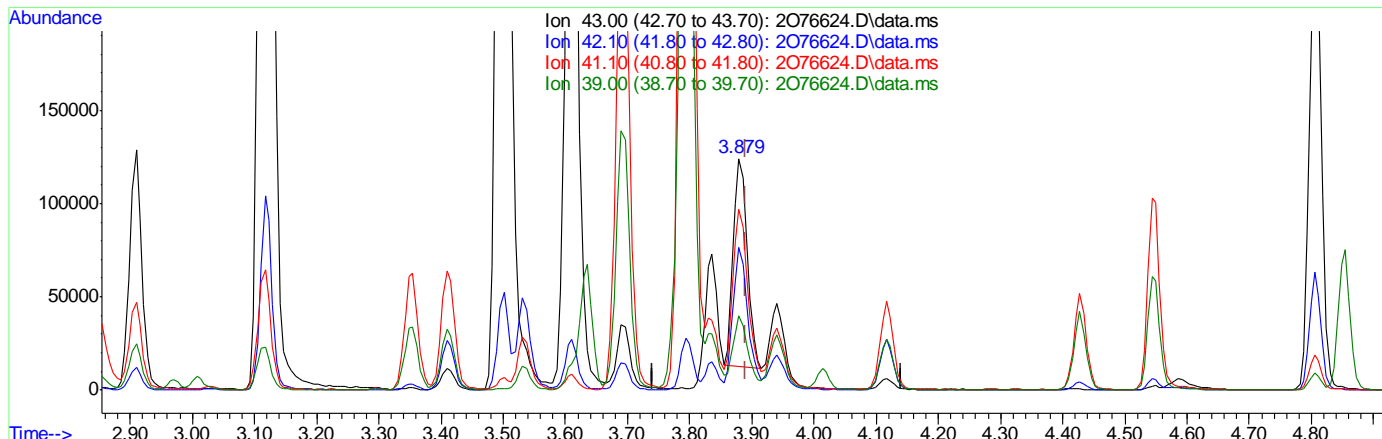
7.6.3.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1012.80ug/L  
 response 172947

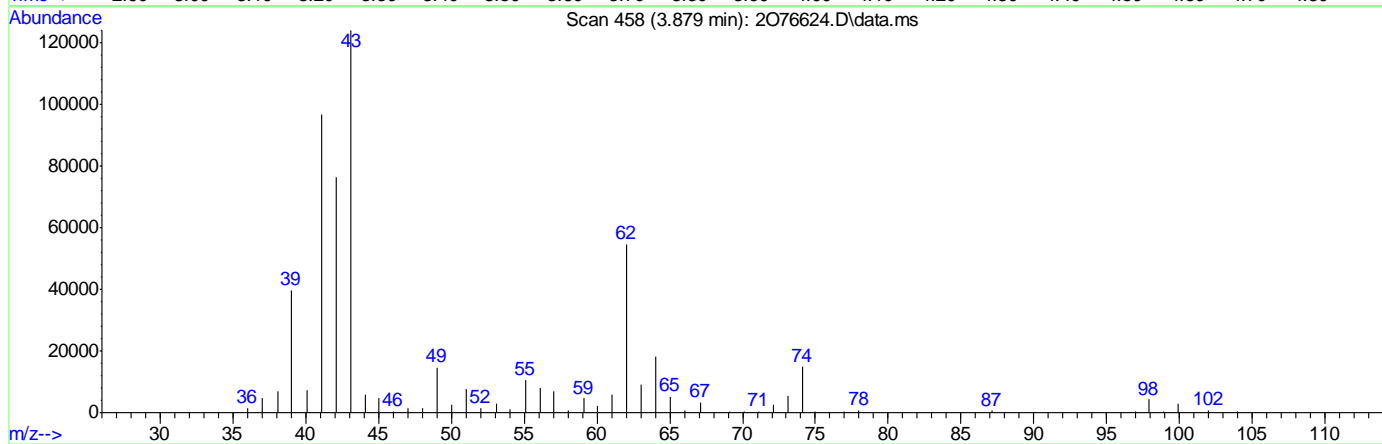
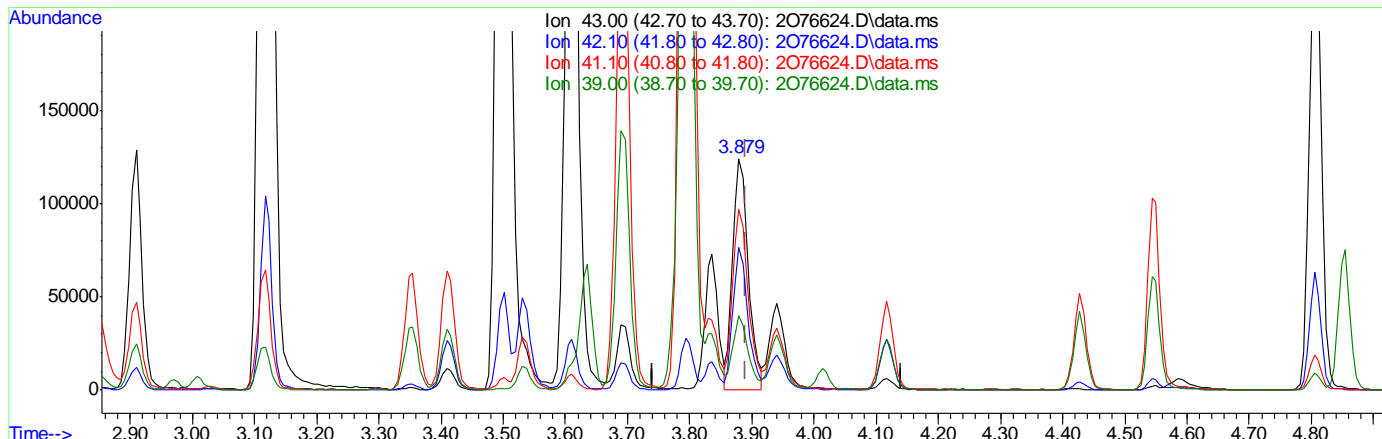
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.34
41.10	73.50	76.80
39.00	30.20	30.77

7.6.3.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1244.36ug/L m  
 response 218491

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	61.69
41.10	73.50	77.87
39.00	30.20	32.07

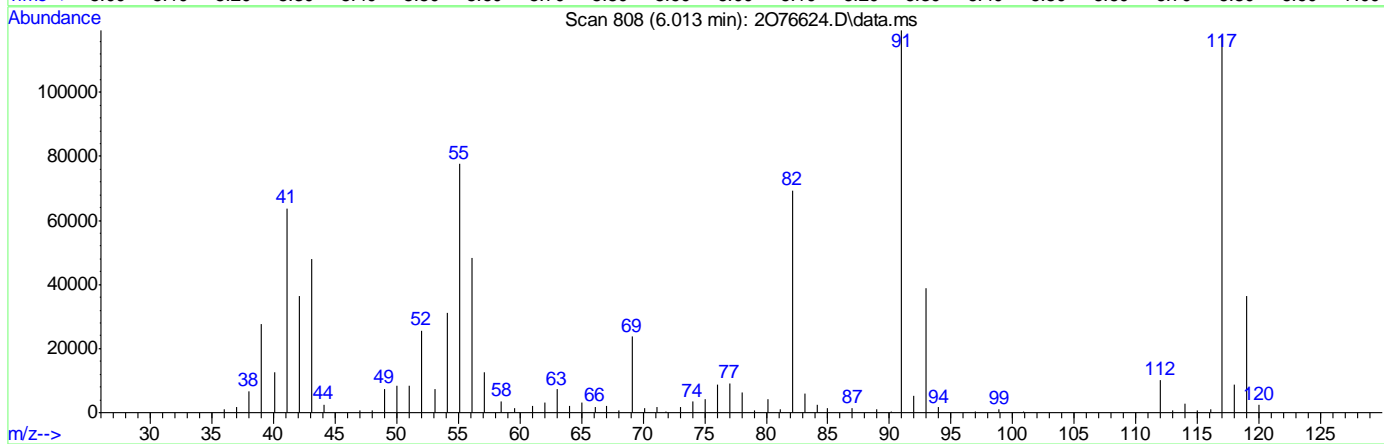
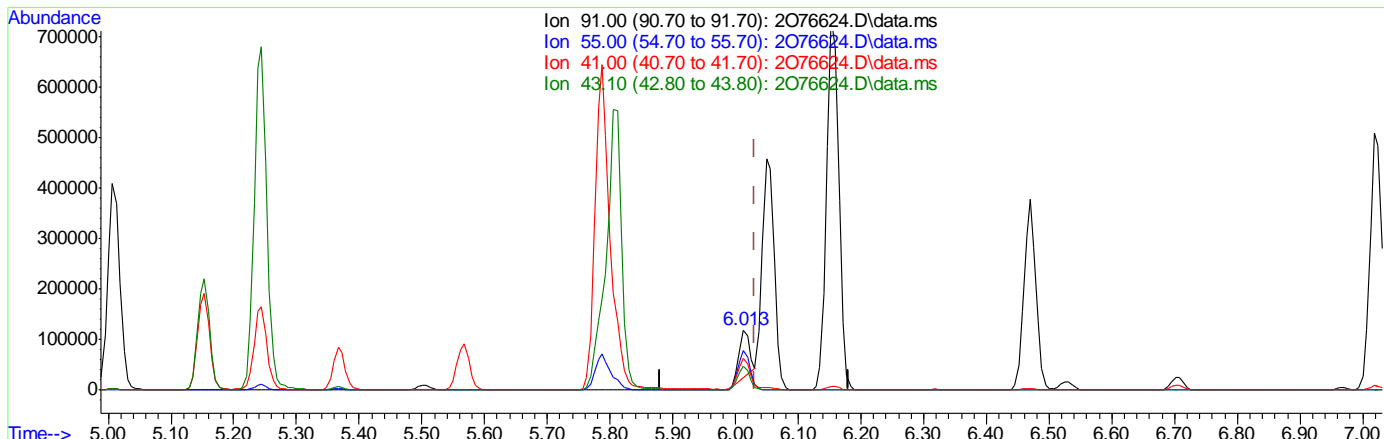
7.6.3.3  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 39.66ug/L  
 response 108079

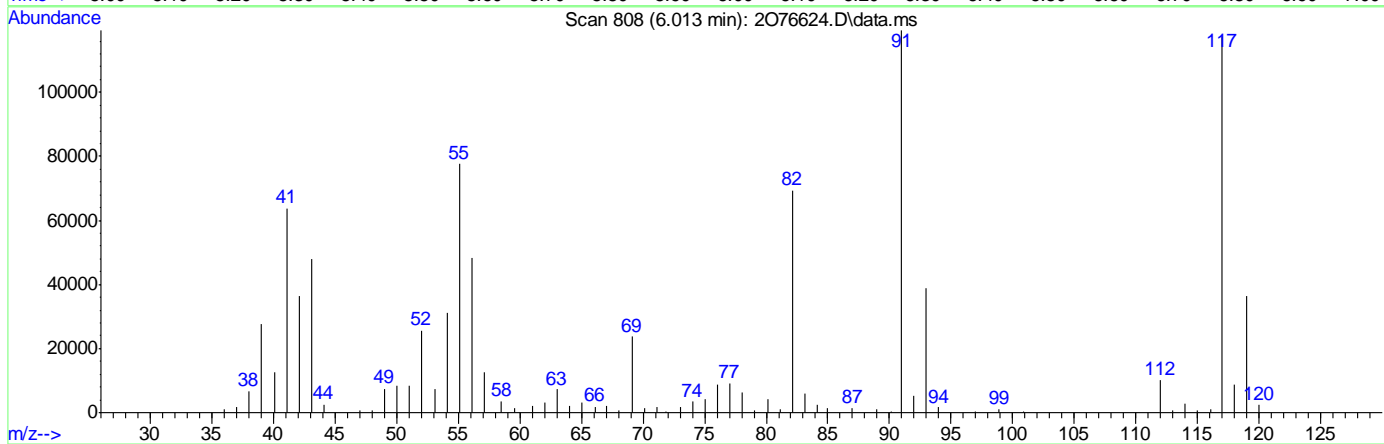
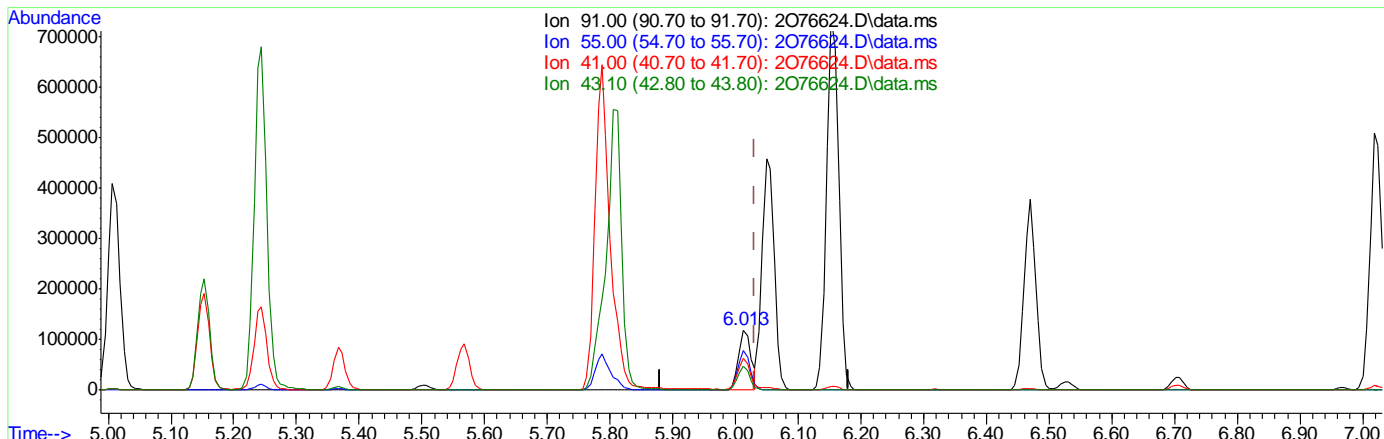
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.86
41.00	53.70	51.75
43.10	42.30	39.21

7.6.3.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.86ug/L m  
 response 165854

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.97
41.00	53.70	53.44
43.10	42.30	40.11

7.6.3.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	433256	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	322297	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	172872	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	118111	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.855	65	149180	58.45	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	116.90%	
63) Toluene-d8	4.976	98	426463	48.52	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	97.04%	
86) 4-Bromofluorobenzene	6.921	174	126830	48.08	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.16%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	154832	87.72	ug/L		99
3) Chloromethane	1.373	50	158001	82.79	ug/L		99
4) 1,3-butadiene	1.447	39	152254	79.57	ug/L		95
5) Vinyl Chloride	1.434	62	161177	85.05	ug/L		100
6) Bromomethane	1.666	94	138564	95.48	ug/L		97
7) Chloroethane	1.745	64	37255	Below Cal			98
8) Trichlorofluoromethane	1.843	101	273183	81.18	ug/L		100
9) Ethyl Ether	2.056	59	148178	99.26	ug/L		95
10) Ethanol	2.184	45	65160	1689.95	ug/L		86
11) 1,2-Dichlorotrifluoro...	2.178	67	209673	94.36	ug/L		96
12) 1,1-Dichloroethene	2.178	61	266847	93.50	ug/L		97
13) Freon 113	2.203	101	187646	98.76	ug/L		95
14) Carbon Disulfide	2.196	76	506075	91.29	ug/L		96
15) Iodomethane	2.270	142	194130	65.45	ug/L		94
16) Acrolein	2.385	56	250615	461.38	ug/L		99
17) Allyl chloride	2.465	41	195681	88.55	ug/L		95
18) Methylene Chloride	2.532	49	231703	92.70	ug/L		95
19) Acetone	2.562	43	488394	448.16	ug/L		99
20) Methyl acetate	2.629	43	1152477	459.90	ug/L		100
21) trans-1,2-Dichloroethene	2.629	61	264868	97.07	ug/L		99
22) Hexane	2.678	56	131823	91.47	ug/L		95
23) Methyl Tert Butyl Ether	2.690	73	562842	107.51	ug/L		98
24) Tert Butyl Alcohol	2.745	59	396953	850.50	ug/L		96
25) Acetonitrile	2.830	41	343309	836.54	ug/L		100
26) Di-isopropyl ether	2.910	45	544203	97.98	ug/L		96
27) Chloroprene	2.971	53	250987	96.13	ug/L		99
28) 1,1-Dichloroethane	2.983	63	349182	98.56	ug/L		99
29) Acrylonitrile	3.007	52	470696	445.96	ug/L		99
30) ETBE	3.117	59	540669	107.32	ug/L		98
31) Vinyl acetate	3.117	43	2036191	502.73	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	222184	100.95	ug/L		99
33) 2,2-Dichloropropane	3.355	77	250772	105.38	ug/L		98
34) Bromochloromethane	3.403	128	102826	86.66	ug/L		97
35) Cyclohexane	3.410	56	272861	93.21	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	388206	101.16	ug/L	98
37) Ethyl acetate	3.501	43	1473279	462.98	ug/L	99
38) Tetrahydrofuran	3.532	42	98804	80.74	ug/L	99
40) Carbon Tetrachloride	3.532	117	272511m	113.39	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	323940	104.03	ug/L	99
42) 2-Butanone	3.611	43	782113	432.68	ug/L	100
43) 1,1-Dichloropropene	3.635	75	263726	98.13	ug/L	98
44) tert-Butyl formate	3.696	59	383901	434.88	ug/L #	84
45) Propionitrile	3.788	54	482356	899.20	ug/L #	69
46) Methacrylonitrile	3.794	41	1642400	904.56	ug/L	99
47) Benzene	3.775	78	777336	97.80	ug/L	92
48) TAME	3.836	73	526926	111.74	ug/L	97
49) Isobutyl alcohol	3.885	43	311768m	1655.53	ug/L	
51) 1,2-Dichloroethane	3.891	62	305567	107.91	ug/L	97
52) Tert Amyl Alcohol	3.946	59	304927	822.29	ug/L	97
53) Trichloroethene	4.117	95	221816	96.83	ug/L	96
54) Methylcyclohexane	4.117	83	284066	94.75	ug/L	98
55) Dibromomethane	4.367	93	149138	103.50	ug/L	97
56) 1,2-Dichloropropane	4.428	63	189407	101.62	ug/L	97
57) Bromodichloromethane	4.464	83	279284	109.42	ug/L	98
58) Methyl methacrylate	4.544	41	212851	102.10	ug/L	96
59) 1,4-Dioxane	4.592	88	81805	1872.87	ug/L	97
60) 2-Chloroethyl vinyl ether	4.806	63	769213	475.21	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	315045	98.50	ug/L	99
64) Toluene	5.007	91	837018	94.78	ug/L	98
65) 2-Nitropropane	5.153	41	377382	504.91	ug/L	95
66) 4-Methyl-2-pentanone	5.245	43	1396011	442.34	ug/L	97
67) trans-1,3-Dichloropropene	5.275	75	315849	100.62	ug/L	96
68) Tetrachloroethene	5.263	166	223153	89.16	ug/L	96
69) Ethyl methacrylate	5.367	69	267100	95.41	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	176175	98.85	ug/L	97
71) Dibromochloromethane	5.507	129	229177	97.70	ug/L	98
72) 1,3-Dichloropropane	5.568	76	330755	101.31	ug/L	98
73) 1,2-Dibromoethane	5.671	107	233268	104.59	ug/L	100
74) 3,3-dimethyl-1-butanol	5.787	57	2116704	4376.52	ug/L	97
75) 2-hexanone	5.812	43	1427082	455.18	ug/L	96
76) 1-Chlorohexane	6.013	91	255764m	91.99	ug/L	
77) Ethylbenzene	6.049	91	919962	96.57	ug/L	97
78) Chlorobenzene	6.037	112	581089	97.34	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	209239	111.93	ug/L	98
80) m,p-Xylene	6.153	91	1479333	199.54	ug/L	97
81) o-Xylene	6.470	91	764307	102.11	ug/L	98
82) Styrene	6.507	104	614748	104.52	ug/L	97
83) Bromoform	6.531	173	148273	93.22	ug/L	98
84) Isopropylbenzene	6.702	105	898177	99.52	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	75008	95.80	ug/L	89
88) n-Propylbenzene	7.019	91	1054008	98.35	ug/L	99
89) Bromobenzene	7.000	156	228969	96.27	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	340637	104.38	ug/L	99
91) 1,3,5-Trimethylbenzene	7.177	105	771187	101.92	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	726612	100.55	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.208	53	70393	89.94	ug/L	98
94) 1,2,3-Trichloropropane	7.177	110	106047	98.75	ug/L	99
95) Cyclohexanone	7.214	55	68594	460.58	ug/L	97
96) 4-Chlorotoluene	7.275	91	693150	104.22	ug/L	99
97) tert-Butylbenzene	7.421	91	419726	102.68	ug/L	93
99) 1,2,4-Trimethylbenzene	7.476	105	780540	104.40	ug/L	97
100) Pentachloroethane	7.439	167	119983	97.43	ug/L #	88
101) sec-Butylbenzene	7.561	105	880243	97.19	ug/L	99
102) 4-Isopropyltoluene	7.671	119	782205	98.98	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	459390	97.75	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	811442	103.71	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	466203	97.92	ug/L	98
106) n-Butylbenzene	7.988	92	398030	95.72	ug/L	97
107) Benzyl Chloride	7.976	126	105960	89.51	ug/L #	84
108) 1,2-Dichlorobenzene	8.104	146	438925	98.98	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	79711	100.80	ug/L	84
110) Hexachlorobutadiene	9.134	225	83962	82.87	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	259138	96.26	ug/L	98
112) Naphthalene	9.372	128	1012965	106.35	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	248101	97.04	ug/L	98

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



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76625.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:38      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.89	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

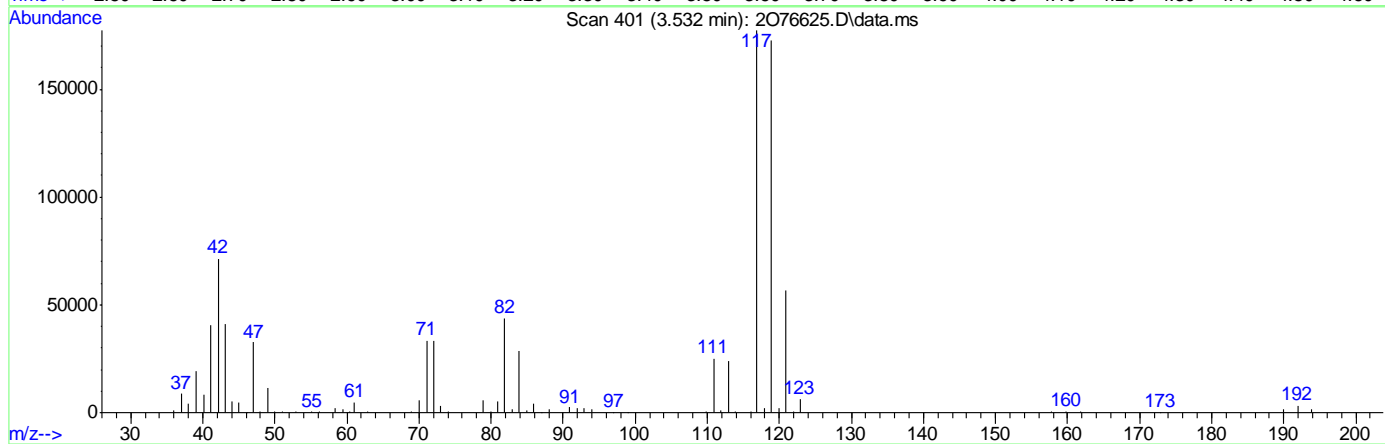
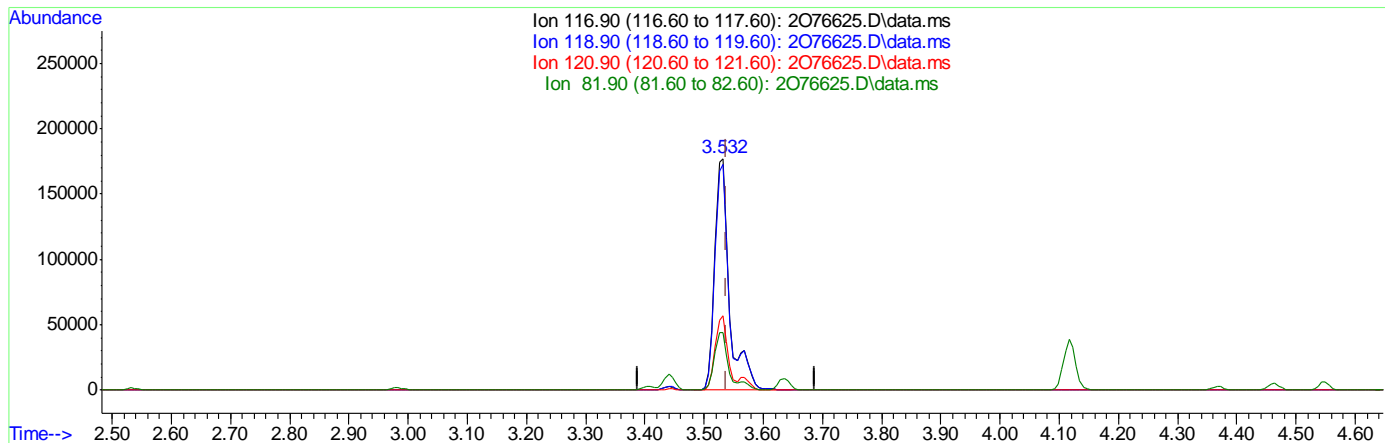
7.6.4.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
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 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 129.25ug/L

response 310617

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.61

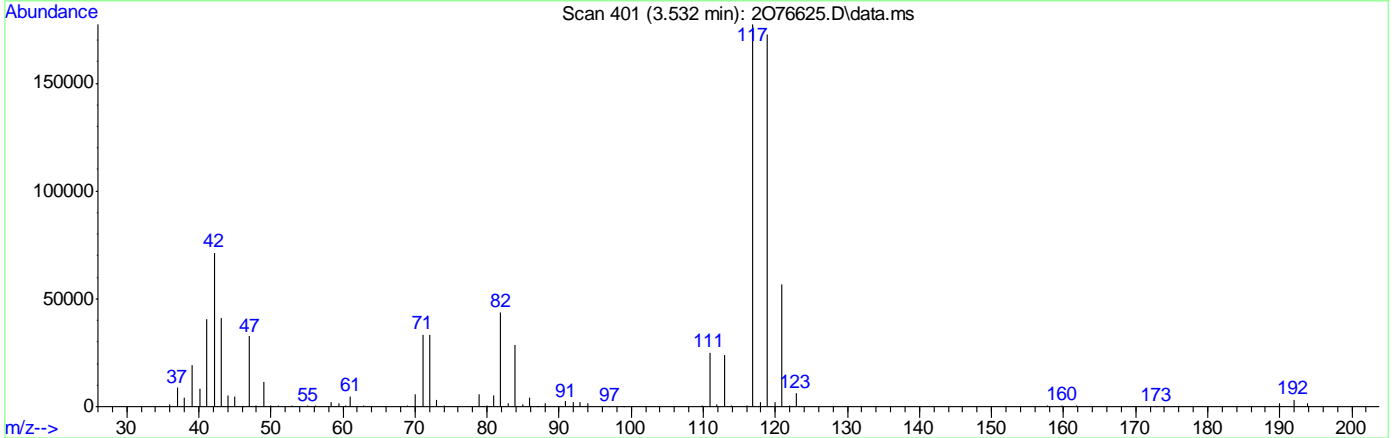
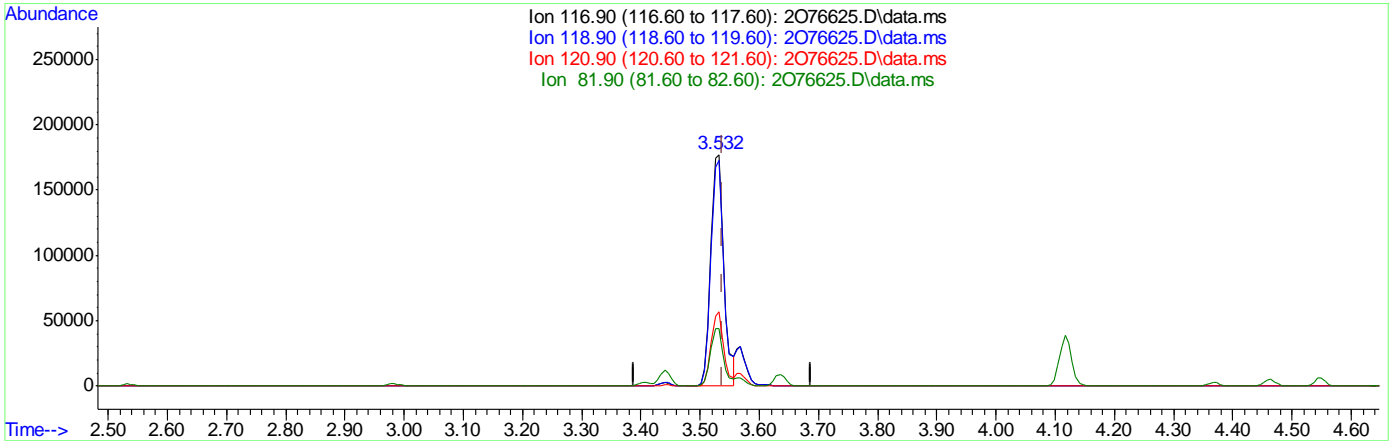
7.6.4.2  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
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Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 113.39ug/L m

response 272511

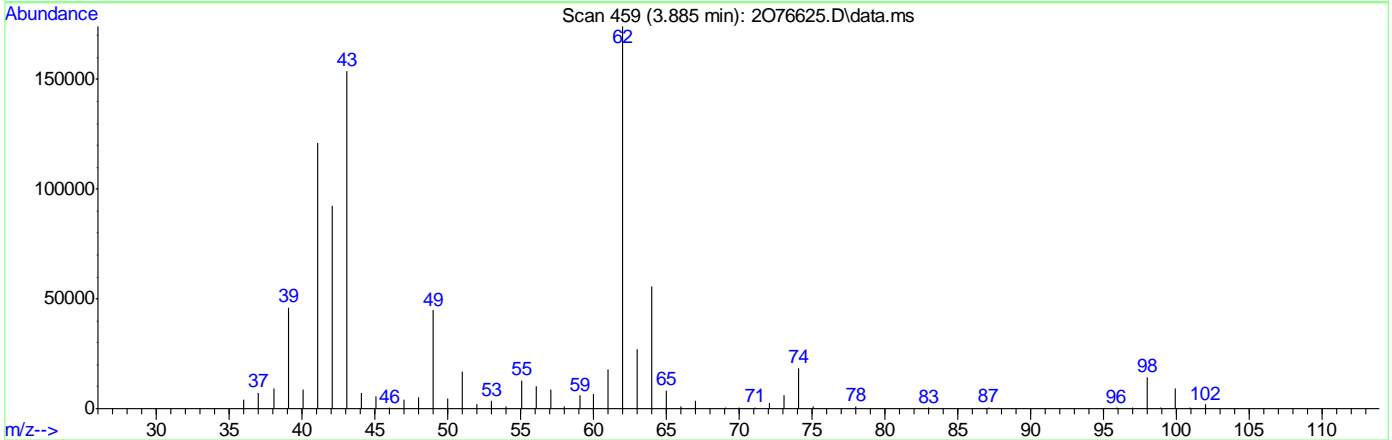
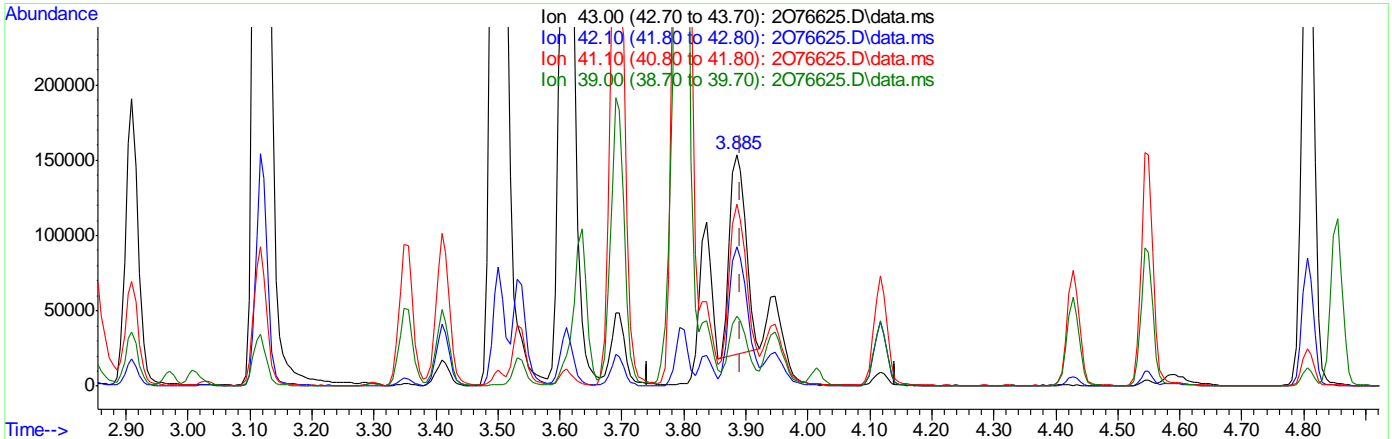
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.76

7.6.4.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
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 Response via : Initial Calibration



TIC: 2076625.D\data.ms

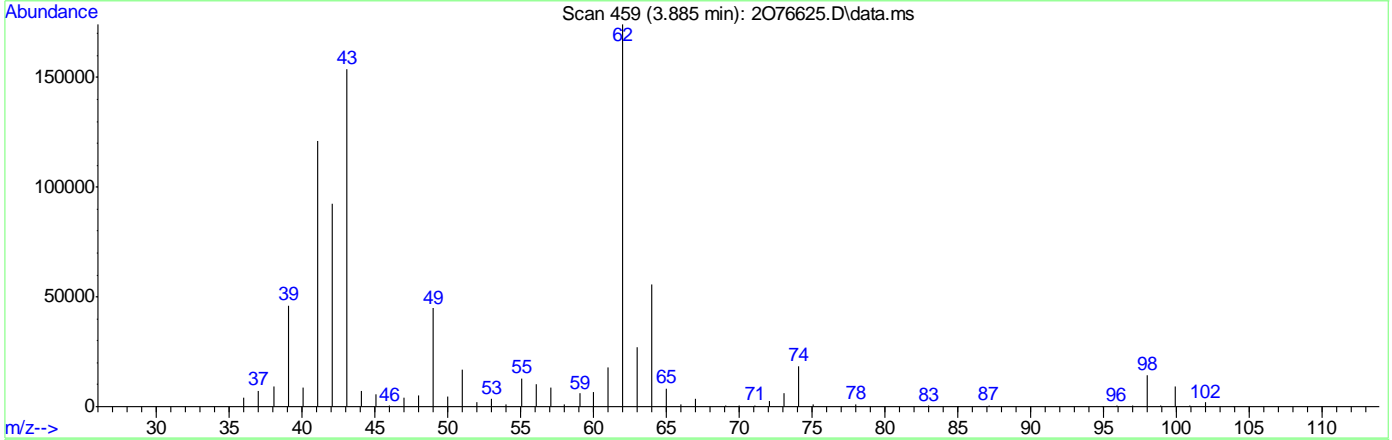
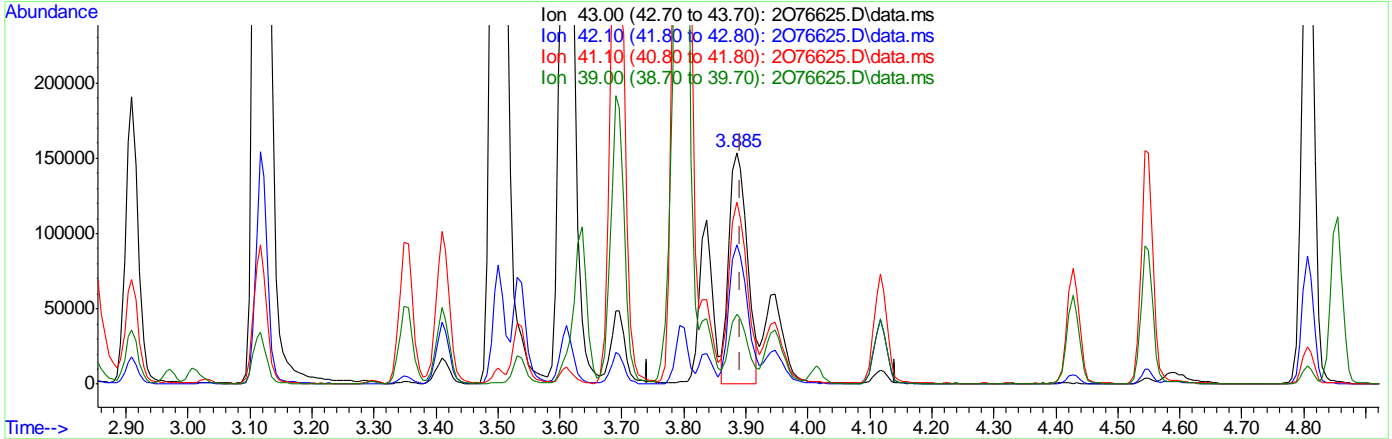
(49) Isobutyl alcohol  
 3.885min (-0.006) 1330.64ug/L  
 response 241376

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.63
41.10	73.50	78.41
39.00	30.20	26.55

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(49) Isobutyl alcohol  
 3.885min (-0.006) 1655.53ug/L m  
 response 311768

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	60.17
41.10	73.50	78.61
39.00	30.20	29.94

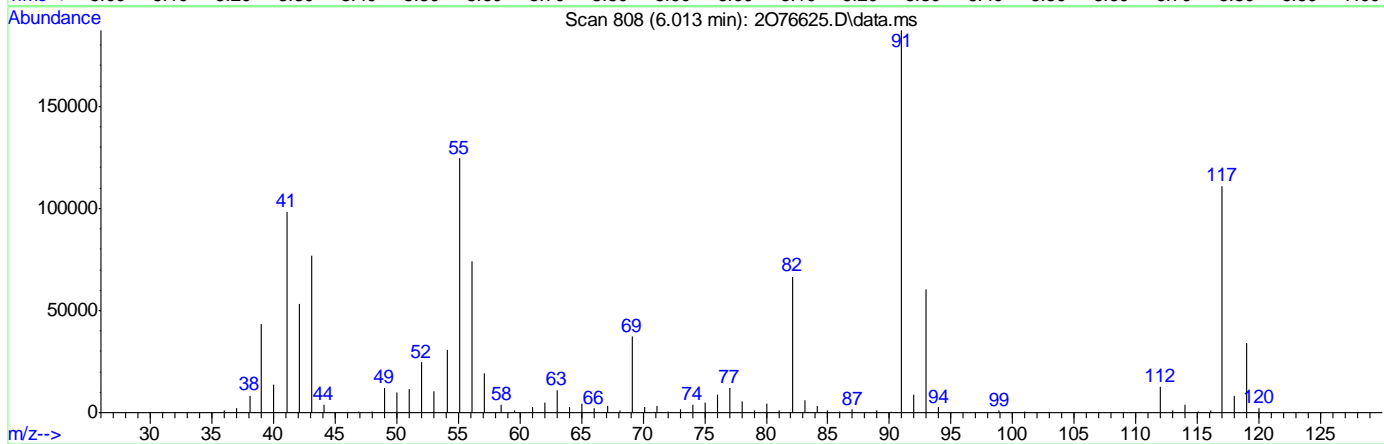
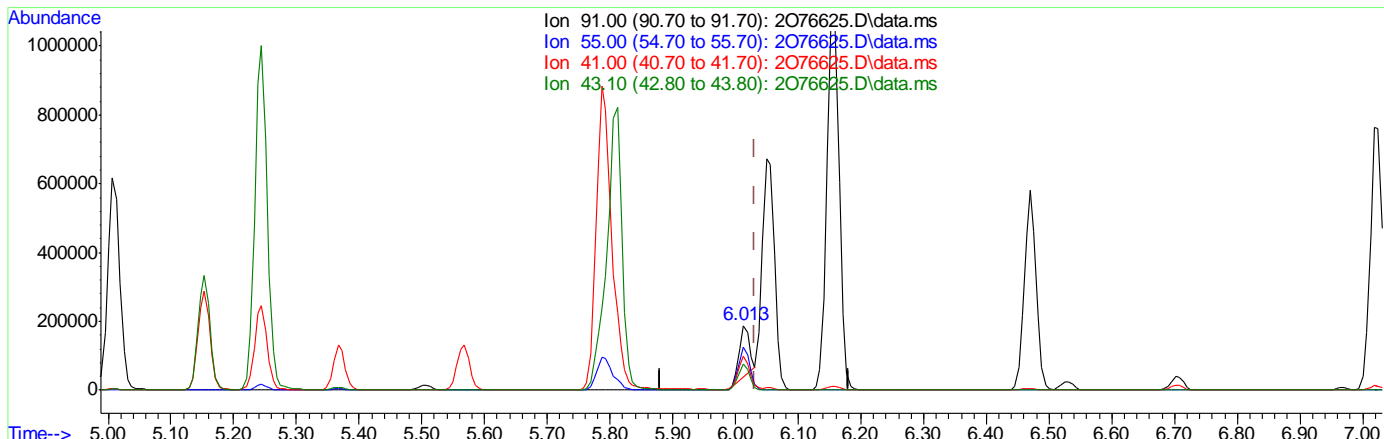
7.6.4.5

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.12ug/L  
 response 167144

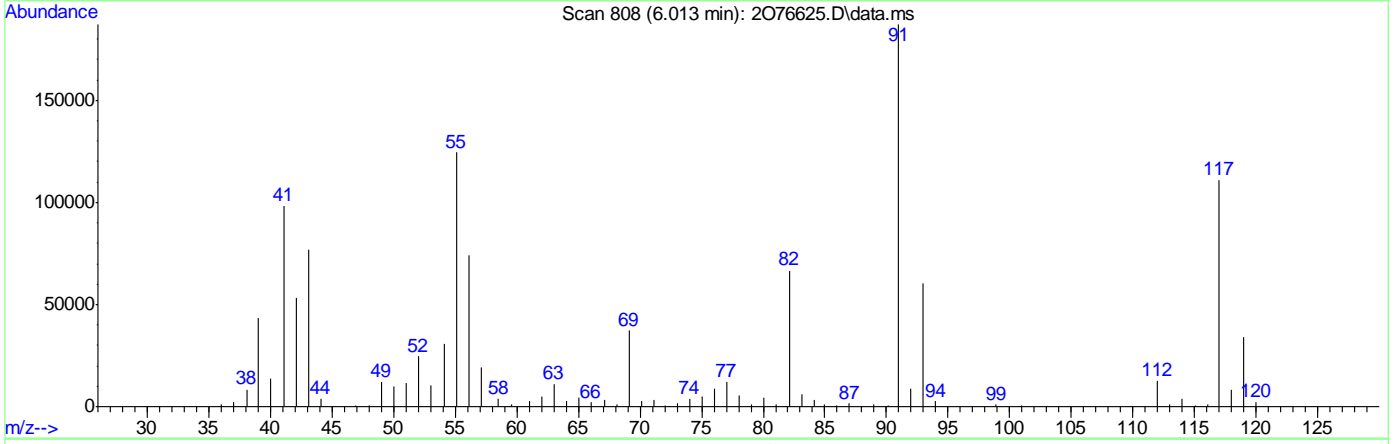
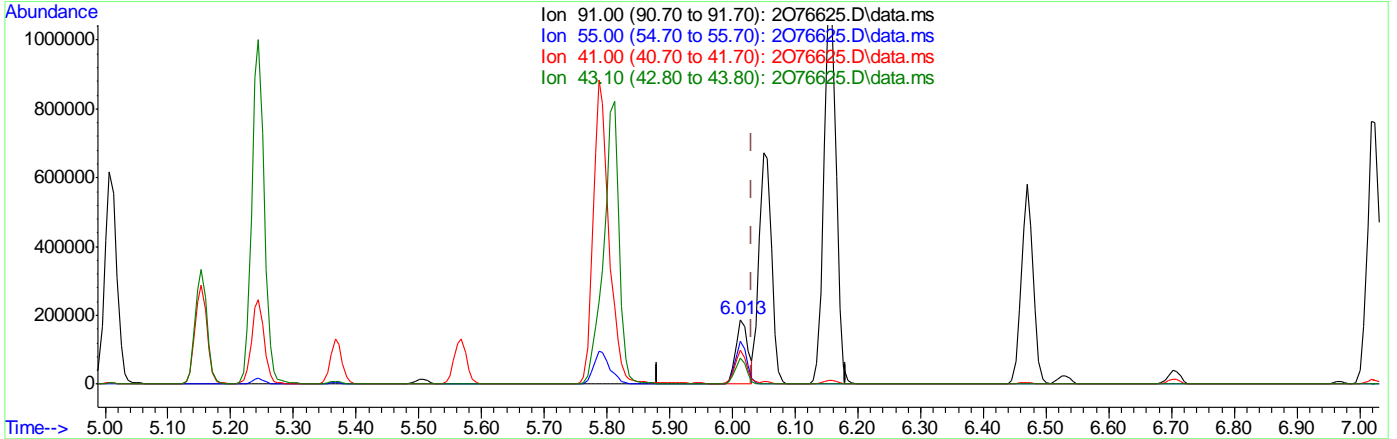
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.09
41.00	53.70	50.96
43.10	42.30	40.21

7.6.4.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 91.99ug/L m  
 response 255764

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.54
41.00	53.70	52.36
43.10	42.30	40.96

7.6.4.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	428165	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	307214	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160102	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116102	48.92	ug/L	-0.01	
Spiked Amount	50.000	Range 83 - 118	Recovery =	97.84%			
50) 1,2-Dichloroethane-d4	3.849	65	131582	52.16	ug/L	-0.02	
Spiked Amount	50.000	Range 79 - 125	Recovery =	104.32%			
63) Toluene-d8	4.976	98	416094	49.67	ug/L	-0.01	
Spiked Amount	50.000	Range 85 - 112	Recovery =	99.34%			
86) 4-Bromofluorobenzene	6.921	174	117568	48.12	ug/L	-0.02	
Spiked Amount	50.000	Range 83 - 118	Recovery =	96.24%			
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	1700	0.97	ug/L		97
3) Chloromethane	1.373	50	2069	1.10	ug/L		97
4) 1,3-butadiene	1.447	39	1573	0.83	ug/L		86
5) Vinyl Chloride	1.434	62	1915	1.02	ug/L		98
6) Bromomethane	1.672	94	1849	1.29	ug/L		90
7) Chloroethane	1.757	64	1546	1.25	ug/L		86
8) Trichlorofluoromethane	1.855	101	3317	1.00	ug/L		99
9) Ethyl Ether	2.056	59	1702	1.15	ug/L		87
11) 1,2-Dichlorotrifluoro...	2.184	67	2227	1.01	ug/L		91
12) 1,1-Dichloroethene	2.184	61	2916	1.03	ug/L		95
13) Freon 113	2.209	101	1865	0.99	ug/L		89
14) Carbon Disulfide	2.196	76	7186	1.31	ug/L		95
15) Iodomethane	2.270	142	1590	0.54	ug/L		74
16) Acrolein	2.385	56	1611	3.00	ug/L		98
17) Allyl chloride	2.471	41	1454	0.67	ug/L		85
18) Methylene Chloride	2.532	49	4235	1.61	ug/L		96
19) Acetone	2.556	43	6359	5.90	ug/L		99
20) Methyl acetate	2.629	43	14487	5.85	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	3148	1.17	ug/L		91
22) Hexane	2.678	56	1515	1.06	ug/L	#	93
23) Methyl Tert Butyl Ether	2.690	73	5830	1.13	ug/L		86
24) Tert Butyl Alcohol	2.739	59	3128	8.08	ug/L		72
25) Acetonitrile	2.830	41	4273	10.54	ug/L		92
26) Di-isopropyl ether	2.910	45	5801	1.06	ug/L		95
27) Chloroprene	2.971	53	1581	0.61	ug/L		99
28) 1,1-Dichloroethane	2.983	63	3906	1.12	ug/L		96
29) Acrylonitrile	3.007	52	5847	5.61	ug/L		98
30) ETBE	3.117	59	5182	1.04	ug/L		96
31) Vinyl acetate	3.117	43	16712	4.18	ug/L		97
32) cis-1,2-Dichloroethene	3.288	96	2828	1.30	ug/L		94
33) 2,2-Dichloropropane	3.355	77	2480	1.05	ug/L		90
34) Bromochloromethane	3.403	128	1270	1.08	ug/L		92
35) Cyclohexane	3.416	56	2479	0.86	ug/L		87
36) Chloroform	3.440	83	4440	1.17	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Ethyl acetate	3.501	43	13756	4.37	ug/L	97
38) Tetrahydrofuran	3.538	42	1146m	0.95	ug/L	
40) Carbon Tetrachloride	3.531	117	2585m	1.09	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	3173	1.03	ug/L	96
42) 2-Butanone	3.611	43	9107	5.10	ug/L	98
43) 1,1-Dichloropropene	3.635	75	2701	1.02	ug/L	92
44) tert-Butyl formate	3.690	59	2305	3.49	ug/L #	80
45) Propionitrile	3.781	54	3736	7.05	ug/L	89
46) Methacrylonitrile	3.794	41	12708	7.08	ug/L	96
47) Benzene	3.775	78	8983	1.14	ug/L	91
48) TAME	3.830	73	4674	1.00	ug/L	92
49) Isobutyl alcohol	3.879	43	1455m	9.61	ug/L	
51) 1,2-Dichloroethane	3.891	62	4105	1.47	ug/L	97
52) Tert Amyl Alcohol	3.940	59	2208	7.24	ug/L #	73
53) Trichloroethene	4.117	95	2693	1.19	ug/L	92
54) Methylcyclohexane	4.117	83	2864	0.97	ug/L #	80
55) Dibromomethane	4.373	93	1995	1.40	ug/L	83
56) 1,2-Dichloropropane	4.428	63	2100	1.14	ug/L	85
57) Bromodichloromethane	4.458	83	2799	1.11	ug/L	85
58) Methyl methacrylate	4.543	41	1176	0.57	ug/L	90
59) 1,4-Dioxane	4.580	88	1015	26.70	ug/L	91
60) 2-Chloroethyl vinyl ether	4.806	63	6568	4.11	ug/L	93
61) cis-1,3-Dichloropropene	4.854	75	2660	0.95	ug/L	97
64) Toluene	5.007	91	9766	1.16	ug/L	86
65) 2-Nitropropane	5.153	41	2241	4.74	ug/L	86
66) 4-Methyl-2-pentanone	5.245	43	13337	4.43	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	2896	1.07	ug/L	87
68) Tetrachloroethene	5.263	166	2351	0.99	ug/L	87
69) Ethyl methacrylate	5.367	69	1023	0.43	ug/L #	80
70) 1,1,2-Trichloroethane	5.379	83	1901	1.12	ug/L	93
71) Dibromochloromethane	5.507	129	1730	0.91	ug/L	83
72) 1,3-Dichloropropane	5.562	76	3964	1.27	ug/L	95
73) 1,2-Dibromoethane	5.671	107	2842	1.34	ug/L	78
74) 3,3-dimethyl-1-butanol	5.781	57	11841	30.52	ug/L	92
75) 2-hexanone	5.812	43	12444	4.16	ug/L	92
76) 1-Chlorohexane	6.013	91	3099m	1.17	ug/L	
77) Ethylbenzene	6.049	91	10384	1.14	ug/L	94
78) Chlorobenzene	6.037	112	6915	1.22	ug/L	87
79) 1,1,1,2-Tetrachloroethane	6.080	131	1672	0.94	ug/L	94
80) m,p-Xylene	6.153	91	15842	2.24	ug/L	95
81) o-Xylene	6.470	91	7854	1.10	ug/L	94
82) Styrene	6.507	104	5136	0.92	ug/L	97
83) Bromoform	6.531	173	1072	0.91	ug/L	76
84) Isopropylbenzene	6.702	105	8417	0.98	ug/L	92
88) n-Propylbenzene	7.019	91	11289	1.14	ug/L	93
89) Bromobenzene	7.000	156	2690	1.22	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	3728	1.23	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	7530	1.07	ug/L	97
92) 2-Chlorotoluene	7.141	91	7586	1.13	ug/L	95
94) 1,2,3-Trichloropropane	7.177	110	1238m	1.24	ug/L	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 4-Chlorotoluene	7.275	91	7838	1.27	ug/L	97
97) tert-Butylbenzene	7.421	91	4206	1.11	ug/L	95
99) 1,2,4-Trimethylbenzene	7.476	105	7425	1.07	ug/L	92
100) Pentachloroethane	7.439	167	393m	0.44	ug/L	
101) sec-Butylbenzene	7.561	105	8780	1.05	ug/L	93
102) 4-Isopropyltoluene	7.671	119	6975	0.95	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	5336	1.23	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	8355	1.15	ug/L	97
105) 1,4-Dichlorobenzene	7.793	146	6071m	1.38	ug/L	
106) n-Butylbenzene	7.982	92	3935	1.09	ug/L	96
107) Benzyl Chloride	7.970	126	559m	0.76	ug/L	
108) 1,2-Dichlorobenzene	8.104	146	4976	1.21	ug/L	89
109) 1,2-Dibromo-3-Chloropr...	8.677	75	505m	0.85	ug/L	
110) Hexachlorobutadiene	9.134	225	1664	1.91	ug/L	92
111) 1,2,4-Trichlorobenzene	9.152	180	3526	1.41	ug/L	86
112) Naphthalene	9.372	128	9536	1.08	ug/L	98
113) 1,2,3-Trichlorobenzene	9.500	180	3072	1.30	ug/L	95

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

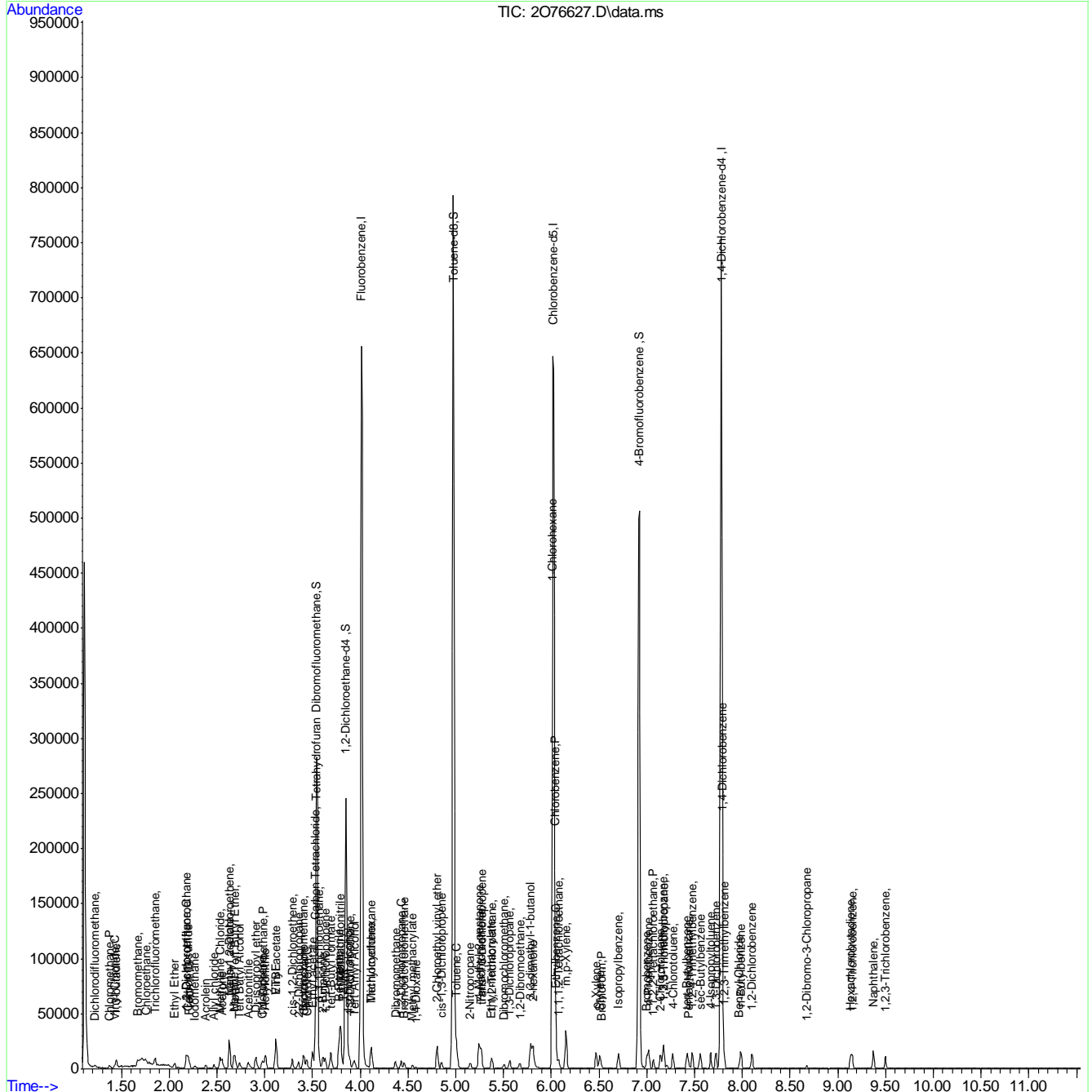


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.5  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76627.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 13:55      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Tetrahydrofuran	109-99-9		3.54	Missed peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline
1,2,3-Trichloropropane	96-18-4		7.18	Missed peak
Pentachloroethane	76-01-7		7.44	Missed peak
1,4-Dichlorobenzene	106-46-7		7.79	Missed peak
Benzyl Chloride	100-44-7		7.97	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.68	Missed peak

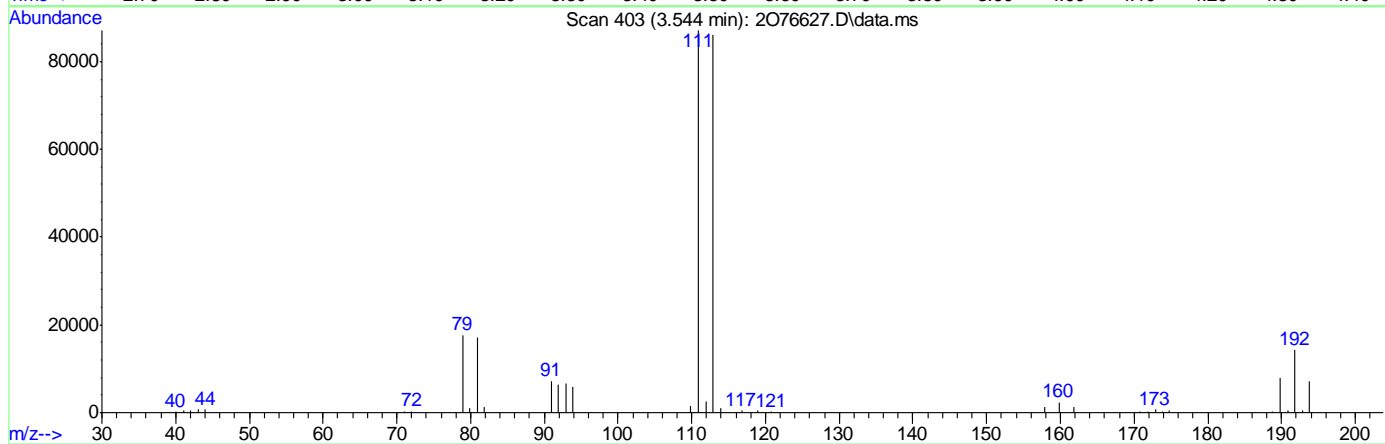
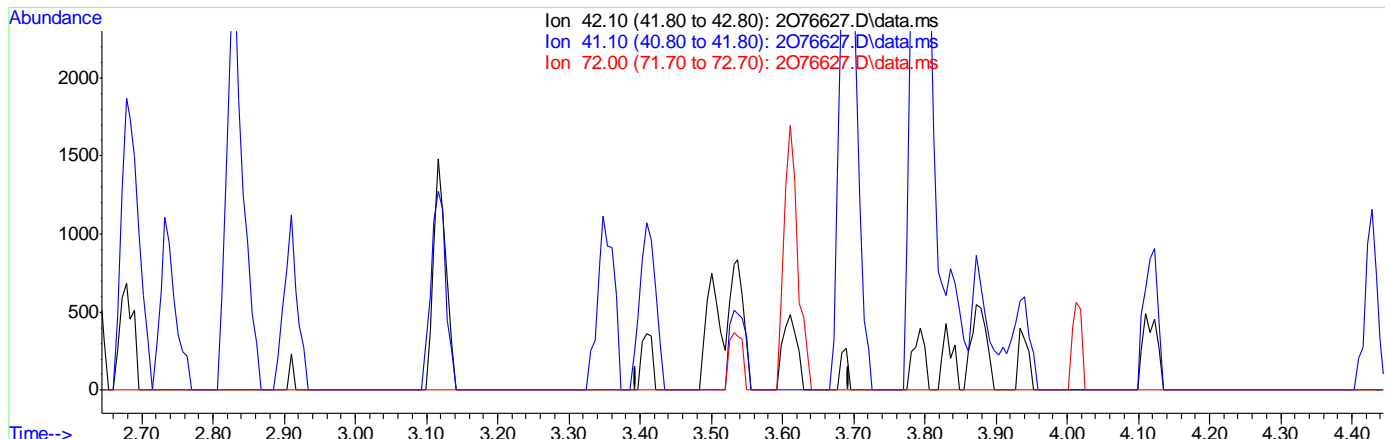
7.6.5.1  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.544min (-3.544) 0.00ug/L  
 response 0

Ion	Exp%	Act%
42.10	100	0.00
41.10	55.90	0.00#
72.00	47.60	0.00#
0.00	0.00	0.00

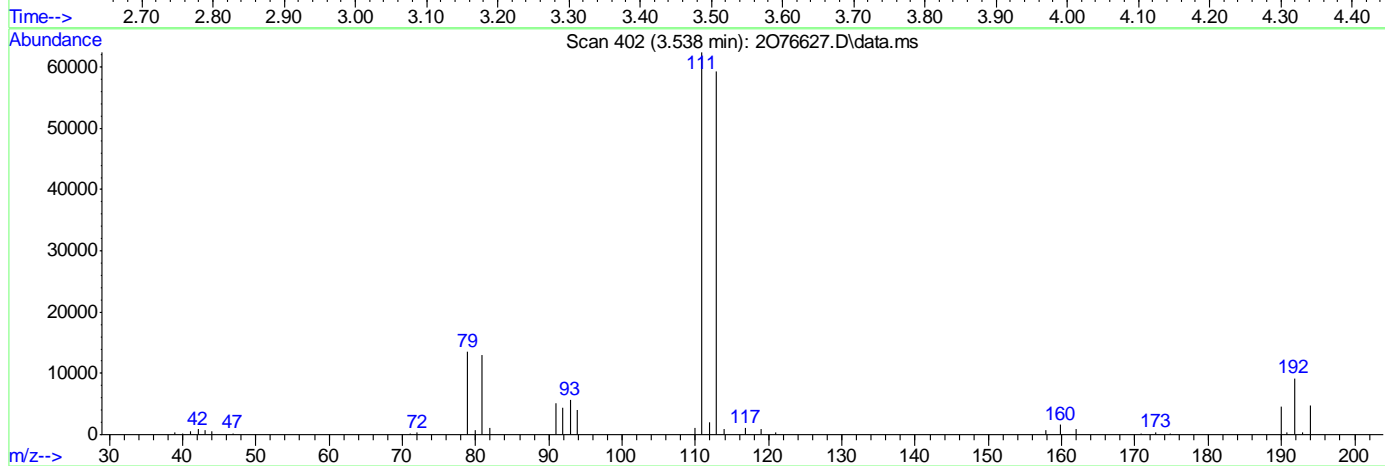
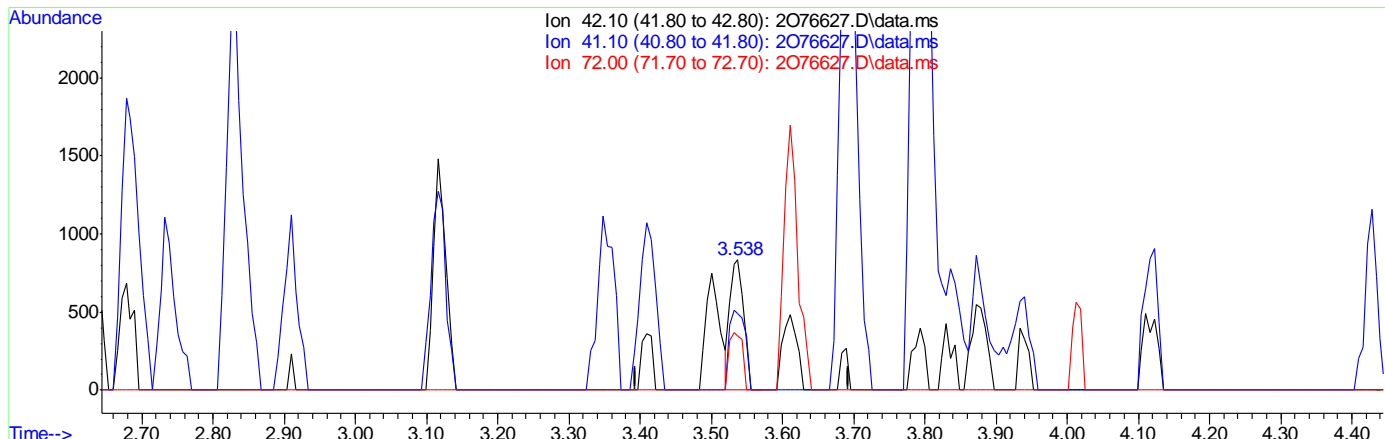
7.6.5.2  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.538min (-0.006) 0.95ug/L m  
 response 1146

Ion	Exp%	Act%
42.10	100	100
41.10	55.90	58.99
72.00	47.60	41.73
0.00	0.00	0.00

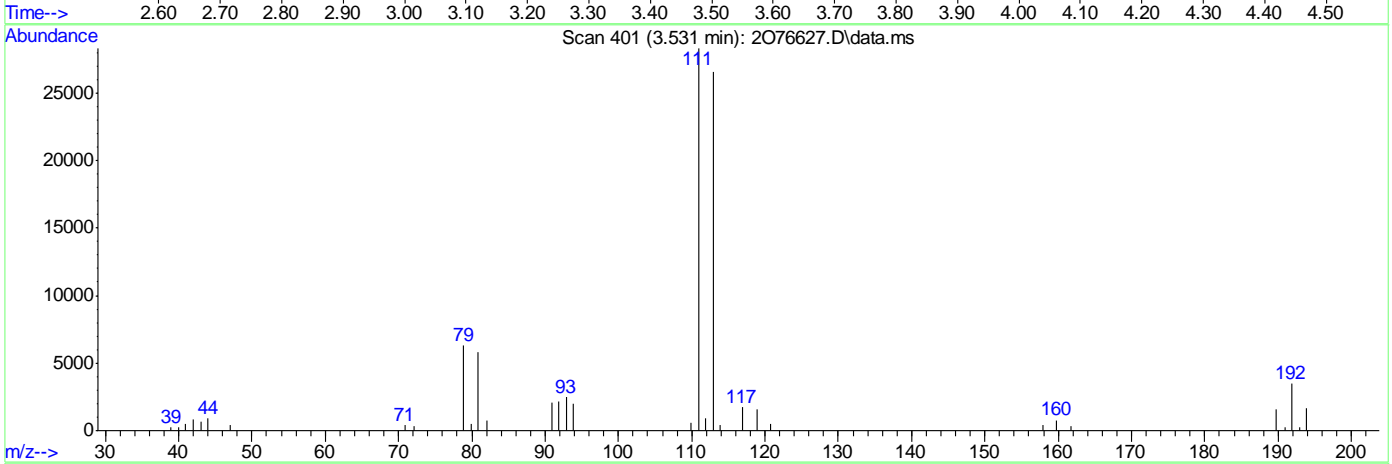
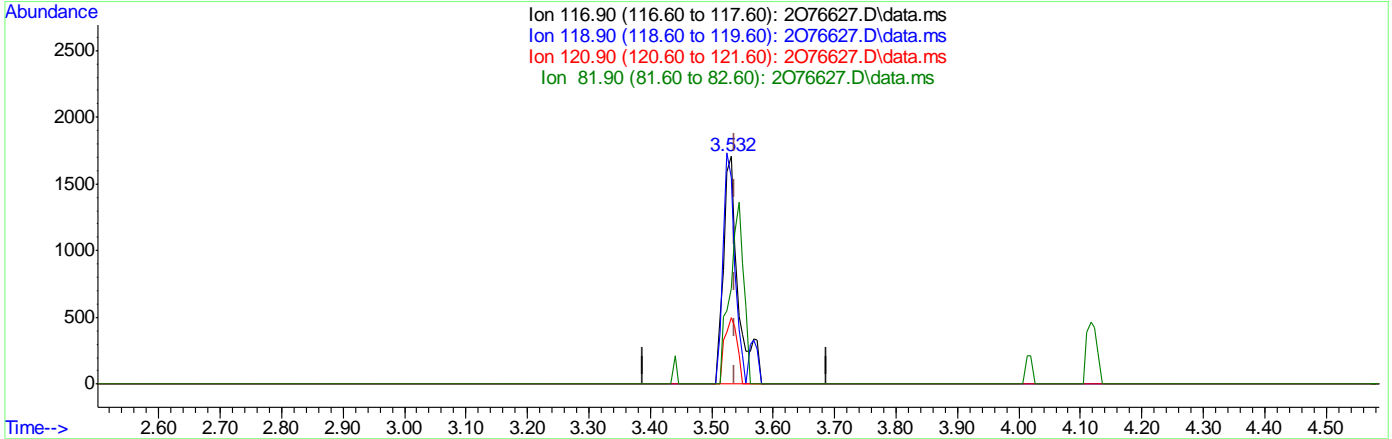
7.6.5.3  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.19ug/L

response 2830

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

7.6.5.4

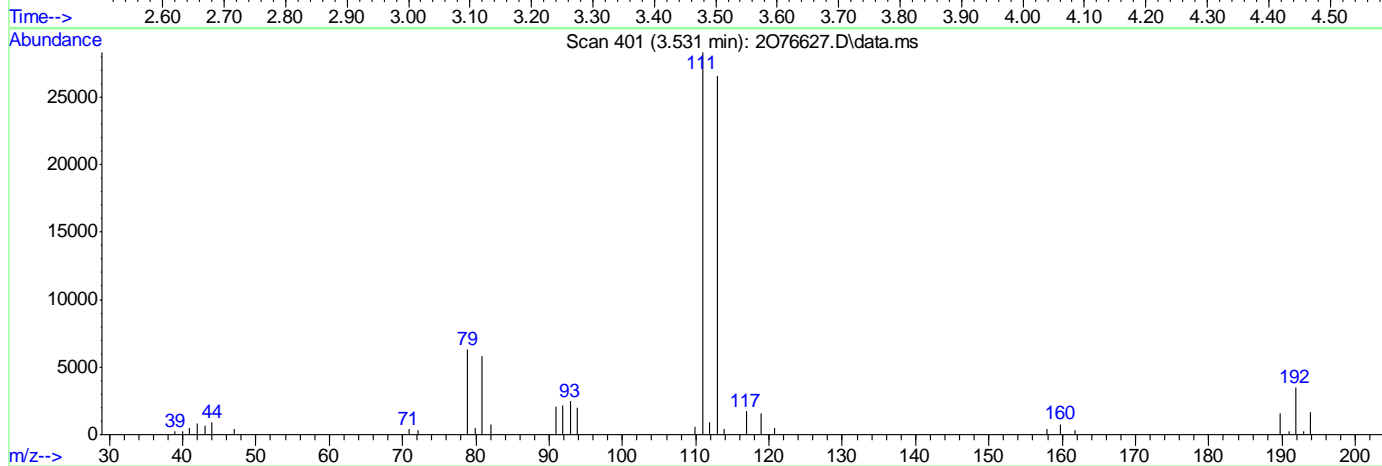
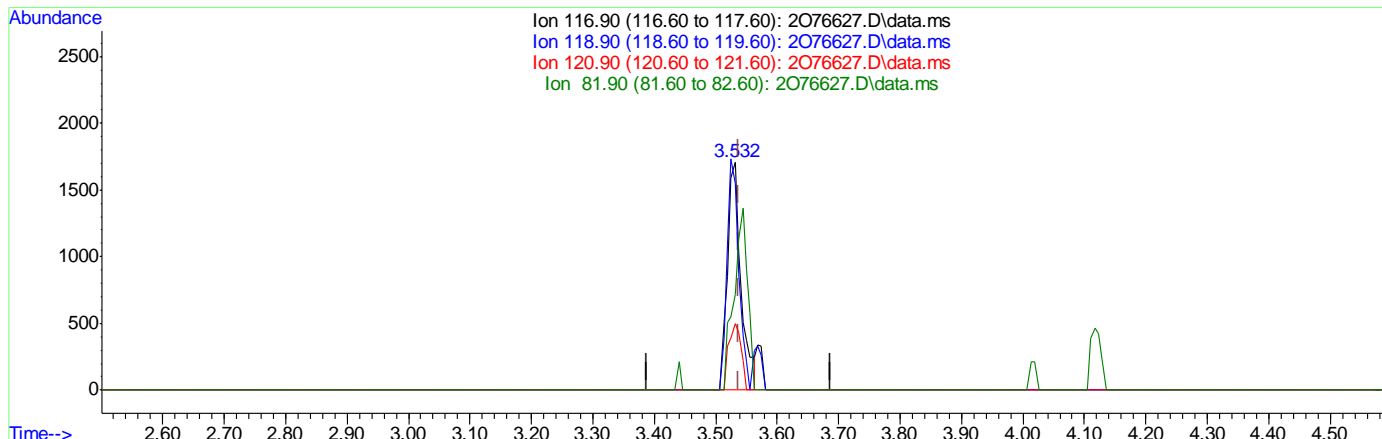
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.09ug/L m

response 2585

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

7.6.5.5

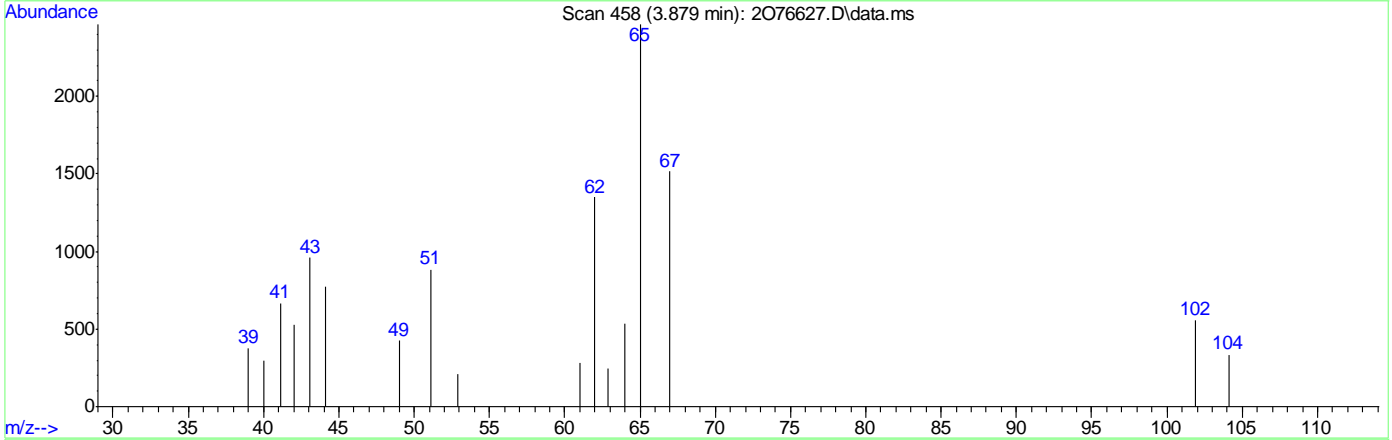
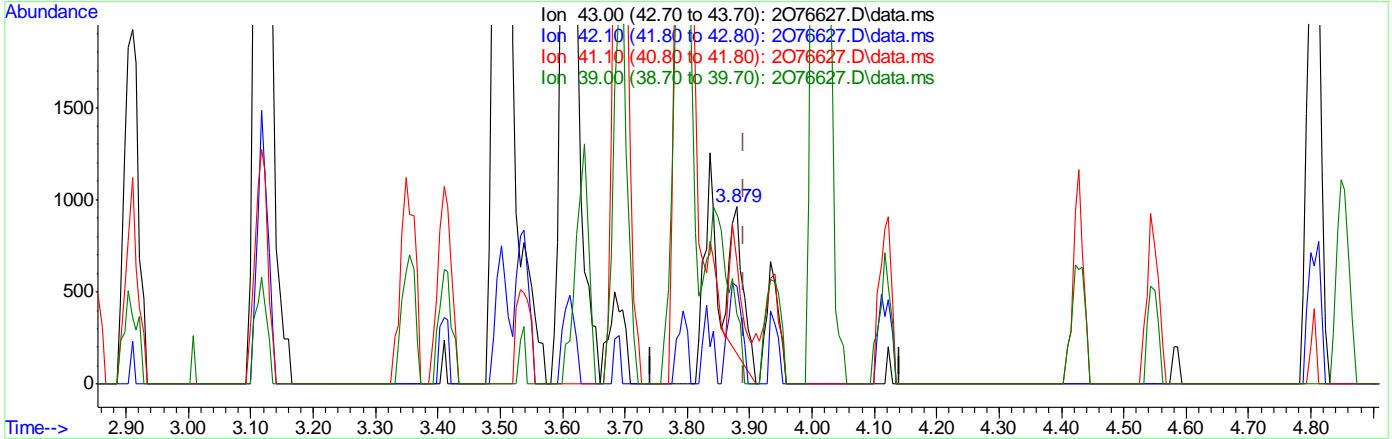
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 7.60ug/L  
 response 1150

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	40.52
39.00	30.20	39.48

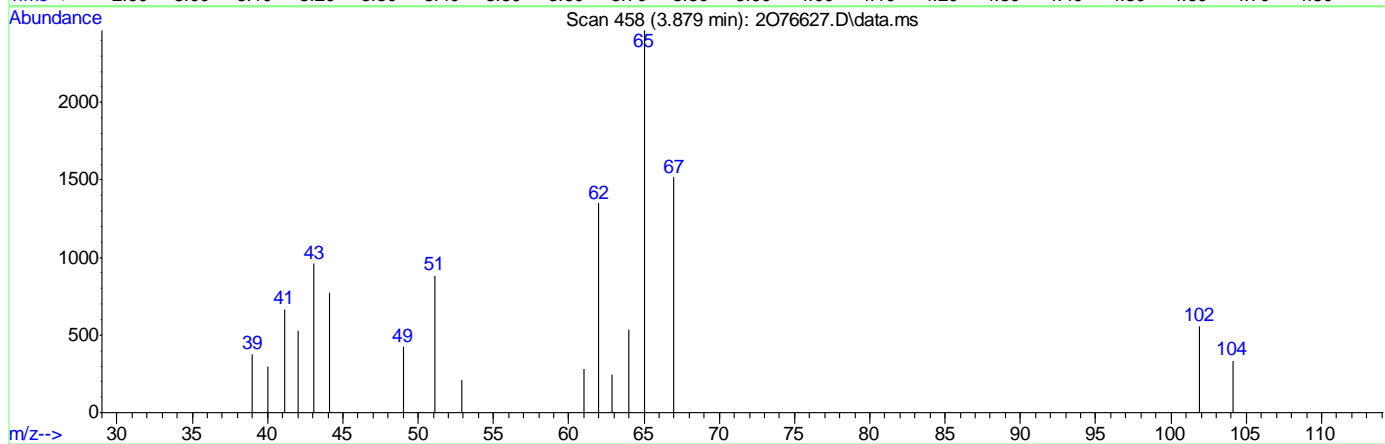
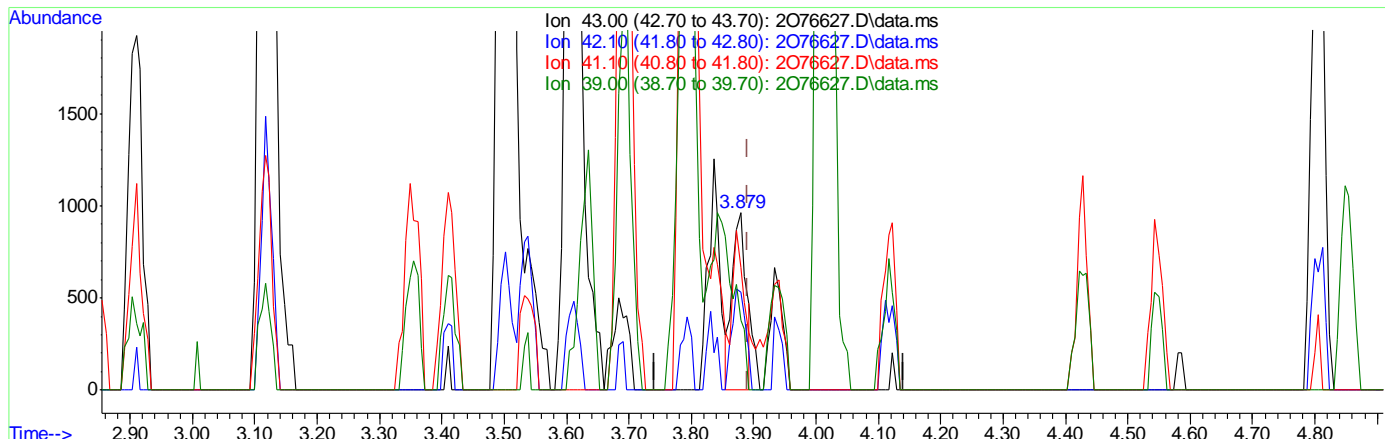
7.6.5.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.879min (-0.012) 9.61ug/L m  
 response 1455

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	69.48
39.00	30.20	39.48

7.6.5.7  
7

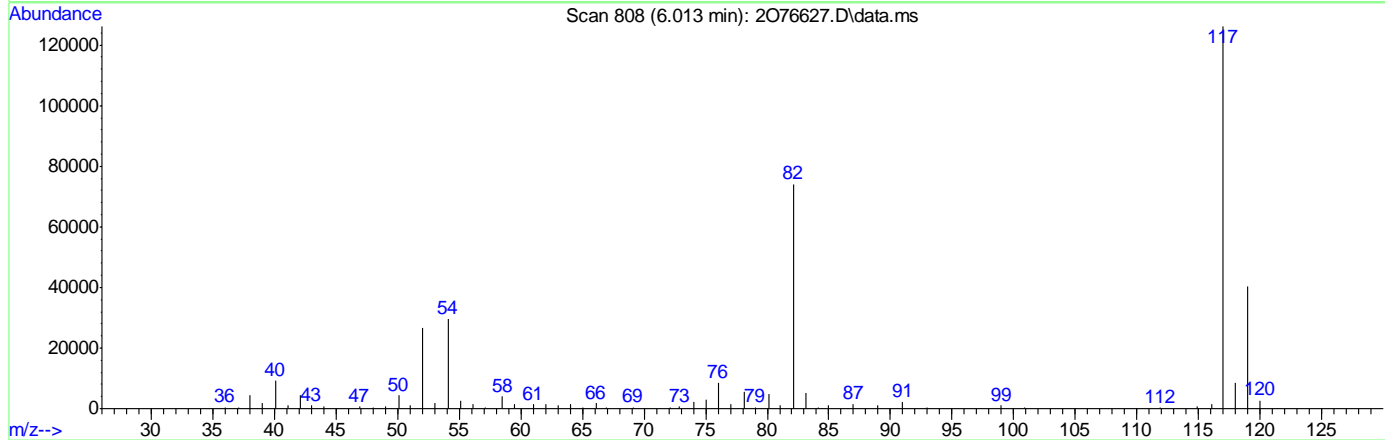
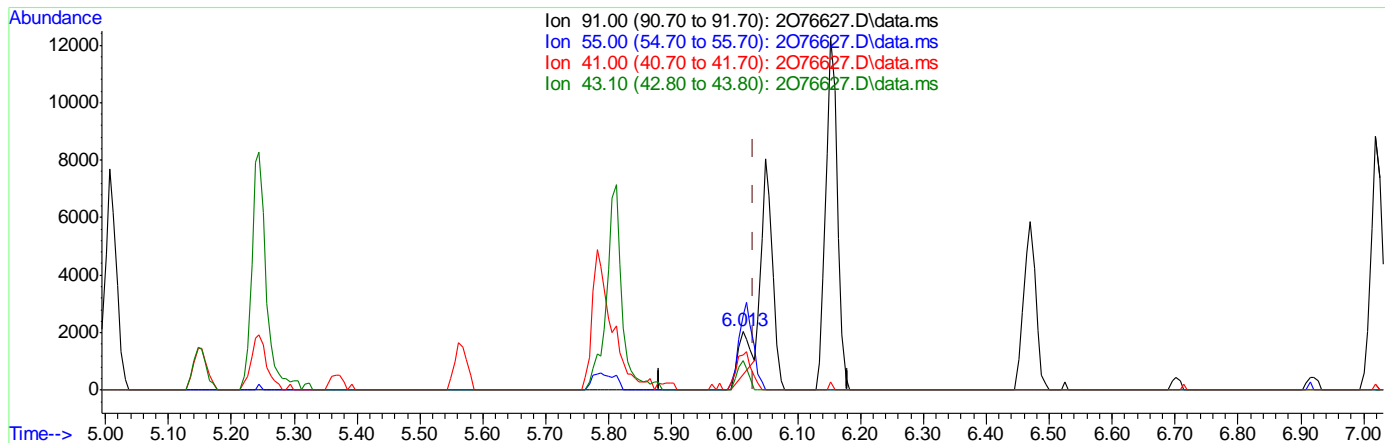


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 0.75ug/L  
 response 1986

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	115.79#
41.00	53.70	47.12
43.10	42.30	49.32

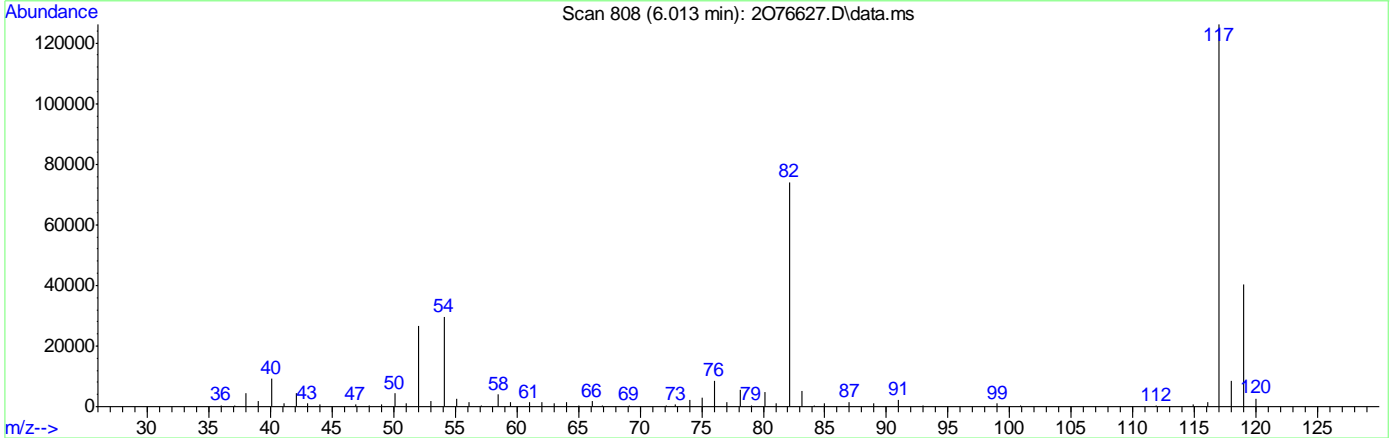
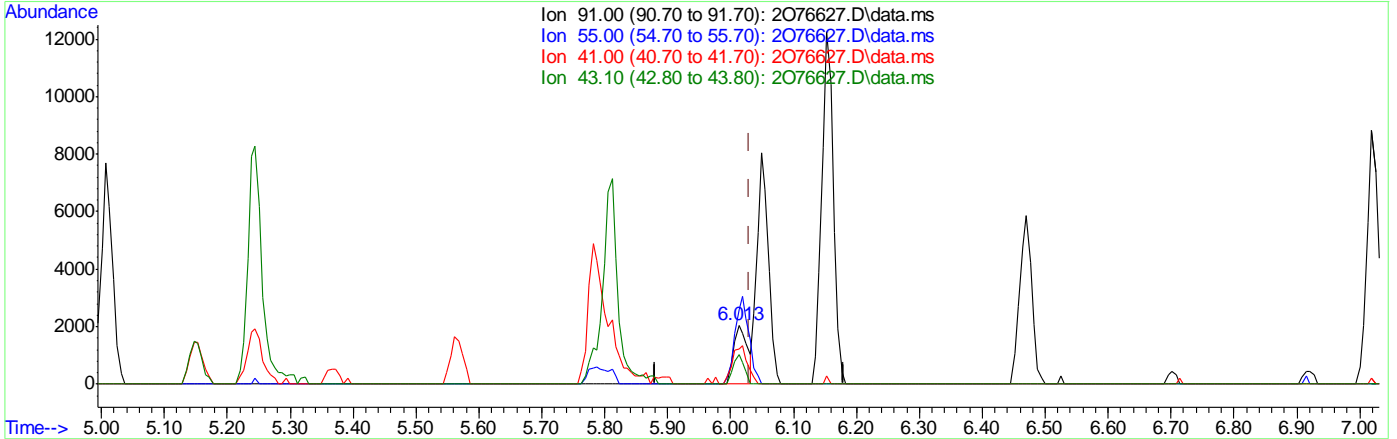
7.6.5.8  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 1.17ug/L m  
 response 3099

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	125.93#
41.00	53.70	59.99
43.10	42.30	49.32

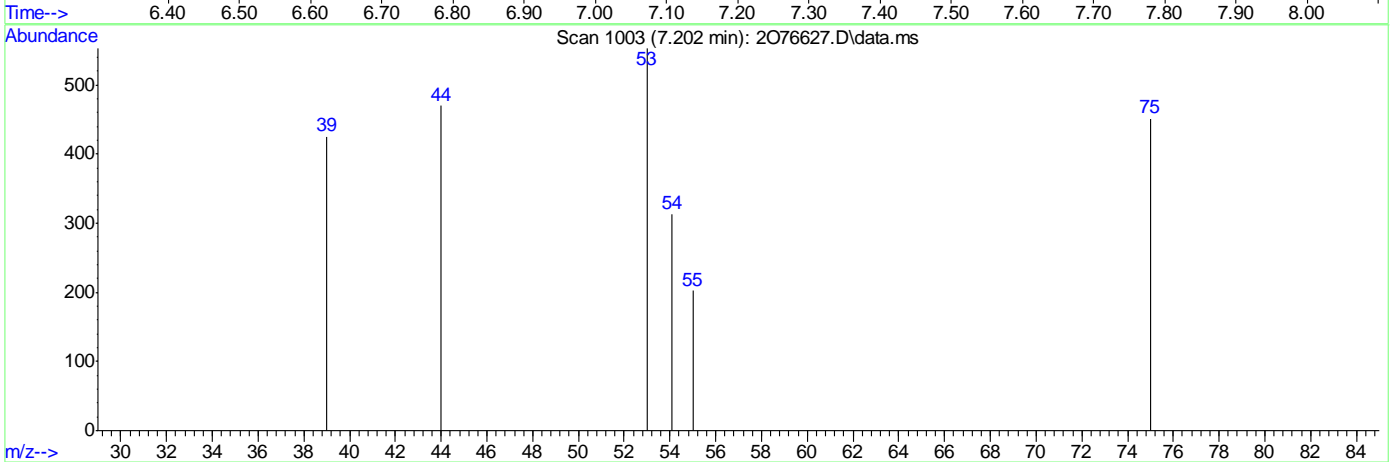
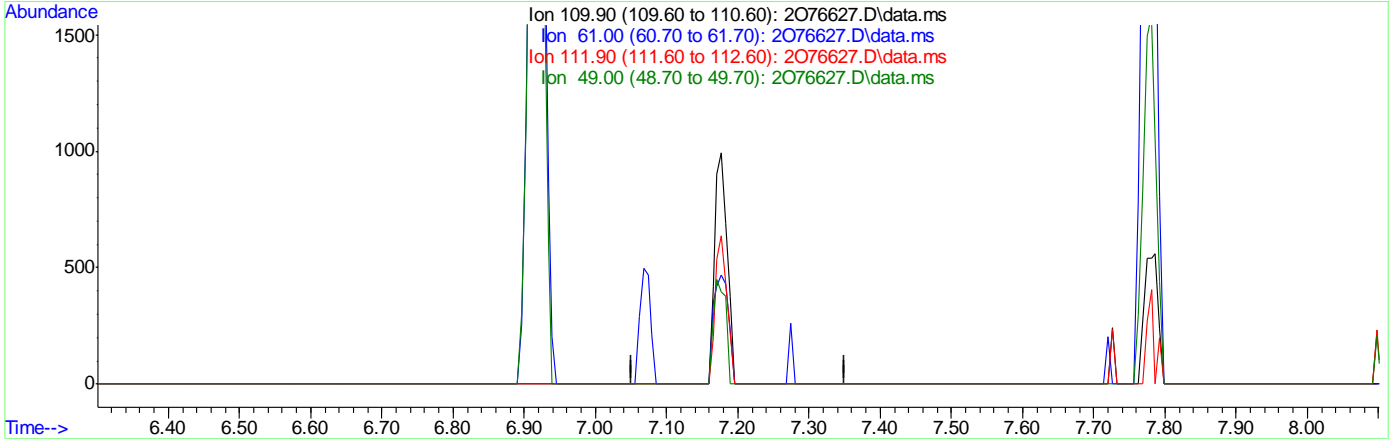
7.6.5.9  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.201min (-7.201) 0.00ug/L

response 0

Ion	Exp%	Act%
109.90	100	0.00
61.00	63.10	0.00#
111.90	64.70	0.00#
49.00	47.70	0.00#

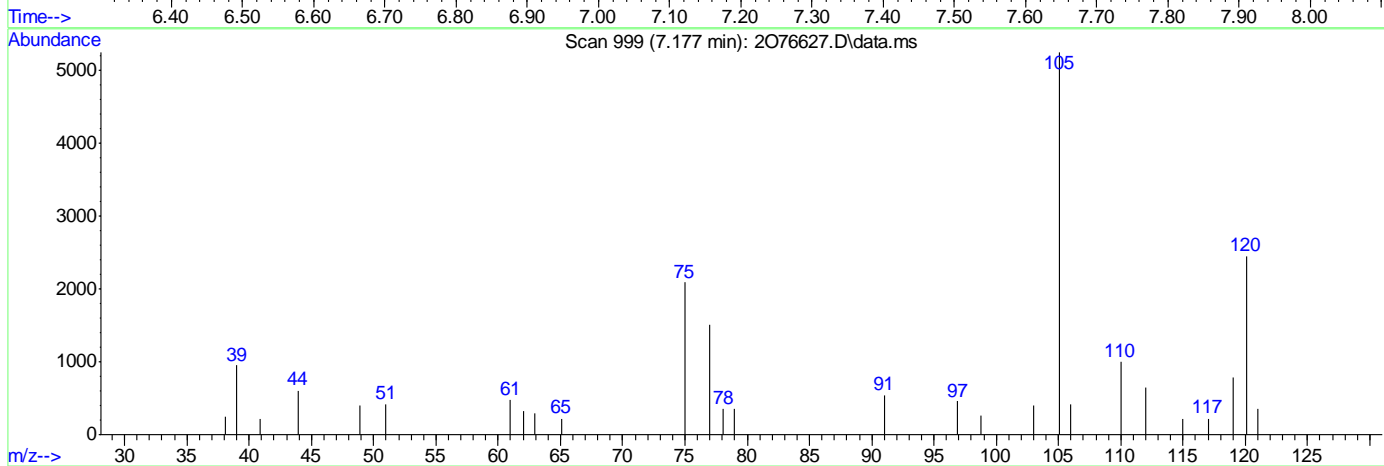
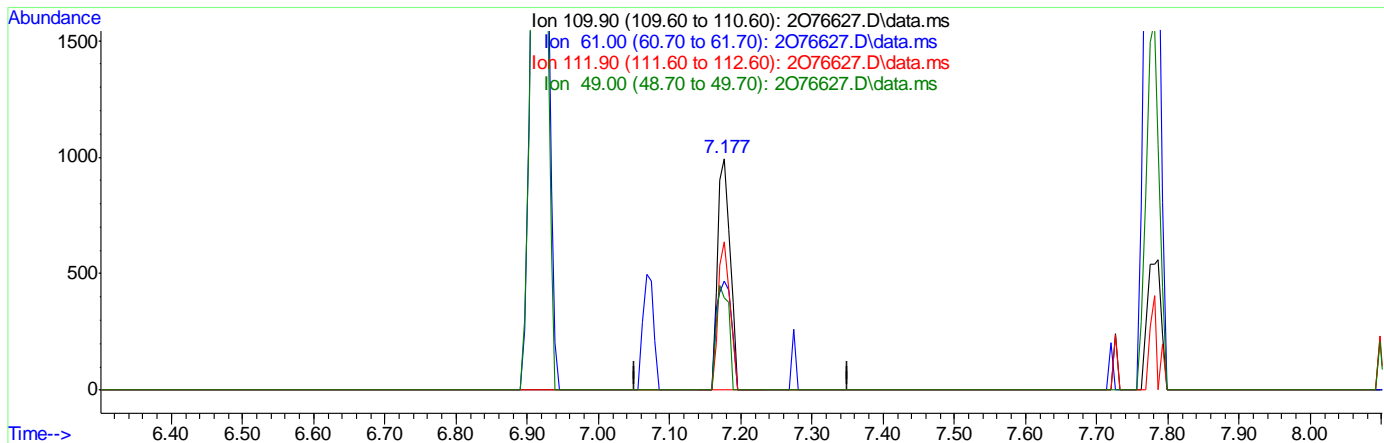
7.65.10  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.177min (-0.024) 1.24ug/L m

response 1238

Ion	Exp%	Act%
109.90	100	100
61.00	63.10	47.28
111.90	64.70	64.29
49.00	47.70	39.84

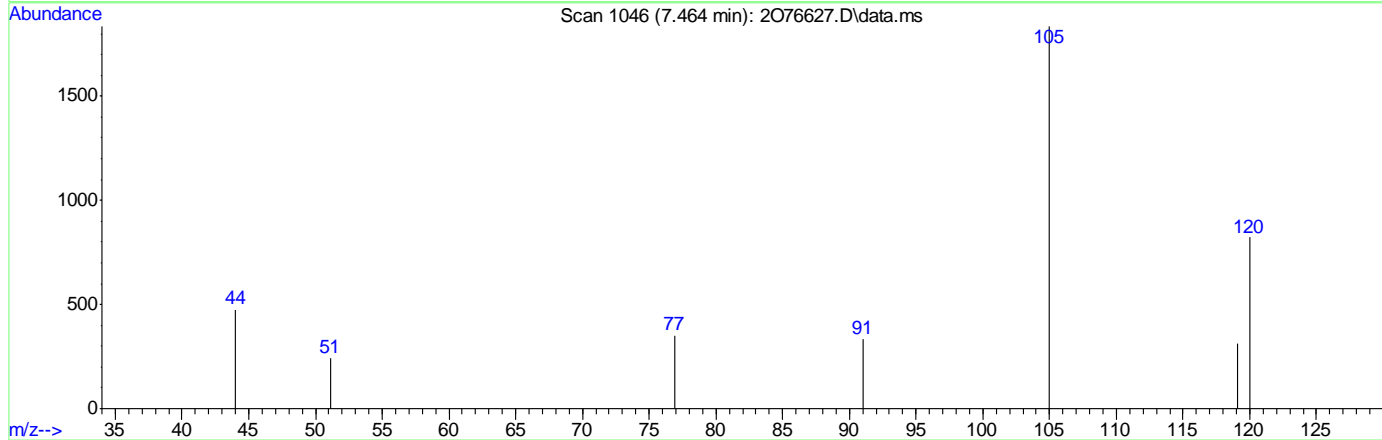
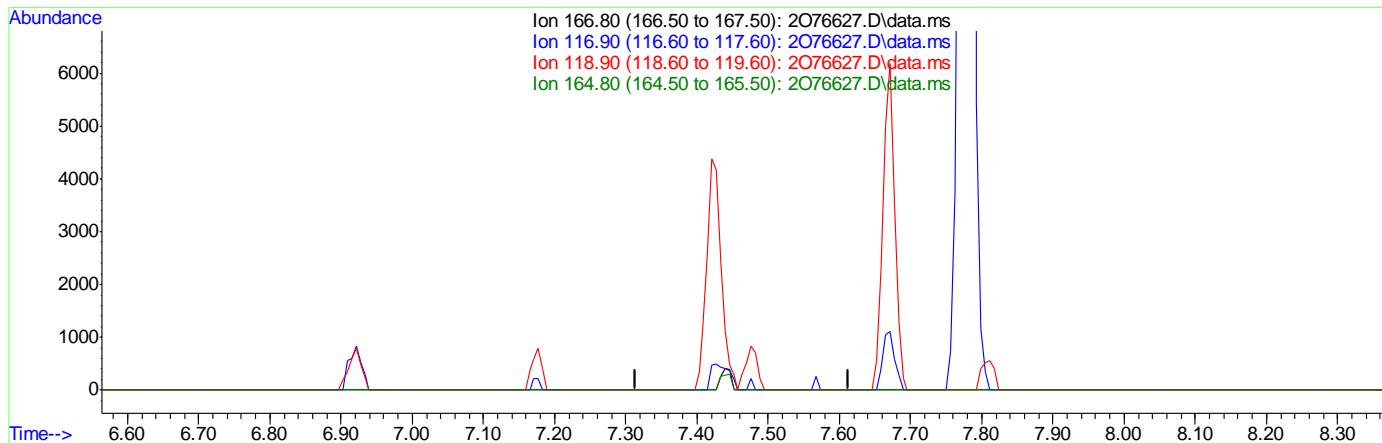
7.6.5.11  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )

7.464min (-7.464) 0.00ug/L

response 0

Ion	Exp%	Act%
166.80	100	0.00
116.90	99.80	0.00#
118.90	210.50	0.00#
164.80	79.80	0.00#

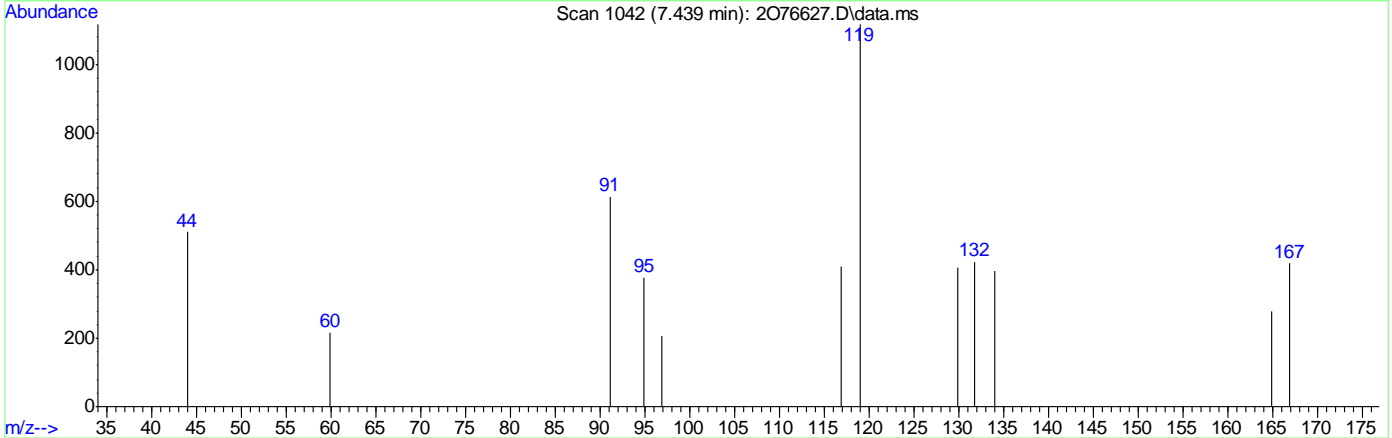
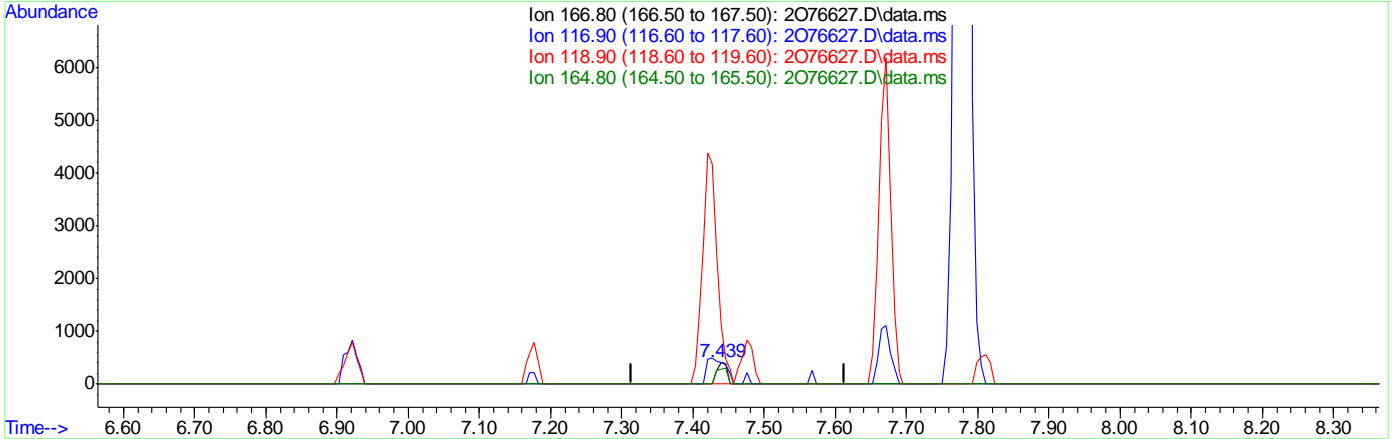
7.65.12  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )  
 7.439min (-0.025) 0.44ug/L m  
 response 393

Ion	Exp%	Act%
166.80	100	100
116.90	99.80	97.39
118.90	210.50	265.32#
164.80	79.80	66.51

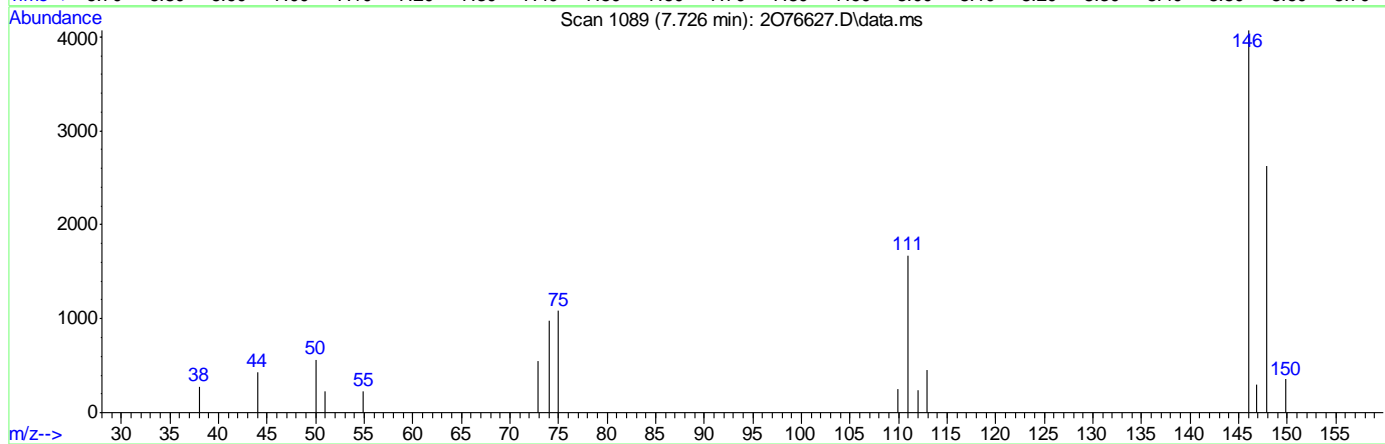
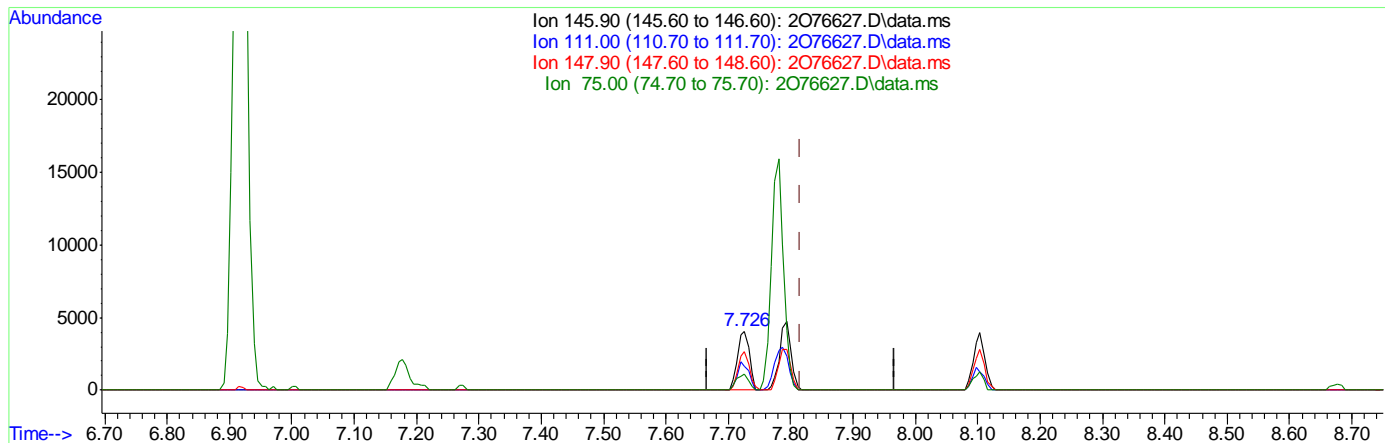
7.65.13  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene  
 7.726min (-0.091) 1.21ug/L  
 response 5336

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	41.12
147.90	64.50	64.39
75.00	30.40	26.64

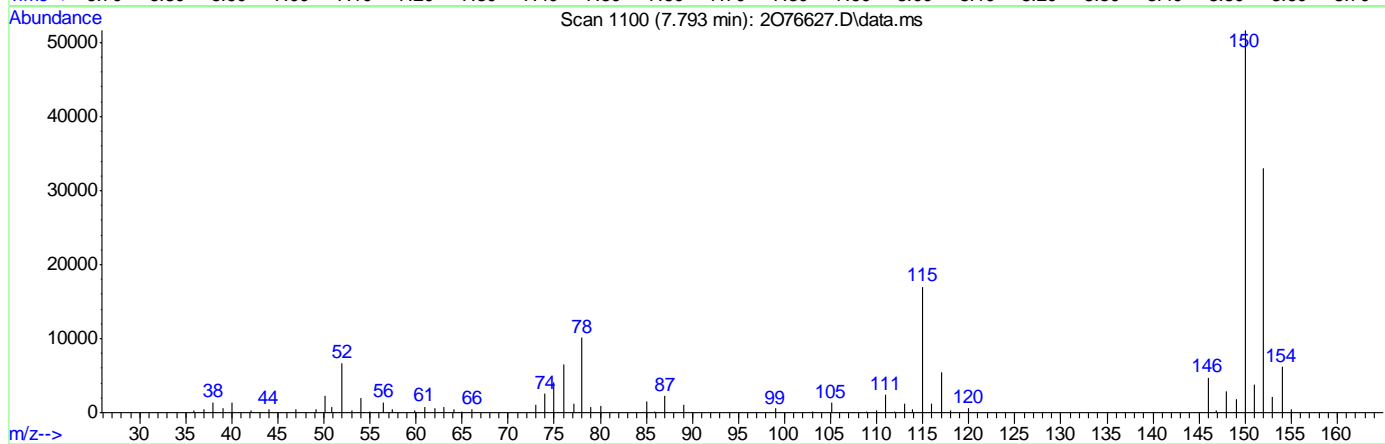
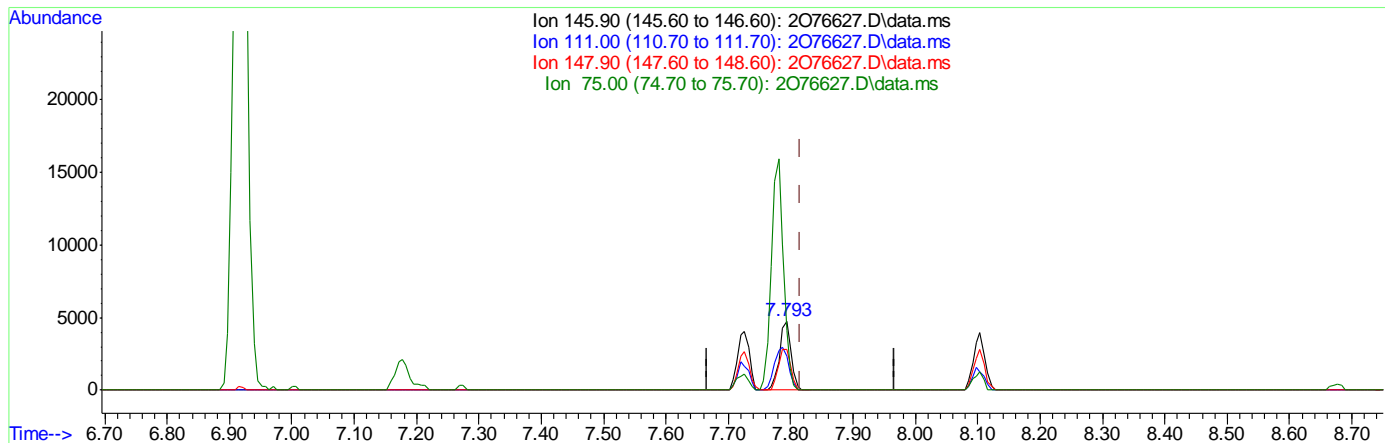
7.65.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(105) 1,4-Dichlorobenzene  
 7.793min (-0.024) 1.38ug/L m  
 response 6071

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	49.56
147.90	64.50	59.62
75.00	30.40	87.12#

7.6.5.15  
7

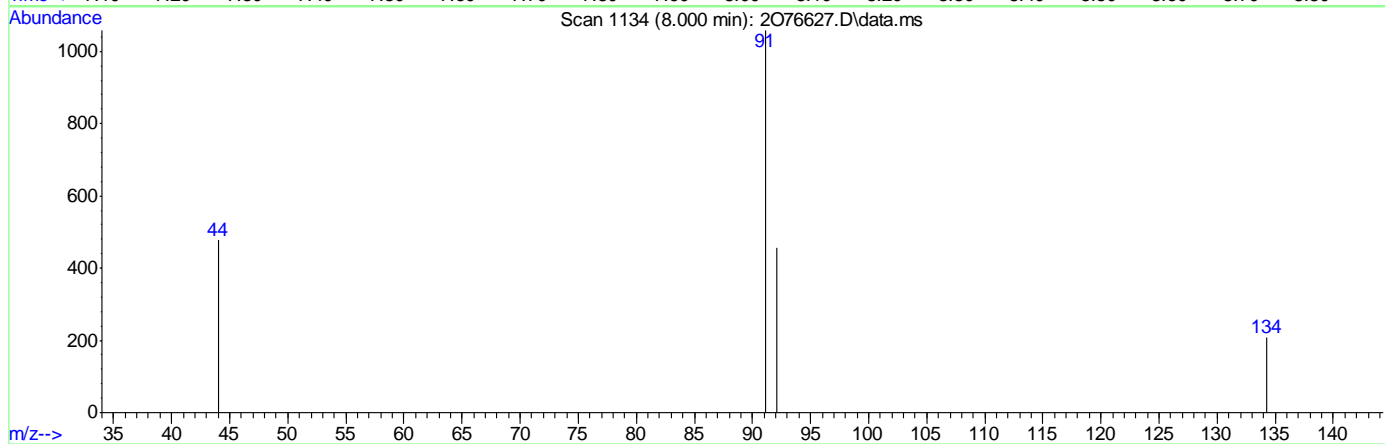
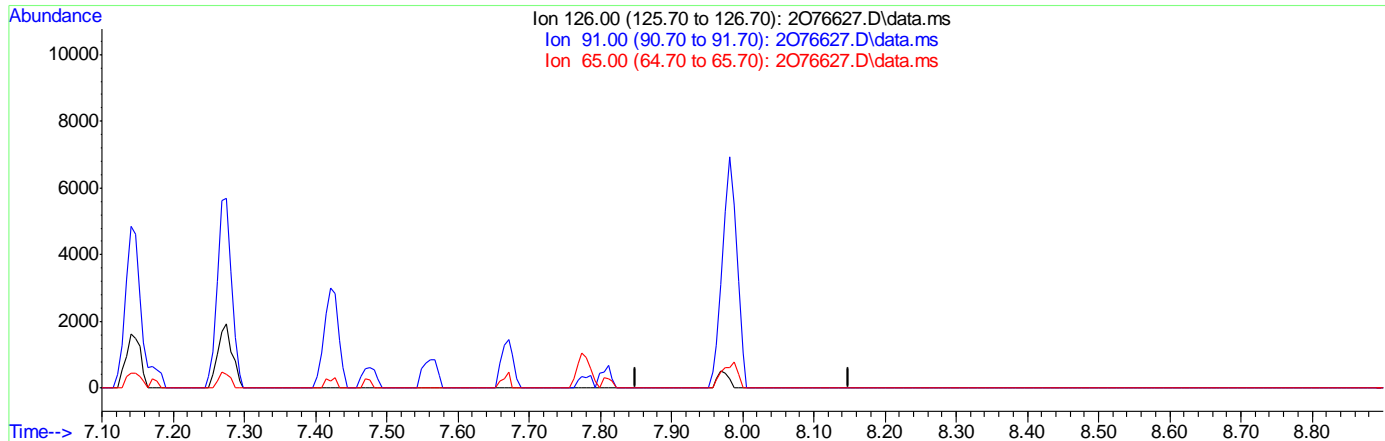


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride

8.000min (-8.000) 0.00ug/L

response 0

Ion	Exp%	Act%
126.00	100	0.00
91.00	690.00	0.00#
65.00	76.80	0.00#
0.00	0.00	0.00

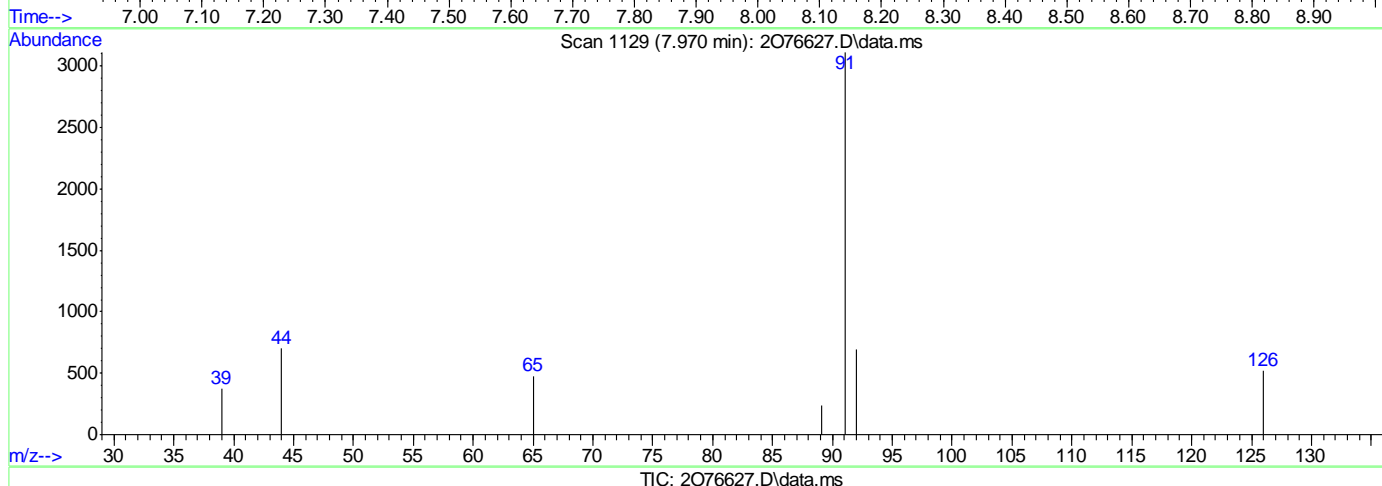
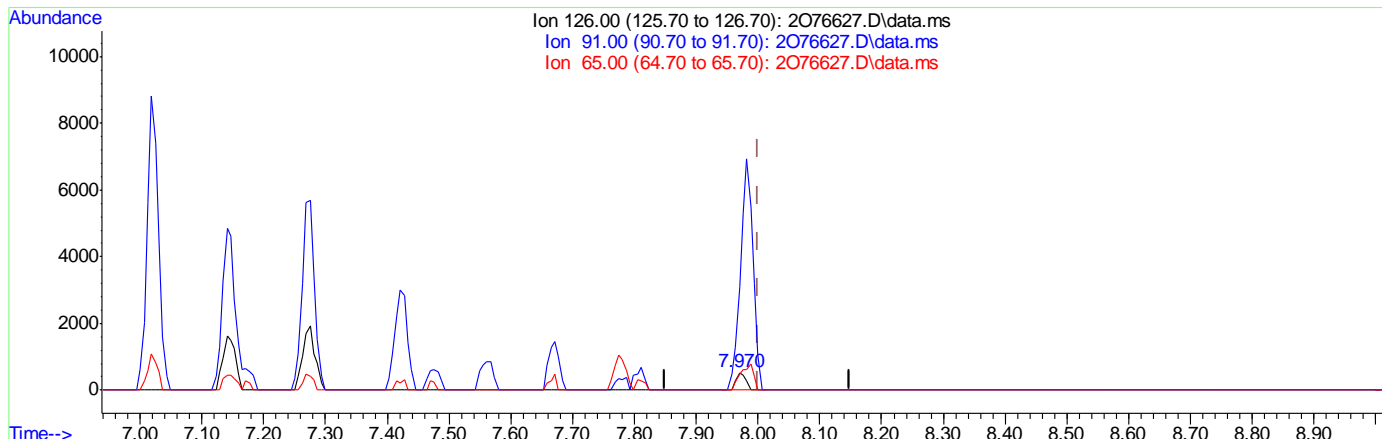
7.6.5.16  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride  
 7.970min (-0.030) 0.76ug/L m  
 response 559

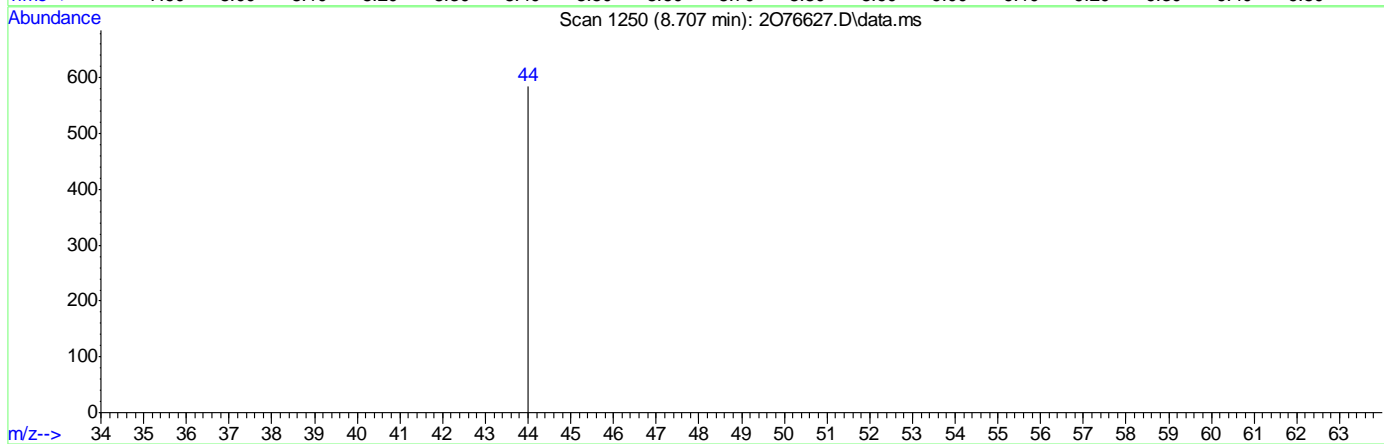
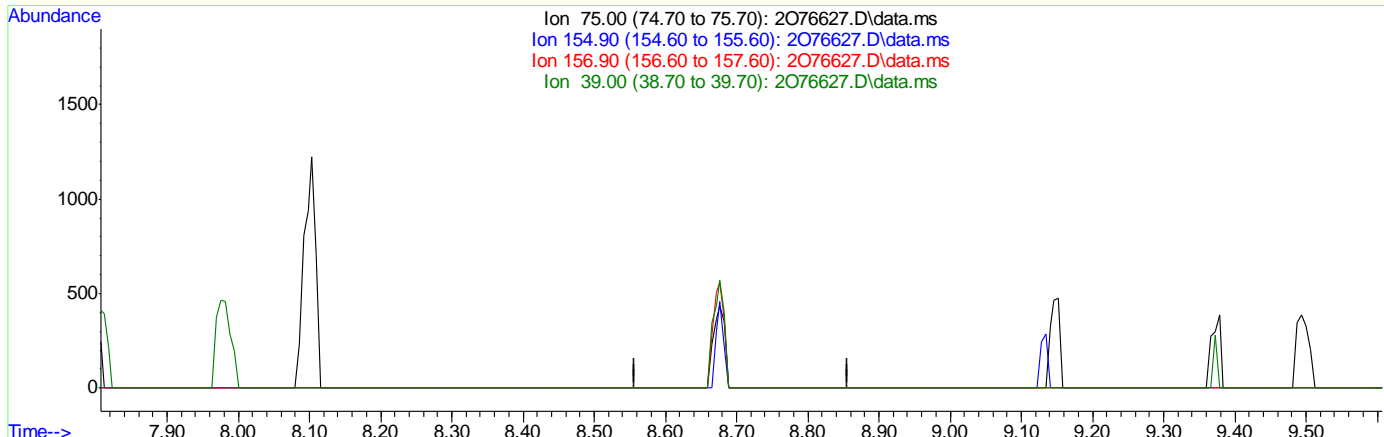
Ion	Exp%	Act%
126.00	100	100
91.00	690.00	602.13#
65.00	76.80	91.88
0.00	0.00	0.00

7.65.17  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(109) 1,2-Dibromo-3-Chloropropane		
8.707min (-8.707) 0.00ug/L		
response 0		
Ion	Exp%	Act%
75.00	100	0.00
154.90	105.60	0.00#
156.90	135.20	0.00#
39.00	68.40	0.00#

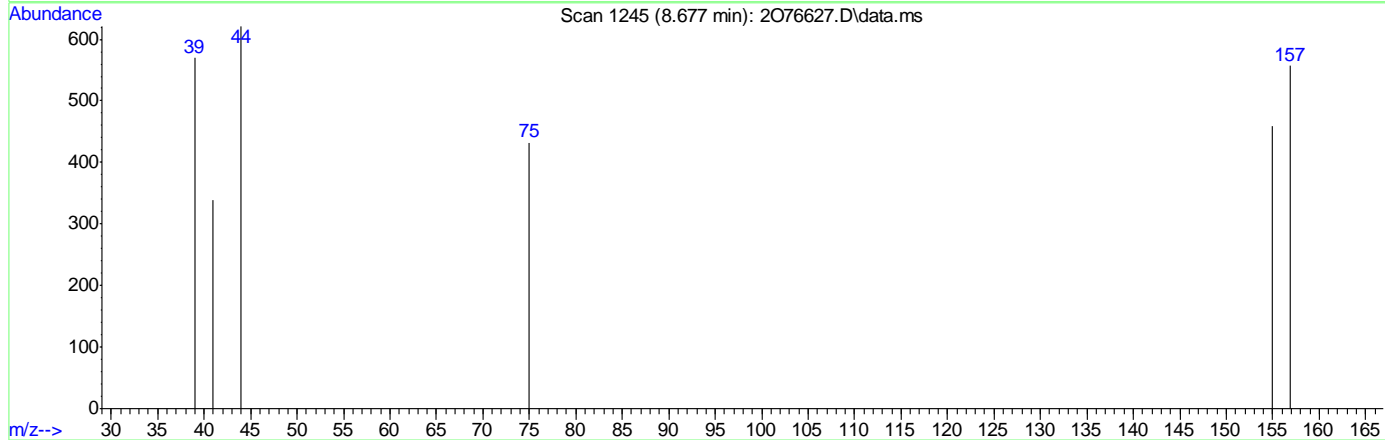
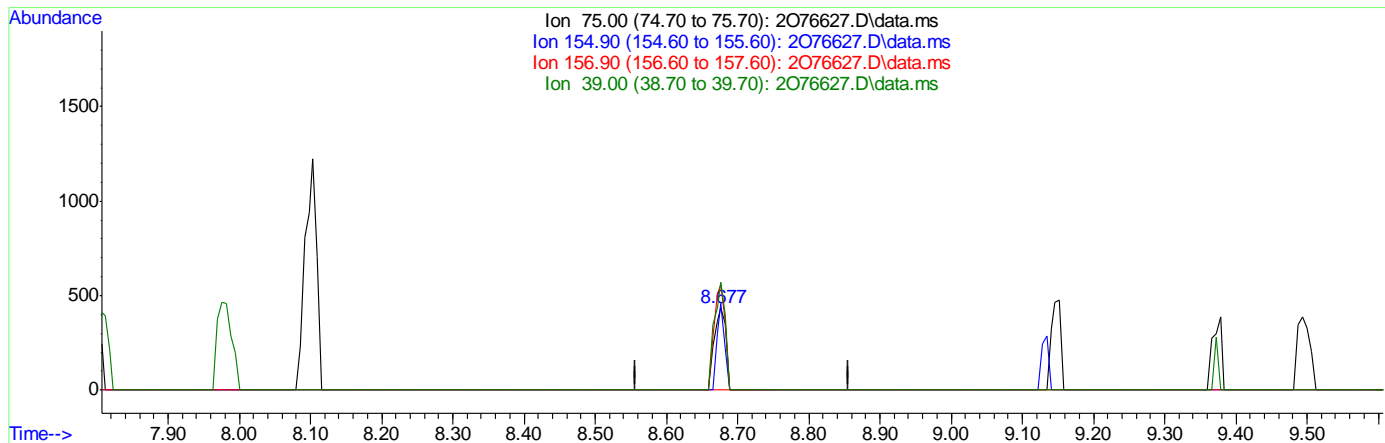
7.6.5.18  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(109) 1,2-Dibromo-3-Chloropropane

8.677min (-0.030) 0.85ug/L m

response 505

Ion	Exp%	Act%
75.00	100	100
154.90	105.60	106.25
156.90	135.20	128.94
39.00	68.40	131.94#

7.6.5.19  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	404974	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	293790	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	152816	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	109996	49.00	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.00%		
50) 1,2-Dichloroethane-d4	3.855	65	132234	55.42	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	110.84%		
63) Toluene-d8	4.976	98	394450	49.23	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	98.46%		
86) 4-Bromofluorobenzene	6.921	174	111883	47.98	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.96%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	7833	4.75	ug/L	99
3) Chloromethane	1.373	50	7470	4.19	ug/L	91
4) 1,3-butadiene	1.447	39	8856	4.95	ug/L	99
5) Vinyl Chloride	1.434	62	7803	4.41	ug/L	94
6) Bromomethane	1.666	94	5879	4.33	ug/L	100
7) Chloroethane	1.751	64	5968	4.76	ug/L	98
8) Trichlorofluoromethane	1.849	101	15769	5.01	ug/L	98
9) Ethyl Ether	2.056	59	6040	4.33	ug/L	97
10) Ethanol	2.160	45	3321	90.69	ug/L	94
11) 1,2-Dichlorotrifluoro...	2.178	67	8809	4.24	ug/L	97
12) 1,1-Dichloroethene	2.178	61	10848	4.07	ug/L	97
13) Freon 113	2.209	101	7935	4.47	ug/L	91
14) Carbon Disulfide	2.196	76	19764	3.81	ug/L	99
15) Iodomethane	2.270	142	5249	1.89	ug/L	96
16) Acrolein	2.385	56	13631	26.85	ug/L	98
17) Allyl chloride	2.471	41	8953	4.33	ug/L	92
18) Methylene Chloride	2.532	49	11616	4.67	ug/L	99
19) Acetone	2.556	43	23604	23.17	ug/L	100
20) Methyl acetate	2.629	43	49410	21.09	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	11325	4.44	ug/L	97
22) Hexane	2.678	56	6143	4.56	ug/L	94
23) Methyl Tert Butyl Ether	2.690	73	22102	4.52	ug/L	91
24) Tert Butyl Alcohol	2.739	59	12733	34.58	ug/L	89
25) Acetonitrile	2.830	41	19659	51.25	ug/L	98
26) Di-isopropyl ether	2.910	45	21277	4.10	ug/L	96
27) Chloroprene	2.971	53	11340	4.65	ug/L	94
28) 1,1-Dichloroethane	2.983	63	14544	4.39	ug/L	98
29) Acrylonitrile	3.007	52	22009	22.31	ug/L	100
30) ETBE	3.117	59	19708	4.19	ug/L	98
31) Vinyl acetate	3.117	43	82271	21.73	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	9466	4.60	ug/L	97
33) 2,2-Dichloropropane	3.355	77	8959	4.03	ug/L	98
34) Bromochloromethane	3.404	128	4890	4.41	ug/L	84
35) Cyclohexane	3.416	56	11174	4.08	ug/L	94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	16498	4.60	ug/L	96
37) Ethyl acetate	3.501	43	64391	21.65	ug/L	99
38) Tetrahydrofuran	3.538	42	4436	3.88	ug/L	94
40) Carbon Tetrachloride	3.532	117	9351m	4.16	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	12462	4.28	ug/L	93
42) 2-Butanone	3.611	43	35957	21.28	ug/L	96
43) 1,1-Dichloropropene	3.635	75	10732	4.27	ug/L	97
44) tert-Butyl formate	3.690	59	12320	19.49	ug/L #	77
45) Propionitrile	3.781	54	23175	46.22	ug/L	92
46) Methacrylonitrile	3.794	41	78381	46.18	ug/L	98
47) Benzene	3.775	78	32310	4.35	ug/L	98
48) TAME	3.836	73	18478	4.19	ug/L	92
49) Isobutyl alcohol	3.873	43	11227m	77.64	ug/L	
51) 1,2-Dichloroethane	3.891	62	13495	5.10	ug/L	92
52) Tert Amyl Alcohol	3.940	59	8507	29.33	ug/L #	80
53) Trichloroethene	4.117	95	9455	4.42	ug/L	92
54) Methylcyclohexane	4.117	83	11432	4.08	ug/L	93
55) Dibromomethane	4.367	93	6316	4.69	ug/L	98
56) 1,2-Dichloropropane	4.428	63	7491	4.30	ug/L	94
57) Bromodichloromethane	4.464	83	9966	4.18	ug/L	93
58) Methyl methacrylate	4.550	41	7997	4.10	ug/L	99
59) 1,4-Dioxane	4.586	88	2887	79.98	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	35209	23.27	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	10809	4.06	ug/L	97
64) Toluene	5.007	91	35293	4.38	ug/L	100
65) 2-Nitropropane	5.153	41	8493	18.53	ug/L	89
66) 4-Methyl-2-pentanone	5.245	43	59486	20.68	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	10498	4.06	ug/L	85
68) Tetrachloroethene	5.263	166	9103	3.99	ug/L	91
69) Ethyl methacrylate	5.367	69	10009	4.39	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	7435	4.58	ug/L	95
71) Dibromochloromethane	5.501	129	7348	4.03	ug/L	95
72) 1,3-Dichloropropane	5.568	76	14290	4.80	ug/L	98
73) 1,2-Dibromoethane	5.671	107	8935	4.39	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	72595	194.30	ug/L	94
75) 2-hexanone	5.812	43	60258	21.08	ug/L	95
76) 1-Chlorohexane	6.013	91	10472m	4.13	ug/L	
77) Ethylbenzene	6.049	91	37797	4.35	ug/L	95
78) Chlorobenzene	6.037	112	24419	4.49	ug/L	95
79) 1,1,1,2-Tetrachloroethane	6.080	131	7128	4.18	ug/L	96
80) m,p-Xylene	6.153	91	59021	8.73	ug/L	94
81) o-Xylene	6.470	91	28758	4.21	ug/L	98
82) Styrene	6.507	104	21432	4.00	ug/L	96
83) Bromoform	6.531	173	3863	3.40	ug/L	94
84) Isopropylbenzene	6.702	105	33556	4.08	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	2472	3.57	ug/L #	70
88) n-Propylbenzene	7.019	91	39938	4.22	ug/L	95
89) Bromobenzene	7.006	156	9088	4.32	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	12854	4.46	ug/L	96
91) 1,3,5-Trimethylbenzene	7.177	105	28027	4.19	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	29666	4.64	ug/L	93
93) trans-1,4-Dichloro-2-B...	7.208	53	2065	3.54	ug/L #	70
94) 1,2,3-Trichloropropane	7.177	110	4283	4.51	ug/L	92
95) Cyclohexanone	7.208	55	2144	16.29	ug/L	93
96) 4-Chlorotoluene	7.275	91	26547	4.52	ug/L	99
97) tert-Butylbenzene	7.421	91	15692	4.34	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	27462	4.16	ug/L	97
100) Pentachloroethane	7.439	167	3906	4.56	ug/L #	71
101) sec-Butylbenzene	7.561	105	32879	4.11	ug/L	98
102) 4-Isopropyltoluene	7.671	119	26924	3.85	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	18090	4.35	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	30267	4.38	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	19119	4.54	ug/L	89
106) n-Butylbenzene	7.988	92	13411	3.87	ug/L	99
107) Benzyl Chloride	7.976	126	2087	2.92	ug/L #	10
108) 1,2-Dichlorobenzene	8.104	146	18119	4.62	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	2348	4.11	ug/L #	71
110) Hexachlorobutadiene	9.134	225	3550	4.25	ug/L	82
111) 1,2,4-Trichlorobenzene	9.152	180	9849	4.14	ug/L	96
112) Naphthalene	9.372	128	31987	3.80	ug/L	96
113) 1,2,3-Trichlorobenzene	9.500	180	9876	4.37	ug/L	94

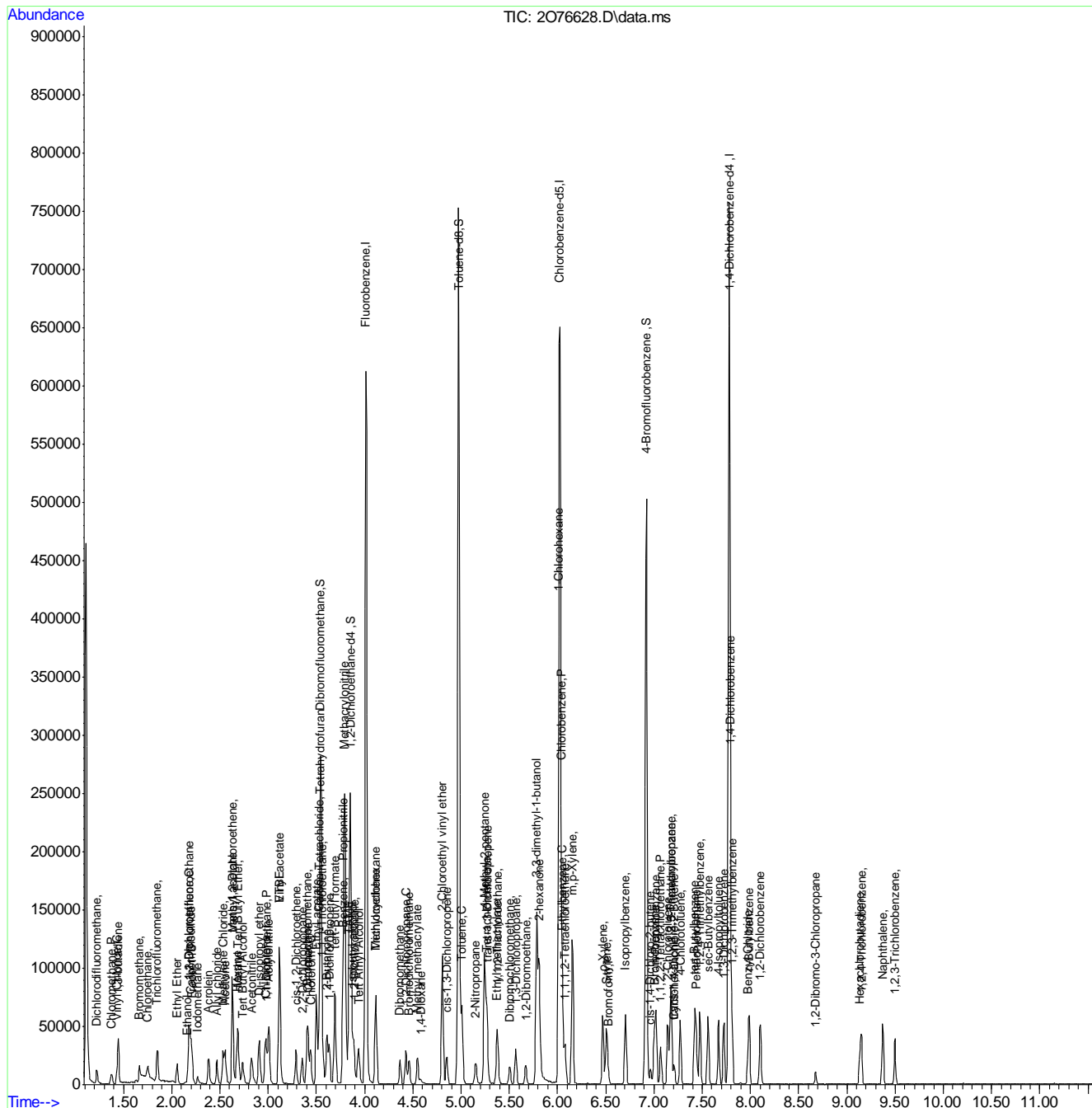
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration





# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76628.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:20      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.6.6.1

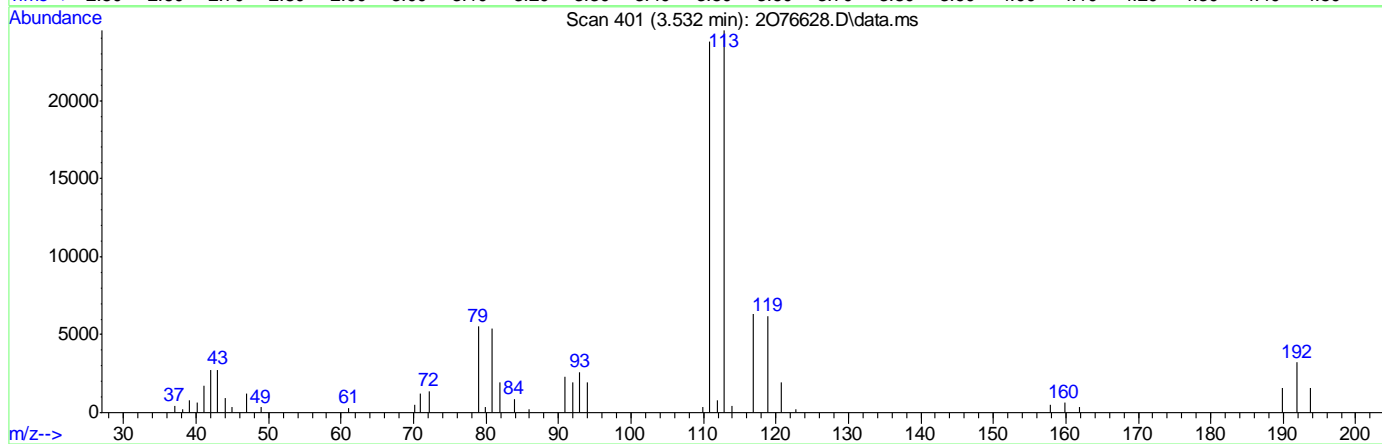
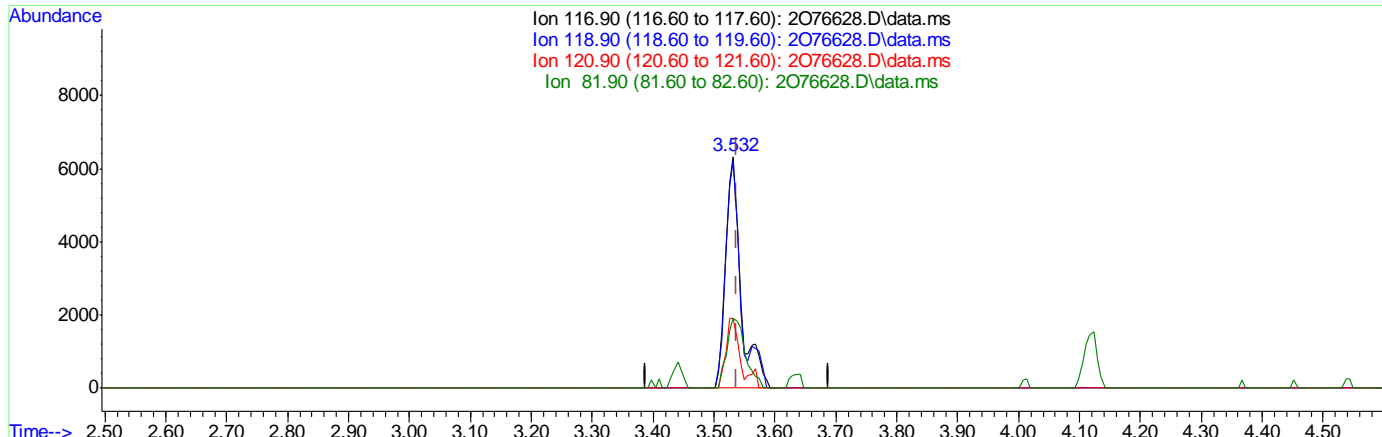
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.95ug/L

response 11113

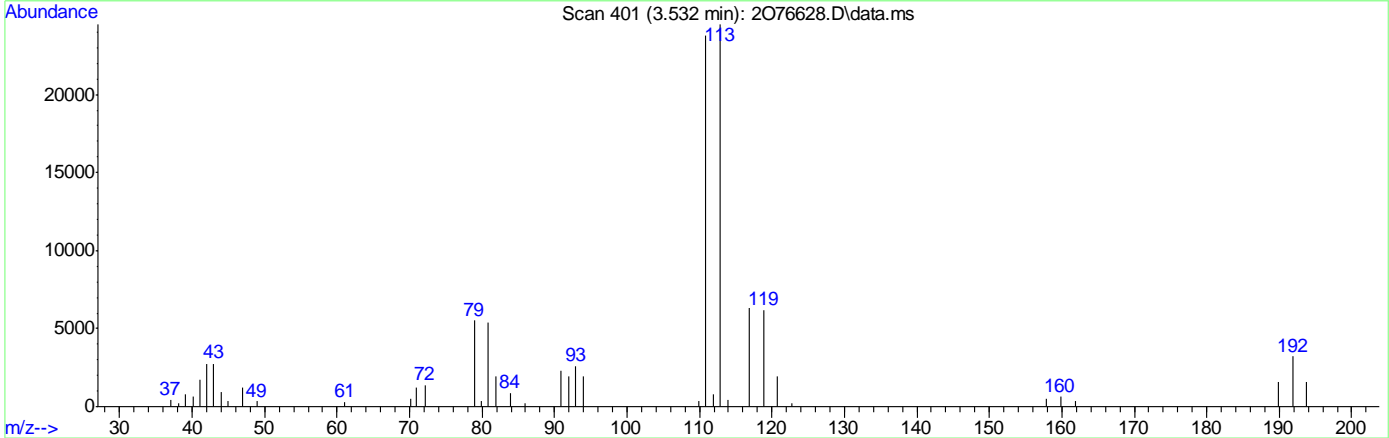
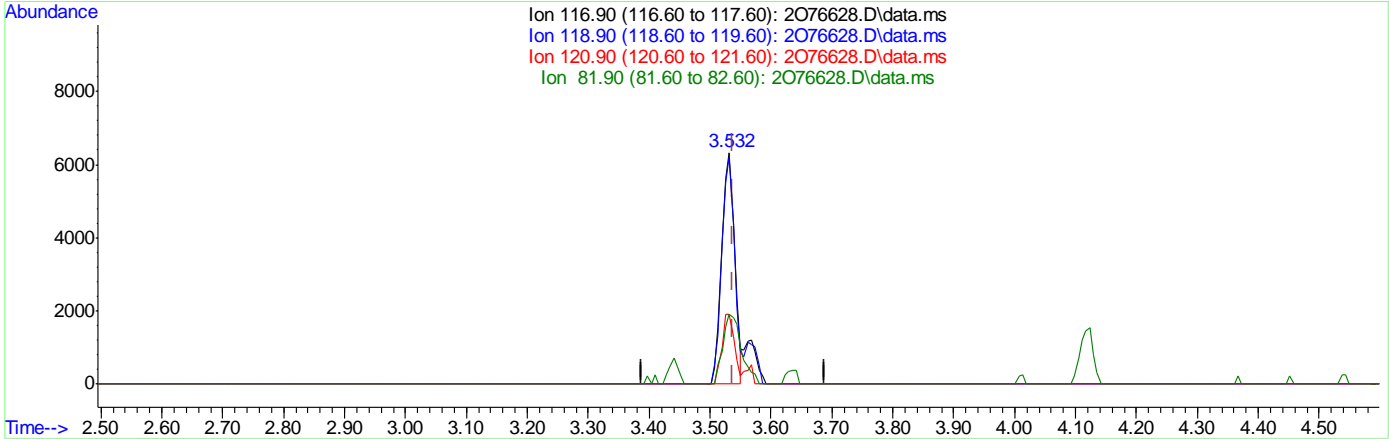
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

7.6.6.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.16ug/L m

response 9351

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

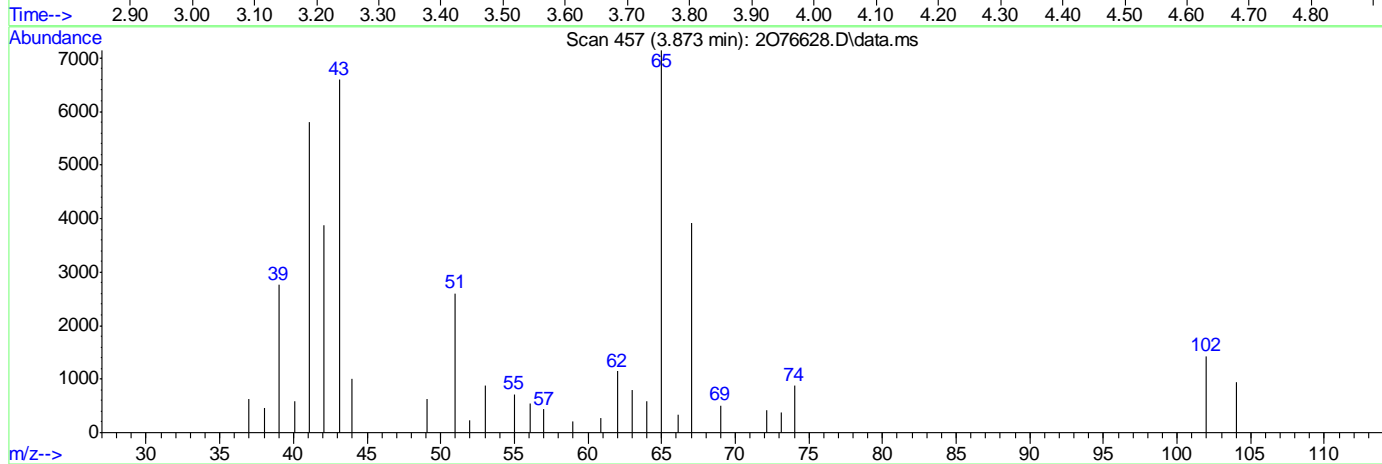
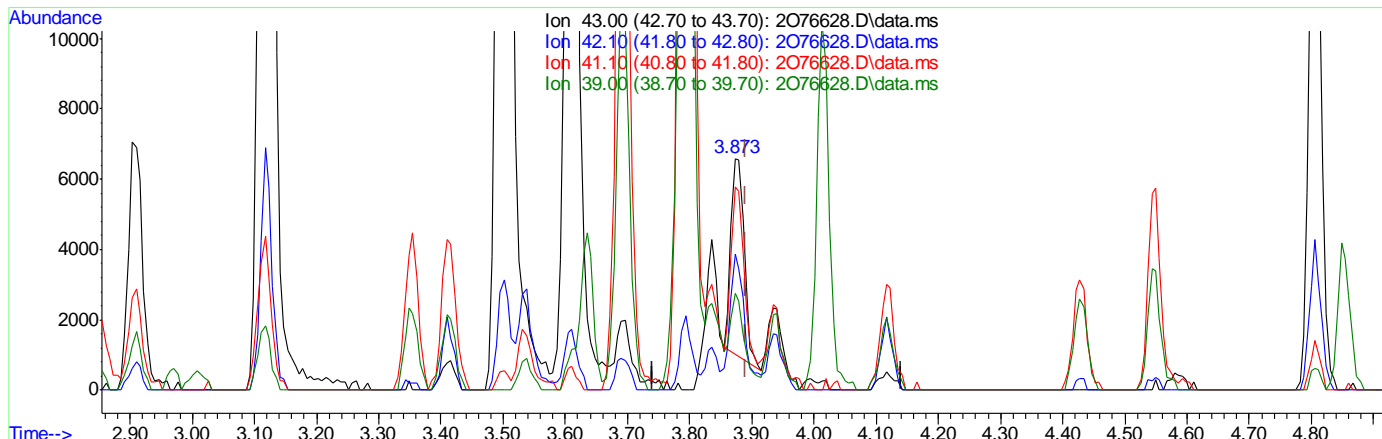
7.6.6.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 56.50ug/L  
 response 8147

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	57.01
41.10	73.50	81.97
39.00	30.20	39.92

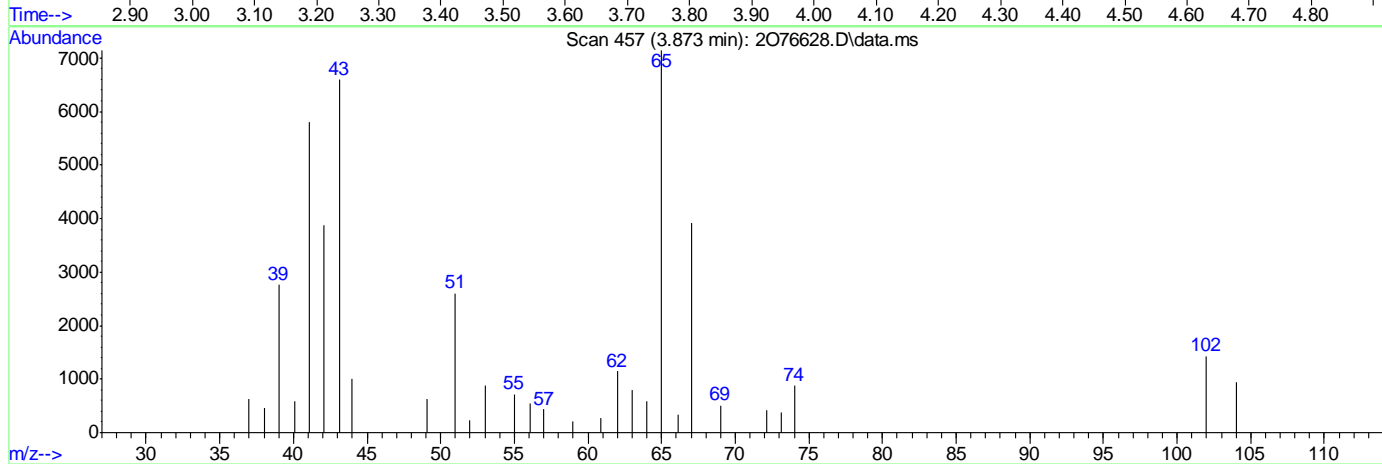
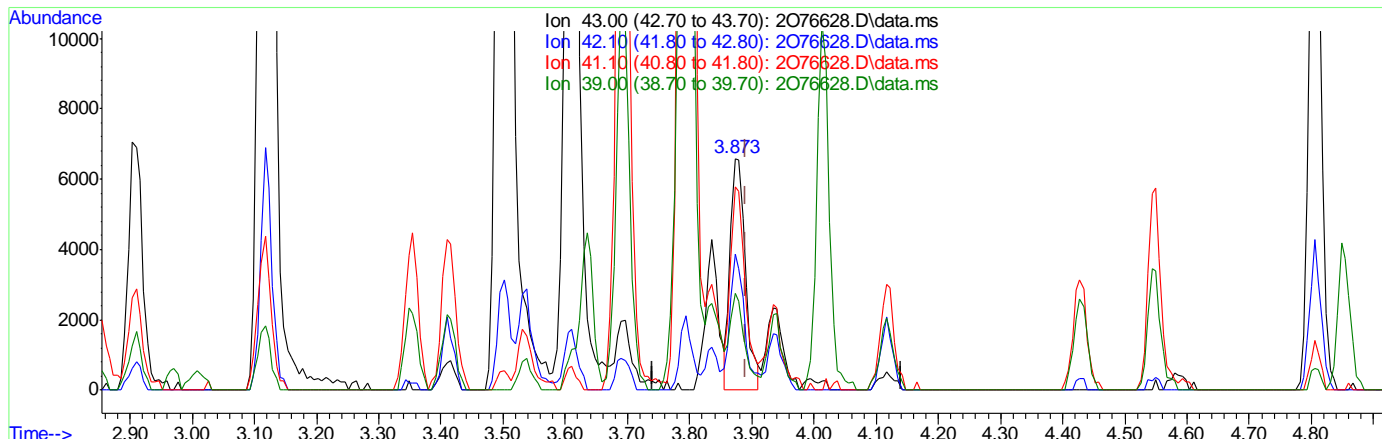
7.6.6.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 77.64ug/L m  
 response 11227

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.68
41.10	73.50	87.95
39.00	30.20	41.83

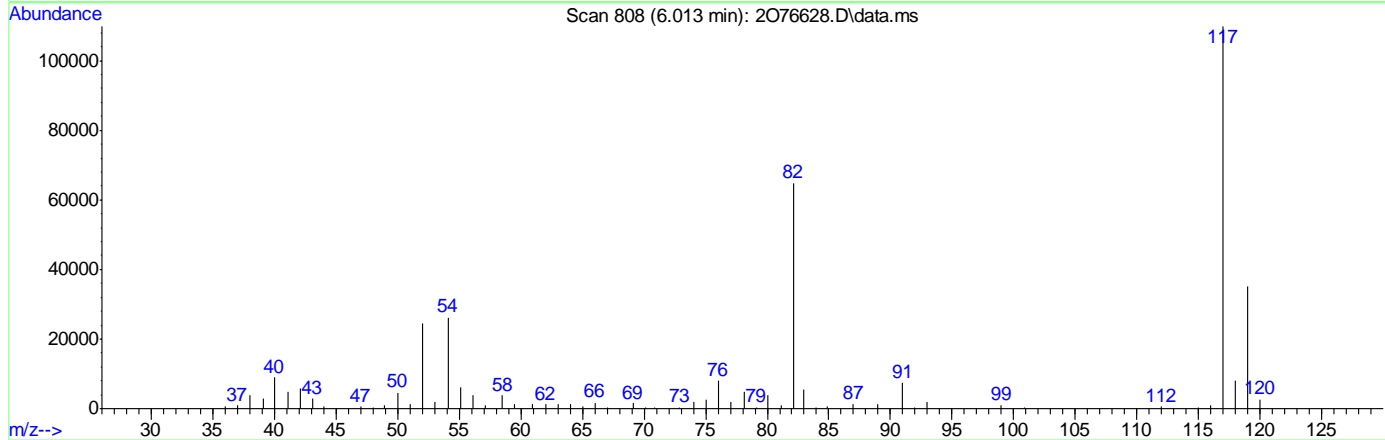
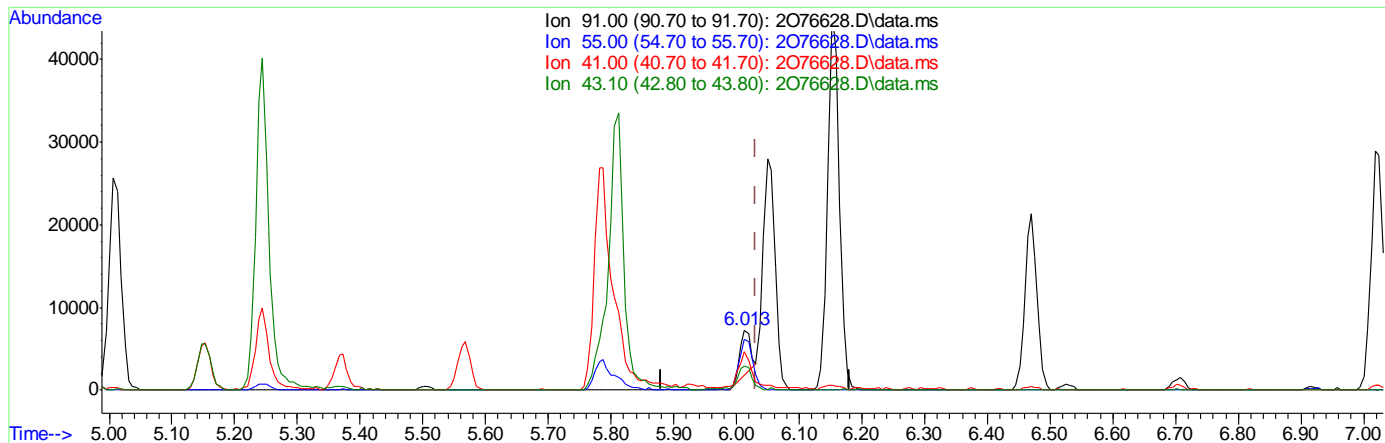
7.6.6.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 2.53ug/L  
 response 6422

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	58.66
43.10	42.30	35.75

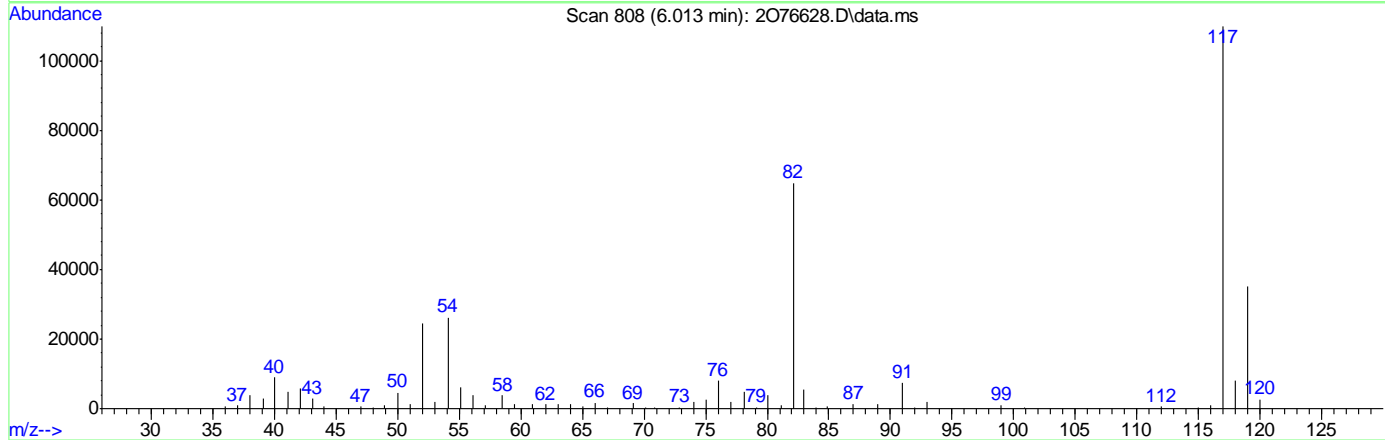
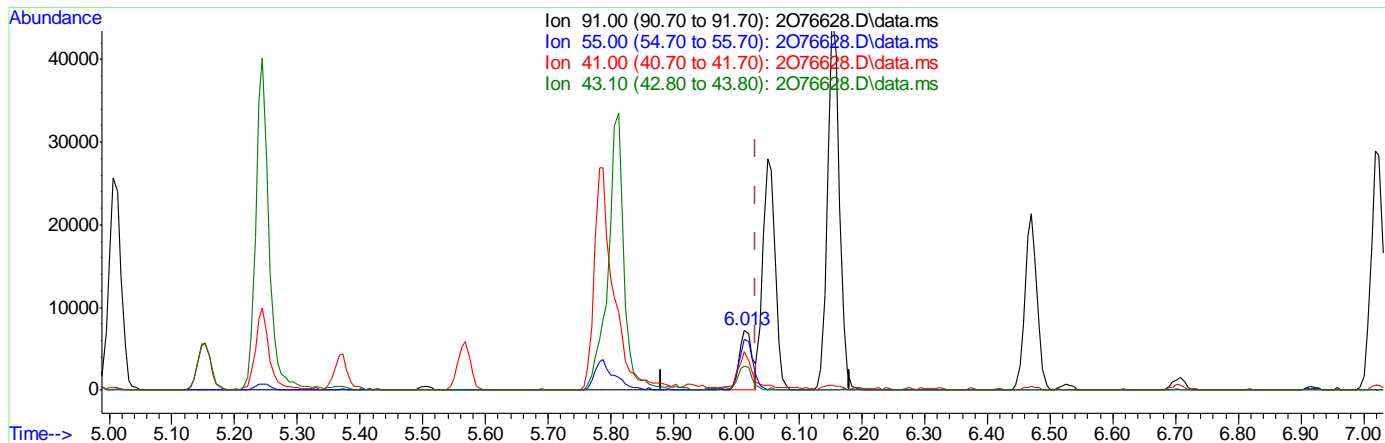
7.6.6.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 4.13ug/L m  
 response 10472

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	64.64
43.10	42.30	38.82

7.6.6.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	419369	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	299387	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	147990	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112256	48.29	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.58%	
50) 1,2-Dichloroethane-d4	3.855	65	124045	50.21	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	100.42%	
63) Toluene-d8	4.976	98	410567	50.29	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	100.58%	
86) 4-Bromofluorobenzene	6.921	174	110051	48.73	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.46%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	14159	8.29	ug/L		96
3) Chloromethane	1.373	50	14281	7.73	ug/L		99
4) 1,3-butadiene	1.447	39	21966	11.86	ug/L		95
5) Vinyl Chloride	1.434	62	14841	8.09	ug/L		98
6) Bromomethane	1.666	94	12790	9.10	ug/L		96
7) Chloroethane	1.751	64	11531	9.22	ug/L		99
8) Trichlorofluoromethane	1.855	101	28857	8.86	ug/L		98
9) Ethyl Ether	2.056	59	14179	9.81	ug/L		97
10) Ethanol	2.148	45	7388	195.03	ug/L		92
11) 1,2-Dichlorotrifluoro...	2.178	67	21269	9.89	ug/L		98
12) 1,1-Dichloroethene	2.178	61	25545	9.25	ug/L		98
13) Freon 113	2.209	101	18242	9.92	ug/L		97
14) Carbon Disulfide	2.196	76	46458	8.66	ug/L		100
15) Iodomethane	2.270	142	11838	4.12	ug/L		96
16) Acrolein	2.385	56	21680	41.23	ug/L		100
17) Allyl chloride	2.471	41	23205	10.85	ug/L		93
18) Methylene Chloride	2.532	49	23368	9.09	ug/L		93
19) Acetone	2.556	43	40200	38.11	ug/L		95
20) Methyl acetate	2.629	43	106505	43.91	ug/L		97
21) trans-1,2-Dichloroethene	2.629	61	24876	9.42	ug/L		98
22) Hexane	2.678	56	12980	9.30	ug/L		93
23) Methyl Tert Butyl Ether	2.690	73	48734	9.62	ug/L		84
24) Tert Butyl Alcohol	2.739	59	28264	73.48	ug/L		96
25) Acetonitrile	2.830	41	46242	116.41	ug/L		98
26) Di-isopropyl ether	2.910	45	49704	9.25	ug/L		97
27) Chloroprene	2.971	53	30419	12.04	ug/L		97
28) 1,1-Dichloroethane	2.983	63	33210	9.68	ug/L		98
29) Acrylonitrile	3.007	52	41694	40.81	ug/L		98
30) ETBE	3.117	59	45529	9.34	ug/L		98
31) Vinyl acetate	3.117	43	165022	42.09	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	21594	10.14	ug/L		97
33) 2,2-Dichloropropane	3.355	77	21489	9.33	ug/L		96
34) Bromochloromethane	3.404	128	10910	9.50	ug/L		97
35) Cyclohexane	3.416	56	26719	9.43	ug/L		96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	37057	9.98	ug/L	95
37) Ethyl acetate	3.501	43	122718	39.84	ug/L	99
38) Tetrahydrofuran	3.538	42	9442	7.97	ug/L	94
40) Carbon Tetrachloride	3.532	117	23413m	10.06	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	28685	9.52	ug/L	92
42) 2-Butanone	3.611	43	58985	33.71	ug/L	99
43) 1,1-Dichloropropene	3.635	75	25268	9.71	ug/L	97
44) tert-Butyl formate	3.696	59	27466	41.29	ug/L	91
45) Propionitrile	3.782	54	54691	105.33	ug/L	98
46) Methacrylonitrile	3.794	41	197008	112.10	ug/L	100
47) Benzene	3.782	78	73822	9.60	ug/L	75
48) TAME	3.836	73	42714	9.36	ug/L	93
49) Isobutyl alcohol	3.873	43	29288m	192.54	ug/L	
51) 1,2-Dichloroethane	3.891	62	29670	10.83	ug/L	99
52) Tert Amyl Alcohol	3.940	59	19883	65.61	ug/L	89
53) Trichloroethene	4.117	95	21676	9.78	ug/L	93
54) Methylcyclohexane	4.117	83	26689	9.20	ug/L	98
55) Dibromomethane	4.367	93	14206	10.19	ug/L	95
56) 1,2-Dichloropropane	4.428	63	18144	10.06	ug/L	98
57) Bromodichloromethane	4.464	83	23459	9.50	ug/L	99
58) Methyl methacrylate	4.550	41	22857	11.33	ug/L	96
59) 1,4-Dioxane	4.586	88	7119	188.95	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	73491	46.91	ug/L	97
61) cis-1,3-Dichloropropene	4.854	75	25420	9.16	ug/L	95
64) Toluene	5.007	91	78741	9.60	ug/L	98
65) 2-Nitropropane	5.153	41	20315	42.48	ug/L	93
66) 4-Methyl-2-pentanone	5.245	43	103323	35.24	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	24400	9.20	ug/L	93
68) Tetrachloroethene	5.263	166	21010	9.04	ug/L	97
69) Ethyl methacrylate	5.373	69	26356	11.25	ug/L	91
70) 1,1,2-Trichloroethane	5.379	83	16938	10.23	ug/L	94
71) Dibromochloromethane	5.507	129	17360	9.25	ug/L	95
72) 1,3-Dichloropropane	5.568	76	30797	10.15	ug/L	95
73) 1,2-Dibromoethane	5.671	107	20754	10.02	ug/L	96
74) 3,3-dimethyl-1-butanol	5.787	57	152612	397.35	ug/L	98
75) 2-hexanone	5.812	43	110591	37.97	ug/L	95
76) 1-Chlorohexane	6.013	91	24148m	9.35	ug/L	
77) Ethylbenzene	6.055	91	87245	9.86	ug/L	99
78) Chlorobenzene	6.037	112	54505	9.83	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	17412	10.03	ug/L	98
80) m,p-Xylene	6.153	91	137392	19.95	ug/L	97
81) o-Xylene	6.470	91	67805	9.75	ug/L	96
82) Styrene	6.507	104	51434	9.41	ug/L	96
83) Bromoform	6.525	173	9671	8.23	ug/L	97
84) Isopropylbenzene	6.702	105	78509	9.36	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	6848	10.22	ug/L #	71
88) n-Propylbenzene	7.019	91	93508	10.19	ug/L	97
89) Bromobenzene	7.000	156	20705	10.17	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	29986	10.73	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	67336	10.40	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	66021	10.67	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.208	53	5426	9.48	ug/L #	67
94) 1,2,3-Trichloropropane	7.177	110	9480	10.31	ug/L	95
95) Cyclohexanone	7.208	55	4201	32.95	ug/L	94
96) 4-Chlorotoluene	7.275	91	62474	10.97	ug/L	98
97) tert-Butylbenzene	7.427	91	35635	10.18	ug/L	98
99) 1,2,4-Trimethylbenzene	7.476	105	67842	10.60	ug/L	97
100) Pentachloroethane	7.439	167	10863	12.80	ug/L #	60
101) sec-Butylbenzene	7.561	105	76471	9.86	ug/L	98
102) 4-Isopropyltoluene	7.671	119	65044	9.61	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	41222	10.25	ug/L	98
104) 1,2,3-Trimethylbenzene	7.811	105	71503	10.68	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	42137	10.34	ug/L	93
106) n-Butylbenzene	7.988	92	32655	9.70	ug/L	90
107) Benzyl Chloride	7.976	126	5378	7.59	ug/L #	11
108) 1,2-Dichlorobenzene	8.104	146	39720	10.46	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	5193	9.27	ug/L	82
110) Hexachlorobutadiene	9.134	225	7668	9.44	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	22216	9.64	ug/L	99
112) Naphthalene	9.372	128	76182	9.34	ug/L	97
113) 1,2,3-Trichlorobenzene	9.500	180	21519	9.83	ug/L	96

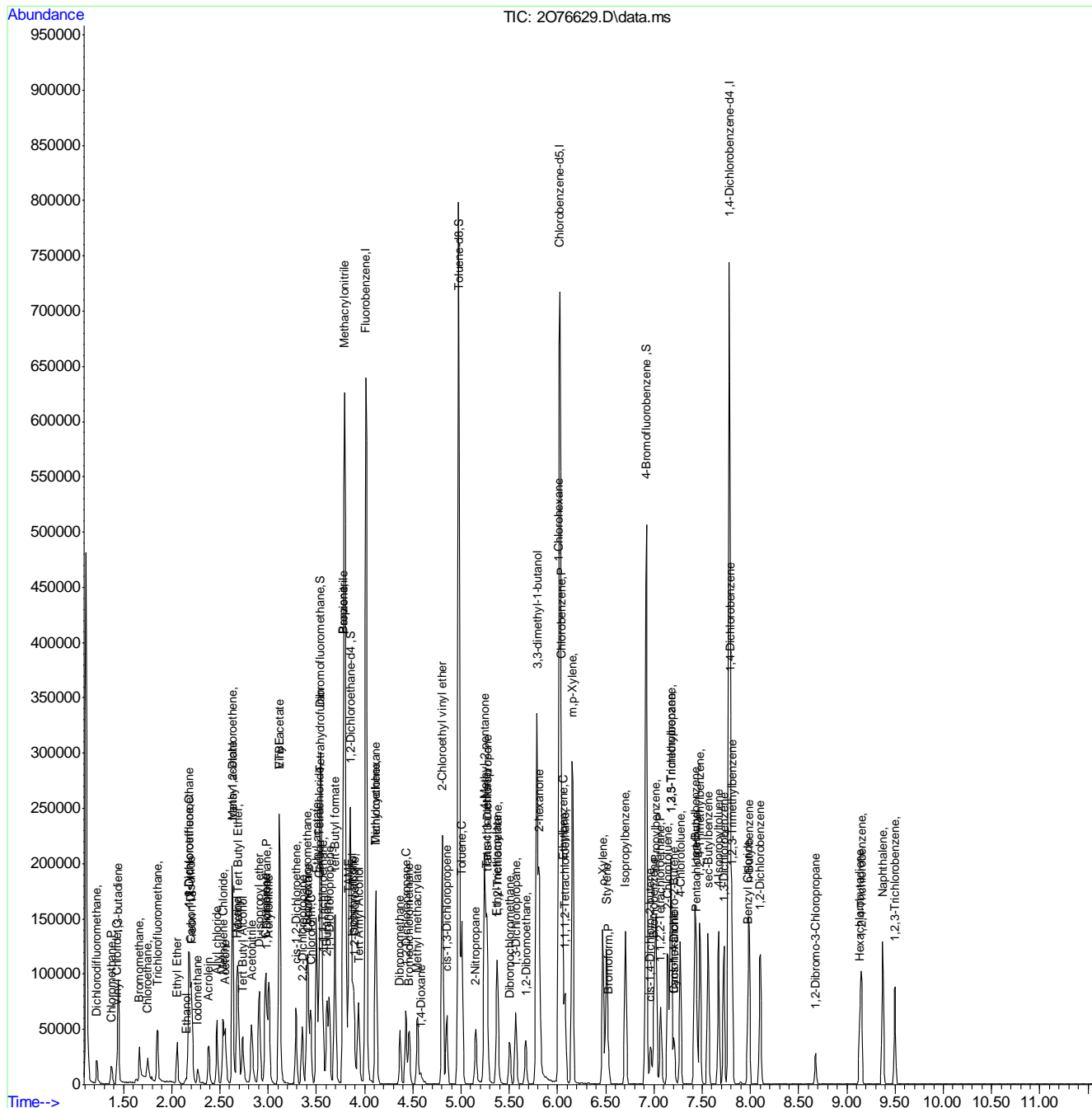
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\
Data File : 2076629.D
Acq On : 7 Jun 2023 2:46 pm
Operator : joannel
Sample : IC2981-3
Misc : MS54147,V202981,,,,,
ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:10:12 2023
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Tue Apr 11 14:22:12 2023
Response via : Initial Calibration



7.6.7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76629.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:46      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

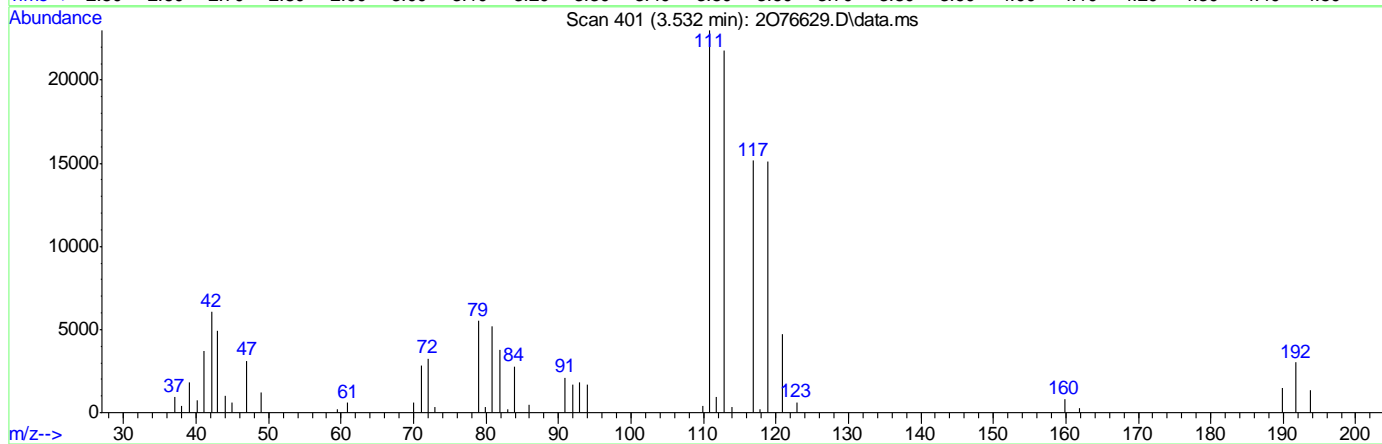
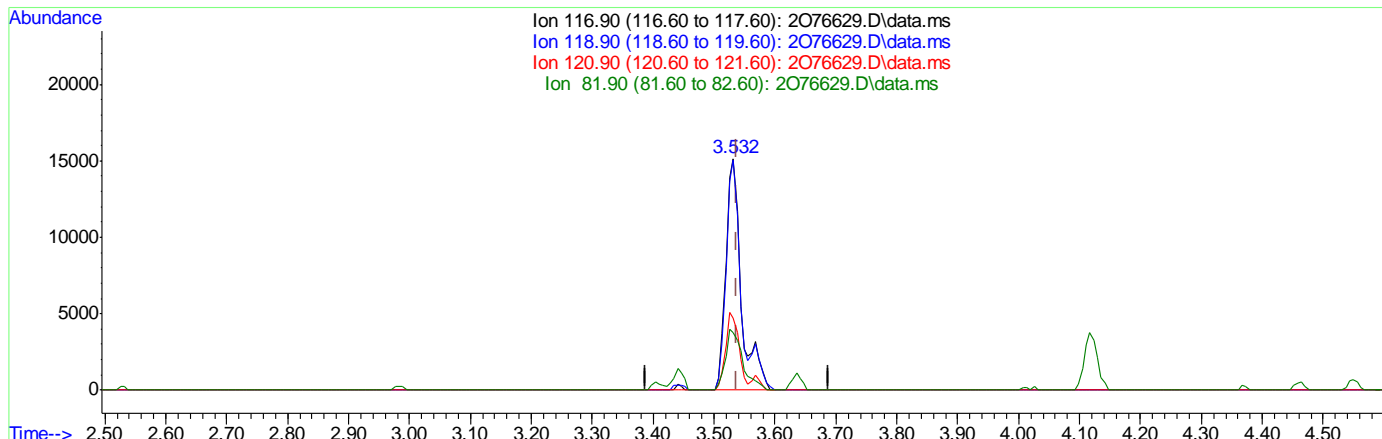
7.6.7.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 11.53ug/L

response 26818

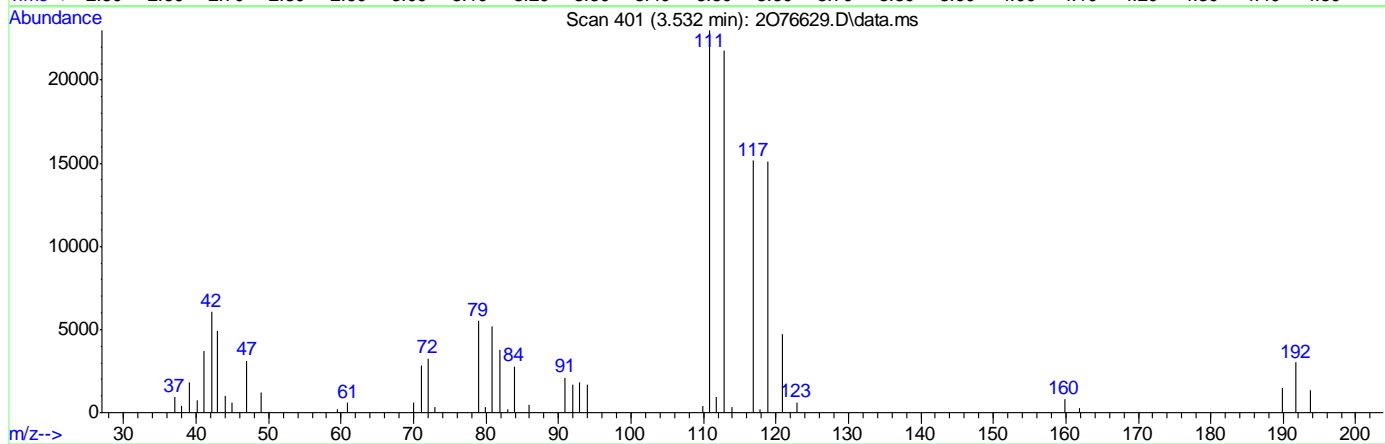
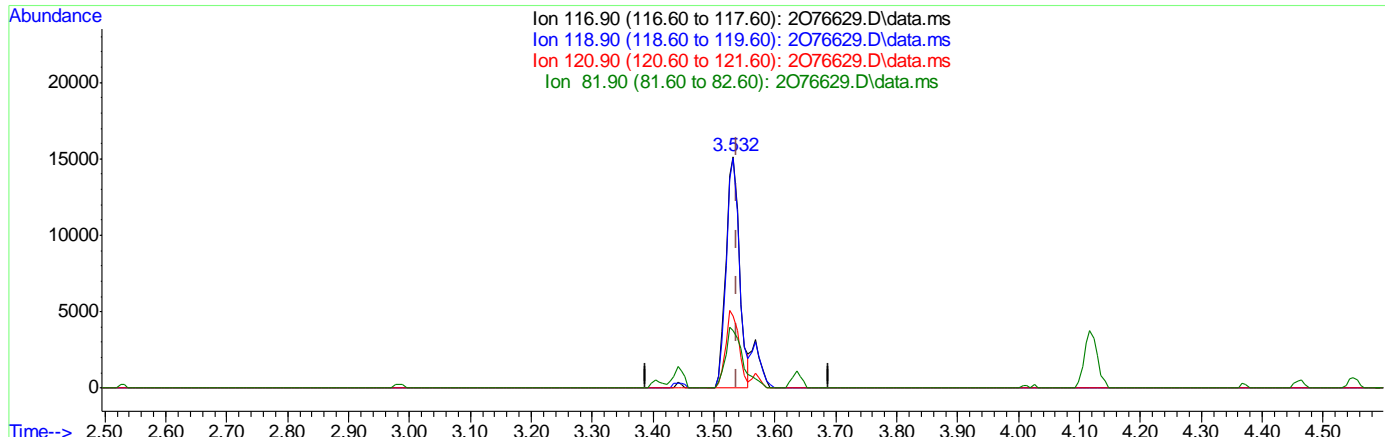
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 10.06ug/L m  
 response 23413

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

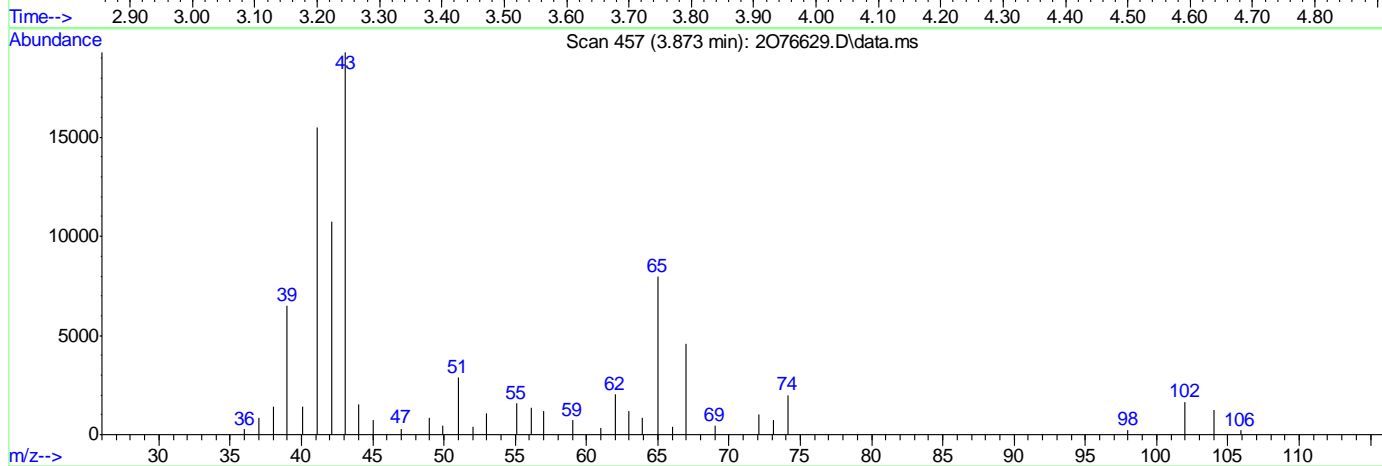
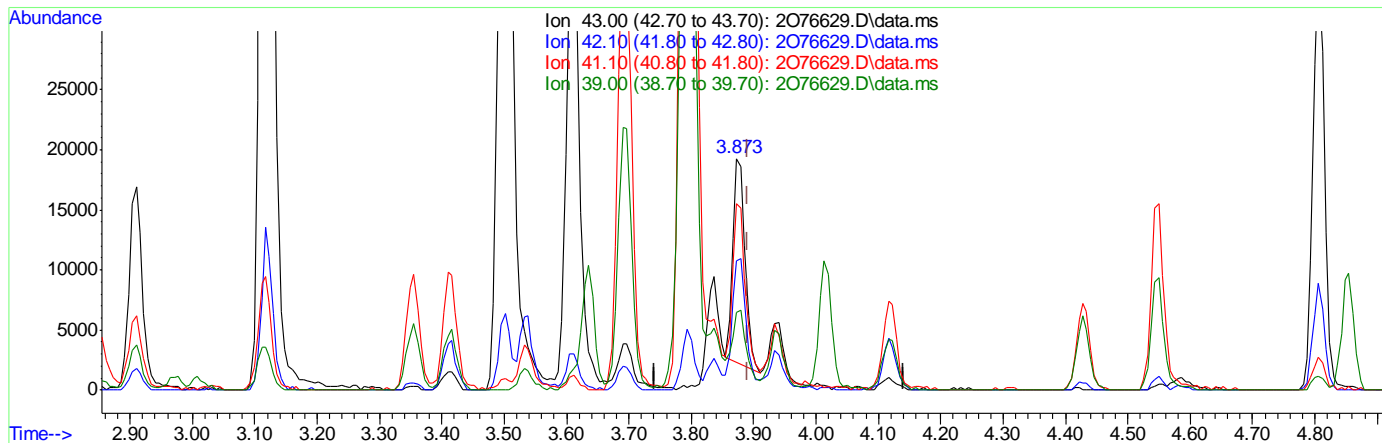
7.6.7.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 151.46ug/L  
 response 22911

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.61
41.10	73.50	77.53
39.00	30.20	32.15

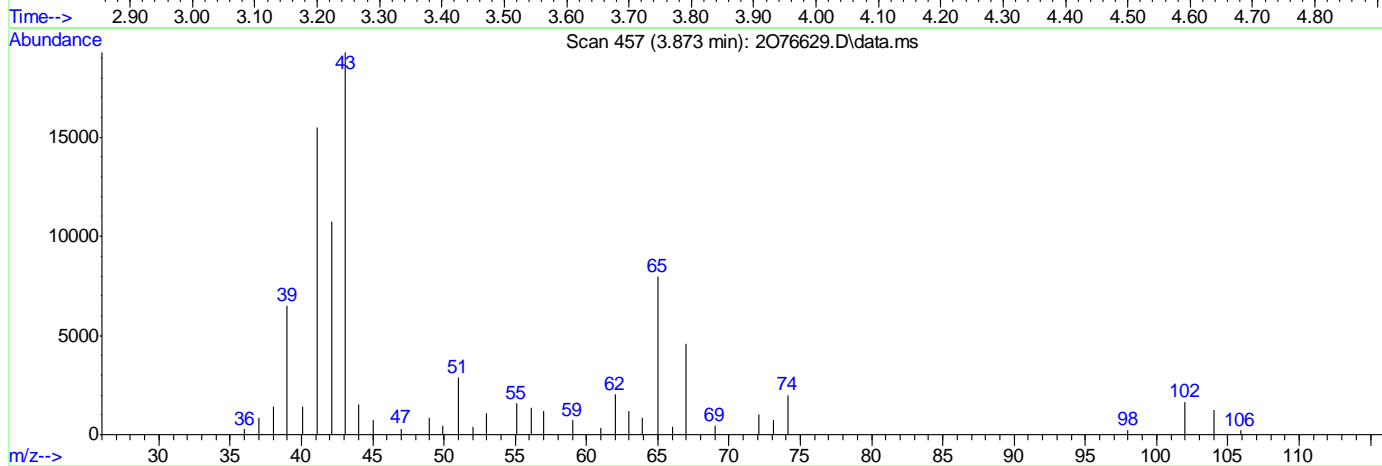
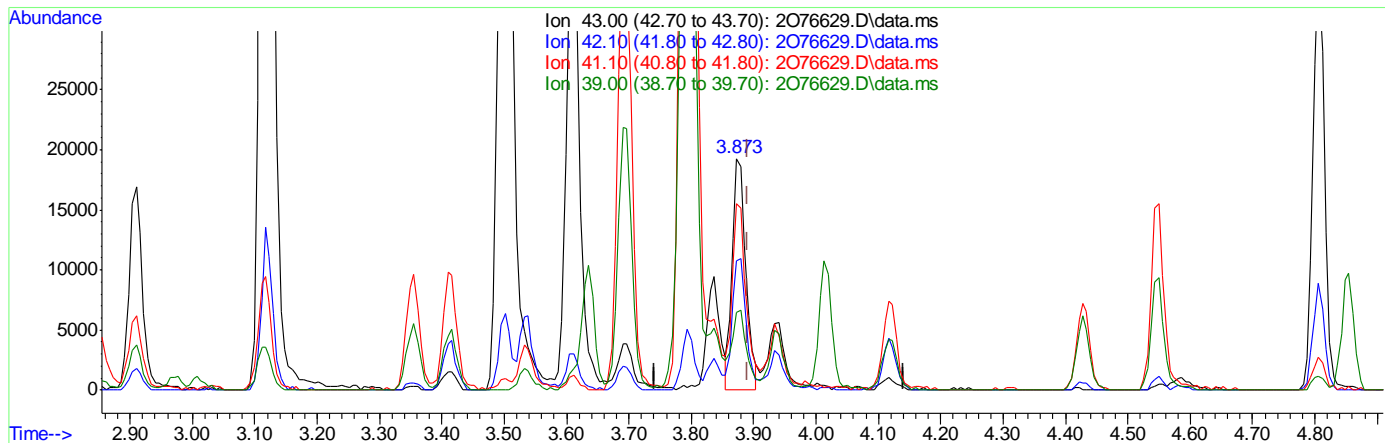
7.6.7.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.018) 192.54ug/L m

response 29288

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.79
41.10	73.50	80.30
39.00	30.20	33.64

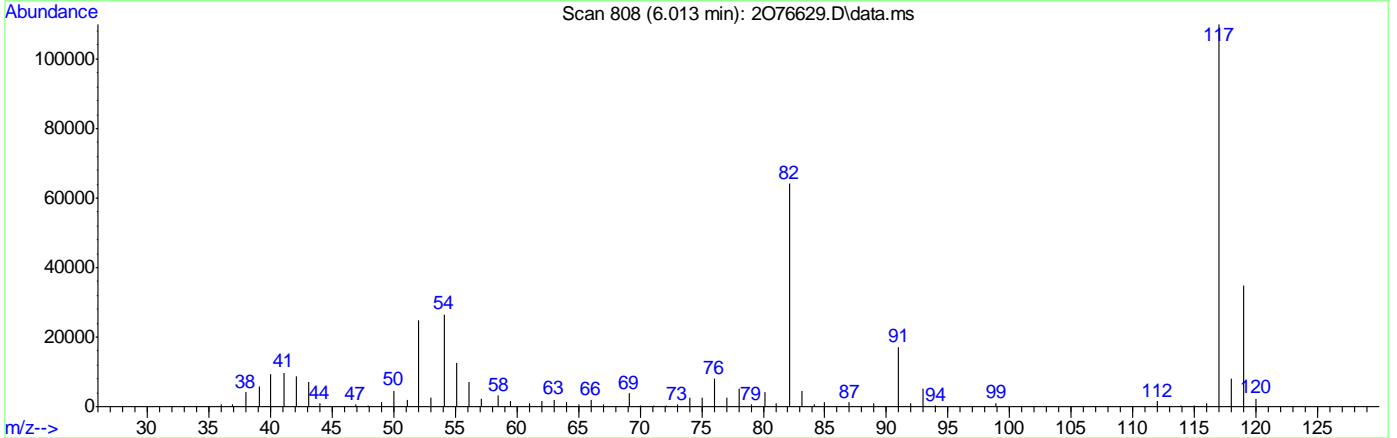
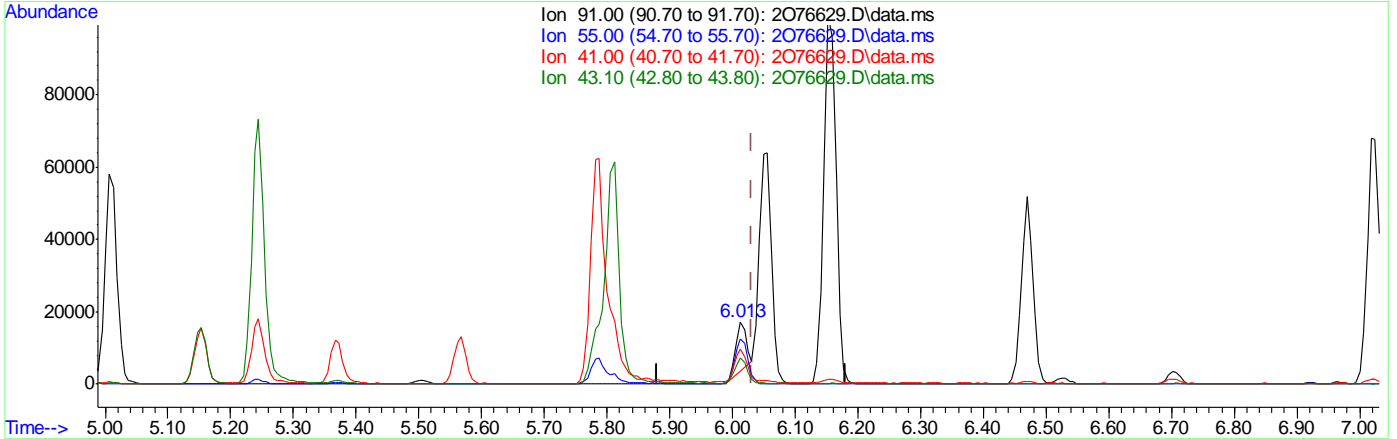
7.6.7.5  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 6.23ug/L  
 response 16093

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	70.62
41.00	53.70	52.35
43.10	42.30	40.47

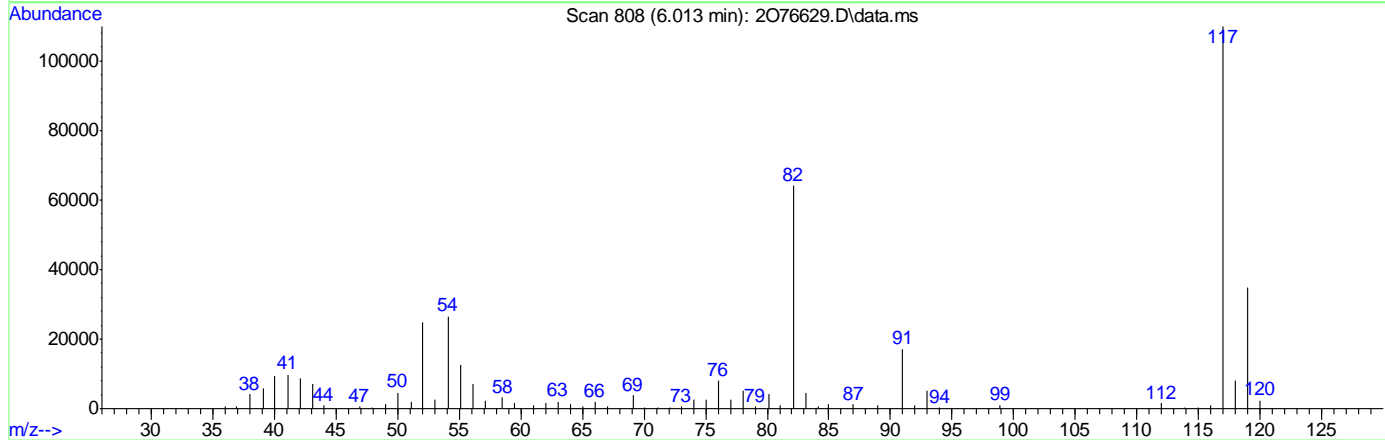
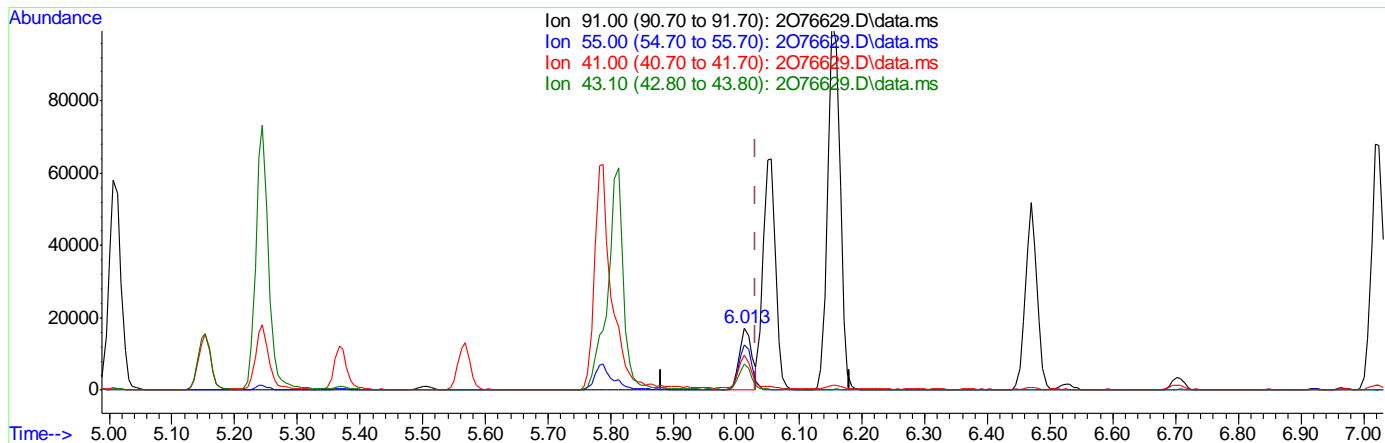
7.6.7.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 9.35ug/L m  
 response 24148

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	72.69
41.00	53.70	56.97
43.10	42.30	42.13

7.6.7.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	414377	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	305712	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	159068	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112991	50.14	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.28%		
50) 1,2-Dichloroethane-d4	3.849	65	136161	50.90	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	101.80%		
63) Toluene-d8	4.976	98	409736	50.27	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.54%		
86) 4-Bromofluorobenzene	6.921	174	115966	49.89	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.78%		
Target Compounds						
10) Ethanol	2.160	45	24410	756.97	ug/L	100
17) Allyl chloride	2.471	41	88294	47.59	ug/L	98

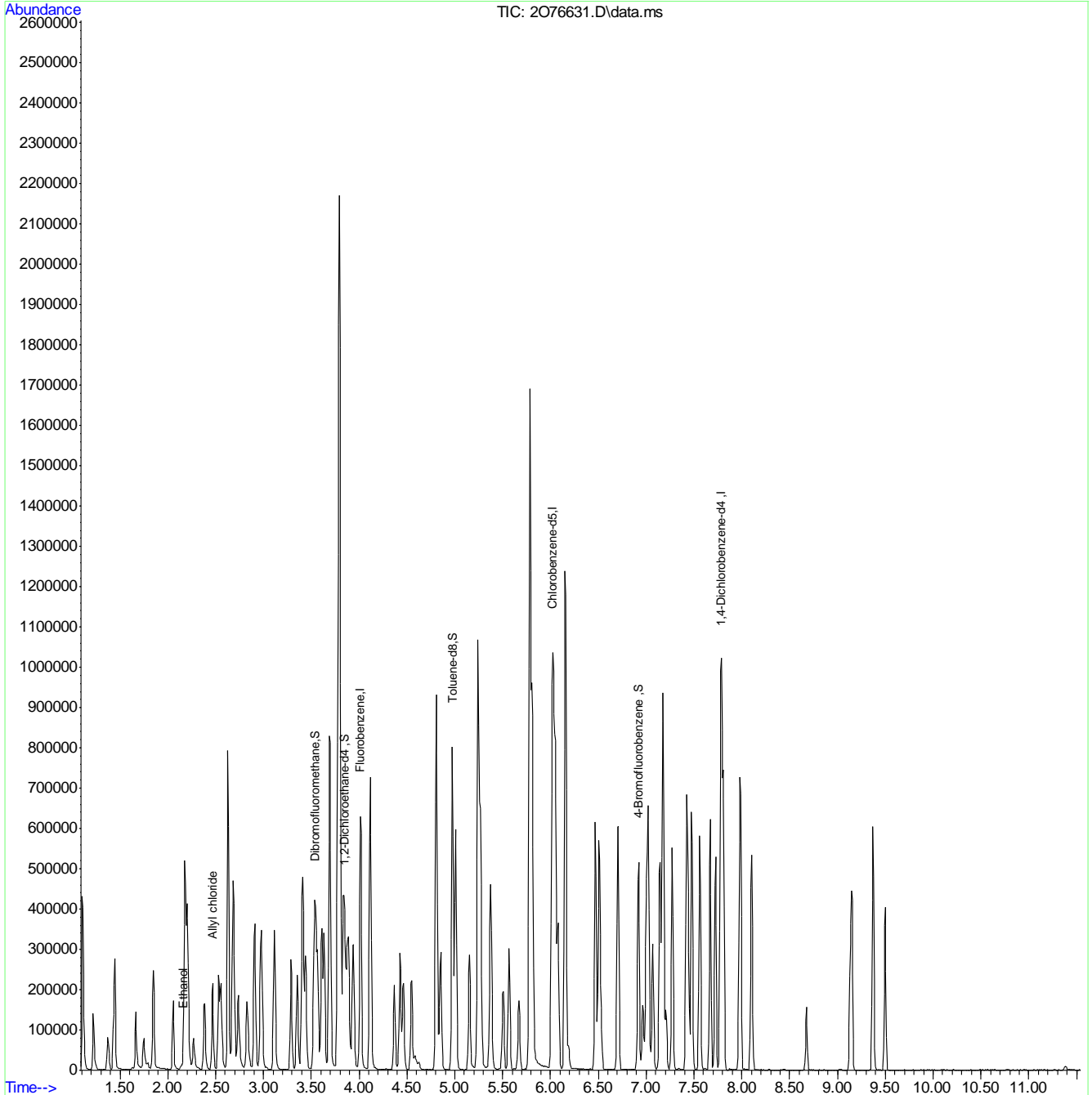
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.8  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



7  
8  
9  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	434499	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	314063	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	164053	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	117403	49.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.38%		
50) 1,2-Dichloroethane-d4	3.855	65	139463	49.72	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	99.44%		
63) Toluene-d8	4.976	98	422814	50.49	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.98%		
86) 4-Bromofluorobenzene	6.921	174	120391	50.22	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.44%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	51906	32.36	ug/L	99
3) Chloromethane	1.373	50	43187	26.41	ug/L	100
4) 1,3-butadiene	1.447	39	41003	21.92	ug/L	95
5) Vinyl Chloride	1.434	62	44975	26.66	ug/L	96
6) Bromomethane	1.666	94	36676	27.91	ug/L	96
7) Chloroethane	1.751	64	29437	25.00	ug/L	99
8) Trichlorofluoromethane	1.849	101	81676	25.66	ug/L	100
9) Ethyl Ether	2.056	59	38463	25.66	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	54683	25.73	ug/L	97
12) 1,1-Dichloroethene	2.178	61	63160	23.66	ug/L	97
13) Freon 113	2.209	101	47591	25.37	ug/L	97
14) Carbon Disulfide	2.196	76	118183	23.81	ug/L	96
15) Iodomethane	2.270	142	43251	26.12	ug/L	97
16) Acrolein	2.385	56	65058	134.32	ug/L	99
18) Methylene Chloride	2.532	49	59696	24.75	ug/L	99
19) Acetone	2.556	43	107290	107.03	ug/L	99
20) Methyl acetate	2.629	43	259378	109.58	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	64538	23.93	ug/L	98
22) Hexane	2.678	56	33073	24.11	ug/L	89
23) Methyl Tert Butyl Ether	2.690	73	135498	24.98	ug/L	96
24) Tert Butyl Alcohol	2.739	59	87323	259.99	ug/L	97
25) Acetonitrile	2.830	41	109096	279.25	ug/L	97
26) Di-isopropyl ether	2.910	45	131496	24.63	ug/L	99
27) Chloroprene	2.971	53	62282	23.54	ug/L	99
28) 1,1-Dichloroethane	2.983	63	83520	23.83	ug/L	99
29) Acrylonitrile	3.007	52	112368	116.10	ug/L	98
30) ETBE	3.117	59	129966	25.60	ug/L	98
31) Vinyl acetate	3.117	43	502881	132.19	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	52859	23.01	ug/L	99
33) 2,2-Dichloropropane	3.355	77	61403	26.21	ug/L	99
34) Bromochloromethane	3.404	128	27768	24.84	ug/L	99
35) Cyclohexane	3.410	56	64486	24.11	ug/L	95
36) Chloroform	3.440	83	97415	24.60	ug/L	98
37) Ethyl acetate	3.501	43	342089	120.13	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Tetrahydrofuran	3.532	42	25353	24.85	ug/L	96
40) Carbon Tetrachloride	3.532	117	61822m	24.23	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	76053	24.34	ug/L	97
42) 2-Butanone	3.611	43	174158	112.37	ug/L	99
43) 1,1-Dichloropropene	3.635	75	64684	24.69	ug/L	99
44) tert-Butyl formate	3.696	59	107277	156.33	ug/L	97
45) Propionitrile	3.781	54	136267	283.86	ug/L	96
46) Methacrylonitrile	3.794	41	468555	280.69	ug/L	99
47) Benzene	3.775	78	197107	24.93	ug/L	91
48) TAME	3.836	73	121922	25.32	ug/L	97
49) Isobutyl alcohol	3.873	43	83094m	579.85	ug/L	
51) 1,2-Dichloroethane	3.891	62	77228	23.74	ug/L	99
52) Tert Amyl Alcohol	3.934	59	65294	254.65	ug/L	96
53) Trichloroethene	4.117	95	55159	24.05	ug/L	99
54) Methylcyclohexane	4.117	83	66202	23.51	ug/L	98
55) Dibromomethane	4.367	93	37951	24.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	49034	25.92	ug/L	98
57) Bromodichloromethane	4.464	83	62970	23.77	ug/L	98
58) Methyl methacrylate	4.544	41	53894	26.72	ug/L	94
59) 1,4-Dioxane	4.586	88	19559	523.96	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	187668	121.32	ug/L	100
61) cis-1,3-Dichloropropene	4.854	75	71611	25.01	ug/L	99
64) Toluene	5.007	91	208862	24.89	ug/L	99
65) 2-Nitropropane	5.153	41	68827	117.09	ug/L	97
66) 4-Methyl-2-pentanone	5.245	43	302502	116.01	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	67505	23.83	ug/L	98
68) Tetrachloroethene	5.263	166	55189	25.31	ug/L	98
69) Ethyl methacrylate	5.367	69	71866	29.50	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	42838	24.30	ug/L	98
71) Dibromochloromethane	5.507	129	52800	26.63	ug/L	96
72) 1,3-Dichloropropane	5.568	76	87707	26.07	ug/L	99
73) 1,2-Dibromoethane	5.671	107	56995	24.81	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	448429	1246.19	ug/L	99
75) 2-hexanone	5.806	43	318910	121.17	ug/L	98
76) 1-Chlorohexane	6.013	91	60872m	23.69	ug/L	
77) Ethylbenzene	6.049	91	228923	24.97	ug/L	99
78) Chlorobenzene	6.037	112	143264	24.56	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	48188	25.82	ug/L	99
80) m,p-Xylene	6.153	91	369005	50.94	ug/L	99
81) o-Xylene	6.470	91	181223	24.90	ug/L	98
82) Styrene	6.507	104	144580	26.06	ug/L	98
83) Bromoform	6.531	173	29057	24.14	ug/L	97
84) Isopropylbenzene	6.708	105	212056	25.31	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	19486	30.40	ug/L	95
88) n-Propylbenzene	7.019	91	250828	24.90	ug/L	99
89) Bromobenzene	7.000	156	57862	25.60	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	81620	24.97	ug/L	97
91) 1,3,5-Trimethylbenzene	7.177	105	187322	26.01	ug/L	99
92) 2-Chlorotoluene	7.141	91	178452	25.29	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.208	53	14036	23.78	ug/L	87

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) 1,2,3-Trichloropropane	7.177	110	27000	25.78	ug/L	98
95) Cyclohexanone	7.214	55	17531	157.50	ug/L	98
96) 4-Chlorotoluene	7.275	91	166304	24.77	ug/L	98
97) tert-Butylbenzene	7.421	91	97959	25.05	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	185479	25.72	ug/L	99
100) Pentachloroethane	7.439	167	29310	28.47	ug/L	94
101) sec-Butylbenzene	7.561	105	196044	23.74	ug/L	99
102) 4-Isopropyltoluene	7.671	119	177046	25.11	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	106601	23.74	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	186647	24.35	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	112223	25.03	ug/L	98
106) n-Butylbenzene	7.988	92	94229	26.08	ug/L #	79
107) Benzyl Chloride	7.976	126	18518	24.86	ug/L	98
108) 1,2-Dichlorobenzene	8.104	146	102598	23.87	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	16521	25.42	ug/L	98
110) Hexachlorobutadiene	9.134	225	19188	23.74	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	60217	24.53	ug/L	98
112) Naphthalene	9.372	128	224336	25.08	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	58055	23.80	ug/L	98

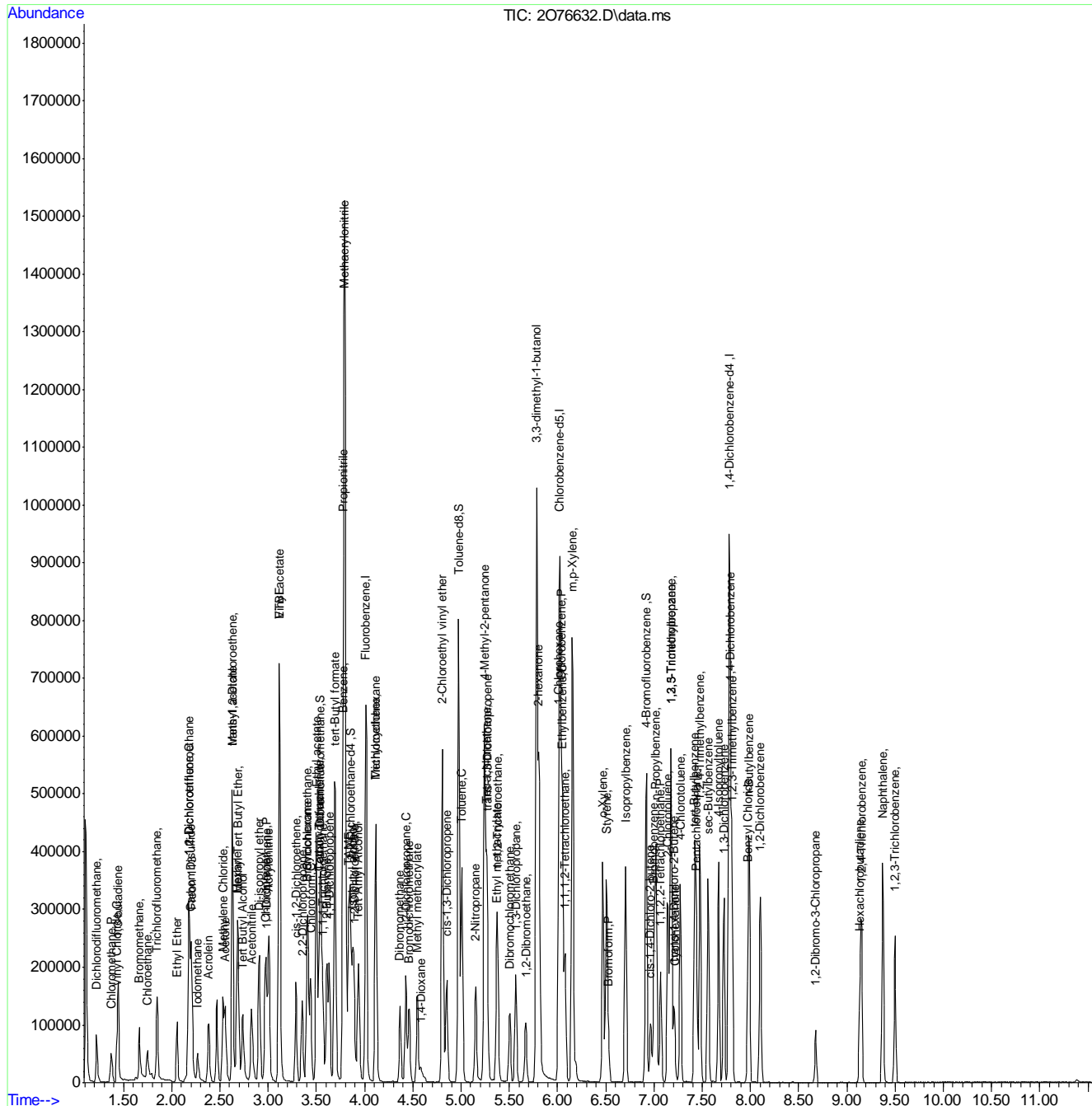
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration





# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICV2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76632.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 16:02      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

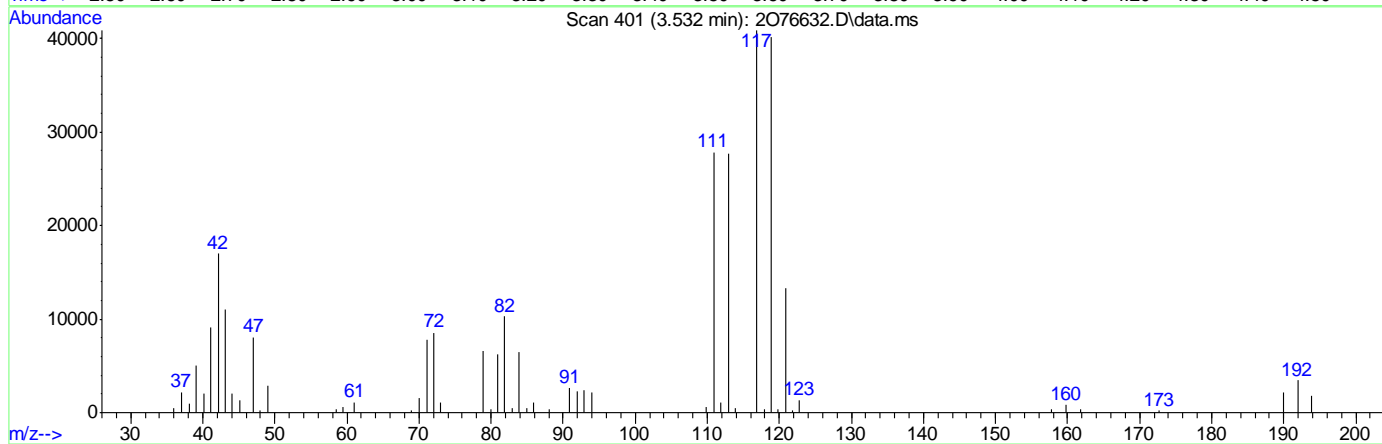
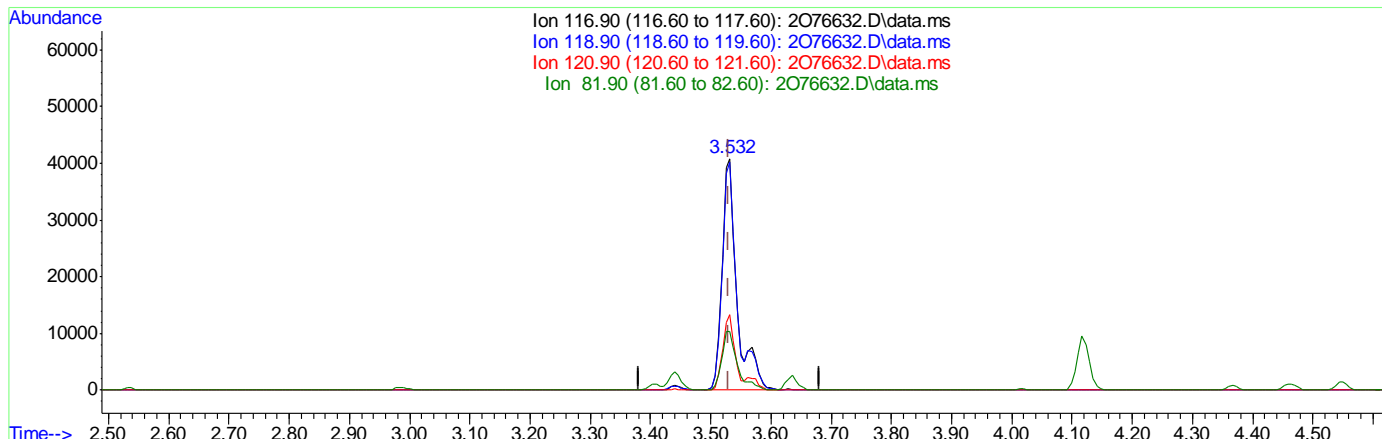
7.6.9.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2O76632.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 27.85ug/L  
 response 71074

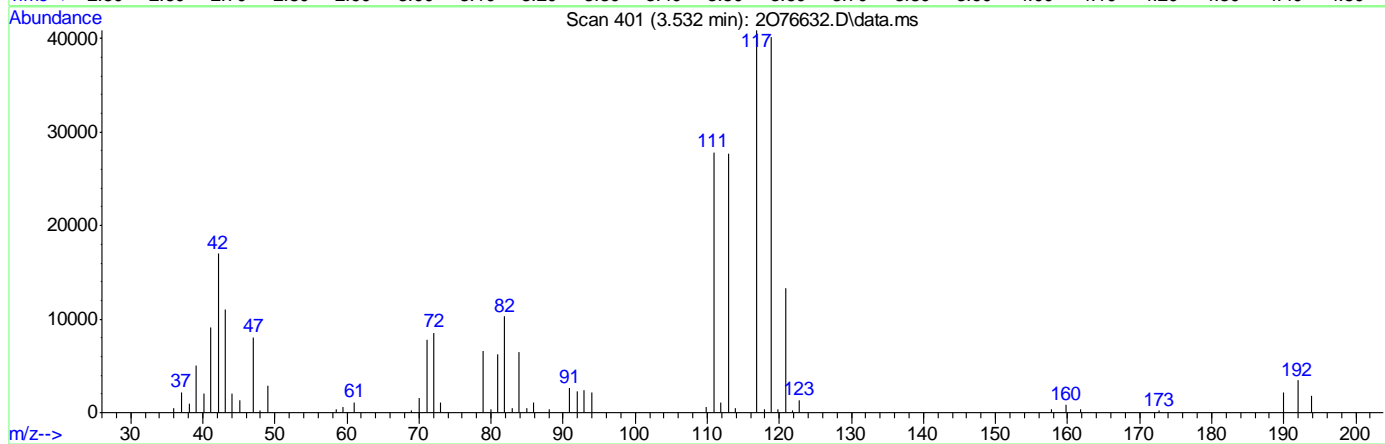
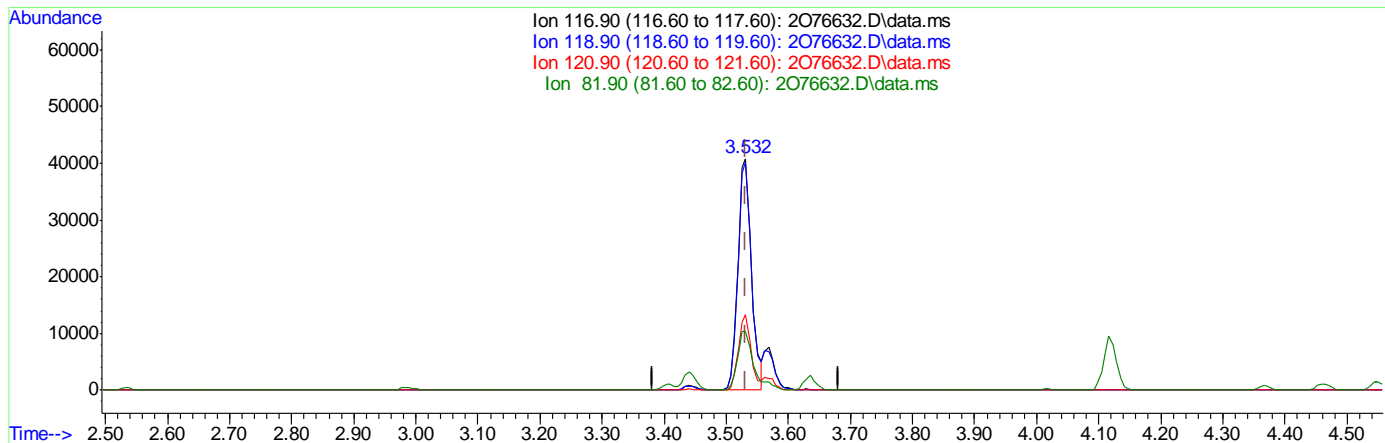
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 24.23ug/L m  
 response 61822

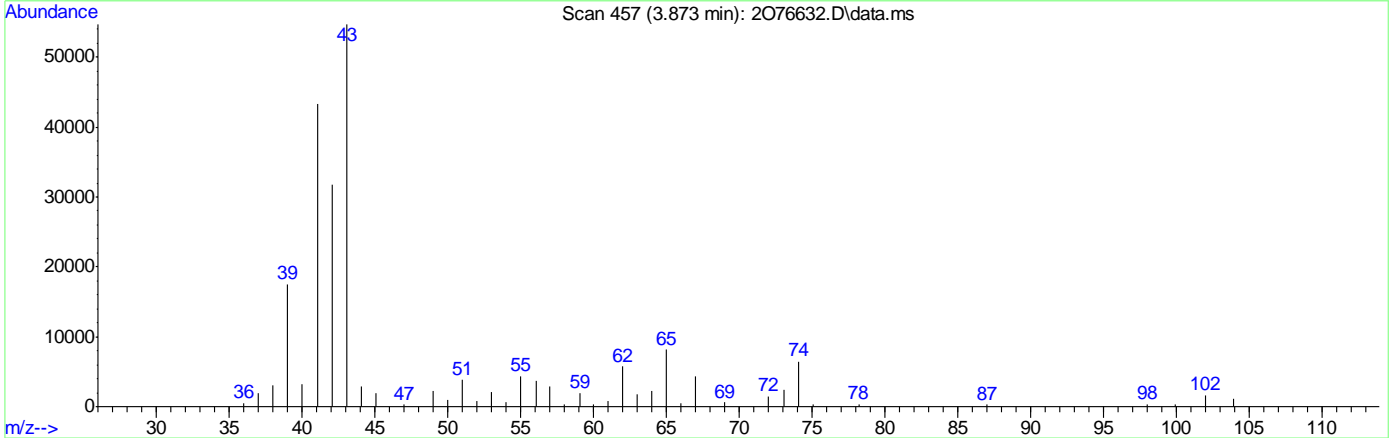
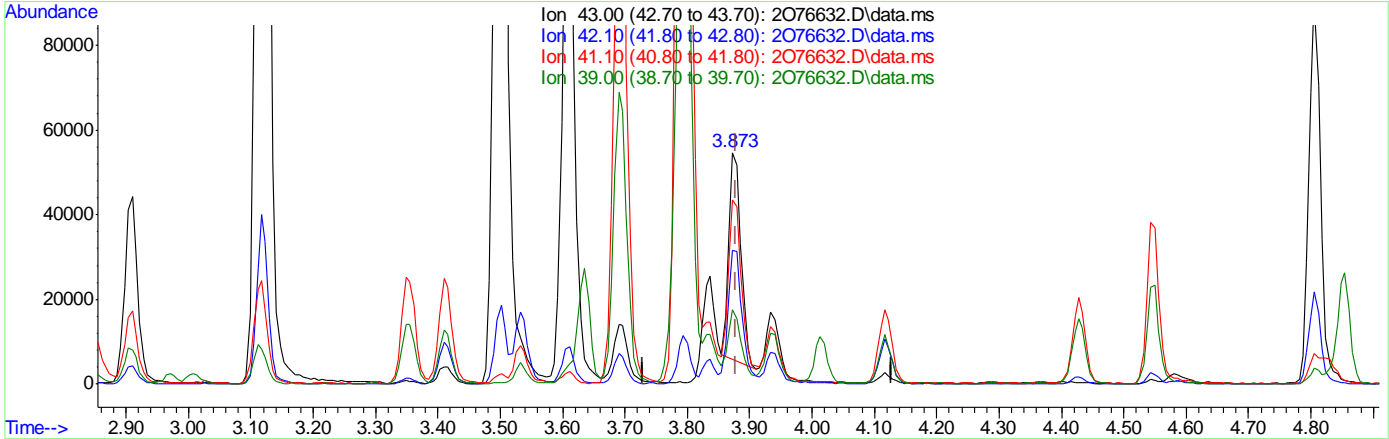
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

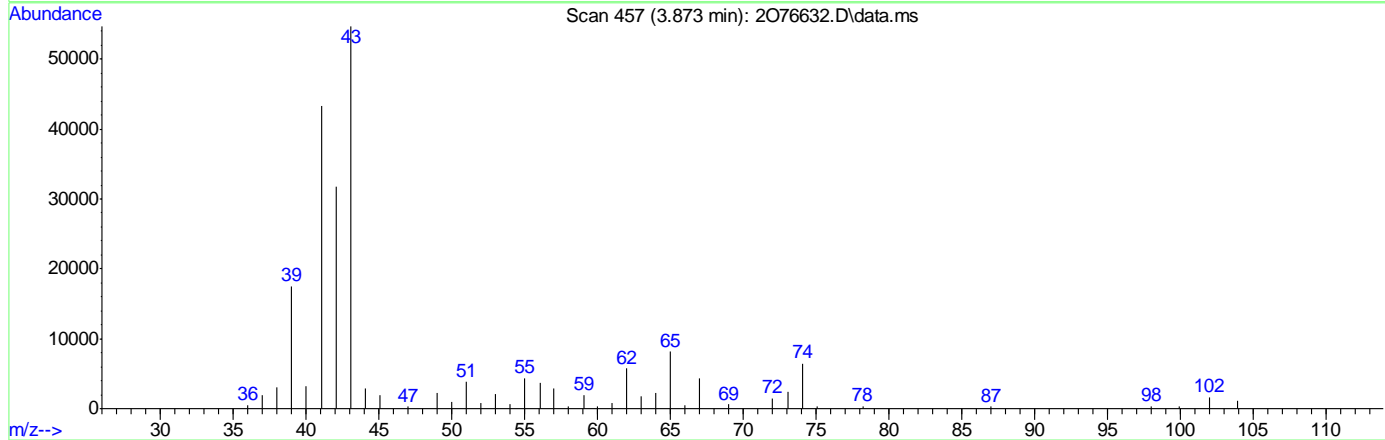
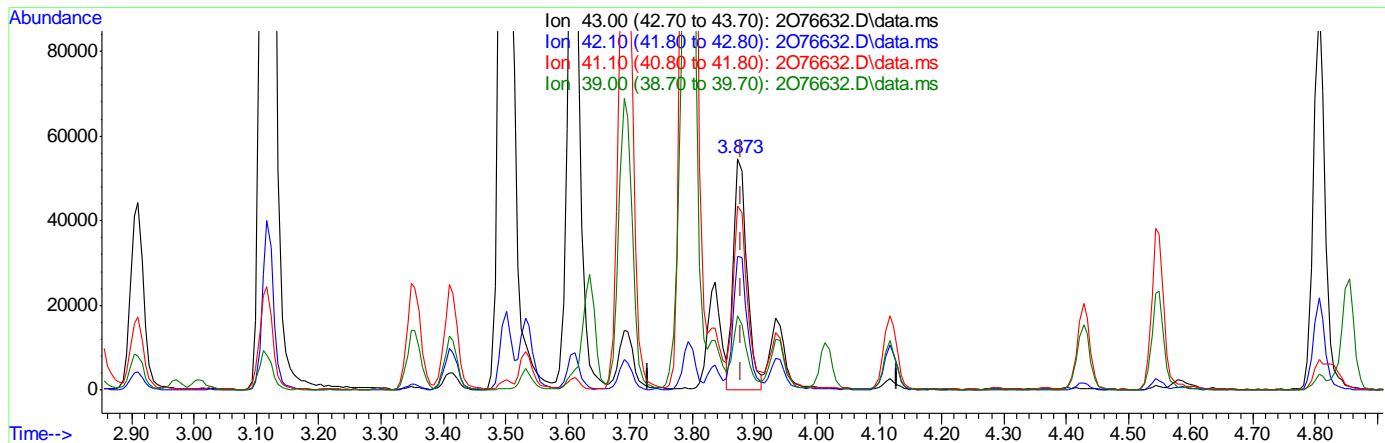
(49) Isobutyl alcohol  
 3.873min (-0.006) 460.72ug/L  
 response 65408

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.41
41.10	77.50	76.57
39.00	31.30	30.33

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 579.85ug/L m

response 83094

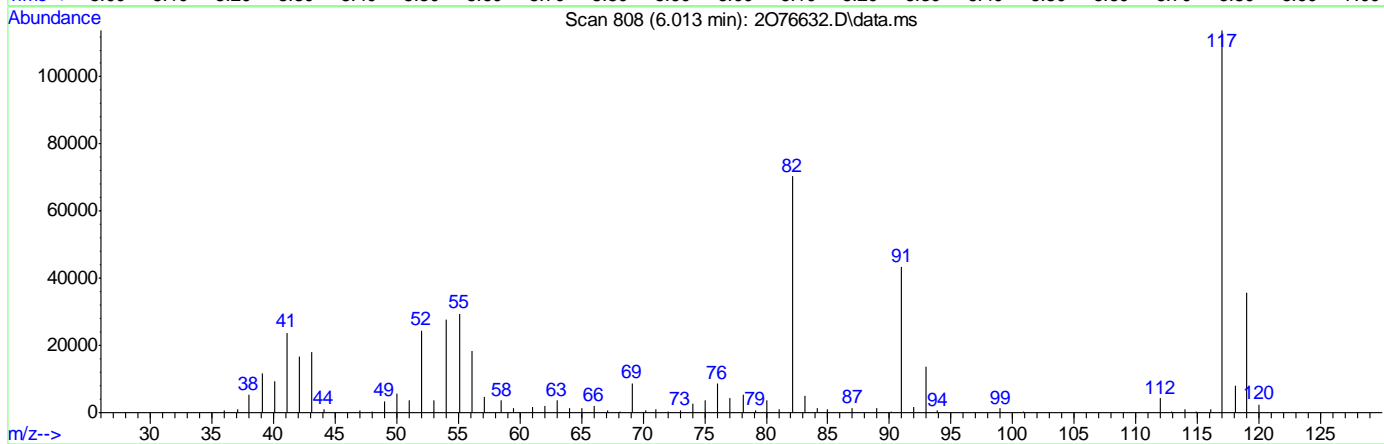
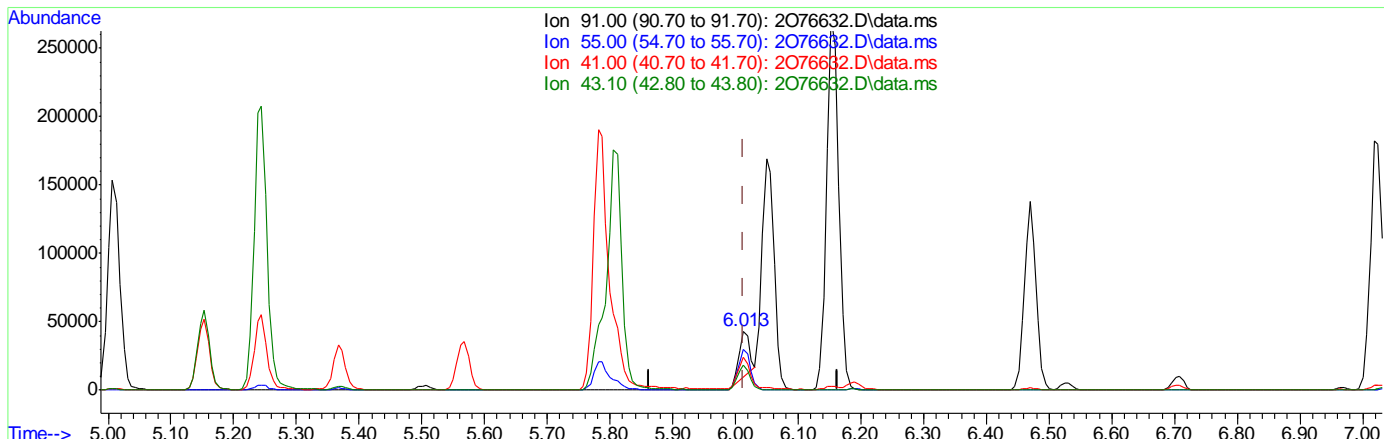
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.98
41.10	77.50	79.32
39.00	31.30	32.06

7.69.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 14.98ug/L  
 response 38485

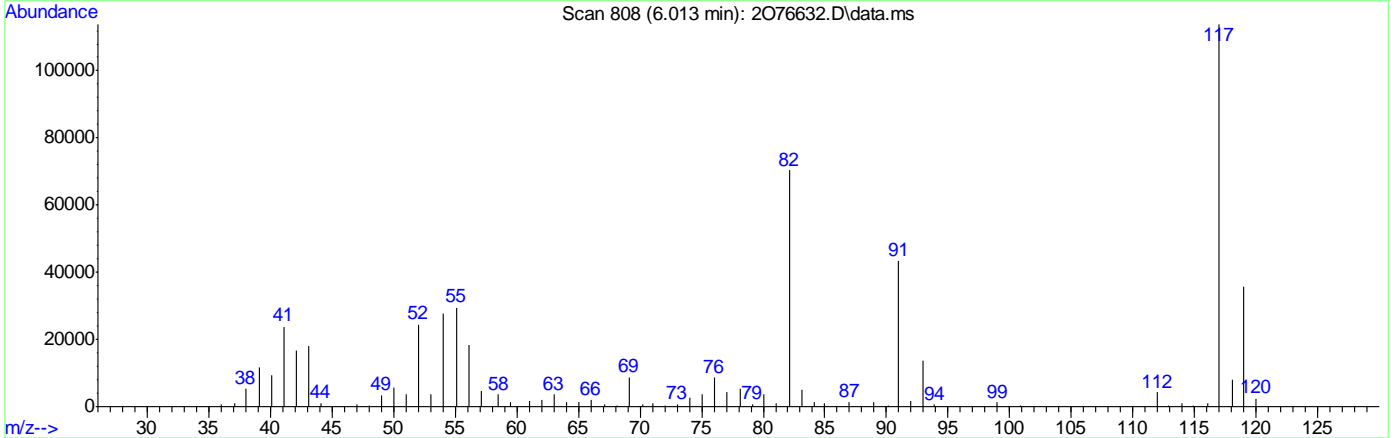
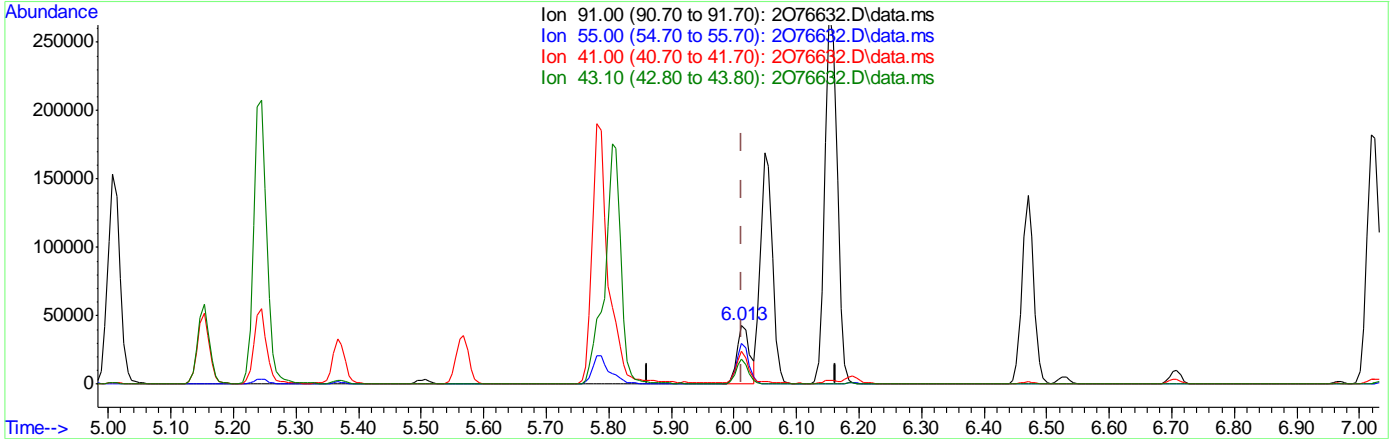
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	67.37
41.00	55.00	52.25
43.10	42.40	40.71

7.696  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 23.69ug/L m  
 response 60872

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	68.21
41.00	55.00	54.95
43.10	42.40	41.76

7.697  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	359075	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	259734	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.768	152	128361	50.00	ug/L	-0.01	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	100836	51.64	ug/L	0.00	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	103.28%	
50) 1,2-Dichloroethane-d4	3.849	65	120787	52.11	ug/L	0.00	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	104.22%	
63) Toluene-d8	4.970	98	341285	49.28	ug/L	0.00	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	98.56%	
86) 4-Bromofluorobenzene	6.915	174	90117	48.04	ug/L	0.00	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.08%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	36776	27.75	ug/L		99
3) Chloromethane	1.379	50	34292	25.37	ug/L		99
4) 1,3-butadiene	1.447	39	34214	22.14	ug/L		99
5) Vinyl Chloride	1.434	62	37922	27.20	ug/L		98
6) Bromomethane	1.666	94	23493	21.72	ug/L		97
7) Chloroethane	1.751	64	31306	41.99	ug/L		95
8) Trichlorofluoromethane	1.849	101	79765	30.33	ug/L		98
9) Ethyl Ether	2.056	59	27105	21.88	ug/L		99
10) Ethanol	2.154	45	13286	475.46	ug/L		87
11) 1,2-Dichlorotrifluoro...	2.178	67	44543	25.36	ug/L		99
12) 1,1-Dichloroethene	2.178	61	53241	24.14	ug/L		99
13) Freon 113	2.209	101	39034	25.18	ug/L		96
14) Carbon Disulfide	2.196	76	105032	25.60	ug/L		94
15) Iodomethane	2.270	142	28983	21.45	ug/L		98
16) Acrolein	2.379	56	39190	98.32	ug/L		98
17) Allyl chloride	2.471	41	40241	25.03	ug/L		97
18) Methylene Chloride	2.532	49	48292	24.22	ug/L		99
19) Acetone	2.556	43	120547	145.51	ug/L		99
20) Methyl acetate	2.629	43	236493	120.89	ug/L		98
21) trans-1,2-Dichloroethene	2.629	61	51212	22.98	ug/L		98
22) Hexane	2.678	56	26784	23.63	ug/L		93
23) Methyl Tert Butyl Ether	2.690	73	99101	22.11	ug/L		93
24) Tert Butyl Alcohol	2.733	59	63848	230.03	ug/L #		70
25) Acetonitrile	2.824	41	81491	252.40	ug/L		99
26) Di-isopropyl ether	2.904	45	95261	21.59	ug/L		94
27) Chloroprene	2.971	53	44340	20.21	ug/L		99
28) 1,1-Dichloroethane	2.983	63	69067	23.84	ug/L		99
29) Acrylonitrile	3.001	52	88705	110.90	ug/L		98
30) ETBE	3.111	59	97631	23.27	ug/L		97
31) Vinyl acetate	3.117	43	370226	117.76	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	40904	21.55	ug/L		99
33) 2,2-Dichloropropane	3.349	77	49039	25.33	ug/L		98
34) Bromochloromethane	3.397	128	22966	24.86	ug/L		95
35) Cyclohexane	3.410	56	49295	22.30	ug/L		95



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.434	83	77080	23.55	ug/L	99
37) Ethyl acetate	3.495	43	268742	114.20	ug/L	99
38) Tetrahydrofuran	3.525	42	18979	22.51	ug/L	96
40) Carbon Tetrachloride	3.525	117	54740m	25.96	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	62200	24.09	ug/L	96
42) 2-Butanone	3.605	43	149158	116.46	ug/L	99
43) 1,1-Dichloropropene	3.629	75	51145	23.63	ug/L	99
44) tert-Butyl formate	3.690	59	83075	147.10	ug/L	94
45) Propionitrile	3.775	54	102824	259.19	ug/L	88
46) Methacrylonitrile	3.788	41	358586	259.93	ug/L	99
47) Benzene	3.775	78	158651	24.28	ug/L	98
48) TAME	3.830	73	96643	24.29	ug/L	97
49) Isobutyl alcohol	3.873	43	60071m	510.02	ug/L	
51) 1,2-Dichloroethane	3.885	62	61447	22.85	ug/L	98
52) Tert Amyl Alcohol	3.934	59	51240	242.60	ug/L	97
53) Trichloroethene	4.111	95	44568	23.51	ug/L	96
54) Methylcyclohexane	4.117	83	52643	22.62	ug/L	99
55) Dibromomethane	4.367	93	28949	22.42	ug/L	96
56) 1,2-Dichloropropane	4.422	63	37216	23.81	ug/L	98
57) Bromodichloromethane	4.458	83	55540	25.37	ug/L	98
58) Methyl methacrylate	4.543	41	35637	21.47	ug/L	95
59) 1,4-Dioxane	4.580	88	12569	410.81	ug/L	95
60) 2-Chloroethyl vinyl ether	4.800	63	144487	113.02	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	58470	24.71	ug/L	97
64) Toluene	5.001	91	162032	23.35	ug/L	98
65) 2-Nitropropane	5.147	41	66770	135.49	ug/L	100
66) 4-Methyl-2-pentanone	5.238	43	264040	122.44	ug/L	99
67) trans-1,3-Dichloropropene	5.263	75	60555	25.85	ug/L	98
68) Tetrachloroethene	5.257	166	41279	22.89	ug/L	97
69) Ethyl methacrylate	5.360	69	43411	21.71	ug/L	94
70) 1,1,2-Trichloroethane	5.373	83	36185	24.82	ug/L	94
71) Dibromochloromethane	5.495	129	41488	25.30	ug/L	97
72) 1,3-Dichloropropane	5.562	76	63095	22.67	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42087	22.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	355330	1196.78	ug/L	99
75) 2-hexanone	5.799	43	271695	124.83	ug/L	96
76) 1-Chlorohexane	6.007	91	44844m	21.10	ug/L	
77) Ethylbenzene	6.043	91	174289	22.99	ug/L	98
78) Chlorobenzene	6.031	112	112227	23.26	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	40110	25.98	ug/L	98
80) m,p-Xylene	6.147	91	272347	45.46	ug/L	99
81) o-Xylene	6.464	91	124713	20.72	ug/L	99
82) Styrene	6.500	104	101499	22.12	ug/L	98
83) Bromoform	6.525	173	25356	25.38	ug/L	96
84) Isopropylbenzene	6.696	105	143703	20.74	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.958	53	10902	21.74	ug/L	95
88) n-Propylbenzene	7.013	91	177075	22.46	ug/L	100
89) Bromobenzene	6.994	156	40121	22.69	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	61807	24.17	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	125533	22.28	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.134	91	122659	22.21	ug/L	100
93) trans-1,4-Dichloro-2-B...	7.195	53	9888	21.41	ug/L	92
94) 1,2,3-Trichloropropane	7.171	110	19355	23.62	ug/L	97
95) Cyclohexanone	7.202	55	9559	109.76	ug/L	97
96) 4-Chlorotoluene	7.262	91	116172	22.12	ug/L	98
97) tert-Butylbenzene	7.415	91	64581	21.11	ug/L	99
99) 1,2,4-Trimethylbenzene	7.470	105	124938	22.14	ug/L	99
100) Pentachloroethane	7.433	167	21745	27.05	ug/L #	74
101) sec-Butylbenzene	7.555	105	138844	21.49	ug/L	98
102) 4-Isopropyltoluene	7.665	119	116282	21.08	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79231	22.55	ug/L	99
104) 1,2,3-Trimethylbenzene	7.799	105	132899	22.16	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	81447	23.20	ug/L	94
106) n-Butylbenzene	7.976	92	61934	21.91	ug/L	94
107) Benzyl Chloride	7.970	126	17122	28.81	ug/L	99
108) 1,2-Dichlorobenzene	8.092	146	74197	22.06	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.665	75	12160	24.00	ug/L	94
110) Hexachlorobutadiene	9.128	225	14151	22.36	ug/L	93
111) 1,2,4-Trichlorobenzene	9.140	180	38243	19.91	ug/L	95
112) Naphthalene	9.366	128	135341	19.34	ug/L	98
113) 1,2,3-Trichlorobenzene	9.488	180	39338	20.61	ug/L	94

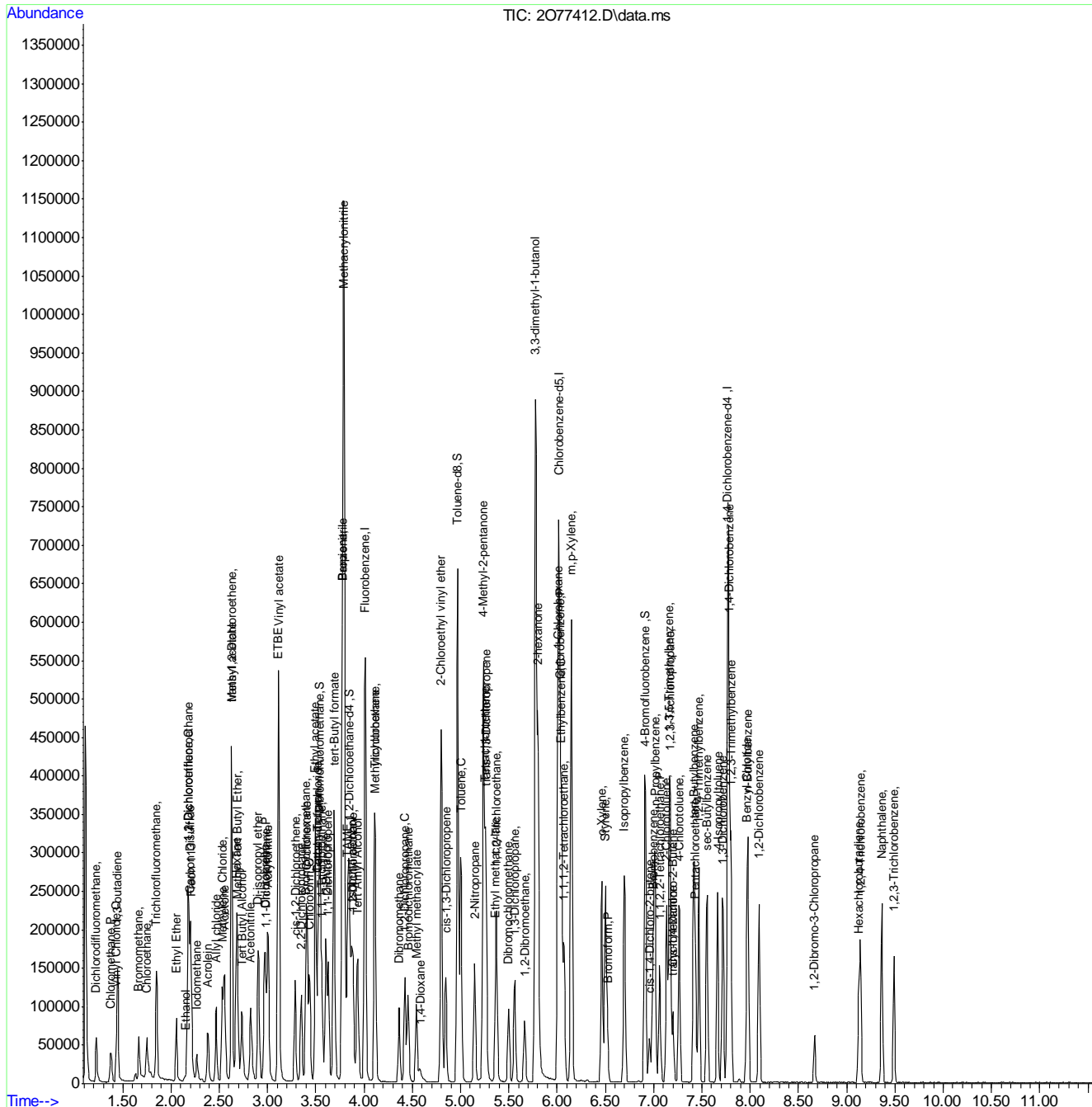
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7  
2023-07-10

# Manual Integration Approval Summary

**Sample Number:** V2O3017-CC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77412.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 08:36      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

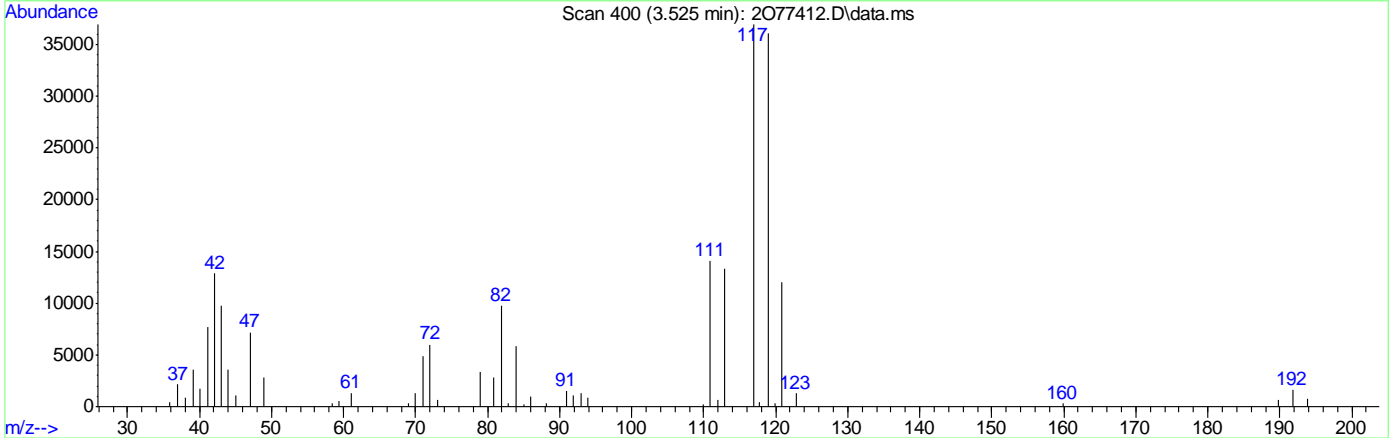
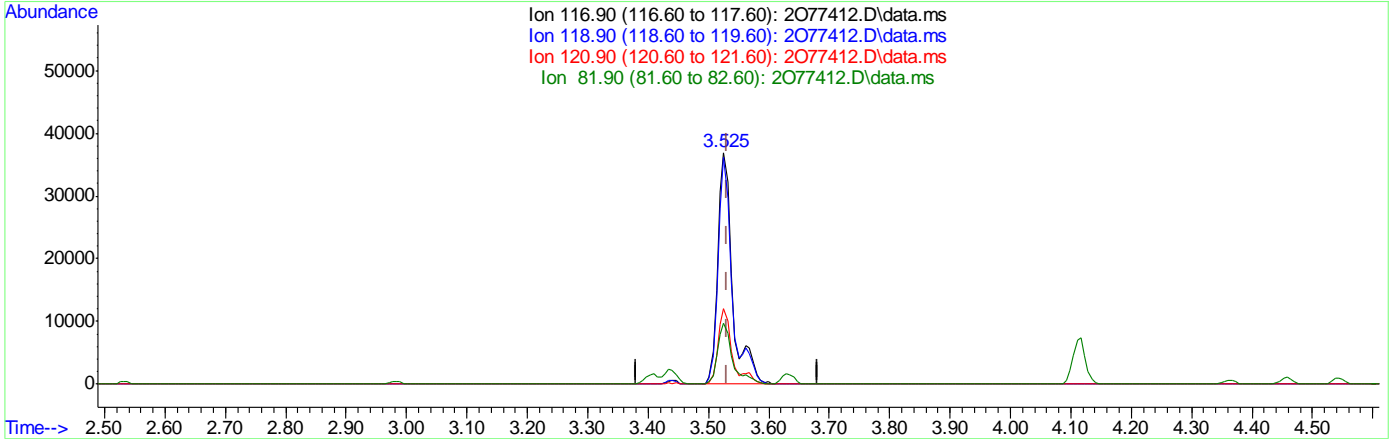
7.6.10.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 29.88ug/L  
 response 63002

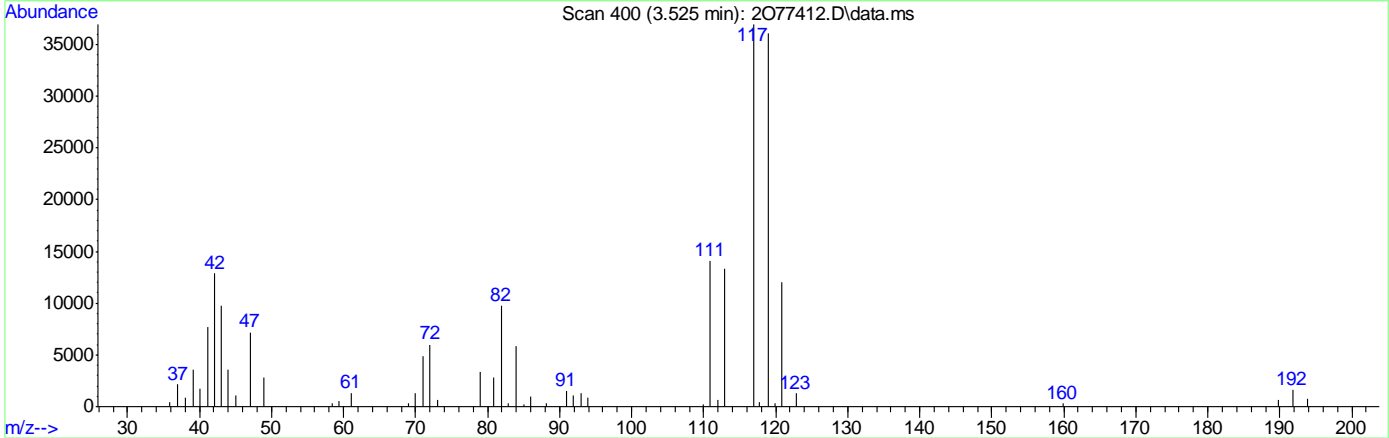
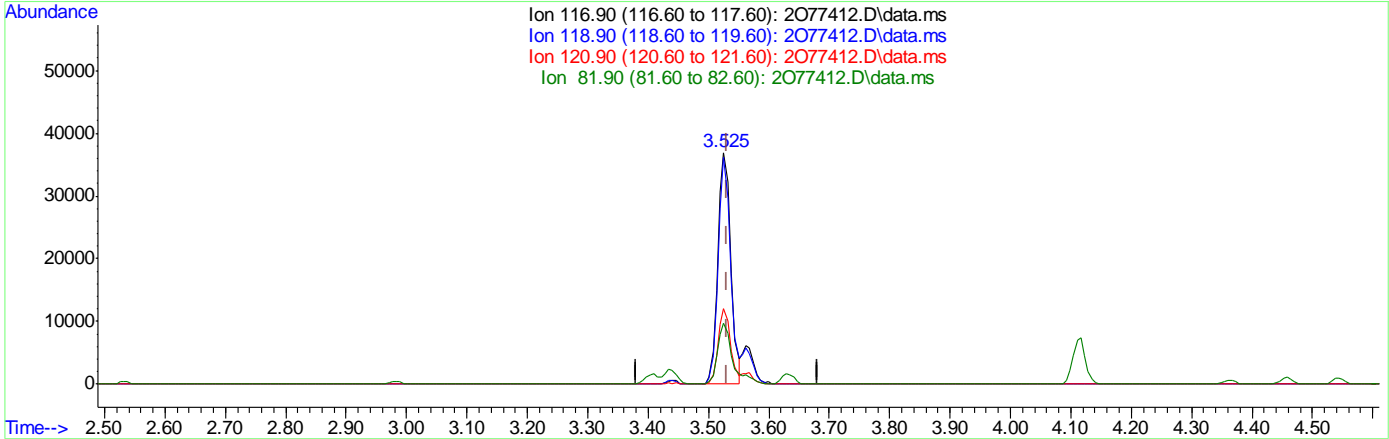
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.96ug/L m  
 response 54740

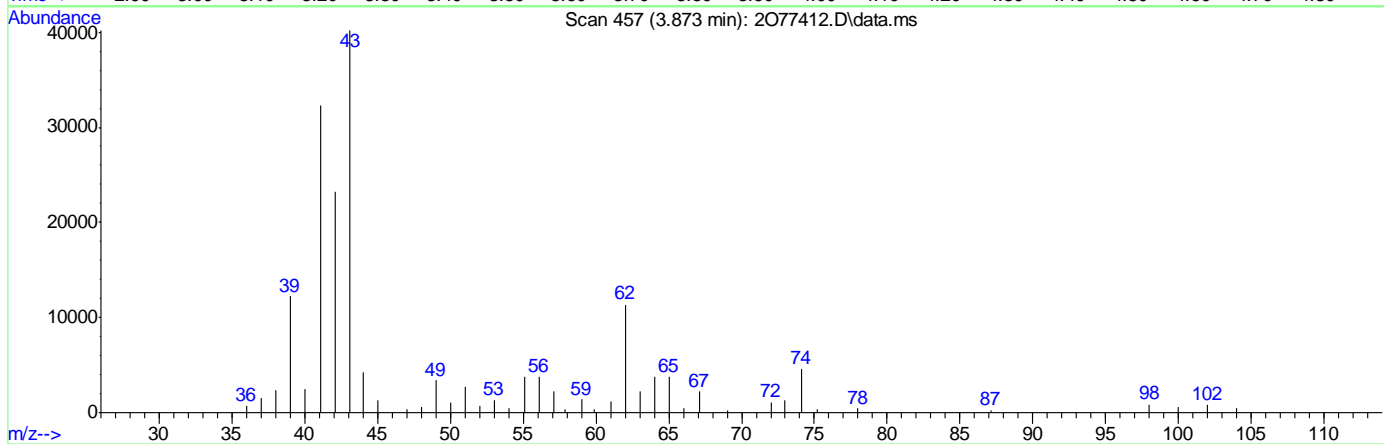
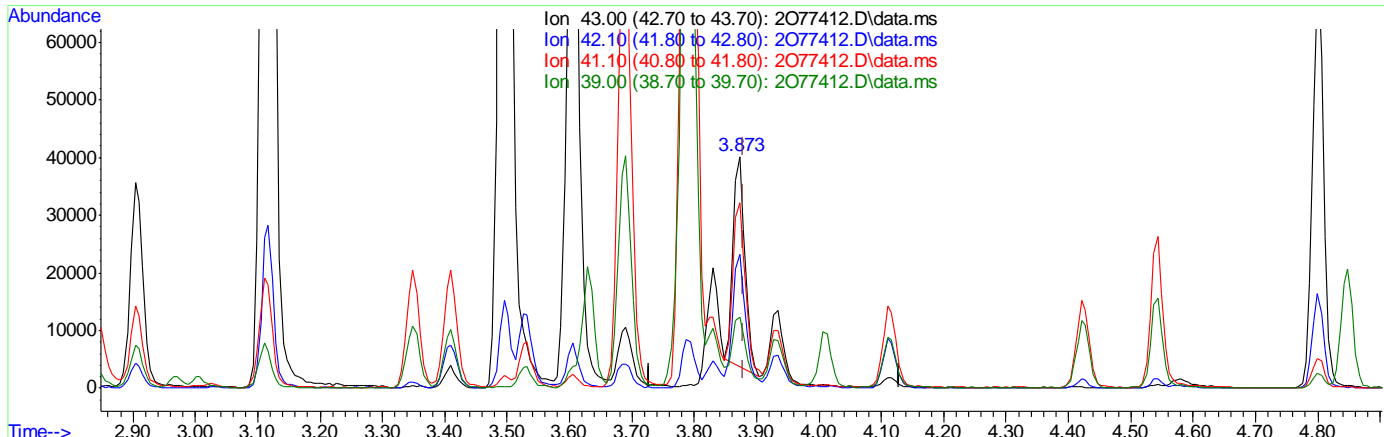
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 404.80ug/L  
 response 47284

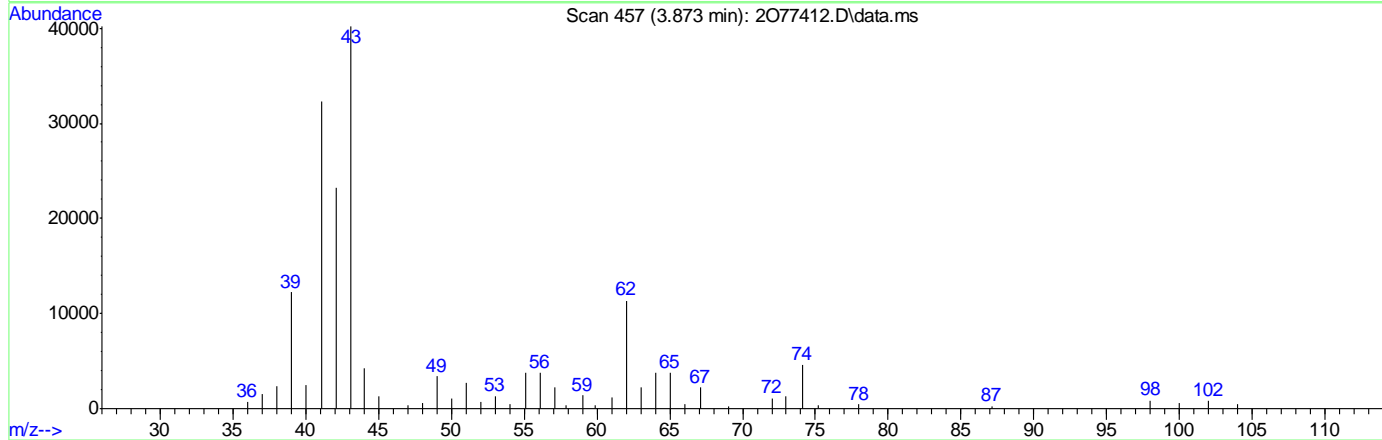
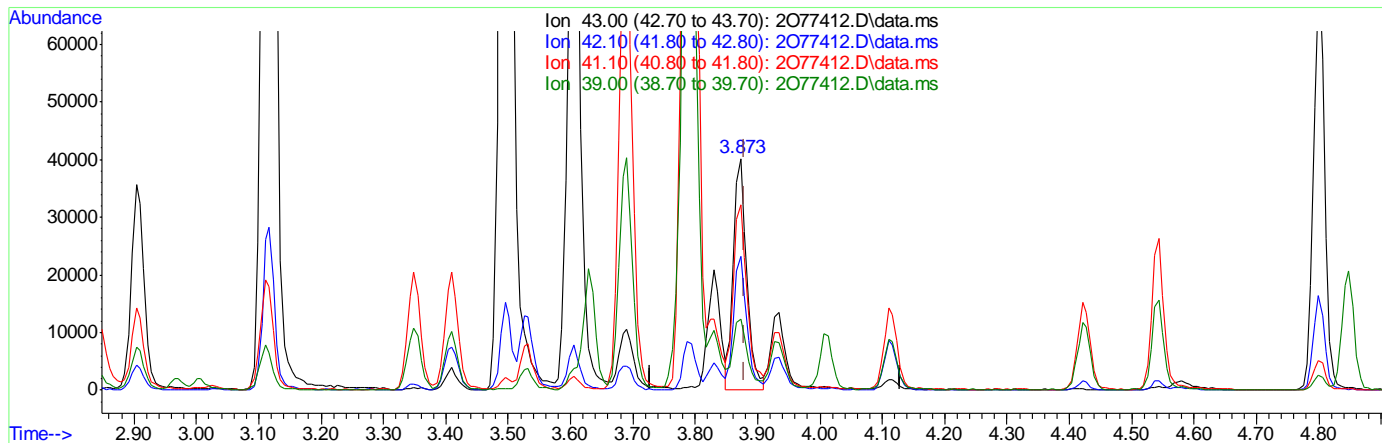
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.19
41.10	77.50	76.44
39.00	31.30	28.04

7.6.10.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 510.02ug/L m

response 60071

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

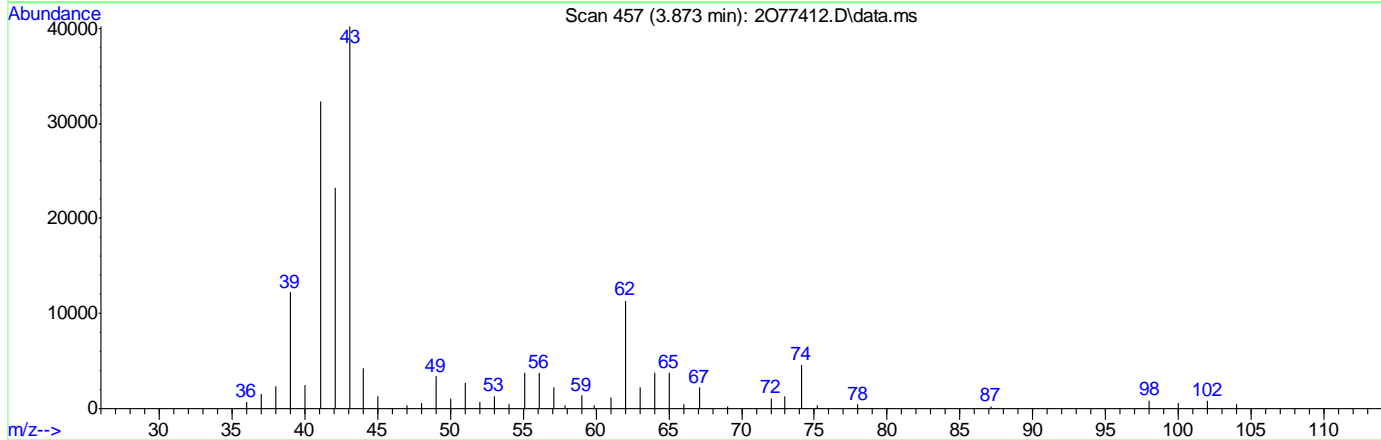
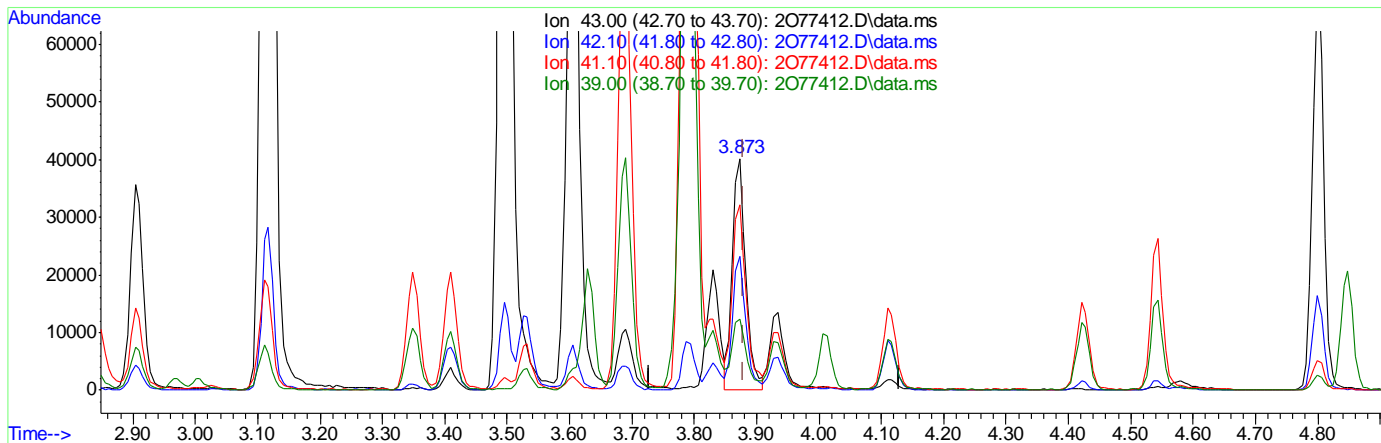
7.6.10.5  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 510.02ug/L m  
 response 60071

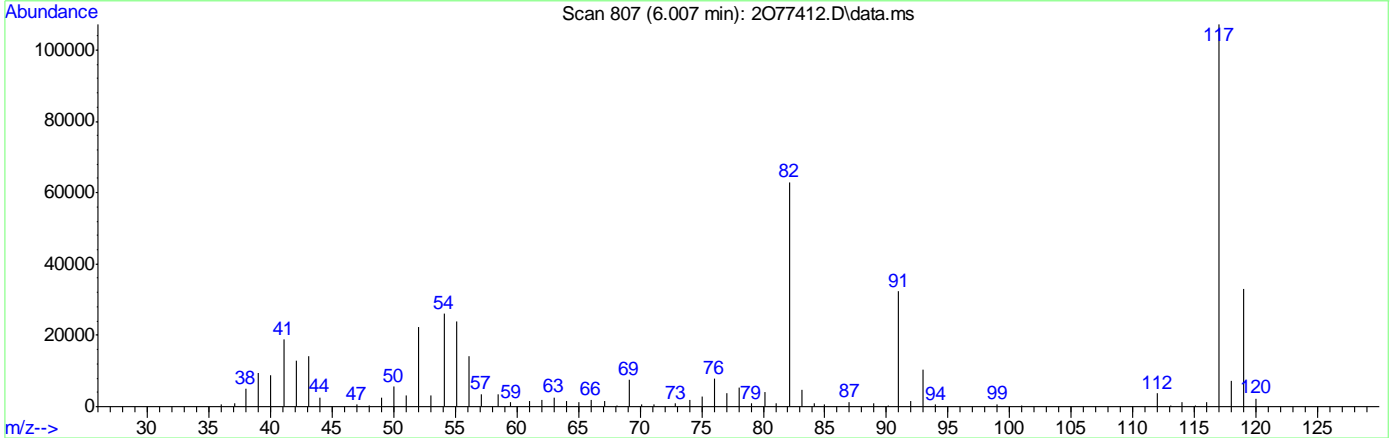
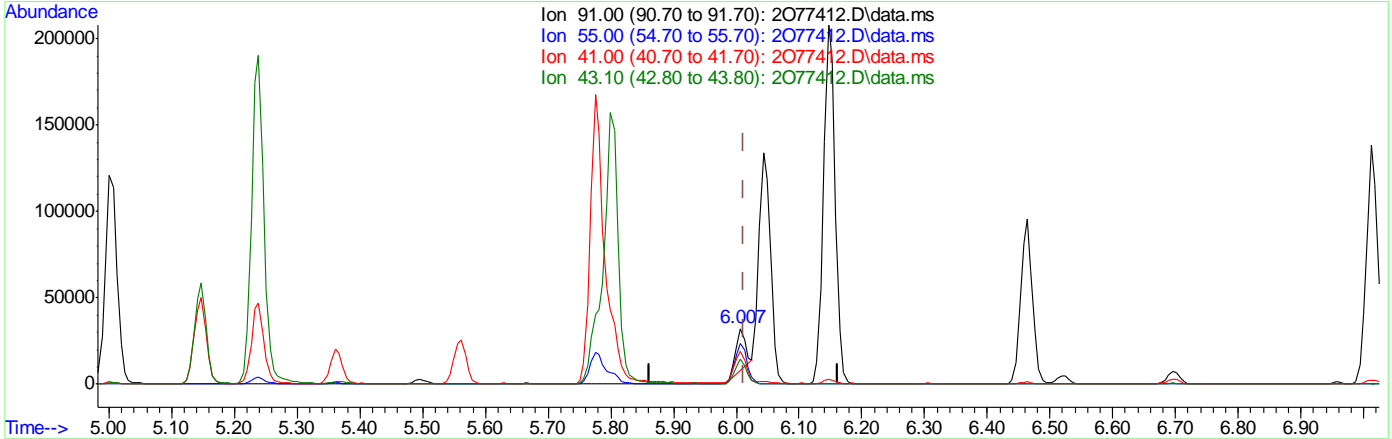
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

7.6.10.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 12.48ug/L  
 response 26513

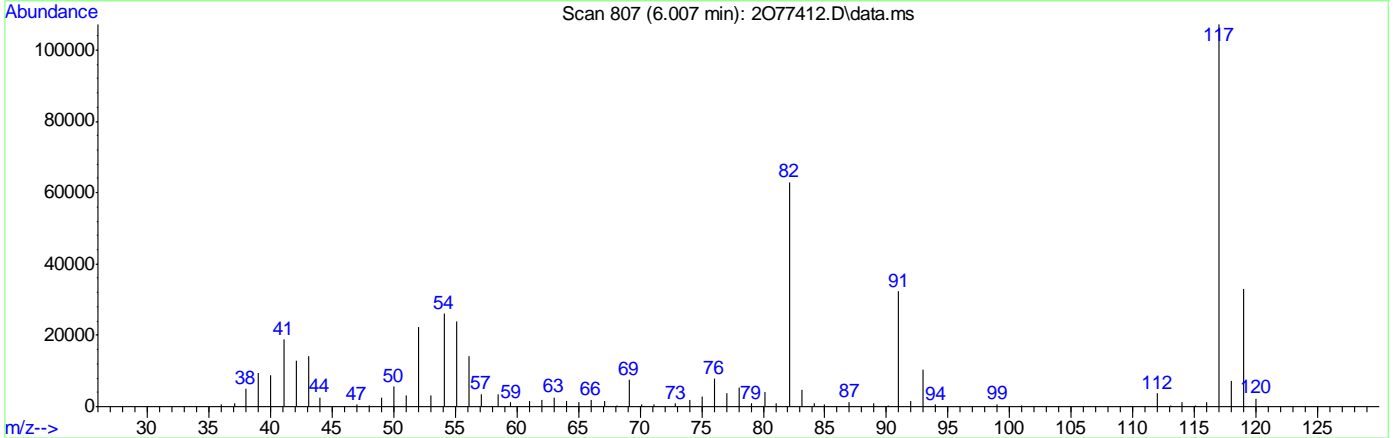
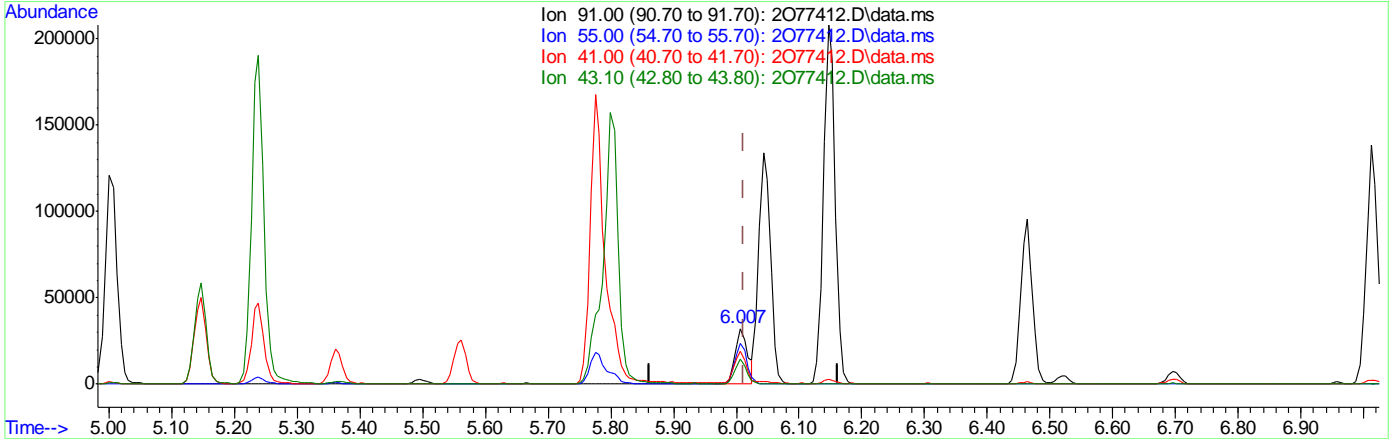
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.01
41.00	55.00	55.98
43.10	42.40	43.37

7.6.10.7  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 21.10ug/L m  
 response 44844

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.72
41.00	55.00	58.38
43.10	42.40	44.10

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	346718	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	252321	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	125188	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	94924	50.34	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.68%		
50) 1,2-Dichloroethane-d4	3.849	65	114361	51.09	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.18%		
63) Toluene-d8	4.970	98	330256	49.09	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.18%		
86) 4-Bromofluorobenzene	6.915	174	88725	48.50	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.00%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	37693	29.45	ug/L		100
3) Chloromethane	1.373	50	37594	28.81	ug/L		97
4) 1,3-butadiene	1.440	39	35317	23.78	ug/L		99
5) Vinyl Chloride	1.428	62	41242	30.63	ug/L		100
6) Bromomethane	1.666	94	25105	24.00	ug/L		98
7) Chloroethane	1.745	64	33047	Below	Cal		97
8) Trichlorofluoromethane	1.849	101	83875	33.03	ug/L		99
9) Ethyl Ether	2.050	59	26203	21.90	ug/L		99
10) Ethanol	2.148	45	12800	474.40	ug/L		89
11) 1,2-Dichlorotrifluoro...	2.178	67	42502	25.06	ug/L		97
12) 1,1-Dichloroethene	2.178	61	49417	23.20	ug/L		98
13) Freon 113	2.203	101	35935	24.01	ug/L		98
14) Carbon Disulfide	2.196	76	95614	24.14	ug/L		97
15) Iodomethane	2.270	142	32956	25.02	ug/L		98
16) Acrolein	2.379	56	39938	103.71	ug/L		99
17) Allyl chloride	2.465	41	38831	25.01	ug/L		96
18) Methylene Chloride	2.532	49	47913	24.89	ug/L		98
19) Acetone	2.550	43	100931	126.17	ug/L		99
20) Methyl acetate	2.629	43	247856	131.22	ug/L		98
21) trans-1,2-Dichloroethene	2.623	61	50615	23.52	ug/L		95
22) Hexane	2.678	56	24681	22.55	ug/L	#	87
23) Methyl Tert Butyl Ether	2.684	73	95935	22.16	ug/L		89
24) Tert Butyl Alcohol	2.733	59	60682	226.42	ug/L	#	76
25) Acetonitrile	2.824	41	73459	235.63	ug/L		98
26) Di-isopropyl ether	2.904	45	94336	22.14	ug/L		97
27) Chloroprene	2.971	53	45756	21.63	ug/L		96
28) 1,1-Dichloroethane	2.977	63	69186	24.73	ug/L		98
29) Acrylonitrile	3.001	52	94014	121.73	ug/L		97
30) ETBE	3.111	59	92863	22.92	ug/L		99
31) Vinyl acetate	3.117	43	325053	107.08	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	40392	22.04	ug/L		97
33) 2,2-Dichloropropane	3.349	77	43641	23.35	ug/L		98
34) Bromochloromethane	3.397	128	21197	23.76	ug/L		91
35) Cyclohexane	3.410	56	49385	23.14	ug/L		95
36) Chloroform	3.434	83	74401	23.54	ug/L		98
37) Ethyl acetate	3.495	43	265464	116.83	ug/L		100
38) Tetrahydrofuran	3.525	42	18274	22.44	ug/L		95
40) Carbon Tetrachloride	3.525	117	51906m	25.49	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	61113	24.51	ug/L		95
42) 2-Butanone	3.605	43	153690	124.28	ug/L		99
43) 1,1-Dichloropropene	3.629	75	50951	24.38	ug/L		97
44) tert-Butyl formate	3.690	59	81748	149.74	ug/L		94

7.6.11  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	99919	260.84	ug/L	89
46) Methacrylonitrile	3.788	41	357408	268.31	ug/L	99
47) Benzene	3.775	78	154160	24.44	ug/L	98
48) TAME	3.830	73	90247	23.49	ug/L	95
49) Isobutyl alcohol	3.873	43	56507m	497.35	ug/L	
51) 1,2-Dichloroethane	3.885	62	59237	22.82	ug/L	97
52) Tert Amyl Alcohol	3.934	59	45570	224.54	ug/L	98
53) Trichloroethene	4.111	95	43255	23.63	ug/L	96
54) Methylcyclohexane	4.117	83	51391	22.87	ug/L	99
55) Dibromomethane	4.367	93	28595	22.94	ug/L	97
56) 1,2-Dichloropropane	4.422	63	36813	24.39	ug/L	96
57) Bromodichloromethane	4.458	83	51461	24.34	ug/L	98
58) Methyl methacrylate	4.544	41	38063	23.71	ug/L	95
59) 1,4-Dioxane	4.580	88	12850	434.22	ug/L	97
60) 2-Chloroethyl vinyl ether	4.800	63	147595	119.57	ug/L	98
61) cis-1,3-Dichloropropene	4.848	75	55045	24.09	ug/L	98
64) Toluene	5.007	91	164058	24.34	ug/L	100
65) 2-Nitropropane	5.147	41	59333	124.91	ug/L	97
66) 4-Methyl-2-pentanone	5.239	43	287940	137.45	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	57756	25.38	ug/L	96
68) Tetrachloroethene	5.263	166	43771	24.99	ug/L	98
69) Ethyl methacrylate	5.367	69	44072	22.66	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	34528	24.38	ug/L	95
71) Dibromochloromethane	5.501	129	38103	23.92	ug/L	98
72) 1,3-Dichloropropane	5.562	76	61058	22.59	ug/L	95
73) 1,2-Dibromoethane	5.665	107	40349	21.86	ug/L	100
74) 3,3-dimethyl-1-butanol	5.781	57	374517	1292.66	ug/L	98
75) 2-hexanone	5.805	43	291954	138.08	ug/L	94
76) 1-Chlorohexane	6.007	91	44408m	21.51	ug/L	
77) Ethylbenzene	6.049	91	173087	23.50	ug/L	98
78) Chlorobenzene	6.031	112	110005	23.47	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	37785	25.20	ug/L	96
80) m,p-Xylene	6.153	91	274549	47.18	ug/L	98
81) o-Xylene	6.464	91	126289	21.60	ug/L	99
82) Styrene	6.500	104	100053	22.45	ug/L	98
83) Bromoform	6.525	173	22707	23.52	ug/L	96
84) Isopropylbenzene	6.702	105	146641	21.78	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9416	19.25	ug/L	94
88) n-Propylbenzene	7.019	91	181476	23.60	ug/L	100
89) Bromobenzene	6.994	156	39327	22.80	ug/L	93
90) 1,1,2,2-Tetrachloroethane	7.061	83	60497	24.26	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	128685	23.42	ug/L	99
92) 2-Chlorotoluene	7.141	91	125905	23.38	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	8594	19.08	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19033	23.82	ug/L	97
95) Cyclohexanone	7.208	55	10181	119.86	ug/L	92
96) 4-Chlorotoluene	7.269	91	117976	23.03	ug/L	98
97) tert-Butylbenzene	7.421	91	66788	22.38	ug/L	97
99) 1,2,4-Trimethylbenzene	7.470	105	125579	22.82	ug/L	99
100) Pentachloroethane	7.433	167	19978	25.53	ug/L	92
101) sec-Butylbenzene	7.555	105	143032	22.70	ug/L	98
102) 4-Isopropyltoluene	7.665	119	119649	22.24	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79343	23.16	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	134735	23.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	81444	23.79	ug/L	97
106) n-Butylbenzene	7.982	92	62179	22.55	ug/L #	78
107) Benzyl Chloride	7.970	126	13478	23.84	ug/L #	89
108) 1,2-Dichlorobenzene	8.098	146	73995	22.56	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11038	22.42	ug/L	94
110) Hexachlorobutadiene	9.128	225	14779	23.96	ug/L	97
111) 1,2,4-Trichlorobenzene	9.146	180	39378	21.02	ug/L	97
112) Naphthalene	9.366	128	134671	19.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39132	21.02	ug/L	98

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

7.6.11  
7





# Manual Integration Approval Summary

**Sample Number:** V2O3017-ECC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77438.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 19:38      **Supervisor approved:** 07/06/23 13:23 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.6.11.1

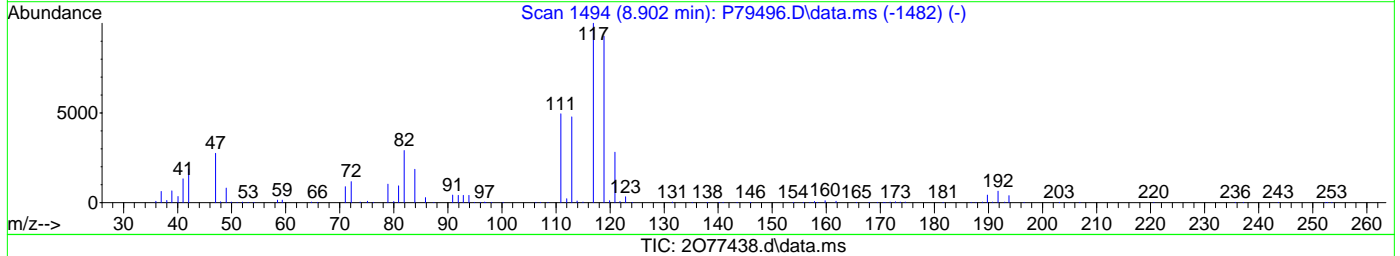
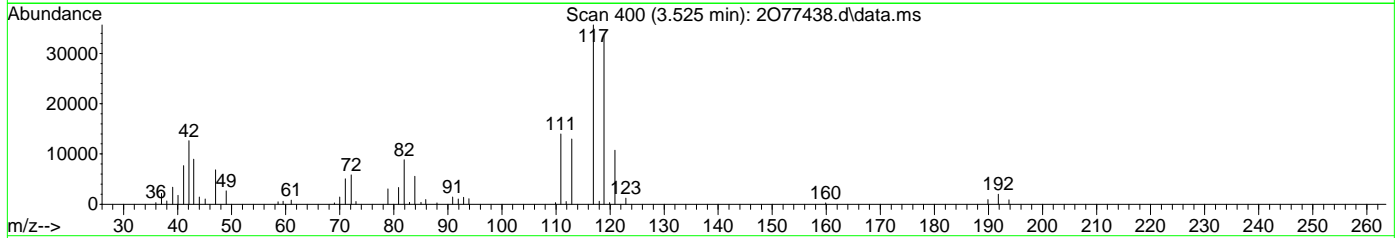
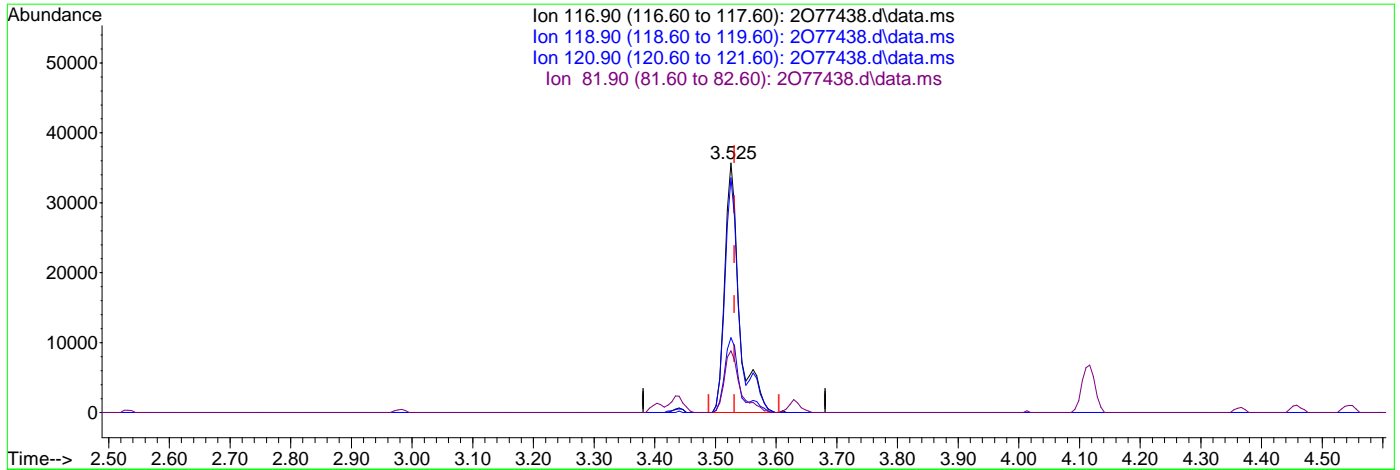
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.40ug/L

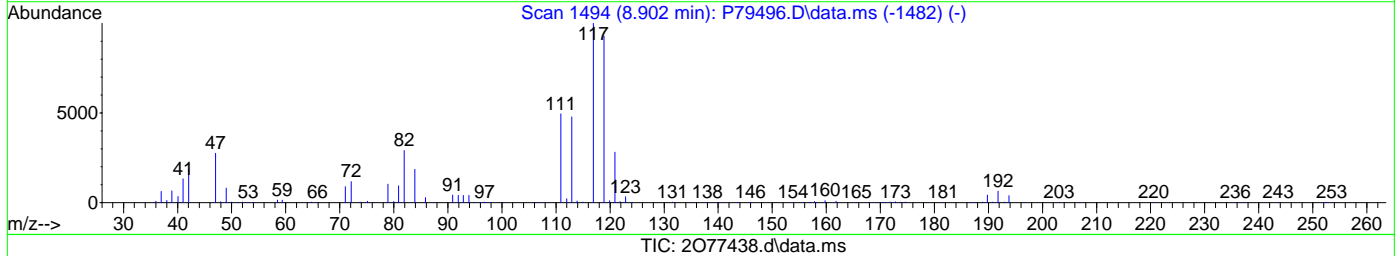
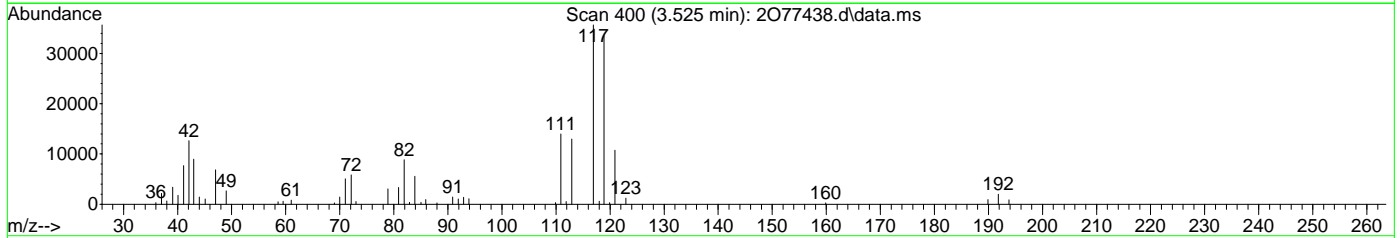
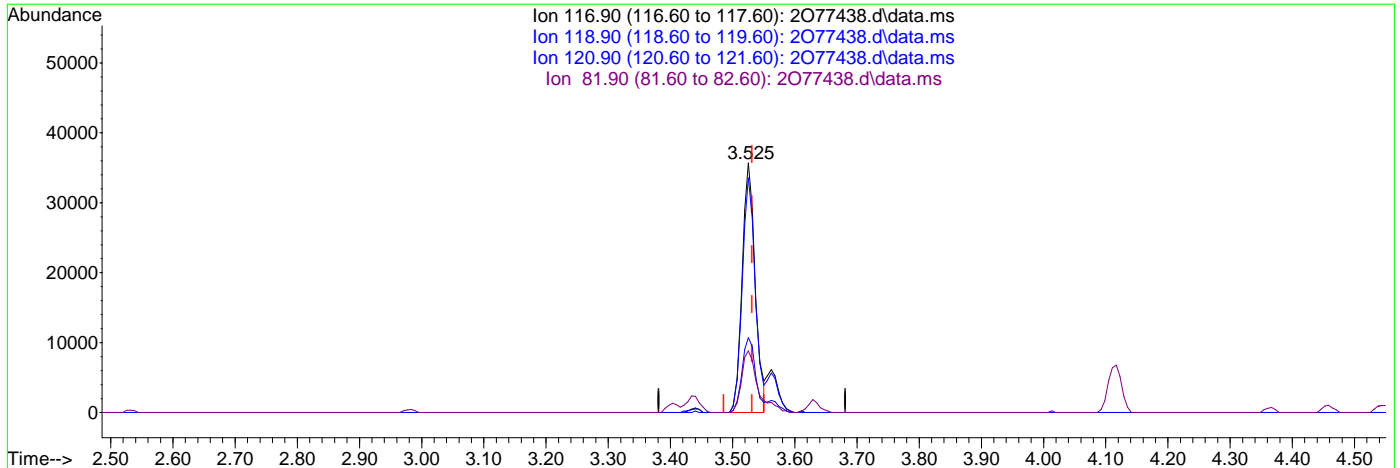
response 59873

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	93.95
120.90	31.50	30.01
81.90	24.40	24.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 25.49ug/L m

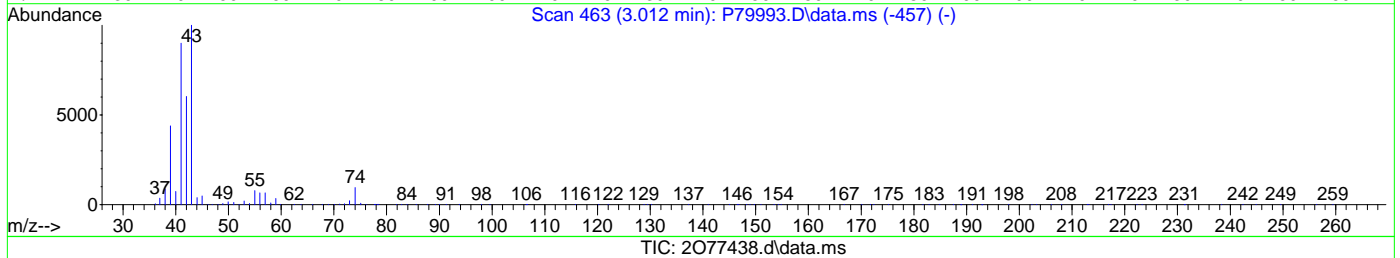
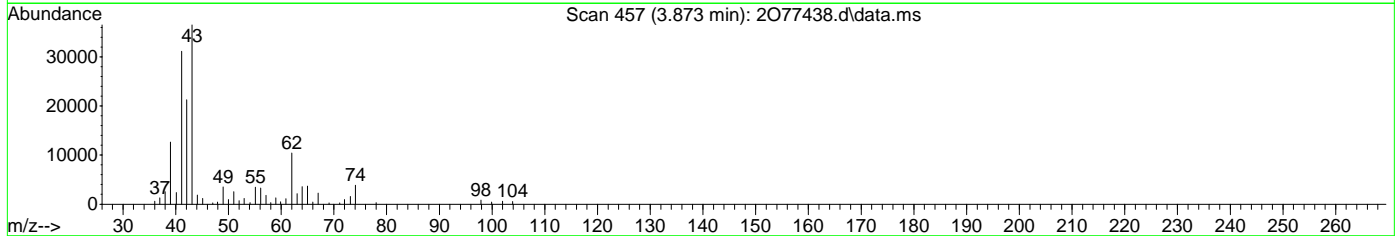
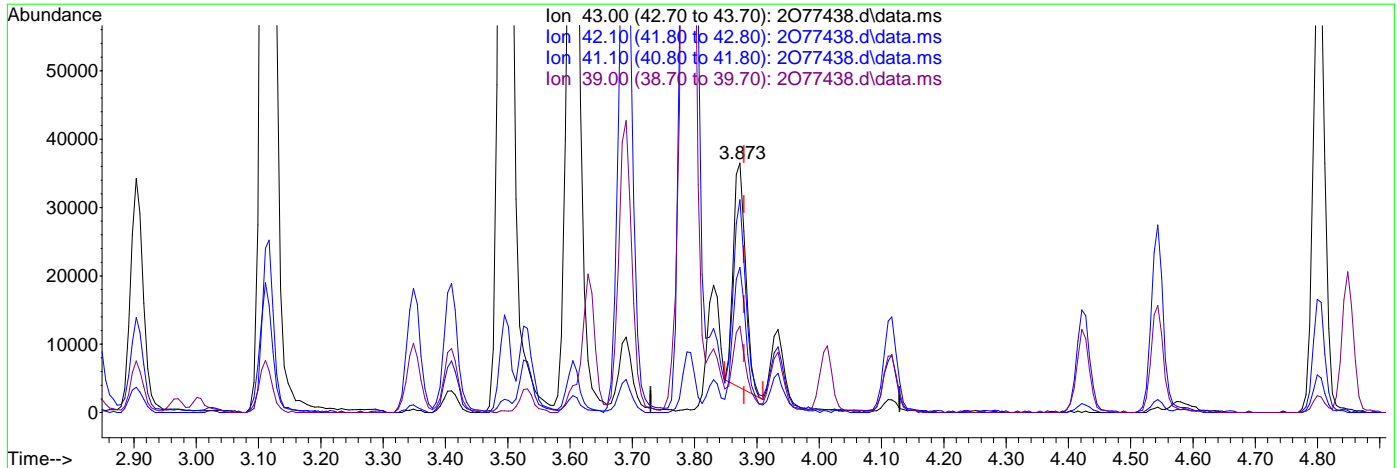
response 51906

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	93.95
120.90	31.50	30.01
81.90	24.40	24.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 392.31ug/L  
 response 44205

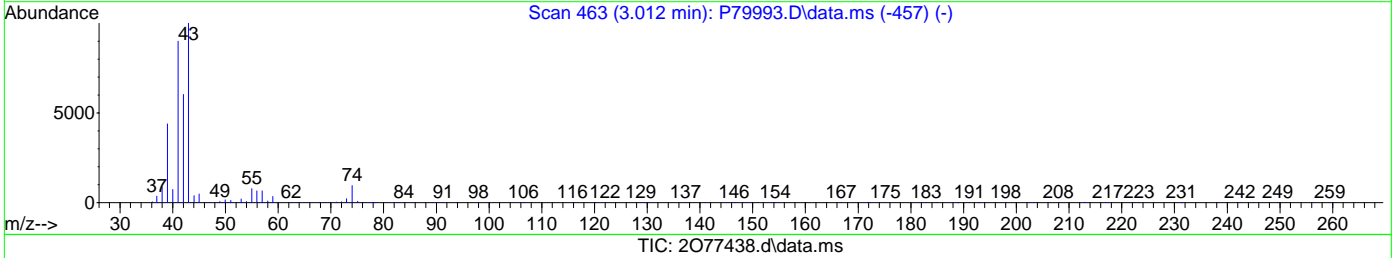
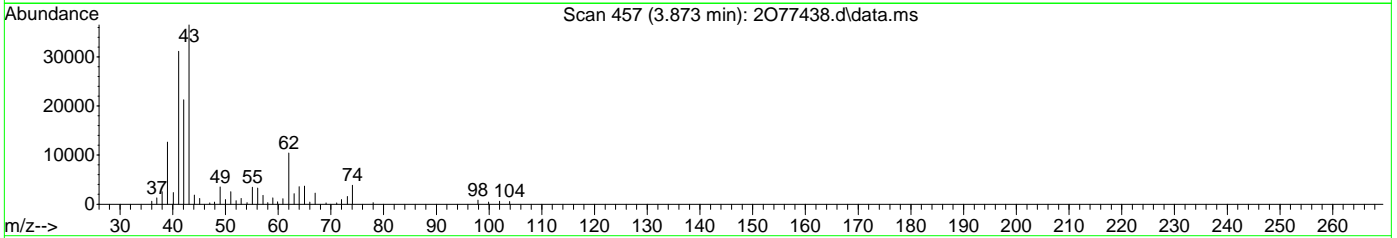
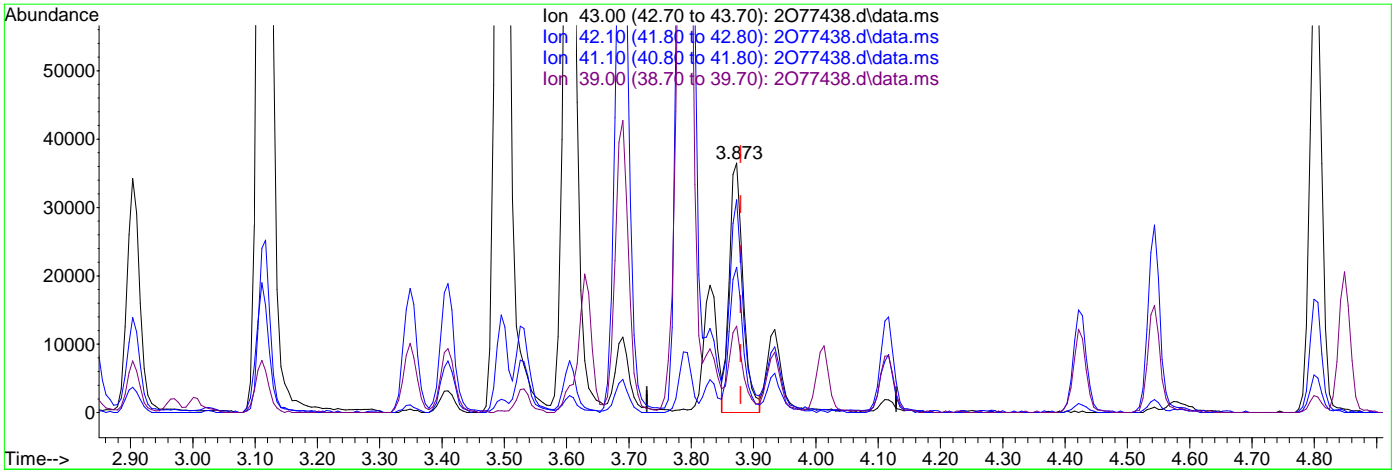
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.19
41.10	77.50	82.94
39.00	31.30	32.61

7.6.11.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 497.35ug/L m  
 response 56507

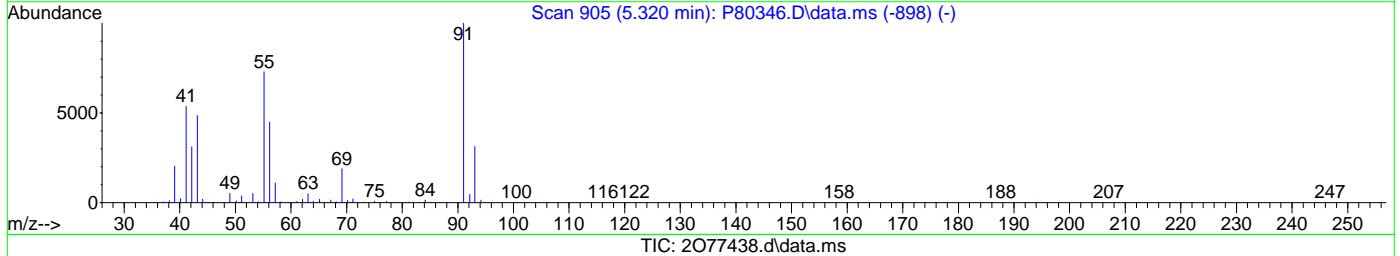
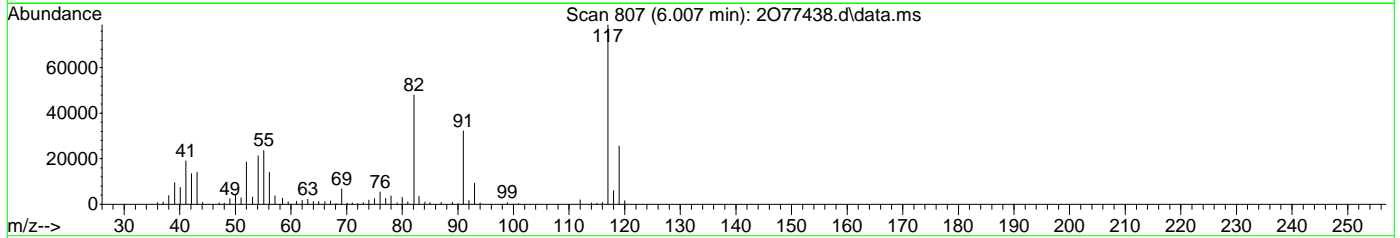
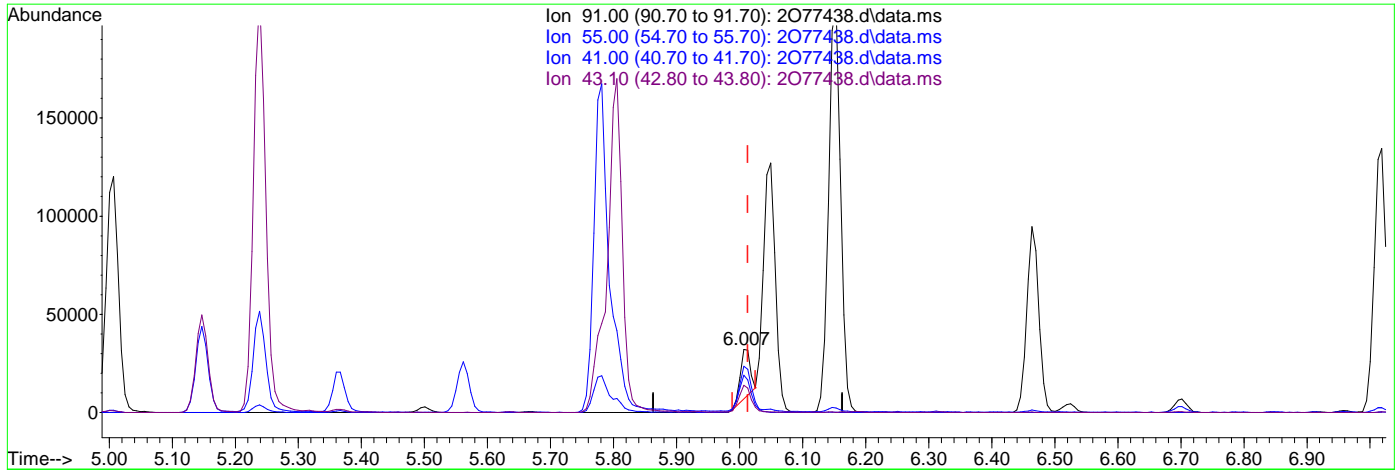
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.20
41.10	77.50	85.24
39.00	31.30	34.57

7.6.11.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077438.d\data.ms

(76) 1-Chlorohexane

6.007min (-0.006) 14.05ug/L

response 29016

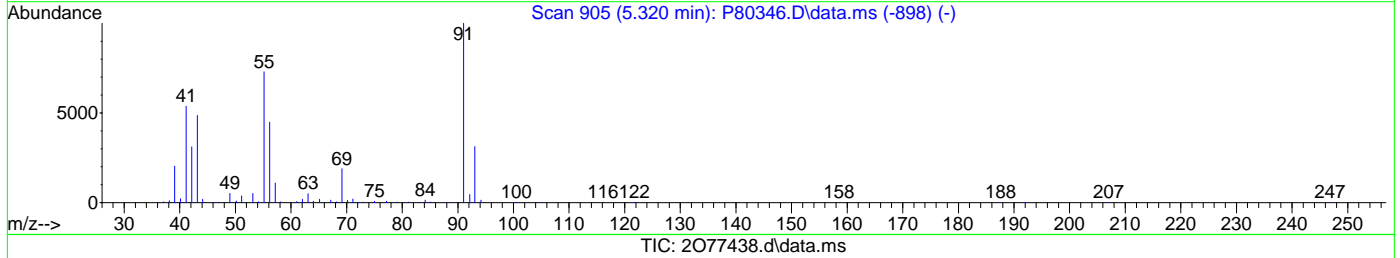
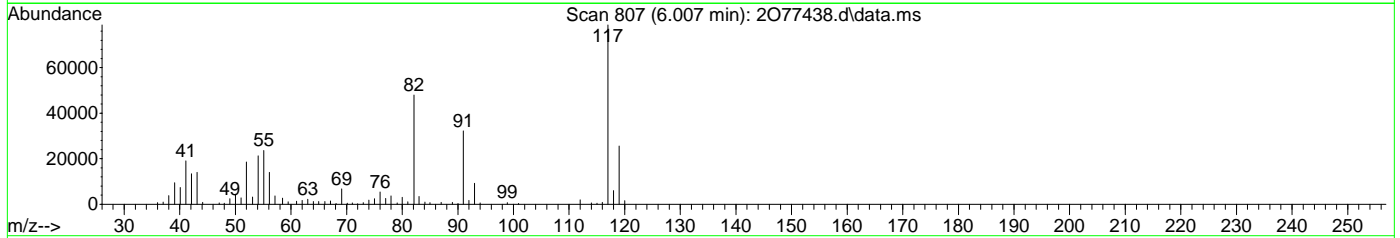
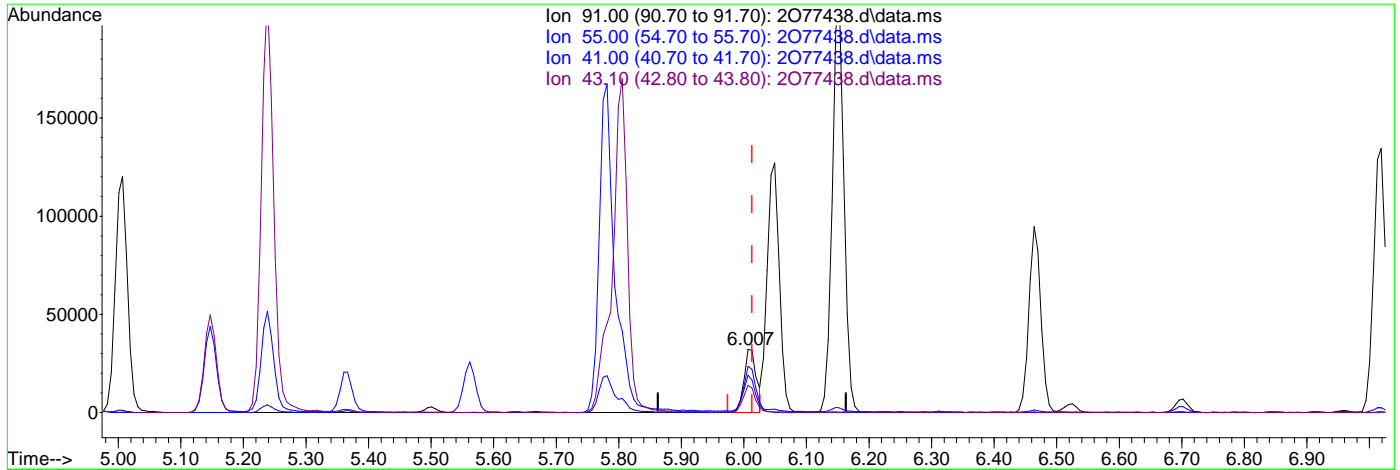
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.09
41.00	55.00	55.63
43.10	42.40	42.18

7.6.11.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 21.51ug/L m  
 response 44408

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.50
41.00	55.00	59.02
43.10	42.40	43.38

7.6.11.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1182769	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	892319	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	524006	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	328612	48.80	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.60%		
49) 1,2-Dichloroethane-d4	7.555	65	306960	50.29	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	100.58%		
63) Toluene-d8	9.439	98	1222137	48.22	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	96.44%		
86) 4-Bromofluorobenzene	12.219	174	433734	49.01	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.02%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	5442	1.73	ug/L		93
3) Chloromethane	2.635	50	7772	1.61	ug/L		91
4) Vinyl Chloride	2.763	62	5352	1.21	ug/L #		42
5) 1,3-Butadiene	2.800	39	5688	1.25	ug/L		85
6) Bromomethane	3.233	94	6666	3.92	ug/L		95
7) Chloroethane	3.391	64	5521	1.89	ug/L		93
8) Trichlorofluoromethane	3.604	101	7518	1.22	ug/L		95
9) Ethyl Ether	4.013	59	3699	0.98	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.245	67	4964	1.01	ug/L		85
11) 1,1-Dichloroethene	4.269	61	6373	0.98	ug/L		92
12) Ethanol	4.184	45	5721	32.84	ug/L		94
13) Freon 113	4.318	101	3859	1.00	ug/L		79
14) Carbon Disulfide	4.330	76	15138	1.14	ug/L		99
15) Iodomethane	4.458	142	2662	0.82	ug/L		90
16) Acrolein	4.684	56	11013	6.68	ug/L		99
17) Allyl chloride	4.854	41	7625	1.31	ug/L		96
18) Methylene Chloride	4.976	49	13096	1.71	ug/L		96
19) Acetone	5.025	43	24855	7.63	ug/L		95
20) Methyl acetate	5.177	43	30948	4.48	ug/L		97
21) trans-1,2-Dichloroethene	5.183	61	6808	1.00	ug/L		94
22) Hexane	5.281	56	3591	1.10	ug/L		91
23) Methyl Tert Butyl Ether	5.293	73	14557	0.98	ug/L		63
24) Tert butyl alcohol	5.379	59	19025	8.86	ug/L		96
25) Acetonitrile	5.568	41	28590	23.81	ug/L		93
26) Di-isopropyl ether	5.732	45	15246	1.00	ug/L		90
27) Chloroprene	5.878	53	6526	1.10	ug/L		90
28) 1,1-Dichloroethane	5.891	63	8483	0.94	ug/L		98
29) Acrylonitrile	5.976	53	14041	4.43	ug/L		94
30) ETBE	6.147	59	14803	0.99	ug/L		90
31) Vinyl acetate	6.189	43	39427m	4.80	ug/L		
32) cis-1,2-Dichloroethene	6.519	96	5193	0.98	ug/L		97
33) 2,2-Dichloropropane	6.622	77	6951	1.01	ug/L		94
34) Bromochloromethane	6.750	128	2871	1.05	ug/L #		82
35) Cyclohexane	6.750	56	7322	1.03	ug/L		97
36) Chloroform	6.799	83	9792	1.04	ug/L		94
37) Ethyl acetate	6.915	43	30834	3.92	ug/L		99
38) Tetrahydrofuran	6.982	42	4003	1.01	ug/L		83
40) Carbon Tetrachloride	6.982	117	6470m	0.94	ug/L		
41) 1,1,1-Trichloroethane	7.031	97	7655	0.98	ug/L		91
42) 2-Butanone	7.159	43	19868m	4.44	ug/L		
43) 1,1-Dichloropropene	7.183	75	5478	0.89	ug/L		94
44) tert-Butyl Formate	7.256	59	17629	4.53	ug/L		89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.439	54	14969	10.18	ug/L #	16
46) Methacrylonitrile	7.457	41	48988	11.36	ug/L	93
47) Benzene	7.445	78	18678	0.99	ug/L	88
48) TAME	7.531	73	14856	1.03	ug/L	96
50) Isobutyl alcohol	7.604	42	9073	22.09	ug/L	90
51) 1,2-Dichloroethane	7.652	62	7067	1.08	ug/L	86
52) Tert Amyl Alcohol	7.707	59	14687	8.25	ug/L	92
53) Trichloroethene	8.061	95	6218	1.20	ug/L #	78
54) Methylcyclohexane	8.055	83	6362	0.98	ug/L	95
55) Dibromomethane	8.500	93	3501	1.03	ug/L #	63
56) 1,2-Dichloropropane	8.585	63	4878	1.00	ug/L	93
57) Bromodichloromethane	8.640	83	6240	0.90	ug/L	85
58) Methyl methacrylate	8.823	41	1262	0.26	ug/L #	65
59) 1,4-Dioxane	8.860	88	2137	14.12	ug/L	77
60) 2-Chloroethyl vinyl ether	9.207	63	8760	3.38	ug/L	80
61) cis-1,3-Dichloropropene	9.280	75	6754	0.89	ug/L	86
64) Toluene	9.506	91	20555	0.97	ug/L	97
65) 2-Nitropropane	9.707	41	8460	3.60	ug/L	84
66) 4-Methyl-2-pentanone	9.841	43	42494	5.02	ug/L	98
67) trans-1,3-Dichloropropene	9.951	75	3720	0.54	ug/L	81
68) Tetrachloroethene	9.914	166	6086	0.96	ug/L	92
69) Ethyl methacrylate	10.079	69	3454	0.59	ug/L #	28
70) 1,1,2-Trichloroethane	10.079	83	4227	0.98	ug/L	94
71) Dibromochloromethane	10.268	129	5544	0.90	ug/L	89
72) 1,3-Dichloropropane	10.359	76	6447	0.86	ug/L	95
73) 1,2-Dibromoethane	10.554	107	5181	0.93	ug/L	86
74) 3,3-dimethyl-1-butanol	10.615	57	55872	32.70	ug/L	96
75) 2-hexanone	10.682	43	26377	4.05	ug/L	88
76) 1-Chlorohexane	10.975	91	6171	1.04	ug/L	91
77) Ethylbenzene	11.042	91	23310	1.05	ug/L	90
78) Chlorobenzene	11.024	112	13208	0.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.079	131	5447	0.99	ug/L #	15
80) m,p-Xylene	11.182	91	30687	1.80	ug/L	93
81) o-Xylene	11.621	91	17884	0.98	ug/L	96
82) Styrene	11.731	104	8879	0.71	ug/L	82
83) Bromoform	11.725	173	4336	0.82	ug/L	84
84) Isopropylbenzene	11.920	105	20851	0.98	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.298	53	1588	1.00	ug/L #	33
88) n-Propylbenzene	12.347	91	23298	0.99	ug/L	89
89) Bromobenzene	12.353	156	5937	0.96	ug/L #	81
90) 1,1,2,2-Tetrachloroethane	12.395	83	8662	1.01	ug/L	95
91) 1,3,5-Trimethylbenzene	12.523	105	16216	0.95	ug/L	99
92) 2-Chlorotoluene	12.536	91	15888	0.99	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.609	53	1127	0.60	ug/L #	33
94) 1,2,3-Trichloropropene	12.554	110	2400	0.93	ug/L	90
95) Cyclohexanone	12.621	55	3155	5.92	ug/L	94
96) 4-Chlorotoluene	12.712	91	14017	0.94	ug/L	93
97) tert-Butylbenzene	12.859	91	8894	0.98	ug/L	89
98) 1,2,4-Trimethylbenzene	12.938	105	16247	0.97	ug/L	93
99) Pentachloroethane	12.895	167	3551	1.02	ug/L #	75
100) sec-Butylbenzene	13.048	105	20668	1.05	ug/L	98
101) 4-Isopropyltoluene	13.176	119	15691	0.92	ug/L	95
102) 1,3-Dichlorobenzene	13.322	146	9751	0.91	ug/L	93
103) 1,2,3-Trimethylbenzene	13.389	105	18145	1.03	ug/L	90
104) 1,4-Dichlorobenzene	13.389	146	12189	1.06	ug/L	97
105) n-Butylbenzene	13.645	92	7013	0.82	ug/L #	71
106) Benzyl Chloride	13.657	126	2168	0.73	ug/L #	89
107) 1,2-Dichlorobenzene	13.840	146	9910	0.95	ug/L	98



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.596	75	1993	0.88	ug/L	90
109) Hexachlorobutadiene	15.151	225	3519	0.97	ug/L	94
110) 1,2,4-Trichlorobenzene	15.212	180	7144	0.92	ug/L	85
111) Naphthalene	15.480	128	21732	0.89	ug/L	98
112) 1,2,3-Trichlorobenzene	15.645	180	7600	0.97	ug/L	86

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

7.6.12  
7





# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757261.D  
**Injection Time:** 06/15/23 10:43

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.19	Missed peak
Carbon Tetrachloride	56-23-5		6.98	Missed peak
2-Butanone (MEK)	78-93-3		7.16	Missed peak

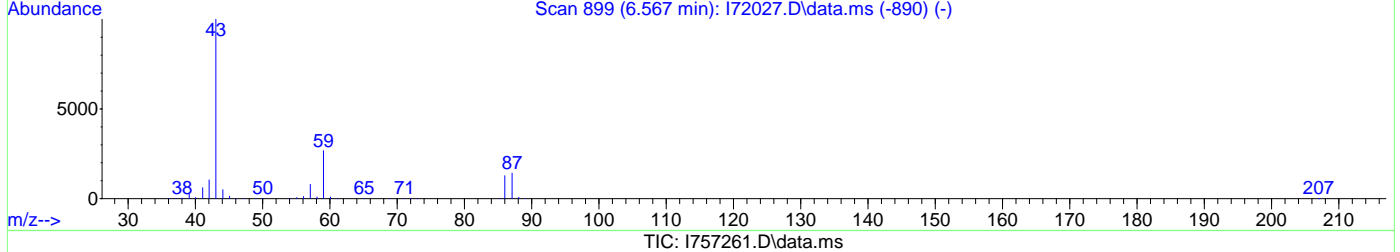
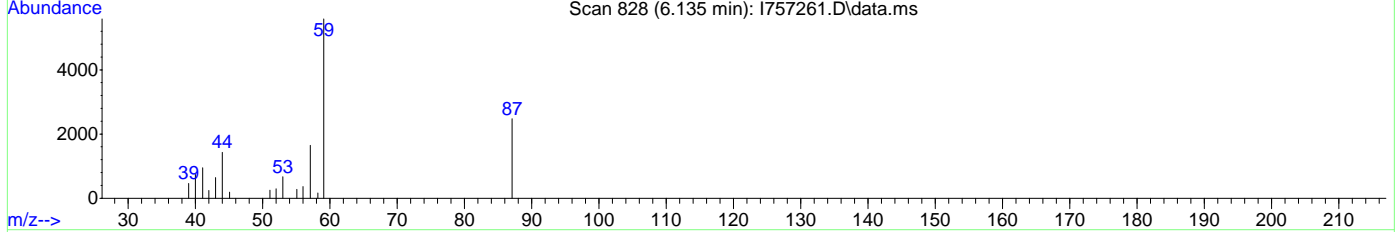
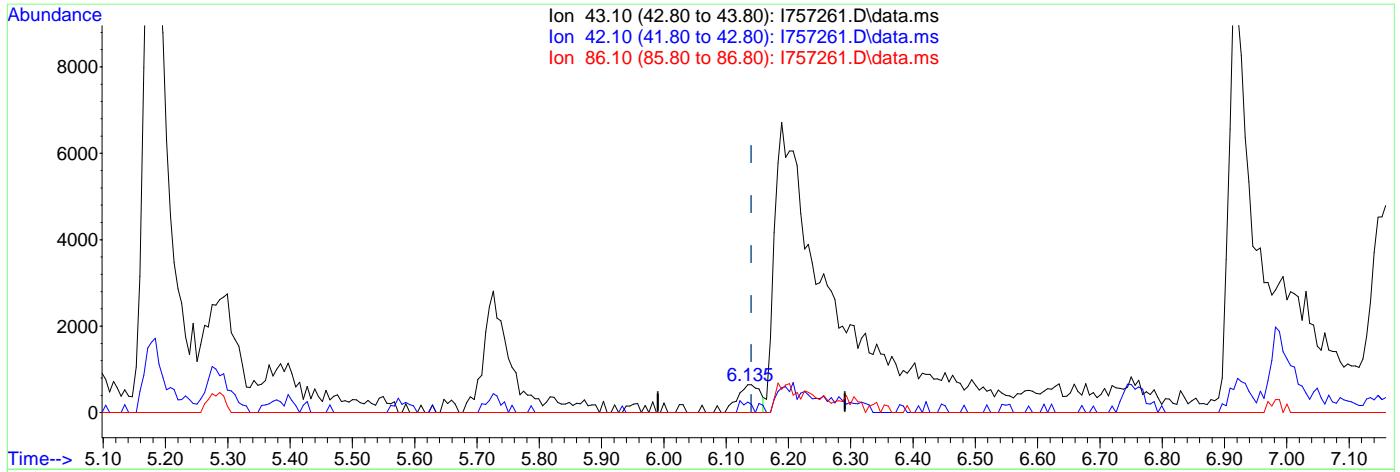
7.6.12.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate

6.135min (-0.006) 0.20ug/L

response 1610

Ion	Exp%	Act%
43.10	100	100
42.10	8.60	37.31
86.10	9.80	0.00
0.00	0.00	0.00

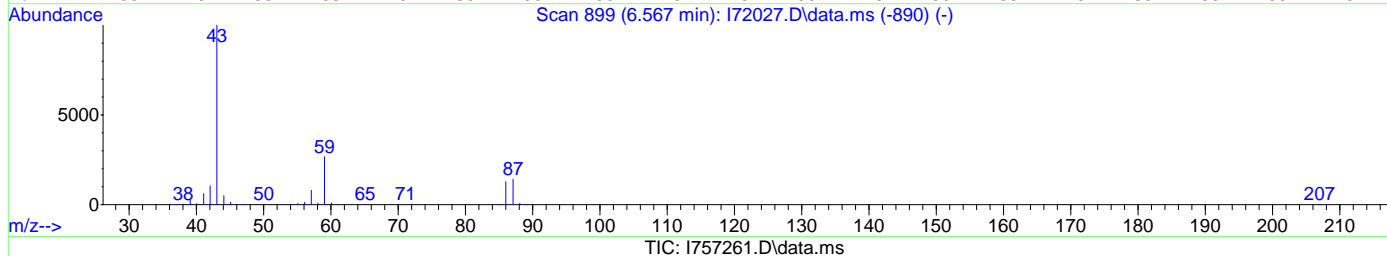
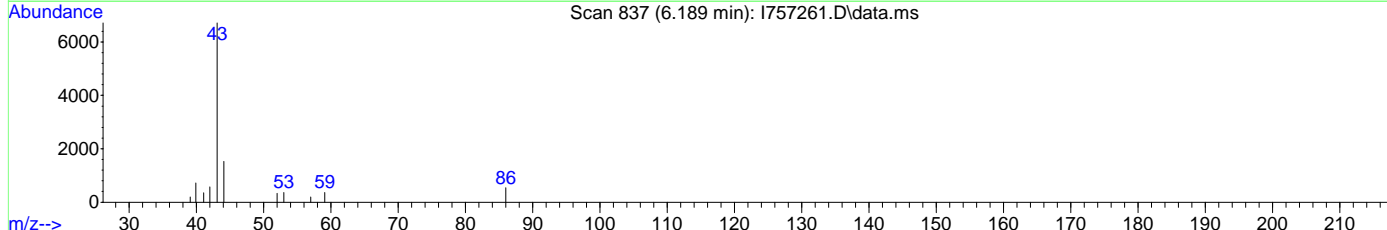
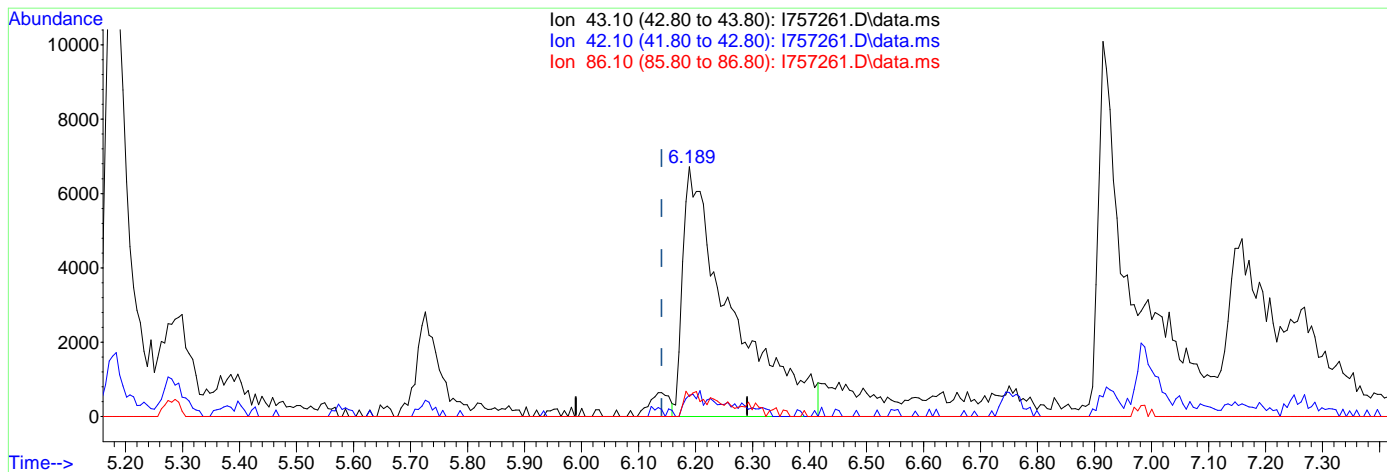
7.6.12.2

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate  
 6.189min (+0.049) 4.80ug/L m  
 response 39427

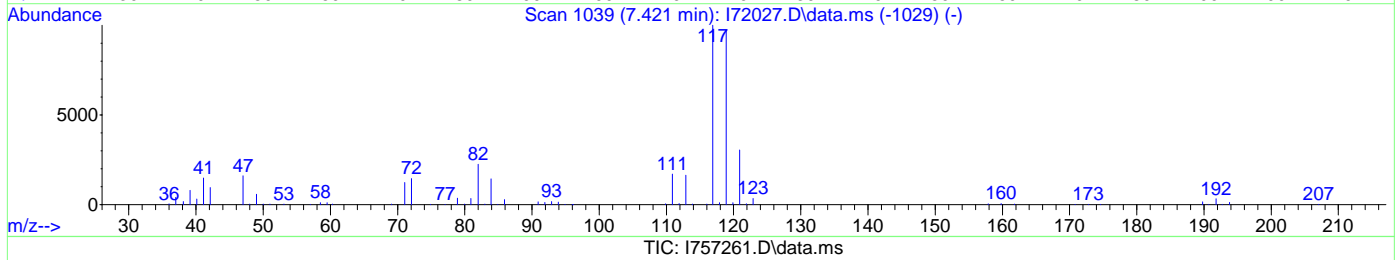
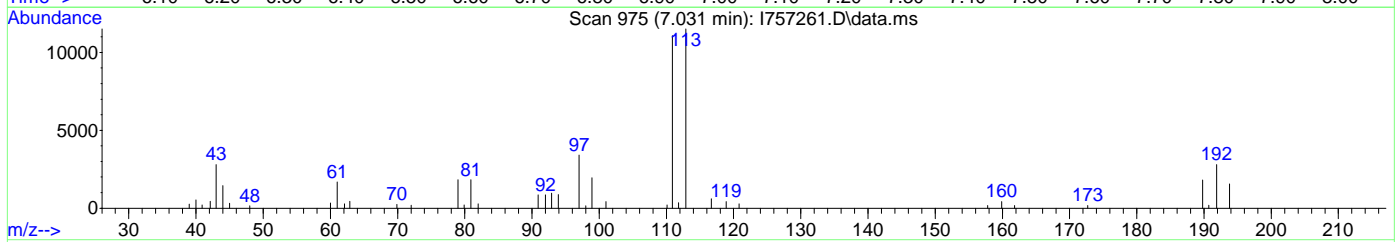
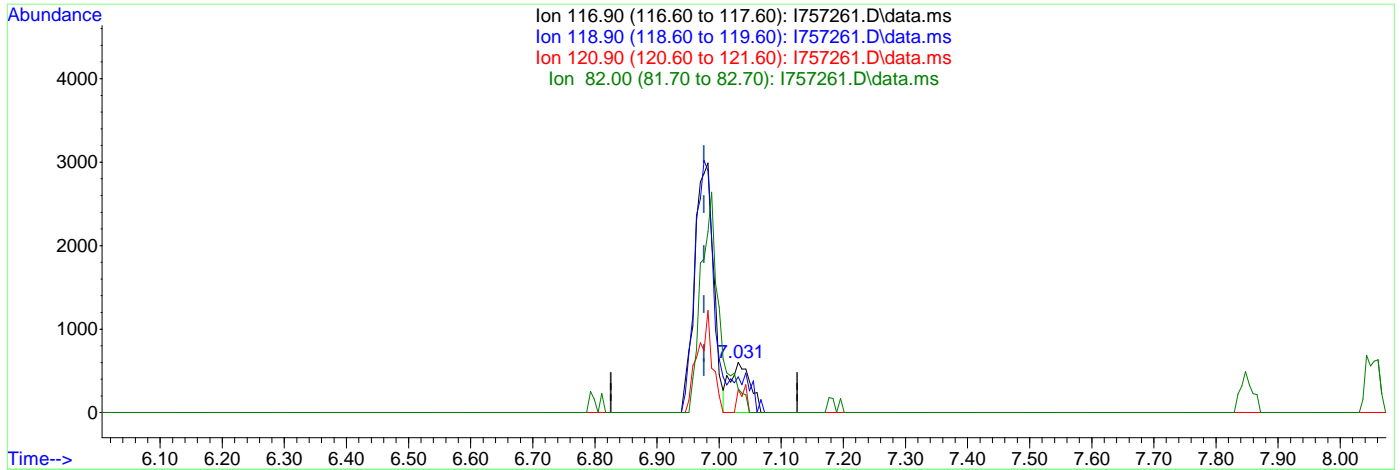
Ion	Exp%	Act%
43.10	100	100
42.10	8.60	8.56
86.10	9.80	8.02
0.00	0.00	0.00

7.6.12.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

7.031min (+0.055) 0.20ug/L

response 1371

Ion Exp% Act%

116.90	100	100
118.90	99.30	71.14
120.90	32.80	45.61
82.00	23.90	46.77

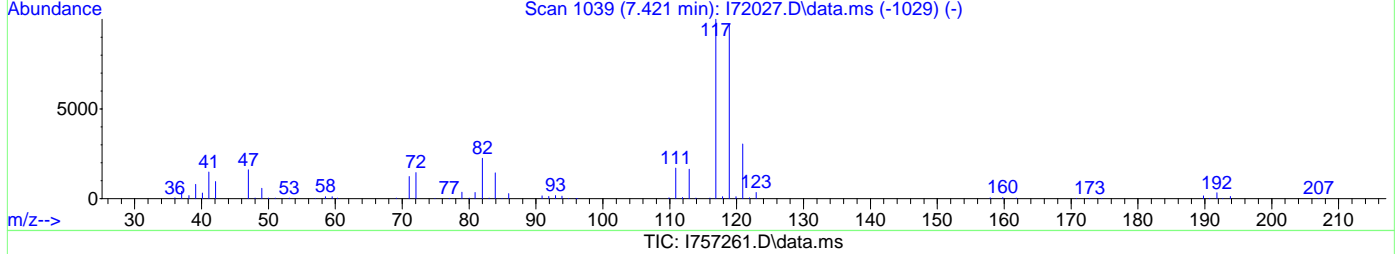
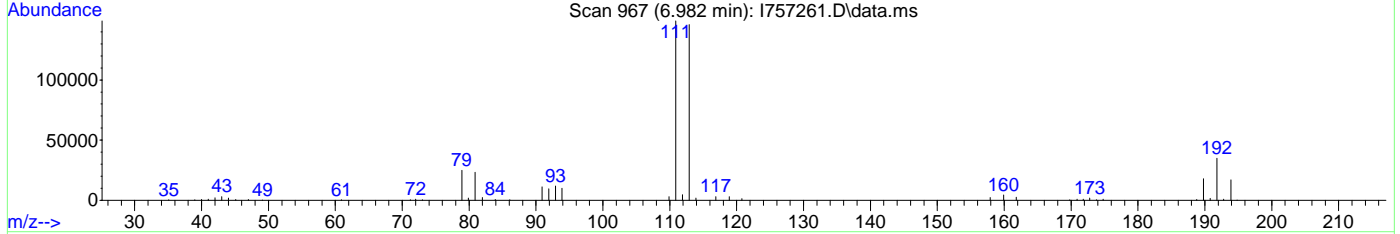
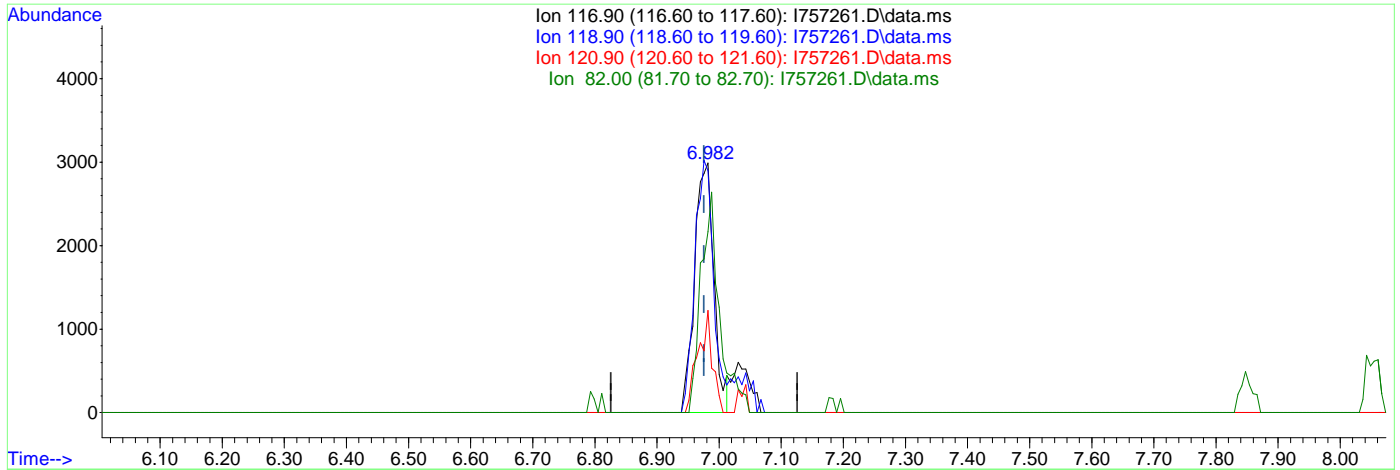
7.6.12.4

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

6.982min (+0.006) 0.94ug/L m

response 6470

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.92
120.90	32.80	40.89
82.00	23.90	72.42#

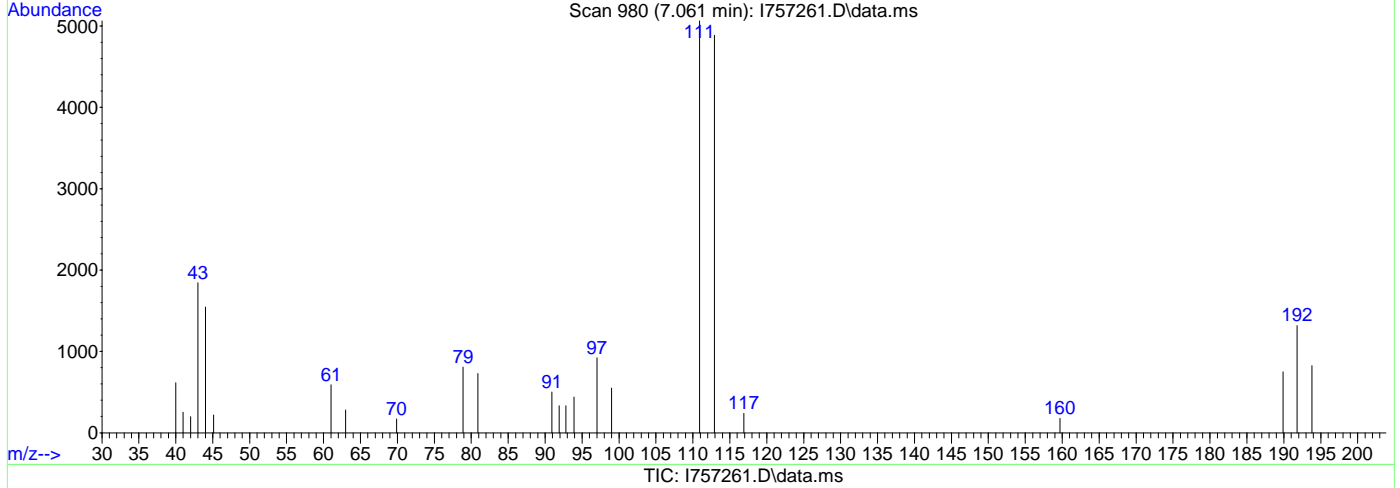
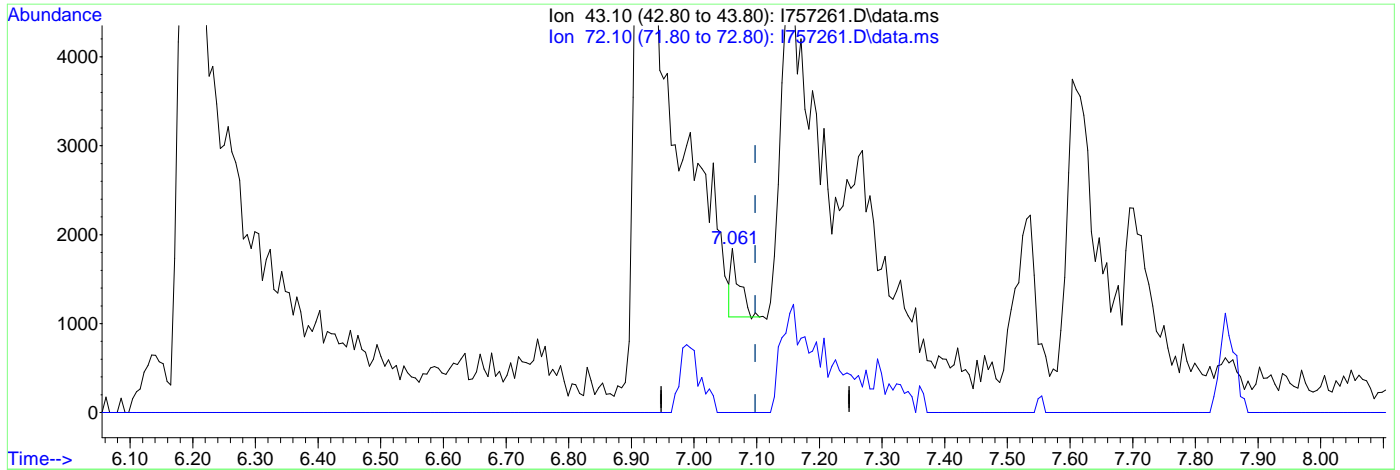
7.6.12.5

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone  
 7.061min (-0.037) 0.16ug/L  
 response 709

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.6

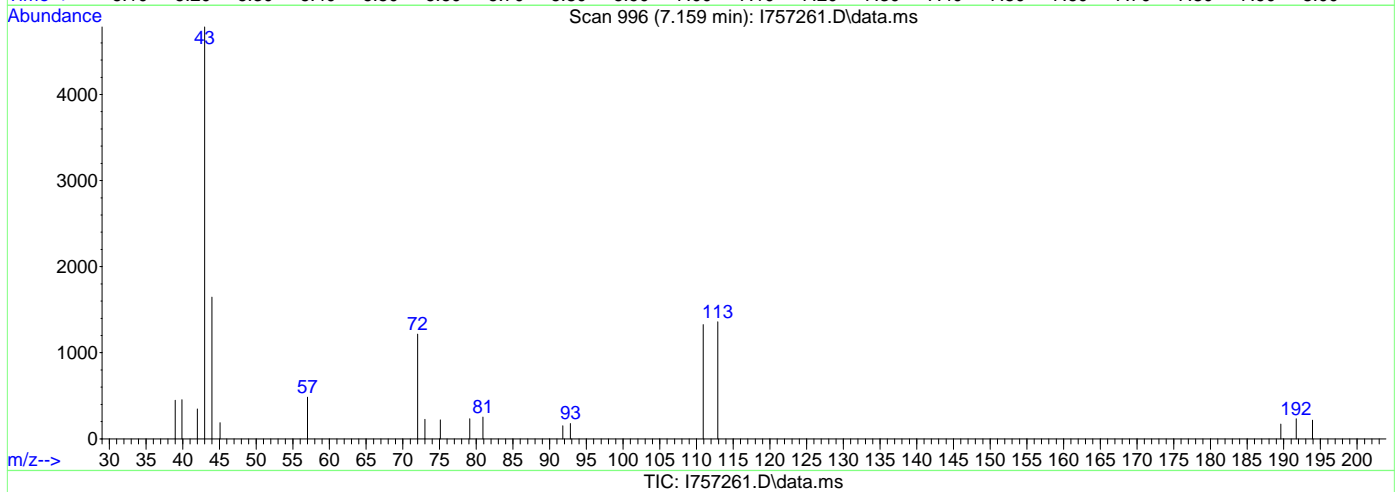
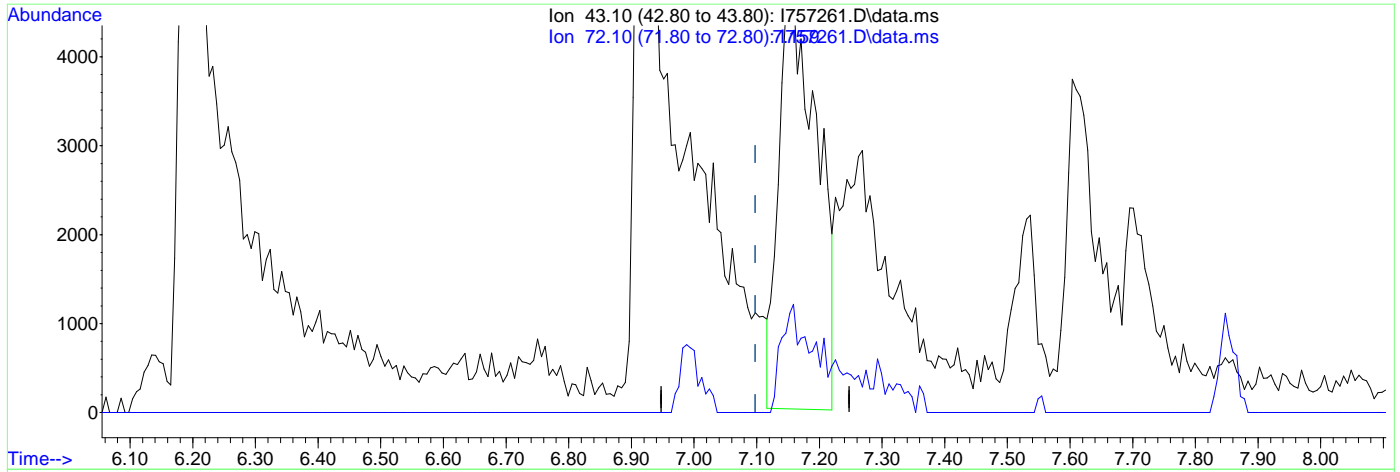
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone

7.159min (+0.061) 4.44ug/L m

response 19868

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	25.43
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1165649	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	889602	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	505367	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	325283	49.02	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.04%	
49) 1,2-Dichloroethane-d4	7.561	65	298097	49.55	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.10%	
63) Toluene-d8	9.445	98	1209637	47.87	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.74%	
86) 4-Bromofluorobenzene	12.219	174	424991	49.79	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.58%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	27386	8.82	ug/L		99
3) Chloromethane	2.635	50	32237	6.79	ug/L		98
4) Vinyl Chloride	2.763	62	29478	6.74	ug/L		92
5) 1,3-Butadiene	2.794	39	30328	6.79	ug/L		97
6) Bromomethane	3.227	94	12706	7.58	ug/L		92
7) Chloroethane	3.397	64	18474	6.43	ug/L		93
8) Trichlorofluoromethane	3.599	101	38170	6.30	ug/L		97
9) Ethyl Ether	4.013	59	17548	4.71	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.239	67	25007	5.19	ug/L		91
11) 1,1-Dichloroethene	4.269	61	32815	5.12	ug/L		99
12) Ethanol	4.190	45	21259	123.82	ug/L		100
13) Freon 113	4.318	101	20080	5.27	ug/L		96
14) Carbon Disulfide	4.330	76	67756	5.19	ug/L		97
15) Iodomethane	4.452	142	9749	3.03	ug/L		90
16) Acrolein	4.684	56	34013	20.92	ug/L		95
17) Allyl chloride	4.848	41	40712	7.09	ug/L		93
18) Methylene Chloride	4.976	49	37948	5.01	ug/L		95
19) Acetone	5.025	43	64352	20.03	ug/L		96
20) Methyl acetate	5.171	43	145110	21.31	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	35419	5.26	ug/L		93
22) Hexane	5.275	56	16338	5.08	ug/L		94
23) Methyl Tert Butyl Ether	5.293	73	67195	4.60	ug/L		79
24) Tert butyl alcohol	5.379	59	81165	38.35	ug/L		93
25) Acetonitrile	5.562	41	82345	69.59	ug/L		99
26) Di-isopropyl ether	5.726	45	72889	4.85	ug/L		99
27) Chloroprene	5.872	53	40481	6.91	ug/L		97
28) 1,1-Dichloroethane	5.885	63	47851	5.37	ug/L		99
29) Acrylonitrile	5.940	53	65417	20.92	ug/L		100
30) ETBE	6.135	59	72629	4.94	ug/L		98
31) Vinyl acetate	6.153	43	173852	21.46	ug/L		98
32) cis-1,2-Dichloroethene	6.513	96	27700	5.29	ug/L		95
33) 2,2-Dichloropropane	6.622	77	35630	5.24	ug/L		95
34) Bromochloromethane	6.744	128	13940	5.16	ug/L		92
35) Cyclohexane	6.756	56	36114	5.17	ug/L		95
36) Chloroform	6.793	83	48112	5.20	ug/L		94
37) Ethyl acetate	6.897	43	137371m	17.74	ug/L		
38) Tetrahydrofuran	6.988	42	17138	4.40	ug/L		92
40) Carbon Tetrachloride	6.970	117	32968	4.84	ug/L		93
41) 1,1,1-Trichloroethane	7.037	97	39468	5.12	ug/L		94
42) 2-Butanone	7.116	43	79492	18.01	ug/L		93
43) 1,1-Dichloropropene	7.177	75	31403	5.15	ug/L		95
44) tert-Butyl Formate	7.256	59	84861	22.12	ug/L		88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	88024	60.74	ug/L	92
46) Methacrylonitrile	7.439	41	276916	65.19	ug/L	98
47) Benzene	7.433	78	96713	5.20	ug/L	99
48) TAME	7.525	73	69750	4.90	ug/L	94
50) Isobutyl alcohol	7.592	42	37775	93.33	ug/L	95
51) 1,2-Dichloroethane	7.640	62	31609	4.89	ug/L	95
52) Tert Amyl Alcohol	7.695	59	62297	35.52	ug/L	93
53) Trichloroethene	8.055	95	24957	4.88	ug/L	93
54) Methylcyclohexane	8.049	83	32907	5.17	ug/L	96
55) Dibromomethane	8.500	93	15603	4.64	ug/L	93
56) 1,2-Dichloropropane	8.573	63	23524	4.91	ug/L	95
57) Bromodichloromethane	8.634	83	32071	4.71	ug/L	98
58) Methyl methacrylate	8.768	41	23862	5.00	ug/L	92
59) 1,4-Dioxane	8.829	88	12289	82.40	ug/L	93
60) 2-Chloroethyl vinyl ether	9.171	63	65292	25.55	ug/L	97
61) cis-1,3-Dichloropropene	9.262	75	35643	4.75	ug/L	96
64) Toluene	9.506	91	103423	4.91	ug/L	99
65) 2-Nitropropane	9.701	41	36331	15.52	ug/L #	90
66) 4-Methyl-2-pentanone	9.829	43	167971	19.90	ug/L	96
67) trans-1,3-Dichloropropene	9.914	75	31240	4.54	ug/L	86
68) Tetrachloroethene	9.914	166	30996	4.89	ug/L	97
69) Ethyl methacrylate	10.024	69	32508	5.60	ug/L	99
70) 1,1,2-Trichloroethane	10.067	83	20499	4.75	ug/L	95
71) Dibromochloromethane	10.262	129	26106	4.27	ug/L	95
72) 1,3-Dichloropropane	10.347	76	33945	4.55	ug/L	96
73) 1,2-Dibromoethane	10.530	107	23931	4.32	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	266330	156.37	ug/L	97
75) 2-hexanone	10.664	43	122777	18.92	ug/L	93
76) 1-Chlorohexane	10.969	91	27619	4.68	ug/L	98
77) Ethylbenzene	11.030	91	110351	4.97	ug/L	100
78) Chlorobenzene	11.024	112	69283	4.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	25168	4.61	ug/L	87
80) m,p-Xylene	11.170	91	165014	9.71	ug/L	99
81) o-Xylene	11.609	91	88560	4.86	ug/L	99
82) Styrene	11.670	104	55606	4.43	ug/L	93
83) Bromoform	11.719	173	21204	4.01	ug/L	96
84) Isopropylbenzene	11.914	105	105927	4.97	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.274	53	8862	5.80	ug/L #	83
88) n-Propylbenzene	12.341	91	119399	5.27	ug/L	99
89) Bromobenzene	12.359	156	29784	5.01	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.389	83	39047	4.73	ug/L	98
91) 1,3,5-Trimethylbenzene	12.518	105	86054	5.23	ug/L	97
92) 2-Chlorotoluene	12.524	91	81376	5.25	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.591	53	7092	3.93	ug/L	86
94) 1,2,3-Trichloropropane	12.548	110	12093	4.86	ug/L	96
95) Cyclohexanone	12.615	55	11436	22.25	ug/L	92
96) 4-Chlorotoluene	12.694	91	70286	4.90	ug/L	98
97) tert-Butylbenzene	12.853	91	45274	5.16	ug/L	96
98) 1,2,4-Trimethylbenzene	12.932	105	83406	5.16	ug/L	97
99) Pentachloroethane	12.902	167	20473	6.08	ug/L	97
100) sec-Butylbenzene	13.042	105	99567	5.23	ug/L	98
101) 4-Isopropyltoluene	13.170	119	85840	5.20	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	50680	4.92	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	87732	5.18	ug/L	93
104) 1,4-Dichlorobenzene	13.389	146	54988	4.95	ug/L	98
105) n-Butylbenzene	13.627	92	40581	4.95	ug/L	90
106) Benzyl Chloride	13.633	126	11834	4.15	ug/L #	73
107) 1,2-Dichlorobenzene	13.834	146	50054	4.97	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

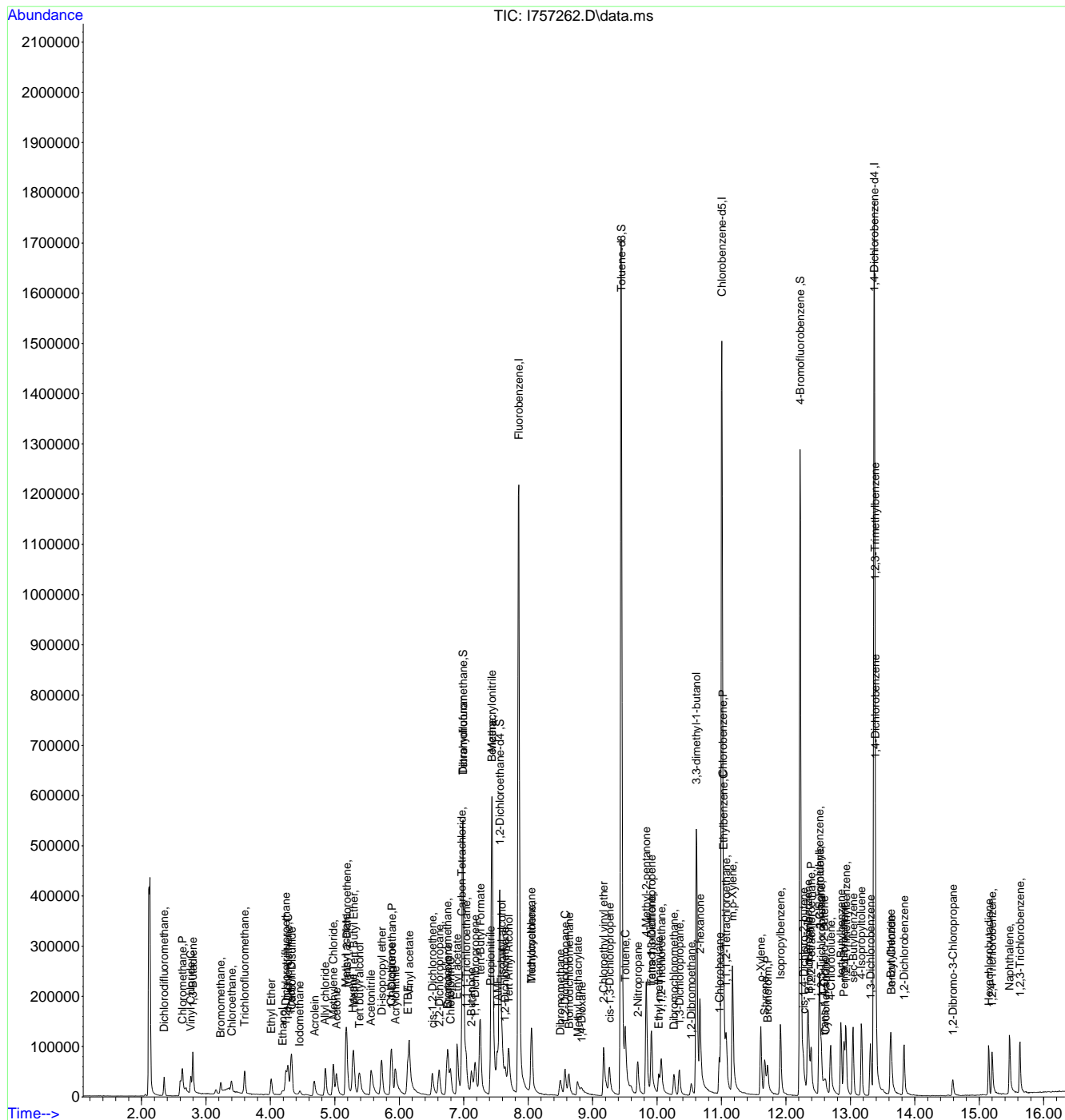
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.590	75	8368	3.85	ug/L	95
109) Hexachlorobutadiene	15.151	225	17626	5.04	ug/L	98
110) 1,2,4-Trichlorobenzene	15.200	180	36439	4.84	ug/L	98
111) Naphthalene	15.468	128	102592	4.38	ug/L	98
112) 1,2,3-Trichlorobenzene	15.633	180	36500	4.84	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.13  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757262.D  
**Injection Time:** 06/15/23 11:16

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

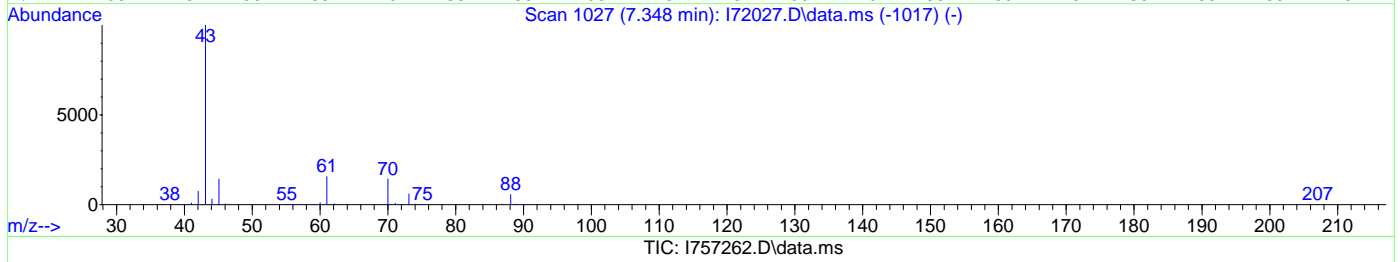
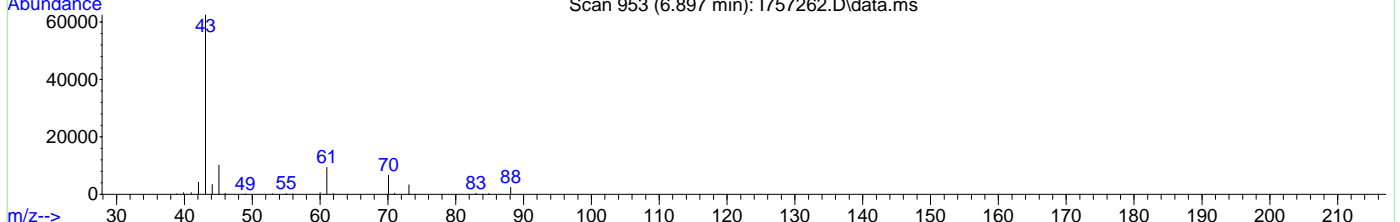
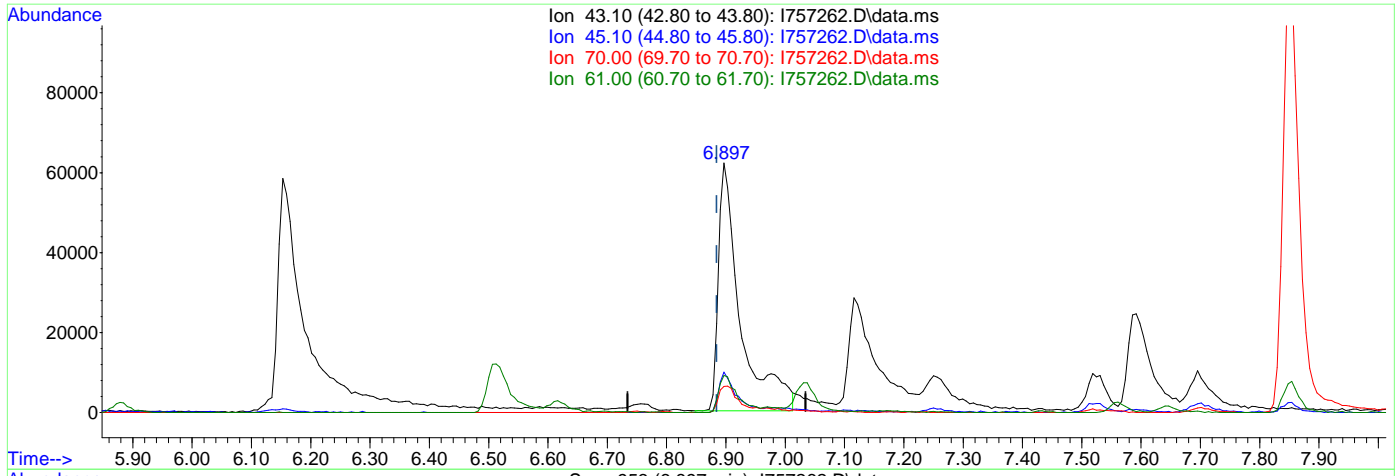
7.6.13.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 20.52ug/L  
 response 158851

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.33
70.00	11.10	10.57
61.00	15.10	14.97

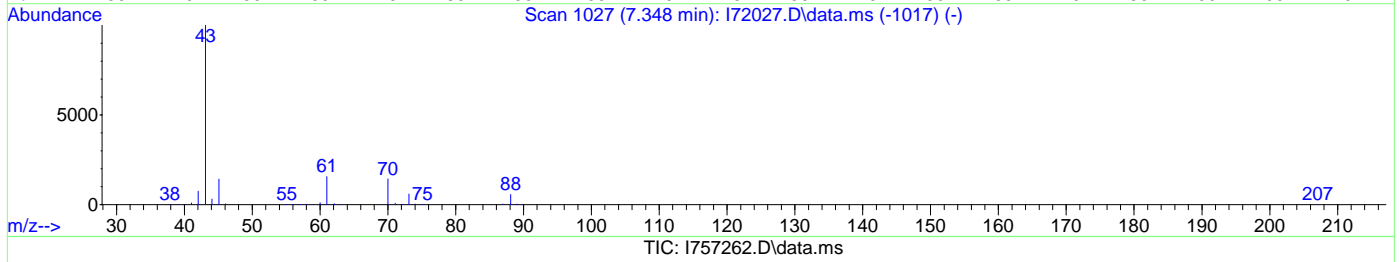
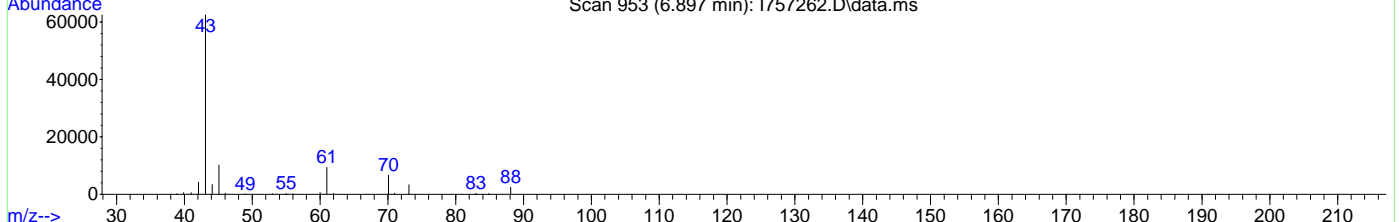
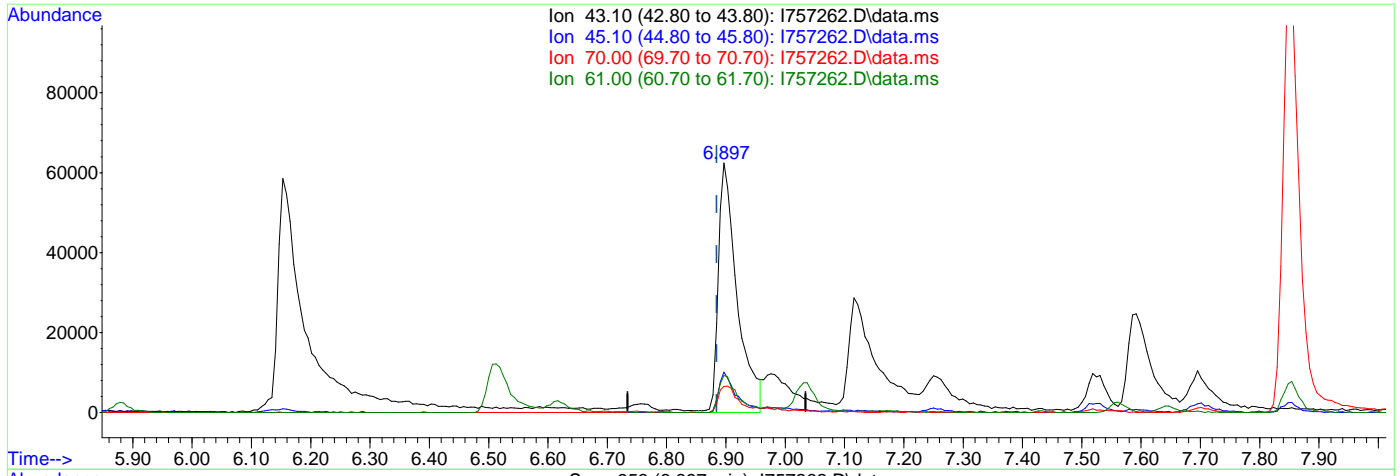
7.6.13.2

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 17.74ug/L m

response 137371

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.20
70.00	11.10	10.49
61.00	15.10	14.86

7.6.13.3

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1170277	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	851480	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	514226	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	327625	49.17	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.34%			
49) 1,2-Dichloroethane-d4	7.561	65	304694	50.45	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery =	100.90%			
63) Toluene-d8	9.445	98	1220760	50.48	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.96%			
86) 4-Bromofluorobenzene	12.219	174	428509	49.34	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.68%			
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	50867	16.31	ug/L	99	
3) Chloromethane	2.641	50	54614	11.47	ug/L	98	
4) Vinyl Chloride	2.769	62	50988	11.62	ug/L	96	
5) 1,3-Butadiene	2.800	39	45402	10.12	ug/L	100	
6) Bromomethane	3.233	94	17396	10.34	ug/L	92	
7) Chloroethane	3.397	64	27335	9.48	ug/L	92	
8) Trichlorofluoromethane	3.605	101	70922	11.65	ug/L	98	
9) Ethyl Ether	4.019	59	32290	8.64	ug/L	98	
10) 1,2-Dichlorotrifluoro...	4.245	67	45018	9.30	ug/L	98	
11) 1,1-Dichloroethene	4.275	61	57814	8.99	ug/L	98	
12) Ethanol	4.202	45	36754	213.22	ug/L	90	
13) Freon 113	4.324	101	37005	9.67	ug/L	94	
14) Carbon Disulfide	4.336	76	114753	8.75	ug/L	99	
15) Iodomethane	4.458	142	18992	5.88	ug/L	99	
16) Acrolein	4.678	56	86223	52.83	ug/L	96	
17) Allyl chloride	4.860	41	59002	10.23	ug/L	97	
18) Methylene Chloride	4.982	49	60337	7.94	ug/L	97	
19) Acetone	5.025	43	184931	57.34	ug/L	95	
20) Methyl acetate	5.171	43	300019	43.88	ug/L	99	
21) trans-1,2-Dichloroethene	5.190	61	59576	8.81	ug/L	97	
22) Hexane	5.281	56	28978	8.98	ug/L	86	
23) Methyl Tert Butyl Ether	5.299	73	127238	8.69	ug/L	90	
24) Tert butyl alcohol	5.391	59	175816	82.74	ug/L	96	
25) Acetonitrile	5.568	41	138301	116.42	ug/L	99	
26) Di-isopropyl ether	5.726	45	132488	8.79	ug/L	97	
27) Chloroprene	5.872	53	61364	10.43	ug/L	94	
28) 1,1-Dichloroethane	5.885	63	78260	8.74	ug/L	99	
29) Acrylonitrile	5.933	53	161854	51.57	ug/L	97	
30) ETBE	6.141	59	125270	8.50	ug/L	99	
31) Vinyl acetate	6.147	43	418057	51.39	ug/L	99	
32) cis-1,2-Dichloroethene	6.513	96	46021	8.75	ug/L	91	
33) 2,2-Dichloropropane	6.622	77	59693	8.74	ug/L	96	
34) Bromochloromethane	6.738	128	24652	9.08	ug/L	90	
35) Cyclohexane	6.763	56	67766	9.67	ug/L	96	
36) Chloroform	6.799	83	81335	8.75	ug/L	99	
37) Ethyl acetate	6.897	43	352467m	45.34	ug/L		
38) Tetrahydrofuran	6.988	42	34187	8.74	ug/L	97	
40) Carbon Tetrachloride	6.976	117	56831	8.31	ug/L	96	
41) 1,1,1-Trichloroethane	7.037	97	68120	8.80	ug/L	97	
42) 2-Butanone	7.110	43	268871	60.66	ug/L	99	
43) 1,1-Dichloropropene	7.177	75	55032	9.00	ug/L	97	
44) tert-Butyl Formate	7.256	59	168473	43.74	ug/L	95	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	152952	105.12	ug/L	95
46) Methacrylonitrile	7.439	41	458306	107.46	ug/L	98
47) Benzene	7.433	78	168632	9.03	ug/L	98
48) TAME	7.525	73	121623	8.51	ug/L	99
50) Isobutyl alcohol	7.592	42	75064	184.72	ug/L	98
51) 1,2-Dichloroethane	7.646	62	57615	8.88	ug/L	99
52) Tert Amyl Alcohol	7.701	59	143320	81.40	ug/L	97
53) Trichloroethene	8.055	95	44437	8.66	ug/L	93
54) Methylcyclohexane	8.055	83	61576	9.63	ug/L	94
55) Dibromomethane	8.494	93	28982	8.58	ug/L	91
56) 1,2-Dichloropropane	8.573	63	42298	8.80	ug/L	95
57) Bromodichloromethane	8.628	83	58550	8.56	ug/L	99
58) Methyl methacrylate	8.756	41	43238	9.03	ug/L	97
59) 1,4-Dioxane	8.823	88	27052	180.67	ug/L	90
60) 2-Chloroethyl vinyl ether	9.164	63	135939	52.97	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	64922	8.62	ug/L	99
64) Toluene	9.506	91	177013	8.78	ug/L	99
65) 2-Nitropropane	9.701	41	76063	33.94	ug/L #	89
66) 4-Methyl-2-pentanone	9.829	43	504936	62.51	ug/L	99
67) trans-1,3-Dichloropropene	9.908	75	56069	8.51	ug/L	90
68) Tetrachloroethene	9.908	166	55047	9.07	ug/L	95
69) Ethyl methacrylate	10.024	69	54525	9.81	ug/L	97
70) 1,1,2-Trichloroethane	10.061	83	36759	8.91	ug/L	95
71) Dibromochloromethane	10.262	129	48493	8.29	ug/L	95
72) 1,3-Dichloropropane	10.341	76	62625	8.77	ug/L	98
73) 1,2-Dibromoethane	10.524	107	46419	8.76	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	680895	417.66	ug/L	99
75) 2-hexanone	10.658	43	398553	64.16	ug/L	98
76) 1-Chlorohexane	10.969	91	50488	8.93	ug/L	99
77) Ethylbenzene	11.030	91	192534	9.06	ug/L	98
78) Chlorobenzene	11.024	112	119704	8.95	ug/L	96
79) 1,1,1,2-Tetrachloroethane	11.073	131	44223	8.46	ug/L	93
80) m,p-Xylene	11.170	91	290829	17.88	ug/L	99
81) o-Xylene	11.609	91	157079	9.01	ug/L	96
82) Styrene	11.664	104	104123	8.68	ug/L	97
83) Bromoform	11.713	173	40786	8.05	ug/L	97
84) Isopropylbenzene	11.914	105	183878	9.02	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.268	53	16022	10.30	ug/L #	84
88) n-Propylbenzene	12.335	91	204965	8.89	ug/L	99
89) Bromobenzene	12.353	156	52703	8.72	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	72475	8.63	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	149136	8.91	ug/L	98
92) 2-Chlorotoluene	12.524	91	143165	9.07	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.578	53	15072	8.20	ug/L #	84
94) 1,2,3-Trichloropropane	12.548	110	22730	8.98	ug/L	95
95) Cyclohexanone	12.609	55	26818	51.28	ug/L	97
96) 4-Chlorotoluene	12.688	91	126546	8.67	ug/L	97
97) tert-Butylbenzene	12.853	91	80686	9.04	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	143502	8.72	ug/L	97
99) Pentachloroethane	12.902	167	30722	8.97	ug/L	97
100) sec-Butylbenzene	13.042	105	175674	9.06	ug/L	97
101) 4-Isopropyltoluene	13.170	119	148157	8.82	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	89376	8.53	ug/L	97
103) 1,2,3-Trimethylbenzene	13.383	105	150887	8.76	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	96932	8.58	ug/L	98
105) n-Butylbenzene	13.621	92	72015	8.63	ug/L	91
106) Benzyl Chloride	13.633	126	22829	7.88	ug/L #	73
107) 1,2-Dichlorobenzene	13.828	146	88799	8.66	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

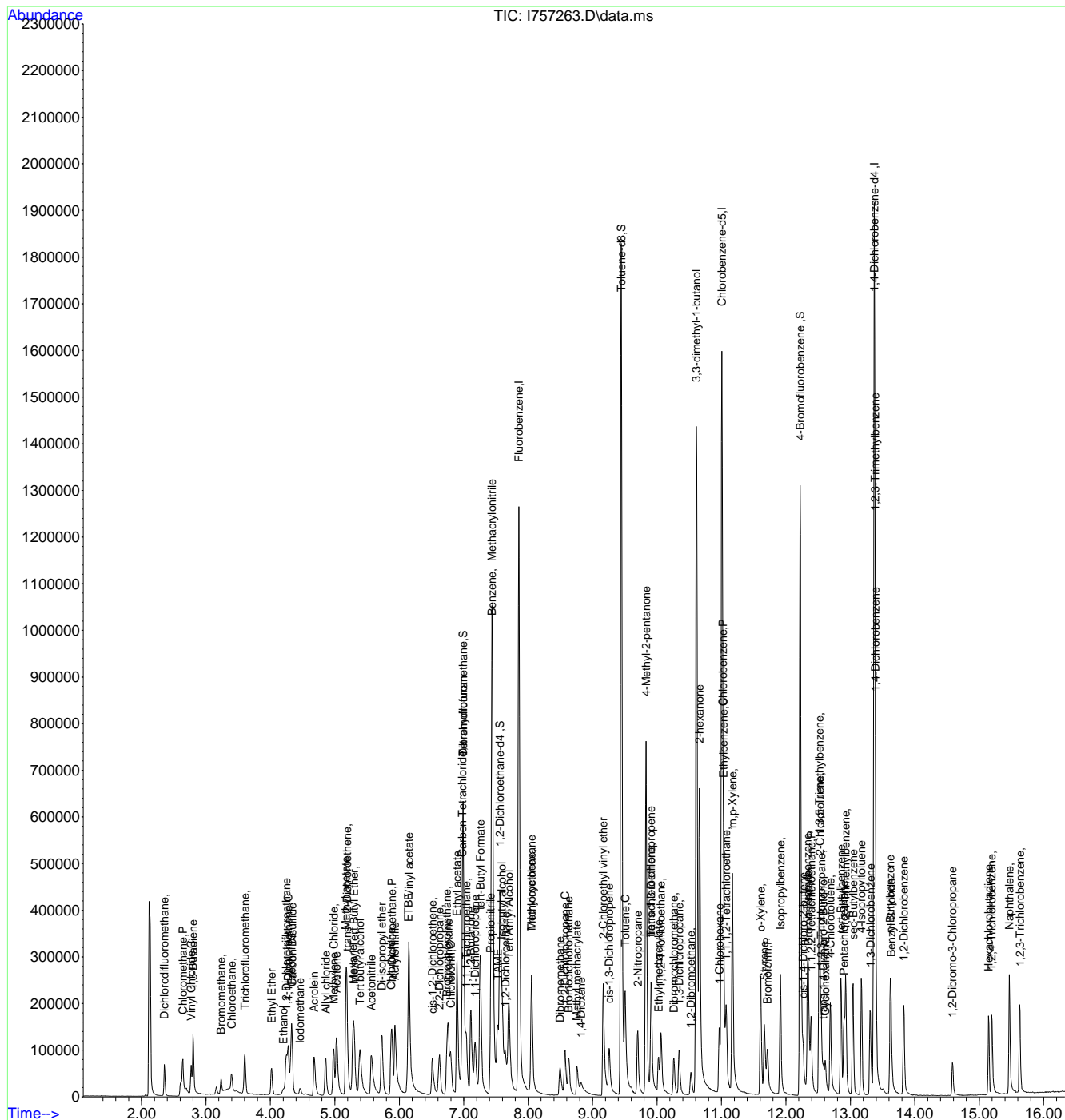
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	17681	7.99	ug/L	97
109) Hexachlorobutadiene	15.145	225	30612	8.61	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	63602	8.31	ug/L	98
111) Naphthalene	15.468	128	199734	8.37	ug/L	100
112) 1,2,3-Trichlorobenzene	15.633	180	62659	8.16	ug/L	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.14  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948

**Method:** SW846 8260D

**Lab FileID:** I757263.D

**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus

**Injection Time:** 06/15/23 11:40

**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

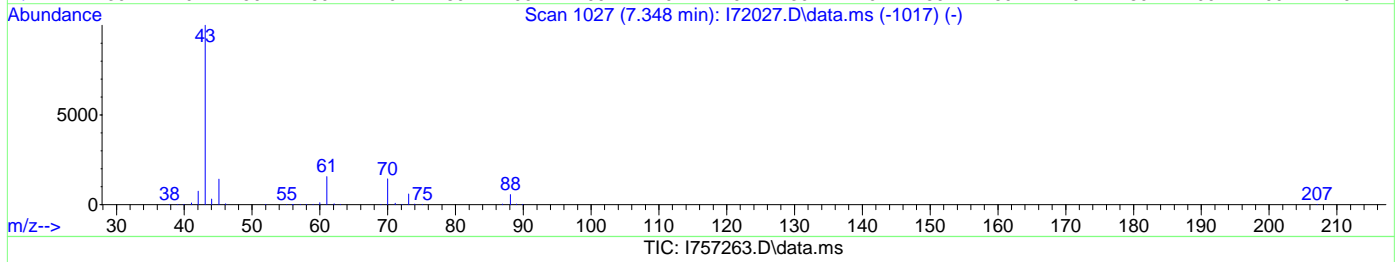
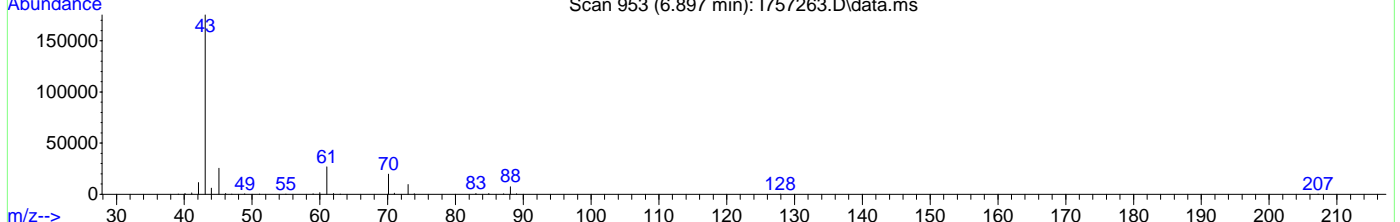
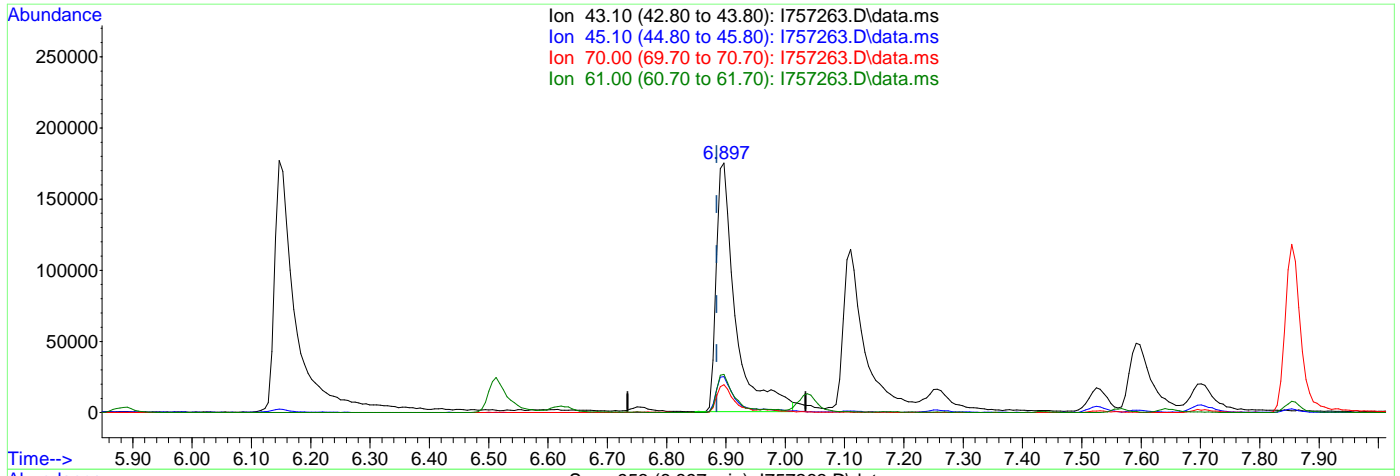
7.6.14.1

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 50.83ug/L  
 response 395126

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.44
70.00	11.10	11.24
61.00	15.10	15.26

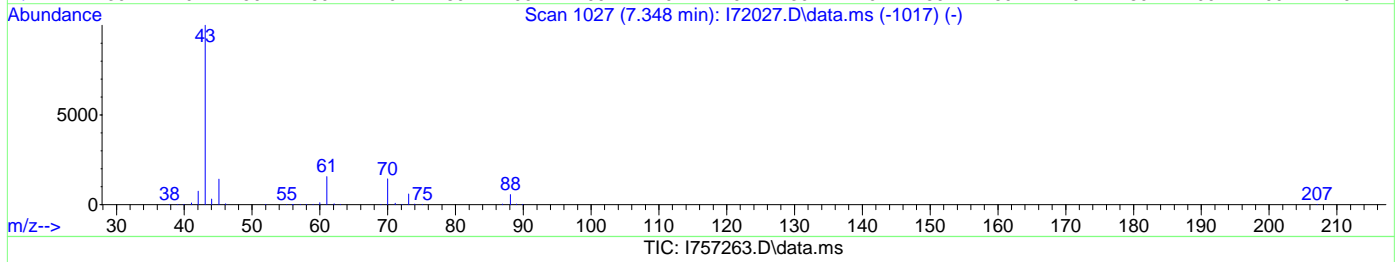
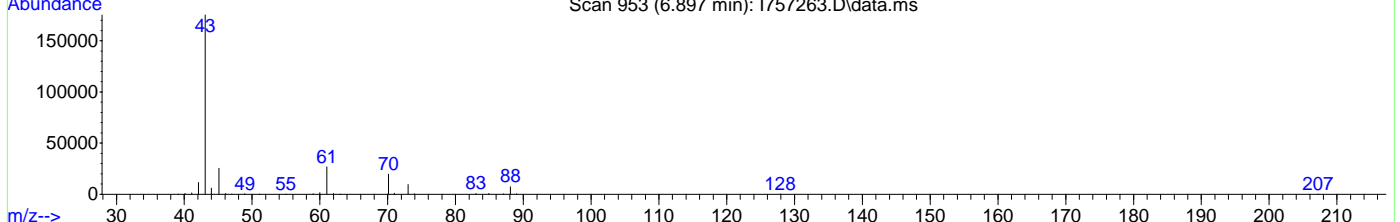
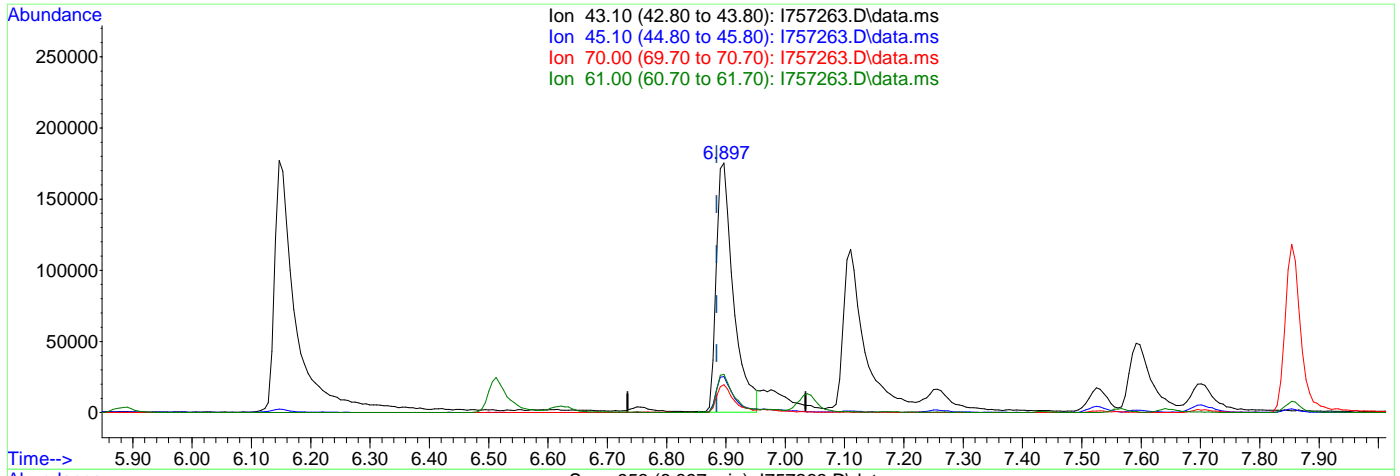
7.6.14.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 45.34ug/L m

response 352467

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.39
70.00	11.10	11.20
61.00	15.10	15.30

7.6.14.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1142073	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	841453	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	519559	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	331108	50.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.84%	
49) 1,2-Dichloroethane-d4	7.561	65	307520	52.18	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.36%	
63) Toluene-d8	9.445	98	1216135	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.76%	
86) 4-Bromofluorobenzene	12.219	174	435484	49.63	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.26%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	123401	40.54	ug/L		98
3) Chloromethane	2.635	50	122259	26.30	ug/L		97
4) Vinyl Chloride	2.763	62	120249	28.08	ug/L		99
5) 1,3-Butadiene	2.794	39	116957	26.71	ug/L		94
6) Bromomethane	3.233	94	39672	24.16	ug/L		96
7) Chloroethane	3.391	64	54467	19.36	ug/L		99
8) Trichlorofluoromethane	3.598	101	165259	27.82	ug/L		99
9) Ethyl Ether	4.013	59	87674	24.04	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	118357	25.05	ug/L		97
11) 1,1-Dichloroethene	4.275	61	157664	25.12	ug/L		100
12) Ethanol	4.208	45	88728	527.45	ug/L		99
13) Freon 113	4.318	101	98252	26.32	ug/L		96
14) Carbon Disulfide	4.330	76	310548	24.26	ug/L		99
15) Iodomethane	4.458	142	75491	23.95	ug/L		95
16) Acrolein	4.671	56	203351	127.67	ug/L		97
17) Allyl chloride	4.854	41	149089	26.48	ug/L		98
18) Methylene Chloride	4.976	49	152960	20.63	ug/L		97
19) Acetone	5.025	43	367279	116.69	ug/L		98
20) Methyl acetate	5.165	43	829278	124.29	ug/L		100
21) trans-1,2-Dichloroethene	5.183	61	159712	24.21	ug/L		97
22) Hexane	5.275	56	83397	26.49	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	343713	24.04	ug/L		82
24) Tert butyl alcohol	5.385	59	487856	235.26	ug/L		99
25) Acetonitrile	5.561	41	320957	276.85	ug/L		97
26) Di-isopropyl ether	5.726	45	358030	24.33	ug/L		99
27) Chloroprene	5.866	53	159981	27.86	ug/L		99
28) 1,1-Dichloroethane	5.885	63	212657	24.35	ug/L		100
29) Acrylonitrile	5.921	53	432255	141.12	ug/L		98
30) ETBE	6.135	59	341706	23.74	ug/L		99
31) Vinyl acetate	6.141	43	1183685	149.11	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	126101	24.58	ug/L		96
33) 2,2-Dichloropropane	6.622	77	159756	23.98	ug/L		98
34) Bromochloromethane	6.732	128	65120	24.58	ug/L		95
35) Cyclohexane	6.756	56	181525	26.54	ug/L		97
36) Chloroform	6.793	83	216996	23.92	ug/L		95
37) Ethyl acetate	6.884	43	987700m	130.20	ug/L		
38) Tetrahydrofuran	6.976	42	88860	23.29	ug/L		98
40) Carbon Tetrachloride	6.976	117	157358	23.58	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	183726	24.32	ug/L		98
42) 2-Butanone	7.104	43	566161	130.89	ug/L		99
43) 1,1-Dichloropropene	7.171	75	147933	24.78	ug/L		97
44) tert-Butyl Formate	7.256	59	428195	113.90	ug/L		97



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	401271	282.59	ug/L	99
46) Methacrylonitrile	7.439	41	1114582	267.79	ug/L	99
47) Benzene	7.433	78	439315	24.11	ug/L	96
48) TAME	7.524	73	328029	23.53	ug/L	99
50) Isobutyl alcohol	7.585	42	207501	523.25	ug/L	100
51) 1,2-Dichloroethane	7.634	62	151370	23.90	ug/L	96
52) Tert Amyl Alcohol	7.695	59	405886	236.21	ug/L	99
53) Trichloroethene	8.049	95	119791	23.91	ug/L	99
54) Methylcyclohexane	8.049	83	163775	26.25	ug/L	98
55) Dibromomethane	8.488	93	76487	23.19	ug/L	96
56) 1,2-Dichloropropane	8.567	63	111693	23.80	ug/L	98
57) Bromodichloromethane	8.628	83	155691	23.33	ug/L	95
58) Methyl methacrylate	8.744	41	129240	27.67	ug/L	98
59) 1,4-Dioxane	8.817	88	75260	515.05	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	340084	135.80	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	177893	24.19	ug/L	100
64) Toluene	9.500	91	471742	23.67	ug/L	99
65) 2-Nitropropane	9.695	41	224988	101.59	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1021421	127.95	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	163612	25.12	ug/L	92
68) Tetrachloroethene	9.908	166	145008	24.19	ug/L	97
69) Ethyl methacrylate	10.012	69	156321	28.46	ug/L	100
70) 1,1,2-Trichloroethane	10.061	83	96404	23.64	ug/L	94
71) Dibromochloromethane	10.256	129	136522	23.61	ug/L	99
72) 1,3-Dichloropropane	10.341	76	173025	24.53	ug/L	98
73) 1,2-Dibromoethane	10.518	107	127526	24.36	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1847436m	1146.73	ug/L	
75) 2-hexanone	10.658	43	813108	132.46	ug/L	98
76) 1-Chlorohexane	10.963	91	134403	24.06	ug/L	98
77) Ethylbenzene	11.024	91	508587	24.23	ug/L	99
78) Chlorobenzene	11.024	112	315624	23.89	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	121277	23.49	ug/L	98
80) m,p-Xylene	11.164	91	778912	48.47	ug/L	99
81) o-Xylene	11.603	91	410697	23.84	ug/L	99
82) Styrene	11.658	104	295497	24.91	ug/L	98
83) Bromoform	11.713	173	114341	22.84	ug/L	97
84) Isopropylbenzene	11.914	105	489514	24.29	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.261	53	45480	28.94	ug/L	96
88) n-Propylbenzene	12.335	91	555114	23.84	ug/L	99
89) Bromobenzene	12.347	156	141780	23.21	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	194524	22.93	ug/L	99
91) 1,3,5-Trimethylbenzene	12.517	105	398464	23.57	ug/L	97
92) 2-Chlorotoluene	12.517	91	381256	23.91	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	48134	25.92	ug/L	91
94) 1,2,3-Trimethylpropane	12.548	110	61620	24.09	ug/L	98
95) Cyclohexanone	12.609	55	70530	133.49	ug/L	95
96) 4-Chlorotoluene	12.682	91	338272	22.94	ug/L	98
97) tert-Butylbenzene	12.853	91	208752	23.16	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	389813	23.44	ug/L	98
99) Pentachloroethane	12.901	167	86066	24.86	ug/L	97
100) sec-Butylbenzene	13.036	105	457129	23.34	ug/L	100
101) 4-Isopropyltoluene	13.170	119	398818	23.49	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	246261	23.25	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	399815	22.97	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	258090	22.61	ug/L	99
105) n-Butylbenzene	13.615	92	201890	23.95	ug/L	87
106) Benzyl Chloride	13.627	126	68414	23.36	ug/L #	78
107) 1,2-Dichlorobenzene	13.828	146	238098	22.98	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

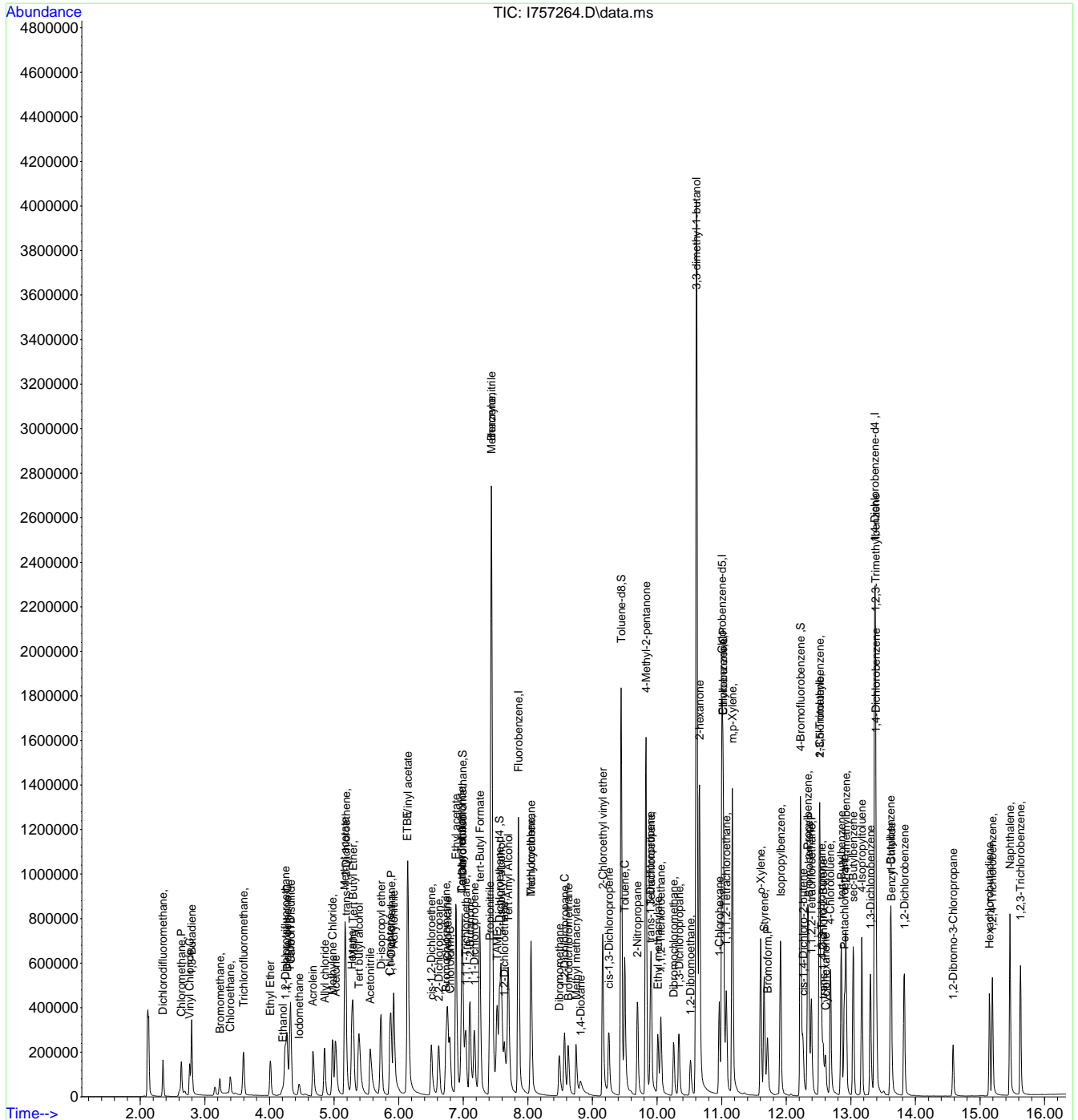
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	49786	22.27	ug/L	88
109) Hexachlorobutadiene	15.145	225	81164	22.60	ug/L	95
110) 1,2,4-Trichlorobenzene	15.194	180	175341	22.66	ug/L	98
111) Naphthalene	15.462	128	565147	23.44	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	174154	22.44	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.15  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757264.D  
**Injection Time:** 06/15/23 12:04

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.61	Overlapping peak

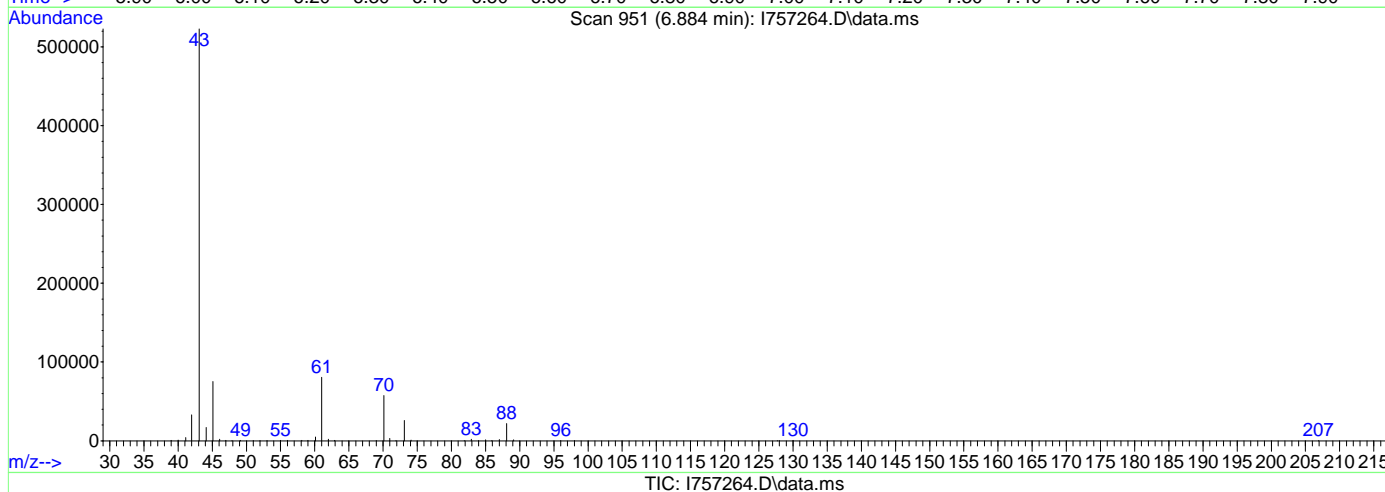
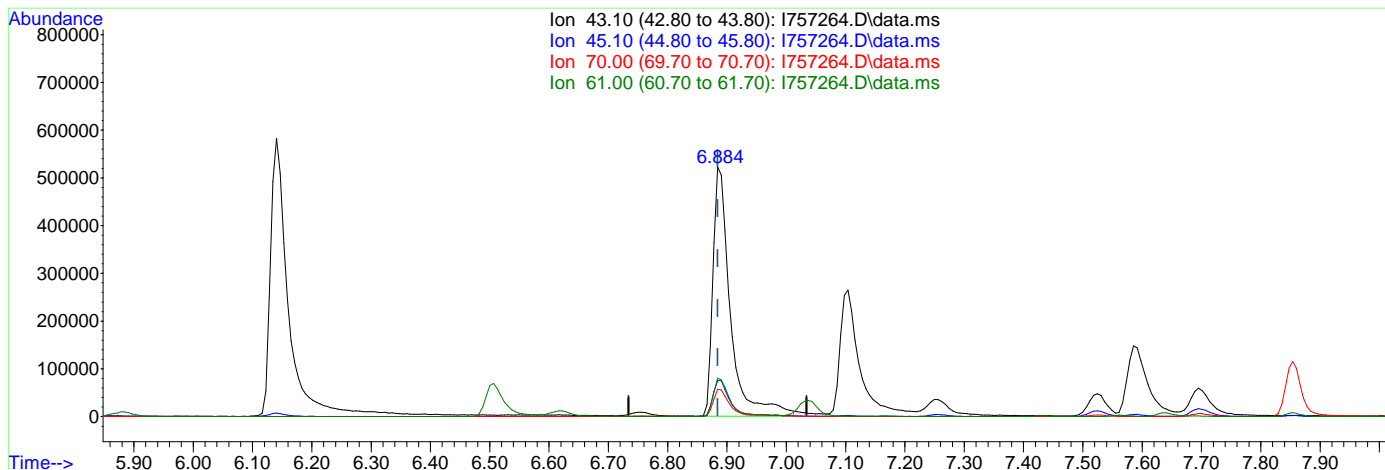
7.6.15.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 140.54ug/L

response 1066129

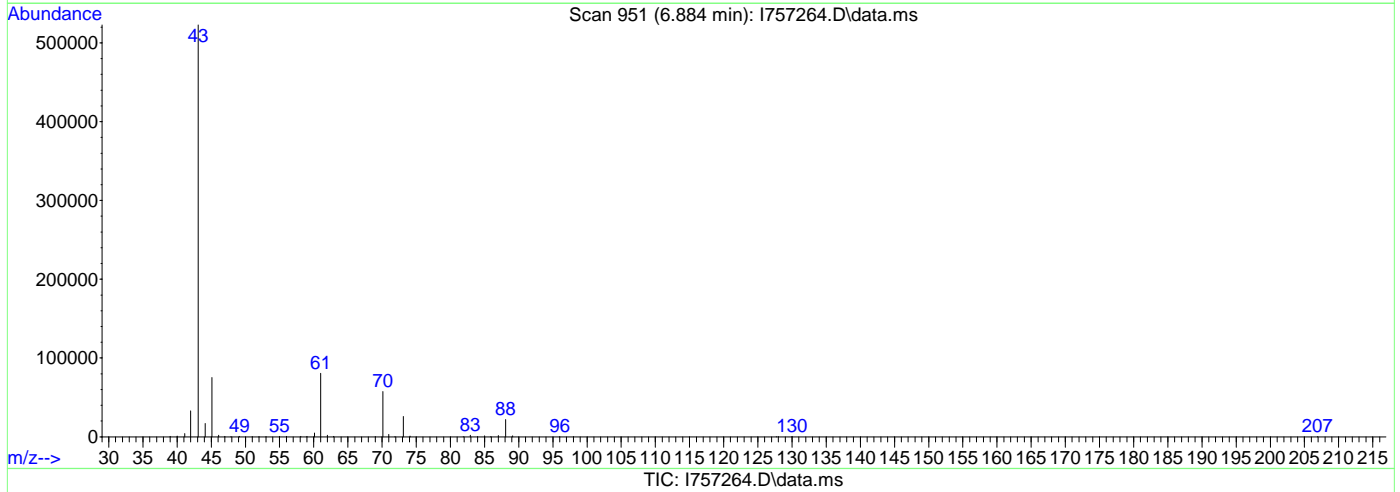
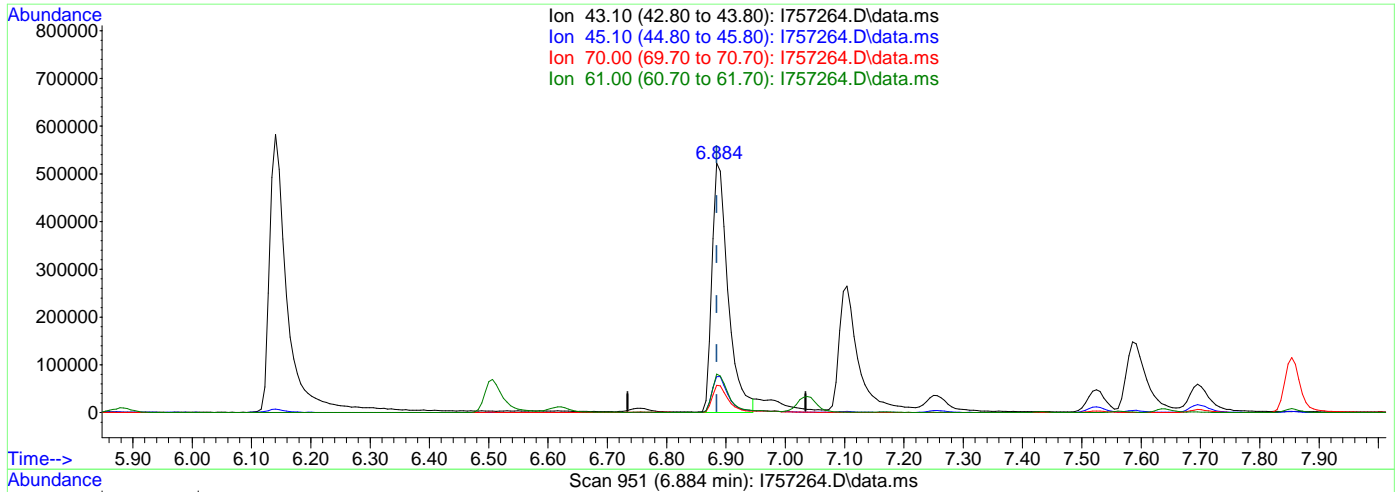
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.41
70.00	11.10	11.01
61.00	15.10	15.43

7.6.15.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 130.20ug/L m

response 987700

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.38
70.00	11.10	10.99
61.00	15.10	15.40

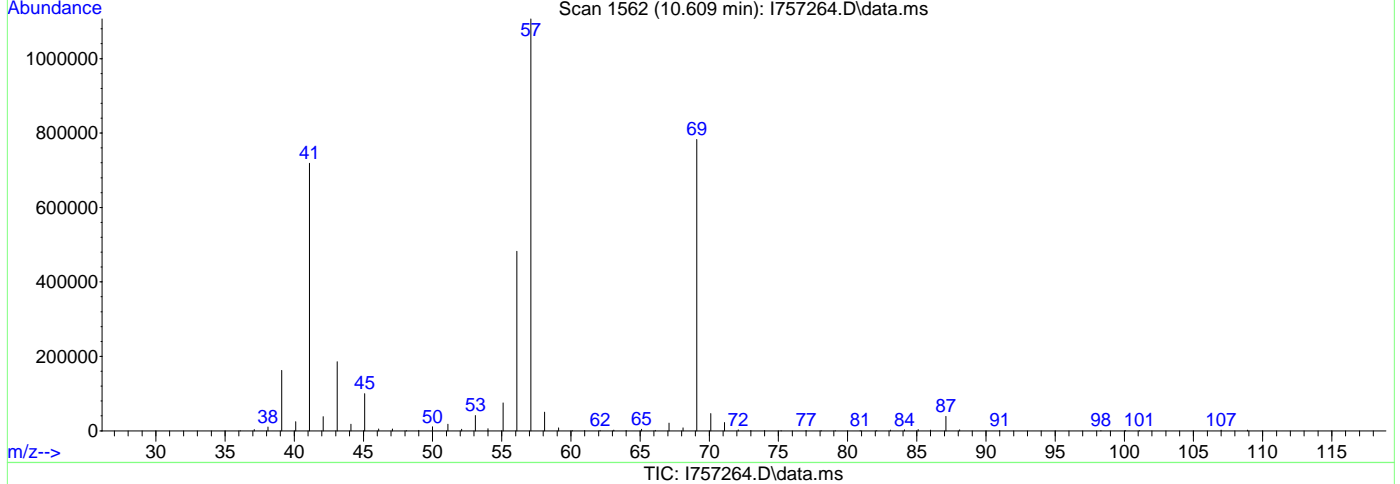
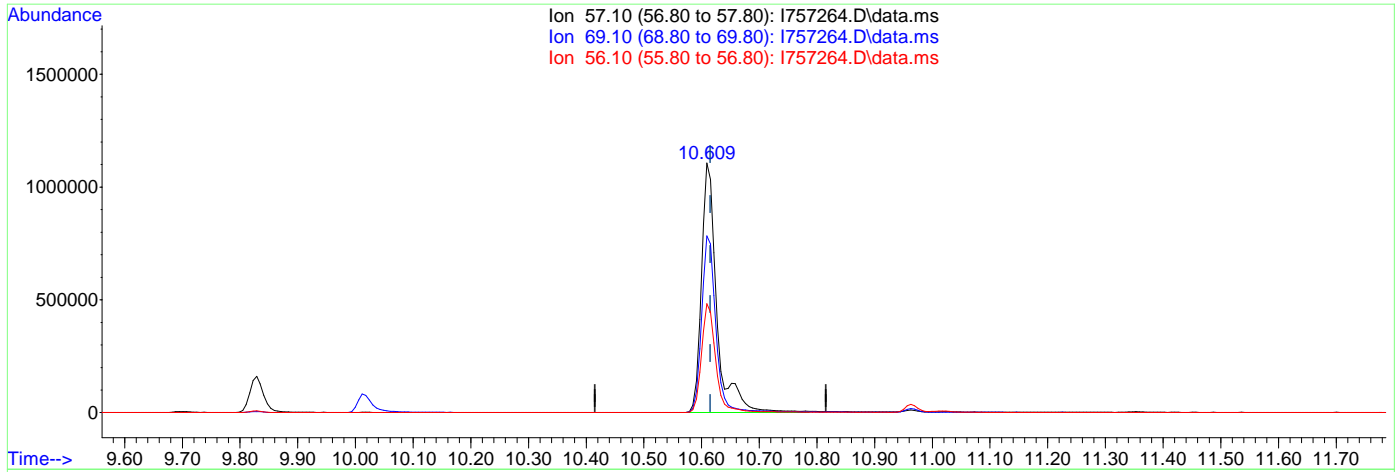
7.6.15.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1292.29ug/L

response 2081939

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	70.72
56.10	43.50	43.61
0.00	0.00	0.00

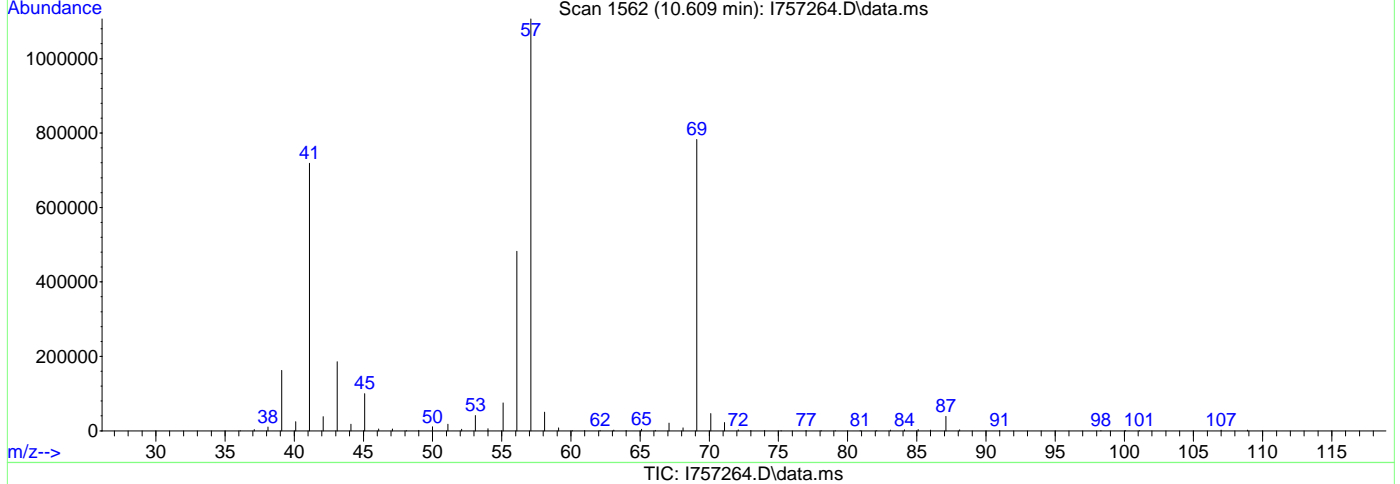
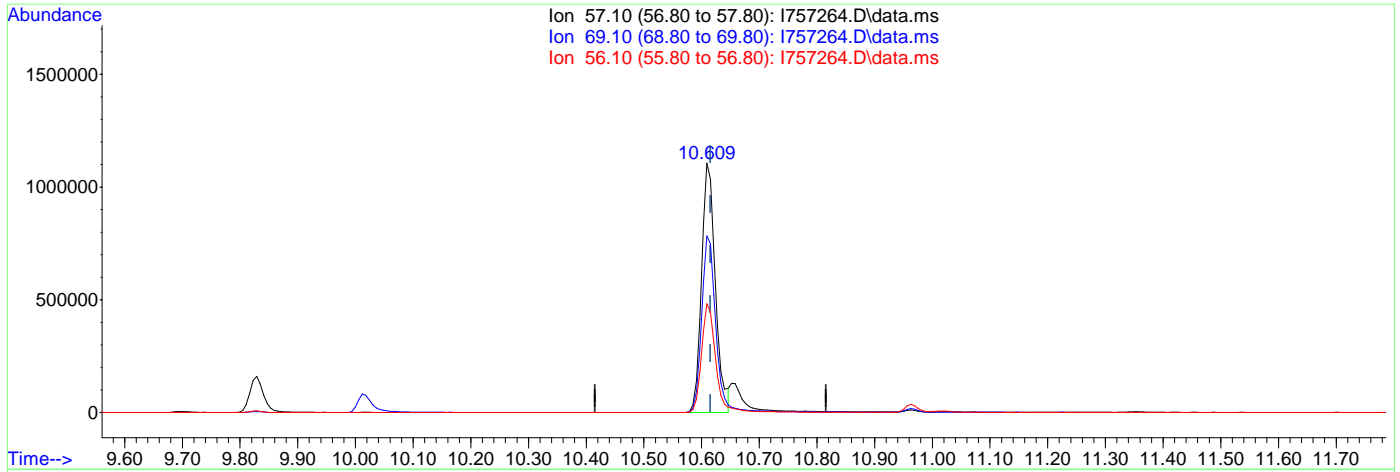
7.6.15.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1146.73ug/L m

response 1847436

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	70.72
56.10	43.50	43.61
0.00	0.00	0.00

7.6.15.5

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1166537	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	854326	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	520019	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	334259	50.33	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.66%		
49) 1,2-Dichloroethane-d4	7.561	65	296036	49.17	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	98.34%		
63) Toluene-d8	9.445	98	1244986	51.31	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.62%		
86) 4-Bromofluorobenzene	12.219	174	444507	50.61	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.22%		
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	182621	58.74	ug/L	96	
3) Chloromethane	2.641	50	201944	42.53	ug/L	97	
4) Vinyl Chloride	2.769	62	191363	43.75	ug/L	100	
5) 1,3-Butadiene	2.800	39	154425	34.52	ug/L	99	
6) Bromomethane	3.233	94	68110	40.60	ug/L	97	
7) Chloroethane	3.397	64	82605	28.74	ug/L	97	
8) Trichlorofluoromethane	3.599	101	258761	42.65	ug/L	99	
9) Ethyl Ether	4.019	59	142761	38.33	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	170607	35.35	ug/L	100	
11) 1,1-Dichloroethene	4.275	61	229523	35.80	ug/L	99	
12) Ethanol	4.214	45	123696	719.90	ug/L	92	
13) Freon 113	4.324	101	136435	35.78	ug/L	97	
14) Carbon Disulfide	4.330	76	455867	34.87	ug/L	99	
15) Iodomethane	4.464	142	131799	40.93	ug/L	94	
16) Acrolein	4.678	56	317529	195.17	ug/L	98	
17) Allyl chloride	4.854	41	223193	38.82	ug/L	100	
18) Methylene Chloride	4.982	49	243443	32.14	ug/L	97	
19) Acetone	5.025	43	592210	184.21	ug/L	99	
20) Methyl acetate	5.171	43	1339516	196.56	ug/L	100	
21) trans-1,2-Dichloroethene	5.184	61	250466	37.17	ug/L	98	
22) Hexane	5.275	56	115096	35.79	ug/L	99	
23) Methyl Tert Butyl Ether	5.299	73	556704	38.12	ug/L	99	
24) Tert butyl alcohol	5.391	59	773591	365.23	ug/L	99	
25) Acetonitrile	5.562	41	464909	392.62	ug/L	99	
26) Di-isopropyl ether	5.726	45	579224	38.54	ug/L	99	
27) Chloroprene	5.866	53	231638	39.50	ug/L	98	
28) 1,1-Dichloroethane	5.885	63	333379	37.37	ug/L	99	
29) Acrylonitrile	5.921	53	650048	207.77	ug/L	99	
30) ETBE	6.141	59	554989	37.76	ug/L	99	
31) Vinyl acetate	6.141	43	1888225	232.87	ug/L	100	
32) cis-1,2-Dichloroethene	6.507	96	204398	39.00	ug/L	98	
33) 2,2-Dichloropropane	6.616	77	245669	36.10	ug/L	99	
34) Bromochloromethane	6.732	128	106603	39.39	ug/L	97	
35) Cyclohexane	6.756	56	247299	35.40	ug/L	99	
36) Chloroform	6.793	83	344379	37.16	ug/L	99	
37) Ethyl acetate	6.884	43	1529158m	197.35	ug/L		
38) Tetrahydrofuran	6.982	42	139307	35.75	ug/L	96	
40) Carbon Tetrachloride	6.976	117	230609	33.84	ug/L	98	
41) 1,1,1-Trichloroethane	7.037	97	278496	36.09	ug/L	98	
42) 2-Butanone	7.104	43	952122	215.50	ug/L	98	
43) 1,1-Dichloropropene	7.171	75	222199	36.44	ug/L	98	
44) tert-Butyl Formate	7.256	59	740909	192.96	ug/L	97	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	598918	412.93	ug/L	99
46) Methacrylonitrile	7.439	41	1697753	399.35	ug/L	99
47) Benzene	7.433	78	692390	37.21	ug/L	98
48) TAME	7.525	73	535664	37.62	ug/L	99
50) Isobutyl alcohol	7.592	42	309173	763.28	ug/L	99
51) 1,2-Dichloroethane	7.634	62	242762	37.52	ug/L	98
52) Tert Amyl Alcohol	7.701	59	640815	365.11	ug/L	99
53) Trichloroethene	8.043	95	185862	36.32	ug/L	96
54) Methylcyclohexane	8.049	83	221748	34.79	ug/L	96
55) Dibromomethane	8.482	93	129050	38.31	ug/L	97
56) 1,2-Dichloropropane	8.567	63	183980	38.38	ug/L	97
57) Bromodichloromethane	8.622	83	257539	37.78	ug/L	97
58) Methyl methacrylate	8.744	41	210861	44.19	ug/L	99
59) 1,4-Dioxane	8.817	88	117028	784.10	ug/L	99
60) 2-Chloroethyl vinyl ether	9.158	63	593745	232.12	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	295539	39.35	ug/L	98
64) Toluene	9.500	91	750341	37.08	ug/L	100
65) 2-Nitropropane	9.695	41	379148	168.62	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	1678825	207.13	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	271105	40.99	ug/L	99
68) Tetrachloroethene	9.908	166	219030	35.98	ug/L	99
69) Ethyl methacrylate	10.012	69	248557	44.57	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	158587	38.29	ug/L	96
71) Dibromochloromethane	10.256	129	225563	38.43	ug/L	99
72) 1,3-Dichloropropane	10.335	76	288197	40.24	ug/L	98
73) 1,2-Dibromoethane	10.512	107	209118	39.35	ug/L	98
74) 3,3-dimethyl-1-butanol	10.615	57	3131387m	1914.41	ug/L	
75) 2-hexanone	10.652	43	1339111	214.87	ug/L	99
76) 1-Chlorohexane	10.963	91	199880	35.24	ug/L	98
77) Ethylbenzene	11.024	91	798640	37.48	ug/L	99
78) Chlorobenzene	11.024	112	502093	37.43	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	196579	37.50	ug/L	97
80) m,p-Xylene	11.164	91	1239446	75.96	ug/L	99
81) o-Xylene	11.603	91	657175	37.56	ug/L	100
82) Styrene	11.652	104	486047	40.36	ug/L	98
83) Bromoform	11.707	173	196079	38.58	ug/L	98
84) Isopropylbenzene	11.908	105	761094	37.20	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	75622	48.08	ug/L	97
88) n-Propylbenzene	12.329	91	862714	37.02	ug/L	99
89) Bromobenzene	12.347	156	229940	37.61	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	314457	37.03	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	628043	37.11	ug/L	98
92) 2-Chlorotoluene	12.518	91	594873	37.27	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	80234	43.16	ug/L	88
94) 1,2,3-Trichloropropane	12.548	110	97844	38.21	ug/L	96
95) Cyclohexanone	12.609	55	103175	195.11	ug/L	95
96) 4-Chlorotoluene	12.682	91	553528	37.50	ug/L	99
97) tert-Butylbenzene	12.853	91	326827	36.23	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	628585	37.77	ug/L	100
99) Pentachloroethane	12.902	167	135998	39.26	ug/L	99
100) sec-Butylbenzene	13.036	105	694898	35.45	ug/L	99
101) 4-Isopropyltoluene	13.170	119	621444	36.57	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	402322	37.95	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	651749	37.41	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	416829	36.49	ug/L	98
105) n-Butylbenzene	13.615	92	314533	37.28	ug/L	98
106) Benzyl Chloride	13.627	126	117131	39.96	ug/L	95
107) 1,2-Dichlorobenzene	13.822	146	390846	37.69	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

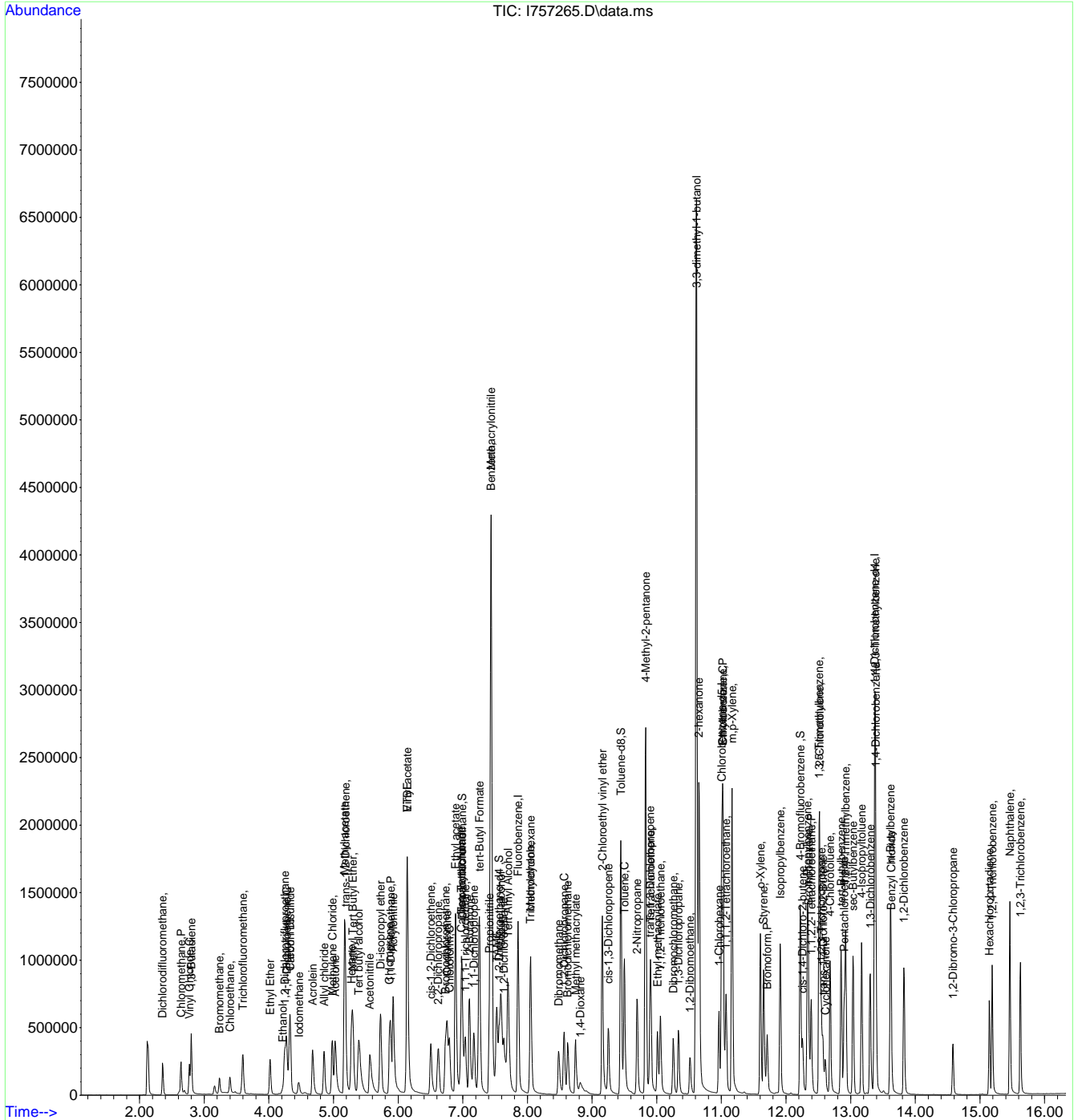
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	82482	36.86	ug/L	85
109) Hexachlorobutadiene	15.145	225	122217	33.99	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	291468	37.64	ug/L	99
111) Naphthalene	15.462	128	943187	39.09	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	288419	37.13	ug/L	98

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7  
 16.19

# Manual Integration Approval Summary

**Sample Number:** VI2948-ICC2948      **Method:** SW846 8260D  
**Lab FileID:** I757265.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 12:28      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

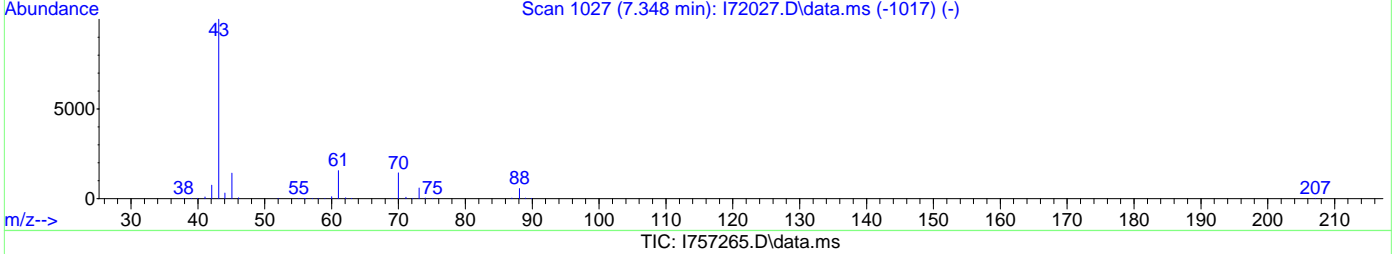
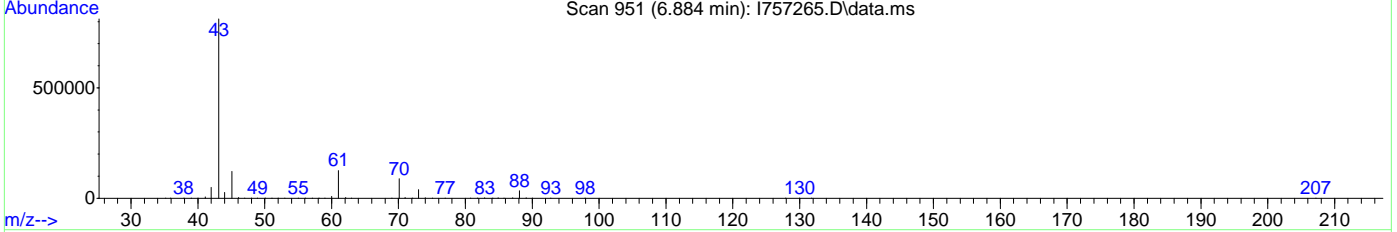
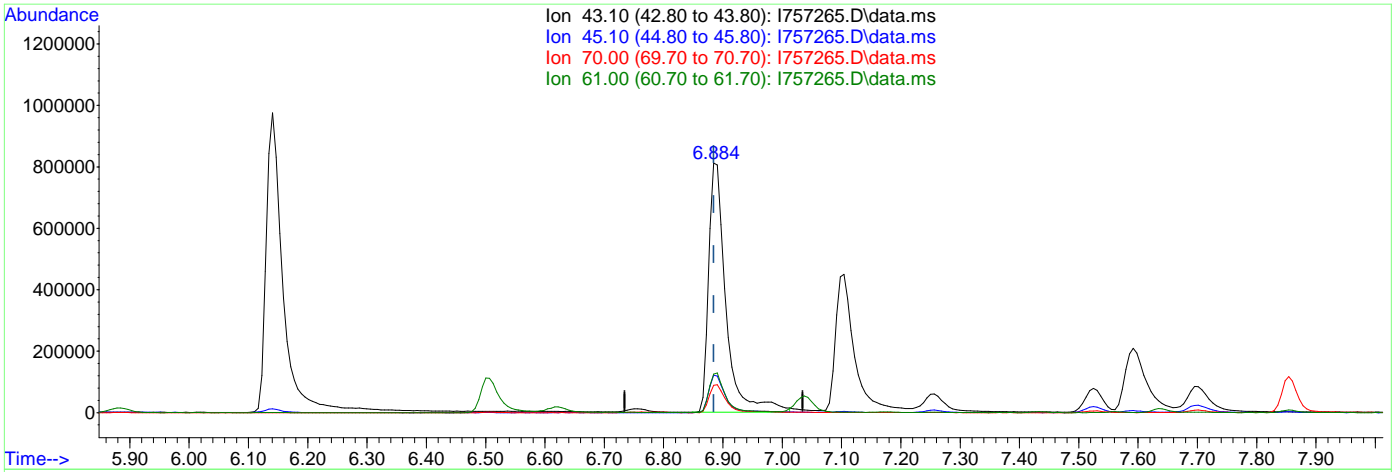
7.6.16.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.884min (0.000) 212.10ug/L  
 response 1643408

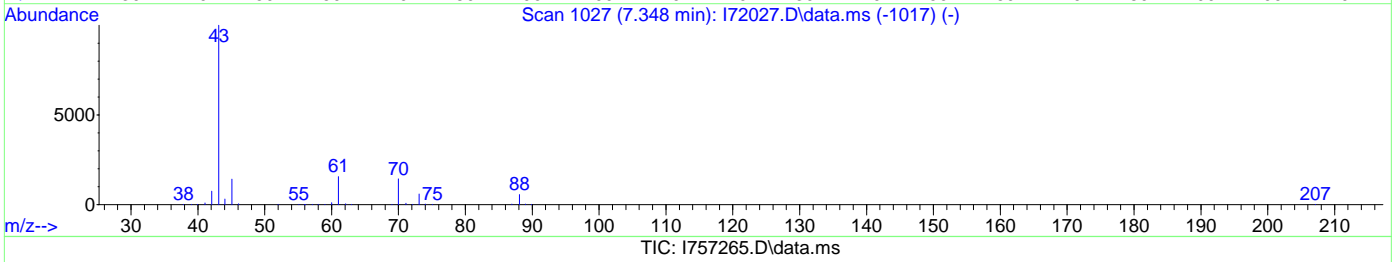
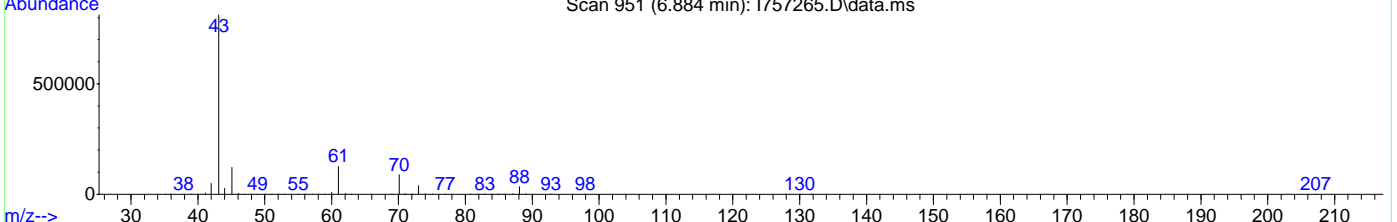
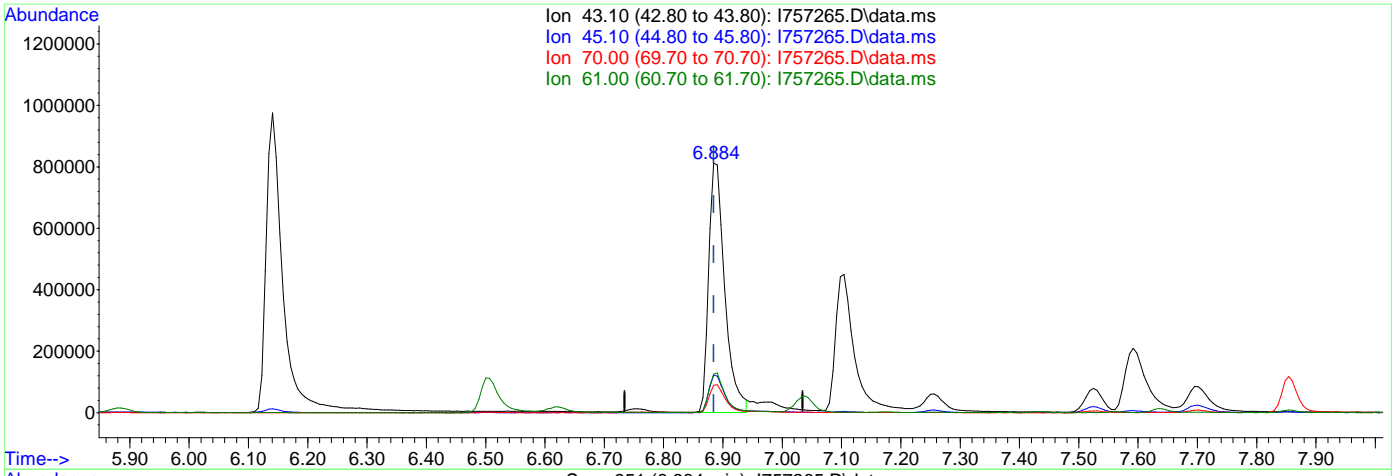
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.03
70.00	11.10	10.95
61.00	15.10	15.39

7.6.16.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 197.35ug/L m

response 1529158

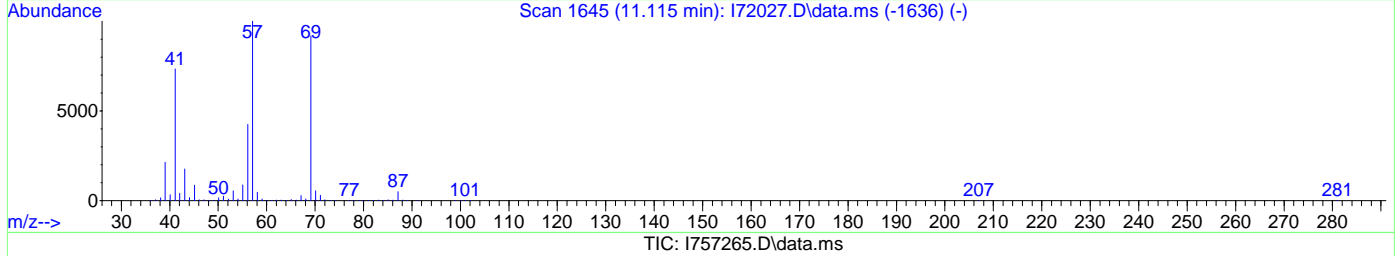
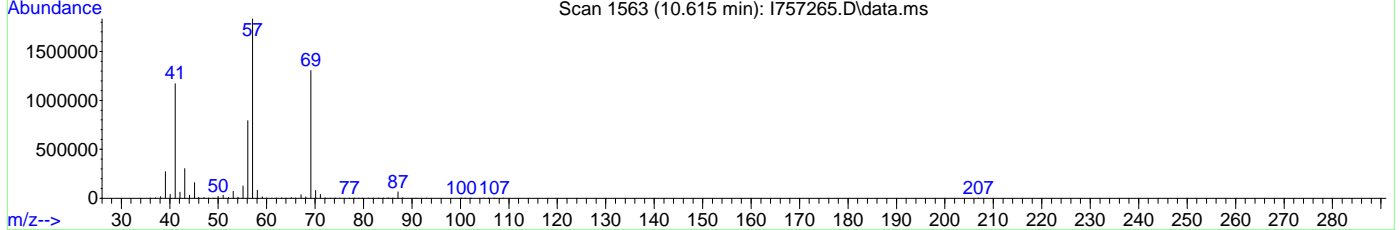
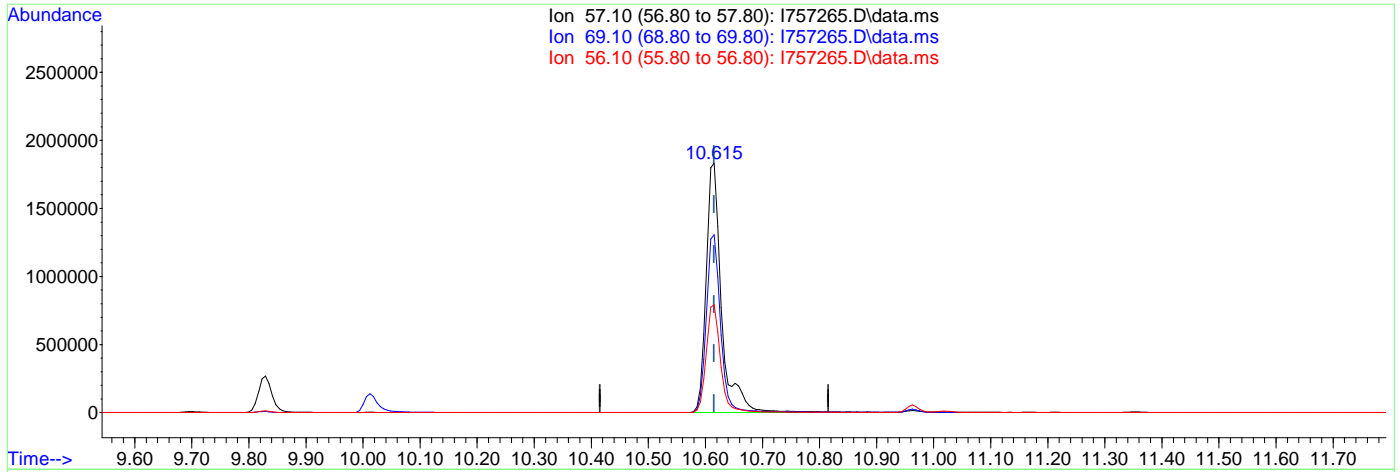
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.00
70.00	11.10	10.94
61.00	15.10	15.40

7.6.16.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 2122.75ug/L

response 3472164

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.16
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.4

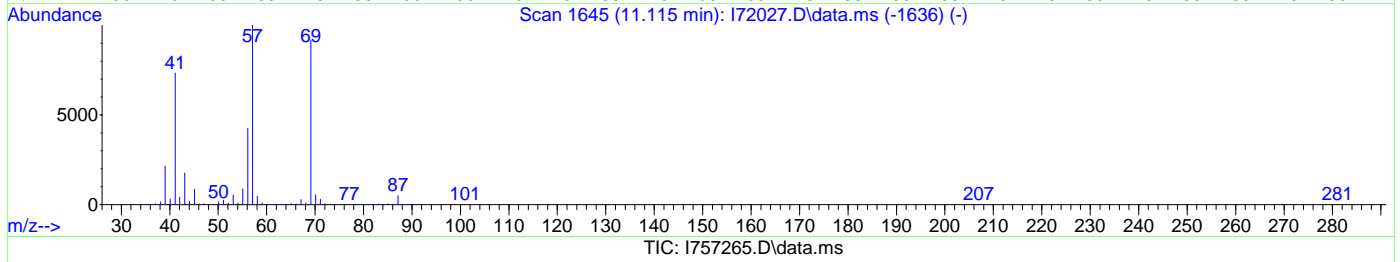
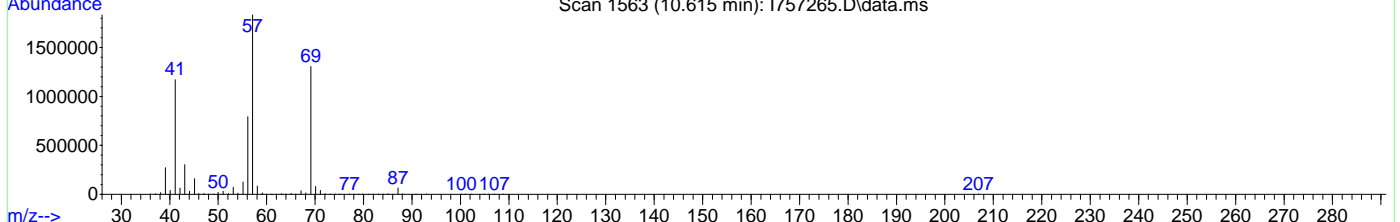
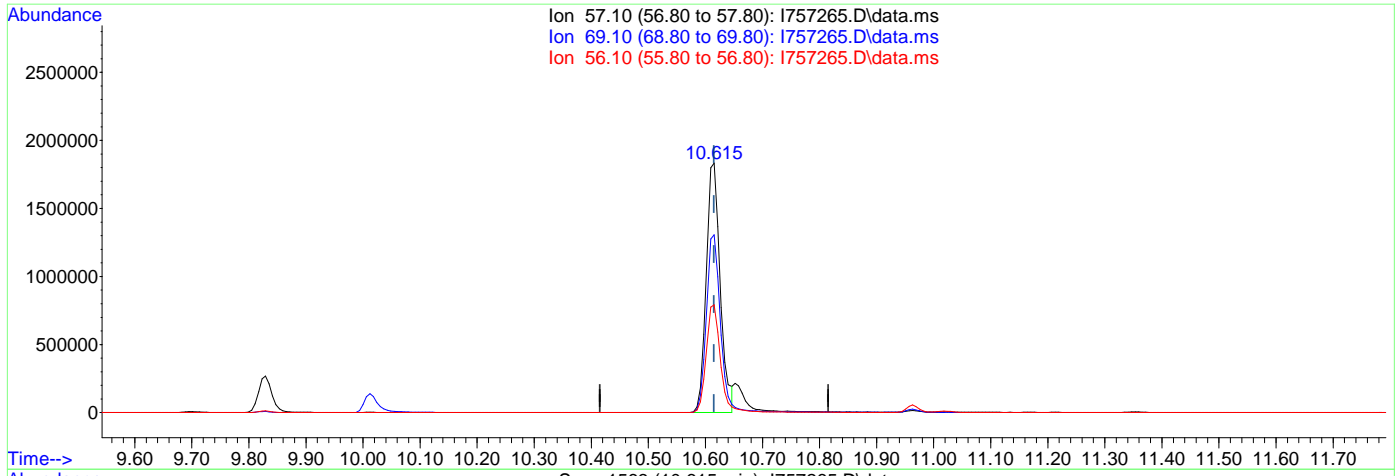
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 1914.41ug/L m

response 3131387

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.17
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1138029	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	831988	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	503532	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	323610	49.95	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.90%		
49) 1,2-Dichloroethane-d4	7.561	65	282841	48.16	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	96.32%		
63) Toluene-d8	9.445	98	1218241	51.55	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.10%		
86) 4-Bromofluorobenzene	12.219	174	431197	50.70	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.40%		
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	344607	113.62	ug/L	98	
3) Chloromethane	2.641	50	361058	77.95	ug/L	96	
4) Vinyl Chloride	2.769	62	353817	82.91	ug/L	100	
5) 1,3-Butadiene	2.794	39	293190	67.19	ug/L	96	
6) Bromomethane	3.233	94	128964	78.80	ug/L	97	
7) Chloroethane	3.397	64	146142	52.12	ug/L	98	
8) Trichlorofluoromethane	3.586	101	474370	80.15	ug/L	99	
9) Ethyl Ether	4.019	59	267331	73.57	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	341824	72.61	ug/L	99	
11) 1,1-Dichloroethene	4.269	61	457067	73.08	ug/L	99	
12) Ethanol	4.239	45	242106	1444.33	ug/L	96	
13) Freon 113	4.312	101	283774	76.29	ug/L	96	
14) Carbon Disulfide	4.324	76	914181	71.67	ug/L	99	
15) Iodomethane	4.458	142	224443	71.45	ug/L	95	
16) Acrolein	4.678	56	638813	402.48	ug/L	98	
17) Allyl chloride	4.848	41	423106	75.42	ug/L	99	
18) Methylene Chloride	4.976	49	437203	59.17	ug/L	97	
19) Acetone	5.025	43	1118484	356.63	ug/L	99	
20) Methyl acetate	5.171	43	2574551	387.25	ug/L	99	
21) trans-1,2-Dichloroethene	5.178	61	479133	72.89	ug/L	96	
22) Hexane	5.275	56	229392	73.12	ug/L	94	
23) Methyl Tert Butyl Ether	5.299	73	1032320	72.46	ug/L	94	
24) Tert butyl alcohol	5.409	59	1502043	726.91	ug/L	98	
25) Acetonitrile	5.562	41	850057	735.86	ug/L	99	
26) Di-isopropyl ether	5.726	45	1070915	73.04	ug/L	99	
27) Chloroprene	5.860	53	464523	81.19	ug/L	100	
28) 1,1-Dichloroethane	5.885	63	633303	72.76	ug/L	99	
29) Acrylonitrile	5.921	53	1219243	399.46	ug/L	99	
30) ETBE	6.141	59	1022168	71.28	ug/L	99	
31) Vinyl acetate	6.141	43	3548188	448.56	ug/L	100	
32) cis-1,2-Dichloroethene	6.500	96	385851	75.46	ug/L	99	
33) 2,2-Dichloropropane	6.616	77	476079	71.72	ug/L	99	
34) Bromochloromethane	6.726	128	192102	72.77	ug/L	96	
35) Cyclohexane	6.750	56	501334	73.57	ug/L	99	
36) Chloroform	6.787	83	650004	71.90	ug/L	98	
37) Ethyl acetate	6.885	43	2921852m	386.54	ug/L		
38) Tetrahydrofuran	6.982	42	261201	68.70	ug/L	96	
40) Carbon Tetrachloride	6.970	117	464975	69.93	ug/L	99	
41) 1,1,1-Trichloroethane	7.037	97	542706	72.10	ug/L	99	
42) 2-Butanone	7.098	43	1843738	427.76	ug/L	100	
43) 1,1-Dichloropropene	7.171	75	434784	73.09	ug/L	98	
44) tert-Butyl Formate	7.256	59	1403769	374.74	ug/L	99	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1154960	816.26	ug/L	83
46) Methacrylonitrile	7.439	41	3182848	767.43	ug/L	99
47) Benzene	7.427	78	1297518	71.47	ug/L	89
48) TAME	7.525	73	981413	70.64	ug/L	98
50) Isobutyl alcohol	7.604	42	631882	1599.05	ug/L	98
51) 1,2-Dichloroethane	7.634	62	450262	71.34	ug/L	99
52) Tert Amyl Alcohol	7.708	59	1260145	735.96	ug/L	99
53) Trichloroethene	8.043	95	360443	72.20	ug/L	99
54) Methylcyclohexane	8.049	83	459897	73.96	ug/L	99
55) Dibromomethane	8.476	93	238778	72.66	ug/L	98
56) 1,2-Dichloropropane	8.561	63	345024	73.78	ug/L	99
57) Bromodichloromethane	8.622	83	485805	73.05	ug/L	96
58) Methyl methacrylate	8.738	41	408012	87.65	ug/L	99
59) 1,4-Dioxane	8.829	88	229753	1577.92	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	1097713	439.90	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	558566	76.23	ug/L	98
64) Toluene	9.500	91	1432135	72.67	ug/L	100
65) 2-Nitropropane	9.695	41	745934	340.64	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	3107190	393.66	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	507733	78.83	ug/L	96
68) Tetrachloroethene	9.908	166	433434	73.12	ug/L	97
69) Ethyl methacrylate	10.012	69	474305	87.33	ug/L	98
70) 1,1,2-Trichloroethane	10.055	83	290597	72.06	ug/L	96
71) Dibromochloromethane	10.256	129	421938	73.81	ug/L	99
72) 1,3-Dichloropropane	10.335	76	535153	76.73	ug/L	98
73) 1,2-Dibromoethane	10.512	107	392246	75.79	ug/L	99
74) 3,3-dimethyl-1-butanol	10.615	57	6151707m	3861.90	ug/L	
75) 2-hexanone	10.652	43	2524363	415.92	ug/L	99
76) 1-Chlorohexane	10.963	91	402985	72.95	ug/L	99
77) Ethylbenzene	11.024	91	1523886	73.43	ug/L	100
78) Chlorobenzene	11.024	112	934436	71.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	368005	72.08	ug/L	99
80) m,p-Xylene	11.164	91	2364447	148.80	ug/L	99
81) o-Xylene	11.603	91	1249153	73.32	ug/L	100
82) Styrene	11.652	104	932212	79.49	ug/L	98
83) Bromoform	11.707	173	368661	74.49	ug/L	97
84) Isopropylbenzene	11.908	105	1460080	73.28	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	149492	98.16	ug/L	97
88) n-Propylbenzene	12.329	91	1669815	73.99	ug/L	99
89) Bromobenzene	12.347	156	432978	73.14	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	580080	70.54	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1201076	73.30	ug/L	100
92) 2-Chlorotoluene	12.518	91	1130642	73.15	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	159386	88.56	ug/L	91
94) 1,2,3-Trichloropropane	12.542	110	186108	75.06	ug/L	96
95) Cyclohexanone	12.609	55	202566	395.60	ug/L	96
96) 4-Chlorotoluene	12.682	91	1045465	73.14	ug/L	98
97) tert-Butylbenzene	12.853	91	630556	72.19	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1194761	74.14	ug/L	100
99) Pentachloroethane	12.902	167	260072	77.53	ug/L	98
100) sec-Butylbenzene	13.036	105	1362107	71.76	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1205156	73.25	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	759677	74.01	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1231796	73.03	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	780749	70.59	ug/L	99
105) n-Butylbenzene	13.615	92	613352	75.08	ug/L	90
106) Benzyl Chloride	13.621	126	229224	80.76	ug/L #	59
107) 1,2-Dichlorobenzene	13.822	146	738521	73.54	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

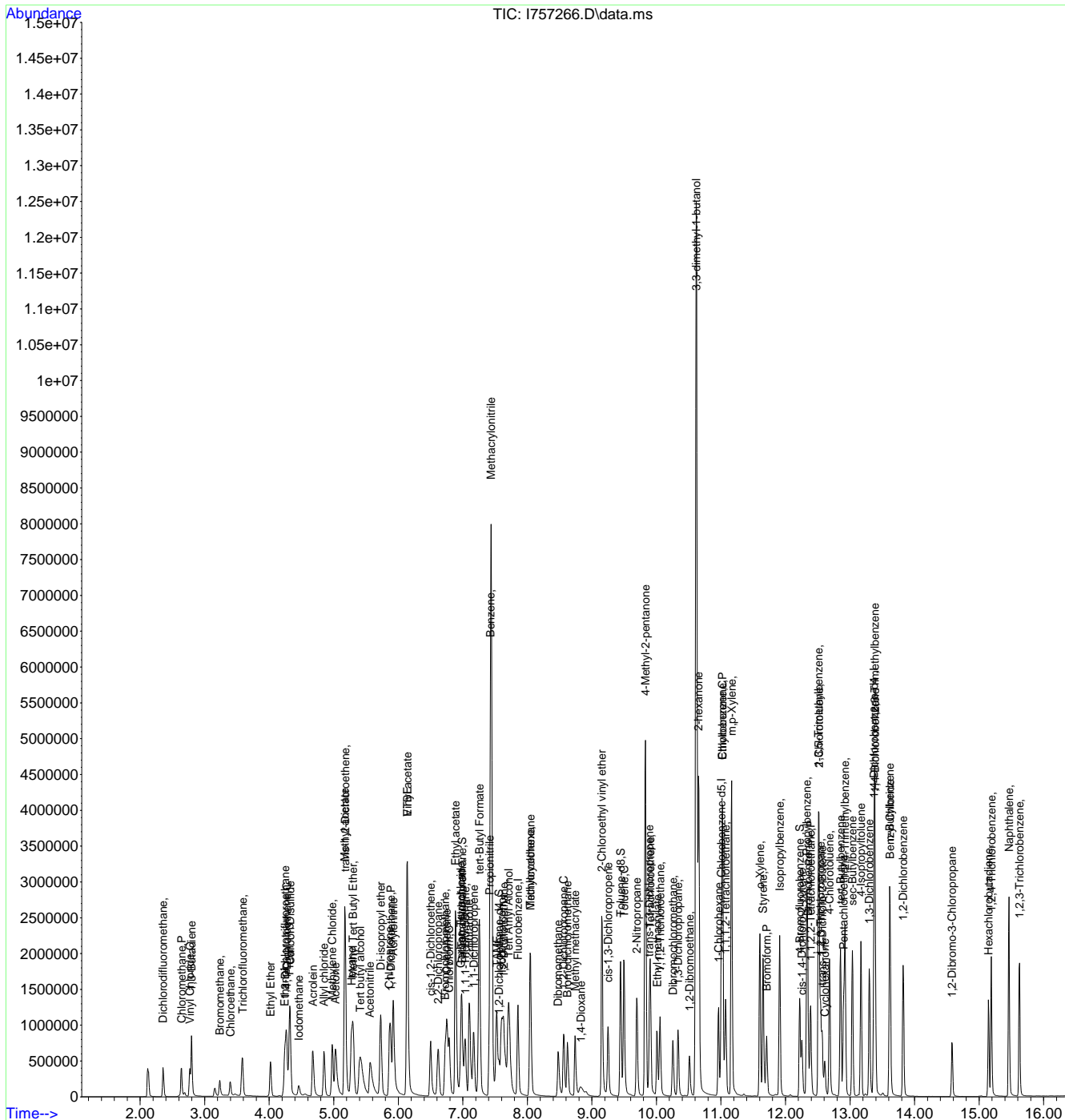
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	161309	74.44	ug/L	98
109) Hexachlorobutadiene	15.145	225	235828	67.74	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	562734	75.05	ug/L	98
111) Naphthalene	15.462	128	1810859	77.51	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	547047	72.74	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.17  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757266.D  
**Injection Time:** 06/15/23 12:52

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

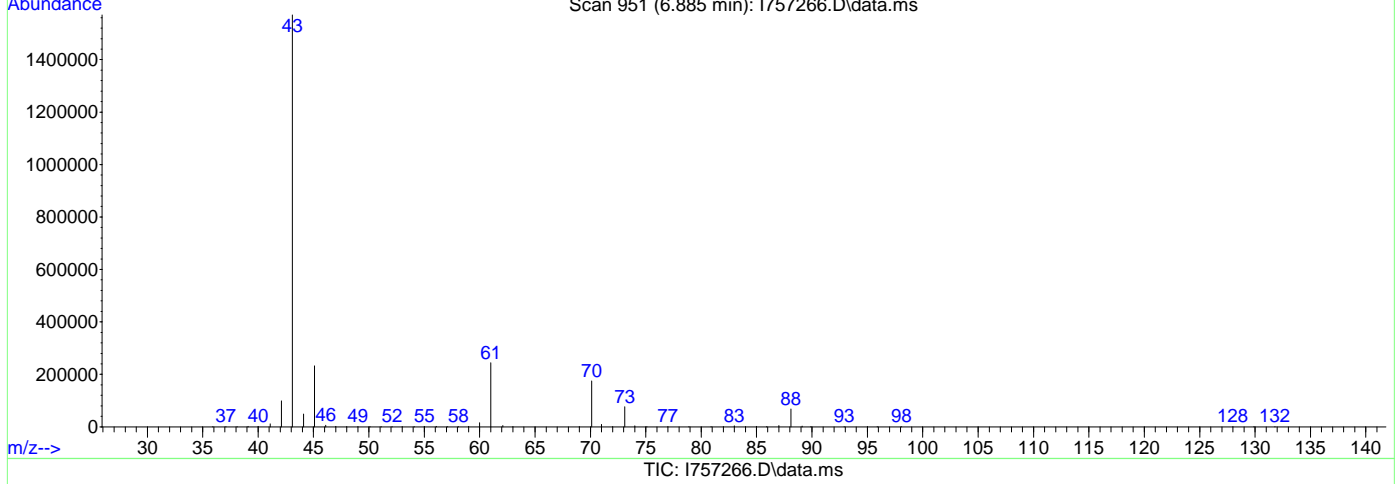
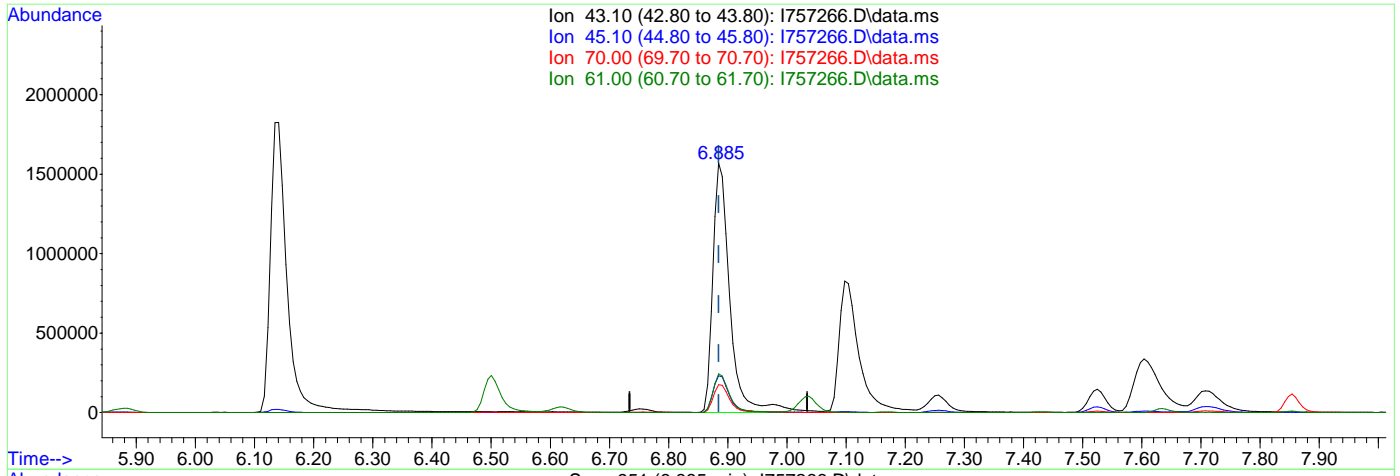
7.6.17.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.000) 411.74ug/L

response 3112331

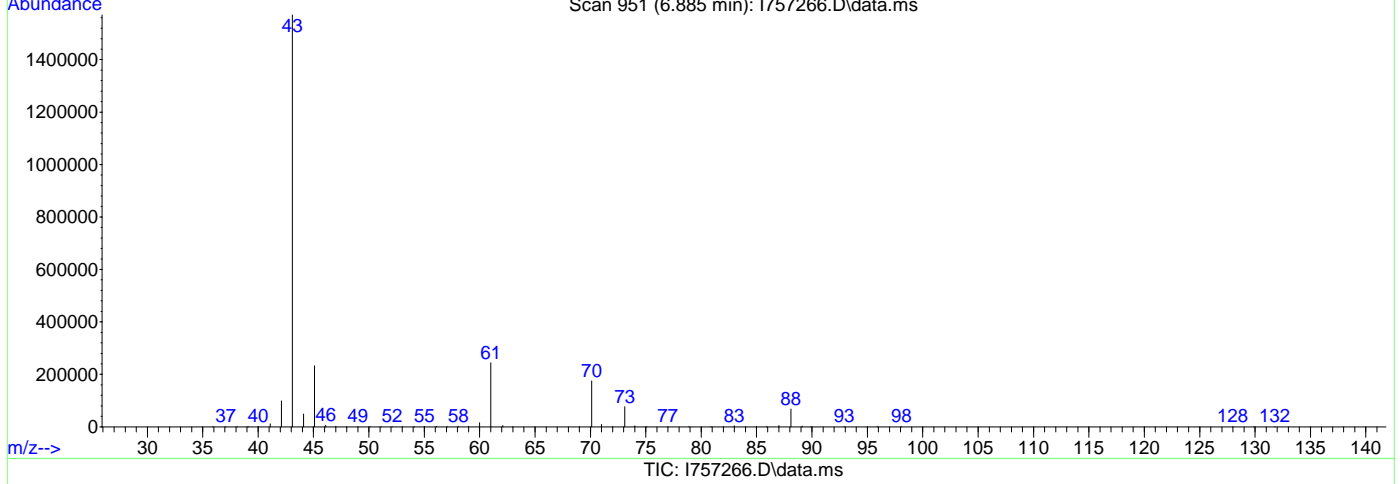
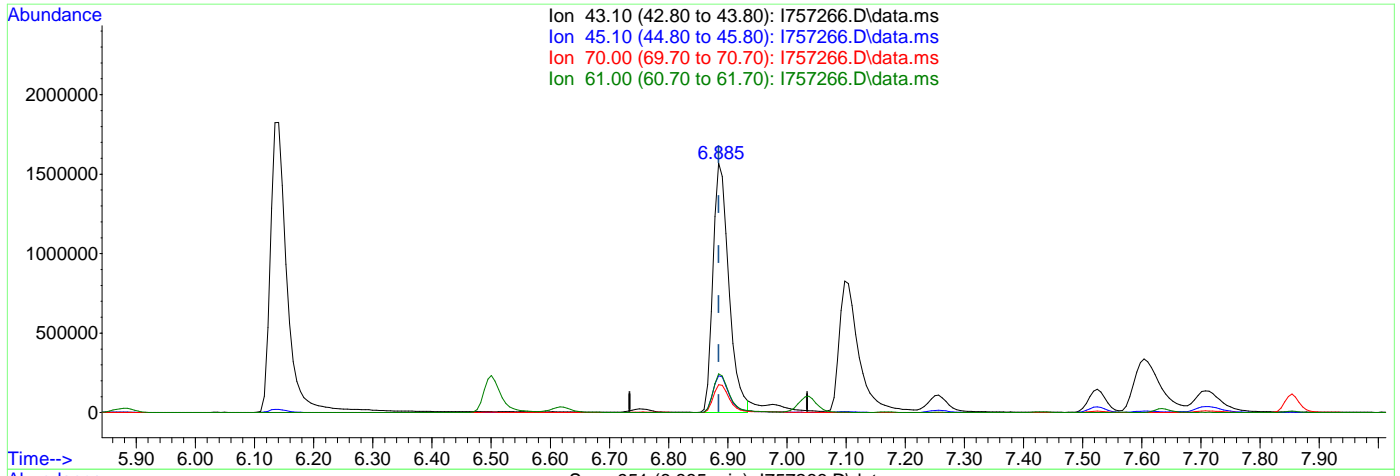
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.81
70.00	11.10	11.13
61.00	15.10	15.52

7.6.17.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.000) 386.54ug/L m

response 2921852

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.11
61.00	15.10	15.53

7.6.17.3

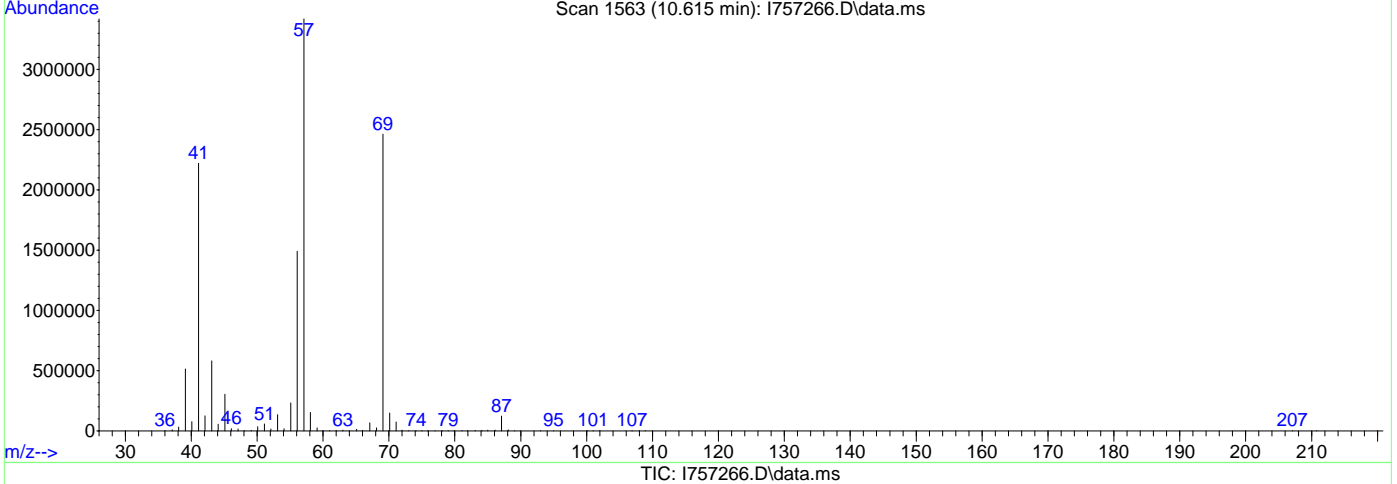
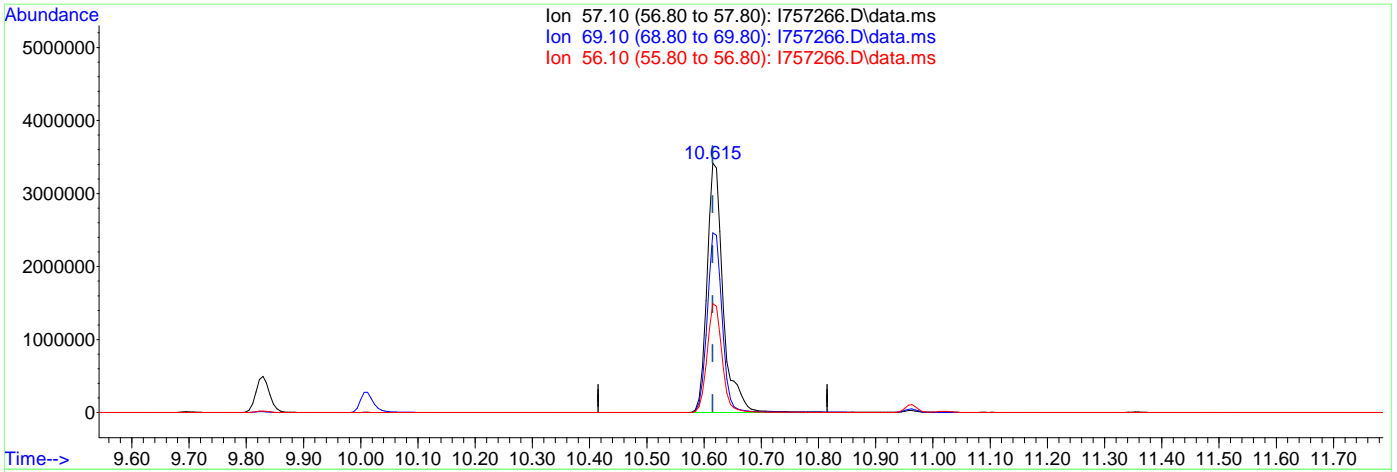
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 4231.25ug/L

response 6740063

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.99
56.10	43.50	43.60
0.00	0.00	0.00

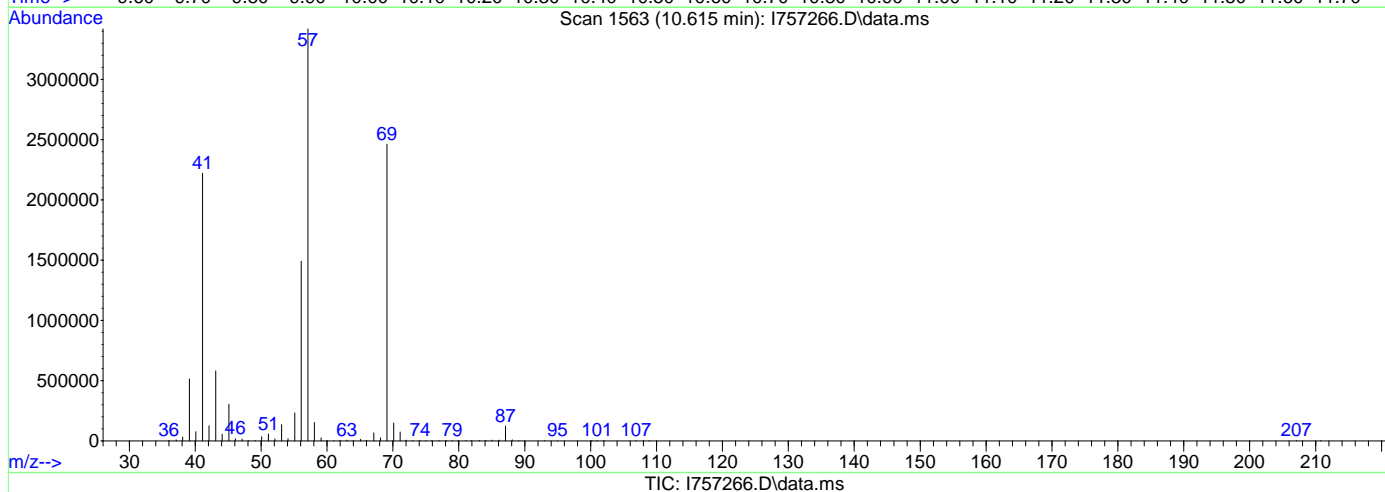
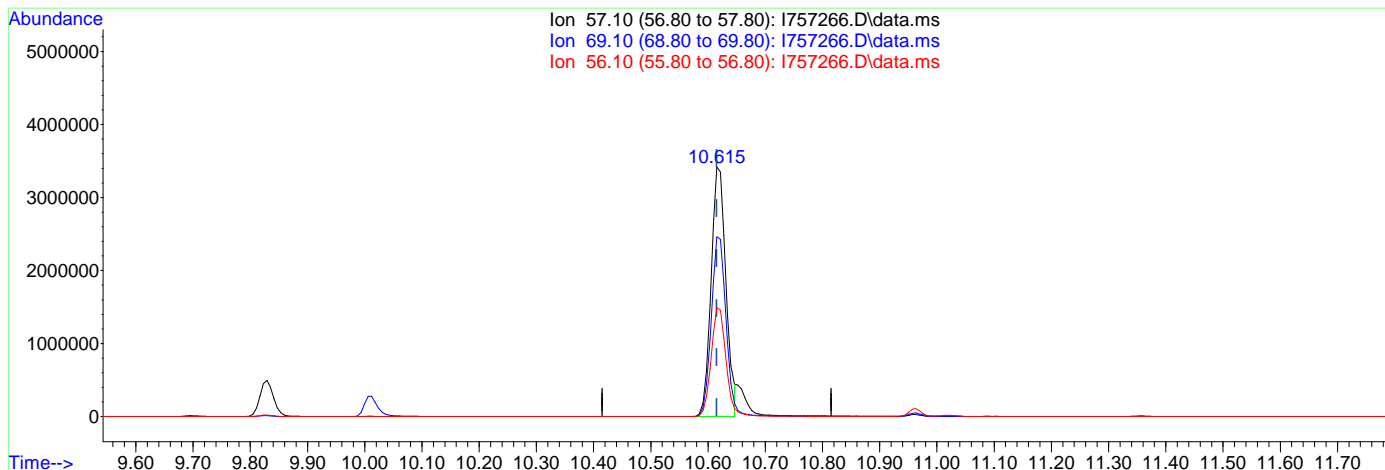
7.6.17.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 3861.90ug/L m

response 6151707

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.00
56.10	43.50	43.61
0.00	0.00	0.00

7.6.17.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1163059	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	862083	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	537542	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	336095	50.76	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.52%	
49) 1,2-Dichloroethane-d4	7.561	65	301448	50.22	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.44%	
63) Toluene-d8	9.445	98	1250824	51.08	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.16%	
86) 4-Bromofluorobenzene	12.219	174	452518	49.84	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	529244	170.75	ug/L		98
3) Chloromethane	2.635	50	521828	110.23	ug/L		97
4) Vinyl Chloride	2.769	62	529502	121.41	ug/L		97
5) 1,3-Butadiene	2.794	39	429214	96.24	ug/L		97
6) Bromomethane	3.233	94	179016	107.03	ug/L		99
7) Chloroethane	3.397	64	208208	72.66	ug/L		97
8) Trichlorofluoromethane	3.574	101	697463	115.31	ug/L		98
9) Ethyl Ether	4.019	59	379472	102.18	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.239	67	507581	105.49	ug/L		98
11) 1,1-Dichloroethene	4.263	61	679956	106.37	ug/L		99
12) Ethanol	4.263	45	313130	1827.84	ug/L		98
13) Freon 113	4.306	101	442236	116.33	ug/L		99
14) Carbon Disulfide	4.318	76	1357153	104.11	ug/L		99
15) Iodomethane	4.458	142	287045	89.41	ug/L		97
16) Acrolein	4.678	56	899828	554.73	ug/L		99
17) Allyl chloride	4.848	41	596205	103.99	ug/L		98
18) Methylene Chloride	4.976	49	605660	80.21	ug/L		95
19) Acetone	5.031	43	1548512	483.12	ug/L		100
20) Methyl acetate	5.171	43	3562244	524.29	ug/L		99
21) trans-1,2-Dichloroethene	5.177	61	692478	103.08	ug/L		99
22) Hexane	5.269	56	343966	107.27	ug/L		84
23) Methyl Tert Butyl Ether	5.299	73	1461102	100.36	ug/L		88
24) Tert butyl alcohol	5.421	59	2052291	971.82	ug/L		99
25) Acetonitrile	5.568	41	1096962	929.16	ug/L		99
26) Di-isopropyl ether	5.726	45	1506731	100.56	ug/L		100
27) Chloroprene	5.860	53	699682	119.66	ug/L		99
28) 1,1-Dichloroethane	5.879	63	895568	100.68	ug/L		99
29) Acrylonitrile	5.921	53	1704371	546.38	ug/L		100
30) ETBE	6.141	59	1442194	98.41	ug/L		100
31) Vinyl acetate	6.135	43	5016217	620.50	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	549435	105.15	ug/L		99
33) 2,2-Dichloropropane	6.616	77	692469	102.07	ug/L		98
34) Bromochloromethane	6.726	128	270176	100.14	ug/L		95
35) Cyclohexane	6.750	56	772375	110.91	ug/L		99
36) Chloroform	6.787	83	923907	100.00	ug/L		99
37) Ethyl acetate	6.884	43	4168769m	539.63	ug/L		
38) Tetrahydrofuran	6.982	42	364903	93.91	ug/L		98
40) Carbon Tetrachloride	6.970	117	704052	103.61	ug/L		97
41) 1,1,1-Trichloroethane	7.037	97	798981	103.86	ug/L		99
42) 2-Butanone	7.104	43	2643762	600.17	ug/L		98
43) 1,1-Dichloropropene	7.165	75	640799	105.40	ug/L		98
44) tert-Butyl Formate	7.256	59	1988701	519.47	ug/L		98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1624190	1123.18	ug/L	78
46) Methacrylonitrile	7.439	41	4480633	1057.09	ug/L	99
47) Benzene	7.427	78	1855895	100.03	ug/L	83
48) TAME	7.525	73	1380755	97.25	ug/L	98
50) Isobutyl alcohol	7.616	42	994842	2463.39	ug/L	99
51) 1,2-Dichloroethane	7.634	62	637209	98.79	ug/L	98
52) Tert Amyl Alcohol	7.720	59	1795079	1025.82	ug/L	98
53) Trichloroethene	8.043	95	526130	103.13	ug/L	99
54) Methylcyclohexane	8.049	83	704034	110.79	ug/L	99
55) Dibromomethane	8.476	93	344287	102.51	ug/L	98
56) 1,2-Dichloropropane	8.561	63	488359	102.19	ug/L	98
57) Bromodichloromethane	8.622	83	694118	102.13	ug/L	96
58) Methyl methacrylate	8.738	41	585103	122.99	ug/L	98
59) 1,4-Dioxane	8.835	88	318290	2138.94	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	1534053	601.53	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	791682	105.72	ug/L	98
64) Toluene	9.494	91	2040123	99.91	ug/L	100
65) 2-Nitropropane	9.695	41	1066697	470.12	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	4346515	531.45	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	723714	108.44	ug/L	96
68) Tetrachloroethene	9.908	166	632507	102.98	ug/L	97
69) Ethyl methacrylate	10.012	69	672212	119.45	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	405035	96.93	ug/L	95
71) Dibromochloromethane	10.256	129	599260	101.17	ug/L	99
72) 1,3-Dichloropropane	10.335	76	750447	103.85	ug/L	98
73) 1,2-Dibromoethane	10.512	107	557752	104.00	ug/L	99
74) 3,3-dimethyl-1-butanol	10.621	57	8540539m	5174.38	ug/L	
75) 2-hexanone	10.658	43	3631290	577.41	ug/L	98
76) 1-Chlorohexane	10.963	91	601700	105.12	ug/L	97
77) Ethylbenzene	11.024	91	2172652	101.03	ug/L	99
78) Chlorobenzene	11.024	112	1324499	97.86	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	521794	98.64	ug/L	98
80) m,p-Xylene	11.164	91	3396714	206.30	ug/L	100
81) o-Xylene	11.603	91	1777938	100.71	ug/L	100
82) Styrene	11.652	104	1329647	109.43	ug/L	98
83) Bromoform	11.707	173	521805	101.76	ug/L	98
84) Isopropylbenzene	11.908	105	2104671	101.94	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	218859	134.62	ug/L	95
88) n-Propylbenzene	12.328	91	2418127	100.37	ug/L	99
89) Bromobenzene	12.347	156	612493	96.92	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	810755	92.36	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1714728	98.02	ug/L	98
92) 2-Chlorotoluene	12.517	91	1601779	97.08	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	230459	119.94	ug/L	88
94) 1,2,3-Trimethylpropane	12.542	110	257532	97.30	ug/L	96
95) Cyclohexanone	12.609	55	285786	522.81	ug/L	96
96) 4-Chlorotoluene	12.682	91	1488036	97.52	ug/L	99
97) tert-Butylbenzene	12.853	91	920114	98.67	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1691330	98.32	ug/L	99
99) Pentachloroethane	12.902	167	370930	103.58	ug/L	100
100) sec-Butylbenzene	13.036	105	1984570	97.93	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1745979	99.41	ug/L	100
102) 1,3-Dichlorobenzene	13.298	146	1088227	99.31	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1727276	95.92	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	1096065	92.83	ug/L	99
105) n-Butylbenzene	13.615	92	895028	102.63	ug/L	92
106) Benzyl Chloride	13.621	126	320426	105.75	ug/L #	57
107) 1,2-Dichlorobenzene	13.822	146	1039729	96.98	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

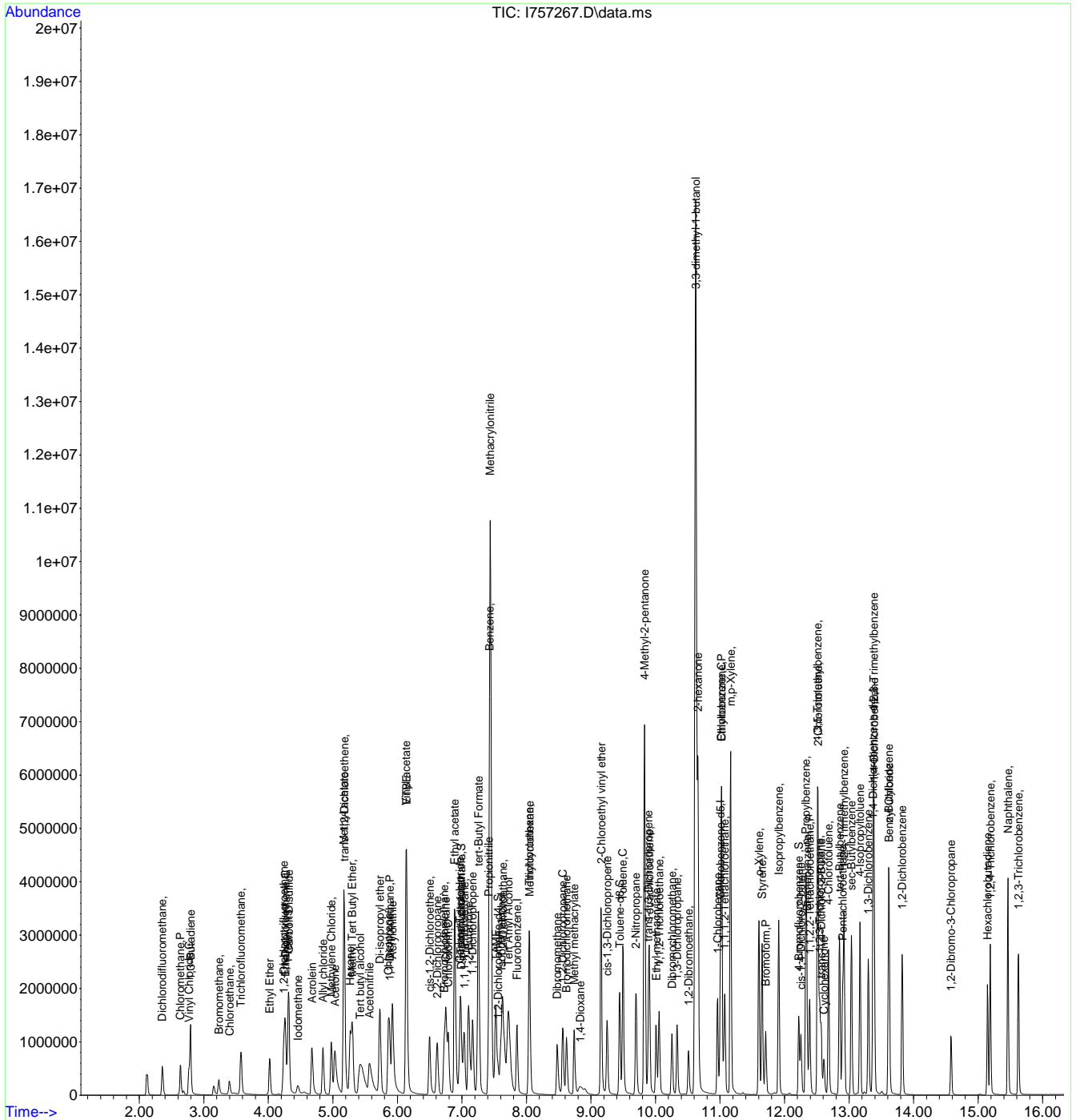
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	230974	99.84	ug/L	98
109) Hexachlorobutadiene	15.145	225	362352	97.50	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	788632	98.53	ug/L	98
111) Naphthalene	15.462	128	2534672	101.63	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	773226	96.31	ug/L	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757267.D  
Acq On : 15 Jun 2023 1:15 pm  
Operator : joannel  
Sample : IC2948-7  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 12:25:15 2023  
Response via : Initial Calibration



7  
18  
7



# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757267.D  
**Injection Time:** 06/15/23 13:15

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

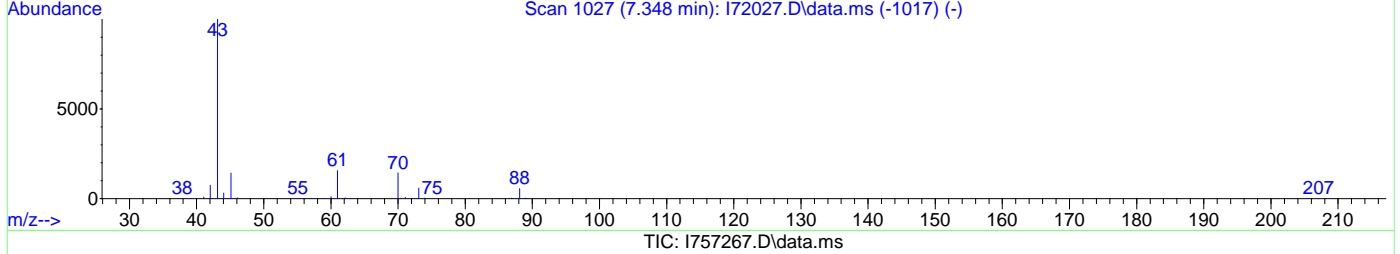
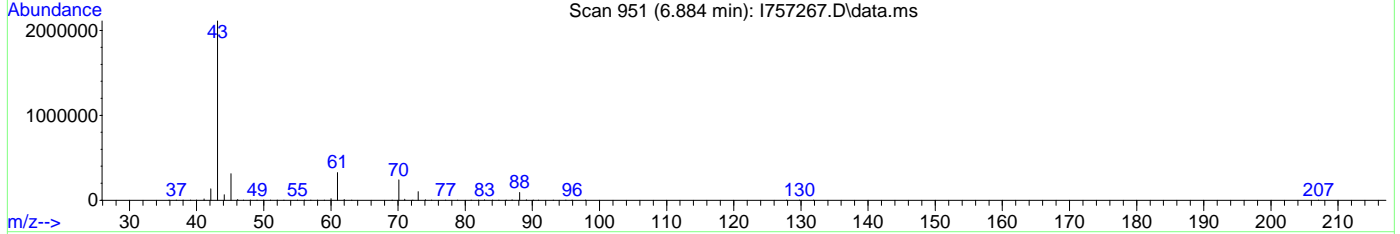
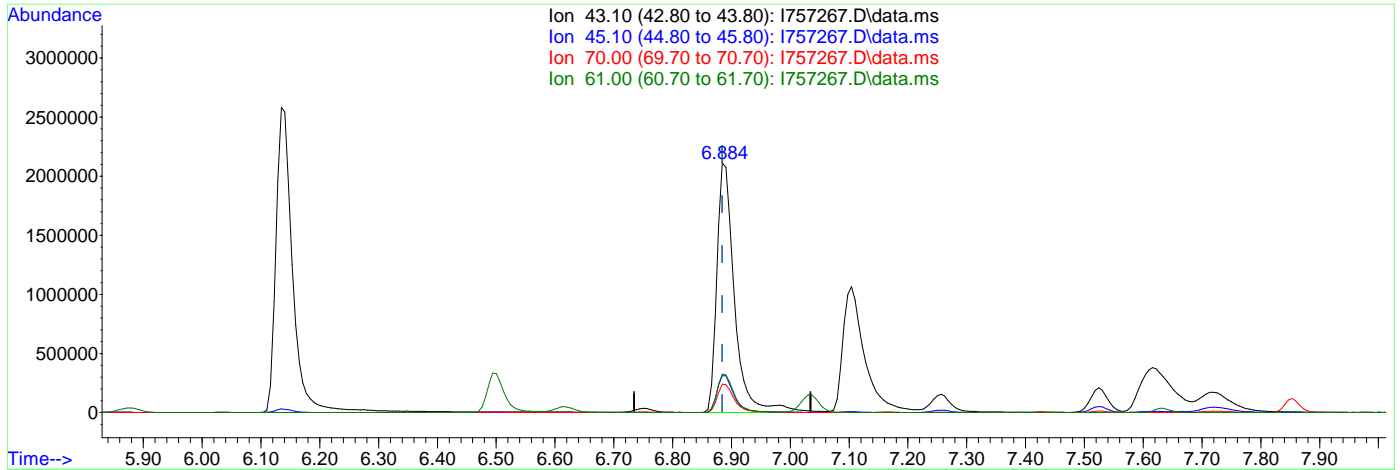
7.6.18.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 567.17ug/L

response 4381496

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.35
61.00	15.10	15.37

7.6.18.2

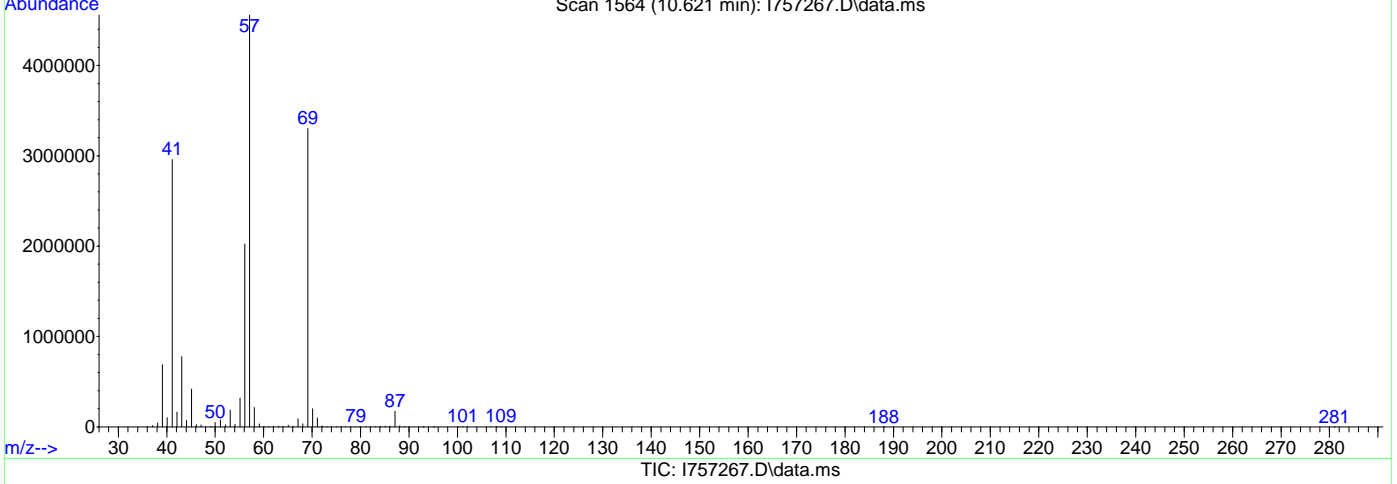
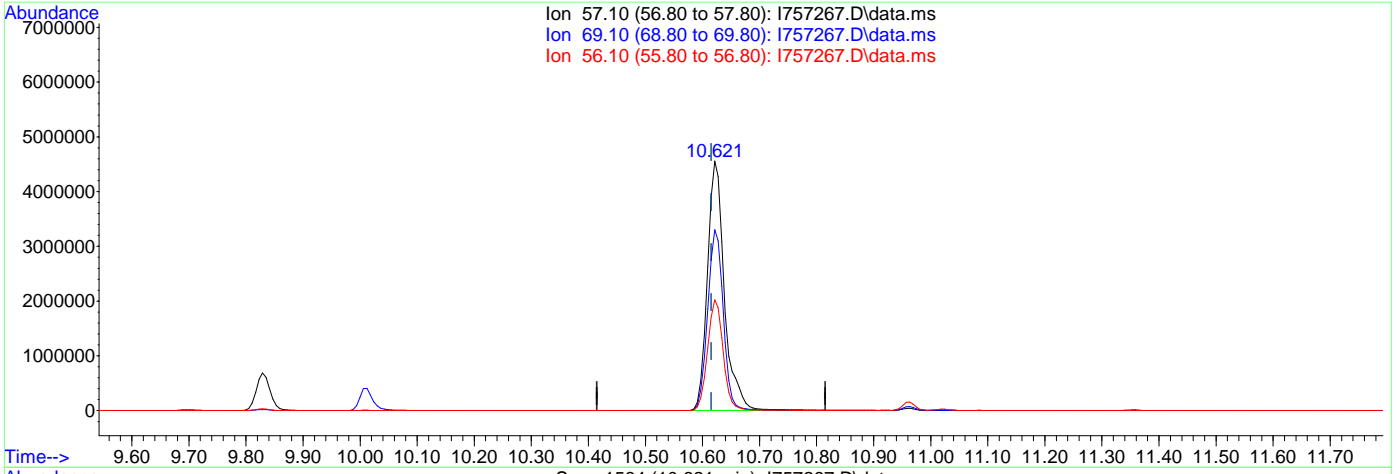
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5734.20ug/L

response 9464543

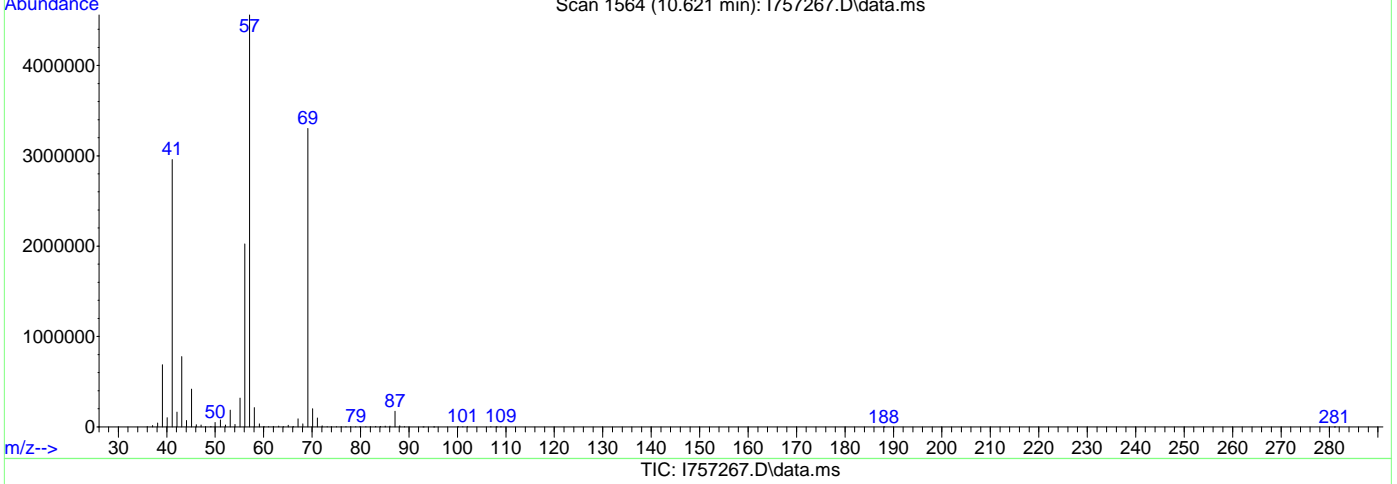
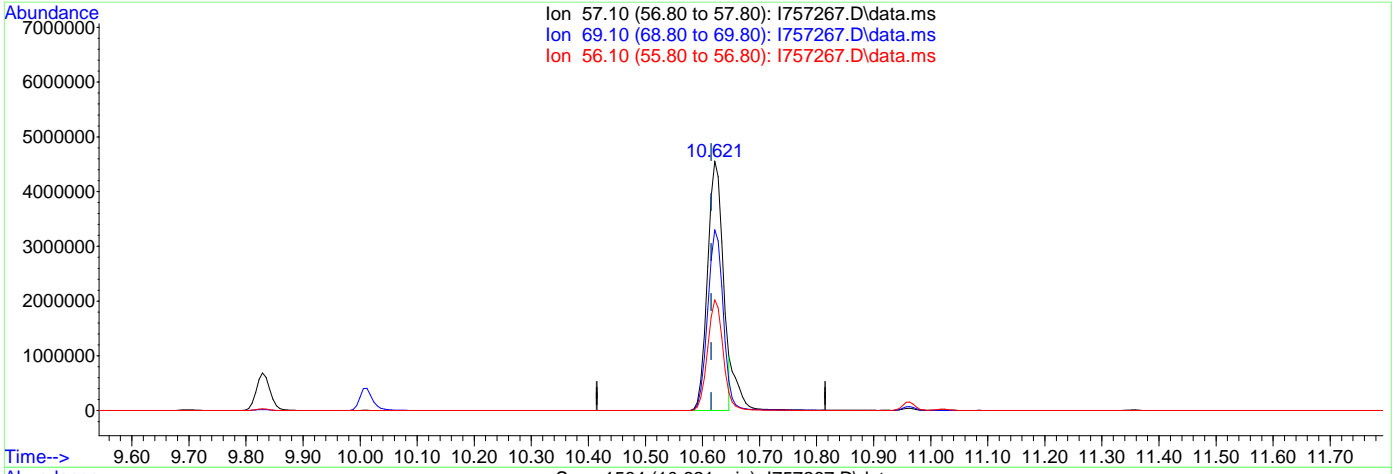
Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

7.6.18.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5174.38ug/L m

response 8540539

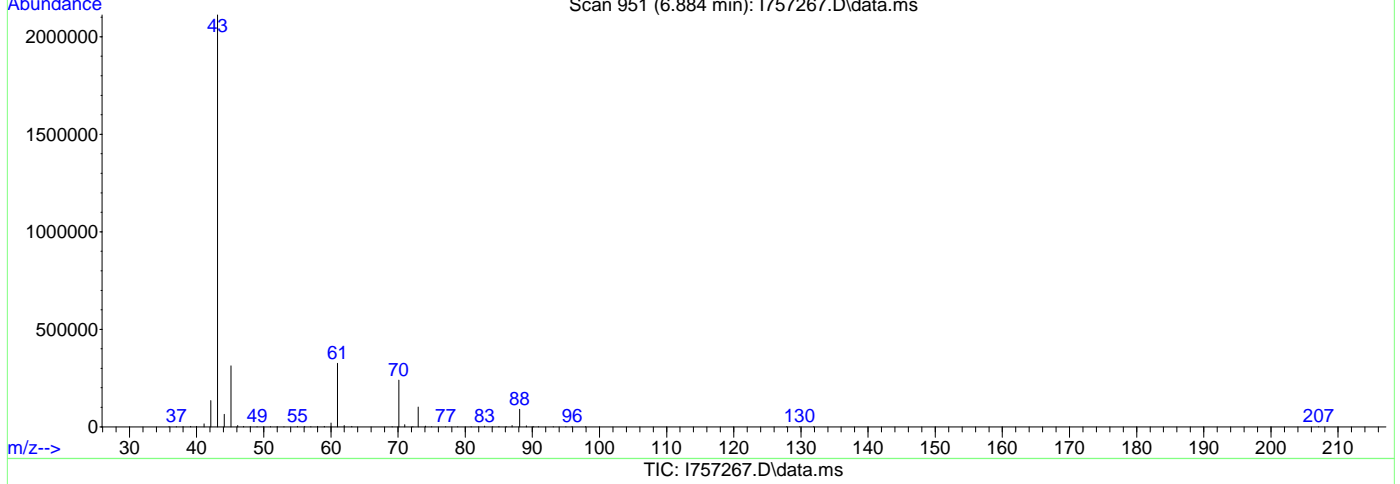
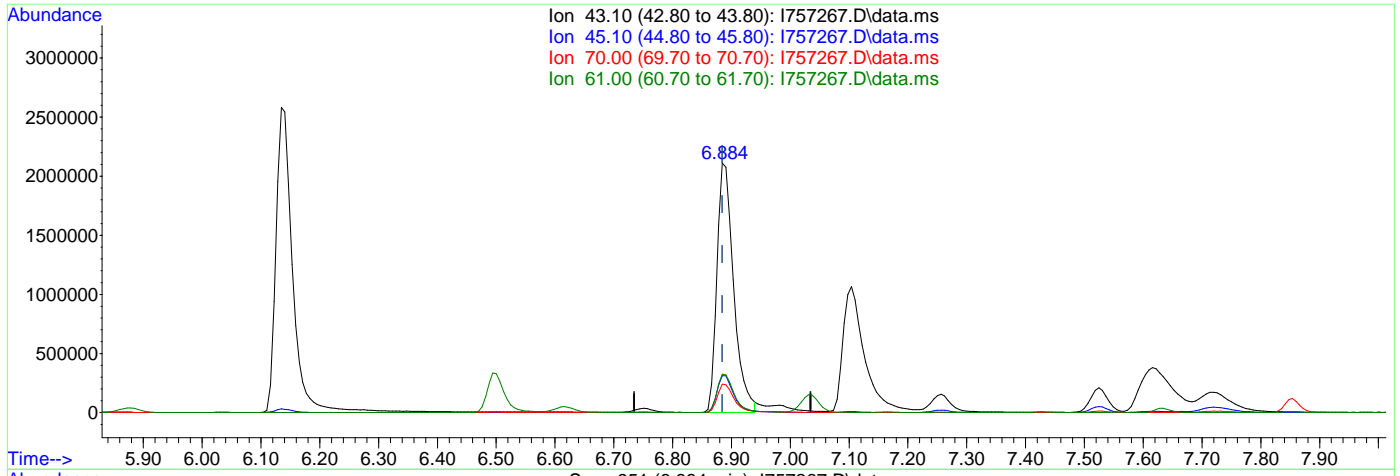
Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

7.6.18.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:34:19 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 539.63ug/L m

response 4168769

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.78
70.00	11.10	11.35
61.00	15.10	15.40

7.6.18.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1167572	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	863763	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	536859	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	338967	51.15	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	102.30%		
49) 1,2-Dichloroethane-d4	7.561	65	299738	49.74	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.48%		
63) Toluene-d8	9.445	98	1241290	50.39	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.78%		
86) 4-Bromofluorobenzene	12.219	174	452105	50.02	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.04%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	181684	35.41	ug/L		99
3) Chloromethane	2.641	50	187721	35.62	ug/L		98
4) Vinyl Chloride	2.769	62	172721	33.14	ug/L		98
6) Bromomethane	3.233	94	63922	35.86	ug/L		99
7) Chloroethane	3.397	64	71580	32.75	ug/L		99
8) Trichlorofluoromethane	3.592	101	223977	32.47	ug/L		99
9) Ethyl Ether	4.019	59	153798	42.60	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.245	67	176479	36.75	ug/L		97
11) 1,1-Dichloroethene	4.275	61	216177	34.12	ug/L		99
12) Ethanol	4.208	45	132725	755.11	ug/L		90
13) Freon 113	4.318	101	140462	35.68	ug/L		98
14) Carbon Disulfide	4.330	76	429418	33.00	ug/L		100
15) Iodomethane	4.458	142	131520	41.69	ug/L		95
16) Acrolein	4.678	56	313917	185.92	ug/L		100
17) Allyl chloride	4.854	41	211809	34.77	ug/L		99
18) Methylene Chloride	4.976	49	244818	38.34	ug/L		99
19) Acetone	5.025	43	611835	194.73	ug/L		97
20) Methyl acetate	5.165	43	1300972	197.56	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	242062	36.41	ug/L		98
22) Hexane	5.275	56	115756	35.52	ug/L		98
23) Methyl Tert Butyl Ether	5.299	73	576110	41.02	ug/L		99
24) Tert butyl alcohol	5.391	59	853158	444.00	ug/L		99
25) Acetonitrile	5.562	41	503982	389.31	ug/L		100
26) Di-isopropyl ether	5.726	45	565990	38.53	ug/L		100
28) 1,1-Dichloroethane	5.885	63	316951	36.32	ug/L		99
29) Acrylonitrile	5.921	53	680139	212.48	ug/L		99
30) ETBE	6.135	59	571099	40.39	ug/L		99
31) Vinyl acetate	6.141	43	1977348	208.01	ug/L		99
32) cis-1,2-Dichloroethene	6.507	96	194512	37.09	ug/L		98
33) 2,2-Dichloropropane	6.622	77	254068	38.19	ug/L		98
34) Bromochloromethane	6.726	128	101858	37.64	ug/L		100
35) Cyclohexane	6.757	56	236994	34.41	ug/L		99
36) Chloroform	6.793	83	340867	37.45	ug/L		98
37) Ethyl acetate	6.885	43	1529328m	196.35	ug/L		
38) Tetrahydrofuran	6.982	42	142102	39.15	ug/L		99
40) Carbon Tetrachloride	6.976	117	222115	34.74	ug/L		99
41) 1,1,1-Trichloroethane	7.037	97	269977	35.85	ug/L		99
42) 2-Butanone	7.098	43	972769	199.36	ug/L		97
43) 1,1-Dichloropropene	7.171	75	218372	36.74	ug/L		96
44) tert-Butyl Formate	7.256	59	955754	261.75	ug/L		98
45) Propionitrile	7.409	54	601193	374.75	ug/L		99
46) Methacrylonitrile	7.439	41	1662190	353.39	ug/L		99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Benzene	7.433	78	680777	37.35	ug/L	99
48) TAME	7.525	73	537529	39.26	ug/L	98
50) Isobutyl alcohol	7.592	42	328173	772.40	ug/L	99
51) 1,2-Dichloroethane	7.634	62	240861	38.04	ug/L	99
52) Tert Amyl Alcohol	7.701	59	698196	442.70	ug/L	99
53) Trichloroethene	8.043	95	181981	35.70	ug/L	99
54) Methylcyclohexane	8.049	83	209090	33.59	ug/L	97
55) Dibromomethane	8.482	93	128744	39.55	ug/L	94
56) 1,2-Dichloropropane	8.567	63	187462	39.91	ug/L	98
57) Bromodichloromethane	8.622	83	246195	38.02	ug/L	98
58) Methyl methacrylate	8.744	41	191932	36.54	ug/L	99
59) 1,4-Dioxane	8.817	88	121911	806.02	ug/L	96
60) 2-Chloroethyl vinyl ether	9.158	63	550429	188.36	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	292980	40.14	ug/L	98
64) Toluene	9.500	91	741775	37.64	ug/L	100
65) 2-Nitropropane	9.695	41	368926	193.74	ug/L	98
66) 4-Methyl-2-pentanone	9.829	43	1652533	193.45	ug/L	100
67) trans-1,3-Dichloropropene	9.896	75	250608	37.05	ug/L	92
68) Tetrachloroethene	9.908	166	215067	36.06	ug/L	97
69) Ethyl methacrylate	10.012	69	254883	39.79	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	154290	38.39	ug/L	97
71) Dibromochloromethane	10.256	129	232080	41.74	ug/L	99
72) 1,3-Dichloropropane	10.335	76	303210	43.29	ug/L	99
73) 1,2-Dibromoethane	10.512	107	210199	40.54	ug/L	98
74) 3,3-dimethyl-1-butanol	10.616	57	3275538m	2073.24	ug/L	
75) 2-hexanone	10.652	43	1355714	194.98	ug/L	100
76) 1-Chlorohexane	10.963	91	190234	34.11	ug/L	99
77) Ethylbenzene	11.024	91	782969	36.79	ug/L	99
78) Chlorobenzene	11.024	112	490186	37.64	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	194482	38.59	ug/L	98
80) m,p-Xylene	11.164	91	1226428	76.77	ug/L	100
81) o-Xylene	11.603	91	633604	36.88	ug/L	98
82) Styrene	11.658	104	482252	39.07	ug/L	99
83) Bromoform	11.707	173	192008	40.98	ug/L	99
84) Isopropylbenzene	11.908	105	737709	36.50	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	84225	43.75	ug/L	95
88) n-Propylbenzene	12.329	91	834036	35.29	ug/L	99
89) Bromobenzene	12.347	156	239619	39.54	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	317412	38.42	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	627879	37.07	ug/L	99
92) 2-Chlorotoluene	12.518	91	604554	37.50	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	79856	36.75	ug/L	83
94) 1,2,3-Trichloropropane	12.548	110	109631	42.92	ug/L	96
95) Cyclohexanone	12.609	55	140395	245.94	ug/L	96
96) 4-Chlorotoluene	12.682	91	540789	37.27	ug/L	100
97) tert-Butylbenzene	12.853	91	316053	35.11	ug/L	99
98) 1,2,4-Trimethylbenzene	12.926	105	624952	37.46	ug/L	98
99) Pentachloroethane	12.902	167	128027	34.56	ug/L	99
100) sec-Butylbenzene	13.036	105	646080	33.78	ug/L	99
101) 4-Isopropyltoluene	13.170	119	594660	35.25	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	394162	37.75	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	658021	37.65	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	415811	37.05	ug/L	99
105) n-Butylbenzene	13.615	92	318989	38.45	ug/L	99
106) Benzyl Chloride	13.627	126	120327	40.14	ug/L	94
107) 1,2-Dichlorobenzene	13.828	146	392215	38.33	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	89508	42.87	ug/L	97
109) Hexachlorobutadiene	15.145	225	118606	34.21	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 1,2,4-Trichlorobenzene	15.188	180	296723	39.25	ug/L	99
111) Naphthalene	15.462	128	955180	40.40	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	295060	39.13	ug/L	99

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



# Manual Integration Approval Summary

**Sample Number:** VI2948-ICV2948      **Method:** SW846 8260D  
**Lab FileID:** I757269.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 14:04      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

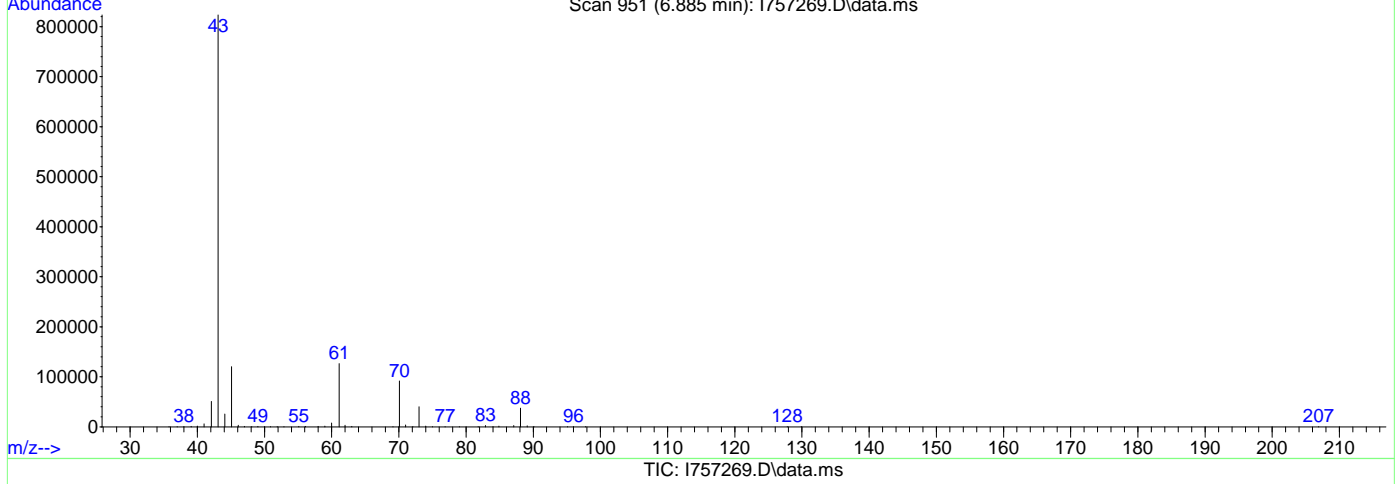
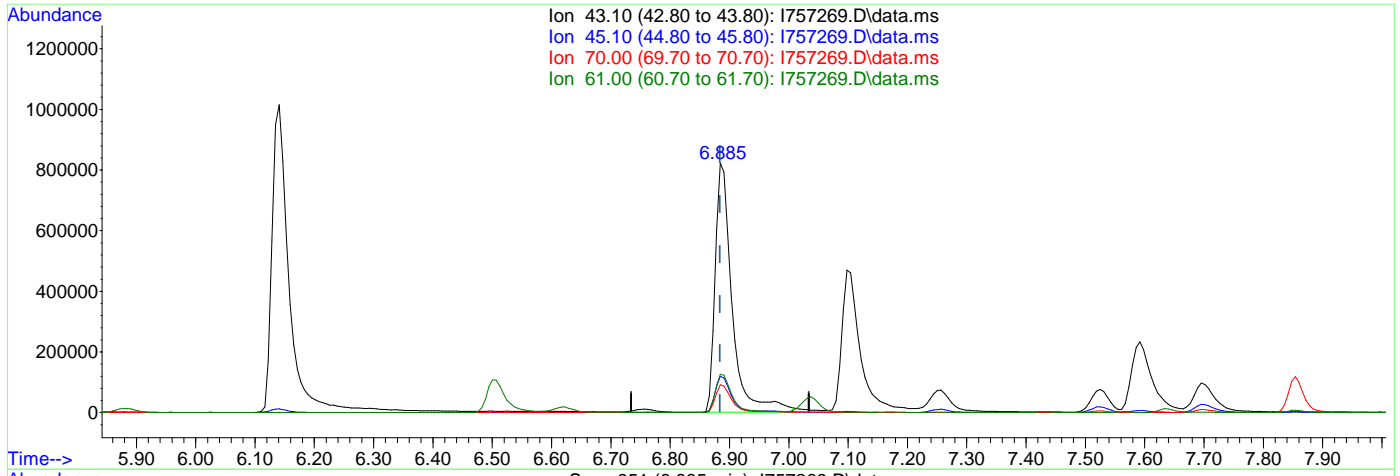
7.6.19.1  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.001) 208.54ug/L  
 response 1630659

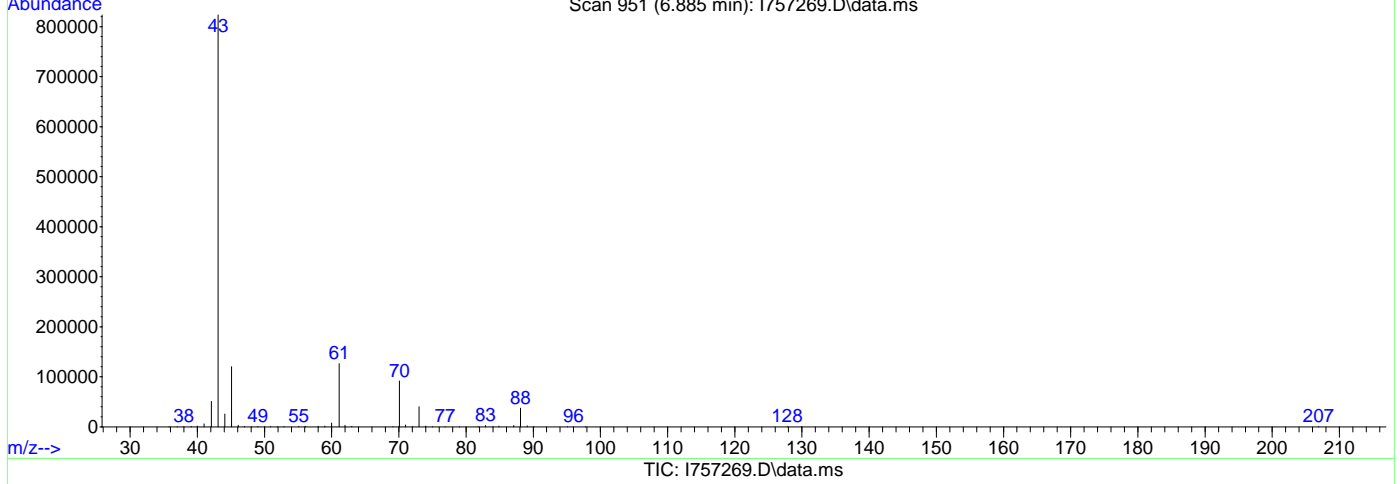
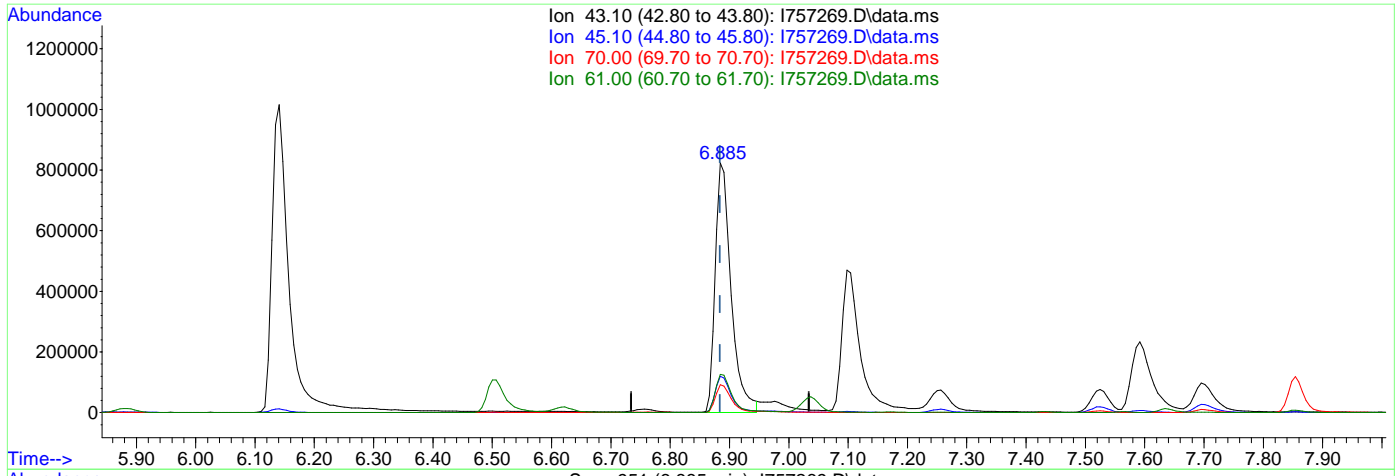
Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.60
70.00	10.90	11.11
61.00	15.40	15.32

7.6.19.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.001) 196.35ug/L m

response 1529328

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.58
70.00	10.90	11.11
61.00	15.40	15.33

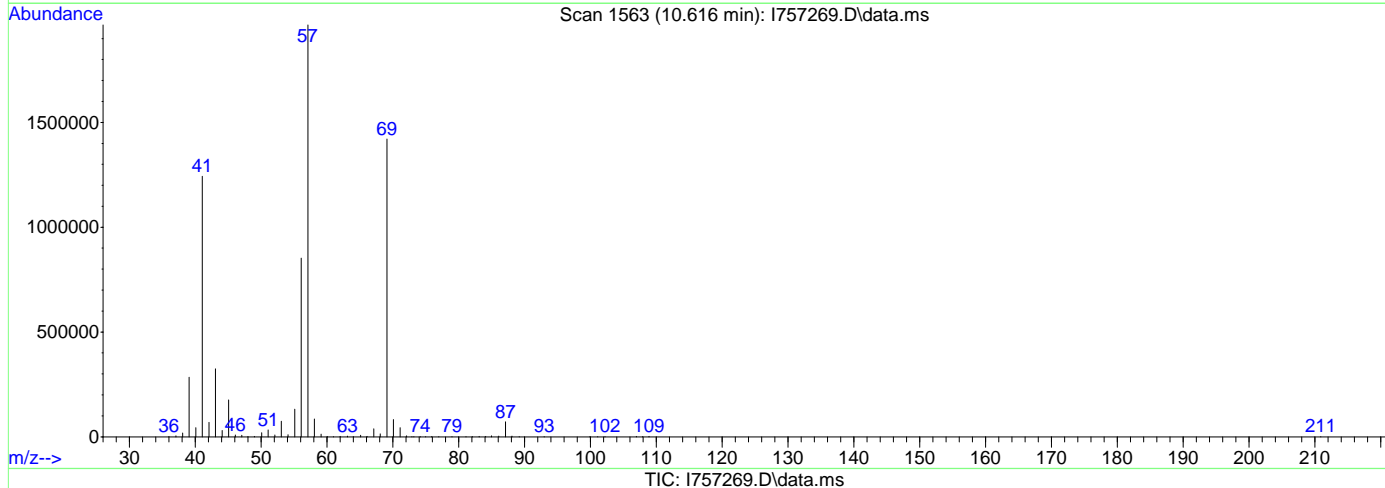
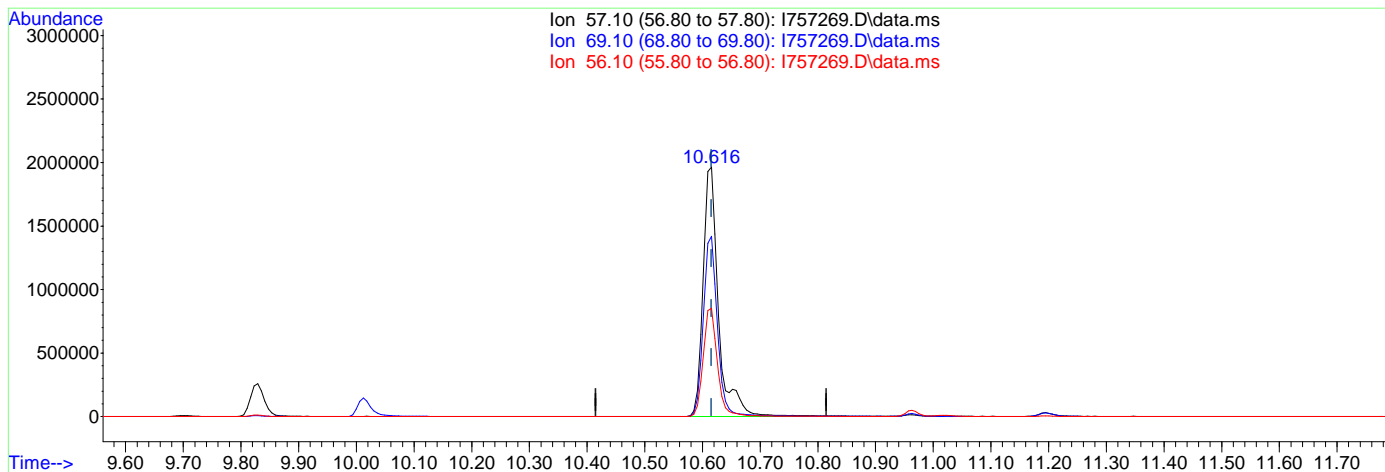
7.6.19.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2309.74ug/L

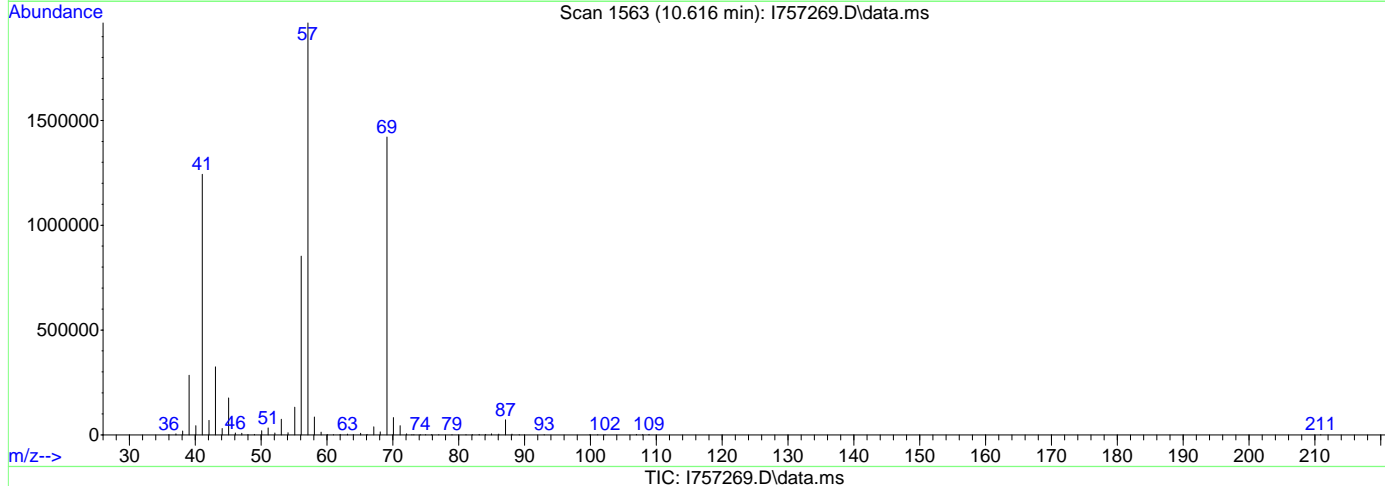
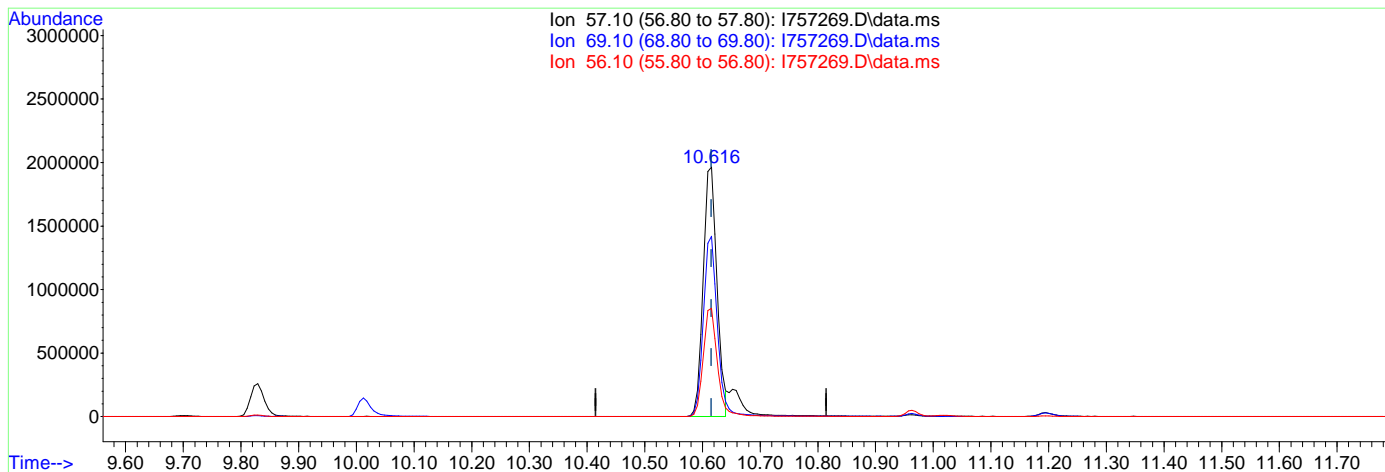
response 3686923

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.20
56.10	43.20	43.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2073.24ug/L m

response 3275538

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.26
56.10	43.20	43.39
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1153831	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	850734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	529571	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	331960	50.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.38%	
49) 1,2-Dichloroethane-d4	7.561	65	309281	51.94	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.88%	
63) Toluene-d8	9.445	98	1229655	50.69	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.38%	
86) 4-Bromofluorobenzene	12.225	174	449316	50.39	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.78%	
Target Compounds						
5) 1,3-Butadiene	2.794	39	88557	19.95	ug/L	94
27) Chloroprene	5.866	53	134410	21.66	ug/L	99
-----						

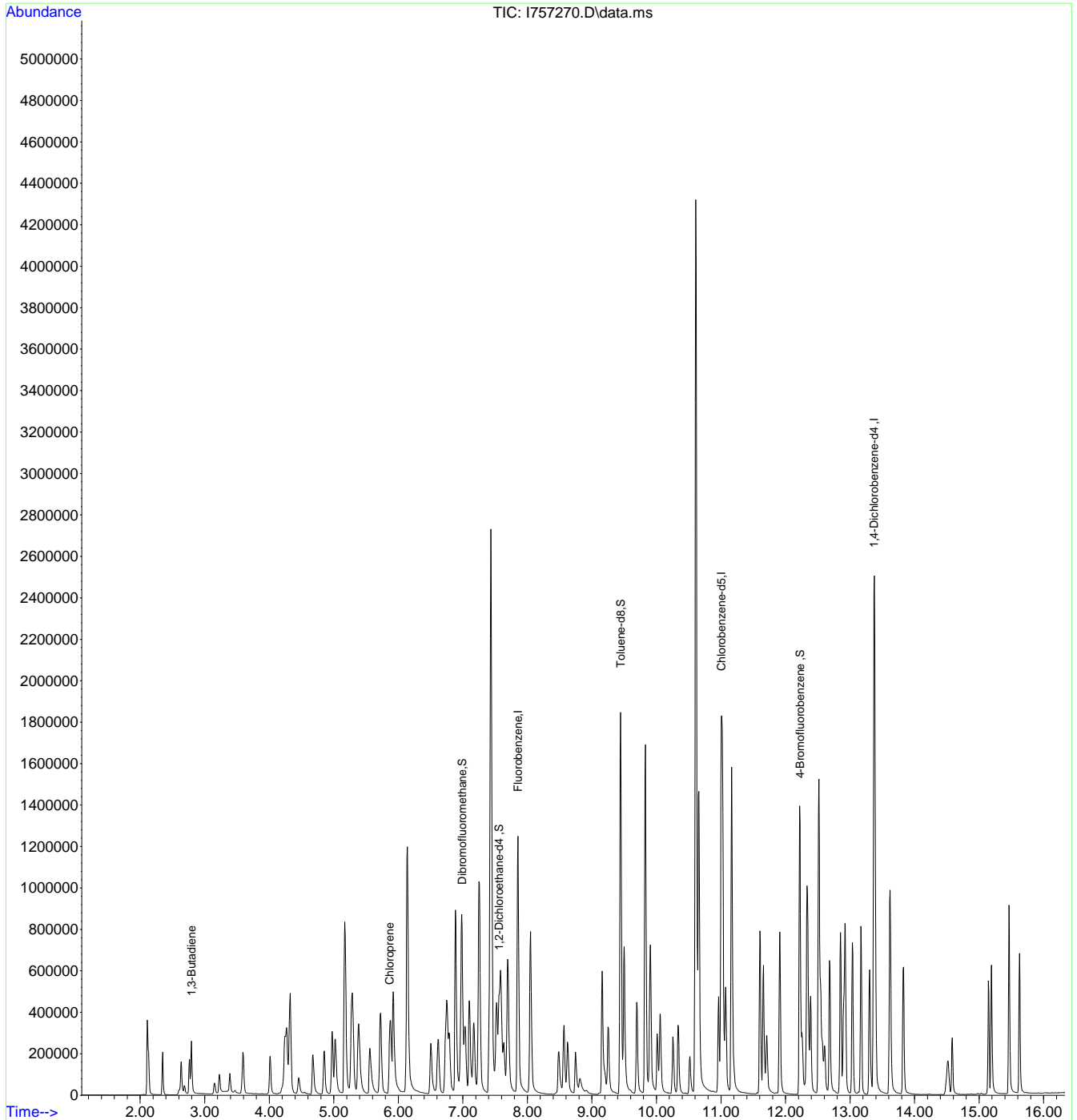
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.20  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.20  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1008433	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	708930	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	426284	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288013	50.32	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.64%	
49) 1,2-Dichloroethane-d4	7.561	65	258218	49.61	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.22%	
63) Toluene-d8	9.445	98	1047914	51.84	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	103.68%	
86) 4-Bromofluorobenzene	12.219	174	358323	49.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.84%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155671	35.13	ug/L		99
3) Chloromethane	2.635	50	179300	39.42	ug/L		100
4) Vinyl Chloride	2.763	62	175257	38.93	ug/L		98
5) 1,3-Butadiene	2.794	39	129634	33.75	ug/L		93
6) Bromomethane	3.227	94	72641	47.01	ug/L		99
7) Chloroethane	3.391	64	78186	41.42	ug/L		99
8) Trichlorofluoromethane	3.592	101	257820	43.28	ug/L		99
9) Ethyl Ether	4.013	59	120456	38.63	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.239	67	166314	40.10	ug/L		98
11) 1,1-Dichloroethene	4.269	61	213810	39.07	ug/L		99
12) Ethanol	4.214	45	115489	761.08	ug/L		93
13) Freon 113	4.318	101	136235	40.07	ug/L		98
14) Carbon Disulfide	4.324	76	396055	35.24	ug/L		97
15) Iodomethane	4.458	142	127544	46.42	ug/L		95
16) Acrolein	4.678	56	223860	154.90	ug/L		98
17) Allyl chloride	4.848	41	195427	37.16	ug/L		98
18) Methylene Chloride	4.976	49	218489	39.66	ug/L		99
19) Acetone	5.019	43	549798	202.59	ug/L		100
20) Methyl acetate	5.165	43	1222746	214.99	ug/L		100
21) trans-1,2-Dichloroethene	5.178	61	225137	39.21	ug/L		98
22) Hexane	5.275	56	111743	39.70	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	464532	38.30	ug/L		92
24) Tert butyl alcohol	5.391	59	661364	398.51	ug/L		100
25) Acetonitrile	5.555	41	429719	383.82	ug/L		99
26) Di-isopropyl ether	5.720	45	486396	38.34	ug/L		98
27) Chloroprene	5.860	53	206158	37.18	ug/L		99
28) 1,1-Dichloroethane	5.879	63	297375	39.46	ug/L		98
29) Acrylonitrile	5.915	53	590928	213.74	ug/L		99
30) ETBE	6.135	59	461696	37.80	ug/L		99
31) Vinyl acetate	6.135	43	1659754	202.49	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	175939	38.84	ug/L		98
33) 2,2-Dichloropropane	6.616	77	219153	38.14	ug/L		98
34) Bromochloromethane	6.726	128	90674	38.79	ug/L		98
35) Cyclohexane	6.750	56	238643	39.74	ug/L		97
36) Chloroform	6.787	83	304419	38.72	ug/L		99
37) Ethyl acetate	6.885	43	1460008	215.68	ug/L		100
38) Tetrahydrofuran	6.976	42	120919	38.57	ug/L		94
40) Carbon Tetrachloride	6.970	117	220803	39.99	ug/L		97
41) 1,1,1-Trichloroethane	7.031	97	258370	39.72	ug/L		98
42) 2-Butanone	7.098	43	864609	204.75	ug/L		99
43) 1,1-Dichloropropene	7.171	75	205488	40.03	ug/L		99
44) tert-Butyl Formate	7.250	59	607008	192.47	ug/L		92

7.6.21  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	538208	388.43	ug/L	97
46) Methacrylonitrile	7.433	41	1509781	371.64	ug/L	98
47) Benzene	7.427	78	610510	38.78	ug/L	94
48) TAME	7.525	73	443287	37.49	ug/L	98
50) Isobutyl alcohol	7.592	42	292157	796.14	ug/L	98
51) 1,2-Dichloroethane	7.634	62	208052	38.05	ug/L	100
52) Tert Amyl Alcohol	7.701	59	537460	394.56	ug/L	97
53) Trichloroethene	8.043	95	168013	38.16	ug/L	98
54) Methylcyclohexane	8.049	83	213535	39.29	ug/L	98
55) Dibromomethane	8.482	93	110209	39.20	ug/L	98
56) 1,2-Dichloropropane	8.561	63	156028	38.46	ug/L	98
57) Bromodichloromethane	8.622	83	223310	39.93	ug/L	99
58) Methyl methacrylate	8.738	41	178897	39.19	ug/L	96
59) 1,4-Dioxane	8.823	88	91387	704.76	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	528594	208.33	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	247601	39.28	ug/L	99
64) Toluene	9.494	91	654049	40.44	ug/L	100
65) 2-Nitropropane	9.695	41	362631	227.93	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	1519760	216.76	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	225365	40.37	ug/L	94
68) Tetrachloroethene	9.908	166	200578	40.97	ug/L	98
69) Ethyl methacrylate	10.012	69	213238	40.52	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	137325	41.63	ug/L	98
71) Dibromochloromethane	10.256	129	190015	41.63	ug/L	99
72) 1,3-Dichloropropane	10.335	76	243222	42.31	ug/L	99
73) 1,2-Dibromoethane	10.512	107	177153	41.62	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	3163458	2404.75	ug/L	99
75) 2-hexanone	10.652	43	1197748	209.26	ug/L	98
76) 1-Chlorohexane	10.963	91	185768	40.59	ug/L	97
77) Ethylbenzene	11.024	91	700468	40.10	ug/L	99
78) Chlorobenzene	11.024	112	437852	40.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	169136	40.89	ug/L	99
80) m,p-Xylene	11.164	91	1076128	82.07	ug/L	100
81) o-Xylene	11.603	91	552893	39.21	ug/L	99
82) Styrene	11.652	104	409582	40.34	ug/L	98
83) Bromoform	11.707	173	163738	42.58	ug/L	99
84) Isopropylbenzene	11.908	105	671097	40.45	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	64812	42.40	ug/L	98
88) n-Propylbenzene	12.329	91	779218	41.52	ug/L	97
89) Bromobenzene	12.347	156	200375	41.64	ug/L	97
90) 1,1,2,2-Tetrachloroethane	12.390	83	275414	41.99	ug/L	97
91) 1,3,5-Trimethylbenzene	12.511	105	541080	40.23	ug/L	100
92) 2-Chlorotoluene	12.518	91	532200	41.58	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	65982	38.17	ug/L	95
94) 1,2,3-Trichloropropane	12.542	110	82785	40.82	ug/L	95
95) Cyclohexanone	12.609	55	84591	186.62	ug/L	98
96) 4-Chlorotoluene	12.682	91	468822	40.70	ug/L	99
97) tert-Butylbenzene	12.853	91	290501	40.64	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	540491	40.80	ug/L	100
99) Pentachloroethane	12.902	167	126815	43.12	ug/L	97
100) sec-Butylbenzene	13.036	105	635577	41.59	ug/L	100
101) 4-Isopropyltoluene	13.170	119	549240	41.00	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	348465	42.03	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	562880	40.56	ug/L	99
104) 1,4-Dichlorobenzene	13.383	146	361689	40.59	ug/L	100
105) n-Butylbenzene	13.615	92	281963	42.81	ug/L	99
106) Benzyl Chloride	13.627	126	95105	39.97	ug/L	97
107) 1,2-Dichlorobenzene	13.822	146	339102	41.74	ug/L	99



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	69019	41.63	ug/L	87
109) Hexachlorobutadiene	15.145	225	115501	41.96	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	242928	40.47	ug/L	100
111) Naphthalene	15.462	128	767131	40.86	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	247309	41.31	ug/L	99

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

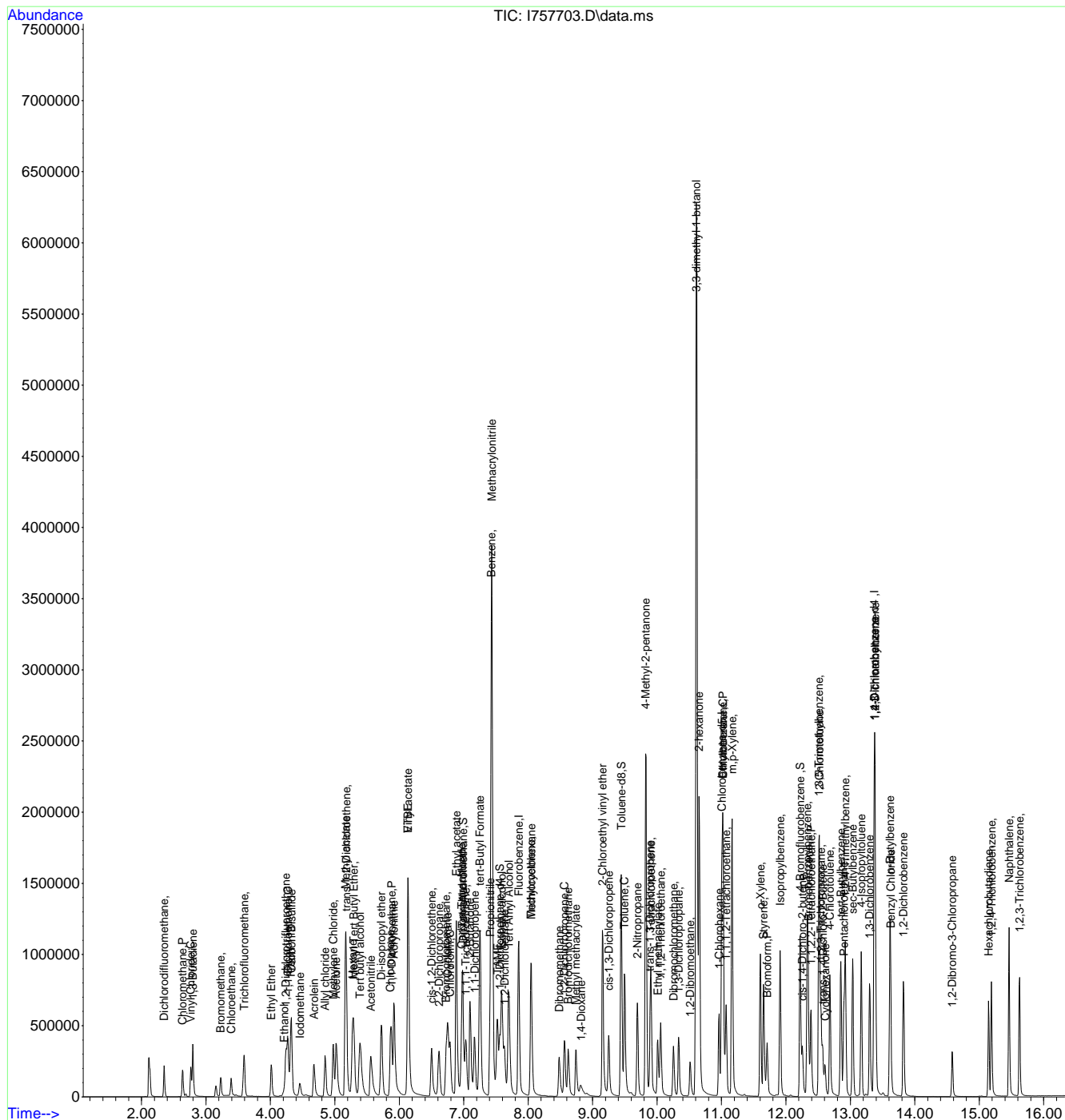
7.6.21

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.21  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	868567	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	623106	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	377823	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	250689	50.85	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.70%	
49) 1,2-Dichloroethane-d4	7.561	65	247061	55.11	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	110.22%	
63) Toluene-d8	9.445	98	910160	51.22	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.44%	
86) 4-Bromofluorobenzene	12.219	174	316696	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155857	40.84	ug/L		98
3) Chloromethane	2.642	50	161913	41.34	ug/L		97
4) Vinyl Chloride	2.763	62	157281	40.57	ug/L		99
5) 1,3-Butadiene	2.794	39	120487	36.50	ug/L		93
6) Bromomethane	3.233	94	54522	41.05	ug/L		98
7) Chloroethane	3.391	64	66209	40.73	ug/L		96
8) Trichlorofluoromethane	3.593	101	213809	41.67	ug/L		96
9) Ethyl Ether	4.019	59	101095	37.64	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.245	67	142637	39.93	ug/L		95
11) 1,1-Dichloroethene	4.269	61	184811	39.21	ug/L		99
12) Ethanol	4.214	45	101503	777.61	ug/L		98
13) Freon 113	4.318	101	114579	39.13	ug/L		98
14) Carbon Disulfide	4.330	76	330423	34.13	ug/L		98
15) Iodomethane	4.458	142	128074	53.44	ug/L		97
16) Acrolein	4.678	56	186662	150.16	ug/L		91
17) Allyl chloride	4.854	41	160038	35.32	ug/L		97
18) Methylene Chloride	4.976	49	203971	43.09	ug/L		95
19) Acetone	5.025	43	469432	200.84	ug/L		98
20) Methyl acetate	5.165	43	1075732	219.60	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	189917	38.41	ug/L		97
22) Hexane	5.275	56	93751	38.67	ug/L		98
23) Methyl Tert Butyl Ether	5.300	73	381709	36.54	ug/L		98
24) Tert butyl alcohol	5.391	59	578730	404.87	ug/L		93
25) Acetonitrile	5.562	41	367620	380.97	ug/L		98
26) Di-isopropyl ether	5.726	45	421489	38.57	ug/L		96
27) Chloroprene	5.866	53	173062	36.28	ug/L		99
28) 1,1-Dichloroethane	5.885	63	250717	38.63	ug/L		100
29) Acrylonitrile	5.921	53	496991	208.71	ug/L		98
30) ETBE	6.135	59	395568	37.61	ug/L		98
31) Vinyl acetate	6.141	43	1339504	190.41	ug/L		99
32) cis-1,2-Dichloroethene	6.507	96	142887	36.63	ug/L		96
33) 2,2-Dichloropropane	6.616	77	171612	34.68	ug/L		98
34) Bromochloromethane	6.732	128	70218	34.88	ug/L		91
35) Cyclohexane	6.757	56	205717	39.78	ug/L		97
36) Chloroform	6.793	83	252538	37.30	ug/L		99
37) Ethyl acetate	6.885	43	1242894	213.34	ug/L		99
38) Tetrahydrofuran	6.982	42	106913	39.60	ug/L		94
40) Carbon Tetrachloride	6.976	117	183521	38.59	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	215927	38.54	ug/L		99
42) 2-Butanone	7.098	43	746394	205.19	ug/L		95
43) 1,1-Dichloropropene	7.171	75	173168	39.17	ug/L		96

7.6.22  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	476921	175.58	ug/L	92
45) Propionitrile	7.409	54	463017	387.97	ug/L	99
46) Methacrylonitrile	7.439	41	1304599	372.85	ug/L	99
47) Benzene	7.433	78	509693	37.59	ug/L	94
48) TAME	7.525	73	373006	36.62	ug/L	97
50) Isobutyl alcohol	7.592	42	261292	826.69	ug/L	97
51) 1,2-Dichloroethane	7.634	62	176340	37.44	ug/L	97
52) Tert Amyl Alcohol	7.701	59	474274	404.24	ug/L	96
53) Trichloroethene	8.043	95	141088	37.20	ug/L	99
54) Methylcyclohexane	8.049	83	181140	38.73	ug/L	97
55) Dibromomethane	8.482	93	89372	36.91	ug/L	99
56) 1,2-Dichloropropane	8.567	63	133203	38.12	ug/L	98
57) Bromodichloromethane	8.628	83	183546	38.11	ug/L	99
58) Methyl methacrylate	8.744	41	151608	38.61	ug/L	98
59) 1,4-Dioxane	8.817	88	82156	734.02	ug/L	95
60) 2-Chloroethyl vinyl ether	9.159	63	398032	183.34	ug/L	96
61) cis-1,3-Dichloropropene	9.250	75	204090	37.59	ug/L	98
64) Toluene	9.500	91	543651	38.24	ug/L	100
65) 2-Nitropropane	9.695	41	324603	231.68	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1309353	212.48	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	189448	38.72	ug/L	97
68) Tetrachloroethene	9.908	166	177056	41.15	ug/L	97
69) Ethyl methacrylate	10.012	69	175465	38.05	ug/L	99
70) 1,1,2-Trichloroethane	10.055	83	112964	38.96	ug/L	99
71) Dibromochloromethane	10.256	129	155015	38.64	ug/L	98
72) 1,3-Dichloropropane	10.335	76	203297	40.23	ug/L	95
73) 1,2-Dibromoethane	10.512	107	146160	39.07	ug/L	94
74) 3,3-dimethyl-1-butanol	10.609	57	2764366	2392.11	ug/L	98
75) 2-hexanone	10.658	43	1043036	207.41	ug/L	98
76) 1-Chlorohexane	10.963	91	155538	38.66	ug/L	89
77) Ethylbenzene	11.024	91	597355	38.91	ug/L	98
78) Chlorobenzene	11.024	112	361086	38.43	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.073	131	138974	38.22	ug/L	99
80) m,p-Xylene	11.164	91	906631	78.67	ug/L	100
81) o-Xylene	11.603	91	472403	38.12	ug/L	100
82) Styrene	11.658	104	341099	38.36	ug/L	97
83) Bromoform	11.707	173	131085	38.78	ug/L	97
84) Isopropylbenzene	11.914	105	566551	38.86	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	46779	34.52	ug/L	96
88) n-Propylbenzene	12.329	91	656982	39.50	ug/L	98
89) Bromobenzene	12.347	156	164138	38.49	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	229419	39.46	ug/L	99
91) 1,3,5-Trimethylbenzene	12.518	105	461562	38.72	ug/L	100
92) 2-Chlorotoluene	12.518	91	449095	39.59	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	51365	33.72	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	70949	39.47	ug/L	96
95) Cyclohexanone	12.609	55	76667	190.84	ug/L	95
96) 4-Chlorotoluene	12.682	91	398404	39.02	ug/L	98
97) tert-Butylbenzene	12.853	91	245619	38.77	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	452769	38.57	ug/L	98
99) Pentachloroethane	12.902	167	94827	36.38	ug/L	96
100) sec-Butylbenzene	13.036	105	540302	39.94	ug/L	99
101) 4-Isopropyltoluene	13.170	119	465051	39.17	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	288549	39.27	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	472540	38.42	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	301149	38.13	ug/L	99
105) n-Butylbenzene	13.615	92	234956	40.25	ug/L	90

7.6.22  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	68069	32.74	ug/L #	72
107) 1,2-Dichlorobenzene	13.828	146	282234	39.20	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	59432	40.44	ug/L	91
109) Hexachlorobutadiene	15.145	225	93972	38.52	ug/L	97
110) 1,2,4-Trichlorobenzene	15.188	180	197340	37.09	ug/L	98
111) Naphthalene	15.462	128	630133	37.87	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	197413	37.20	ug/L	97

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

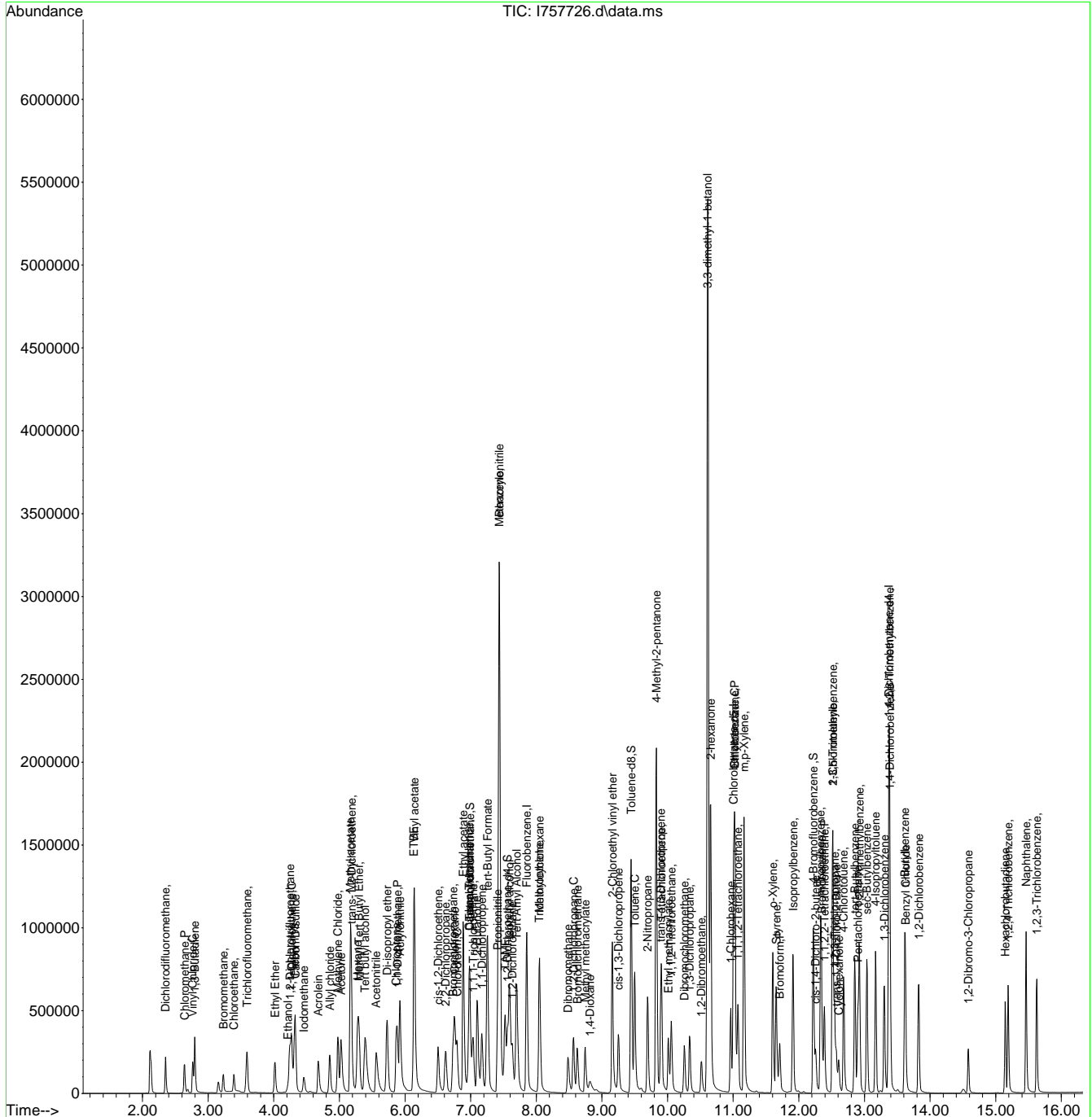
7.6.22  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.22  
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SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA12-10
Date:	07/05/2023
Analyst:	Jenifer W
Column Type	RTX/VMS
Detector	5975C-MSD
Purge Pressure	1.1psi
Purge Volume	5 mL

Method(s):	8260
Method File:	V20_06-07-2023.M
Calibration Date:	06/07/2023
Acq. Method:	8260/VMS.M
EM Voltage:	1565V
Run ID:	V203017

BF#:	VS3211
ICAL/CC:	VS3199, VS3224, VS3236
VS219, VS3218, VS3247, \	
ICV/BS:	VS3238, VS3223, VS3251
VS3243, VS3242, VS3246,	
ISTD/Surr.:	VS3211

pH Paper Lot#:	230320/212521
KI Paper Lot#:	14-860 5/9/2022
AFA Lot#:	VS3075
Data processed by:	Jenifer W / Celline C.
Sample ID Ver. by:	Jenifer W
Date Verified:	07/05/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
2077411	BFB	-	-	Water	1	-	-	-	-	Autotune Passed ✓
2077412	CC2981-4	-	-	Water	2	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓
2077413	BS	-	-	Water	3	-	-	-	-	25uL→100mL (OP) #40 (PBL) #49 #76 ✓
2077414	CC2981-1	-	-	Water	4	-	-	-	-	1uL→100mL ✓
2077415	MB	-	-	Water	5	-	-	-	-	Acetone, ACN hit
2077416	FC7381-7	1x	1	Water	6	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077417	FC7382-3	1x	1	Water	7	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Toluene hit (Trip blank w/ detection)
2077418	FC7382-1	1x	1	Water	8	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077419	FC7382-2	1x	2	Water	9	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077420	FC7381-1	1x	5	Water	10	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077421	FC7381-3	1x	2	Water	11	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077422	FC7381-5	1x	5	Water	12	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077423	FC7381-6	1x	5	Water	13	MS54357	2	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077424	FC7413-1	1x	4	Water	14	MS54357	3	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077425	FC7413-2	1x	1	Water	15	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Multiple hits (Trip blank w/ detection)
2077426	FC7381-2	2x	5	Water	16	MS54357	1	N	2x	25mL→50mL DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077427	FC7381-4	1x	5	Water	17	MS54357	1	N	1x,5x	cis-1,2-DCI; VC, o-Xylene OIR; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077428	FC7451-6	1x	1	Water	18	MS54357	1	N	-	AFA, ND ✓
2077429	FC7451-7	1x	1	Water	19	MS54357	1	N	-	AFA, ND ✓
2077430	FC7451-8	1x	1	Water	20	MS54357	1	N	-	AFA, ND ✓
2077431	FC7451-9	1x	1	Water	21	MS54357	1	N	-	AFA ✓
2077432	FC7451-10	1x	1	Water	22	MS54357	1	N	-	AFA ✓
2077433	FC7451-11	1x	1	Water	23	MS54357	1	N	-	AFA, ND ✓
2077434	FC7451-12	1x	1	Water	24	MS54357	1	N	-	AFA ✓
2077435	FC7451-13	1x	1	Water	25	MS54357	1	N	-	AFA, ND ✓
2077436	FC7382-1MS	1x	2	Water	26	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077437	FC7382-1MSD	1x	3	Water	27	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077438	ECC2981-4	-	-	Water	28	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓

Matrix: Designate "V" for Water "S" for soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP 0A029: NP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument



SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

<b>Instrument:</b>	MSVOA-16i
<b>Date:</b>	06/15/2023
<b>Analyst:</b>	JoAnn L
<b>Column Type</b>	RTX/VMS
<b>Detector</b>	5975C MSD
<b>Purge Pressure</b>	1.3 psi
<b>Purge Volume</b>	5mL

<b>Method(s):</b>	8260VMS40
<b>Method File:</b>	VI-2023-6-15.M
<b>Calibration Date:</b>	06/15/2023
<b>Acq. Method:</b>	RTX-VMS
<b>EM Voltage:</b>	1306V
<b>Run ID:</b>	VI2948

<b>BFB:</b>	VS3157	<b>pH Paper Lot#:</b>	206722/230320
<b>ICAL/CC:</b>	VS3199, VS3173, VS3198	<b>KI Paper Lot#:</b>	14-860 05/09/2022
<b>VS3197, VS3190, VS3193.V</b>		<b>AFA Lot#:</b>	VS3075
<b>ICV/BS:</b>	VS3180, VS3158, VS3206	<b>Data processed by:</b>	JoAnn L
<b>VS3208, VS3207, VS3210,</b>		<b>Sample ID Ver. by:</b>	JoAnn L
<b>ISTD/Surr.:</b>	VS3157	<b>Date Verified:</b>	06/15/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
I757260	BFB	-	-	Water	1	-	-	-	-	Autotune Passed✓
I757261	IC2948-1	-	-	Water	2	-	-	-	-	1uL→100mL; 100uL MeOH✓
I757262	IC2948-2	-	-	Water	3	-	-	-	-	5uL→100mL; 100uL MeOH✓
I757263	IC2948-3	-	-	Water	4	-	-	-	-	5uL→50mL; 100uL MeOH ✓
I757264	IC2948-4	-	-	Water	5	-	-	-	-	12.5uL→50mL✓
I757265	IC2948-5	-	-	Water	6	-	-	-	-	20uL→50mL✓
I757266	IC2948-6	-	-	Water	7	-	-	-	-	35uL→50mL✓
I757267	IC2948-7	-	-	Water	8	-	-	-	-	50uL→50mL✓
I757268	BLANK	-	-	Water	9	-	-	-	-	
I757269/A	ICV2948-5/CC2948	-	-	Water	10	-	-	-	-	20uL→50mL ✓
I757270/A	ICV2948-4/BS	-	-	Water	11	-	-	-	-	12.5uL→50mL✓
I757271	BSD	-	-	Water	12	-	-	-	-	12.5uL→50mL✓
I757272	BLANK	-	-	Water	13	-	-	-	-	
I757273	MB	-	-	Water	14	-	-	-	-	ND✓
I757274	FC6893-2	-	-	Water	15	MS54220	1	N	-	ND✓
I757275	FC6893-4	-	-	Water	16	MS54220	1	N	-	ND✓
I757276	FC6893-6	-	-	Water	17	MS54220	1	N	-	ND✓
I757277	FC6893-8	-	-	Water	18	MS54220	1	N	-	ND✓
I757278	FC6893-10	-	-	Water	19	MS54220	1	N	-	ND✓
I757279	FC6893-12	-	-	Water	20	MS54220	1	N	-	ND✓
I757280	FC6893-14	-	-	Water	21	MS54220	1	N	-	ND✓
I757281	FC6893-16	-	-	Water	22	MS54220	1	N	-	ND✓
I757282	FC6893-18	-	-	Water	23	MS54220	1	N	-	ND✓
I757283	FC6893-20	-	-	Water	24	MS54220	1	N	-	ND✓
I757284	FC6893-22	-	-	Water	25	MS54220	1	N	-	ND✓
I757285	FC6893-24	-	-	Water	26	MS54220	1	N	-	ND✓
I757286	ECC2948-5	-	-	Water	27	-	-	-	-	20uL→50mL✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP QAO29: I/P Missed Peak, O/P Overlapping Peak, S/P Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, P/I Poor Instrument





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# **Appendix C**

## **Data Validation Sheets**

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7382  
**Laboratory:** SGS North America Inc.  
**Site:** EA Seneca Army Depot  
**Sampling dates:** 06/28/2023  
**Number of Samples:** 3  
**Test Method:** SW846 8260D  
**Analysis:** VOCs

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York (June 2023).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines; DOD Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS (May 2020); DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022).

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-25-MW25-31S-20230628	FC7382-1	groundwater	S2BVM
DUP-01-20230628	FC7382-2	groundwater	S2BVM
TB_20230628	FC7382-3	trip blank	S2BVM

Table 1 provides a summary of the major and minor data quality issues identified in this data set. All data are acceptable except those results which have been qualified with "X", rejected. Data validation qualifiers along with associated descriptions are provided in Table 2. All data qualification related to this group of samples is detailed on the attached sheets.

All data users should note two facts. First, an "X" flag means that the associated value is unusable due to significant quality control (QC) problems, the data is invalid and provides no information as to whether the compound is present or not. "X" values should not appear on any data tables even as a last resort. Second, no analyte concentration, even if it passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## DATA ASSESSMENT

### 1. NARRATIVE AND COMPLETENESS REVIEW

*The case narrative was reviewed, and the data package was checked for completeness. No discrepancies were noted.*

### 2. SAMPLE DELIVERY AND CONDITION

*The samples arrived at the laboratory in acceptable condition with the following exception. Proper custody was documented.*

### 3. HOLDING TIME

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detect results will be flagged as not detected at an estimated quantitation limit, "UJ", unless the holding time is grossly exceeded (by more than two times the holding time specified), in which case non-detect results are flagged "X", rejected. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### 4. MASS SPECTROMETER TUNING

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "X". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### 5. CALIBRATION

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum relative response factor (RRF) criteria. If the RRF is less than minimum RRF specified, professional judgment is used, and all detects in the sample will be qualified as "J". All non-detects for that compound will be rejected "X". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**B) Percent Relative Standard Deviation and Percent Difference:**

Percent relative standard deviation (%RSD) is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent difference (%D) compares the response factor of the continuing calibration check to the mean RRF from the initial calibration.

Percent RSD must be less than maximum %RSD listed in the Department of Defense Quality Systems Manual or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than those listed in the Department of Defense Quality Systems Manual. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits as listed in the Department of Defense Quality Systems Manual for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. If the %RSD exceeds quality control criteria, detects may be qualified as "J" and professional judgment is used to qualify non-detects. If the %D exceeds quality control criteria, the positive results are flagged as estimated, "J" and non-detects are flagged "UJ". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion with the following exceptions.*

*The observed %D for dichlorodifluoromethane in the ICV associated with all samples in this sample delivery group (SDG) was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

*The observed %D for trichlorofluoromethane in one CCV associated with all samples in this SDG was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

**6. BLANK CONTAMINATION**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks (TB) measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank, trip blank, or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), then all associated field samples are flagged per validation guidance.

**A) Method blank contamination:**

*No problems requiring result qualification were found for this criterion.*

**B) Field/Equipment/Source blank contamination:**

*No samples were submitted as an equipment blank in association with samples in this SDG.*

**C) Trip blank contamination:**

*Sample TB\_20230628 was submitted as a trip blank in association with the samples submitted in this SDG. No problems were found for this criterion with the following exception. Toluene was positively identified. Positive sample results for the impacted analyte have been evaluated and qualified per validation guidance as appropriate.*

**D) Storage Blank associated with volatile samples only:**

*No storage blank was submitted in association with these samples.*

**7. SURROGATES**

**All samples are spiked with system monitoring compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate recovery limits were outside quality control limits established in the Department of Defense Quality Systems Manual, qualifications were applied to all the samples and analytes as shown below.**

*No problems were found for this criterion.*

**8. COMPOUND IDENTIFICATION AND QUANTIFICATION**

**Compound Identification**

**The compounds are identified on the GC/MS by using the analytes relative retention time (RRT) and ion spectra. For the results to be a positive hit the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications.**

*Target compound identifications were not reviewed at the Stage 2B level.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

**Compound Quantification**

*Target compound result quantitation was not reviewed for samples at the Stage 2B level.*

*Manual integrations were not reviewed for samples at the Stage 2B level.*



**9. MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**

**Matrix spike/matrix spike duplicate (MS/MSD) data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other quality control criteria for additional qualification of data. All MS/MSD percent recoveries must fall within the Department of Defense Quality Systems Manual limits. In addition, relative percent differences observed between results reported for the pair must be  $\leq 20\%$ .**

*Sample SEAD-25-MW25-31S-20230628 was submitted for MS/MSD pair evaluation in association with the samples in this SDG. Upon evaluation all precision and accuracy indicators were acceptable or did not result in the qualification of sample results.*

**10. INTERNAL STANDARDS PERFORMANCE**

**Internal standard performance criteria are meant to ensure that the gas chromatograph/mass spectrometer (GC/MS) sensitivity and response are stable during every experimental run.**

**The internal standard area count must not vary by more than a factor of two from the associated continuing calibration standard. The retention time of the internal standard must not vary by more than  $\pm 10$  seconds from the associated continuing calibration standard. The area count must be within a (50-200%) range of the associated standard. If the area count is greater than 200%, non-detected results are not qualified and positive results are flagged as estimated with potential negative bias, "J". If the area count is less than 50%, positive results are flagged as estimated with potential positive bias, "J", and non-detected results are flagged "UJ". If the area count is less than 20%, positive results and non-detected results will be classified as unusable "X". Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

**11. FIELD DUPLICATES**

**Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 50\%$  for the Relative Percent Difference (RPD) for solid samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.**

*Samples SEAD-25-MW25-31S-20230628 and DUP-01-20230628 were submitted as a field duplicate pair in association with this SDG. Adequate field precision was demonstrated.*

**12. LABORATORY CONTROL SAMPLES**

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous/water, soil/sediment, wipe, and filter LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control (QA/QC) procedures as employed for the samples. All LCS percent recoveries must fall within the Department of Defense Quality Systems Manual limits. Qualifications were applied to the samples and analytes as shown below.

*The LCS evaluations were performed at the appropriate frequency. No problems were found for this criterion.*

**13. DILUTIONS, RE-EXTRACTIONS & REANALYSIS**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used.

*No problems were found for this criterion.*

**14. OTHER PROBLEMS**

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Volatiles</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Mass Spectrometer Tuning	x		
Response Factor	x		
Percent Relative Standard Deviation and Percent Difference			x
Internal Standards	x		
Method Blank	x		
Equipment/Source Blank	x		
Trip Blank			x
Storage Blank	NA		
Surrogates	x		
Compound Identification	NA		
Matrix Spike/Matrix Spike Duplicate	x		
Field Duplicate	x		
Laboratory Control Samples	x		
Other Quality Control Data out of Specification	x		
Required Reporting Limits	x		

Major = Major data quality issue identified resulting in rejection of data.

Minor = Minor data quality issue identified resulting in the qualification of data. Data qualification should be used to inform the data users of data limitations.

NA = Not applicable

**Table 2 Data Validation Qualifiers**

<b>Data Qualifier</b>	<b>Definition</b>
<b>U</b>	The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.
<b>J</b>	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
<b>J+</b>	The result is an estimated quantity, but the result may be biased high.
<b>J-</b>	The result is an estimated quantity, but the result may be biased low.
<b>UJ</b>	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
<b>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

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