VIA ELECTRONIC MAIL

July 22, 2025

Karen A. Cahill
Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation R7
5786 Widewaters Parkway
Syracuse, NY 13214-1867

Subject: **Buildings 1, 5, 6, and 6A Vapor Intrusion Sampling Results – January 2025**
Former Emerson Power Transmission Site in Ithaca, New York (DER Site No. 7-55-010)

Dear Ms. Cahill:

On behalf of Emerson Electric Co. (Emerson), WSP USA Inc. (WSP) collected sub-slab soil vapor and indoor air samples in January 2025 from four onsite buildings – Buildings 1, 5, 6, and 6A - in Operable Unit 2 (OU-2) of the former Emerson Power Transmission (EPT) facility site at 620 South Aurora Street in Ithaca, New York. The samples were collected in accordance with the OU-2 Vapor Intrusion Assessment Work Plan – Revised, dated December 20, 2024, which was acknowledged by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated January 6, 2025. This report provides a summary of the sample collection methods, analytical results, a comparison of the results to the New York State Department of Health (NYSDOH) soil vapor intrusion decision matrices[1], and a comparison to previous sampling results collected in 2013 and 2024.

PREVIOUS VAPOR INTRUSION ASSESSMENTS

Sub-slab soil vapor and indoor air samples were first collected by LaBella Associates, on behalf of L Enterprises, LLC, in 2013, and then by WSP in 2023 and 2024 to assess the potential for vapor intrusion into onsite buildings. The 2013 samples were collected during the due diligence period for the sale of the property. The samples collected in 2023 were to establish current conditions for all buildings in Operable Unit 2 prior to redevelopment by the new property owner. The 2024 sampling event for Building 1 was conducted to evaluate the passive mitigation measures conducted in the basement (i.e., cleaning floors and sealing of cracks in floors and walls).

The results from these previous vapor intrusion sampling events for Buildings 1, 5, 6, and 6A are provided in Table 1 and were compared to the NYSDOH decision matrices to determine which of the following potential actions should be taken to address current and potential exposures related to soil vapor intrusion: (1) No Further Action, (2) Identify Sources and Resample or Mitigate, (3) Monitor, or (4) Mitigate. The NYSDOH has developed decision matrices for eight volatile organic compounds (VOCs); carbon tetrachloride, 1,1-dichloroethene (DCE), cis-1,2-DCE, trichloroethene (TCE), methylene chloride, tetrachloroethene, 1,1,1-trichloroethane, and vinyl chloride. Based on the previous indoor air and sub-slab soil vapor sampling events, TCE is the primary compound of concern. Data on Table 1 is color coded to indicate which action is to be taken based on the NYSDOH decision matrix.

[1] NYSDOH. Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006, and associated updates.

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JANUARY 2025 VAPOR INTRUSION ASSESSMENT

The January 2025 vapor intrusion assessment consisted of a single event in Buildings 1, 5, 6, and 6A constituting the heating season (winter/early spring) in accordance with the NYSDOH soil vapor intrusion guidance, and included the following tasks:

- Building inspections and material inventories prior to sampling in the four buildings;
- Collection of four primary and one duplicate sub-slab soil vapor samples and 3 primary indoor air samples (Building 5 indoor air sample excluded);
- Collection of one ambient (outdoor) air sample at an upwind location to evaluate potential background sources for VOCs; and
- Collection of one duplicate sample.

Sub-slab soil vapor and indoor air samples were collected at the lowest level of each building (i.e., the basement) with slab-on-grade construction.

Figures 1 and 2 show the locations of the sub-slab soil vapor and indoor air samples collected in each building as well as the previous sampling locations. All procedures described in the approved work plan (December 2024) were followed during the sampling activities; a brief summary of these procedures is included below followed by a presentation of the results.

PRE-SAMPLING ACTIVITIES

A pre-sampling site inspection and materials inventory were conducted on December 31, 2024, one week before the planned sampling date which provided sufficient time for VOCs emitted from stored products that were subsequently removed from the building or sealed in plastic bags to dissipate. During the site inspection, WSP evaluated the building layouts and construction, conducted an inventory of materials and equipment stored in each building, and completed NYSDOH's indoor air quality questionnaire and building inventory forms (Enclosure A).

The inspection included an evaluation of potential preferential pathways for VOCs to enter the structures, such as areas of exposed subsurface, cracks in the slab and foundation, elevator pits, tunnels, and utility penetrations. During the pre-sampling inspection, known locations of building footers, underground utilities, and other below grade structures (e.g., vaults, tunnels) were noted on the inventory forms.

SAMPLING ACTIVITIES

Sample collection was conducted over an 8-hour period on January 6, 2025. Before each sub-slab soil vapor sample was collected, a pre-sample purge was conducted to remove dilution air from the tubing and probe assembly attached to a 6-liter canister. The evacuated, laboratory-certified clean, 6-liter canister's valve was then opened initiating sample collection, and the initial vacuum reading, ambient temperature, and barometric pressure were recorded. Also, the differential pressure between the sub-slab and indoor air space were recorded at each sub-slab soil vapor sample location. Once the required pressure was reached on the regulator (between 2 to 10 inches of mercury [in. Hg] on the regulator dial), the final vacuum reading, ambient temperature, and barometric pressure were recorded, and sample collection was completed by closing the canister valve. The sample train was then disassembled and the Vapor Pin® port closed. The ambient temperature, barometric pressure, and differential pressure readings collected during this sampling event are summarized in Enclosure B.

Indoor air samples were collected concurrently with the sub-slab soil vapor samples to evaluate the potential for vapor intrusion of VOCs into each building. In addition, one outdoor (ambient) air sample was collected upwind of the buildings concurrently with the indoor air samples to assess site-specific background outdoor air quality. The approximate location of the outdoor air sample is shown on Figure 2. The indoor and outdoor air samples were collected using evacuated, laboratory-certified clean, 6-liter canisters placed approximately 5 feet above ground surface to be representative of the breathing zone.

All samples were labeled and placed in a shipping container for transport under ambient conditions to ALS Environmental in Simi Valley, California (ALS), under strict chain-of-custody procedures. ALS analyzed the samples for VOCs by U.S. Environmental Protection Agency (EPA) Method TO-15 using standard or low-level scan modes depending on the compound.

QUALITY ASSURANCE/QUALITY CONTROL

Quality assurance/quality control (QC) procedures were followed to ensure sample integrity and data quality. All canisters were submitted under ambient conditions to ALS under strict chain-of-custody procedures. ALS is accredited through the New York State Environmental Laboratory Approval Program (ELAP) to perform analysis of VOCs in air samples by EPA Method TO-15 (ELAP ID 11221). In addition, the analytical results were validated by a WSP chemist. The data usability summary report is provided in Enclosure C.

Before use in the field, sampling canisters were individually certified cleaned by ALS. This certification involved cleaning the canister units using a combination of heat, dilution, and high vacuum. Each canister unit was analyzed for VOCs after the cleaning process by allowing it to fill with analyte-free air then analyzing the air using gas chromatography/mass spectrometry. If no VOC was detected at concentrations above the canister cleaning QC acceptance criteria, then the canister was evacuated again and was deemed ready for sampling. If any VOC was detected at a concentration above the QC acceptance criteria, then the canister unit was re-cleaned. ALS noted in their case narrative that the containers were cleaned, prior to sampling, down to the method reporting limit for this project.

Before initiating sub-slab soil vapor and indoor air sampling, the initial vacuum of each canister was checked to make sure it was at least approximately 25 in. Hg. If a canister was initially found to contain less vacuum, it may indicate that a leak had occurred in transit. Prior to sampling, the canisters used for the sub-slab soil vapor and indoor air samples at the site were confirmed to have vacuum between 26 and 30 in. Hg.

Duplicate sub-slab and indoor air samples were planned for collection from Building 6A using “T-splitters” provided by the laboratory. However, during sampling, a leak from the regulator connection resulted in an accelerated vacuum loss in the indoor air sample canister. Therefore, the sample originally collected as the indoor air sample duplicate was relabeled as the primary indoor air sample from Building 6A. A duplicate of the sub-slab sample from Building 6A was collected as planned.

SAMPLING RESULTS

The results for the sub-slab soil vapor, indoor air, and outdoor (ambient) air samples are provided in Table 1. The laboratory data package and data usability summary report prepared by the WSP chemist are included as Enclosure C.

The eight compounds of concern (COCs) previously identified for this site are shown at the top of the table with the remaining VOCs included below. The results for the eight site-specific COCs are also provided on Figures 1 and 2. Of the eight COCs, TCE had the highest concentrations in the sub-slab vapor and indoor air samples. Concentrations in the sub-slab soil vapor ranged from 1.3 µg/m^3 (Building 6A) to 23 µg/m^3 (Building 1) and in the indoor air from 0.93 µg/m^3 (Building 5) to 1.4 µg/m^3 (Building 1).

Table 1 includes a comparison of the sampling results to the applicable NYSDOH decision matrix and the potential actions to be taken (color coded). Similar color coding is used on Figures 1 and 2. The only onsite building that is currently occupied is the first floor in Building 1. The NYSDOH decision matrix recommends mitigation in the basement/lower level of Building 1 based on the concentration of TCE in the sub-slab soil vapor and indoor air samples.

RECOMMENDATIONS

The results for Building 1 indicate mitigation. The first floor of Building 1 is used periodically by the developer’s personnel as office space. The basement of Building 1 is not occupied and is not planned for renovation in the near future. Therefore, WSP will develop a mitigation strategy that is protective of workers on the first floor.

The results for Buildings 5, 6, and 6A indicate further monitoring. These buildings are currently under renovation for a commercial entity to occupy the space in September 2025. WSP is preparing a work plan for pre-occupancy vapor intrusion sampling to be conducted in late August 2025. After occupancy, Buildings 5, 6, and 6A will be monitored on an annual basis during the heating season. Future actions for these buildings will be taken based on the monitoring results.

If you have any questions regarding the enclosed information, please contact us.

Sincerely yours,

David A. Rykaczewski
Vice President

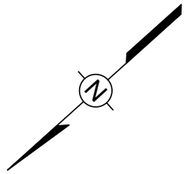
Lisa Kelly
Vice President

LKK:DAR
\\corp.pbwan.net\us\environmental\ES-JoinClients\Emerson\ITHACA_$$RD-RA\Vapor Intrusion\Reports\January 2025 Event\letter.hw755010.2025-07-22.VI Results Onsite Buildings 1, 5, 6, 6A.docx

Enclosures

cc/encl: Stephen L. Clarke, Emerson (electronic copy)
Anthony Perretta, NYSDOH (electronic copy)

FIGURES

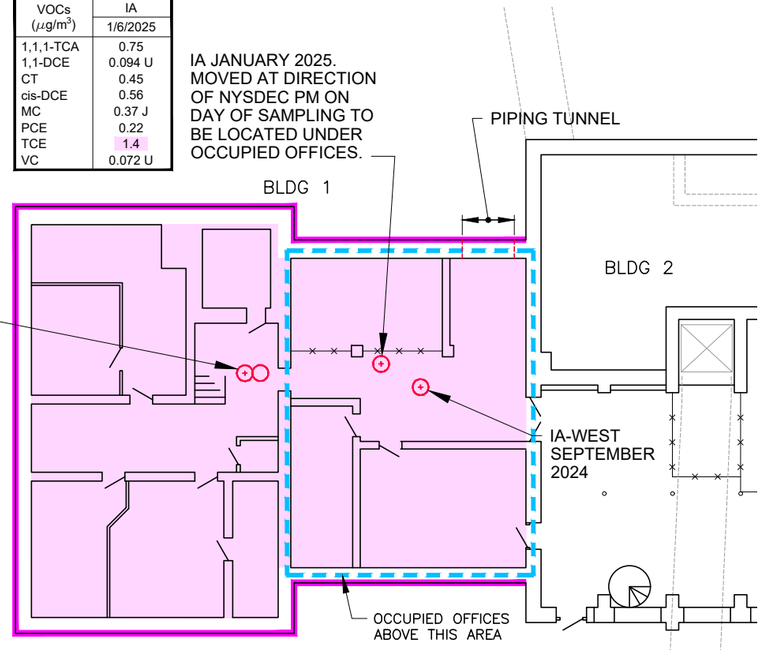


Bldg. 1 - Basement/Lower	
VOCs ($\mu g/m^3$)	IA
	1/6/2025
1,1,1-TCA	0.75
1,1-DCE	0.094 U
CT	0.45
cis-DCE	0.56
MC	0.37 J
PCE	0.22
TCE	1.4
VC	0.072 U

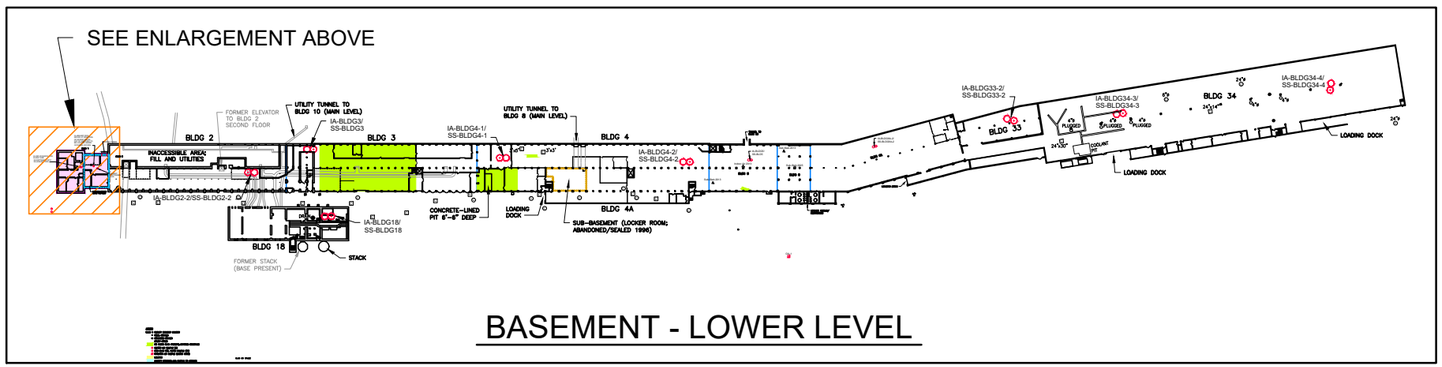
IA JANUARY 2025.
MOVED AT DIRECTION
OF NYSDEC PM ON
DAY OF SAMPLING TO
BE LOCATED UNDER
OCCUPIED OFFICES.

IA AND SS MARCH 2023;
IA-EAST AND
SS-SEPTEMBER 2024;
SS-JANUARY 2025

Bldg. 1 - Basement/Lower	
VOCs ($\mu g/m^3$)	SS
	1/6/2025
1,1,1-TCA	20
1,1-DCE	0.14
CT	0.47
cis-DCE	1.2
MC	0.24 J
PCE	2.4
TCE	23
VC	0.079 U



0 10 20 40
SCALE, FEET



BASEMENT - LOWER LEVEL

0 100 200 400
SCALE, FEET

NYSDOH
SOIL VAPOR / INDOOR AIR MATRICES
MAY 2017

MATRIX A: Trichloroethene (TCE), cis-1,2-Dichloroethene (cis-DCE), 1,1-Dichloroethene (1,1-DCE) Carbon Tetrachloride (CT)

	INDOOR AIR CONCENTRATION OF COMPOUND ($\mu g/m^3$)		
SUB-SLAB VAPOR CONCENTRATION OF COMPOUND ($\mu g/m^3$)	< 0.2	0.2 to < 1	1 AND ABOVE
< 6	1. NO FURTHER ACTION	2. NO FURTHER ACTION	3. IDENTIFY SOURCE(S) AND RESAMPLE, OR MITIGATE
6 to < 60	4. NO FURTHER ACTION	5. MONITOR	6. MITIGATE
60 AND ABOVE	7. MITIGATE	8. MITIGATE	9. MITIGATE

MATRIX B: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (1,1,1-TCA), Methylene Chloride (MC)

	INDOOR AIR CONCENTRATION OF COMPOUND ($\mu g/m^3$)		
SUB-SLAB VAPOR CONCENTRATION OF COMPOUND ($\mu g/m^3$)	< 3	3 to < 10	10 AND ABOVE
< 100	1. NO FURTHER ACTION	2. NO FURTHER ACTION	3. IDENTIFY SOURCE(S) AND RESAMPLE, OR MITIGATE
100 to < 1,000	4. NO FURTHER ACTION	5. MONITOR	6. MITIGATE
1,000 AND ABOVE	7. MITIGATE	8. MITIGATE	9. MITIGATE

MATRIX C: Vinyl Chloride (VC)

	INDOOR AIR CONCENTRATION OF COMPOUND ($\mu g/m^3$)	
SUB-SLAB VAPOR CONCENTRATION OF COMPOUND ($\mu g/m^3$)	< 0.2	0.2 AND ABOVE
< 6	1. NO FURTHER ACTION	3. IDENTIFY SOURCE(S) AND RESAMPLE, OR MITIGATE
6 to < 60	4. MONITOR	4. MITIGATE
60 AND ABOVE	5. MITIGATE	6. MITIGATE

LEGEND

- BLDG 6 FACILITY BUILDING NUMBER
- STEEL COLUMN
- CONCRETE COLUMN
- UTILITY COVER
- NO FLOOR SLAB PRESENT; EXPOSED SUBGRADE
- INDOOR AIR SAMPLE (IA)
- SUB-SLAB SOIL VAPOR SAMPLE (SS)
- OUTDOOR AIR SAMPLE (MARCH 2023)
- MONITOR
- IDENTIFY SOURCES AND SAMPLE OR MITIGATE
- MITIGATE
- SLAB ON GRADE
- OCCUPIED OFFICES ABOVE THIS AREA
- 1,1,1-TCA 1,1,1-TRICHLOROETHANE
- 1,1-DCE 1,1-DICHLOROETHENE
- CT CARBON TETRACHLORIDE
- cis-DCE cis-1,2-DICHLOROETHENE
- MC METHYLENE CHLORIDE
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- VC VINYL CHLORIDE

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

Drawn By: RAT 06/25/2025
Checked: NSH 06/25/2025
Approved:
Dwg Name: 314P5608.001-B43

FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

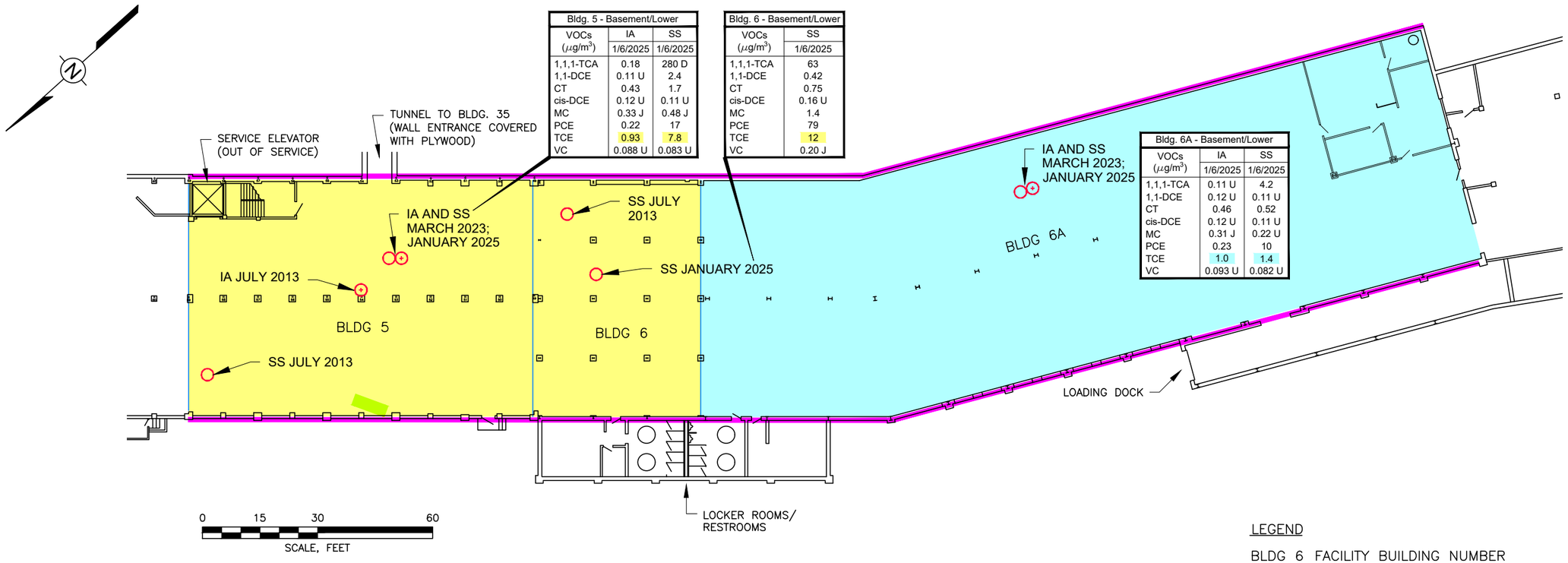
FIGURE 1

BUILDING 1 BASEMENT
INDOOR AIR/SUB-SLAB SAMPLE LOCATIONS

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11 STANWIX STREET
SUITE 950
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TEL: +1 412.604.1040

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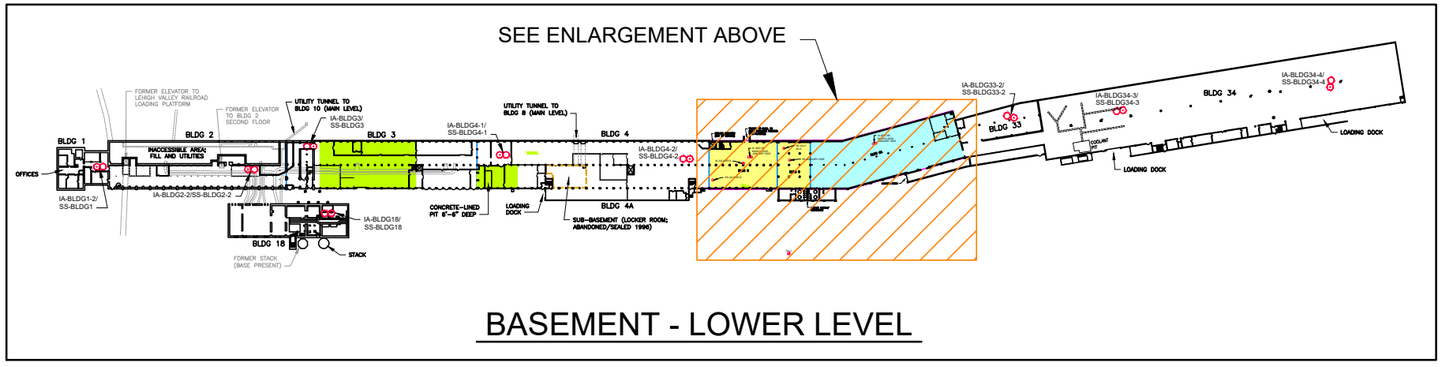
Bldg. 5 - Basement/Lower		
VOCs ($\mu g/m^3$)	IA	SS
	1/6/2025	1/6/2025
1,1,1-TCA	0.18	280 D
1,1-DCE	0.11 U	2.4
CT	0.43	1.7
cis-DCE	0.12 U	0.11 U
MC	0.33 J	0.48 J
PCE	0.22	17
TCE	0.93	7.8
VC	0.088 U	0.083 U

Bldg. 6 - Basement/Lower	
VOCs ($\mu g/m^3$)	SS
	1/6/2025
1,1,1-TCA	63
1,1-DCE	0.42
CT	0.75
cis-DCE	0.16 U
MC	1.4
PCE	79
TCE	12
VC	0.20 J

Bldg. 6A - Basement/Lower		
VOCs ($\mu g/m^3$)	IA	SS
	1/6/2025	1/6/2025
1,1,1-TCA	0.11 U	4.2
1,1-DCE	0.12 U	0.11 U
CT	0.46	0.52
cis-DCE	0.12 U	0.11 U
MC	0.31 J	0.22 U
PCE	0.23	10
TCE	1.0	1.4
VC	0.093 U	0.082 U

OUTDOOR AIR	
VOCs ($\mu g/m^3$)	OA-1
	1/6/2025
1,1,1-TCA	0.088 U
1,1-DCE	0.099 U
CT	0.45
cis-DCE	0.10 U
MC	0.33 J
PCE	0.092 U
TCE	0.096 U
VC	0.076 U

OA-1



LEGEND

- BLDG 6 FACILITY BUILDING NUMBER
- FACILITY BUILDING BOUNDARY (IF INTERIOR WALL NOT PRESENT)
- STEEL COLUMN
- CONCRETE COLUMN
- UTILITY COVER
- NO FLOOR SLAB PRESENT; EXPOSED SUBGRADE
- INDOOR AIR SAMPLE (IA)
- SUB–SLAB SOIL VAPOR SAMPLE (SS)
- OUTDOOR AIR SAMPLE (MARCH 2023)
- MONITOR
- IDENTIFY SOURCES AND SAMPLE OR MITIGATE
- MITIGATE
- SLAB ON GRADE
- 1,1,1-TCA 1,1,1–TRICHLOROETHANE
- 1,1-DCE 1,1–DICHLOROETHENE
- CT CARBON TETRACHLORIDE
- cis-DCE cis–1,2–DICHLOROETHENE
- MC METHYLENE CHLORIDE
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- VC VINYL CHLORIDE

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE REPRODUCTION MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

Drawn By: RAZ 06/25/2025
Checked: NSH 06/25/2025
Approved:
Dwg Name: 314P5608.001–B42

FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK
PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

FIGURE 2

BUILDINGS 5, 6, AND 6A
INDOOR AIR/SUB–SLAB SAMPLE LOCATIONS

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11 STANWIX STREET
SUITE 950
PITTSBURGH, PA 15222
TEL: +1 412.604.1040

B

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TABLES

Table 1

Indoor Air and Sub-Slab Soil Vapor Sample Results
Buildings 1, 5, 6, and 6A
Former Emerson Power Transmission
Ithaca, New York (a)

Building Number:	Building 1										Building 5						Building 6 (f)		Building 6A				
Building Level:	Basement/Lower										Basement/Lower						Basement/Lower		Basement/Lower				
Sample Date (b):	7/29/2013 (d)		3/16/2023		8/14/2024	9/6/2024			1/6/2025		7/29/2013 (d)		3/16/2023		1/6/2025		7/29/2013	1/6/2025	3/16/2023		1/6/2025		
Sample Type:	SS	IA	SS	IA	IA	SS	IA (W)	IA (E)	SS	IA	SS	IA	SS	IA	SS	IA (e)	SS		SS	IA	SS	SS (DUP)	IA
VOCs (µg/m^3) (c)																							
1,1,1-Trichloroethane	78	1.2	6.8	0.47	1.3	25	0.48 J	0.48 J	20	0.75	1.2	6.2	300 D	0.1 J	280 D	0.18	31	63	5.5	0.15 U	4.2	4.2	0.11 U
1,2-Dichloroethane	ND	ND	0.19 U	0.17 U	0.085 U	0.38 U	0.38 U	0.38 U	0.082 U	0.075 U	ND	ND	0.17 U	0.16 U	0.086 U	0.091 U	ND	0.13 U	0.18 U	0.087 J	0.085 U	0.085 U	0.096 U
cis-1,2-Dichloroethene	3.8	2.3	1.4	0.18	1.2	0.62	0.16 J	0.10 J	1.2	0.56	0.97	3.9	0.17 U	0.16 U	0.11 U	0.12 U	1.5	0.16 U	0.18 U	0.15 U	0.11 U	0.11 U	0.12 U
Methylene chloride	0.53 U	1.0 U	5.7	0.41 J	0.30 J	0.63 U	0.63 U	0.63 U	0.24 J	0.37 J	0.46	2.6	6.4	0.39 J	0.48 J	0.33 J	0.53 U	1.4	5.2	0.41 J	0.22 U	0.22 U	0.31 J
Tetrachloroethene	1.0 U	1.5	2.6	0.32	0.87	5.6	0.18 J	0.15 J	2.4	0.22	1.5	3.5	21	0.32	17	0.22	2.4	79	53	0.31	10	10	0.23
trans-1,2-Dichloroethene	NA	NA	0.19 U	0.17 U	0.11	0.091 U	0.091 U	0.091 U	0.10 U	0.094 U	NA	NA	0.17 U	0.16 U	0.11 U	0.11 U	NA	0.16 U	0.18 U	0.15 U	0.11 U	0.11 U	0.12 U
Trichloroethene	2.5	2.4	29	1.3	5.6	45	1.2	1.0	23	1.4	22	80	9.9	0.76	7.8	0.93	32	12	2.5	0.69	1.4	1.3	1.0
Vinyl chloride	0.39 U	0.10 U	0.42	0.17 U	0.082 U	0.054 U	0.054 U	0.054 U	0.079 U	0.072 U	0.39 U	0.10 U	0.22	0.16 U	0.083 U	0.088 U	0.39 U	0.20 J	0.15 J	0.15 U	0.082 U	0.082 U	0.093 U
Carbon tetrachloride	ND	0.45	0.54	0.44	0.41	0.43	0.36	0.31	0.47	0.45	ND	0.51	2.2	0.47	1.7	0.43	ND	0.75	0.58	0.48	0.52	0.51	0.46
1,1-Dichloroethene	0.60 U	0.60 U	0.19 U	0.17 U	0.11 U	0.10 U	0.10 U	0.25	0.14	0.094 U	0.60 U	0.60 U	0.17 U	0.16 U	2.4	0.11 U	0.60 U	0.42	0.22	0.15 U	0.11 U	0.11 U	0.12 U
1,1-Dichloroethane	20	ND	1.8	0.18	0.28 J	2.3	0.10 U	0.21 J	9.6	0.54	ND	0.95	22	0.16 U	19	0.12 U	2.8	6.3	0.18 U	0.15 U	0.11 U	0.11 U	0.13 U

	Outdoor Air				
Sample Date (b):	7/29/2013	3/16/2023	8/14/2024	9/6/2024	1/6/2025
VOCs (µg/m^3) (c)					
1,1,1-Trichloroethane	ND	0.14 U	0.097 U	0.24 U	0.088 U
1,2-Dichloroethane	ND	0.089 J	0.087 U	0.38 U	0.079 U
cis-1,2-Dichloroethene	ND	0.14 U	0.18	0.083 U	0.10 U
Methylene chloride	ND	0.39 J	0.29 J	0.63 U	0.33 J
Tetrachloroethene	ND	0.12 J	0.15 J	0.14 U	0.092 U
trans-1,2-Dichloroethene	NA	0.14 U	0.11 U	0.091 U	0.099 U
Trichloroethene	ND	0.14 U	0.11 U	0.13 U	0.096 U
Vinyl chloride	ND	0.14 U	0.084 U	0.054 U	0.076 U
Carbon tetrachloride	ND	0.46	0.44	0.29	0.45
1,1-Dichloroethene	NA	0.14 U	0.11 U	0.10 U	0.099 U
1,1-Dichloroethane	ND	0.14 U	0.11 U	0.10 U	0.10 U

a\ U = not detected (method detection limit provided); D = diluted; J = estimated concentration; ND = not detected (laboratory method detection limit not available); NSA= not analyzed; IA = Indoor Air; SS = Sub-Slab; VOCs = volatile organic compounds; µg/m^3 = microgram per cubic meter; W = West; E = East; Du = Duplicate
b\ 2013 samples were collected by LaBella & Associates
c\ The first eight compounds are the site-related chlorinated VOCs; the remaining three chlorinated VOCs are also regulated by the New York State Department of Health
d\ Location for the indoor air and sub-slab vapor samples collected in 2013 are not in the same location as in 2023 and 2025.
e\ Indoor air sample was collected at a location in Buildings 5 since the buildings 5 and 6 were open to each other.
f\ Building 6 SS data coupled with Building 5 IA data for matrix determination.

The following color codes are based on the New York State Department of Health 2006 Soil Vapor Intrusion Guidance document Soil Vapor/Indoor Air Matrices (and any updates)

Mitigate
Monitor
Identify Sources and Sample or Mitigate
No Further Action

ENCLOSURE A – INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY FORMS

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kevin Griswold Date/Time Prepared 12/31/2024 @ 0800

Preparer's Affiliation WSP Phone No. (607)351-8239

Purpose of Investigation 2025 Pre-Occupancy Vapor Intrusion Assessment

1. OCCUPANT:

Interviewed: Y /(N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y /(N)

Last Name: _____First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
(Industrial)	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Former manufacturing (automotive and power transmission components)

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 5 Building age 100+

Is the building insulated? (Y) / N How air tight? (Tight) / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

N/A; airflow testing not evaluated during vapor intrusion assessment

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	(wood frame)	(concrete)	stone	(brick) (steel/iron)
b. Basement type:	(full)	crawlspace	slab	other _____
c. Basement floor:	(concrete)	dirt	stone	other _____
d. Basement floor:	uncovered	covered	(covered with linoleum flooring in offices)	
e. Concrete floor:	(unsealed)	sealed	sealed with _____	
f. Foundation walls:	(poured)	block	stone	other _____
g. Foundation walls:	(unsealed)	sealed	sealed with _____	
h. The basement is:	wet	damp	(dry)	moldy
i. The basement is:	(finished)	unfinished	partially finished	
j. Sump present?	Y / (N)			
k. Water in sump?	Y / N / (not applicable)			

Basement/Lowest level depth below grade: 11.1 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Utilities present including stormwater, water, sewer, steam, electric etc. Numerous slab, interior and exterior wall penetrations present for these utilities.

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	(Steam radiation)	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor (Other Building 18)

Air conditioning: (Central Air) Window units Open Windows None

Are there air distribution ducts present? (Y) / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Ductwork present above drop ceiling in office areas

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom (Almost Never)

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
	****Current usage/occupancy on office levels 1st-4th****
Basement	Office support systems (e.g. servers, telephone dist.) (most recent usage/occupancy)
1st Floor	**Reception, Offices**
2nd Floor	**Offices**
3rd Floor	**Offices**
4th Floor	**Offices**

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / (N)

b. Does the garage have a separate heating unit? Y / N / (NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / (N) / NA Please specify_____

d. Has the building ever had a fire? Y / (N) When?_____

e. Is a kerosene or unvented gas space heater present? Y / (N) Where? _____

f. Is there a workshop or hobby/craft area? Y / (N) Where & Type? _____

g. Is there smoking in the building? Y / (N) How frequently? _____

h. Have cleaning products been used recently? Y / (N) When & Type? _____

i. Have cosmetic products been used recently? Y / (N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y /(N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y /(N) Where & When? _____

l. Have air fresheners been used recently? Y /(N) When & Type? _____

m. Is there a kitchen exhaust fan? Y /(N) If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y /(N) If yes, where vented?_____

o. Is there a clothes dryer? Y /(N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y /(N) When & Type?_____

Are there odors in the building? Y /(N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? (Y)/ N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Current usage limited to maintenance activities, additional historical usage present throughout facility

If yes, are their clothes washed at work? Y /(N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y /(N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

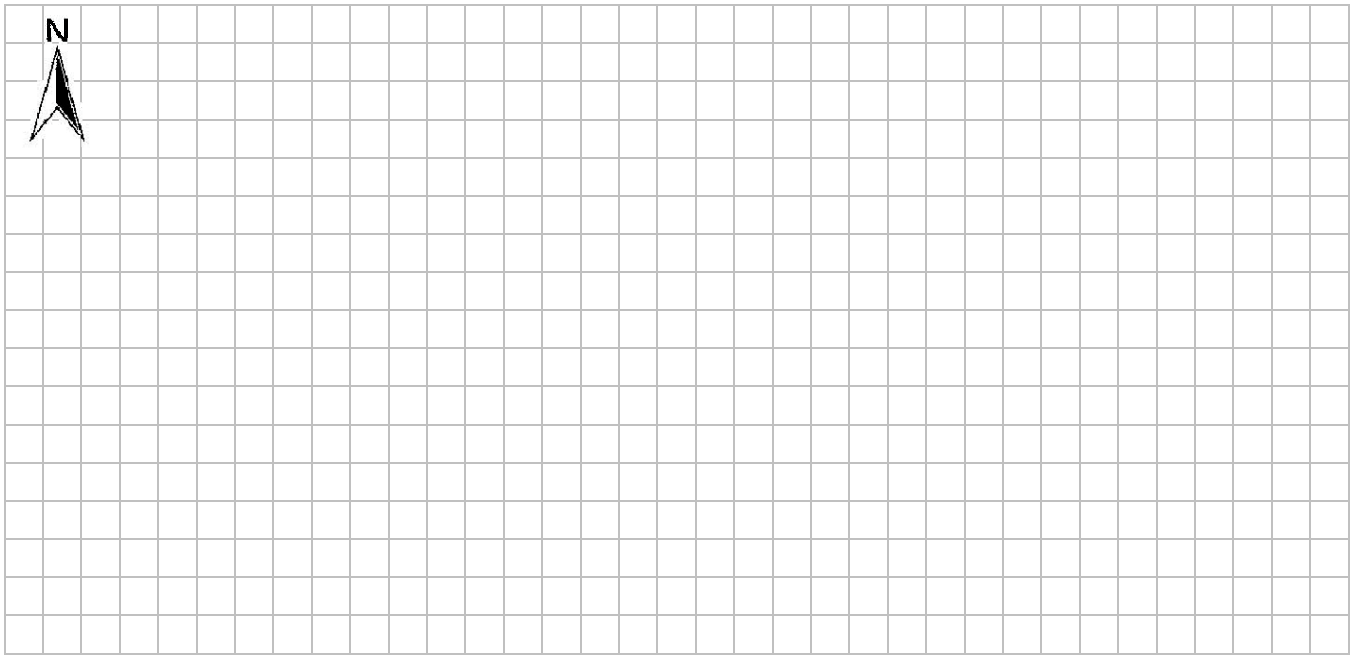
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

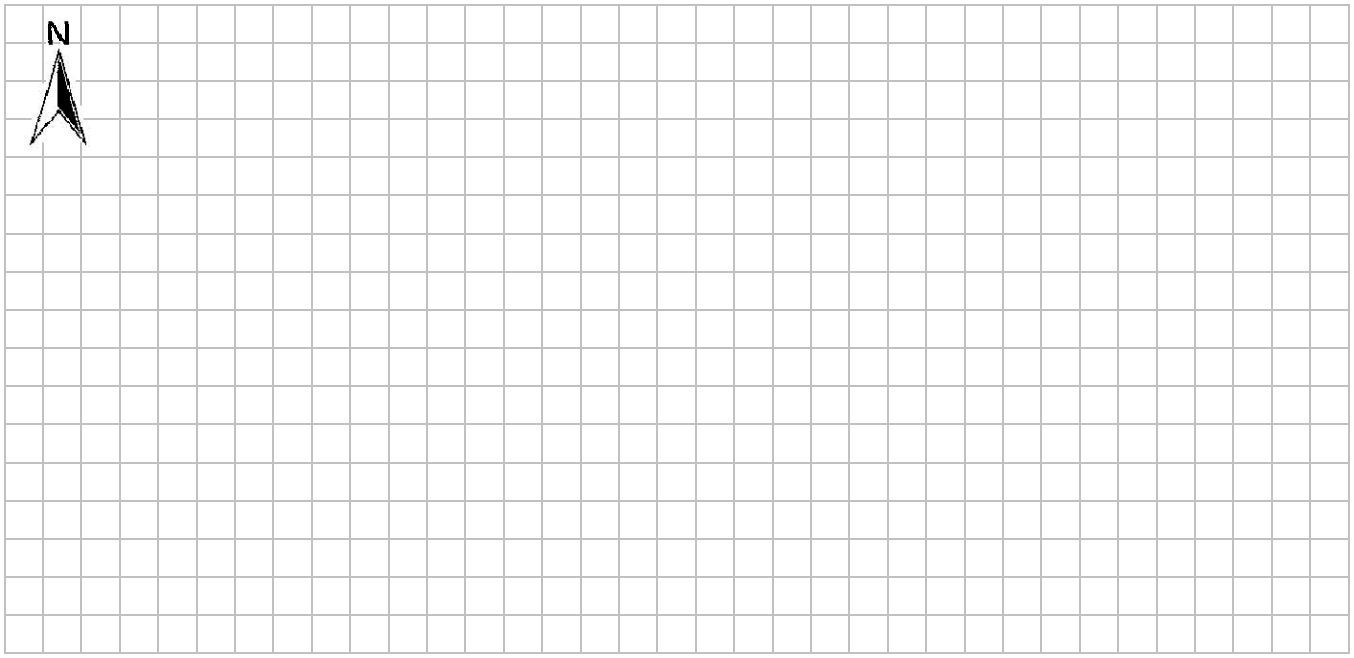
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: RAE Systems ppbRAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.
Background PID in Basement was 0ppm. No products found in Basement.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kevin Griswold Date/Time Prepared 12/31/2024 @ 0900

Preparer's Affiliation WSP Phone No. (607)351-8239

Purpose of Investigation 2025 Pre-Occupancy Vapor Intrusion Assessment

1. OCCUPANT:

Interviewed: Y /(N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y /(N)

Last Name: _____First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
(Industrial)	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Former manufacturing (automotive and power transmission components)

Does it include residences (i.e., multi-use)? Y /(N) If yes, how many? _____

Other characteristics:

Number of floors 5* Building age 100+

Is the building insulated? Y /(N) How air tight? Tight /(Average)/ Not Tight

*Building 6 included with questionnaire and inventory consists of 2 floors

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

N/A; airflow testing not evaluated during vapor intrusion assessment

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	(concrete)	stone	brick	(steel/iron)
b. Basement type:	(full)	crawlspace	slab	other _____	
c. Basement floor:	(concrete)	dirt	stone	other _____	
d. Basement floor:	uncovered	covered	covered with _____		
e. Concrete floor:	(unsealed)	sealed	sealed with _____		
f. Foundation walls:	(poured)	block	stone	other _____	
g. Foundation walls:	(unsealed)	sealed	sealed with _____		
h. The basement is:	wet	(damp)	dry	moldy	
i. The basement is:	(finished)	unfinished	partially finished		
j. Sump present?	Y /(N)				
k. Water in sump?	Y / N /(not applicable)				

Basement/Lowest level depth below grade: ~15 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Utilities present including stormwater, water, steam, electric etc. Numerous slab, interior and exterior wall penetrations present for these utilities.

Tunnel present between Buildings 5 and 35.

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	(Steam radiation)	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	(Other) Building 18
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y /(N)

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom (Almost Never)

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
	****Current usage/occupancy limited to 2nd floor****
Basement	Dept. 116A Specialty Chain (most recent usage/occupancy)
1st Floor	Chain Assembly Production (most recent usage/occupancy)
2nd Floor	**Offices and Conference Room (current usage)**
3rd Floor	Carpenter's Shop (most recent usage/occupancy)
4th Floor	Storage (most recent usage/occupancy)

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y /(N)

b. Does the garage have a separate heating unit? Y / N /(NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y /(N)/ NA Please specify_____

d. Has the building ever had a fire? Y /(N) When?_____

e. Is a kerosene or unvented gas space heater present? Y /(N) Where? _____

f. Is there a workshop or hobby/craft area? Y /(N) Where & Type? _____

g. Is there smoking in the building? Y /(N) How frequently? _____

h. Have cleaning products been used recently? Y /(N) When & Type? _____

i. Have cosmetic products been used recently? Y /(N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y /(N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y /(N) Where & When? _____

l. Have air fresheners been used recently? Y /(N) When & Type? _____

m. Is there a kitchen exhaust fan? Y /(N) If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y /(N) If yes, where vented?_____

o. Is there a clothes dryer? Y /(N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y /(N) When & Type?_____

Are there odors in the building? Y /(N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? (Y)/ N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Current usage limited to maintenance activities, additional historical usage present throughout facility

If yes, are their clothes washed at work? Y /(N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y /(N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

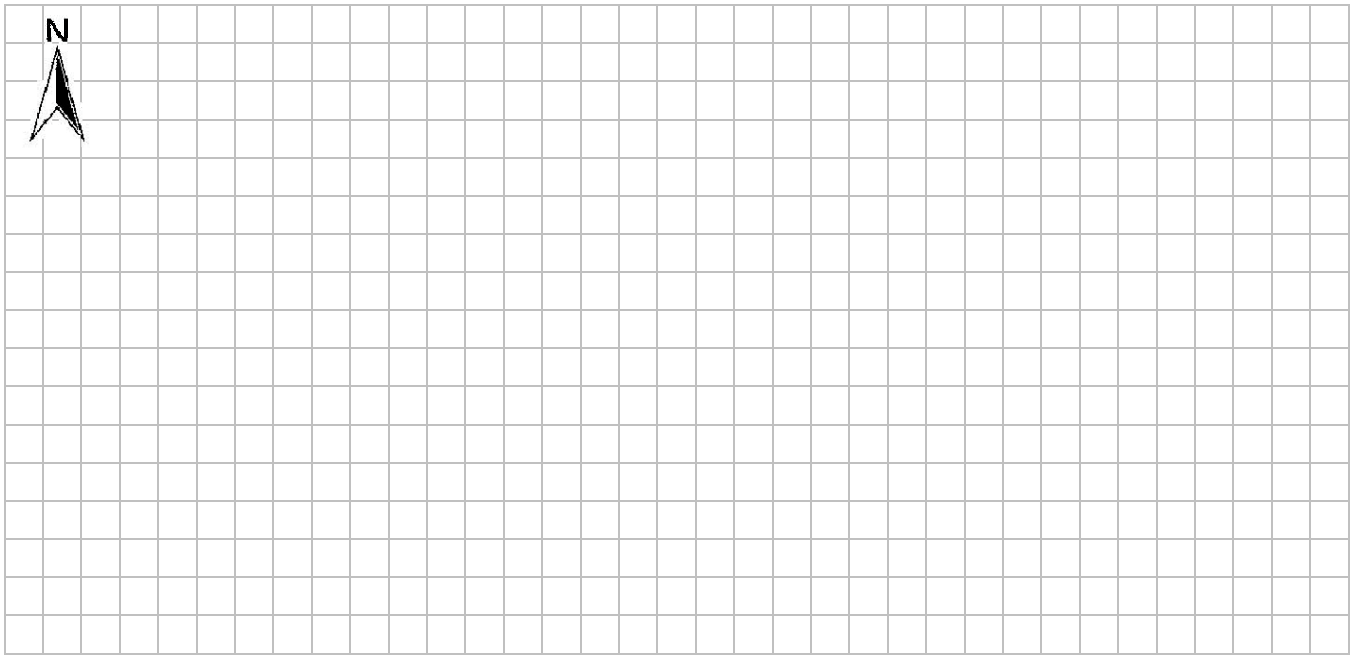
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

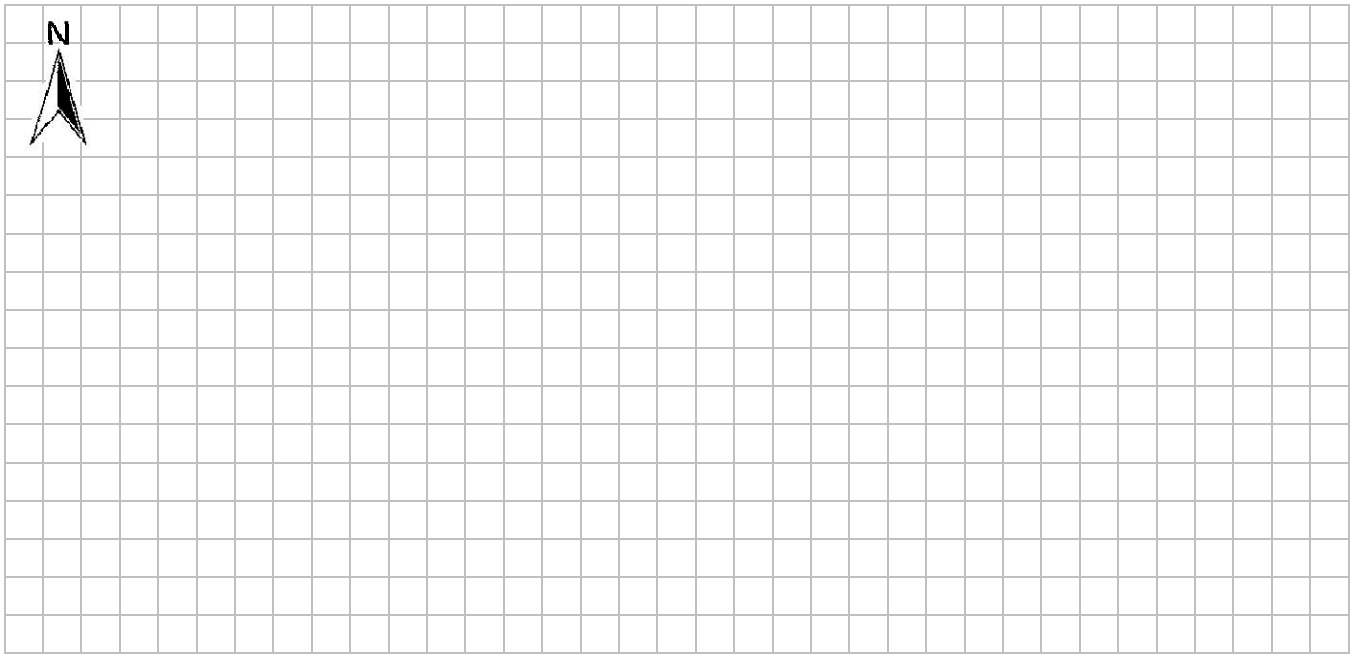
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: RAE Systems ppbRAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.
Background PID in Basement = 0.0ppm. No products found in Basement of 5/6.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

OSR – 3

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Kevin Griswold Date/Time Prepared 12/31/2024 0915

Preparer's Affiliation WSP Phone No. 607-351-8239

Purpose of Investigation 2025 Pre-Occupancy Vapor Intrusion Assessment

1. OCCUPANT:

Interviewed: Y /(N)

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y /(N)

Last Name: _____First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	Commercial/Multi-use
(Industrial)	Church	Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other:_____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Former manufacturing (automotive and power transmission components)

Does it include residences (i.e., multi-use)? Y /(N) If yes, how many? _____

Other characteristics:

Number of floors 2 Building age 50+

Is the building insulated? Y /(N) How air tight? Tight /(Average) / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

N/A; airflow testing not evaluated during vapor intrusion assessment

Airflow between floors

_____

_____

_____

Airflow near source

_____

_____

_____

Outdoor air infiltration

_____

_____

_____

Infiltration into air ducts

_____

_____

_____

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction:	wood frame	(concrete)	stone	brick	(steel)
b. Basement type:	full	crawlspace	slab	(other) partial	
c. Basement floor:	(concrete)	dirt	stone	other _____	
d. Basement floor:	uncovered	covered	covered with _____		
e. Concrete floor:	(unsealed)	sealed	sealed with _____		
f. Foundation walls:	(poured)	block	stone	other _____	
g. Foundation walls:	(unsealed)	sealed	sealed with _____		
h. The basement is:	wet	damp	(dry)	moldy	
i. The basement is:	(finished)	unfinished	partially finished		
j. Sump present?	Y /(N)				
k. Water in sump?	Y / N /(not applicable)				

Basement/Lowest level depth below grade: ~15 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Utilities present including stormwater, water, steam, electric etc. Numerous slab, interior and exterior wall penetrations present for these utilities.

_____

_____

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard	
Space Heaters	(Steam radiation)	Radiant floor	
Electric baseboard	Wood stove	Outdoor wood boiler	Other _____

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in:	Basement	Outdoors	Main Floor	(Other) Building 18
Air conditioning:	Central Air	Window units	Open Windows	None

Are there air distribution ducts present? Y /(N)

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_____

_____

_____

_____

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom (Almost Never)

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** ****No current usage/occupancy****
Basement	Dept. 116A Specialty Chain (most recent usage/occupancy)
1st Floor	Dept. 115/116 Roller Chain & Silent/HV Chain Assembly, Warehouse (most recent usage/occupancy)
2nd Floor	_____
3rd Floor	_____
4th Floor	_____

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y /(N)

b. Does the garage have a separate heating unit? Y / N /(NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y /(N)/ NA Please specify_____

d. Has the building ever had a fire? Y /(N) When?_____

e. Is a kerosene or unvented gas space heater present? Y /(N) Where? _____

f. Is there a workshop or hobby/craft area? Y /(N) Where & Type? _____

g. Is there smoking in the building? Y /(N) How frequently? _____

h. Have cleaning products been used recently? Y /(N) When & Type? _____

i. Have cosmetic products been used recently? Y /(N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y /(N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y /(N) Where & When? _____

l. Have air fresheners been used recently? Y /(N) When & Type? _____

m. Is there a kitchen exhaust fan? Y /(N) If yes, where vented?_____

n. Is there a bathroom exhaust fan? Y /(N) If yes, where vented?_____

o. Is there a clothes dryer? Y /(N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y /(N) When & Type?_____

Are there odors in the building? Y /(N)
If yes, please describe: _____

Do any of the building occupants use solvents at work? (Y)/ N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Current usage limited to maintenance activities, additional historical usage present throughout facility

If yes, are their clothes washed at work? Y /(N)

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) (No)
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y /(N) Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

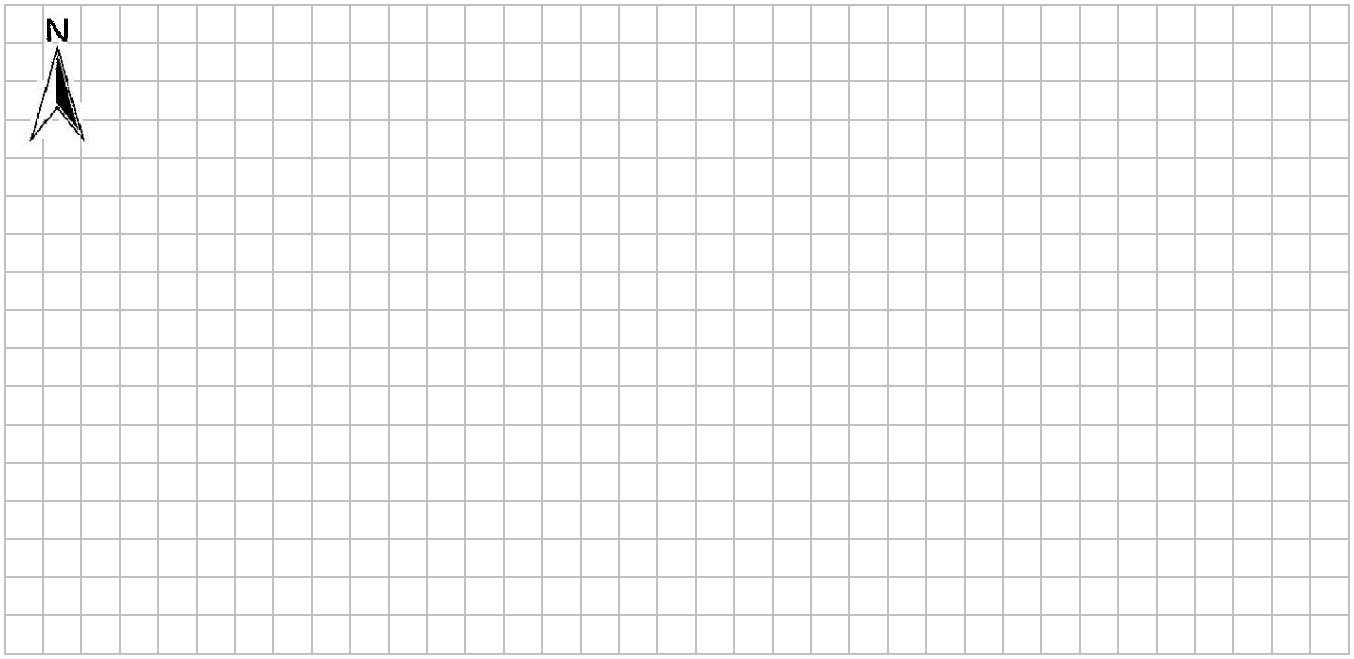
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

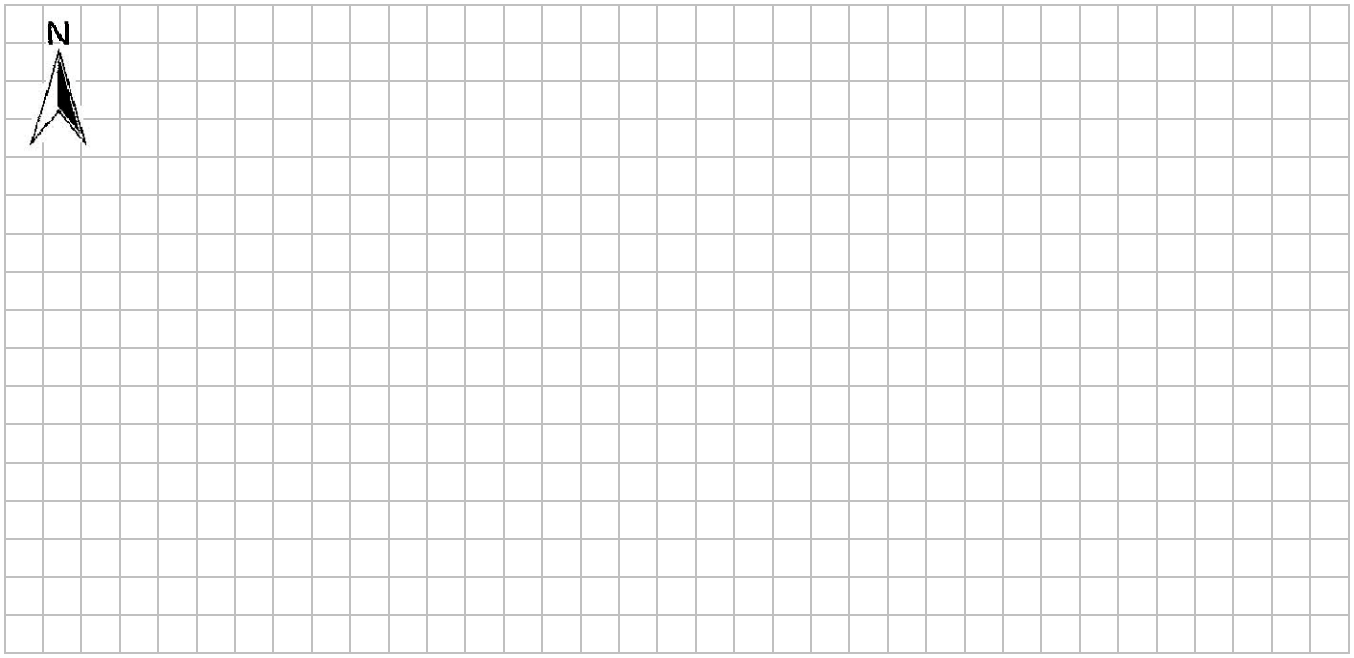
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: RAE Systems ppbRAE 3000

List specific products found in the residence that have the potential to affect indoor air quality.
Background PID is 0.0ppm. No Products found in Basement of 6A.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo** Y / N

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Location Ithaca NY Date 12/31/24

Project / Client Pre Occupancy Product Inventory/
Bldgs. 1, 5, 6, 6A Basements, 1st Floor Bldg 1.

0800 Kevin Griswold of WSP on site for product inventory prior to IA/SS resampling of Bldgs 1, 5, 6 and 6A prior to Occupancy. PID Calibrated SN: 592-928667 Mini RAE 3000+ ID: HHS22 from WSP Horseheads NY office.

0810 Begin inventory in Bldg 1.
Background = 0.0ppm on 1st Floor
Background: 0.0 ppm in Basement
No products of concern found in Basement.

0900 Move to Bldg 5/6.
Background: 0.0ppm. No Products found in Basement.

0915 Move to Bldg 6A Basement.
Background = 0.0ppm. No products found in Basement of 6A.
Tunnel in rear wall of Bldg 5 to Bldg. 35 sealed but not well. PID reads 0.0 ppm around opening.

0930 Products identified in Bldg 1 first floor moved to Bldg 2 Break Room until after sampling.

0945 KGG off site to Horseheads.

ENCLOSURE B – AMBIENT TEMPERATURE, BAROMETRIC PRESSURE, AND DIFFERENTIAL PRESSURE READINGS

Table B-1

Ambient Temperature, Barometric Pressure, and Differential Pressure Readings
January 2025 Sampling Event
Former Emerson Power Transmission
Ithaca, New York

Building Number	Foundation Type (a)	Lowest Level of Main Plant Building	Sample Location	Ambient Outdoor Temperature (°F)		Ambient Barometric Pressure (Inches Hg)		Differential Pressure (inches H_2O)
				Start of Sample Collection (January 6, 2025)	End of Sample Collection (January 6, 2025)	Start of Sample Collection (January 6, 2025)	End of Sample Collection (January 6, 2025)	
1	Full Basement	Basement/Lower	SS-BLDG1	21	12	29.99	28.65	-0.009
5	Full Basement (Partial Slab)	Basement/Lower	SS-BLDG5	21	12	29.99	28.65	- (c)
6	Full Basement	Basement/Lower	SS-BLDG6 (b)	21	12	29.99	28.65	-0.019
6A	Full Basement	Basement/Lower	SS-BLDG6A-2	21	12	29.99	28.65	-0.028

a/ Foundations with partial slabs either had exposed former excavation areas or gravel-filled test pits from previous investigations.
b/ Sampling location installed on morning of sampling
c/ "-" = Data not available

ENCLOSURE C – LABORATORY ANALYTICAL DATA AND DATA USABILITY SUMMARY REPORT

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LABORATORY REPORT

February 4, 2025

Lisa Kelly
WSP USA Inc.
13530 Dulles Technology Drive, Suite 300
Herndon, VA 20171

RE: Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01

Dear Lisa:

Enclosed are the results of the samples submitted to our laboratory on January 9, 2025. For your reference, these analyses have been assigned our service request number P2500076.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

ALS | Environmental

By Sue Anderson at 5:36 pm, Feb 04, 2025

Sue Anderson
Project Manager

ALS Environmental
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Client: WSP USA Inc. Service Request No: P2500076
Project: Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01

CASE NARRATIVE

The samples were received intact under chain of custody on January 9, 2025 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. This procedure is described in laboratory SOP VOA-TO15. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. This method is included on the laboratory's NELAP and DoD-ELAP scope of accreditation. Any analytes flagged with an X are not included on the NELAP or DoD-ELAP accreditation.

The containers were cleaned, prior to sampling, down to the method reporting limit (MRL) reported for this project. For projects requiring DoD QSM 5.4 compliance canisters were cleaned to <1/2 the MRL. Please note, projects which require reporting below the MRL could have results between the MRL and method detection limit (MDL) that are biased high.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.

Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

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CERTIFICATIONS, ACCREDITATIONS, AND REGISTRATIONS

Agency	Web Site	Number
Alaska DEC	https://dec.alaska.gov/spar/csp/lab-approval/list-of-approved-labs	17-019
Arizona DHS	http://www.azdhs.gov/preparedness/state-laboratory/lab-licensure-certification/index.php#laboratory-licensure-home	AZ0694
Florida DOH (NELAP)	http://www.floridahealth.gov/licensing-and-regulation/environmental-laboratories/index.html	E871020
Louisiana DEQ (NELAP)	https://internet.deq.louisiana.gov/portal/divisions/lelap/accredited-laboratories	203013
Maine DHHS	http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/professionals/labCert.shtm	CA012627
Minnesota DOH (NELAP)	http://www.health.state.mn.us/accreditation	006-999-456
New Jersey DEP (NELAP)	https://dep.nj.gov/dsr/oqa/certified-laboratories/	CA009
New York DOH (NELAP)	http://www.wadsworth.org/labcert/elap/elap.html	11221
Oklahoma DEQ (NELAP)	labaccreditation.deq.ok.gov/labaccreditation/	2207
Oregon PHD (NELAP)	http://www.oregon.gov/oha/ph/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	4068
Pennsylvania DEP	hhttp://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx	68-03307 (Registration only)
PJLA (DoD ELAP)	http://www.pjlabs.com/search-accredited-labs	65818 (Testing)
Texas CEQ (NELAP)	http://www.tceq.texas.gov/agency/qa/env_lab_accreditation.html	T104704413
Utah DOH (NELAP)	https://uphl.utah.gov/certifications/environmental-laboratory-certification/	CA01627
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at www.alsglobal.com, or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: WSP USA Inc. Service Request: P2500076

Project ID: Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01

Date Received: 1/9/2025

Time Received: 10:05

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	Container ID	Pi1 (psig)	Pfl (psig)	TO-15 - VOC Cans LL
BLDG5-SS	P2500076-001	Air	1/6/2025	17:35	AS01383	-1.95	3.90	X
BLDG5-IA	P2500076-002	Air	1/6/2025	17:33	AC02443	-2.78	3.77	X
BLDG6-SS	P2500076-003	Air	1/6/2025	18:03	AC02348	-2.32	3.77	X
BLDG6A-SS	P2500076-004	Air	1/6/2025	19:00	AC01777	-1.86	3.82	X
BLDG6A-IA	P2500076-005	Air	1/6/2025	19:02	AS01460	-3.31	3.91	X
BLDGX-SS	P2500076-006	Air	1/6/2025	08:30	AS01325	-1.85	3.80	X
BLDG1-IA	P2500076-007	Air	1/6/2025	20:27	SC00685	-0.22	3.73	X
BLDG1-SS	P2500076-008	Air	1/6/2025	20:22	AC02136	-1.50	3.63	X
OA1	P2500076-009	Air	1/6/2025	19:10	AC02359	-0.90	3.74	X

ALS Environmental
Sample Acceptance Check Form

Client: WSP USA Inc. Work order: P2500076

Project: Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01

Sample(s) received on: 1/9/25 Date opened: 1/9/25 by: SANDERSON

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Did **sample containers** arrive in good condition?	☒	☐	☐
3	Were **chain-of-custody** papers used and filled out?	☒	☐	☐
4	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
5	Was **sample volume** received adequate for analysis?	☒	☐	☐
6	Are samples within specified holding times?	☒	☐	☐
7	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
8	Were **custody seals** on outside of cooler/Box/Container?	☒	☐	
	Location of seal(s)? Box sealing. Sealing Lid?	☒	☐	☐
	Were signature and date included?	☒	☐	☐
	Were seals intact?	☒	☐	☐
9	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
10	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
11	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒
12	Lab Notification: Analyst and PM were alerted of Short HT or RUSH samples?	☐	☐	☒
13	Client Notification: Client has been notified regarding HT exceedances and/or other CoC discrepancies?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P2500076-001.01	6.0 L Silonite Can					
P2500076-002.01	6.0 L Ambient Can					
P2500076-003.01	6.0 L Ambient Can					
P2500076-004.01	6.0 L Ambient Can					
P2500076-005.01	6.0 L Silonite Can					
P2500076-006.01	6.0 L Silonite Can					
P2500076-007.01	6.0 L Source Can					
P2500076-008.01	6.0 L Ambient Can					
P2500076-009.01	6.0 L Ambient Can					SLC00144/AC02359
P2500076-010.01	6.0 L Ambient Can					Return Can
P2500076-011.01	6.0 L Ambient Can					Return Can
P2500076-012.01	6.0 L Ambient Can					Return Can
P2500076-013.01	6.0 L Silonite Can					Return Can

Explain any discrepancies: (include lab sample ID numbers):

Client noted SN on the COC for sample -009 but the correct can id is AC02359.

Sulfur (pH>4)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
BLDG5-SS	P2500076-001	EPA TO-15					
BLDG5-IA	P2500076-002	EPA TO-15					
BLDG6-SS	P2500076-003	EPA TO-15					
BLDG6A-SS	P2500076-004	EPA TO-15					
BLDG6A-IA	P2500076-005	EPA TO-15					
BLDGX-SS	P2500076-006	EPA TO-15					
BLDG1-IA	P2500076-007	EPA TO-15					
BLDG1-SS	P2500076-008	EPA TO-15					
OA1	P2500076-009	EPA TO-15					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
P2500076-001	Air	1/6/2025	1/9/2025	NA	1/27-28/2025
P2500076-002	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-003	Air	1/6/2025	1/9/2025	NA	1/28/25
P2500076-004	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-005	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-006	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-007	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-008	Air	1/6/2025	1/9/2025	NA	1/27/25
P2500076-009	Air	1/6/2025	1/9/2025	NA	1/27/25

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Air - Chain of Custody Record & Analytical Service Request

Page 1 of 1

P2500076

Requested Turnaround Time in Business Days (Surcharges) please circle
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) (10 Day-Standard)

ALS Project No.

Company Name & Address (Reporting Information)
WSP USA INC
13530 Dulles Technology Dr
Suite 300
Herndon, VA 20171

Project Name: Former EPT, Ithaca NY

Project Number: US-WSP-31405C08.001 Task 01

Project Manager: Lisa Kelly

P.O. # / Billing Information: P117475 US001

Phone: +1703-742-5905

Fax:

Email Address for Result Reporting: Lisa.Kelly@WSP.com

Sampler (Print & Sign): Kevin Griswold Kevin Griswold

ALS Contact: Sue Anderson

Analysis Method

Client Sample ID	Laboratory ID Number	Date Collected	Time Collected	Canister ID (Bar code # - AC, SC, etc.)	Flow Controller ID (Bar code # - FC #)	Canister Start Pressure "Hg	Canister End Pressure "Hg/psig	Sample Volume	US EPA TO-15 for Client Specific VOC list. See LTO		Comments e.g. Actual Preservative or specific instructions
BLDG5-SS	1	1/6/25	~~1733~~ KG	AS01383	SFC00586	-30	KG ~~-7~~ -6	6L	X		Collected at 1735
BLDG5-IA	2		1733	AC02443	SFC00040	-30	-7	6L	X		
BLDG6-SS	3		1803	AC02348	SFC00823	-28.5	-3	6L	X		
BLDG6A-SS	4		1900	AC01777	SFC00081	-28	-3	6L	X		
BLDG6A-IA	5		1902	AS01460	SFC00750	-26	-3	6L	X		
BLDGX-SS	6		0830	AS01325	SFC00614	-30	-6	6L	X		
BLDG1-IA	7		2027	SC00685	SFC00200	-29	-4	6L	X		
BLDG1-SS	8		KG ~~2022~~	AC02136	SFC00269	-28	-4	6L	X		
OA-1	9	↓	1910	SLC00144	SFC00733	-29	-5	6L	X		
											Do Not Analyze SSL00447
											Did Not Use: AC02069, AC01922 or AC01839

Report Tier Levels - please select Include NY CAT B

Tier I - Results (Default if not specified) _____ Tier III (Results + QC & Calibration Summaries) _____

Tier II (Results + QC Summaries) X Tier IV (Data Validation Package) 10% Surcharge _____

EDD required (Yes) / No Type: EQUIS Units: _____

Chain of Custody Seal: (Circle) (INTACT) BROKEN ABSENT

Project Requirements (MRLs, QAPP)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Kevin Griswold	1/7/25	0900	fedex	1/8/25	0900
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
fed ex				1/9/25	1005

Cooler / Blank Temperature ____°C

Signature denotes acceptance of ALS Group USA, Corp. Terms and Conditions - Detailed Terms & Conditions can be reviewed at the link below:
https://www.alsglobal.com/ALSGroupUSACorpTC

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ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Client: **WSP USA Inc.**
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Project ID: P2500076

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date(s) Collected: 1/6/25
Analyst: Marlow Cobian Date(s) Received: 1/9/25
Sample Type: 6.0 L Silonite Canister(s) / 6.0 L Summa Canister(s) Date(s) Analyzed: 1/27 - 1/28/25
Test Notes:

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4 Percent Recovered	Toluene-d8 Percent Recovered	Bromofluorobenzene Percent Recovered	Acceptance Limits	Data Qualifier
Method Blank	P250127-MB	**120**	**86**	**79**	70-130	
Method Blank	P250128-MB	**121**	**87**	**77**	70-130	
Lab Control Sample	P250127-LCS	**118**	**87**	**84**	70-130	
Lab Control Sample	P250128-LCS	**120**	**86**	**82**	70-130	
Duplicate Lab Control Sample	P250127-DLCS	**115**	**87**	**89**	70-130	
Duplicate Lab Control Sample	P250128-DLCS	**116**	**88**	**85**	70-130	
BLDG5-SS	P2500076-001	**123**	**85**	**79**	70-130	
BLDG5-IA	P2500076-002	**121**	**86**	**79**	70-130	
BLDG6-SS	P2500076-003	**123**	**83**	**85**	70-130	
BLDG6A-SS	P2500076-004	**123**	**85**	**79**	70-130	
BLDG6A-IA	P2500076-005	**122**	**86**	**78**	70-130	
BLDGX-SS	P2500076-006	**127**	**86**	**78**	70-130	
BLDG1-IA	P2500076-007	**124**	**86**	**78**	70-130	
BLDG1-SS	P2500076-008	**122**	**87**	**79**	70-130	
OA1	P2500076-009	**122**	**87**	**77**	70-130	
OA1	P2500076-009DUP	**124**	**85**	**76**	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **WSP USA Inc.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250127-DLCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	210	197	191	**94**	**91**	57-129	3	25	
75-35-4	1,1-Dichloroethene	208	207	214	**100**	**103**	75-120	3	25	
75-09-2	Methylene Chloride	204	190	195	**93**	**96**	71-123	3	25	
156-60-5	trans-1,2-Dichloroethene	218	222	227	**102**	**104**	67-123	2	25	
75-34-3	1,1-Dichloroethane	218	216	221	**99**	**101**	66-120	2	25	
156-59-2	cis-1,2-Dichloroethene	214	218	222	**102**	**104**	64-120	2	25	
107-06-2	1,2-Dichloroethane	204	223	224	**109**	**110**	64-138	0.9	25	
71-55-6	1,1,1-Trichloroethane	210	214	223	**102**	**106**	67-125	4	25	
56-23-5	Carbon Tetrachloride	210	213	221	**101**	**105**	71-134	4	25	
79-01-6	Trichloroethene	214	195	204	**91**	**95**	68-124	4	25	
127-18-4	Tetrachloroethene	214	161	168	**75**	**79**	55-132	5	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **WSP USA Inc.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250128-DLCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	210	203	200	**97**	**95**	57-129	2	25	
75-35-4	1,1-Dichloroethene	208	219	219	**105**	**105**	75-120	0	25	
75-09-2	Methylene Chloride	204	203	200	**100**	**98**	71-123	2	25	
156-60-5	trans-1,2-Dichloroethene	218	237	235	**109**	**108**	67-123	0.9	25	
75-34-3	1,1-Dichloroethane	218	231	228	**106**	**105**	66-120	0.9	25	
156-59-2	cis-1,2-Dichloroethene	214	233	229	**109**	**107**	64-120	2	25	
107-06-2	1,2-Dichloroethane	204	239	232	**117**	**114**	64-138	3	25	
71-55-6	1,1,1-Trichloroethane	210	224	226	**107**	**108**	67-125	0.9	25	
56-23-5	Carbon Tetrachloride	210	222	223	**106**	**106**	71-134	0	25	
79-01-6	Trichloroethene	214	201	204	**94**	**95**	68-124	1	25	
127-18-4	Tetrachloroethene	214	166	170	**78**	**79**	55-132	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **WSP USA Inc.**
Client Sample ID: **OA1** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-009DUP

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02359

Initial Pressure (psig): -0.90 Final Pressure (psig): 3.74

Container Dilution Factor: 1.34

Compound	Sample Result µg/m³	Sample Result ppbV	**Duplicate Sample Result µg/m³**	**Duplicate Sample Result** ppbV	Average µg/m³	**% RPD**	RPD Limit	**Data Qualifier**
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
Methylene Chloride	0.331	0.0953	0.336	0.0969	0.3335	**1**	25	**J**
trans-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
cis-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,2-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	
Carbon Tetrachloride	0.448	0.0712	0.448	0.0712	0.448	**0**	25	
Trichloroethene	ND	ND	ND	ND	-	-	25	
Tetrachloroethene	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Method Blank Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01272504.D

Analyst: Marlow Cobian Date Analyzed: 1/27/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 10:32

Test Notes:

Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P250127-LCS	01272505.D	11:17
Duplicate Lab Control Sample	P250127-DLCS	01272506.D	11:53
BLDG5-SS	P2500076-001	01272517.D	19:35
BLDG5-IA	P2500076-002	01272518.D	20:10
BLDG6A-SS	P2500076-004	01272520.D	21:24
BLDG6A-IA	P2500076-005	01272521.D	22:00
BLDGX-SS	P2500076-006	01272522.D	22:35
BLDG1-IA	P2500076-007	01272523.D	23:11
BLDG1-SS	P2500076-008	01272524.D	23:47
OA1	P2500076-009	01272525.D	00:23
OA1 (Lab Duplicate)	P2500076-009DUP	01272526.D	01:02

Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Method Blank Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01282503.D

Analyst: Marlow Cobian Date Analyzed: 1/28/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 04:38

Test Notes:

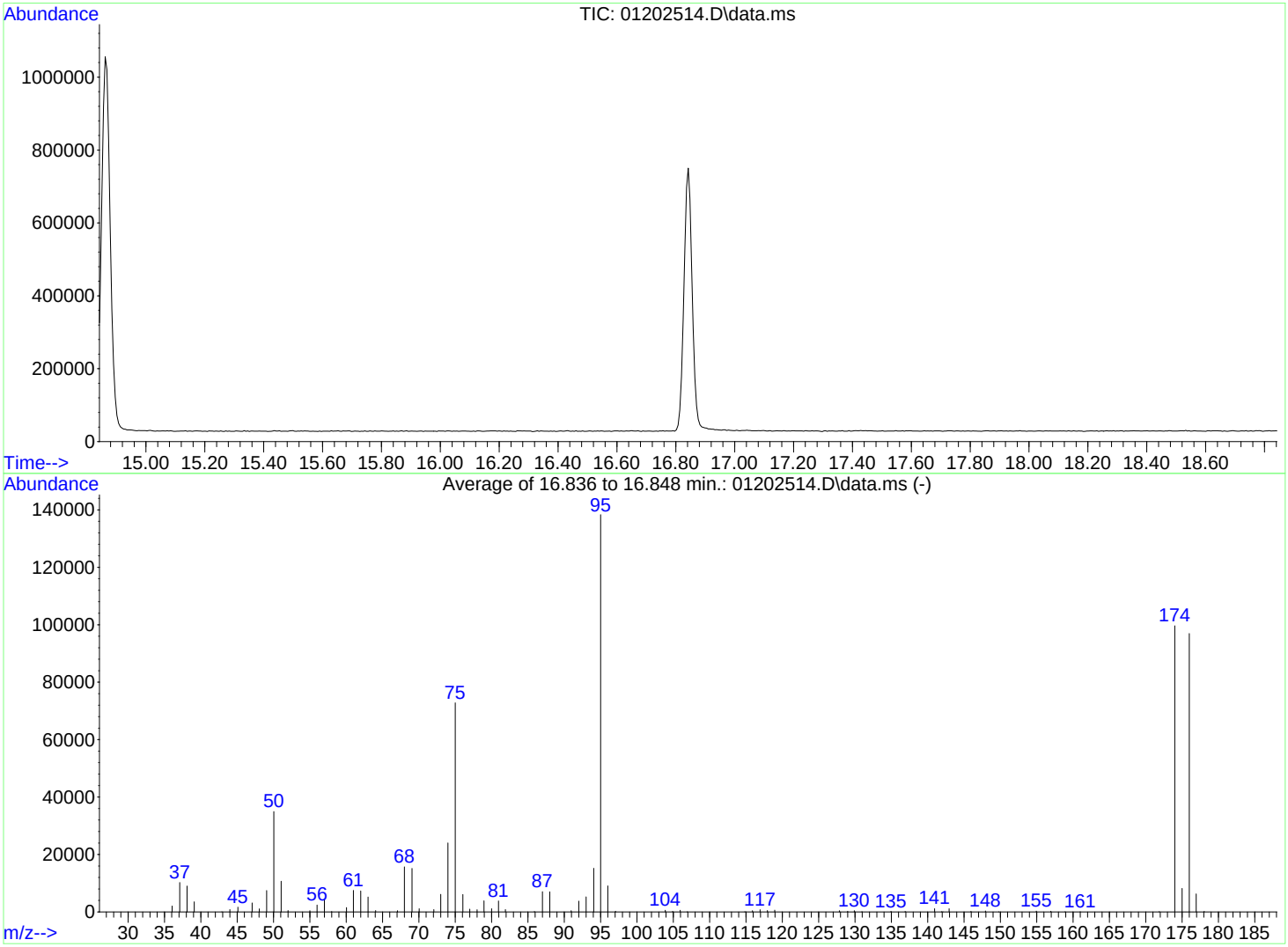
Client Sample ID	ALS Sample ID	Lab File ID	Time Analyzed
Lab Control Sample	P250128-LCS	01282504.D	05:13
Duplicate Lab Control Sample	P250128-DLCS	01282505.D	05:48
BLDG5-SS (Dilution)	P2500076-001	01282506.D	09:16
BLDG6-SS	P2500076-003	01282510.D	12:53

BFB

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202514.D
Acq On : 20 Jan 2025 18:35
Operator : LS
Sample : TO-15 BFB
Misc : S37-11222401
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:00:01 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	25.3	34960	PASS
75	95	30	66	52.6	72811	PASS
95	95	100	100	100.0	138317	PASS
96	95	5	9	6.6	9100	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	72.1	99659	PASS
175	174	4	9	8.2	8168	PASS
176	174	93	101	97.3	96963	PASS
177	176	5	9	6.5	6289	PASS

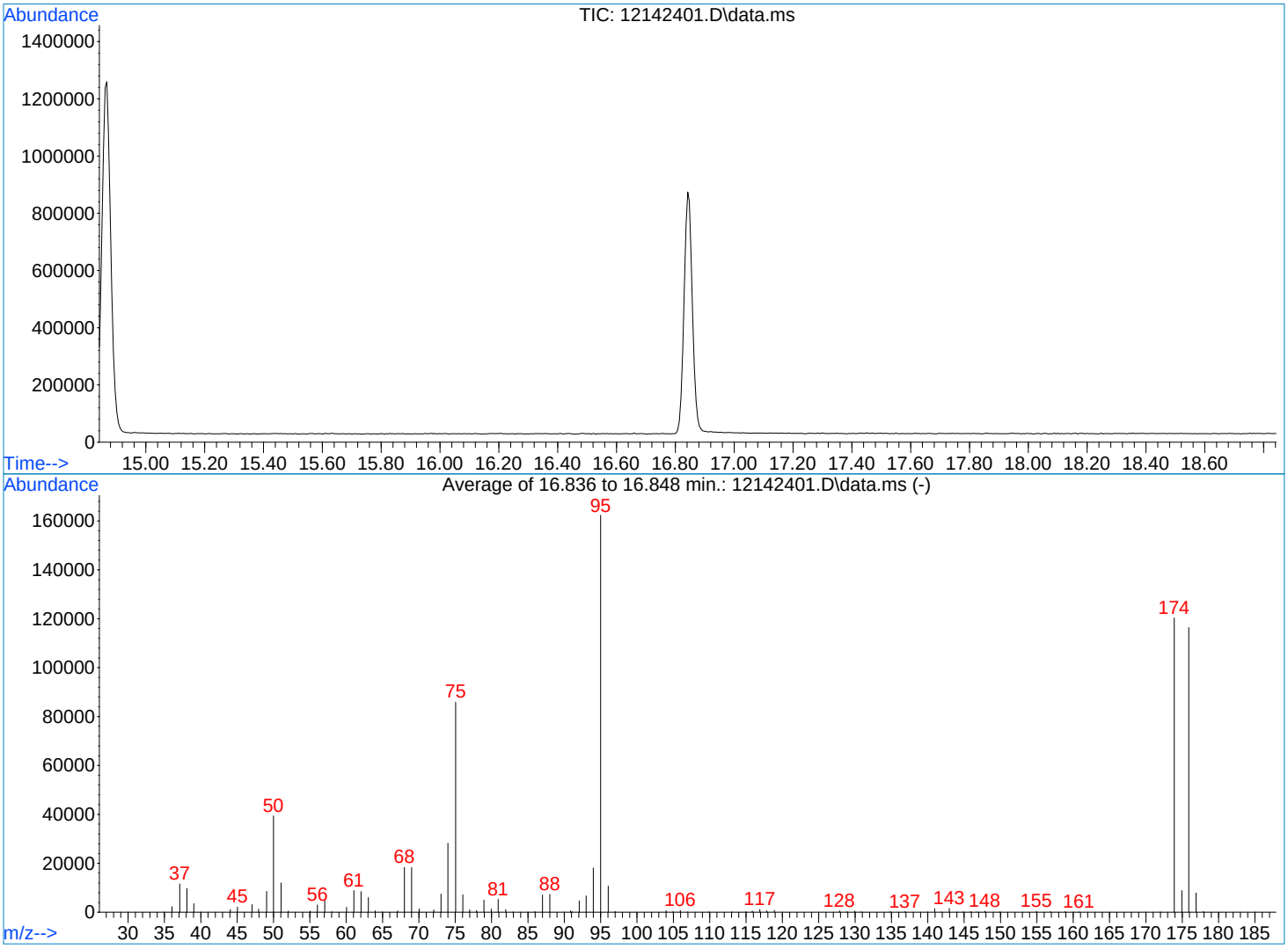
CG 1/21/25

BFB

Data Path : I:\MS13\DATA\2024 12\14\
Data File : 12142401.D
Acq On : 14 Dec 2024 4:28
Operator : MC
Sample : TO-15 BFB Std.
Misc : S37-11222401
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINTVB.P

Method : I:\MS13\METHODS\C13121424.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Last Update : Mon Dec 16 11:07:03 2024



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2407

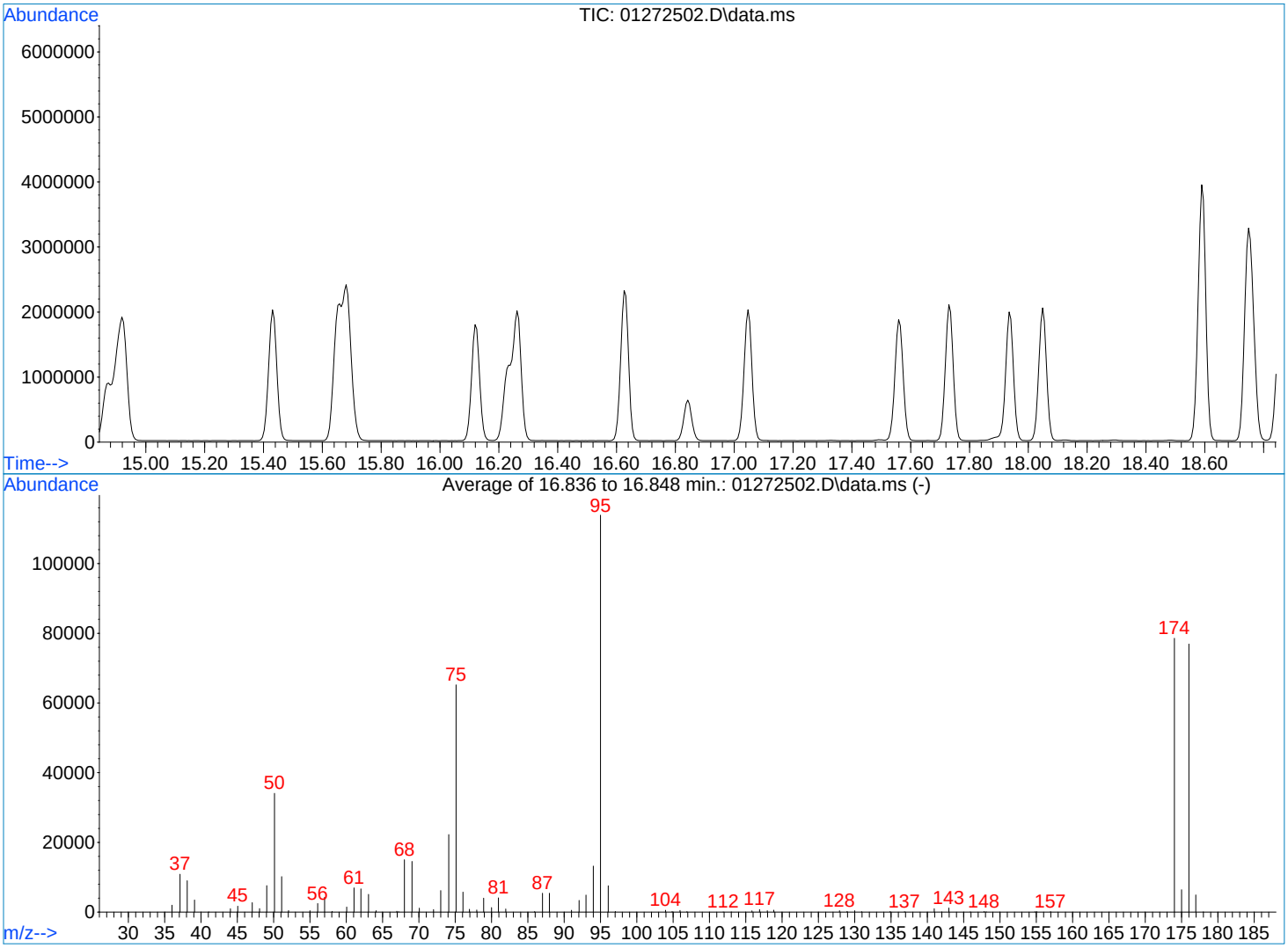
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.2	39368	PASS
75	95	30	66	52.9	85872	PASS
95	95	100	100	100.0	162347	PASS
96	95	5	9	6.6	10672	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	74.1	120365	PASS
175	174	4	9	7.4	8880	PASS
176	174	93	101	96.7	116421	PASS
177	176	5	9	6.7	7846	PASS

MC 12/16/24

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272502.D
Acq On : 27 Jan 2025 9:21
Operator : MC
Sample : CCV R13012725 25ng
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.9	34064	PASS
75	95	30	66	57.2	65195	PASS
95	95	100	100	100.0	113893	PASS
96	95	5	9	6.6	7533	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	69.0	78560	PASS
175	174	4	9	8.2	6435	PASS
176	174	93	101	97.9	76901	PASS
177	176	5	9	6.4	4946	PASS

MC 1/27/25

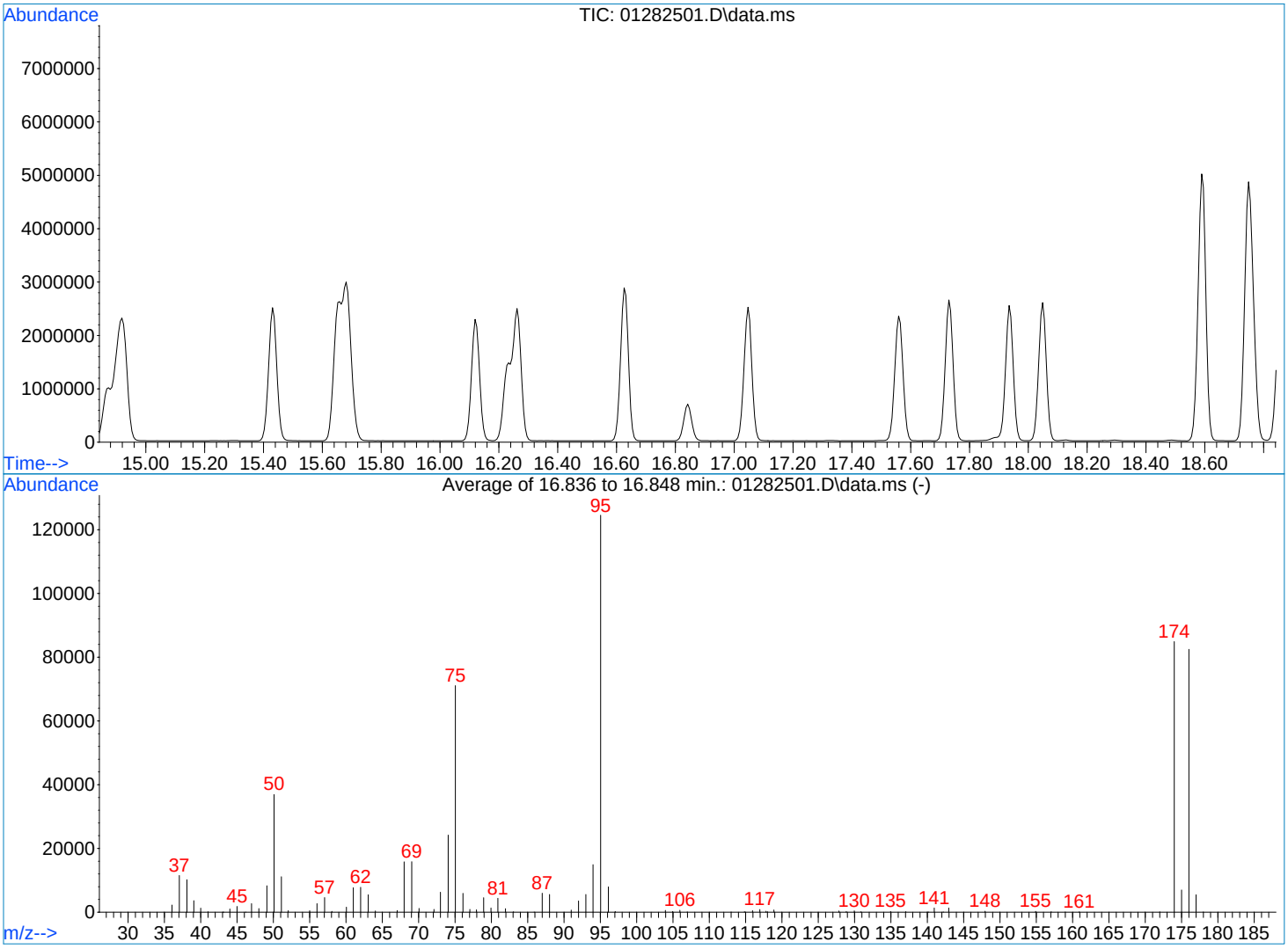
BFB

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282501.D
Acq On : 28 Jan 2025 3:28
Operator : MC
Sample : CCV R13012825 25ng
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.6	36912	PASS
75	95	30	66	57.1	71093	PASS
95	95	100	100	100.0	124541	PASS
96	95	5	9	6.4	7960	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	68.2	84901	PASS
175	174	4	9	8.2	6963	PASS
176	174	93	101	97.1	82480	PASS
177	176	5	9	6.6	5473	PASS

Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01272502.D

Analyst: Marlow Cobian Date Analyzed: 1/27/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 09:21

Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	109078	7.33	500391	9.37	165560	14.87
	Upper Limit	152709	7.66	700547	9.70	231784	15.20
	Lower Limit	65447	7.00	300235	9.04	99336	14.54
	Client Sample ID						
01	Method Blank	102897	7.30	478328	9.35	155249	14.86
02	Lab Control Sample	115562	7.33	525692	9.38	173543	14.87
03	Duplicate Lab Control Sample	114438	7.33	514930	9.37	169871	14.87
04	BLDG5-SS	101785	7.30	486029	9.35	160677	14.86
05	BLDG5-IA	103048	7.30	481988	9.35	158273	14.86
06	BLDG6A-SS	102115	7.30	485271	9.35	158764	14.86
07	BLDG6A-IA	101700	7.29	481674	9.35	156013	14.86
08	BLDGX-SS	95919	7.29	472853	9.35	153838	14.86
09	BLDG1-IA	99451	7.30	478411	9.36	156510	14.86
10	BLDG1-SS	97694	7.29	459130	9.35	149009	14.86
11	OA1	99131	7.30	463756	9.35	149303	14.86
12	OA1 (Lab Duplicate)	94792	7.30	451980	9.35	147719	14.86
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01282501.D

Analyst: Marlow Cobian Date Analyzed: 1/28/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 03:28

Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	118491	7.33	550113	9.38	184118	14.87
	Upper Limit	165887	7.66	770158	9.71	257765	15.20
	Lower Limit	71095	7.00	330068	9.05	110471	14.54
	Client Sample ID						
01	Method Blank	112154	7.30	523978	9.35	166530	14.86
02	Lab Control Sample	120147	7.33	561103	9.38	183572	14.87
03	Duplicate Lab Control Sample	125883	7.33	574936	9.38	184796	14.87
04	BLDG5-SS (Dilution)	124269	7.29	580664	9.35	187787	14.86
05	BLDG6-SS	115012	7.30	542928	9.35	183218	14.86
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

ALS Environmental - Simi Valley
Method Detection Limit (MDL) Study

Analytical Method: EPA TO-15 Scan
Matrix: Air
Instrument(s): MS08, MS09, MS13, MS16
Units: ug/m3
Data Date Range: 11/14/17 - 03/20/18

	Spike Level (ug/m3)	Number of Results (n)	Mean	Mean % Rec.	Std Dev	%RSD	MW	MDL_R (ug/m3)	MDL_R (ppbv)
Propene	0.1659	8	0.1684	101.4796	0.0411	24.3989	42.08	0.13	0.076
Dichlorodifluoromethane	0.3144	8	0.2830	90.0127	0.0290	10.2465	120.90	0.087	0.018
Chloromethane	0.3018	8	0.2810	93.1080	0.0285	10.1301	50.49	0.086	0.042
Freon 114	0.3063	8	0.2660	86.8430	0.0277	10.4222	170.90	0.084	0.012
Vinyl Chloride	0.1651	8	0.1508	91.2972	0.0188	12.4796	62.50	0.057	0.022
1,3-Butadiene	0.3177	8	0.2651	83.4514	0.0291	10.9697	54.09	0.088	0.040
Bromomethane	0.2979	8	0.2589	86.9000	0.0245	9.4675	94.94	0.074	0.019
Chloroethane	0.1619	8	0.1513	93.4103	0.0217	14.3716	64.52	0.066	0.025
Ethanol	0.8434	8	0.7743	91.8054	0.1203	15.5431	46.07	0.37	0.20
Acetonitrile	0.3177	8	0.3016	94.9402	0.0432	14.3181	41.05	0.13	0.077
Acrolein	0.3162	8	0.2734	86.4564	0.0491	17.9597	56.06	0.15	0.065
Acetone	NA (MB)	8	0.4159	NA	0.2379	57.2154	58.08	1.2	0.51
Trichlorofluoromethane	0.1682	8	0.1590	94.5528	0.0267	16.8223	137.40	0.081	0.014
Isopropanol	0.6321	8	0.5943	94.0120	0.0712	11.9784	60.10	0.22	0.090
Acrylonitrile	0.3168	8	0.2550	80.4924	0.0357	13.9926	53.06	0.11	0.051
1,1-Dichloroethene	0.1061	8	0.1045	98.4920	0.0245	23.4010	96.94	0.074	0.019
tert-Butanol	0.6360	8	0.5920	93.0818	0.0502	8.4777	74.12	0.16	0.053
Methylene Chloride	NA (MB)	8	0.0930	NA	0.0186	20.0259	84.94	0.15	0.043
Allyl Chloride	0.1686	8	0.1510	89.5398	0.0237	15.7196	76.53	0.072	0.023
Trichlorotrifluoroethane	0.1685	8	0.1606	95.3377	0.0253	15.7496	187.38	0.076	0.0099
Carbon Disulfide	0.3189	8	0.3373	105.7542	0.0515	15.2812	76.14	0.16	0.051
trans-1,2-Dichloroethene	0.1730	8	0.1524	88.0984	0.0245	16.0713	96.94	0.074	0.019
1,1-Dichloroethane	0.3066	8	0.2759	89.9788	0.0257	9.3314	98.96	0.078	0.019
Methyl tert-Butyl Ether	0.3210	8	0.2894	90.1480	0.0209	7.2392	88.15	0.063	0.017
Vinyl Acetate	1.5843	8	1.1704	73.8733	0.3777	32.2735	86.09	1.2	0.34
2-Butanone	0.3156	8	0.2799	88.6803	0.0362	12.9427	72.11	0.11	0.037
cis-1,2-Dichloroethene	0.1707	8	0.1555	91.0848	0.0249	15.9869	96.94	0.075	0.019
Diisopropyl Ether	0.1065	8	0.1039	97.5352	0.0233	22.4032	102.18	0.070	0.017
Ethyl Acetate	0.6408	8	0.5554	86.6690	0.0930	16.7486	88.11	0.28	0.078
n-Hexane	0.1706	8	0.1750	102.6032	0.0341	19.4789	86.17	0.11	0.031
Chloroform	0.1698	8	0.1585	93.3671	0.0234	14.7346	119.40	0.071	0.015
Tetrahydrofuran	0.3192	8	0.3033	95.0031	0.0222	7.3139	72.11	0.067	0.023
Ethyl tert-Butyl Ether	0.3177	8	0.2834	89.1958	0.0212	7.4881	102.18	0.064	0.015
1,2-Dichloroethane	0.1055	8	0.0993	94.0758	0.0195	19.6095	98.96	0.059	0.015
1,1,1-Trichloroethane	0.3231	8	0.2744	84.9195	0.0220	8.0039	133.40	0.066	0.012
Isopropyl Acetate	0.6339	8	0.5565	87.7899	0.0553	9.9425	102.13	0.17	0.041
1-Butanol	0.3382	8	0.2546	75.2794	0.0446	17.5321	74.12	0.14	0.046
Benzene	0.3171	8	0.2785	87.8272	0.0254	9.1343	78.11	0.077	0.024
Carbon Tetrachloride	0.1696	8	0.1463	86.2323	0.0244	16.7077	153.80	0.074	0.012
Cyclohexane	0.6405	8	0.5643	88.0952	0.0471	8.3508	84.16	0.15	0.044
tert-Amyl Methyl Ether	0.3171	8	0.2843	89.6405	0.0217	7.6217	102.18	0.065	0.016
1,2-Dichloropropane	0.3198	8	0.2866	89.6263	0.0219	7.6550	113.00	0.066	0.014
Bromodichloromethane	0.3201	8	0.2633	82.2399	0.0255	9.6714	163.80	0.077	0.011
Trichloroethene	0.1061	8	0.1088	102.4976	0.0239	21.9578	131.40	0.072	0.013
1,4-Dioxane	0.1063	8	0.0878	82.5494	0.0208	23.7155	88.11	0.063	0.017
Isooctane	0.3180	8	0.2870	90.2516	0.0264	9.1979	114.23	0.080	0.017
Methyl Methacrylate	0.6336	8	0.5145	81.2027	0.0624	12.1269	100.12	0.19	0.046
n-Heptane	0.3195	8	0.2828	88.4977	0.0280	9.9095	100.20	0.085	0.021
cis-1,3-Dichloropropene	0.3360	8	0.2754	81.9568	0.0276	10.0148	111.00	0.083	0.018
4-Methyl-2-Pentanone	0.3177	8	0.2708	85.2219	0.0242	8.9447	100.20	0.073	0.018
trans-1,3-Dichloropropene	0.3201	8	0.2346	73.2974	0.0366	15.5902	111.00	0.11	0.024
1,1,2-Trichloroethane	0.3192	8	0.2798	87.6410	0.0178	6.3651	133.40	0.054	0.0099
Toluene	0.3162	8	0.2891	91.4374	0.0214	7.3868	92.14	0.065	0.017
2-Hexanone	0.3180	8	0.2736	86.0456	0.0219	8.0210	100.16	0.066	0.016
Dibromochloromethane	0.3183	8	0.2563	80.5058	0.0231	9.0246	208.30	0.070	0.0082
1,2-Dibromoethane	0.1702	8	0.1443	84.7333	0.0206	14.2542	187.90	0.062	0.0081
Butyl Acetate	0.1709	8	0.1516	88.7319	0.0242	15.9807	116.16	0.073	0.015
n-Octane	0.1696	8	0.1666	98.2459	0.0397	23.8489	114.23	0.12	0.026
Tetrachloroethene	0.1701	8	0.1575	92.6035	0.0228	14.4943	165.80	0.069	0.010
Chlorobenzene	0.1706	8	0.1624	95.2011	0.0234	14.3903	112.60	0.071	0.015
Ethylbenzene	0.1683	8	0.1584	94.0916	0.0250	15.7761	106.20	0.075	0.017
m- & p-Xylene	0.3397	8	0.3140	92.4399	0.0467	14.8637	106.20	0.14	0.032
Bromoform	0.3189	8	0.2293	71.8877	0.0350	15.2890	252.80	0.11	0.011
Styrene	0.1693	8	0.1423	84.0324	0.0286	20.1331	104.10	0.086	0.020
o-Xylene	0.1688	8	0.1553	91.9727	0.0255	16.4319	106.20	0.077	0.018

n-Nonane	0.3162	8	0.2833	89.5794	0.0294	10.3821	128.26	0.089	0.017
1,1,2,2-Tetrachloroethane	0.1691	8	0.1439	85.0727	0.0246	17.0714	167.90	0.074	0.011
Cumene	0.1683	8	0.1565	92.9777	0.0254	16.2190	120.20	0.077	0.016
alpha-Pinene	0.1674	8	0.1505	89.9259	0.0271	17.9876	136.24	0.082	0.015
n-Propylbenzene	0.1702	8	0.1554	91.2682	0.0256	16.4697	120.19	0.077	0.016
3-Ethyltoluene	0.1680	8	0.1544	91.8899	0.0237	15.3835	120.20	0.072	0.015
4-Ethyltoluene	0.3147	8	0.2720	86.4315	0.0282	10.3596	120.20	0.085	0.017
1,3,5-Trimethylbenzene	0.1678	8	0.1541	91.8285	0.0257	16.6521	120.20	0.077	0.016
alpha-Methylstyrene	0.1678	8	0.1346	80.2103	0.0282	20.9832	118.19	0.085	0.018
2-Ethyltoluene	0.1696	8	0.1563	92.1285	0.0226	14.4401	120.20	0.068	0.014
1,2,4-Trimethylbenzene	0.1682	8	0.1545	91.8768	0.0246	15.9071	120.20	0.074	0.015
n-Decane	0.1694	8	0.1566	92.4369	0.0240	15.3306	142.28	0.072	0.012
Benzyl Chloride	0.3222	8	0.1845	57.2626	0.0400	21.6860	126.59	0.12	0.023
1,3-Dichlorobenzene	0.1714	8	0.1545	90.1611	0.0267	17.2638	147.00	0.080	0.013
1,4-Dichlorobenzene	0.1702	8	0.1546	90.8277	0.0271	17.4973	147.00	0.082	0.014
sec-Butylbenzene	0.1688	8	0.1568	92.8614	0.0240	15.3328	134.22	0.073	0.013
p-Isopropyltoluene	0.1642	8	0.1514	92.2119	0.0269	17.7680	134.22	0.081	0.015
1,2,3-Trimethylbenzene	0.1642	8	0.1481	90.2321	0.0241	16.2524	120.19	0.073	0.015
1,2-Dichlorobenzene	0.1733	8	0.1550	89.4506	0.0262	16.9189	147.00	0.079	0.013
d-Limonene	0.1005	8	0.0905	90.0498	0.0345	38.0992	136.24	0.11	0.020
1,2-Dibromo-3-Chloropropane	0.3153	8	0.2146	68.0701	0.0332	15.4650	236.33	0.10	0.010
n-Undecane	0.1685	8	0.1431	84.9507	0.0437	30.5431	156.31	0.14	0.022
1,2,4-Trichlorobenzene	0.3291	8	0.2576	78.2817	0.0426	16.5412	181.50	0.13	0.018
Naphthalene	0.1690	8	0.1259	74.4999	0.0431	34.2029	128.17	0.13	0.025
n-Dodecane	0.1690	8	0.1171	69.3211	0.0494	42.2196	170.34	0.15	0.022
Hexachloro-1,3-butadiene	0.3171	8	0.2688	84.7524	0.0352	13.1114	260.80	0.11	0.010
Cyclohexanone	0.3117	8	0.2625	84.2156	0.0274	10.4566	98.14	0.083	0.021
tert-Butylbenzene	0.3150	8	0.2748	87.2222	0.0265	9.6429	134.22	0.080	0.015
n-Butylbenzene	0.1686	8	0.1515	89.8363	0.0254	16.7543	134.22	0.077	0.014

Note: Method blanks evaluated per 2016 EPA MUR which ammended the MDL procedure in 40 CFR Appendix B. Any compounds with the spike level indicated as "NA (MB)" had a method blank MDL value higher than the calculated spike sample MDL.

ALS Environmental

MDLs for TO-15 (SCAN)

	06/25/12	01/20/12	05/07/12	05/07/12	05/14/12					FINAL	
	MS3	MS08	MS09	MS13	MS16	MAX			MW	MDL_R	MDL_R
COMPOUND	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	MDL_R	µg/m³	ppbV		µg/m³	ppbV
Chloropentafluoroethane	0.058	0.140	0.054	0.160	0.230	0.230	0.23	0.036420	154.47	**0.23**	**0.036**
Norfluorane (R134a)	0.100	0.140	0.055	0.150	0.230	0.230	0.23	0.055139	102.03	**0.23**	**0.055**
1,1-Difluoroethane	0.063	0.140	0.098	0.170	0.260	0.260	0.26	0.096285	66.05	**0.26**	**0.096**
Chlorodifluoromethane	0.180	0.160	0.091	0.200	0.250	0.250	0.25	0.070718	86.47	**0.25**	**0.071**
1-Chloro-1,1-Difluoroethane	0.140	0.130	0.068	0.150	0.230	0.230	0.23	0.055978	100.5	**0.23**	**0.056**
Fluorodichloromethane	0.110	0.140	0.063	0.140	0.240	0.240	0.24	0.057038	102.92	**0.24**	**0.057**
Vinylbromide	0.078	0.120	0.052	0.160	0.210	0.210	0.21	0.048028	106.95	**0.21**	**0.048**
2,2-Dichloro-1,1,1-trifluoroethane	0.072	0.130	0.060	0.160	0.240	0.240	0.24	0.038386	152.93	**0.24**	**0.038**
2-Methylbutane	0.140	0.140	0.110	0.190	0.260	0.260	0.26	0.088144	72.15	**0.26**	**0.088**
Methyl Acetate	0.099	0.110	0.120	0.160	0.240	0.240	0.24	0.079244	74.08	**0.24**	**0.079**
2-Methylpentane	0.062	0.140	0.066	0.130	0.240	0.240	0.24	0.068118	86.18	**0.24**	**0.068**
2,2-Dichloropropane	0.061	0.140	0.130	0.140	0.110	0.140	0.14	0.030307	112.99	**0.14**	**0.030**
1,1-Dichloropropene	0.077	0.120	0.049	0.120	0.240	0.240	0.24	0.051955	112.99	**0.24**	**0.052**
Thiophene	0.087	0.110	0.065	0.110	0.220	0.220	0.22	0.063955	84.14	**0.22**	**0.064**
2,3-Dimethylpentane	0.083	0.130	0.063	0.130	0.240	0.240	0.24	0.058587	100.2	**0.24**	**0.059**
Dibromomethane	0.054	0.092	0.032	0.140	0.200	0.200	0.20	0.028142	173.83	**0.20**	**0.028**
Methylcyclohexane	0.092	0.120	0.053	0.150	0.260	0.260	0.26	0.064768	98.19	**0.26**	**0.065**
1,3-Dichloropropane	0.061	0.120	0.081	0.140	0.260	0.260	0.26	0.056285	112.99	**0.26**	**0.056**
1,1,1,2-Tetrachloroethane	0.055	0.120	0.065	0.130	0.230	0.230	0.23	0.033517	167.85	**0.23**	**0.034**
1-Chlorohexane	0.090	0.110	0.056	0.180	0.250	0.250	0.25	0.050696	120.62	**0.25**	**0.051**
1,2,3-Trichloropropane	0.081	0.092	0.078	0.130	0.250	0.250	0.25	0.041477	147.43	**0.25**	**0.041**
Bromobenzene	0.059	0.130	0.076	0.140	0.250	0.250	0.25	0.038947	157.01	**0.25**	**0.039**
2-Chlorotoluene	0.070	0.110	0.065	0.130	0.260	0.260	0.26	0.050238	126.59	**0.26**	**0.050**
4-Chlorotoluene	0.059	0.140	0.067	0.140	0.260	0.260	0.26	0.050238	126.59	**0.26**	**0.050**
Indane	0.063	0.110	0.056	0.140	0.240	0.240	0.24	0.049673	118.18	**0.24**	**0.050**
Indene	0.066	0.130	0.070	0.180	0.200	0.200	0.20	0.042114	116.16	**0.20**	**0.042**
1,2,4,5-Tetramethylbenzene	0.073	0.091	0.053	0.190	0.220	0.220	0.22	0.040092	134.22	**0.22**	**0.040**
1,2,3,4-Tetramethylbenzene	0.075	0.086	0.056	0.180	0.250	0.250	0.25	0.045560	134.22	**0.25**	**0.046**
1,2,3,5-Tetramethylbenzene	0.075	0.078	0.063	0.200	0.240	0.240	0.24	0.043737	134.22	**0.24**	**0.044**
1,2,3-Trichlorobenzene	0.066	0.160	0.096	0.270	0.250	0.270	0.27	0.036397	181.45	**0.27**	**0.036**

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG5-SS** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-001

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27 - 1/28/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes: 0.10 Liter(s)
Container ID: AS01383

Initial Pressure (psig): -1.95 Final Pressure (psig): 3.90

Container Dilution Factor: 1.46

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.31	0.083	ND	0.12	0.033	
75-35-4	1,1-Dichloroethene	**2.4**	0.13	0.11	**0.62**	0.033	0.027	
75-09-2	Methylene Chloride	**0.48**	0.67	0.22	**0.14**	0.19	0.063	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.31	0.11	ND	0.077	0.027	
75-34-3	1,1-Dichloroethane	**19**	0.31	0.11	**4.8**	0.076	0.028	
156-59-2	cis-1,2-Dichloroethene	ND	0.15	0.11	ND	0.037	0.028	
107-06-2	1,2-Dichloroethane	ND	0.15	0.086	ND	0.036	0.021	
71-55-6	1,1,1-Trichloroethane	**280**	1.5	0.96	**51**	0.28	0.18	**D**
56-23-5	Carbon Tetrachloride	**1.7**	0.15	0.11	**0.27**	0.024	0.017	
79-01-6	Trichloroethene	**7.8**	0.15	0.11	**1.5**	0.029	0.020	
127-18-4	Tetrachloroethene	**17**	0.16	0.10	**2.5**	0.024	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.
D = The reported result is from a dilution.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 11:34:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	101785	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	486029	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	160677	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.07	65	280974	15.338	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.72%				
57) Toluene-d8 (SS2)	12.46	98	618261	10.599	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 84.80%				
73) Bromofluorobenzene (SS3)	16.84	174	147988	9.923	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.36%				
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D. d			
3) Dichlorodifluoromethan...	3.44	85	42696	1.686	ng		99
4) Chloromethane	0.00	50	0	N.D. d			
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	703	0.084	ng		90
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	3.85	54	231	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.37	45	37206	2.359	ng		99
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.65	56	1832	0.156	ng		95
13) Acetone	4.72	58	72251	6.369	ng	#	61
14) Trichlorofluoromethane	4.83	101	17863	0.873	ng		98
15) 2-Propanol (Isopropanol)	4.94	45	15476	0.304	ng	#	58
16) Acrylonitrile	0.00	53	0	N.D. d			
17) 1,1-Dichloroethene	5.35	96	17689	1.678	ng	#	84
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d			
19) Methylene Chloride	5.44	84	4406	0.331	ng	#	77
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2778	0.343	ng		93
22) Carbon Disulfide	5.70	76	5651	0.109	ng		97
23) trans-1,2-Dichloroethene	6.23	61	109	N.D.			
24) 1,1-Dichloroethane	6.38	63	355131	13.307	ng		99
25) Methyl tert-Butyl Ether	6.40	73	165	N.D.			
26) Vinyl Acetate	6.52	86	906	0.384	ng	#	25
27) 2-Butanone (MEK)	6.75	72	7121	0.833	ng	#	64
28) cis-1,2-Dichloroethene	7.14	61	454	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D. d			
30) Ethyl Acetate	7.34	61	95704	17.483	ng		91
31) n-Hexane	7.37	57	4982	0.192	ng	#	91
32) Chloroform	7.42	83	115162	5.283	ng		99
34) Tetrahydrofuran (THF)	7.84	72	876	0.101	ng	#	40
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	8.45	97	3936713	202.087	ng		97
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.89	56	9946	No Calib		#	
41) Benzene	8.96	78	9155	0.160	ng		99
42) Carbon Tetrachloride	9.12	117	19711	1.170	ng		99
43) Cyclohexane	9.26	84	204	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	10.13	83	6508	0.368	ng		96
47) Trichloroethene	10.19	130	61672	5.369	ng		98
48) 1,4-Dioxane	0.00	88	0	N.D.			

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 11:34:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

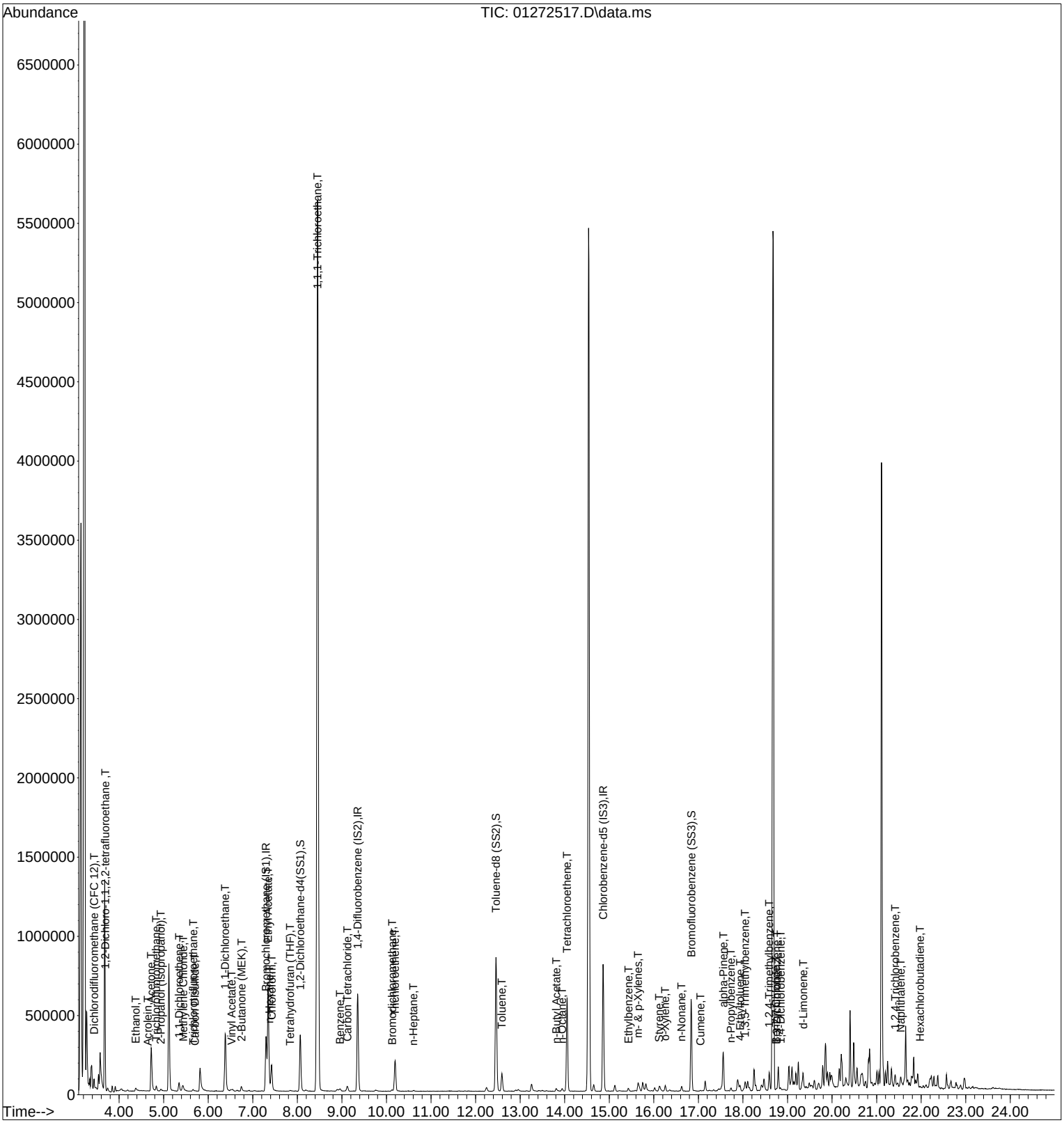
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.28	57	1614	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	10.60	71	838	0.059 ng	#	82
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	11.38	58	487	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	83784	1.357 ng		99
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.81	43	21529	0.401 ng		92
63) n-Octane	13.94	57	3257	0.189 ng		88
64) Tetrachloroethene	14.05	166	166513	11.837 ng		100
65) Chlorobenzene	14.92	112	376	N.D.		
66) Ethylbenzene	15.43	91	14838	0.212 ng		96
67) m- & p-Xylenes	15.65	91	46714	0.842 ng		96
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	16.12	104	10143	0.274 ng		99
70) o-Xylene	16.26	91	22042	0.400 ng		97
71) n-Nonane	16.62	43	17991	0.367 ng		85
72) 1,1,2,2-Tetrachloroethane	16.22	83	421	N.D.		
74) Cumene	17.05	105	3757	0.059 ng		90
75) alpha-Pinene	17.56	93	99048	3.149 ng		93
76) n-Propylbenzene	17.73	91	15442	0.186 ng		95
77) 3-Ethyltoluene	17.05	105	3757	No Calib		
78) 4-Ethyltoluene	17.93	105	18855	0.315 ng		97
79) 1,3,5-Trimethylbenzene	18.05	105	18329	0.349 ng		96
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	3757	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	56779	1.084 ng		89
83) n-Decane	17.13	58	1107	No Calib	#	
84) Benzyl Chloride	18.74	91	2962	0.078 ng		95
85) 1,3-Dichlorobenzene	18.76	146	1482	0.054 ng		95
86) 1,4-Dichlorobenzene	18.85	146	1569	0.054 ng		88
87) sec-Butylbenzene	18.95	105	1687	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	17.05	105	3757	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	1113	N.D.		
91) d-Limonene	19.35	68	24254	1.079 ng		95
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D. d		
93) n-Undecane	18.05	58	1264	No Calib	#	
94) 1,2,4-Trichlorobenzene	21.42	180	4326	0.255 ng		99
95) Naphthalene	21.54	128	13679	0.308 ng		96
96) n-Dodecane	19.03	58	3362	No Calib	#	
97) Hexachlorobutadiene	21.98	225	885	0.072 ng		92
98) Cyclohexanone	15.44	55	408	No Calib	#	
99) tert-Butylbenzene	0.00	119	0	N.D. d		
100) n-Butylbenzene	0.00	91	0	N.D. d		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 11:34:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 11:34:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	101785	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	486029	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	160677	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.07	65	280974	15.338	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.72%				
57) Toluene-d8 (SS2)	12.46	98	618261	10.599	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 84.80%				
73) Bromofluorobenzene (SS3)	16.84	174	147988	9.923	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.36%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.44	85	42696	1.686	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	703	0.084	ng		90
10) Ethanol	4.37	45	37206	2.359	ng		99
12) Acrolein	4.65	56	1832	0.156	ng		95
13) Acetone	4.72	58	72251	6.369	ng	#	61
14) Trichlorofluoromethane	4.83	101	17863	0.873	ng		98
15) 2-Propanol (Isopropanol)	4.94	45	15476	0.304	ng	#	58
17) 1,1-Dichloroethene	5.35	96	17689	1.678	ng	#	84
19) Methylene Chloride	5.44	84	4406	0.331	ng	#	77
21) Trichlorotrifluoroethane	5.66	151	2778	0.343	ng		93
22) Carbon Disulfide	5.70	76	5651	0.109	ng		97
24) 1,1-Dichloroethane	6.38	63	355131	13.307	ng		99
26) Vinyl Acetate	6.52	86	906	0.384	ng	#	25
27) 2-Butanone (MEK)	6.75	72	7121	0.833	ng	#	64
30) Ethyl Acetate	7.34	61	95704	17.483	ng		91
31) n-Hexane	7.37	57	4982	0.192	ng	#	91
32) Chloroform	7.42	83	115162	5.283	ng		99
34) Tetrahydrofuran (THF)	7.84	72	876	0.101	ng	#	40
38) 1,1,1-Trichloroethane	8.45	97	3936713	202.087	ng		97
41) Benzene	8.96	78	9155	0.160	ng		99
42) Carbon Tetrachloride	9.12	117	19711	1.170	ng		99
46) Bromodichloromethane	10.13	83	6508	0.368	ng		96
47) Trichloroethene	10.19	130	61672	5.369	ng		98
51) n-Heptane	10.60	71	838	0.059	ng	#	82
58) Toluene	12.59	91	83784	1.357	ng		99
62) n-Butyl Acetate	13.81	43	21529	0.401	ng		92
63) n-Octane	13.94	57	3257	0.189	ng		88
64) Tetrachloroethene	14.05	166	166513	11.837	ng		100
66) Ethylbenzene	15.43	91	14838	0.212	ng		96
67) m- & p-Xylenes	15.65	91	46714	0.842	ng		96
69) Styrene	16.12	104	10143	0.274	ng		99
70) o-Xylene	16.26	91	22042	0.400	ng		97
71) n-Nonane	16.62	43	17991	0.367	ng		85
74) Cumene	17.05	105	3757	0.059	ng		90
75) alpha-Pinene	17.56	93	99048	3.149	ng		93
76) n-Propylbenzene	17.73	91	15442	0.186	ng		95
78) 4-Ethyltoluene	17.93	105	18855	0.315	ng		97
79) 1,3,5-Trimethylbenzene	18.05	105	18329	0.349	ng		96
82) 1,2,4-Trimethylbenzene	18.59	105	56779	1.084	ng		89
84) Benzyl Chloride	18.74	91	2962	0.078	ng		95
85) 1,3-Dichlorobenzene	18.76	146	1482	0.054	ng		95
86) 1,4-Dichlorobenzene	18.85	146	1569	0.054	ng		88
91) d-Limonene	19.35	68	24254	1.079	ng		95
94) 1,2,4-Trichlorobenzene	21.42	180	4326	0.255	ng		99
95) Naphthalene	21.54	128	13679	0.308	ng		96

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 11:34:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

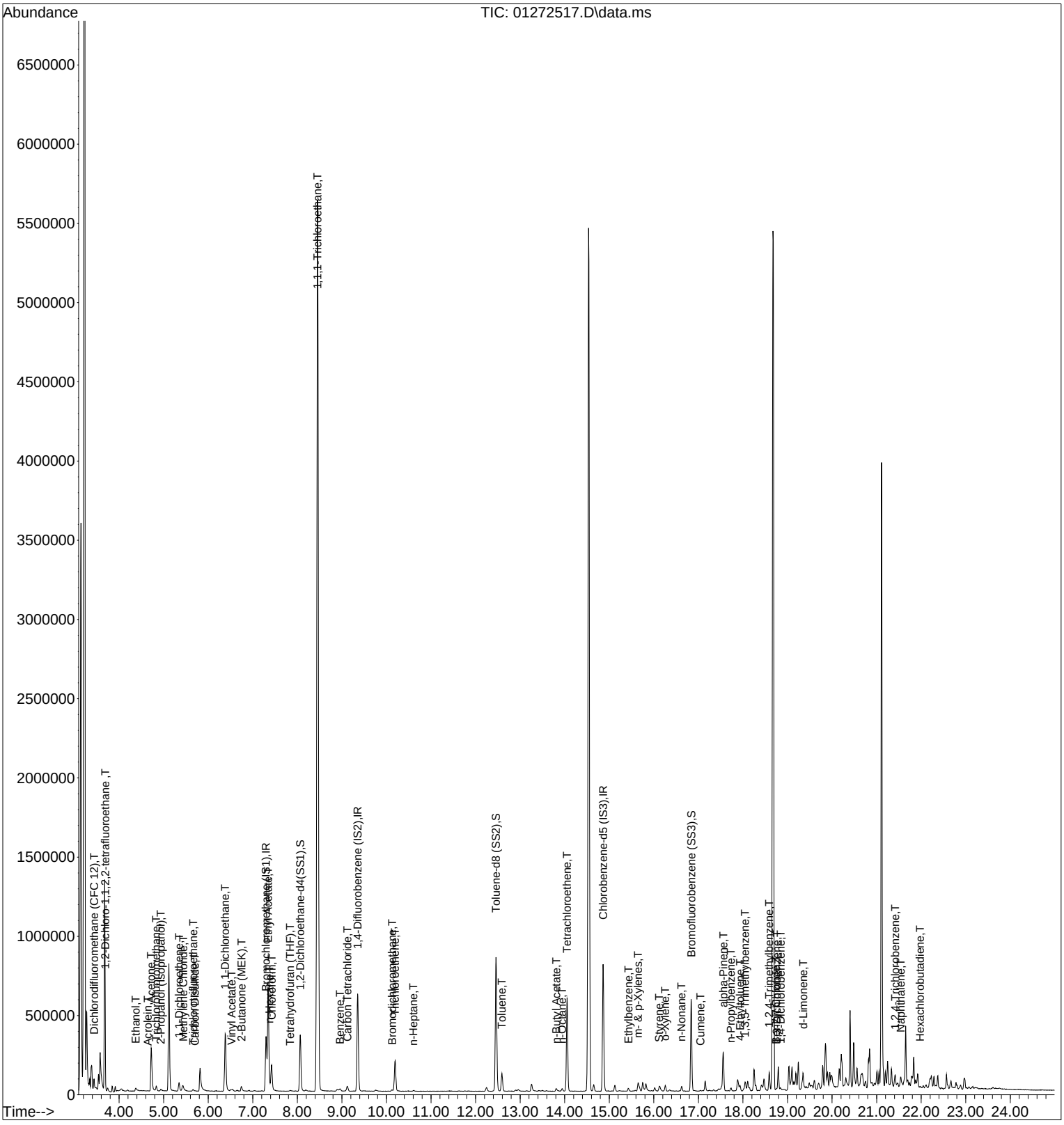
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) Hexachlorobutadiene	21.98	225	885	0.072	ng	92

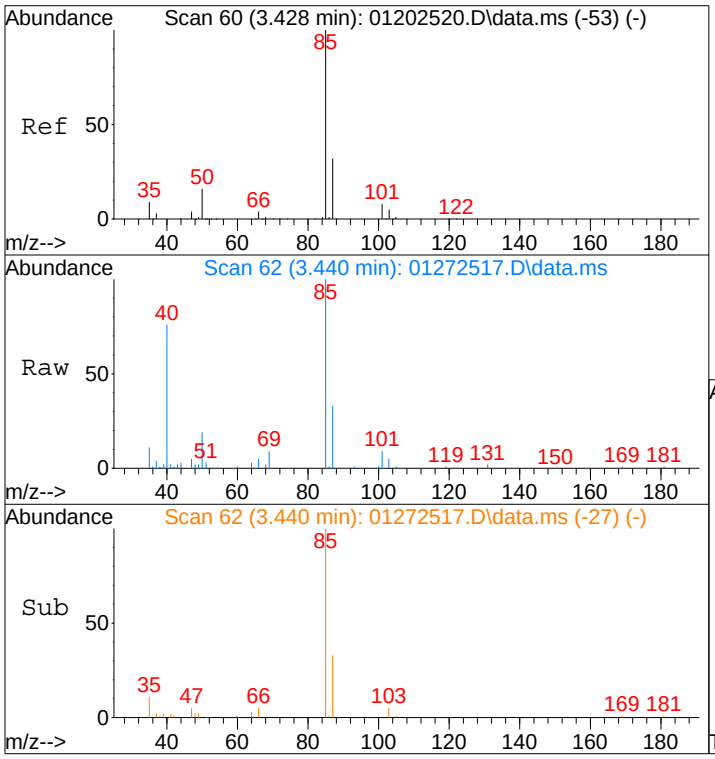
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
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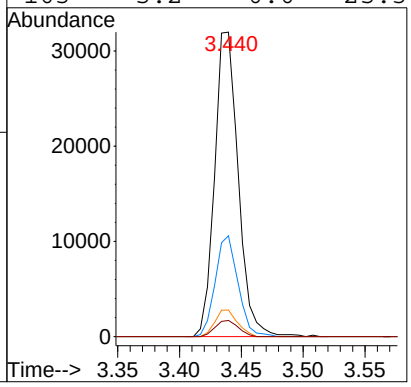


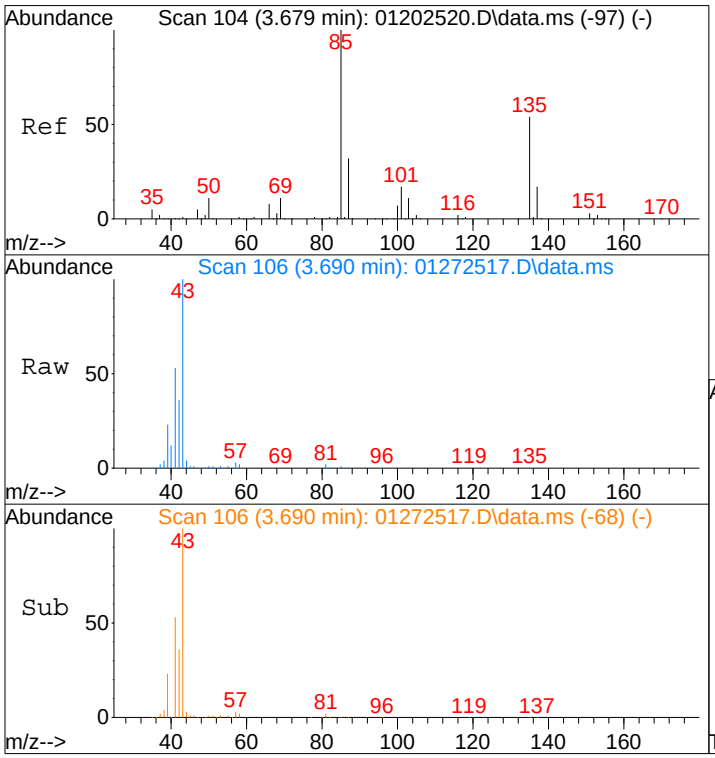


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.69 ng
RT: 3.44 min Scan# 62
Delta R.T. -0.051 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 85 Resp: 42696

Ion	Ratio	Lower	Upper
85	100		
87	31.8	12.2	52.2
101	8.3	0.0	28.4
103	5.2	0.0	25.3

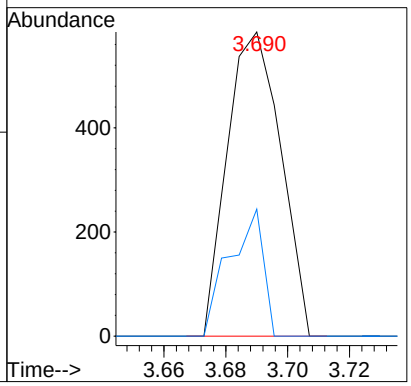


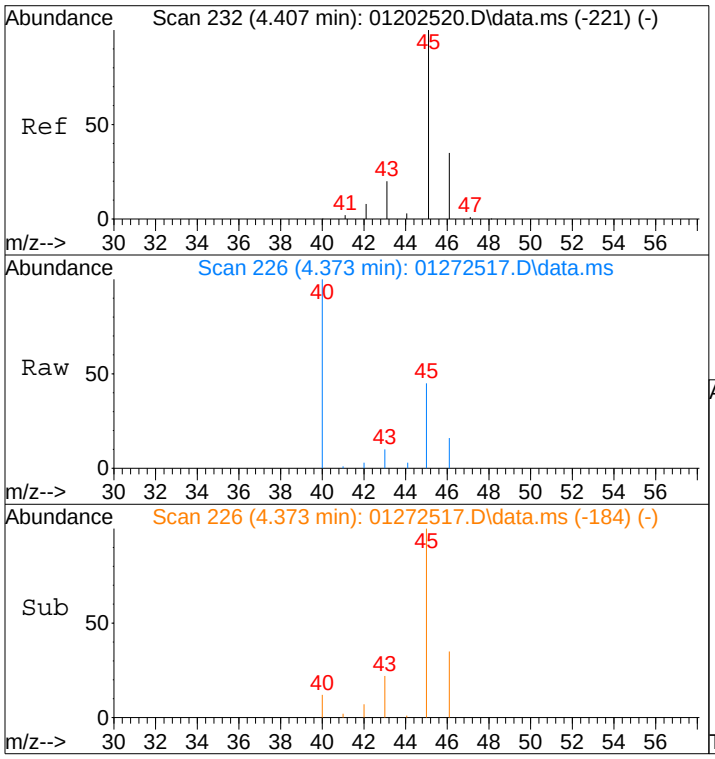


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.08 ng
RT: 3.69 min Scan# 106
Delta R.T. -0.034 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:135 Resp: 703

Ion	Ratio	Lower	Upper
135	100		
137	26.7	12.2	52.2

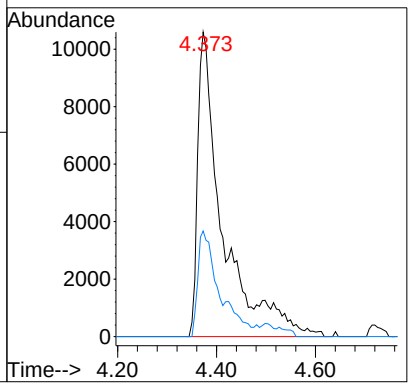


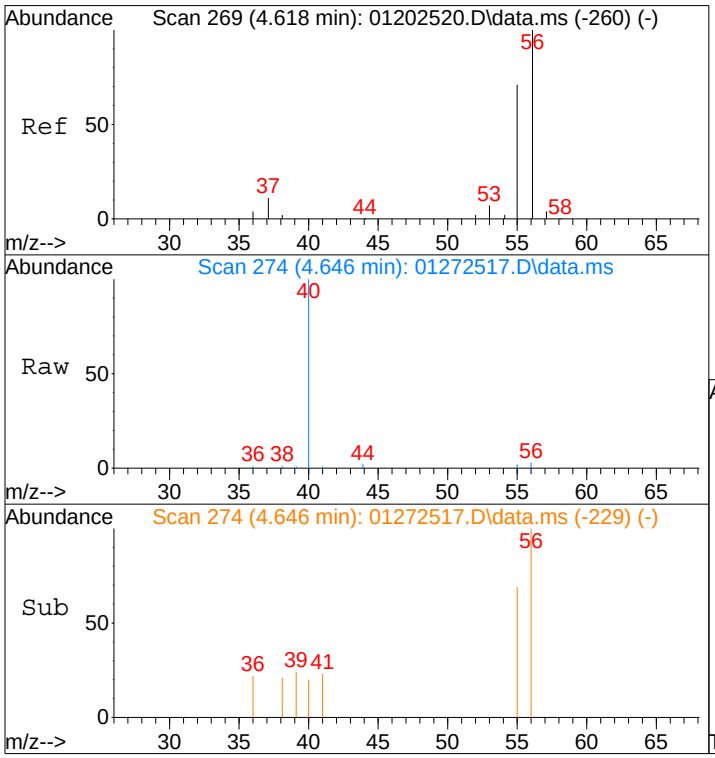


#10
Ethanol
Concen: 2.36 ng
RT: 4.37 min Scan# 226
Delta R.T. -0.012 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 45 Resp: 37206

Ion	Ratio	Lower	Upper
45	100		
46	34.3	15.0	55.0

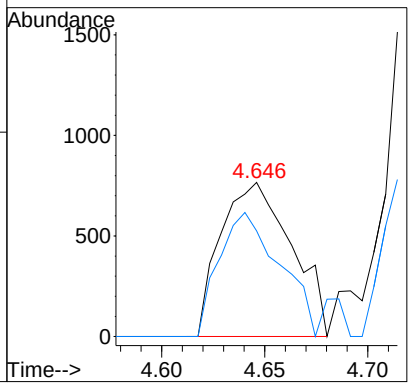


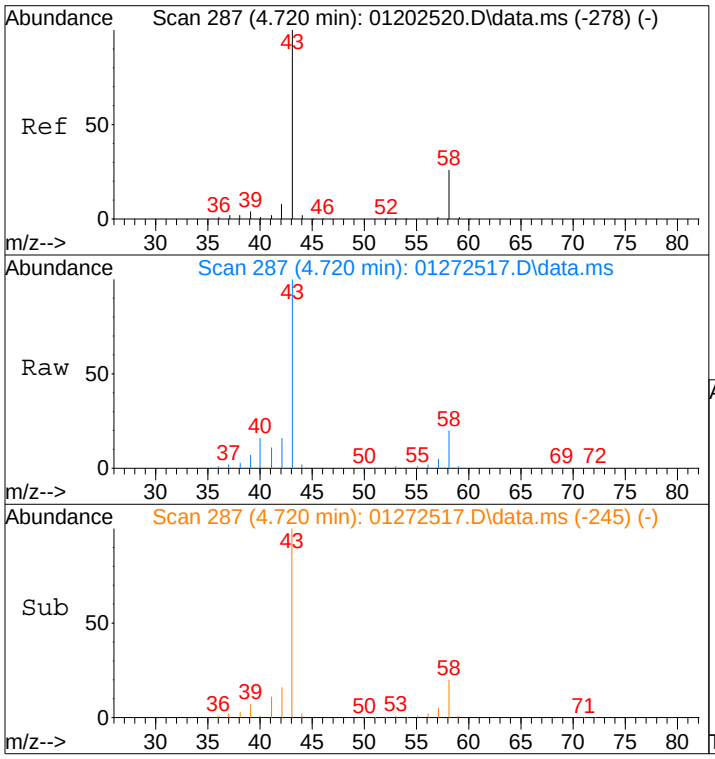


#12
Acrolein
Concen: 0.16 ng
RT: 4.65 min Scan# 274
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 56 Resp: 1832

Ion	Ratio	Lower	Upper
56	100		
55	69.1	53.6	93.6

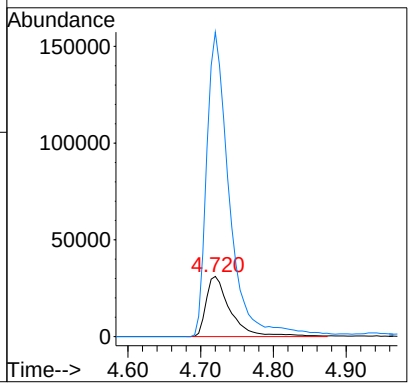


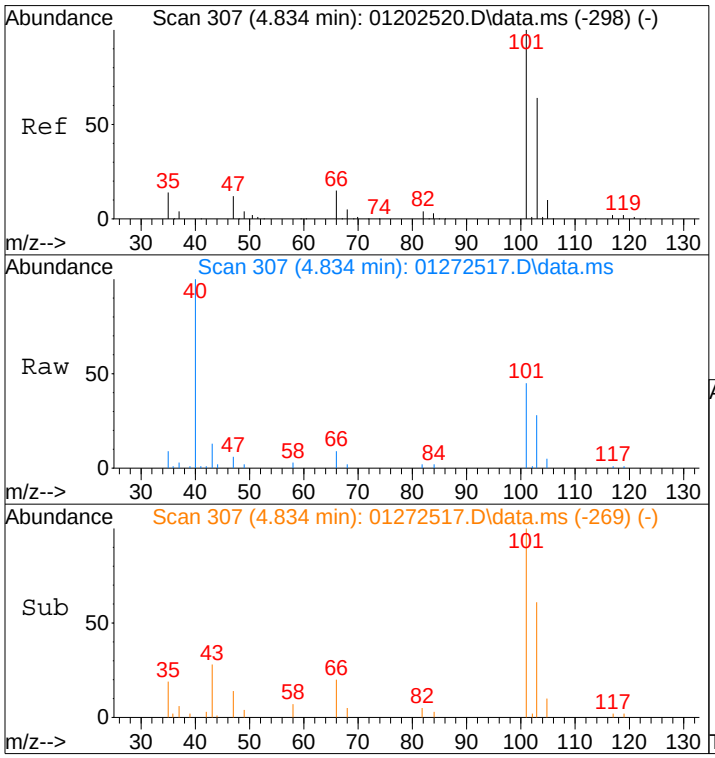


#13
Acetone
Concen: 6.37 ng
RT: 4.72 min Scan# 287
Delta R.T. -0.012 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 58 Resp: 72251

Ion	Ratio	Lower	Upper
58	100		
43	480.5	359.4	419.4#

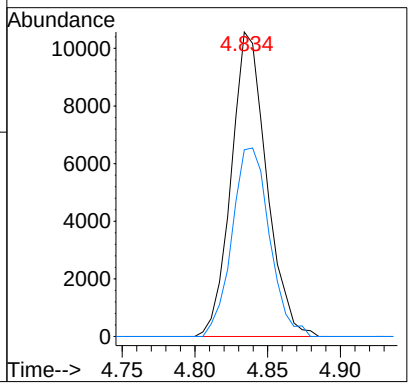


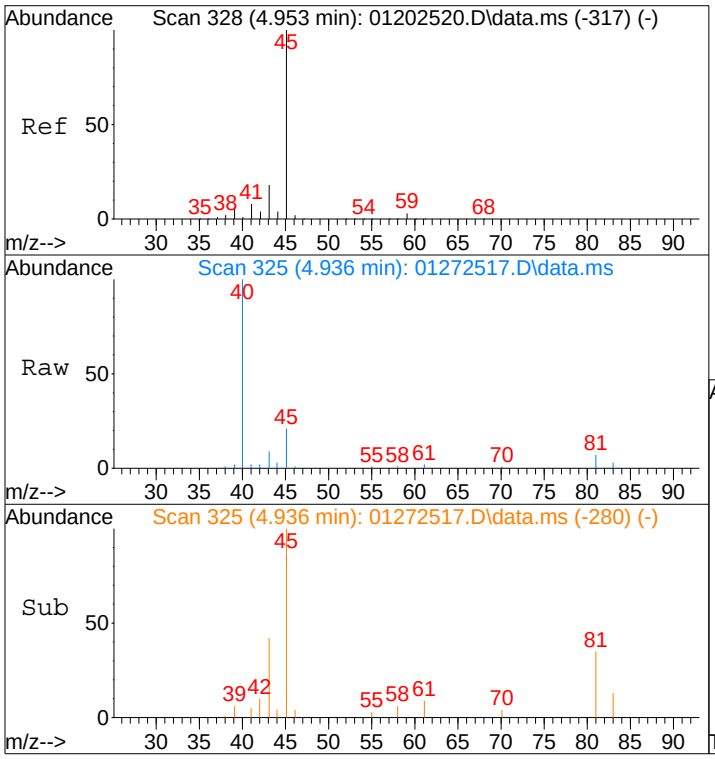


#14
Trichlorofluoromethane
Concen: 0.87 ng
RT: 4.83 min Scan# 307
Delta R.T. -0.034 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:101 Resp: 17863

Ion	Ratio	Lower	Upper
101	100		
103	65.5	44.2	84.2

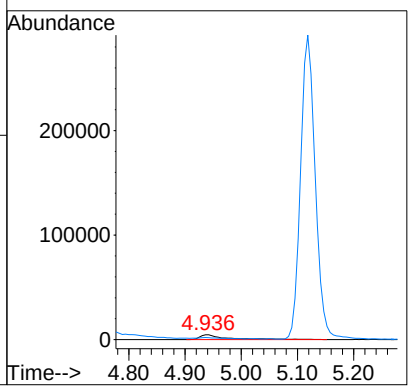


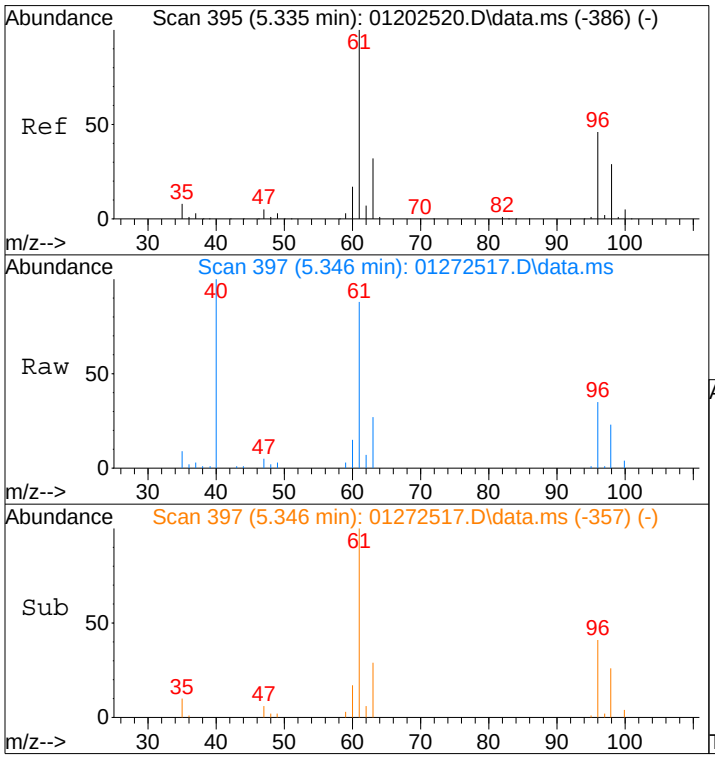


#15
2-Propanol (Isopropanol)
Concen: 0.30 ng
RT: 4.94 min Scan# 325
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 45 Resp: 15476

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

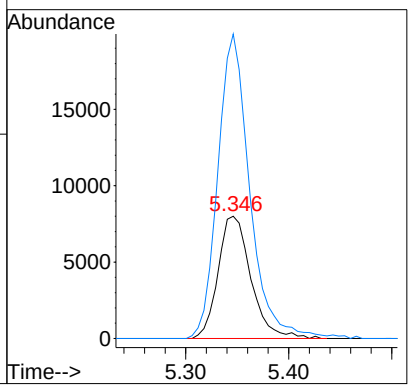


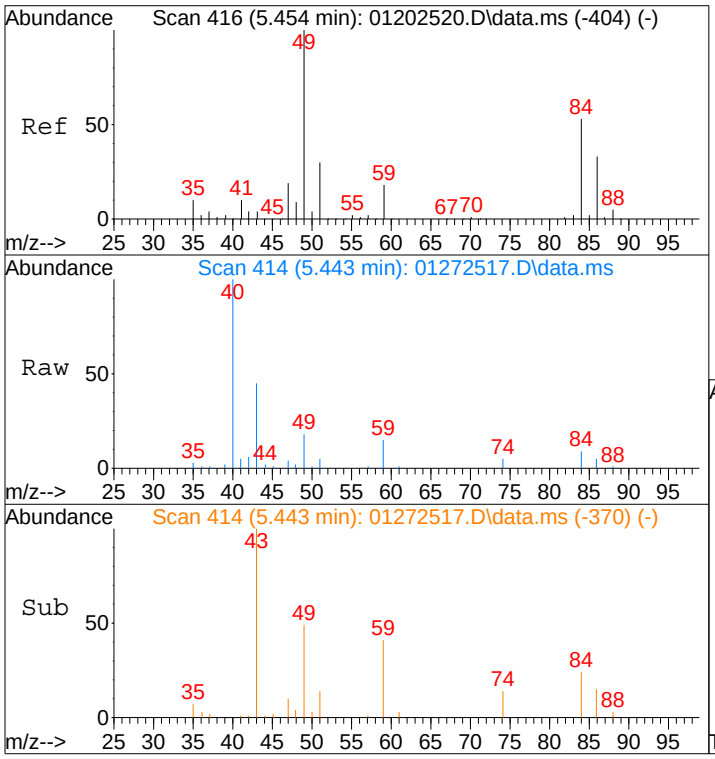


#17
1,1-Dichloroethene
Concen: 1.68 ng
RT: 5.35 min Scan# 397
Delta R.T. -0.023 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 96 Resp: 17689

Ion	Ratio	Lower	Upper
96	100		
61	243.3	197.4	237.4#

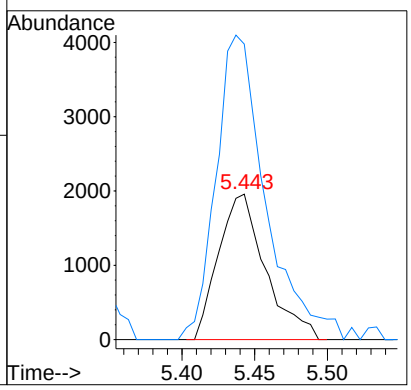


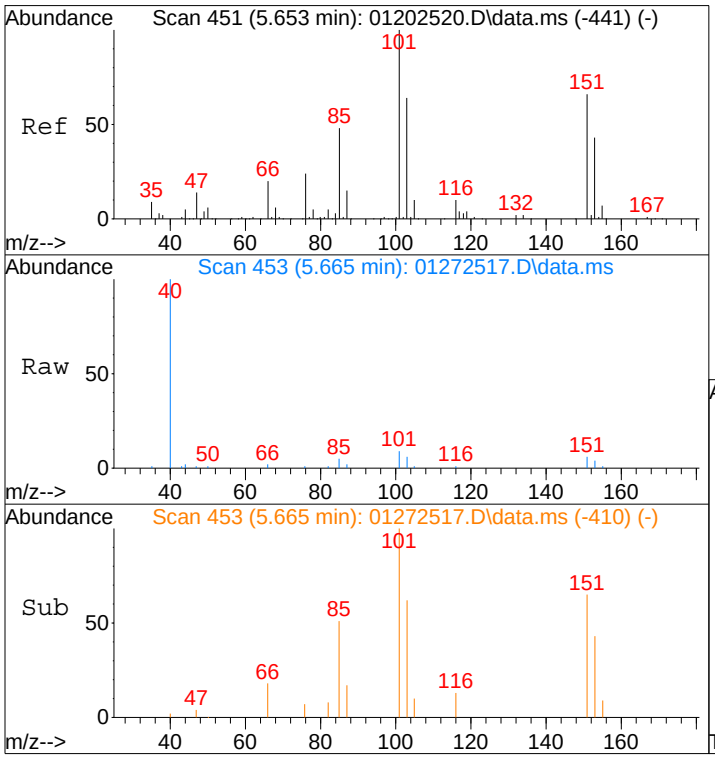


#19
Methylene Chloride
Concen: 0.33 ng
RT: 5.44 min Scan# 414
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 84 Resp: 4406

Ion	Ratio	Lower	Upper
84	100		
49	222.2	163.7	213.7#

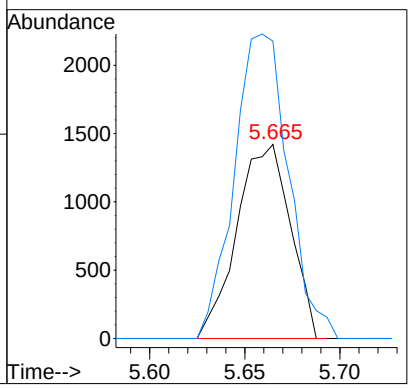


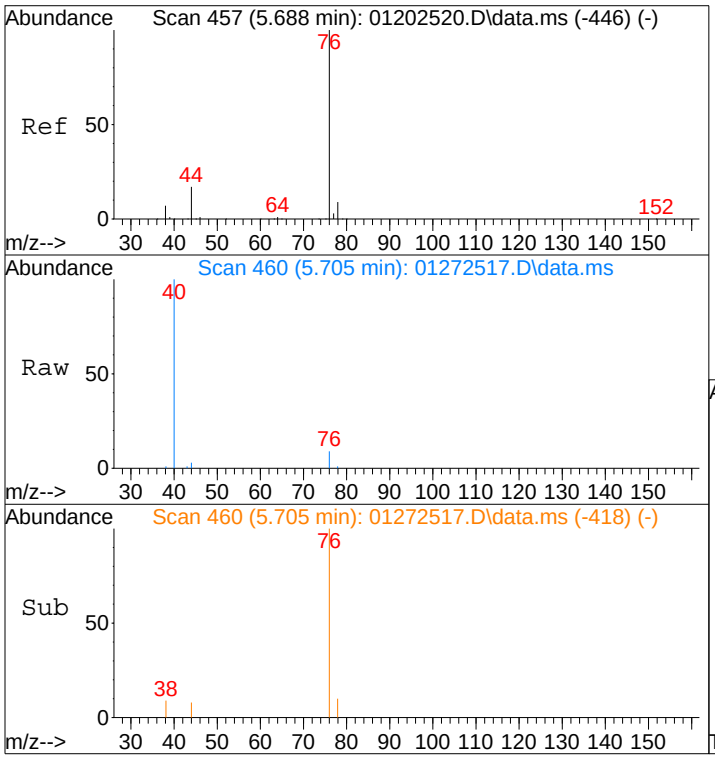


#21
Trichlorotrifluoroethane
Concen: 0.34 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:151 Resp: 2778

Ion	Ratio	Lower	Upper
151	100		
101	159.0	129.9	169.9

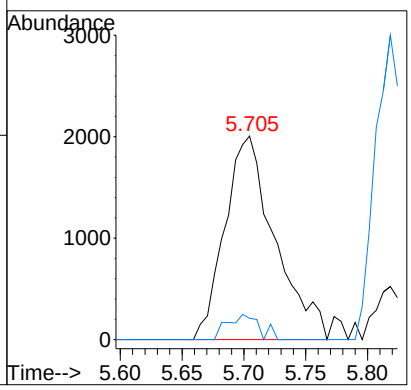


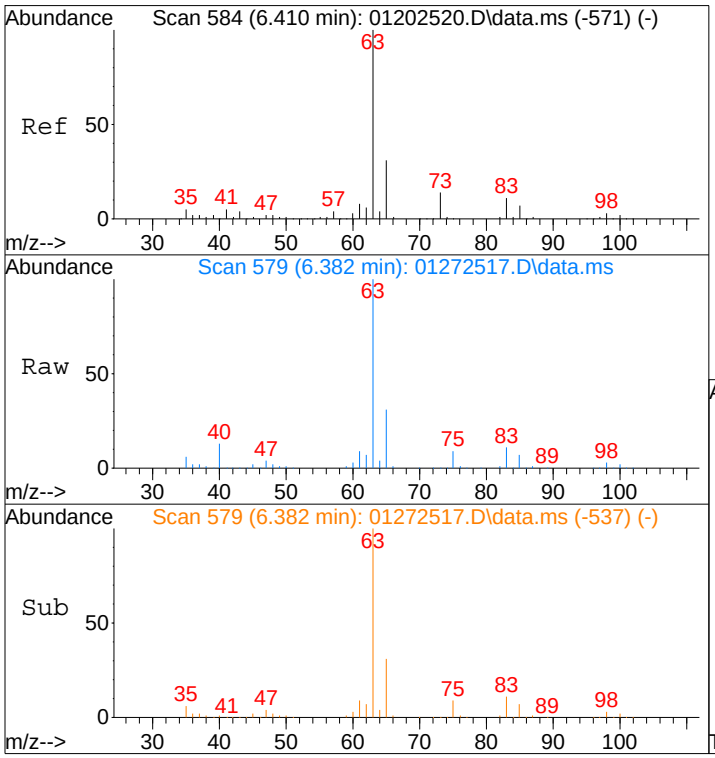


#22
Carbon Disulfide
Concen: 0.11 ng
RT: 5.70 min Scan# 460
Delta R.T. -0.011 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 76 Resp: 5651

Ion	Ratio	Lower	Upper
76	100		
78	7.9	0.0	29.1

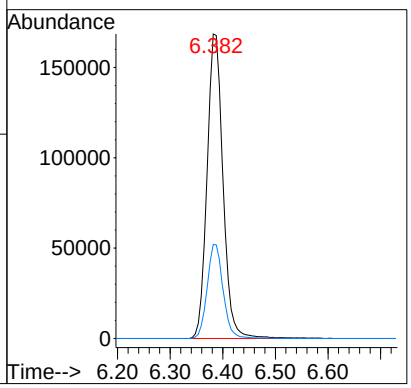


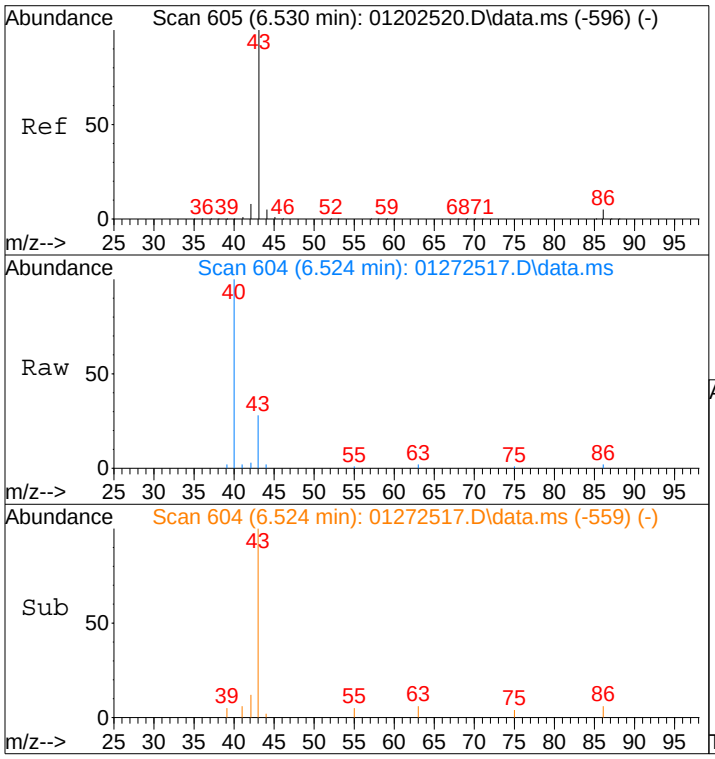


#24
1,1-Dichloroethane
Concen: 13.31 ng
RT: 6.38 min Scan# 579
Delta R.T. -0.011 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 63 Resp: 355131

Ion	Ratio	Lower	Upper
63	100		
65	30.7	11.5	51.5

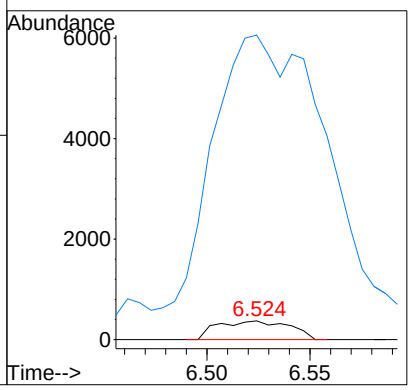


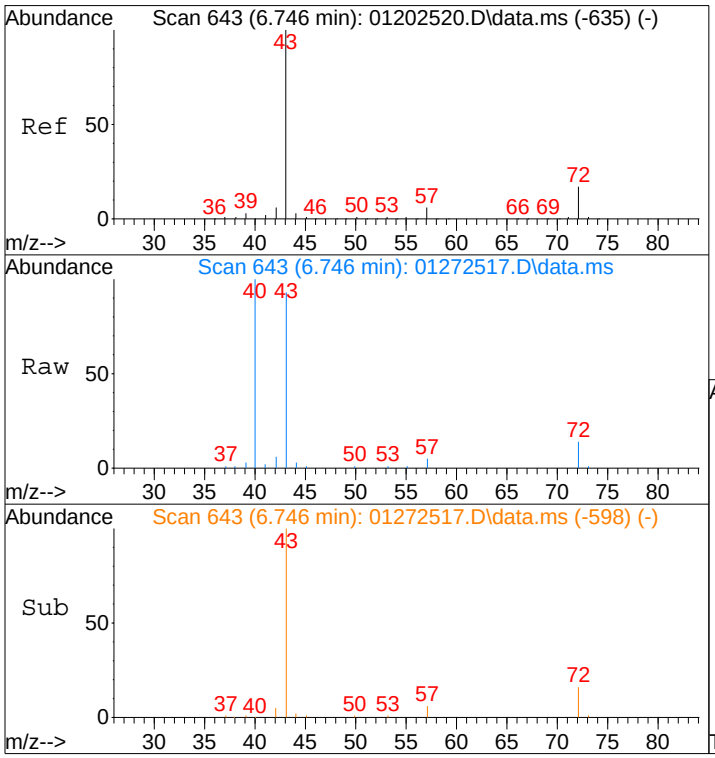


#26
Vinyl Acetate
Concen: 0.38 ng
RT: 6.52 min Scan# 604
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 86 Resp: 906

Ion	Ratio	Lower	Upper
86	100		
43	2622.3	2036.4	2076.4#

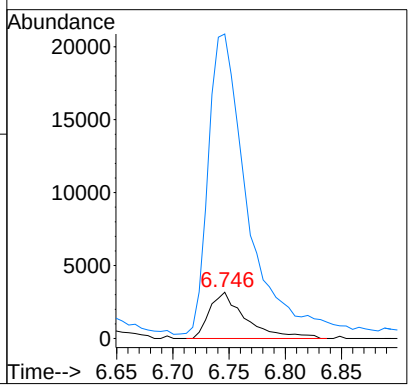


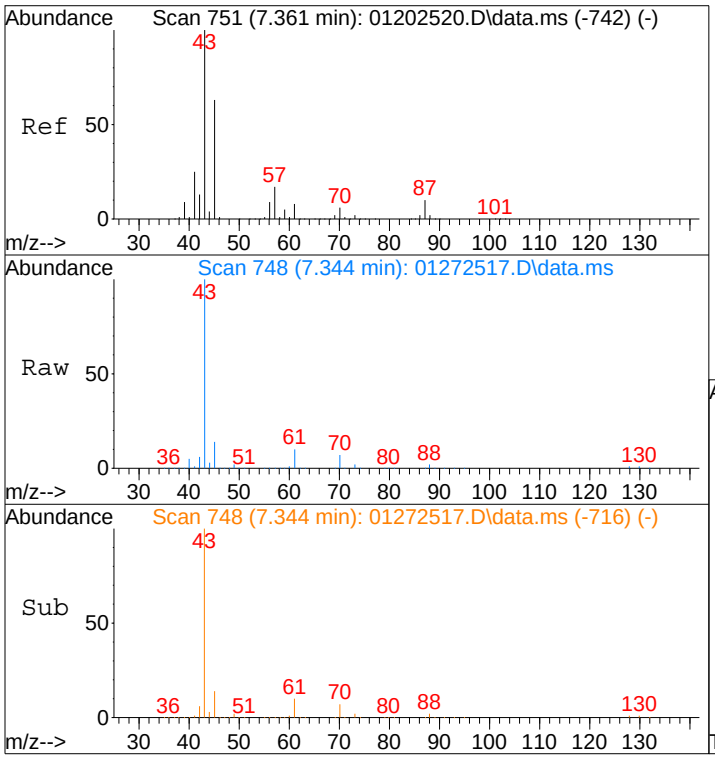


#27
2-Butanone (MEK)
Concen: 0.83 ng
RT: 6.75 min Scan# 643
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 72 Resp: 7121

Ion	Ratio	Lower	Upper
72	100		
43	710.9	579.1	619.1#

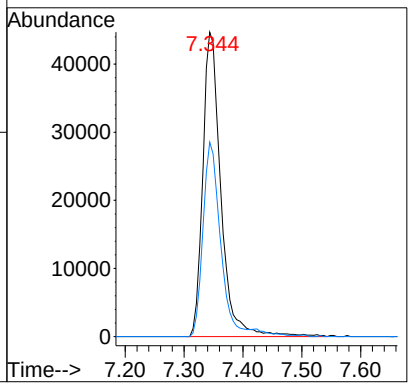


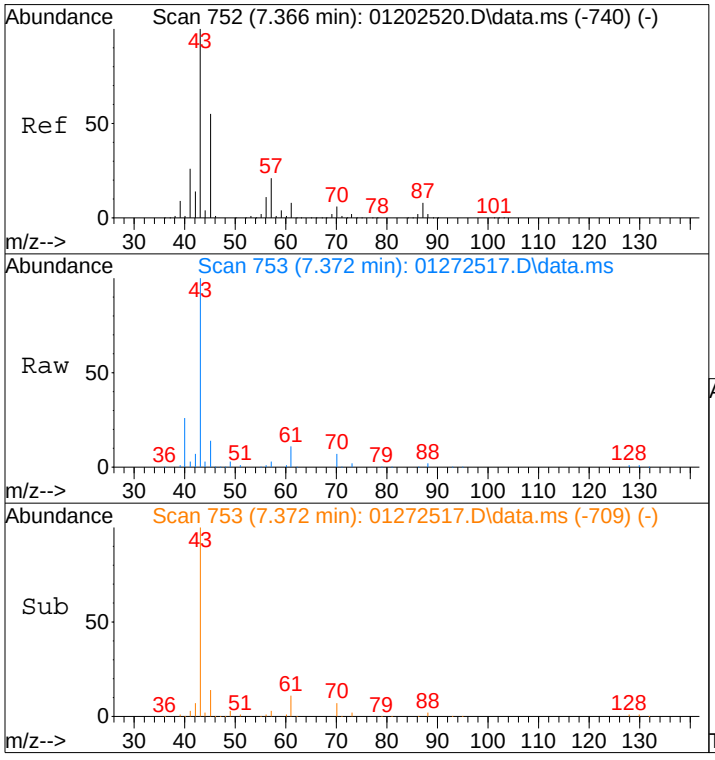


#30
Ethyl Acetate
Concen: 17.48 ng
RT: 7.34 min Scan# 748
Delta R.T. -0.017 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 61 Resp: 95704

Ion	Ratio	Lower	Upper
61	100		
70	63.7	51.2	91.2

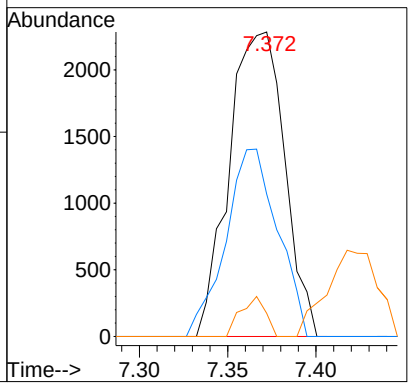


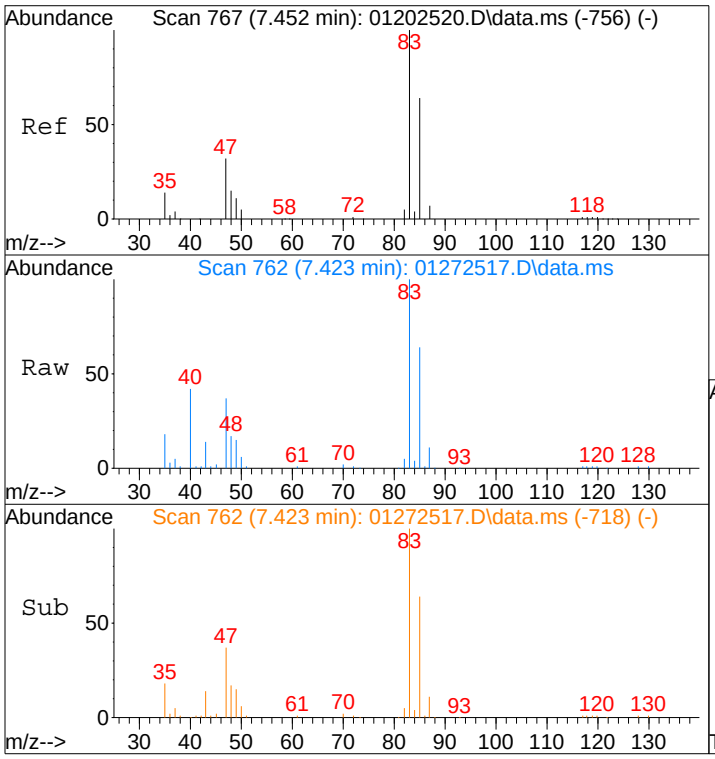


#31
n-Hexane
Concen: 0.19 ng
RT: 7.37 min Scan# 753
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 57 Resp: 4982

Ion	Ratio	Lower	Upper
57	100		
56	57.8	41.8	62.6
86	5.9	8.3	12.5#

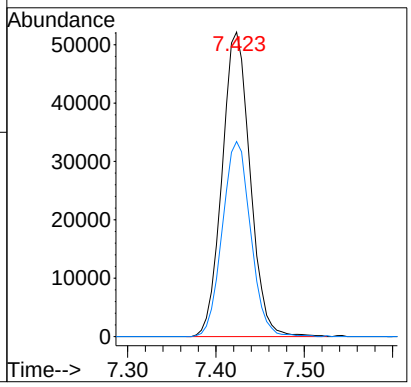


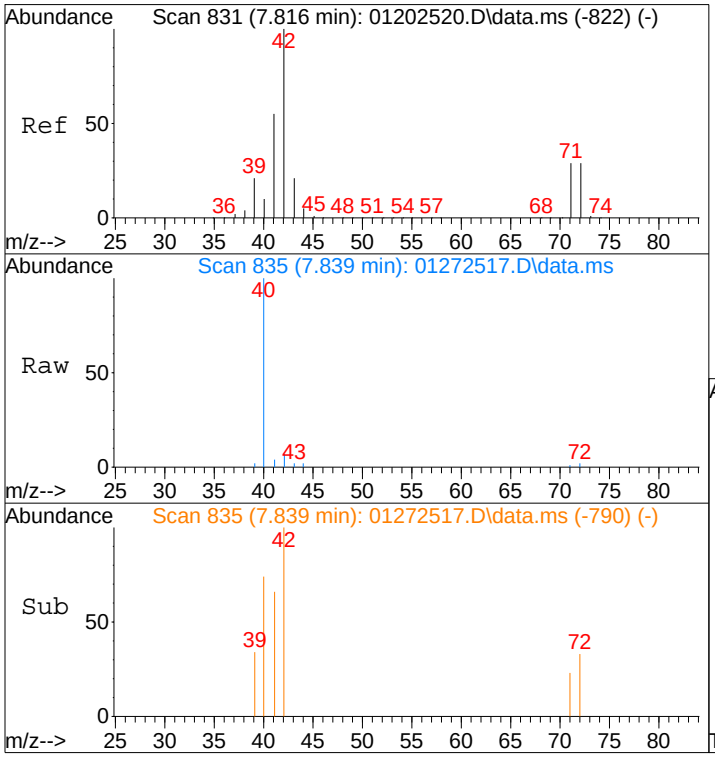


#32
Chloroform
Concen: 5.28 ng
RT: 7.42 min Scan# 762
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 83 Resp: 115162

Ion	Ratio	Lower	Upper
83	100		
85	64.5	44.0	84.0

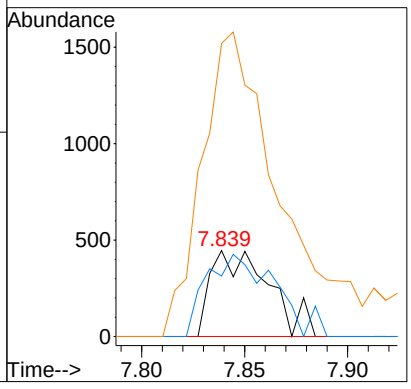


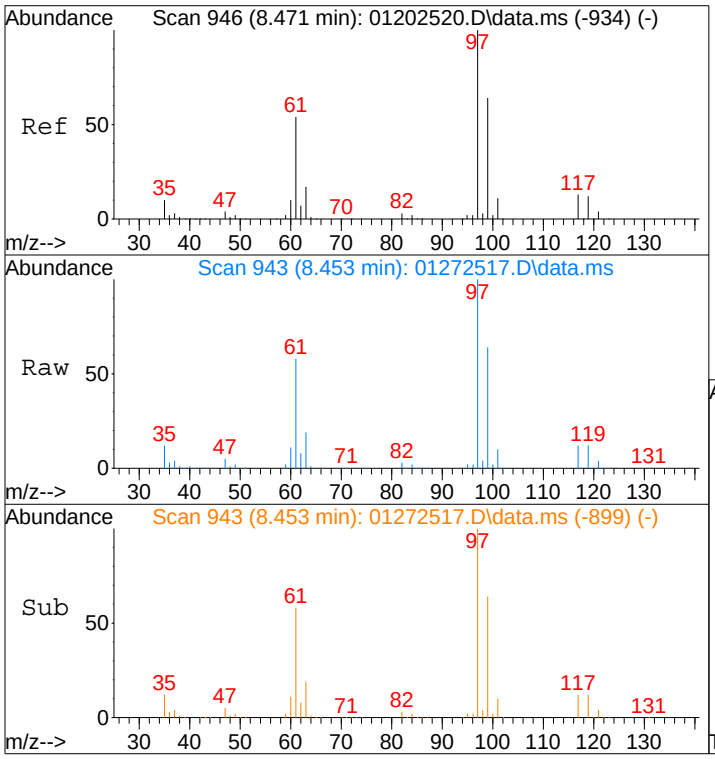


#34
Tetrahydrofuran (THF)
Concen: 0.10 ng
RT: 7.84 min Scan# 835
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 72 Resp: 876

Ion	Ratio	Lower	Upper
72	100		
71	113.0	78.8	118.8
42	496.7	320.3	360.3#

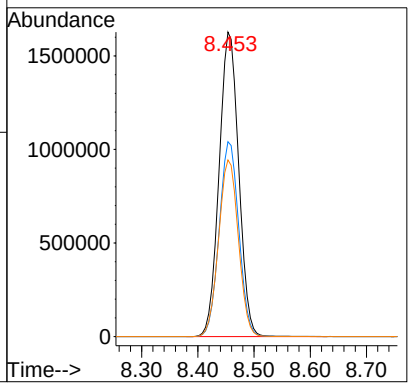


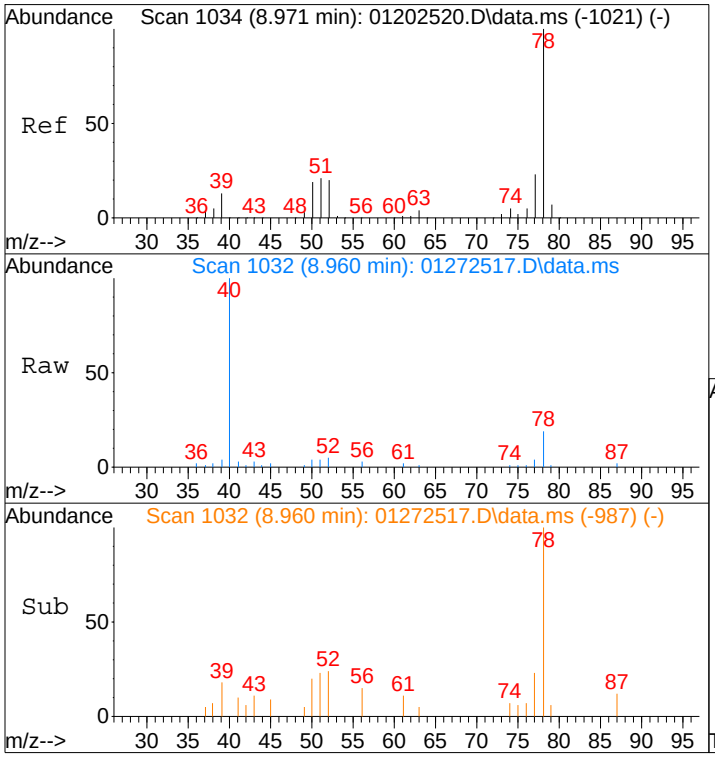


#38
1,1,1-Trichloroethane
Concen: 202.09 ng
RT: 8.45 min Scan# 943
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 97 Resp: 3936713

Ion	Ratio	Lower	Upper
97	100		
99	64.1	43.8	83.8
61	58.6	34.3	74.3

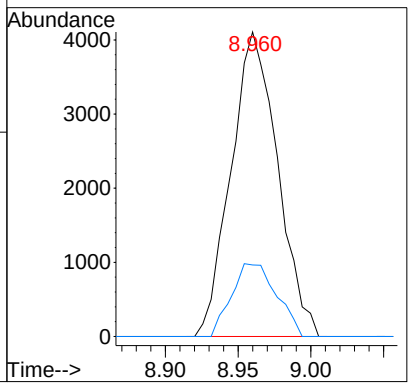


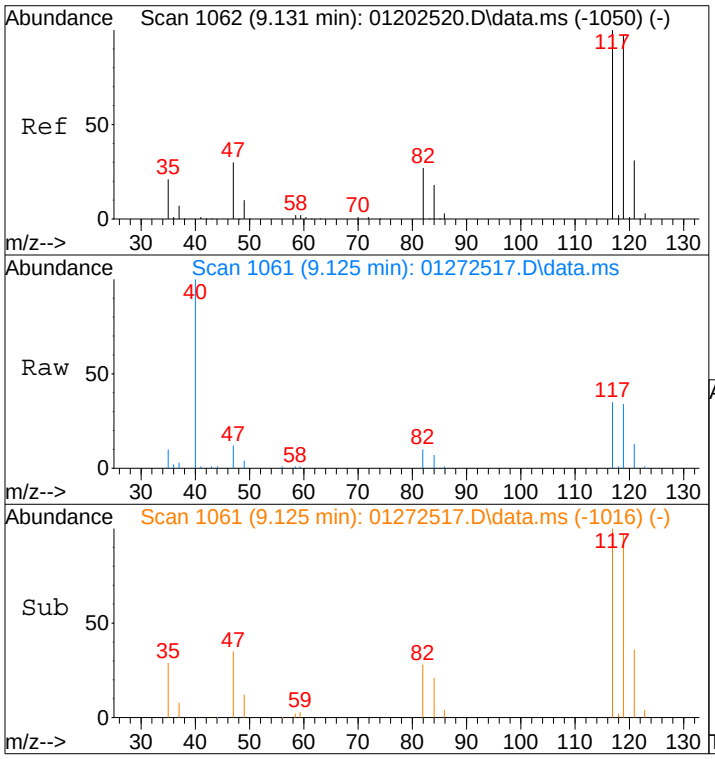


#41
Benzene
Concen: 0.16 ng
RT: 8.96 min Scan# 1032
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 78 Resp: 9155

Ion	Ratio	Lower	Upper
78	100		
77	23.1	3.4	43.4

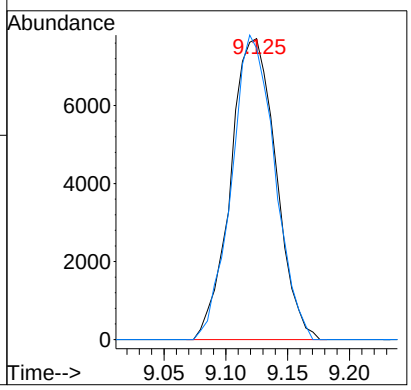


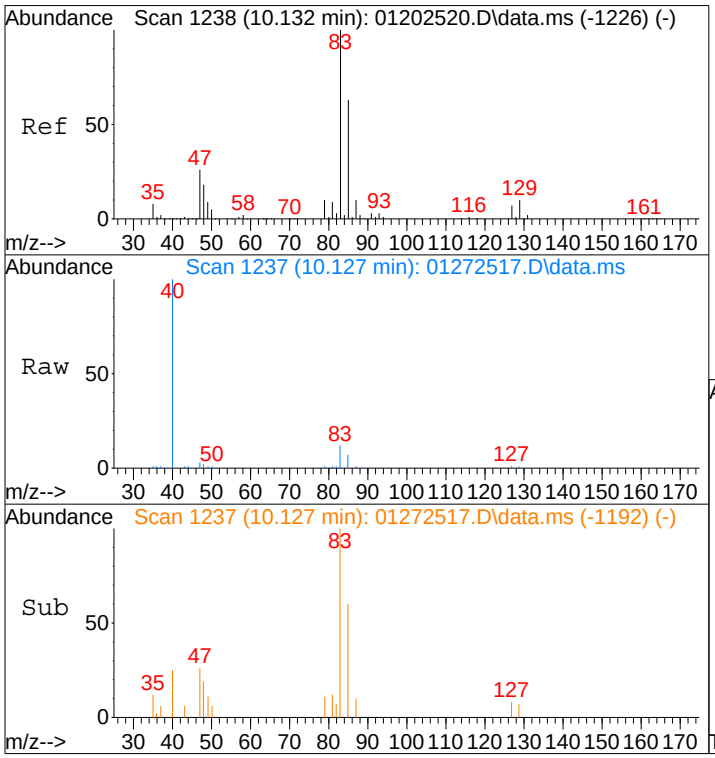


#42
Carbon Tetrachloride
Concen: 1.17 ng
RT: 9.12 min Scan# 1061
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:117 Resp: 19711

Ion	Ratio	Lower	Upper
117	100		
119	96.3	75.4	115.4

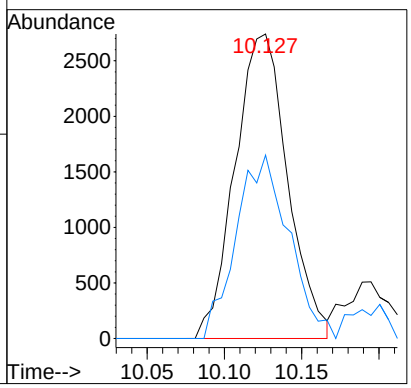


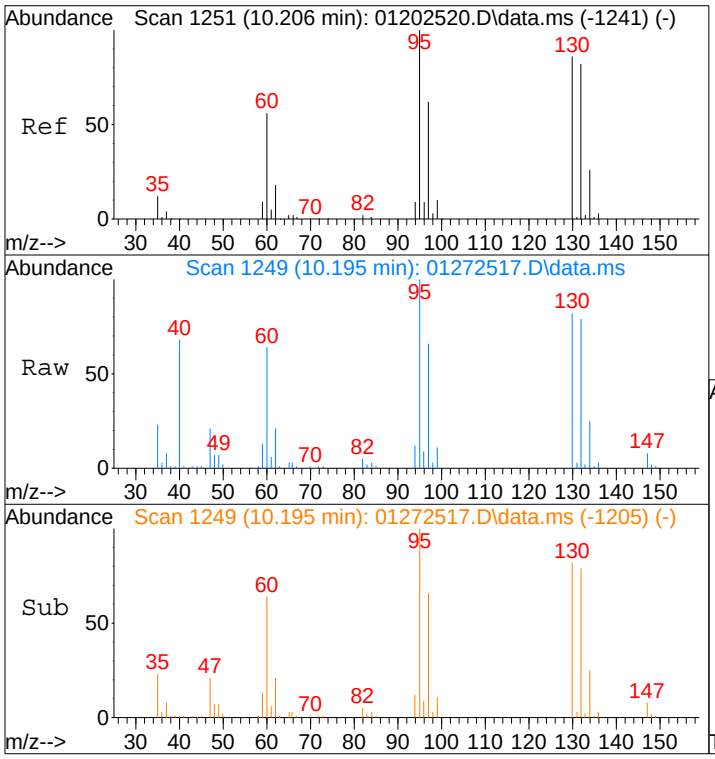


#46
Bromodichloromethane
Concen: 0.37 ng
RT: 10.13 min Scan# 1237
Delta R.T. 0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 83 Resp: 6508

Ion	Ratio	Lower	Upper
83	100		
85	60.1	43.1	83.1

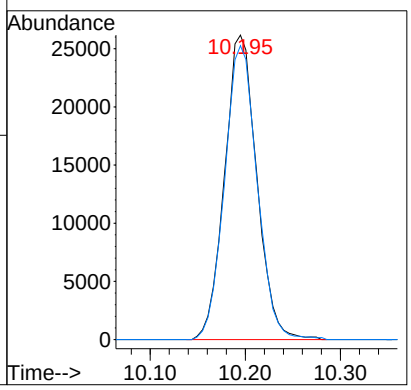


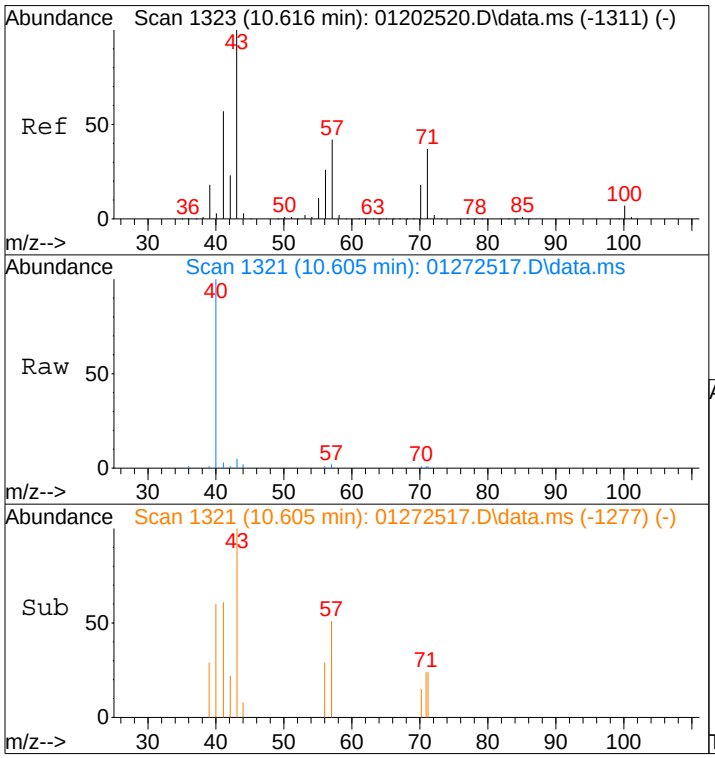


#47
Trichloroethene
Concen: 5.37 ng
RT: 10.19 min Scan# 1249
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:130 Resp: 61672

Ion	Ratio	Lower	Upper
130	100		
132	97.5	75.5	115.5

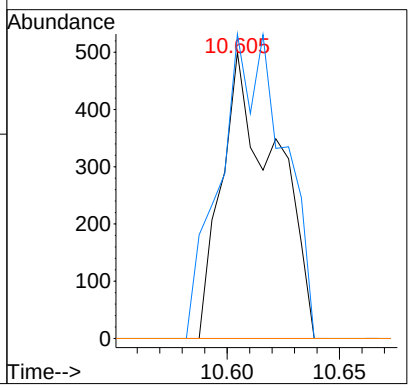


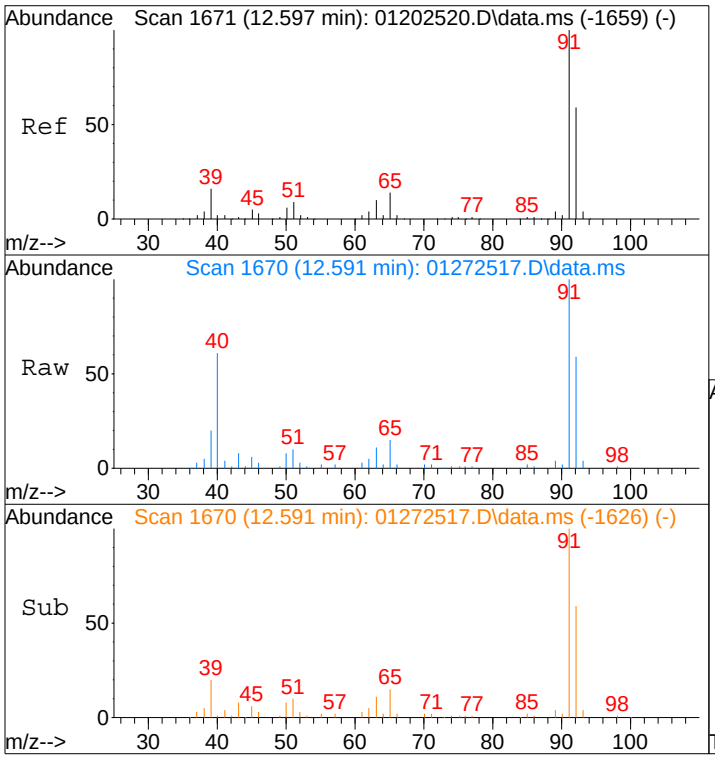


#51
n-Heptane
Concen: 0.06 ng
RT: 10.60 min Scan# 1321
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 71 Resp: 838

Ion	Ratio	Lower	Upper
71	100		
57	125.2	90.6	130.6
100	0.0	0.0	39.7

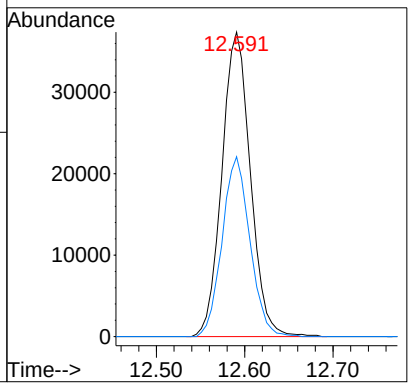


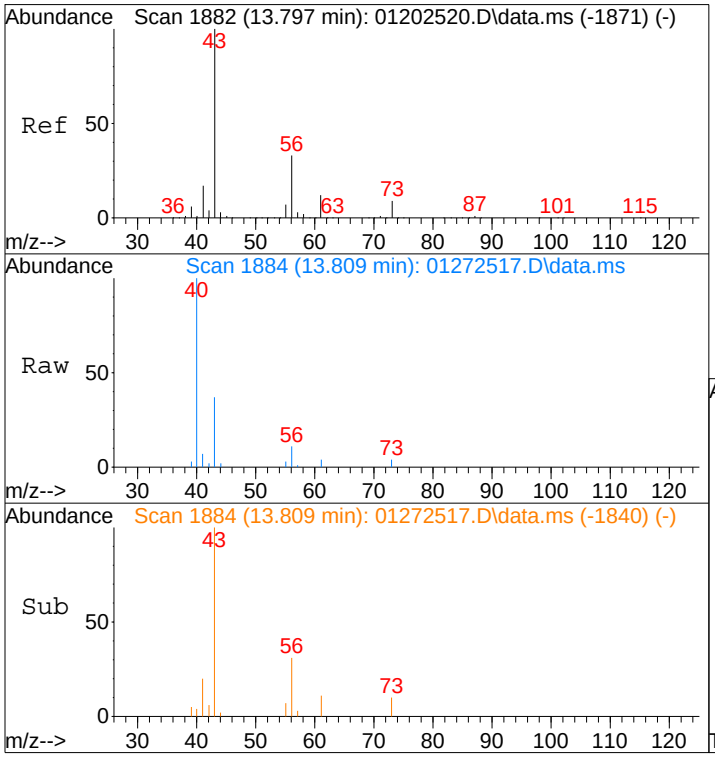


#58
Toluene
Concen: 1.36 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 83784

Ion	Ratio	Lower	Upper
91	100		
92	57.6	38.4	78.4

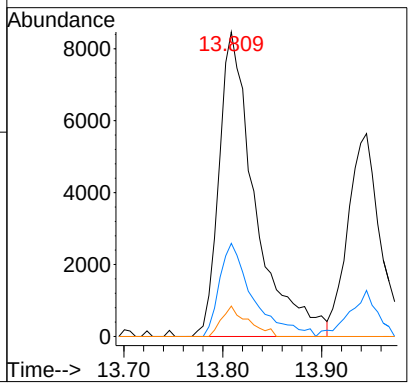


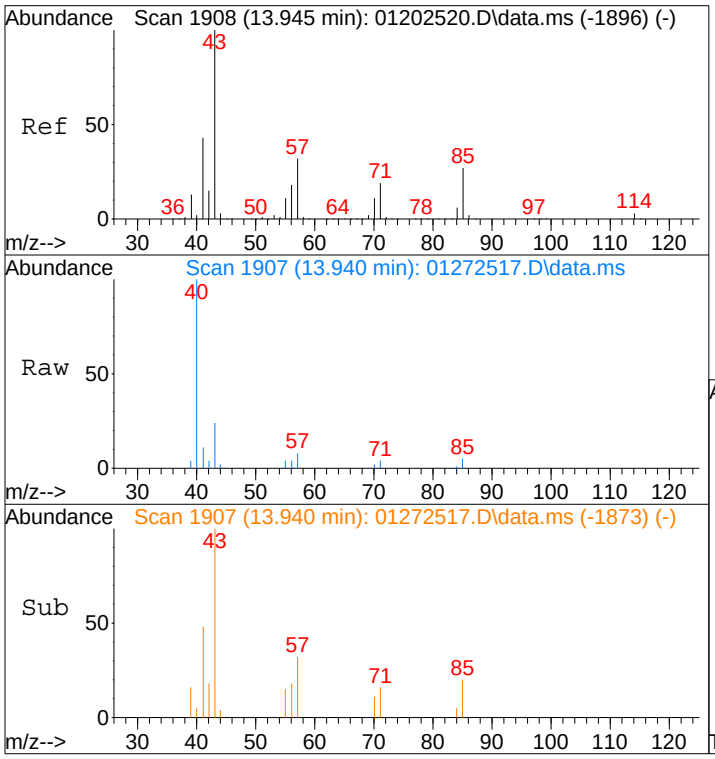


#62
n-Butyl Acetate
Concen: 0.40 ng
RT: 13.81 min Scan# 1884
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 43 Resp: 21529

Ion	Ratio	Lower	Upper
43	100		
56	28.2	13.3	53.3
73	7.3	0.0	28.9

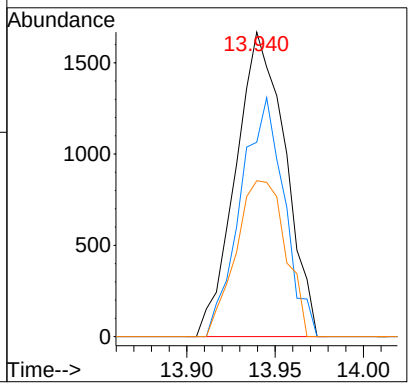


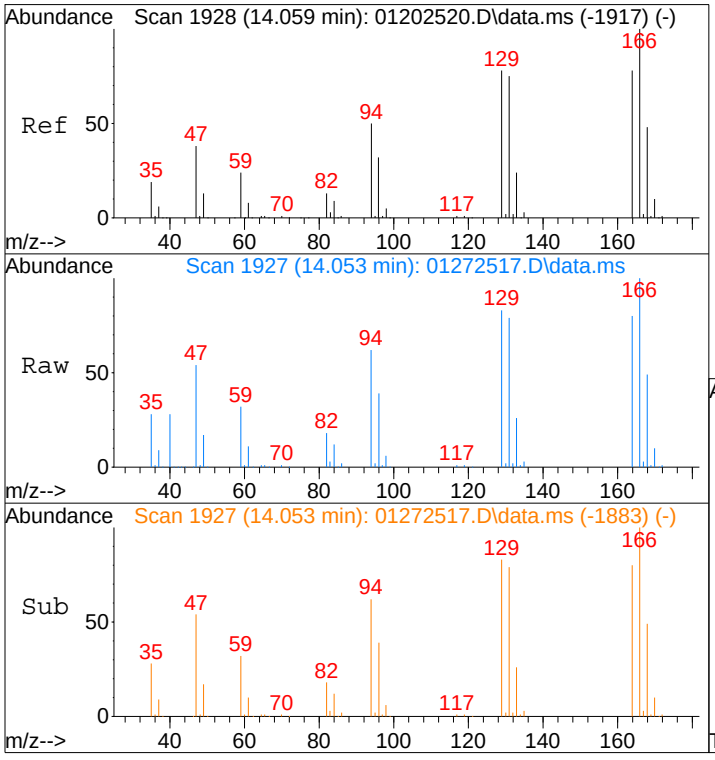


#63
n-Octane
Concen: 0.19 ng
RT: 13.94 min Scan# 1907
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 57 Resp: 3257

Ion	Ratio	Lower	Upper
57	100		
85	69.1	65.9	98.9
71	51.2	45.7	68.5

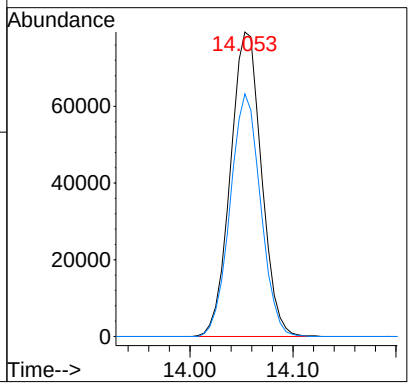


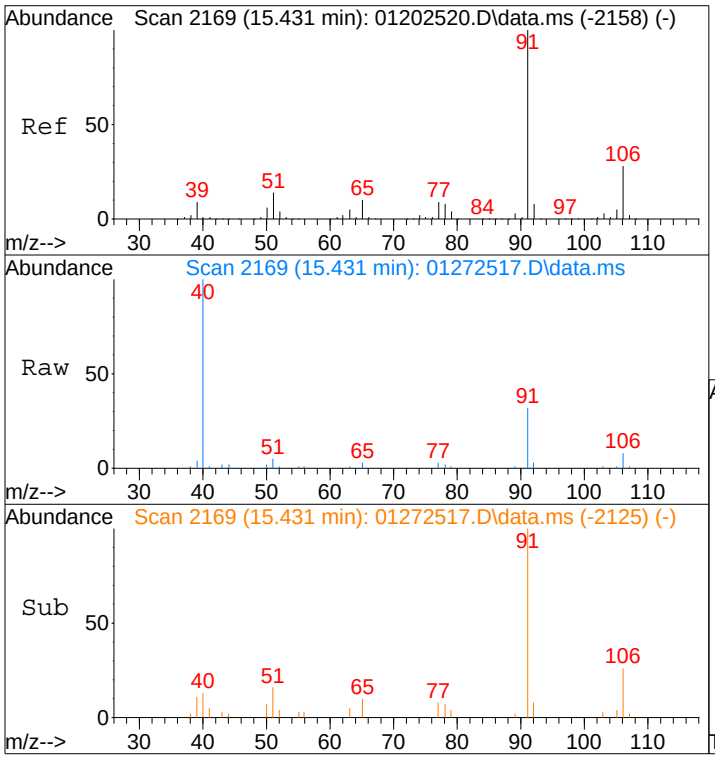


#64
Tetrachloroethene
Concen: 11.84 ng
RT: 14.05 min Scan# 1927
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:166 Resp: 166513

Ion	Ratio	Lower	Upper
166	100		
164	78.0	58.4	98.4

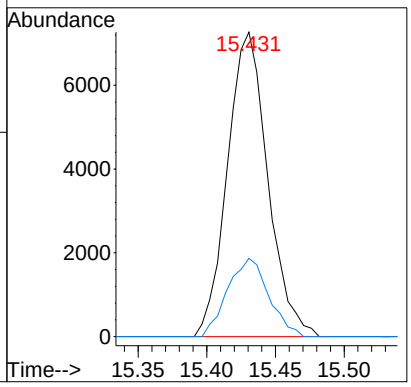


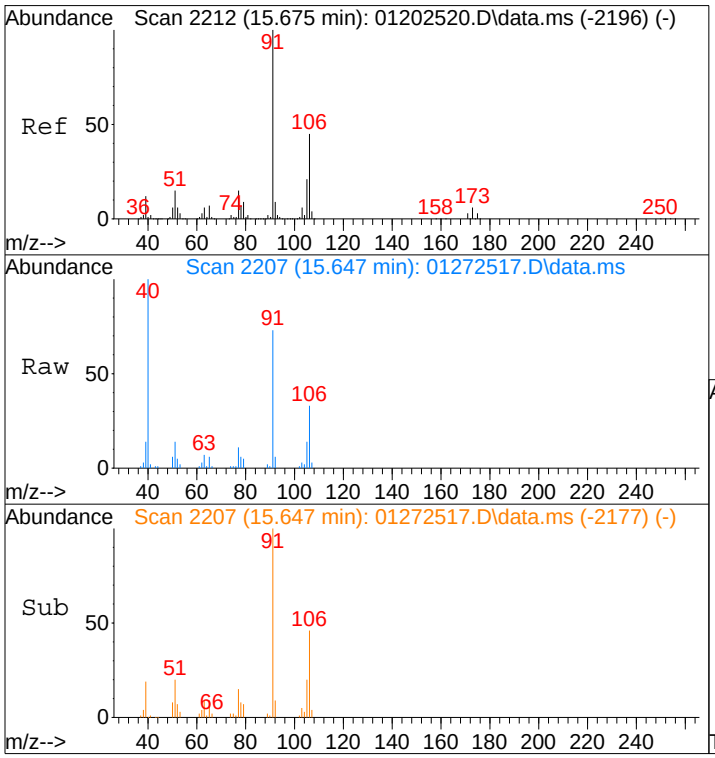


#66
Ethylbenzene
Concen: 0.21 ng
RT: 15.43 min Scan# 2169
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 14838

Ion	Ratio	Lower	Upper
91	100		
106	26.1	8.2	48.2

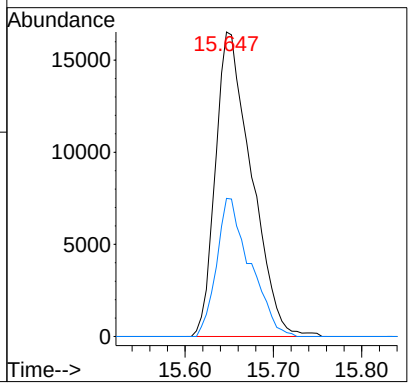


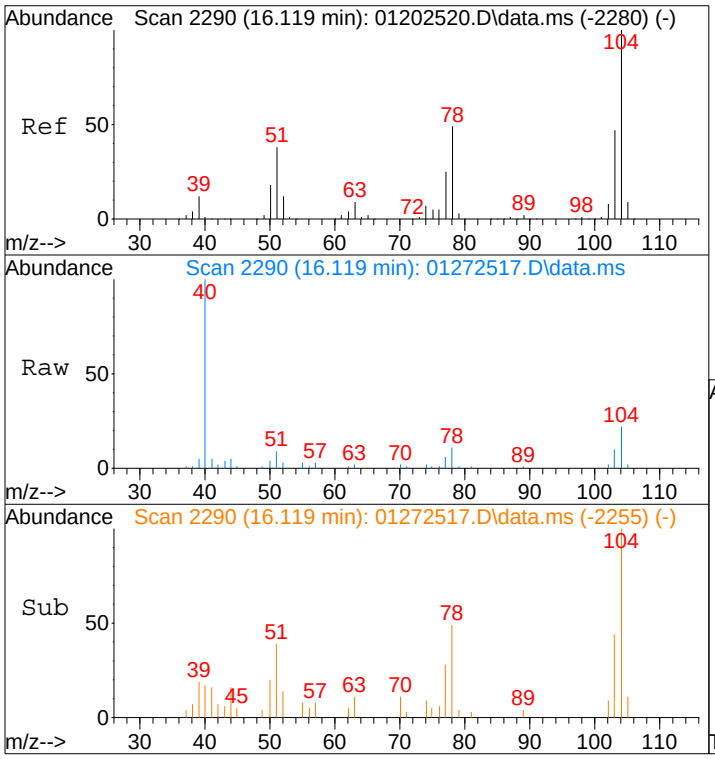


#67
m- & p-Xylenes
Concen: 0.84 ng
RT: 15.65 min Scan# 2207
Delta R.T. -0.029 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 46714

Ion	Ratio	Lower	Upper
91	100		
106	42.3	24.7	64.7

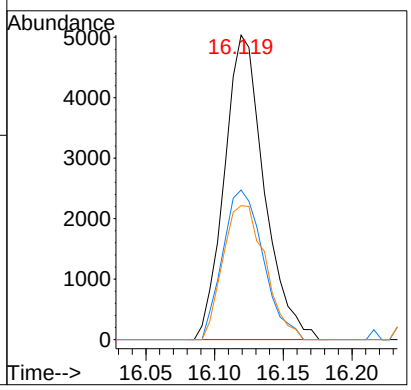


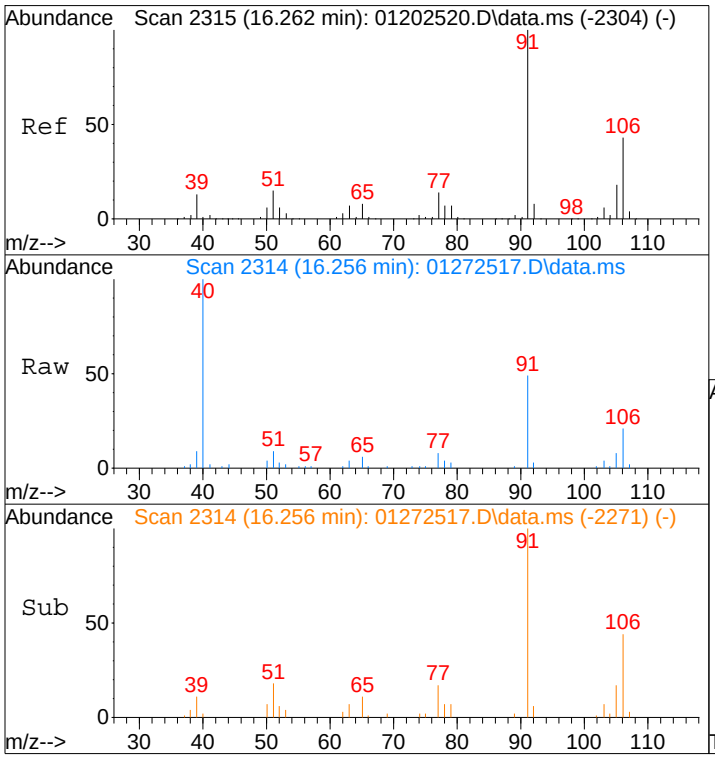


#69
Styrene
Concen: 0.27 ng
RT: 16.12 min Scan# 2290
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:104 Resp: 10143

Ion	Ratio	Lower	Upper
104	100		
78	50.0	29.2	69.2
103	46.9	27.4	67.4

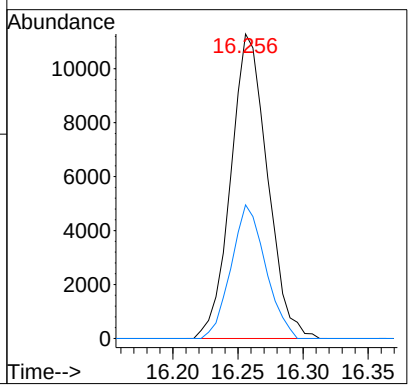


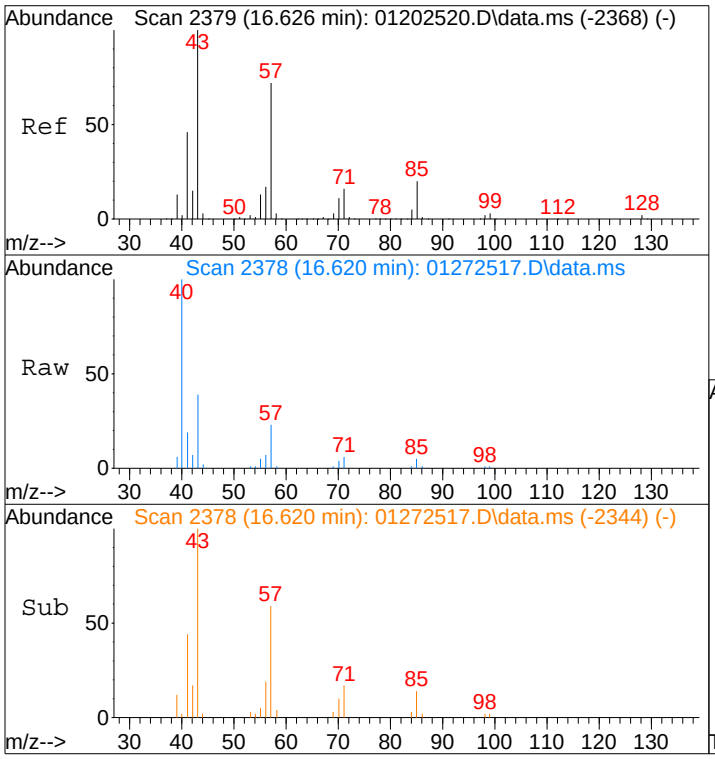


#70
o-Xylene
Concen: 0.40 ng
RT: 16.26 min Scan# 2314
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 22042

Ion	Ratio	Lower	Upper
91	100		
106	41.3	23.3	63.3

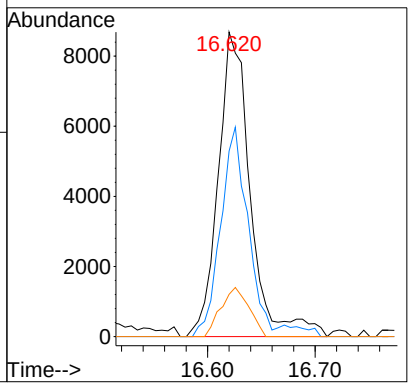


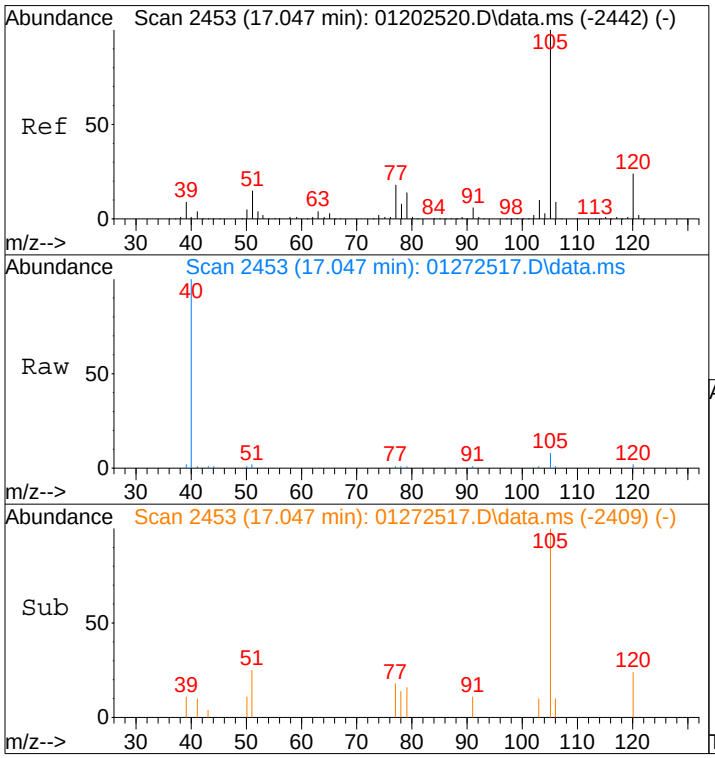


#71
n-Nonane
Concen: 0.37 ng
RT: 16.62 min Scan# 2378
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 43 Resp: 17991

Ion	Ratio	Lower	Upper
43	100		
57	58.8	52.1	92.1
85	14.1	0.0	39.5

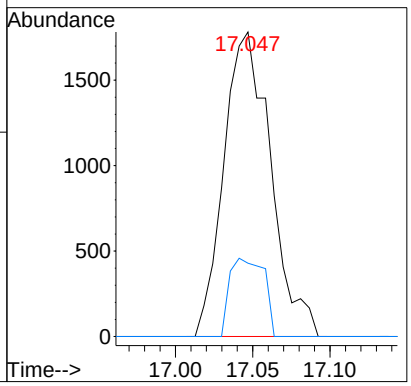


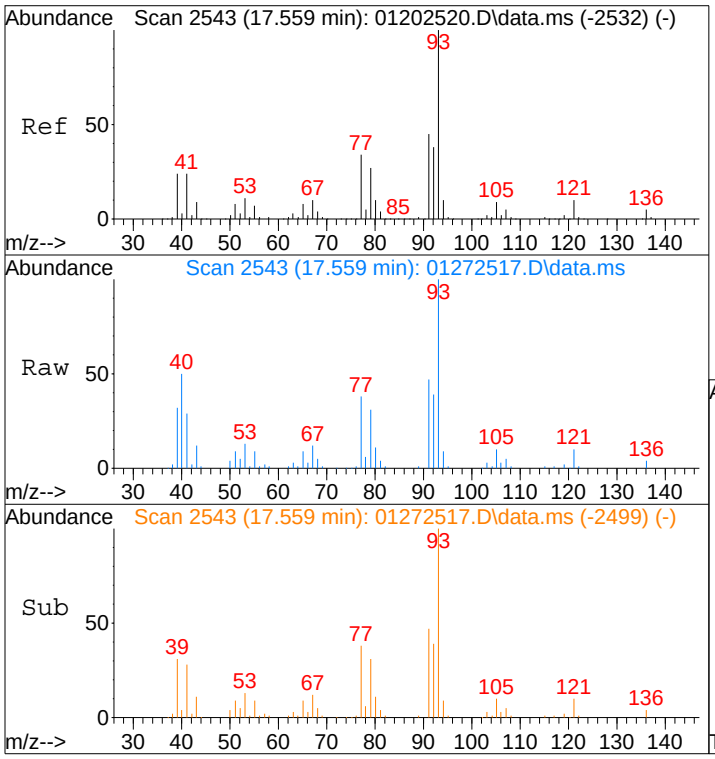


#74
Cumene
Concen: 0.06 ng
RT: 17.05 min Scan# 2453
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:105 Resp: 3757

Ion	Ratio	Lower	Upper
105	100		
120	18.9	3.7	43.7

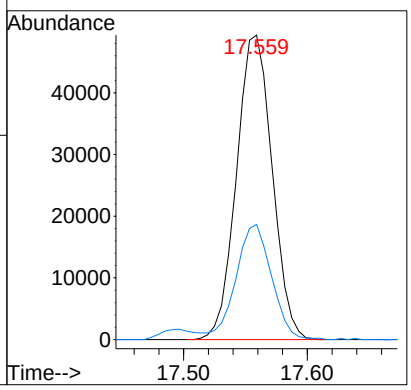


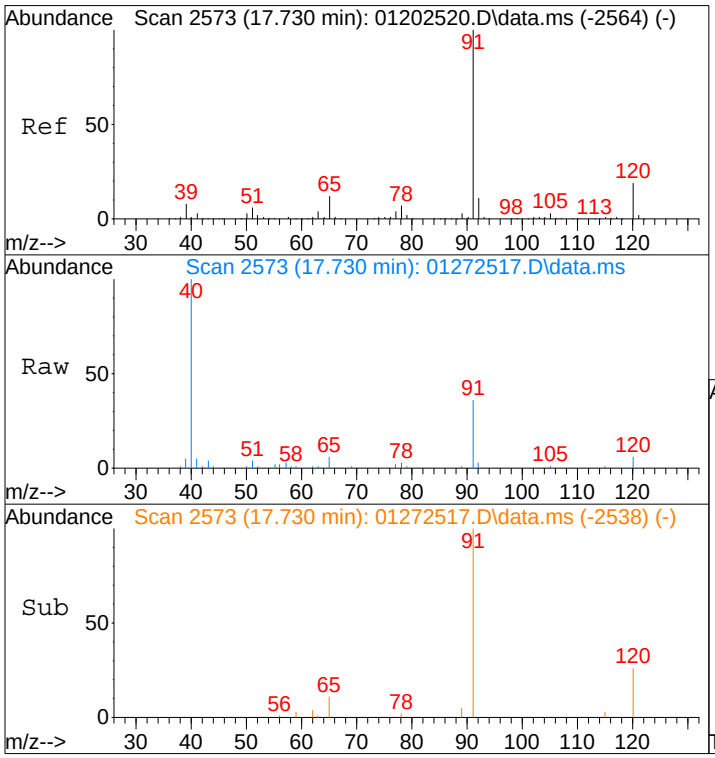


#75
alpha-Pinene
Concen: 3.15 ng
RT: 17.56 min Scan# 2543
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 93 Resp: 99048

Ion	Ratio	Lower	Upper
93	100		
77	37.9	14.1	54.1

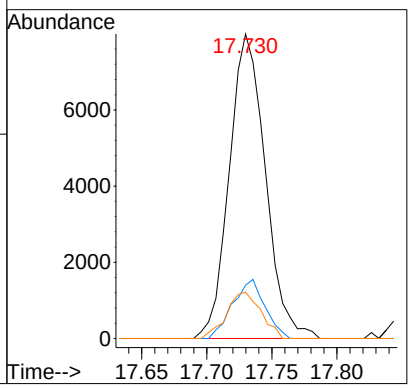


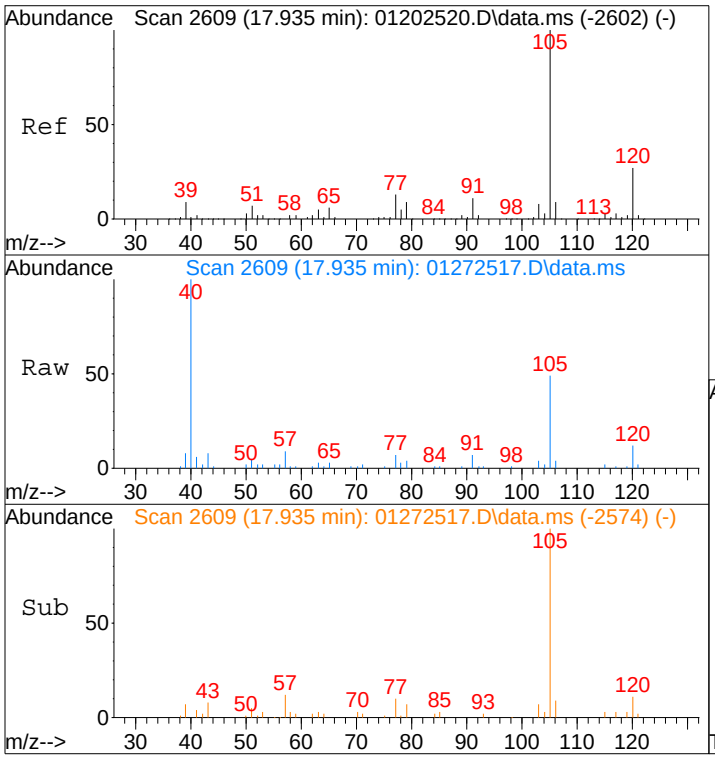


#76
n-Propylbenzene
Concen: 0.19 ng
RT: 17.73 min Scan# 2573
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 15442

Ion	Ratio	Lower	Upper
91	100		
120	17.3	0.0	39.2
65	14.5	0.0	32.4

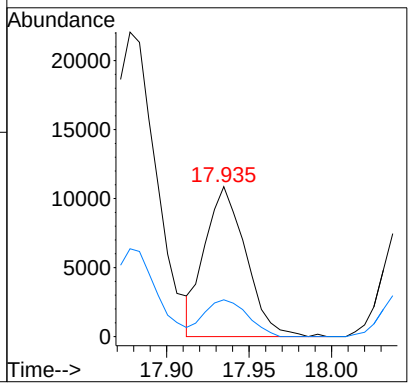


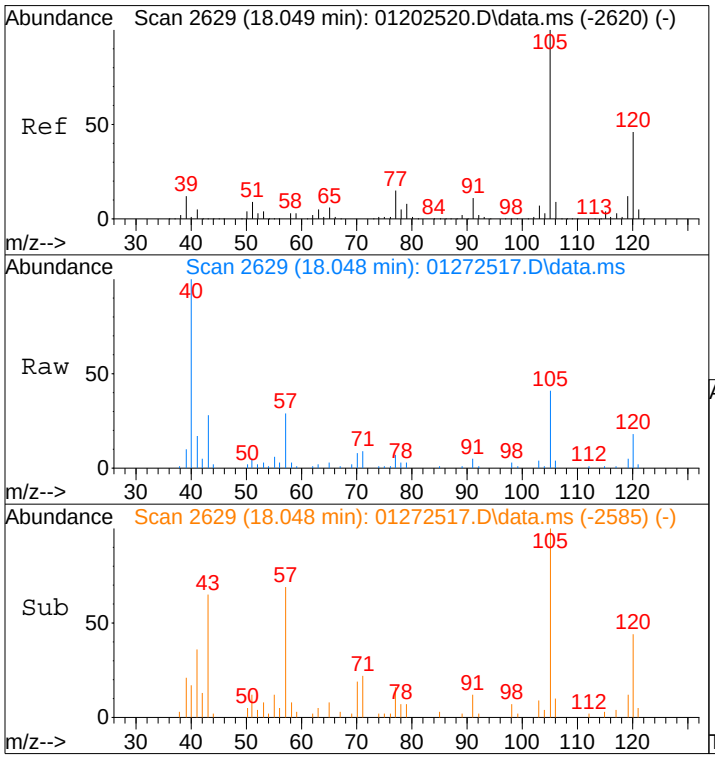


#78
4-Ethyltoluene
Concen: 0.32 ng
RT: 17.93 min Scan# 2609
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:105 Resp: 18855

Ion	Ratio	Lower	Upper
105	100		
120	26.0	7.6	47.6

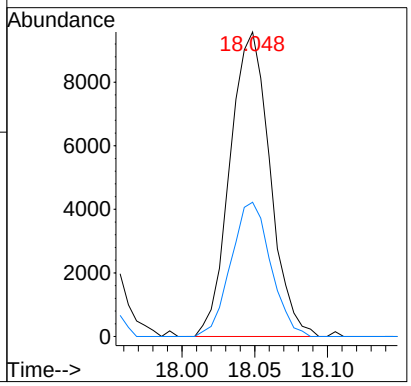


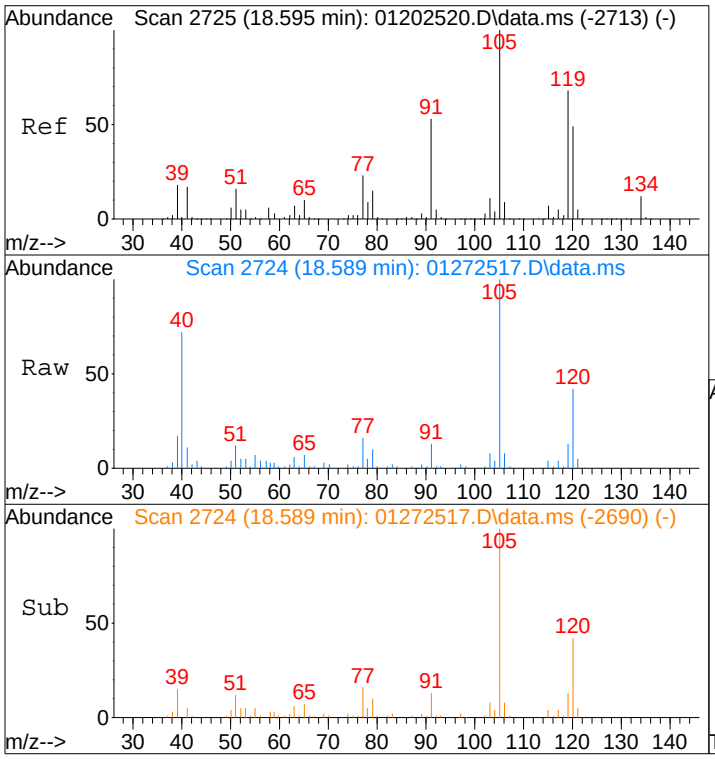


#79
1,3,5-Trimethylbenzene
Concen: 0.35 ng
RT: 18.05 min Scan# 2629
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:105 Resp: 18329

Ion	Ratio	Lower	Upper
105	100		
120	43.7	26.2	66.2

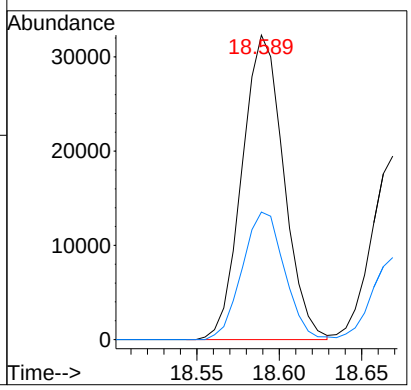


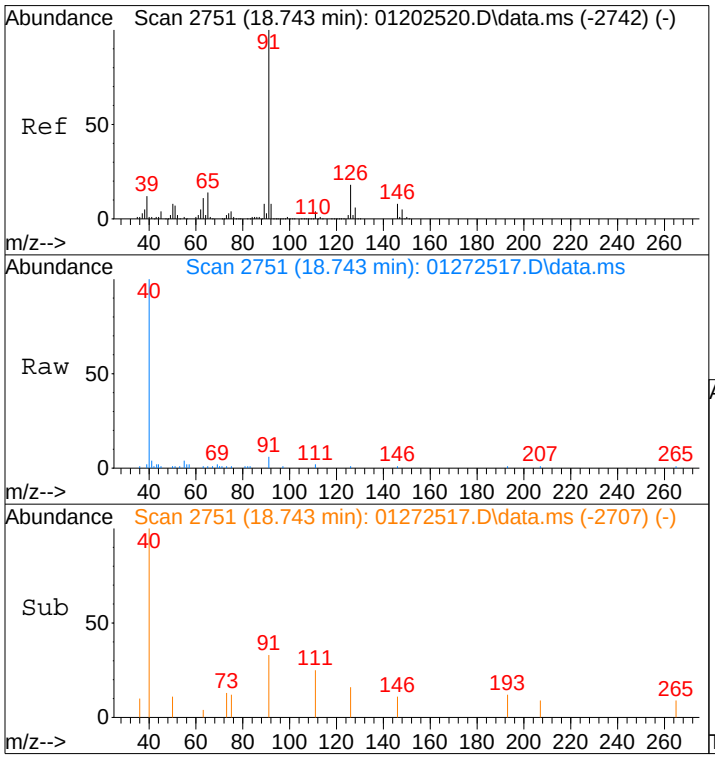


#82
1,2,4-Trimethylbenzene
Concen: 1.08 ng
RT: 18.59 min Scan# 2724
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:105 Resp: 56779

Ion	Ratio	Lower	Upper
105	100		
120	42.6	30.3	70.3

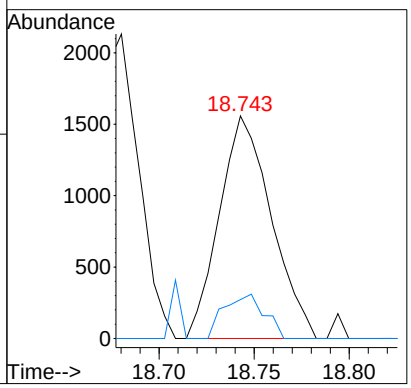


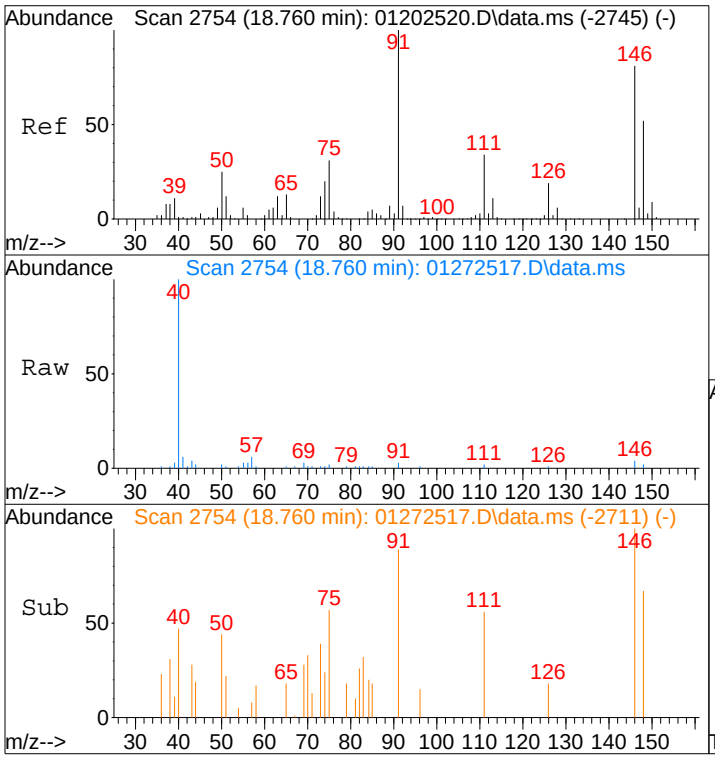


#84
Benzyl Chloride
Concen: 0.08 ng
RT: 18.74 min Scan# 2751
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 91 Resp: 2962

Ion	Ratio	Lower	Upper
91	100		
126	15.4	0.0	37.8

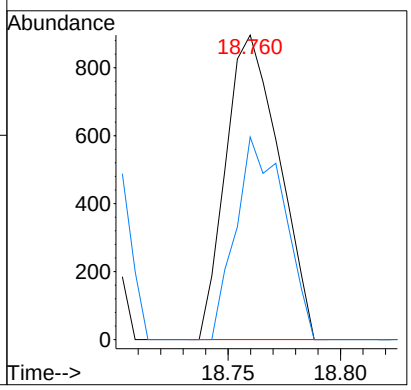


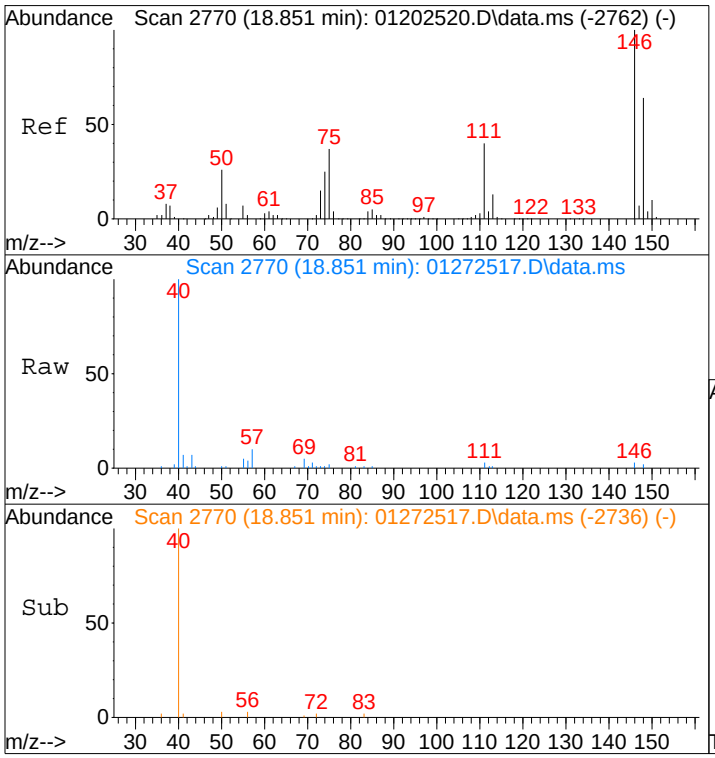


#85
1,3-Dichlorobenzene
Concen: 0.05 ng
RT: 18.76 min Scan# 2754
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:146 Resp: 1482

Ion	Ratio	Lower	Upper
146	100		
148	60.4	44.3	84.3

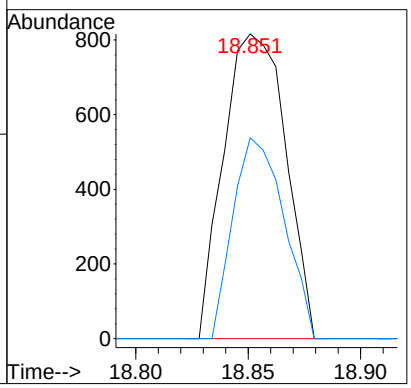


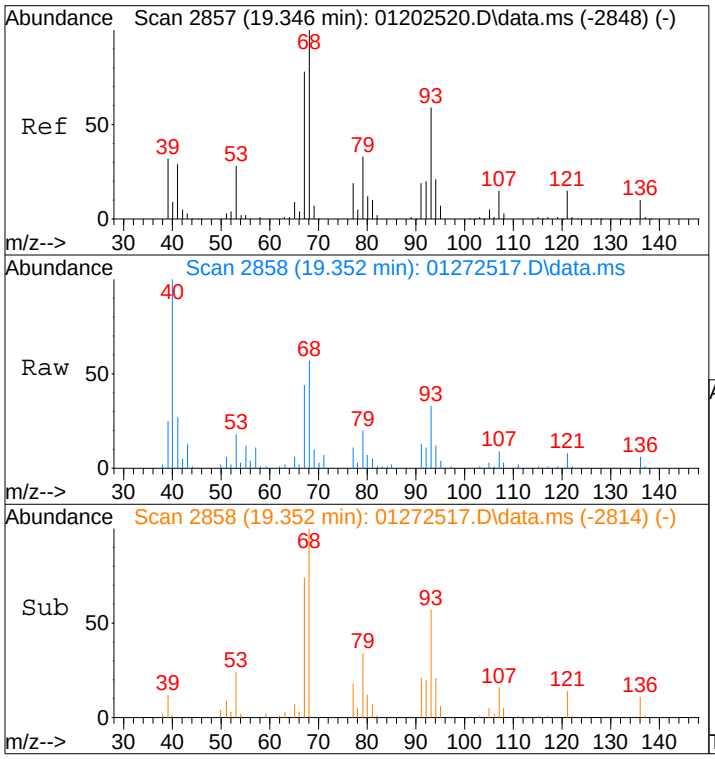


#86
1,4-Dichlorobenzene
Concen: 0.05 ng
RT: 18.85 min Scan# 2770
Delta R.T. -0.006 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:146 Resp: 1569

Ion	Ratio	Lower	Upper
146	100		
148	54.3	43.9	83.9

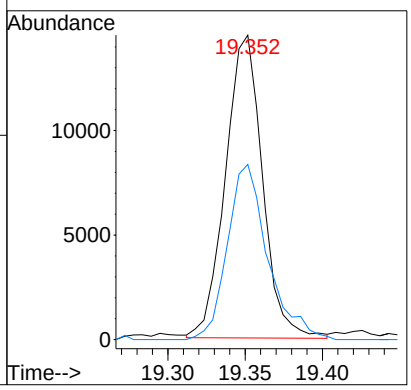


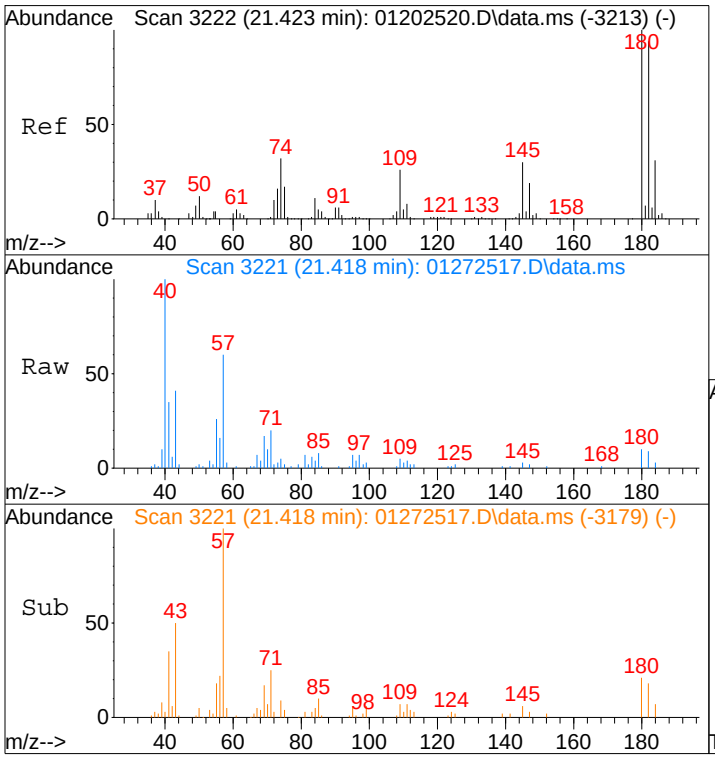


#91
d-Limonene
Concen: 1.08 ng
RT: 19.35 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion: 68 Resp: 24254

Ion	Ratio	Lower	Upper
68	100		
93	62.9	39.0	79.0

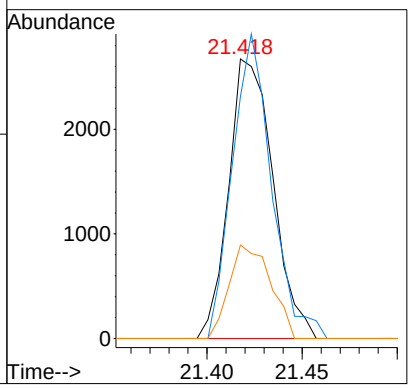


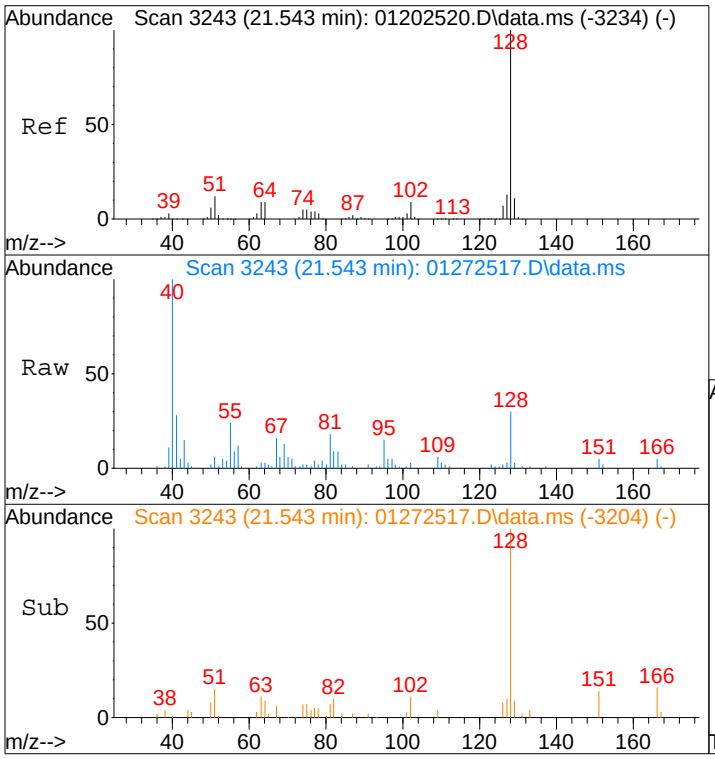


#94
1,2,4-Trichlorobenzene
Concen: 0.26 ng
RT: 21.42 min Scan# 3221
Delta R.T. -0.012 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:180 Resp: 4326

Ion	Ratio	Lower	Upper
180	100		
182	96.1	76.2	114.2
184	31.3	24.5	36.7

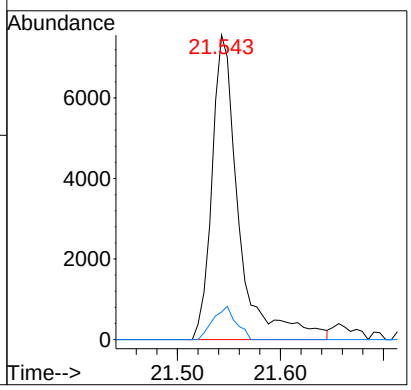


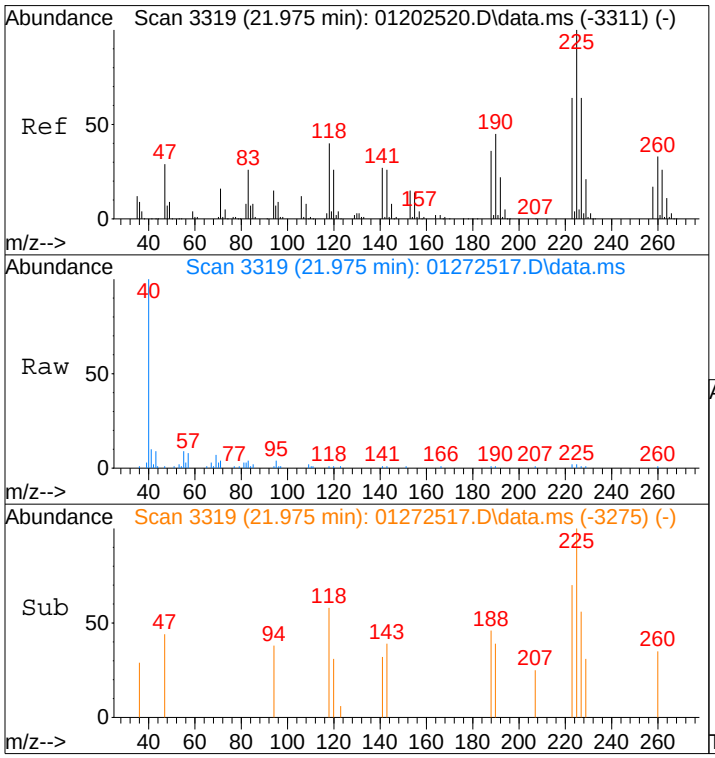


#95
Naphthalene
Concen: 0.31 ng
RT: 21.54 min Scan# 3243
Delta R.T. -0.028 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:128 Resp: 13679

Ion	Ratio	Lower	Upper
128	100		
129	9.3	0.0	30.9

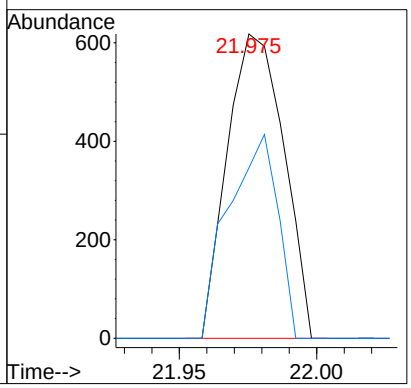




#97
Hexachlorobutadiene
Concen: 0.07 ng
RT: 21.98 min Scan# 3319
Delta R.T. -0.000 min
Lab File: 01272517.D
Acq: 27 Jan 2025 19:35

Tgt Ion:225 Resp: 885

Ion	Ratio	Lower	Upper
225	100		
227	58.3	44.4	84.4



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 14:55:49 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

BCB 1/30/25

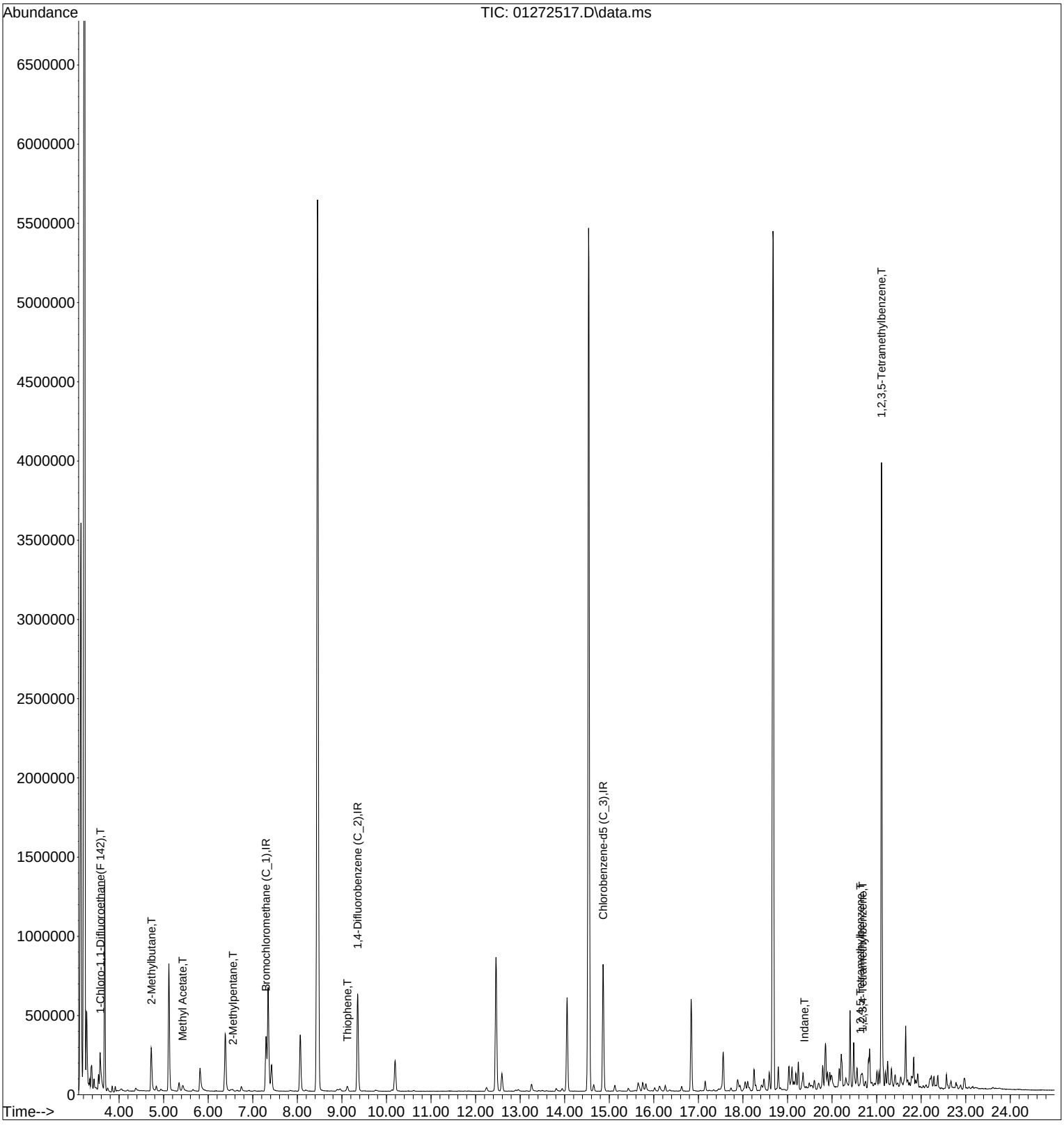
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	101788	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	486270	12.500	ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	160677	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.22	85	209	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D.	d		
4) 1,1-Difluoroethane	3.34	65	404	N.D.			
5) Chlorodifluoromethane ...	0.00	67	0	N.D.	d		
6) 1-Chloro-1,1-Difluoroe...	3.58	65	1874	0.064	ng	#	88
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.73	57	19932	1.279	ng	#	58
11) Methyl Acetate	5.43	43	46053	1.022	ng	#	62
12) 2-Methylpentane	6.56	71	1103	0.085	ng	#	1
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.12	84	3914	0.138	ng	#	23
17) 2,3-Dimethylpentane	9.57	56	126	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.46	55	519	N.D.			
21) 1,3-Dichloropropane	12.59	76	230	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	16.37	75	655	N.D.			
25) Bromobenzene	17.04	77	580	N.D.			
26) 2-Chlorotoluene	0.00	91	0	N.D.	d		
27) 4-Chlorotoluene	0.00	91	0	N.D.	d		
28) Indane	19.38	117	4329	0.074	ng		91
29) Indene	19.49	115	63	N.D.			
30) 1,2,4,5-Tetramethylben...	20.64	119	9519	0.172	ng		100
31) 1,2,3,4-Tetramethylben...	20.69	119	15277	0.257	ng		98
32) 1,2,3,5-Tetramethylben...	21.11	119	20243	0.370	ng		87
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

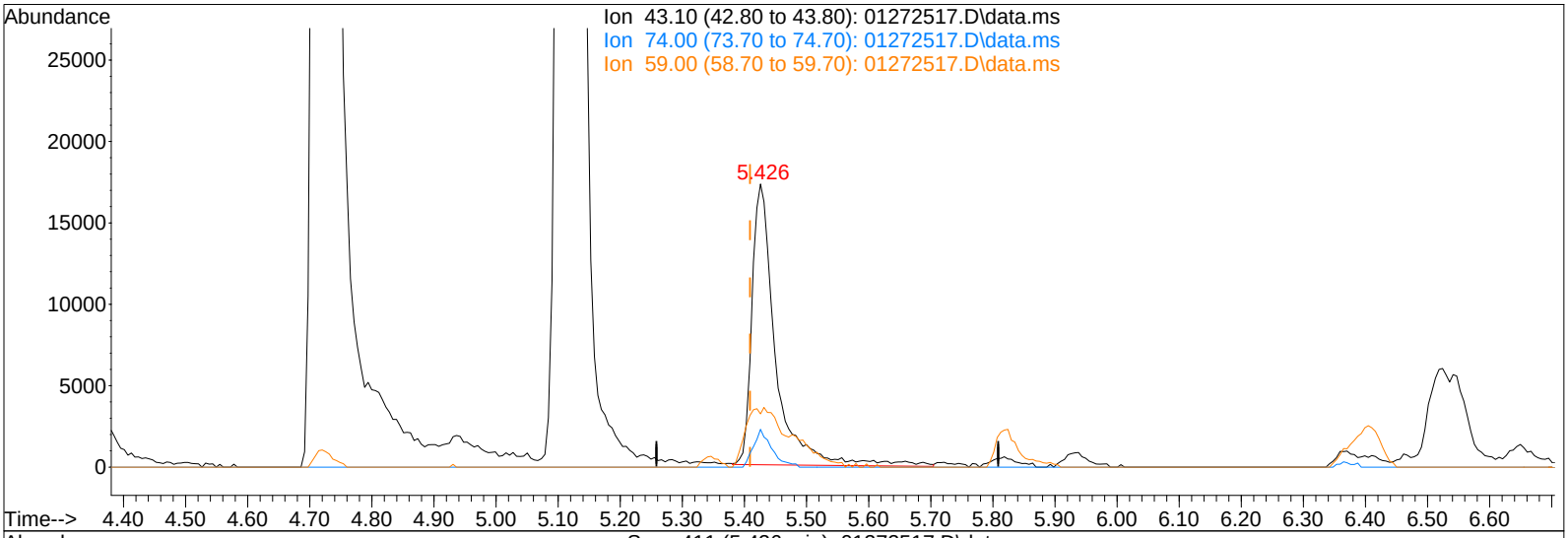
Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

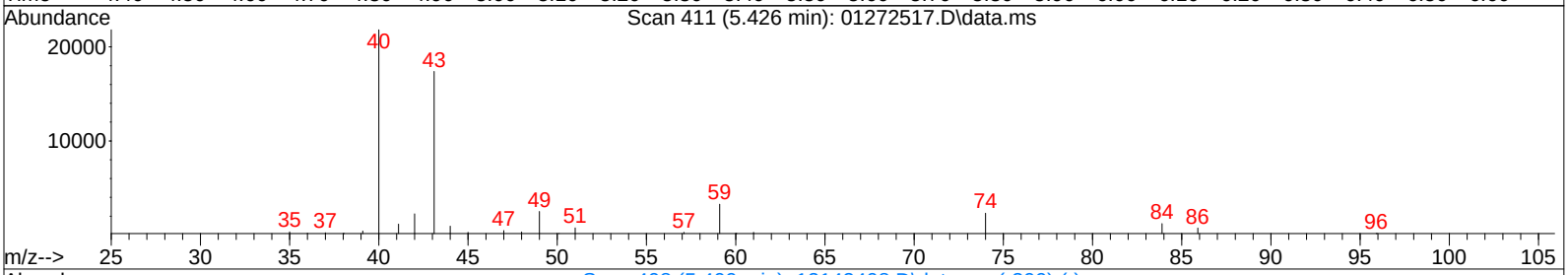
Quant Time: Jan 30 14:55:49 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

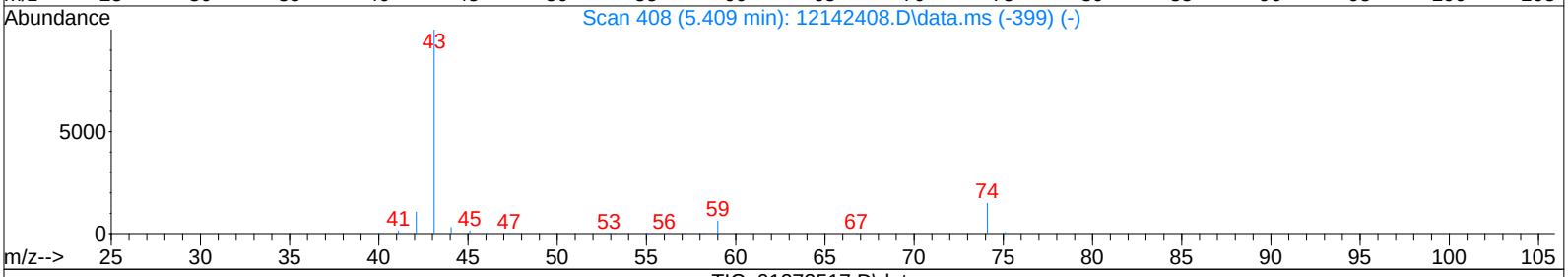


Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272517.D
Acq On : 27 Jan 2025 19:35
Operator : MC
Sample : P2500076-001 (1000mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 14:55:49 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration







TIC: 01272517.D\data.ms

(11) Methyl Acetate (T)

5.426min (+0.017) 1.02ng

response 46053

Ion	Exp%	Act%
43.10	100	100
74.00	14.80	10.32#
59.00	6.30	40.91#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282506.D
Acq On : 28 Jan 2025 9:16
Operator : MC
Sample : P2500076-001dil (100mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 14:02:40 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	124269	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	580664	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	187787	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.05	65	338304	15.126	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.04%				
57) Toluene-d8 (SS2)	12.45	98	729745	10.704	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.60%				
73) Bromofluorobenzene (SS3)	16.84	174	171600	9.845	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.72%				
Target Compounds							Qvalue
2) Propene	3.43	42	1090	N.D.			
3) Dichlorodifluoromethan...	3.44	85	4647	0.150	ng	#	93
4) Chloromethane	3.67	50	1236	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.41	45	16231	0.843	ng		94
11) Acetonitrile	0.00	41	0	N.D.	d		
12) Acrolein	4.67	56	340	N.D.			
13) Acetone	4.75	58	9677	0.699	ng	#	61
14) Trichlorofluoromethane	4.86	101	1899	0.076	ng		95
15) 2-Propanol (Isopropanol)	4.98	45	5251	0.084	ng	#	58
16) Acrylonitrile	0.00	53	0	N.D.	d		
17) 1,1-Dichloroethene	5.36	96	1034	0.080	ng	#	72
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.	d		
19) Methylene Chloride	5.45	84	511	N.D.			
20) 3-Chloro-1-propene (Al...	5.55	41	187	N.D.			
21) Trichlorotrifluoroethane	5.67	151	217	N.D.			
22) Carbon Disulfide	5.72	76	6411	0.101	ng		80
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	6.39	63	40041	1.229	ng		99
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	6.78	72	546	0.052	ng	#	1
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.	d		
30) Ethyl Acetate	7.37	61	9986	1.494	ng		85
31) n-Hexane	7.37	57	586	N.D.			
32) Chloroform	7.42	83	13014	0.489	ng		99
34) Tetrahydrofuran (THF)	7.87	72	527	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	8.45	97	440158	18.913	ng		97
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.95	78	1759	N.D.			
42) Carbon Tetrachloride	9.11	117	1999	0.099	ng		98
43) Cyclohexane	9.34	84	644	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	10.12	83	368	N.D.			
47) Trichloroethene	10.19	130	6662	0.485	ng		95
48) 1,4-Dioxane	0.00	88	0	N.D.			

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282506.D
Acq On : 28 Jan 2025 9:16
Operator : MC
Sample : P2500076-001dil (100mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 14:02:40 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

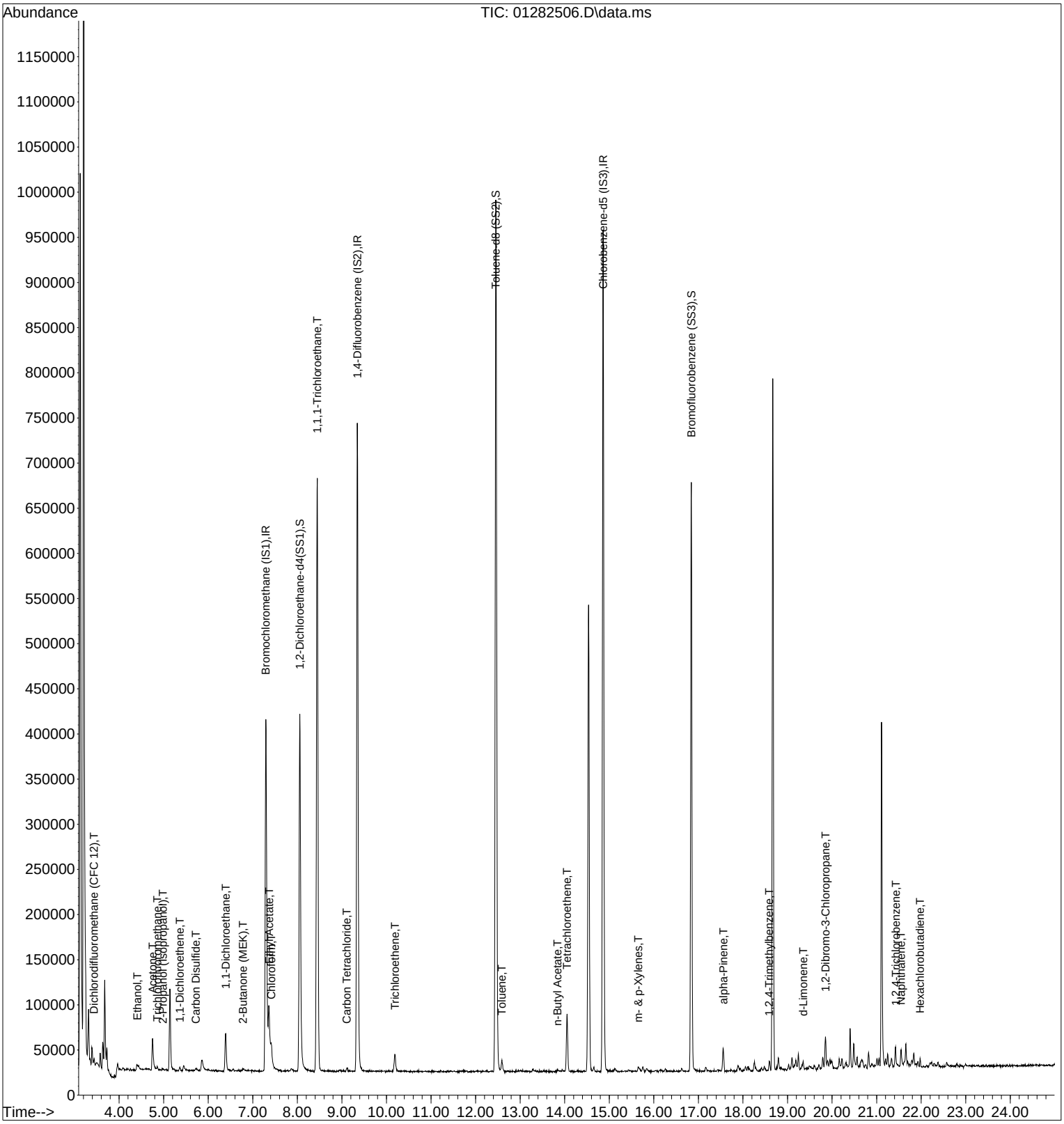
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	0.00	71	0	N.D.		
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	9918	0.137 ng		95
59) 2-Hexanone	12.95	43	948	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.84	43	3485	0.056 ng	#	87
63) n-Octane	13.94	57	238	N.D.		
64) Tetrachloroethene	14.05	166	18041	1.097 ng		96
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	15.43	91	2152	N.D.		
67) m- & p-Xylenes	15.65	91	5802	0.089 ng		95
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	16.13	104	1052	N.D.		
70) o-Xylene	16.26	91	2652	N.D.		
71) n-Nonane	16.63	43	1781	N.D.		
72) 1,1,2,2-Tetrachloroethane	16.24	83	254	N.D.		
74) Cumene	17.05	105	532	N.D.		
75) alpha-Pinene	17.56	93	9734	0.265 ng		90
76) n-Propylbenzene	17.74	91	2205	N.D.		
77) 3-Ethyltoluene	17.05	105	532	No Calib	#	
78) 4-Ethyltoluene	17.95	105	2441	N.D.		
79) 1,3,5-Trimethylbenzene	18.05	105	2177	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	532	No Calib	#	
82) 1,2,4-Trimethylbenzene	18.59	105	5881	0.096 ng		88
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	18.75	91	2001	N.D.		
85) 1,3-Dichlorobenzene	18.77	146	584	N.D.		
86) 1,4-Dichlorobenzene	18.86	146	689	N.D.		
87) sec-Butylbenzene	18.95	105	820	N.D.		
88) 4-Isopropyltoluene (p-...	19.17	119	1832	N.D.		
89) 1,2,3-Trimethylbenzene	17.05	105	532	No Calib	#	
90) 1,2-Dichlorobenzene	19.30	146	550	N.D.		
91) d-Limonene	19.35	68	2423	0.092 ng		95
92) 1,2-Dibromo-3-Chloropr...	19.85	157	1057	0.107 ng	#	1
93) n-Undecane	0.00	58	0	N.D.		
94) 1,2,4-Trichlorobenzene	21.43	180	5145	0.260 ng		95
95) Naphthalene	21.55	128	16590	0.319 ng		92
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	21.98	225	1613	0.112 ng		90
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.59	119	1132	N.D.		
100) n-Butylbenzene	19.71	91	2480	N.D.		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

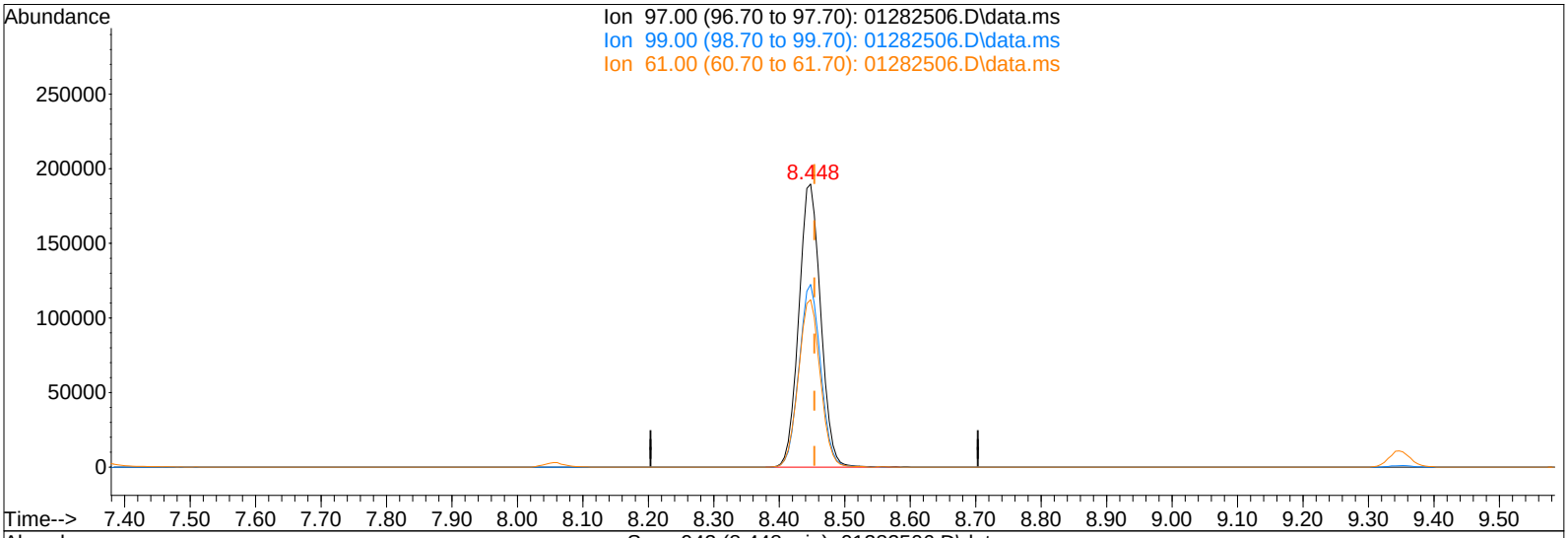
Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282506.D
Acq On : 28 Jan 2025 9:16
Operator : MC
Sample : P2500076-001dil (100mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

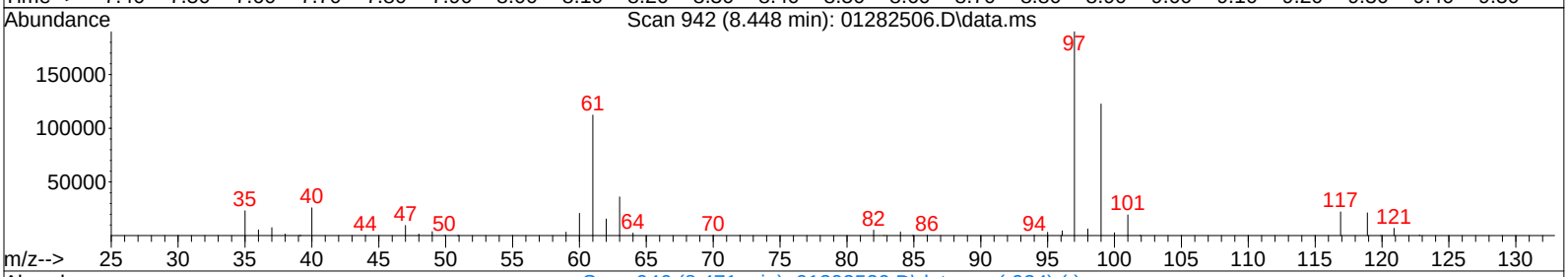
Quant Time: Jan 30 14:02:40 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

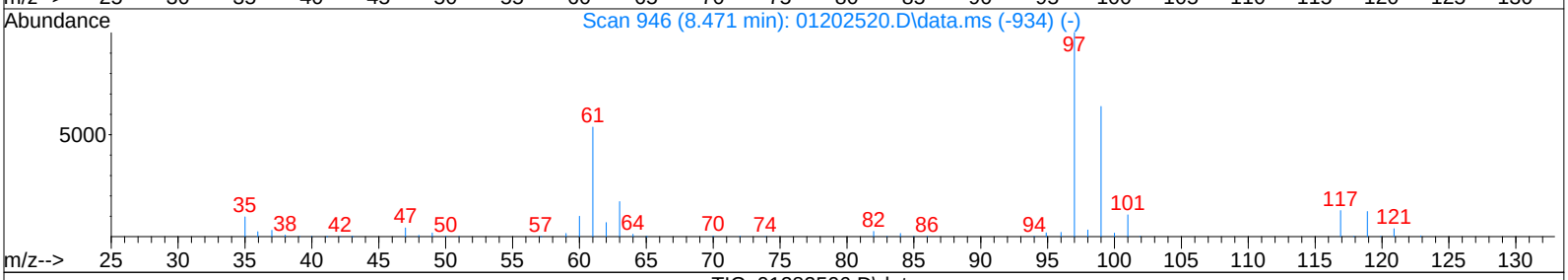


Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282506.D
Acq On : 28 Jan 2025 9:16
Operator : MC
Sample : P2500076-001dil (100mL)
Misc : S37-11222401
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 30 14:02:40 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01282506.D\data.ms

(38) 1,1,1-Trichloroethane (T)

8.448min (-0.006) 18.91ng

response 440158

Ion	Exp%	Act%
97.00	100	100
99.00	63.80	64.08
61.00	54.30	59.24
0.00	0.00	0.00

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG5-IA** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-002

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02443

Initial Pressure (psig): -2.78 Final Pressure (psig): 3.77

Container Dilution Factor: 1.55

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.33	0.088	ND	0.13	0.035	
75-35-4	1,1-Dichloroethene	ND	0.14	0.11	ND	0.035	0.029	
75-09-2	Methylene Chloride	**0.33**	0.71	0.23	**0.096**	0.21	0.067	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.33	0.11	ND	0.082	0.029	
75-34-3	1,1-Dichloroethane	ND	0.33	0.12	ND	0.080	0.030	
156-59-2	cis-1,2-Dichloroethene	ND	0.16	0.12	ND	0.039	0.029	
107-06-2	1,2-Dichloroethane	ND	0.16	0.091	ND	0.039	0.023	
71-55-6	1,1,1-Trichloroethane	**0.18**	0.16	0.10	**0.032**	0.029	0.019	
56-23-5	Carbon Tetrachloride	**0.43**	0.16	0.11	**0.068**	0.025	0.018	
79-01-6	Trichloroethene	**0.93**	0.16	0.11	**0.17**	0.030	0.021	
127-18-4	Tetrachloroethene	**0.22**	0.17	0.11	**0.033**	0.025	0.016	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 12:25:28 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

TR 1/31/25

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	103048	12.500 ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	481988	12.500 ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	158273	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	8.05	65	280405	15.119 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 120.96%			
57) Toluene-d8 (SS2)	12.46	98	616540	10.730 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.84%			
73) Bromofluorobenzene (SS3)	16.84	174	145562	9.908 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%			
Target Compounds						Qvalue
2) Propene	0.00	42	0	N.D. d		
3) Dichlorodifluoromethan...	3.47	85	40196	1.568 ng		98
4) Chloromethane	3.63	50	6247m	0.260 ng		
5) 1,2-Dichloro-1,1,2,2-t...	3.72	135	705	0.084 ng		83
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	3.94	54	730	N.D.		
8) Bromomethane	4.15	94	347	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	4.39	45	28032	1.755 ng		99
11) Acetonitrile	0.00	41	0	N.D. d		
12) Acrolein	4.65	56	921	0.077 ng		96
13) Acetone	4.73	58	30536	2.659 ng	#	69
14) Trichlorofluoromethane	4.86	101	17179	0.829 ng		99
15) 2-Propanol (Isopropanol)	4.96	45	7116	0.138 ng	#	58
16) Acrylonitrile	5.15	53	343	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	5.49	59	678	N.D.		
19) Methylene Chloride	5.45	84	2875	0.214 ng	#	76
20) 3-Chloro-1-propene (Al...	5.49	41	767	N.D.		
21) Trichlorotrifluoroethane	5.68	151	2586	0.316 ng		88
22) Carbon Disulfide	5.72	76	4561	0.087 ng		85
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	6.39	63	1078	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	6.53	86	164	0.069 ng	#	44
27) 2-Butanone (MEK)	6.76	72	3959	0.457 ng	#	72
28) cis-1,2-Dichloroethene	7.16	61	110	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	7.37	61	5567	1.005 ng		89
31) n-Hexane	7.37	57	4986	0.190 ng	#	95
32) Chloroform	7.42	83	2071	0.094 ng		96
34) Tetrahydrofuran (THF)	7.86	72	117	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	8.17	62	809	N.D.		
38) 1,1,1-Trichloroethane	8.46	97	2207	0.114 ng		93
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	8.93	56	1758	No Calib	#	
41) Benzene	8.95	78	42315	0.744 ng		99
42) Carbon Tetrachloride	9.12	117	4622	0.277 ng		98
43) Cyclohexane	9.28	84	671	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	10.19	130	6834	0.600 ng		95
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	10.27	57	5067	0.072 ng		83
50) Methyl Methacrylate	0.00	100	0	N.D.		

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 12:25:28 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

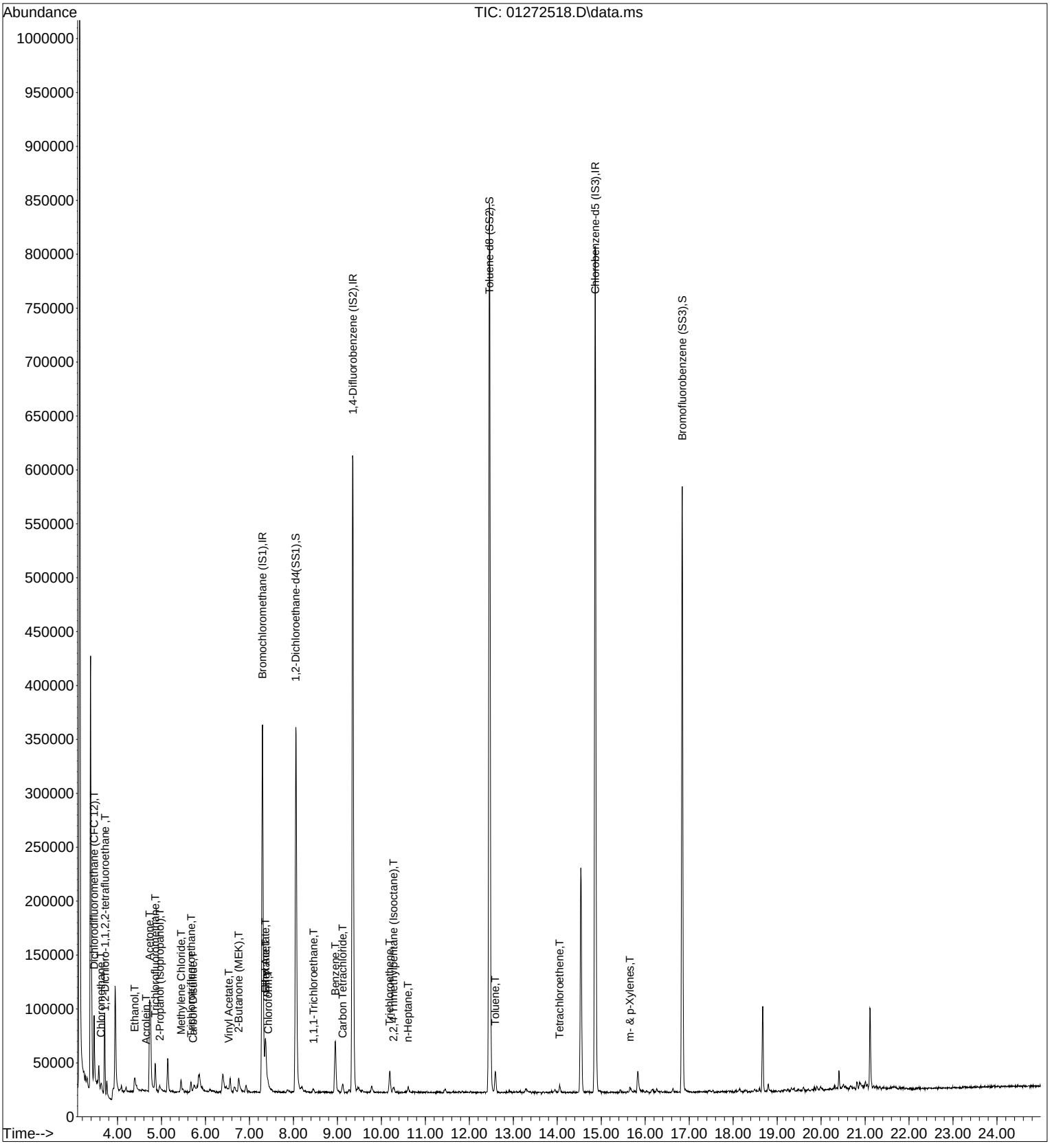
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.60	71	844	0.060 ng	#	80
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	15735	0.259 ng		96
59) 2-Hexanone	12.96	43	395	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.85	43	1432	N.D.		
63) n-Octane	13.95	57	450	N.D.		
64) Tetrachloroethene	14.05	166	1977	0.143 ng		97
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	15.44	91	2358	N.D.		
67) m- & p-Xylenes	15.65	91	5093	0.093 ng		93
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	0.00	104	0	N.D.		
70) o-Xylene	16.27	91	2342	N.D.		
71) n-Nonane	16.63	43	1850	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	17.05	105	202	N.D.		
75) alpha-Pinene	0.00	93	0	N.D.		
76) n-Propylbenzene	17.74	91	801	N.D.		
77) 3-Ethyltoluene	17.05	105	202	No Calib	#	
78) 4-Ethyltoluene	17.95	105	878	N.D.		
79) 1,3,5-Trimethylbenzene	18.05	105	821	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	202	No Calib	#	
82) 1,2,4-Trimethylbenzene	18.60	105	1823	N.D.		
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	18.75	91	228	N.D.		
85) 1,3-Dichlorobenzene	18.78	146	275	N.D.		
86) 1,4-Dichlorobenzene	18.87	146	220	N.D.		
87) sec-Butylbenzene	18.95	105	285	N.D.		
88) 4-Isopropyltoluene (p-...	19.17	119	431	N.D.		
89) 1,2,3-Trimethylbenzene	17.05	105	202	No Calib	#	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	19.36	68	129	N.D.		
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	0.00	58	0	N.D.		
94) 1,2,4-Trichlorobenzene	21.44	180	588	N.D.		
95) Naphthalene	21.61	128	929	N.D.		
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.60	119	178	N.D.		
100) n-Butylbenzene	19.71	91	657	N.D.		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 12:25:28 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 12:25:28 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

TZ 1/31/25

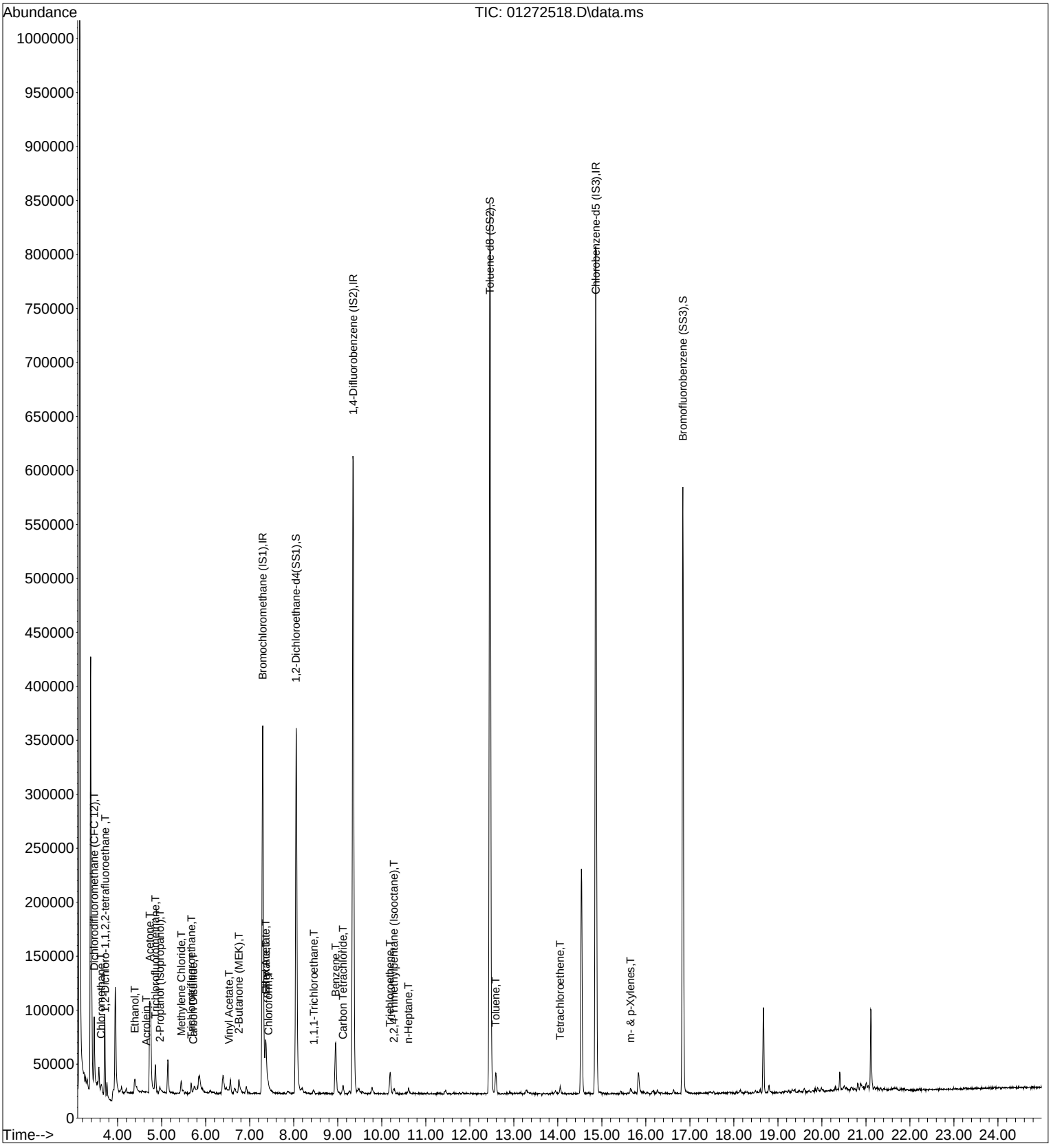
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	103048	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	481988	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	158273	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.05	65	280405	15.119	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 120.96%				
57) Toluene-d8 (SS2)	12.46	98	616540	10.730	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.84%				
73) Bromofluorobenzene (SS3)	16.84	174	145562	9.908	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.47	85	40196	1.568	ng		98
4) Chloromethane	3.63	50	6247m	0.260	ng		
5) 1,2-Dichloro-1,1,2,2-t...	3.72	135	705	0.084	ng		83
10) Ethanol	4.39	45	28032	1.755	ng		99
12) Acrolein	4.65	56	921	0.077	ng		96
13) Acetone	4.73	58	30536	2.659	ng	#	69
14) Trichlorofluoromethane	4.86	101	17179	0.829	ng		99
15) 2-Propanol (Isopropanol)	4.96	45	7116	0.138	ng	#	58
19) Methylene Chloride	5.45	84	2875	0.214	ng	#	76
21) Trichlorotrifluoroethane	5.68	151	2586	0.316	ng		88
22) Carbon Disulfide	5.72	76	4561	0.087	ng		85
26) Vinyl Acetate	6.53	86	164	0.069	ng	#	44
27) 2-Butanone (MEK)	6.76	72	3959	0.457	ng	#	72
30) Ethyl Acetate	7.37	61	5567	1.005	ng		89
31) n-Hexane	7.37	57	4986	0.190	ng	#	95
32) Chloroform	7.42	83	2071	0.094	ng		96
38) 1,1,1-Trichloroethane	8.46	97	2207	0.114	ng		93
41) Benzene	8.95	78	42315	0.744	ng		99
42) Carbon Tetrachloride	9.12	117	4622	0.277	ng		98
47) Trichloroethene	10.19	130	6834	0.600	ng		95
49) 2,2,4-Trimethylpentane...	10.27	57	5067	0.072	ng		83
51) n-Heptane	10.60	71	844	0.060	ng	#	80
58) Toluene	12.59	91	15735	0.259	ng		96
64) Tetrachloroethene	14.05	166	1977	0.143	ng		97
67) m- & p-Xylenes	15.65	91	5093	0.093	ng		93

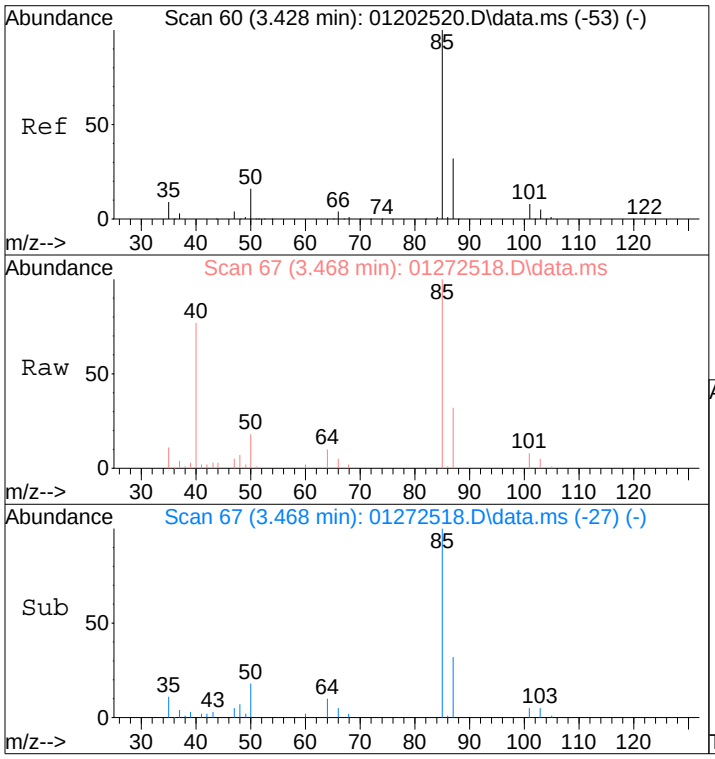
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 12:25:28 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

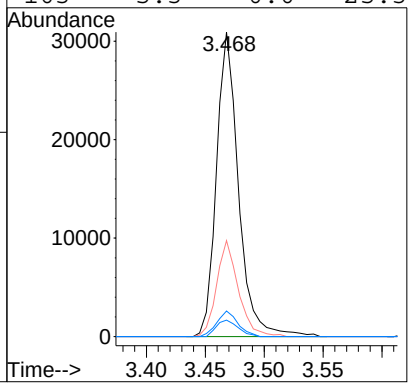


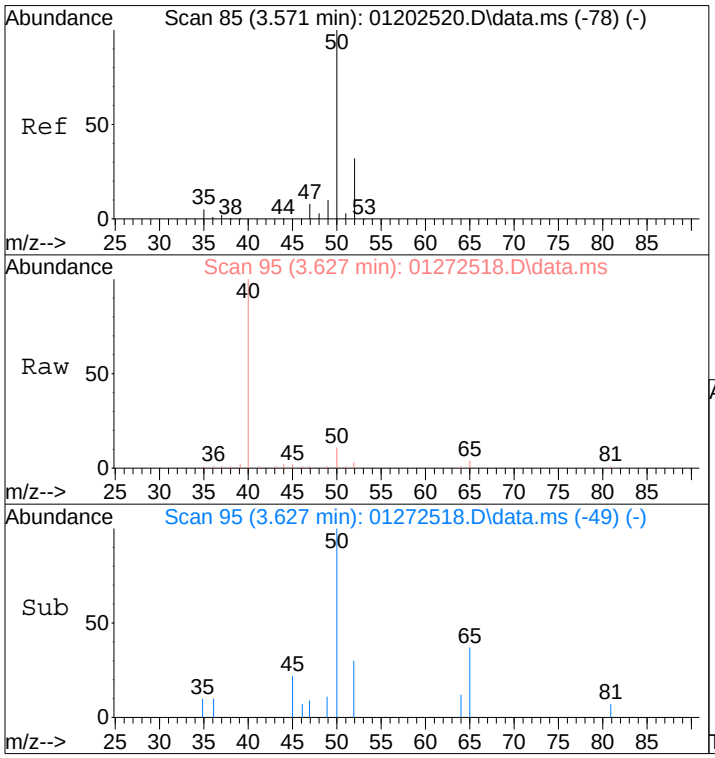


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.57 ng
RT: 3.47 min Scan# 67
Delta R.T. -0.023 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 85 Resp: 40196

Ion	Ratio	Lower	Upper
85	100		
87	31.0	12.2	52.2
101	8.1	0.0	28.4
103	5.3	0.0	25.3

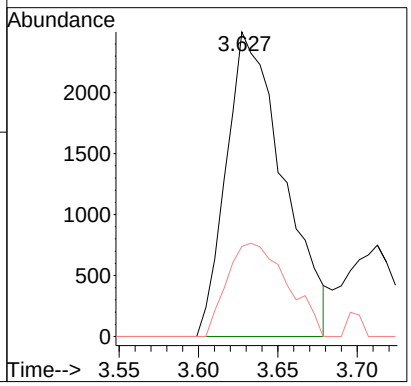


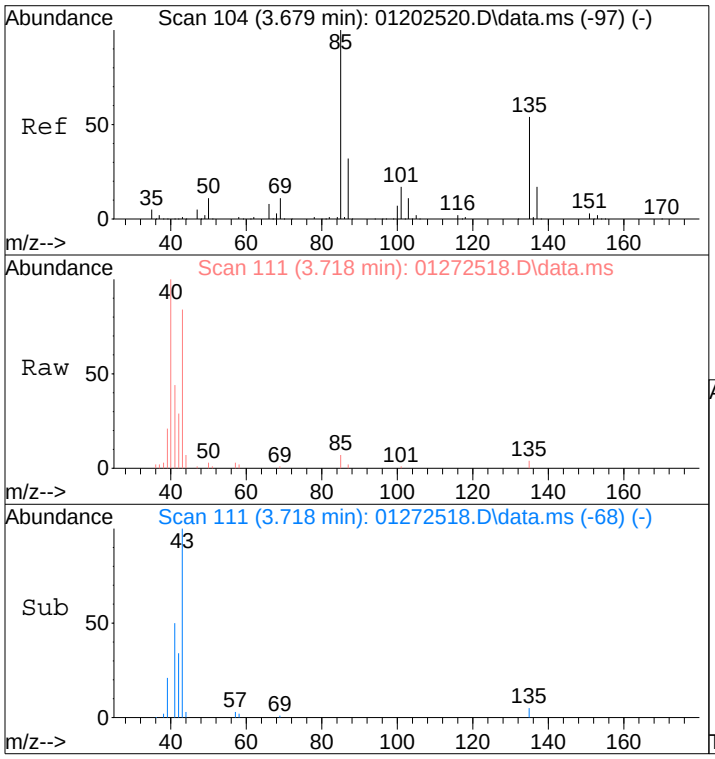


#4
Chloromethane
Concen: 0.26 ng m
RT: 3.63 min Scan# 95
Delta R.T. 0.011 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 50 Resp: 6247

Ion	Ratio	Lower	Upper
50	100		
52	32.4	12.2	52.2

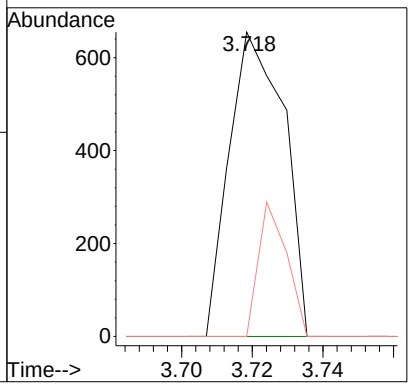


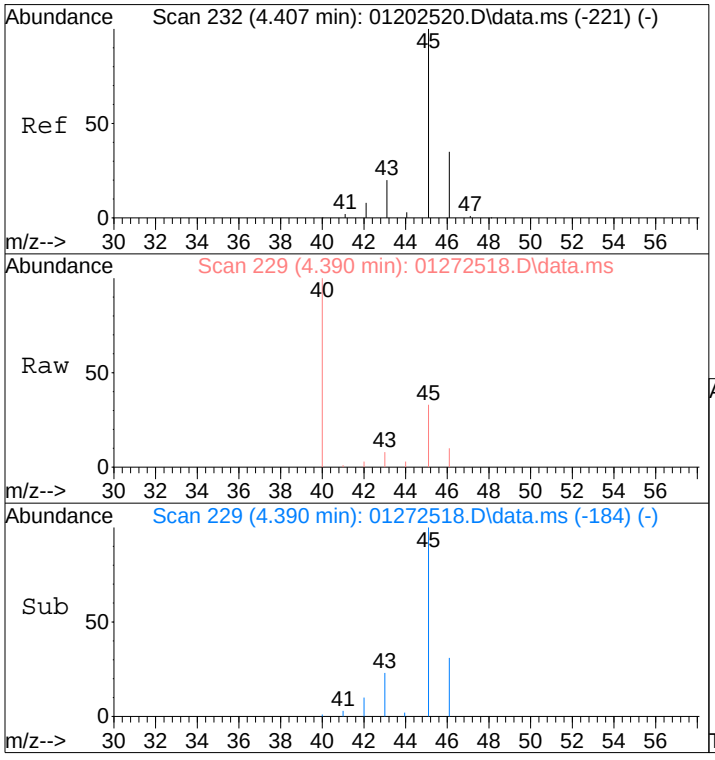


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.08 ng
RT: 3.72 min Scan# 111
Delta R.T. -0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:135 Resp: 705

Ion	Ratio	Lower	Upper
135	100		
137	22.7	12.2	52.2

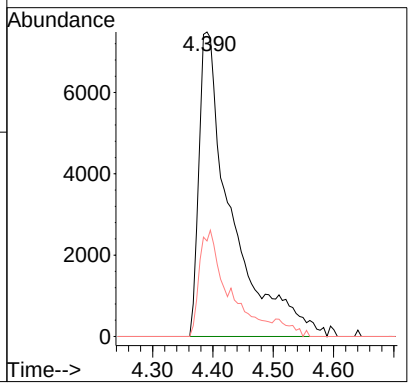


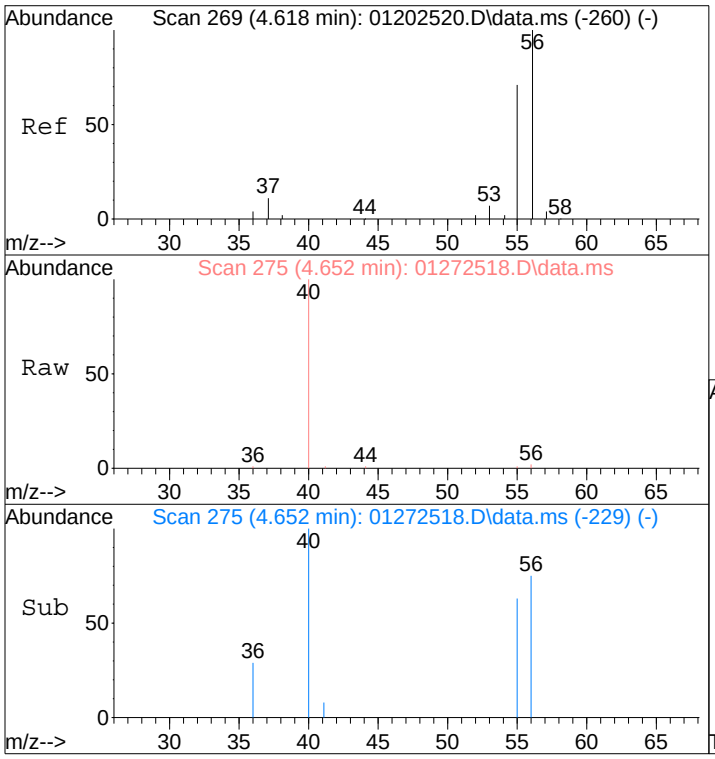


#10
Ethanol
Concen: 1.76 ng
RT: 4.39 min Scan# 229
Delta R.T. 0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 45 Resp: 28032

Ion	Ratio	Lower	Upper
45	100		
46	34.5	15.0	55.0

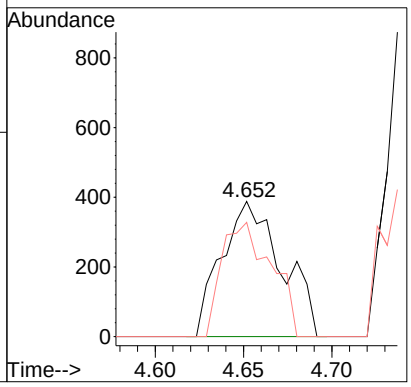


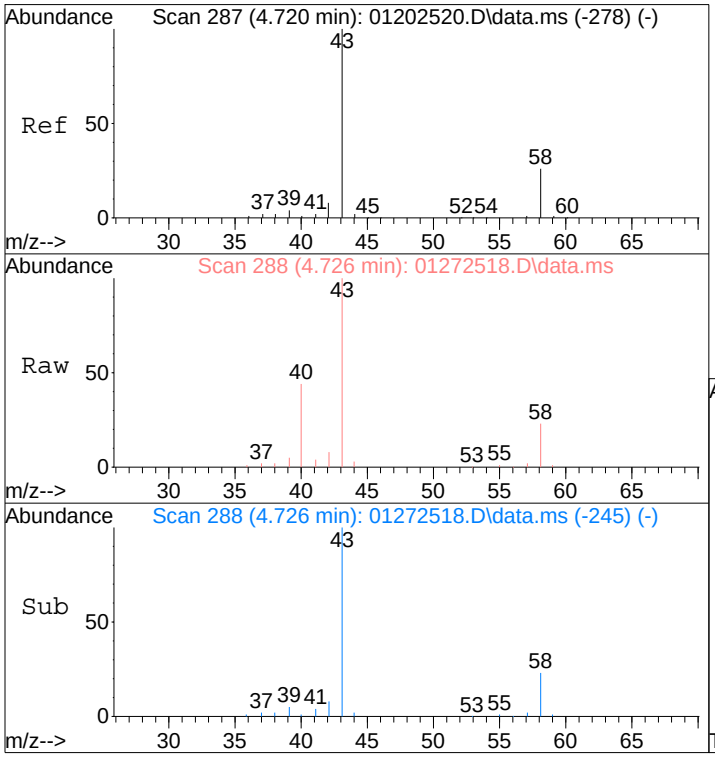


#12
Acrolein
Concen: 0.08 ng
RT: 4.65 min Scan# 275
Delta R.T. 0.011 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 56 Resp: 921

Ion	Ratio	Lower	Upper
56	100		
55	69.8	53.6	93.6

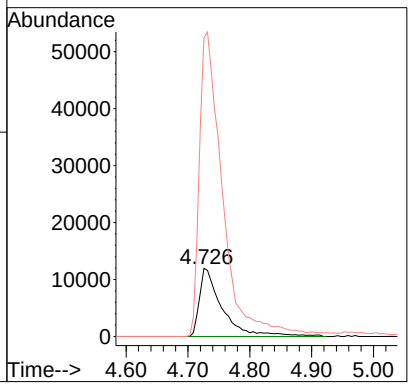


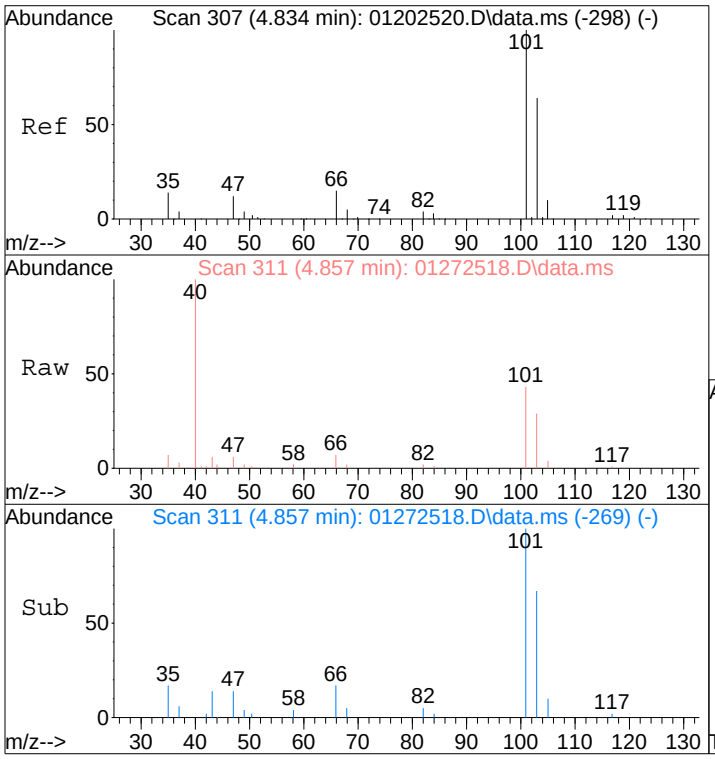


#13
Acetone
Concen: 2.66 ng
RT: 4.73 min Scan# 288
Delta R.T. -0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 58 Resp: 30536

Ion	Ratio	Lower	Upper
58	100		
43	461.5	359.4	419.4#

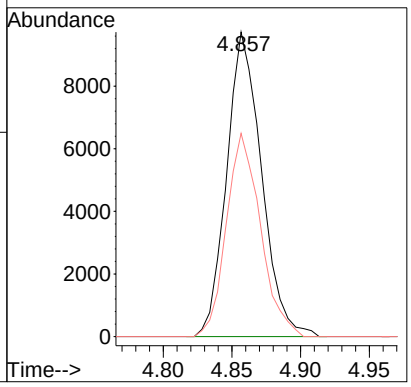


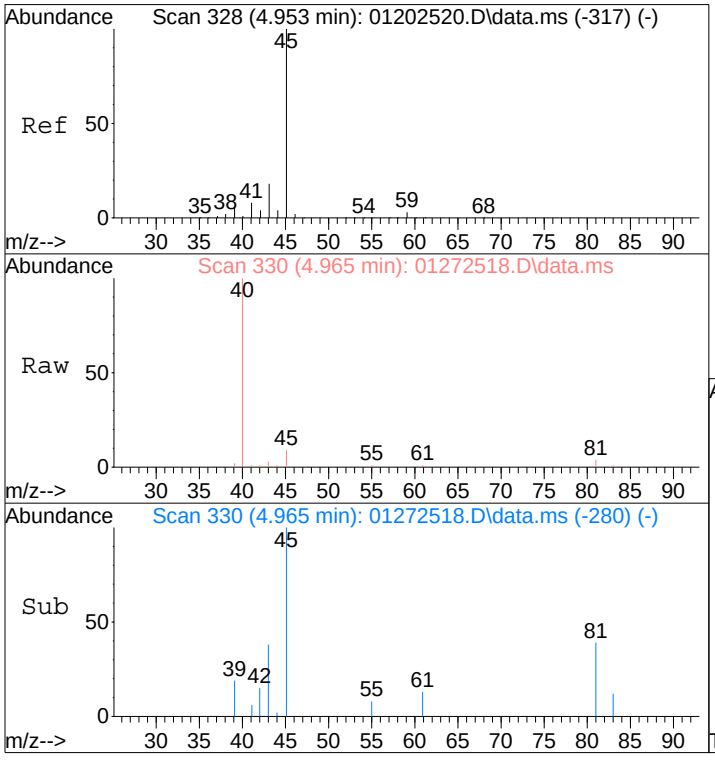


#14
Trichlorofluoromethane
Concen: 0.83 ng
RT: 4.86 min Scan# 311
Delta R.T. -0.012 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:101 Resp: 17179

Ion	Ratio	Lower	Upper
101	100		
103	65.2	44.2	84.2

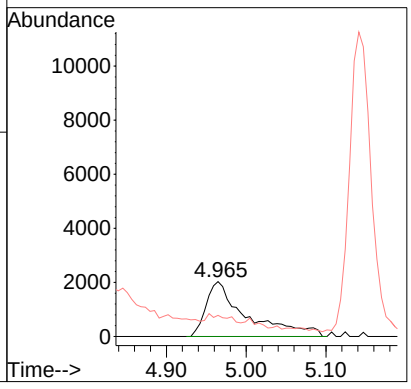


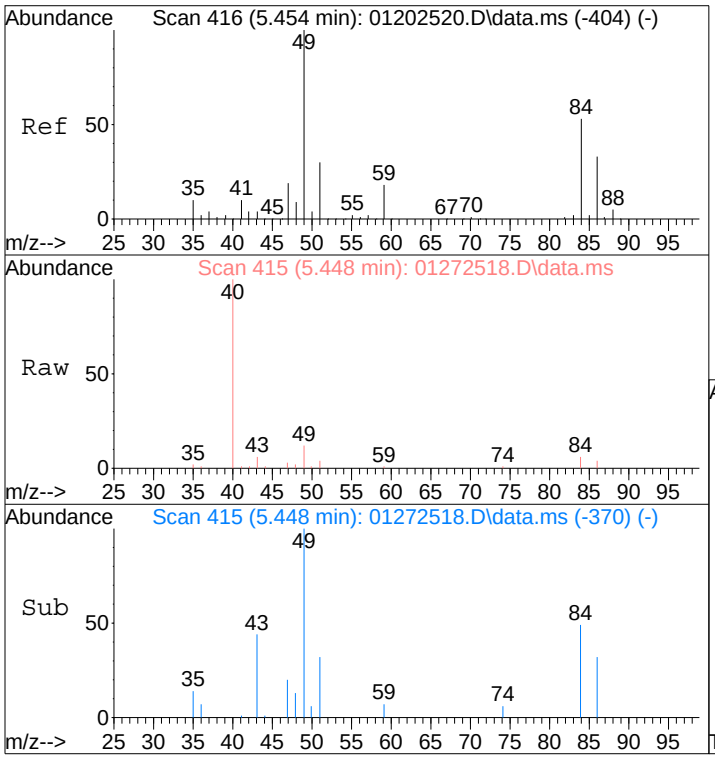


#15
2-Propanol (Isopropanol)
Concen: 0.14 ng
RT: 4.96 min Scan# 330
Delta R.T. 0.034 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 45 Resp: 7116

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

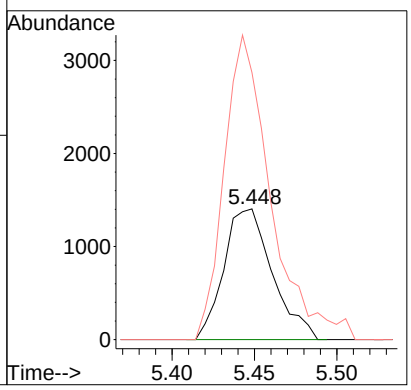


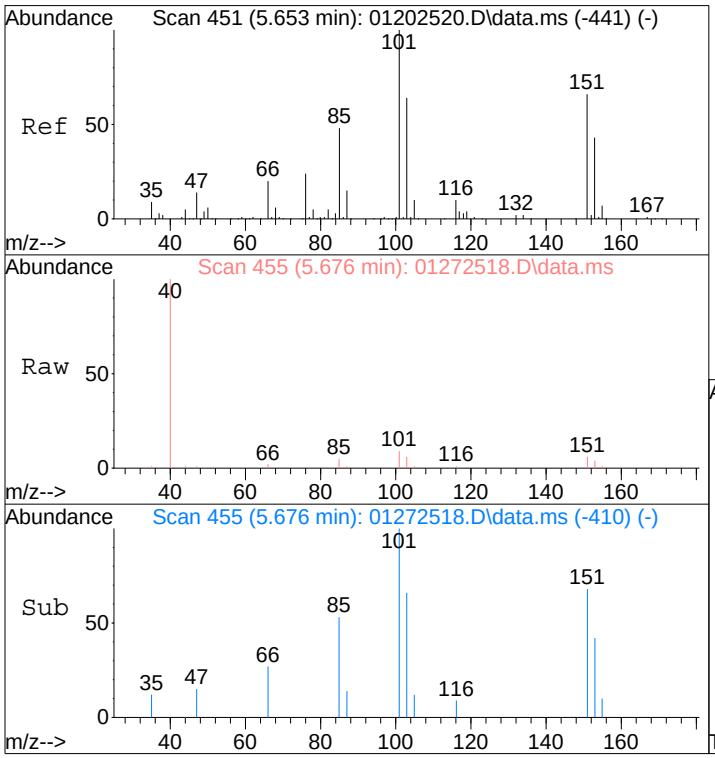


#19
Methylene Chloride
Concen: 0.21 ng
RT: 5.45 min Scan# 415
Delta R.T. 0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 84 Resp: 2875

Ion	Ratio	Lower	Upper
84	100		
49	223.9	163.7	213.7#

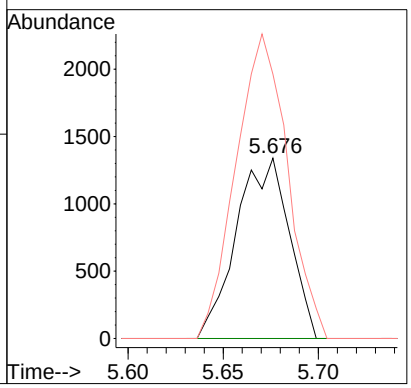


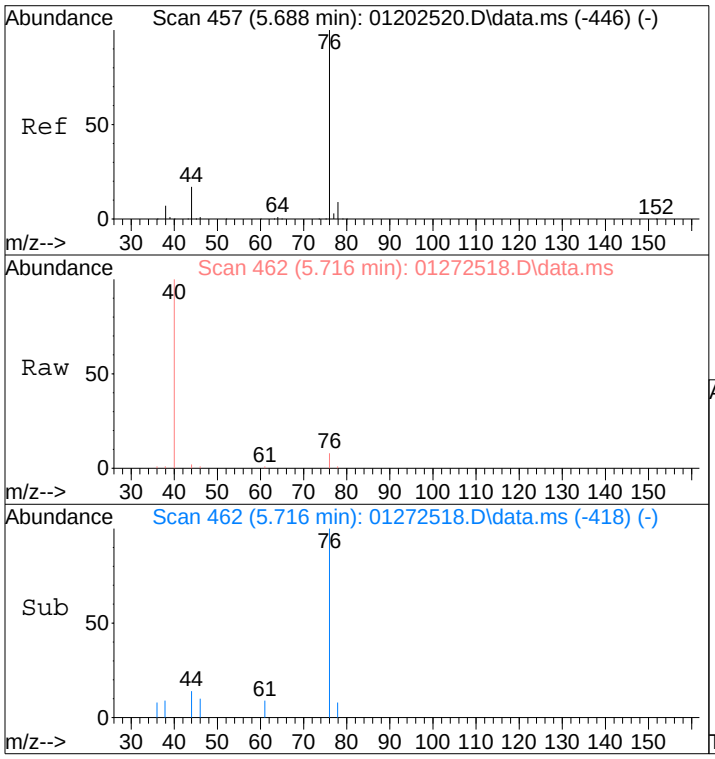


#21
Trichlorotrifluoroethane
Concen: 0.32 ng
RT: 5.68 min Scan# 455
Delta R.T. 0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:151 Resp: 2586

Ion	Ratio	Lower	Upper
151	100		
101	164.7	129.9	169.9

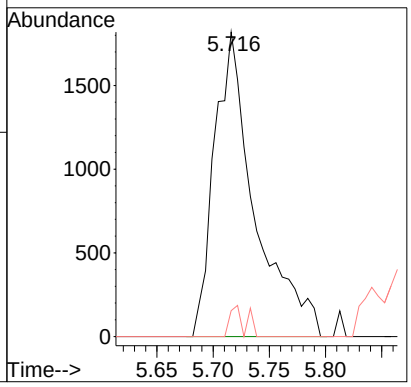


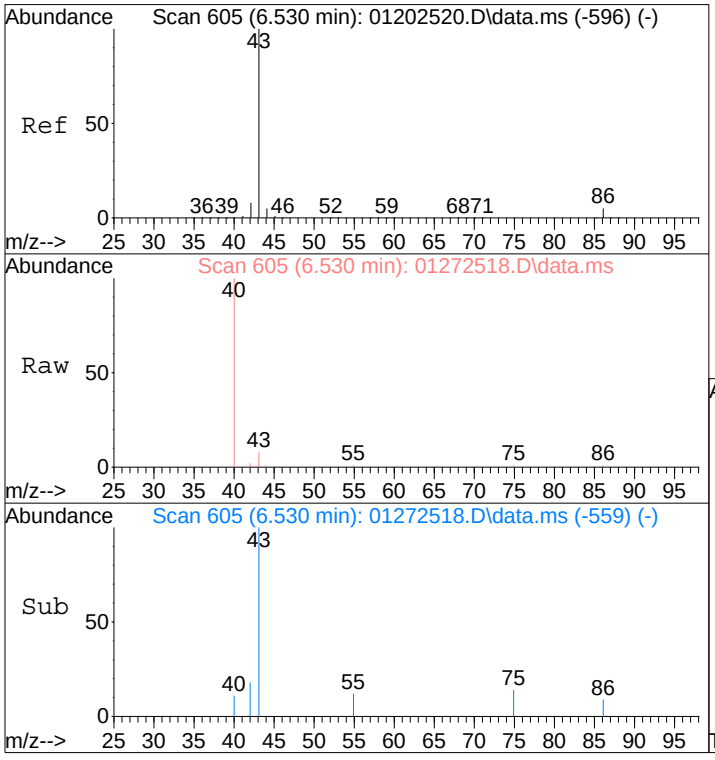


#22
Carbon Disulfide
Concen: 0.09 ng
RT: 5.72 min Scan# 462
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 76 Resp: 4561

Ion	Ratio	Lower	Upper
76	100		
78	3.8	0.0	29.1

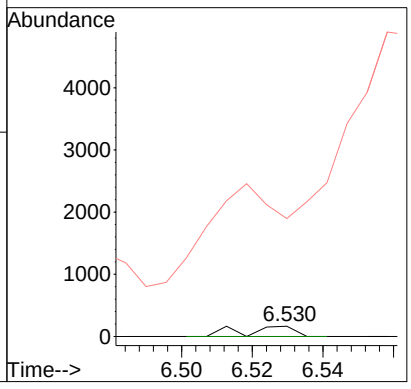


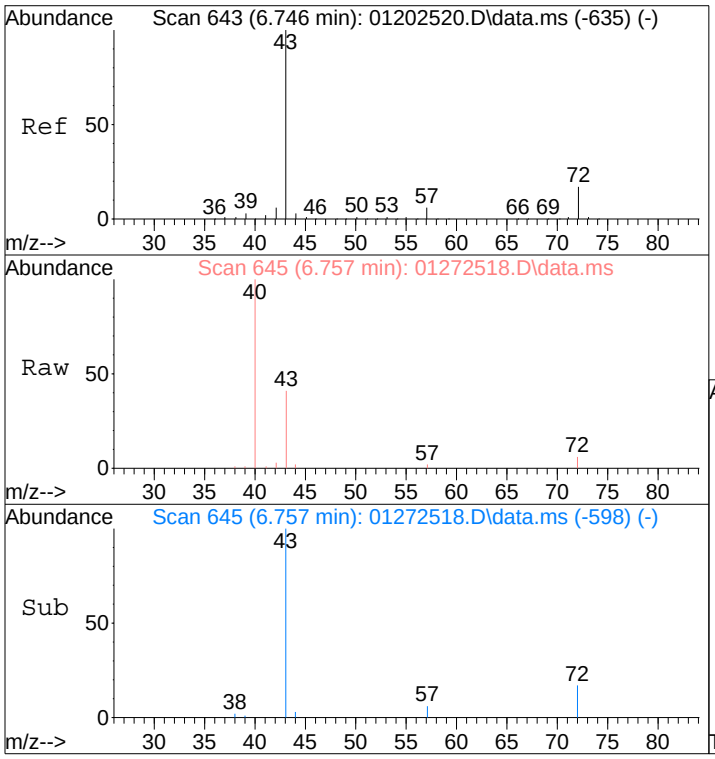


#26
Vinyl Acetate
Concen: 0.07 ng
RT: 6.53 min Scan# 605
Delta R.T. 0.011 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 86 Resp: 164

Ion	Ratio	Lower	Upper
86	100		
43	2475.0	2036.4	2076.4#

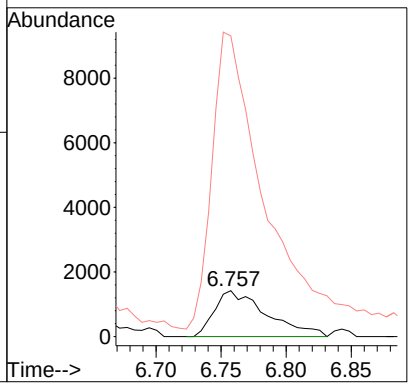


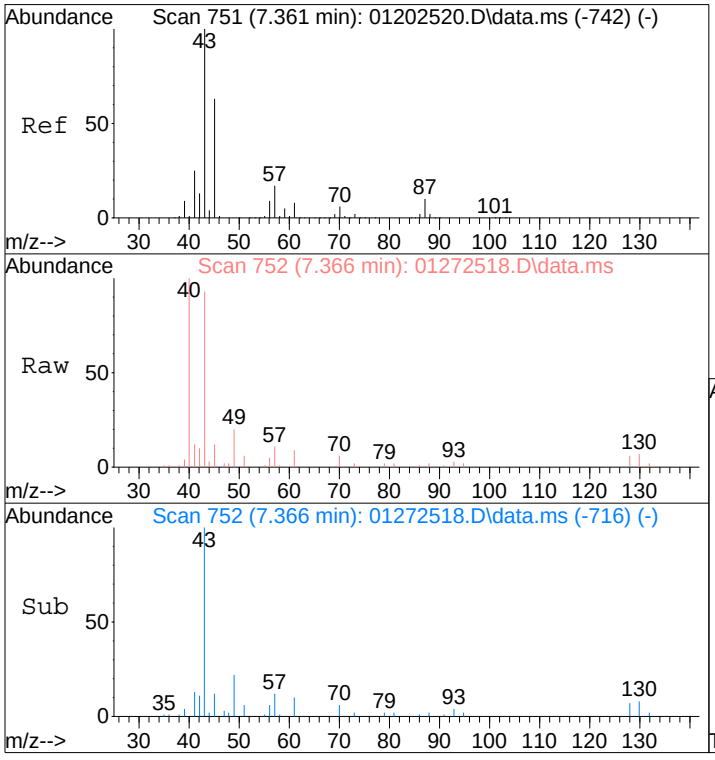


#27
2-Butanone (MEK)
Concen: 0.46 ng
RT: 6.76 min Scan# 645
Delta R.T. 0.017 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 72 Resp: 3959

Ion	Ratio	Lower	Upper
72	100		
43	686.6	579.1	619.1#

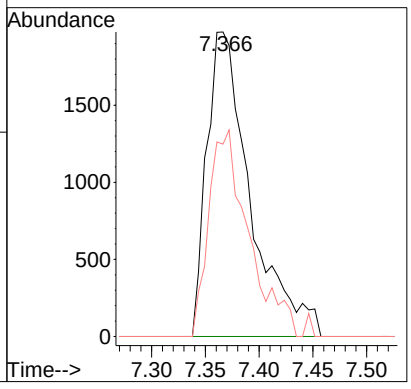


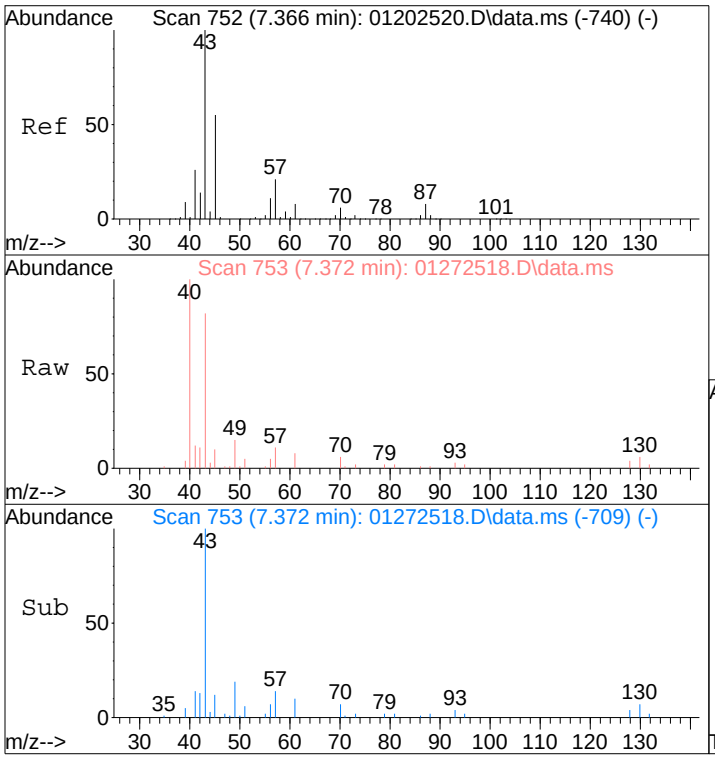


#30
Ethyl Acetate
Concen: 1.00 ng
RT: 7.37 min Scan# 752
Delta R.T. 0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 61 Resp: 5567

Ion	Ratio	Lower	Upper
61	100		
70	61.9	51.2	91.2

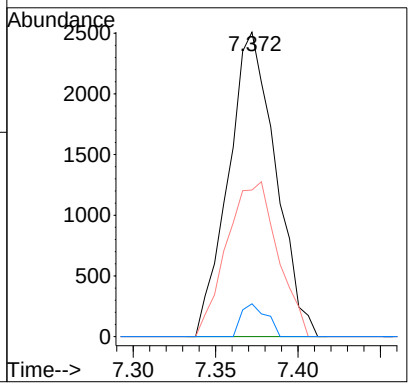


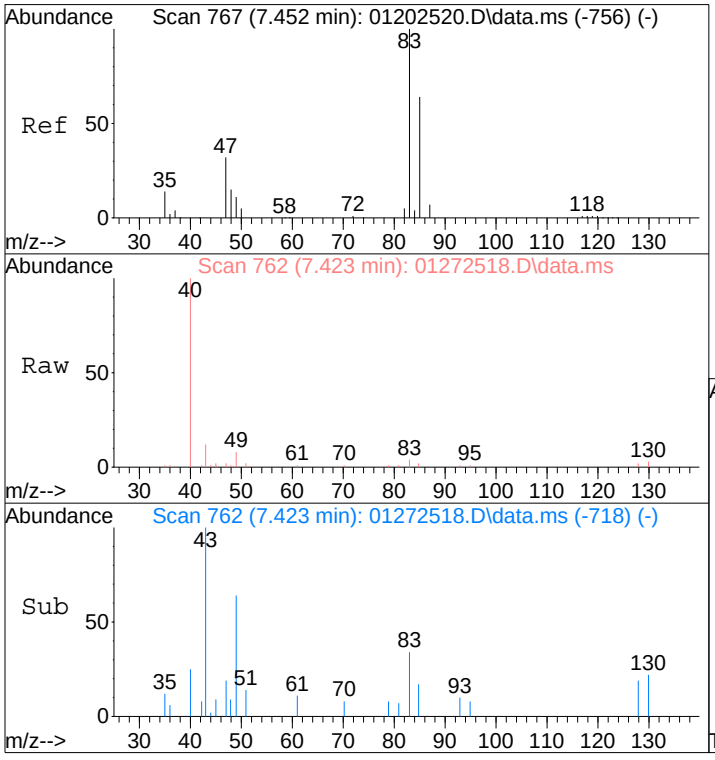


#31
n-Hexane
Concen: 0.19 ng
RT: 7.37 min Scan# 753
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 57 Resp: 4986

Ion	Ratio	Lower	Upper
57	100		
56	54.9	41.8	62.6
86	5.8	8.3	12.5#

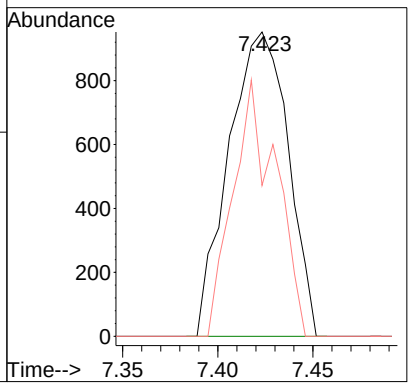


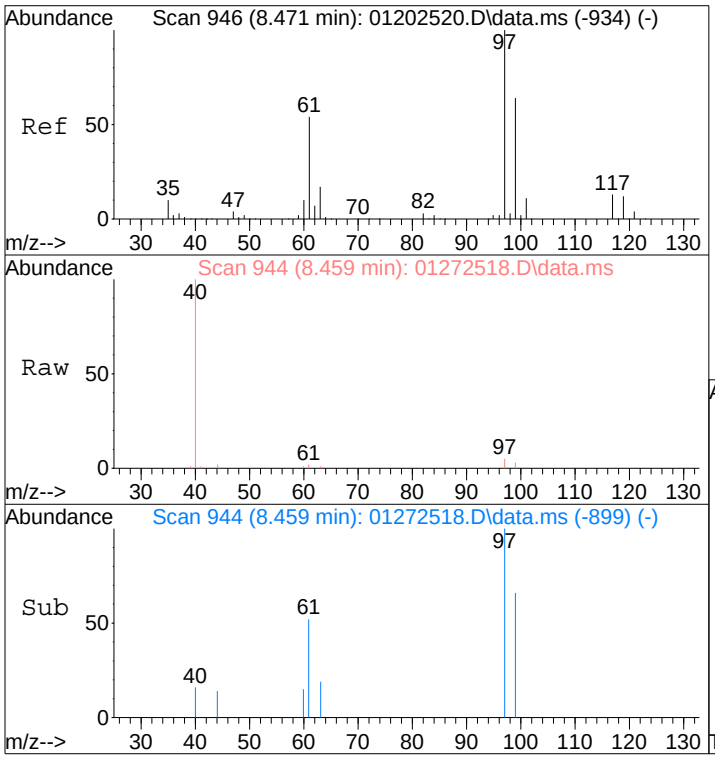


#32
Chloroform
Concen: 0.09 ng
RT: 7.42 min Scan# 762
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 83 Resp: 2071

Ion	Ratio	Lower	Upper
83	100		
85	61.1	44.0	84.0

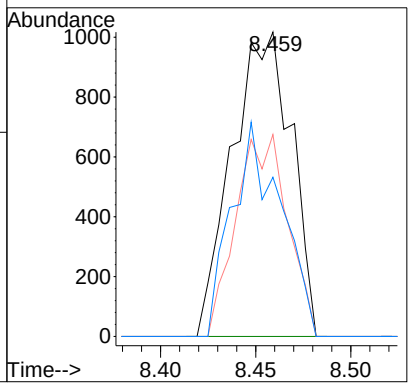


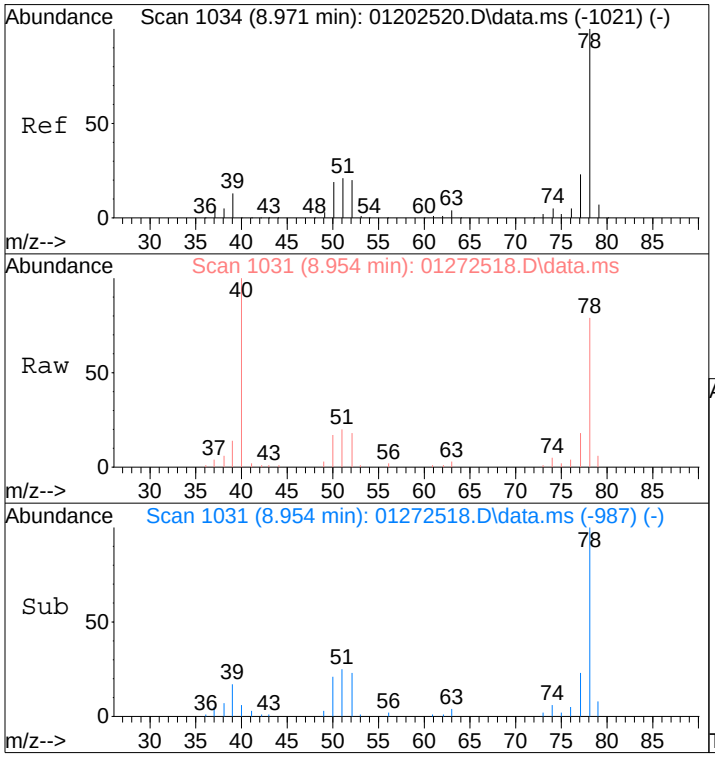


#38
1,1,1-Trichloroethane
Concen: 0.11 ng
RT: 8.46 min Scan# 944
Delta R.T. 0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 97 Resp: 2207

Ion	Ratio	Lower	Upper
97	100		
99	57.6	43.8	83.8
61	58.2	34.3	74.3

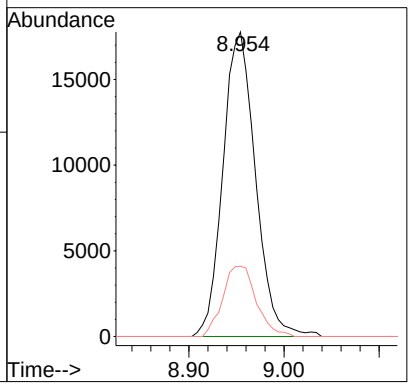


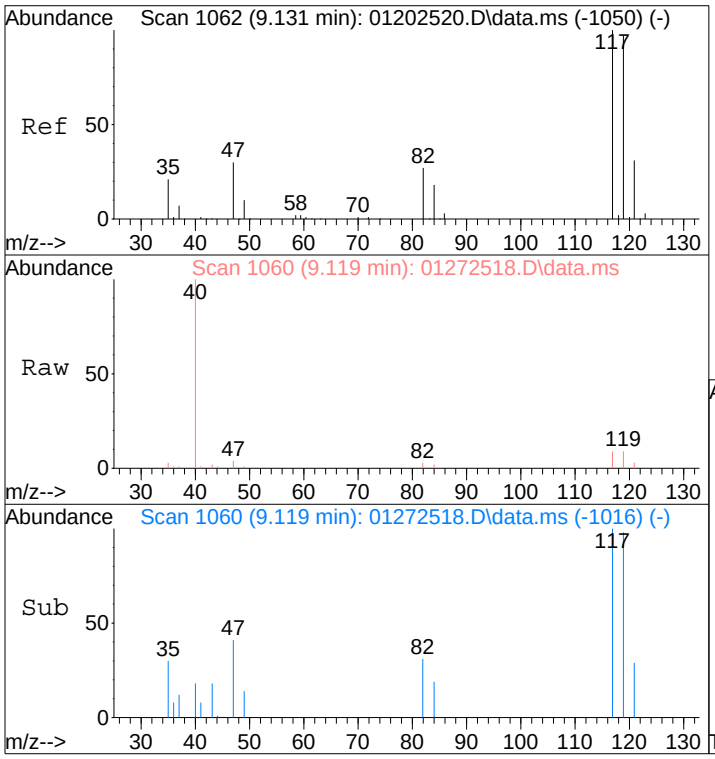


#41
Benzene
Concen: 0.74 ng
RT: 8.95 min Scan# 1031
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 78 Resp: 42315

Ion	Ratio	Lower	Upper
78	100		
77	23.8	3.4	43.4

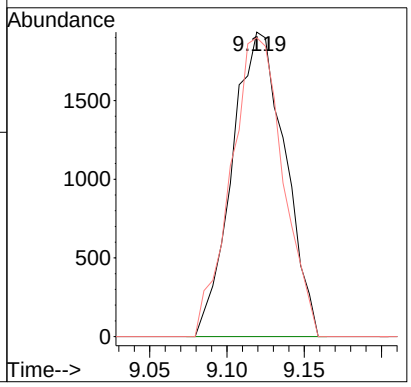


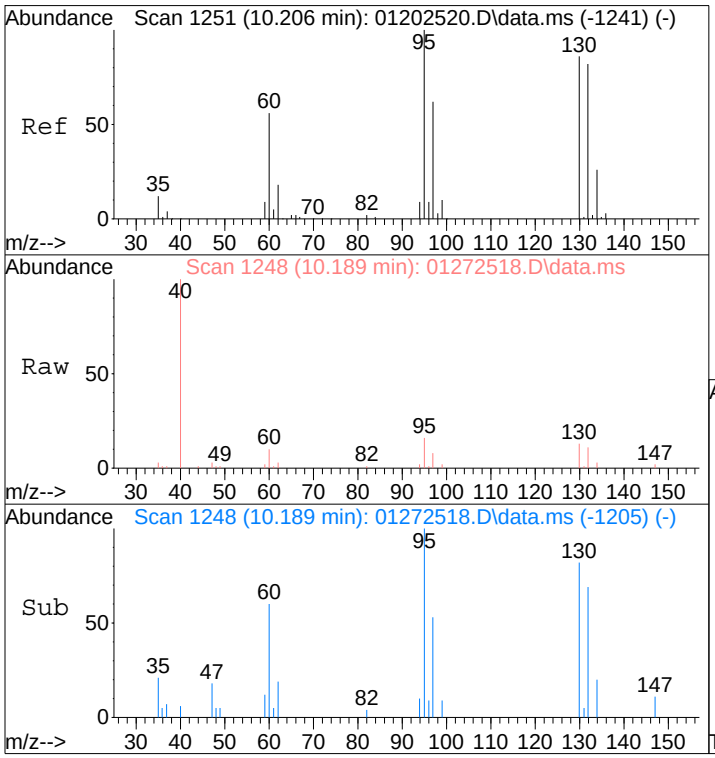


#42
Carbon Tetrachloride
Concen: 0.28 ng
RT: 9.12 min Scan# 1060
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:117 Resp: 4622

Ion	Ratio	Lower	Upper
117	100		
119	97.0	75.4	115.4

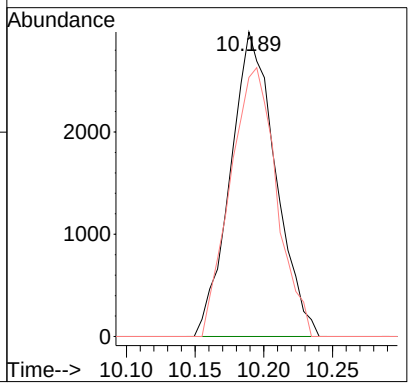


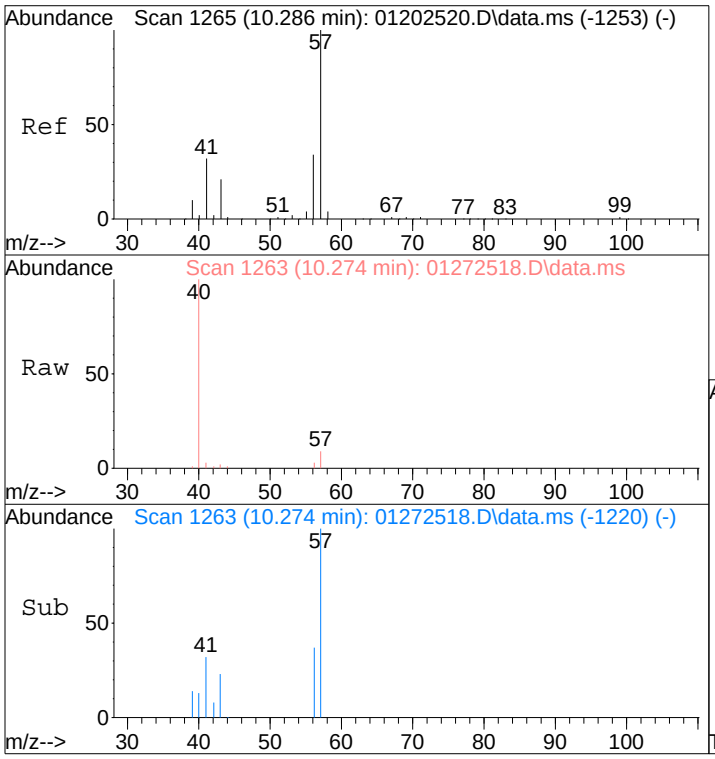


#47
Trichloroethene
Concen: 0.60 ng
RT: 10.19 min Scan# 1248
Delta R.T. -0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:130 Resp: 6834

Ion	Ratio	Lower	Upper
130	100		
132	90.3	75.5	115.5

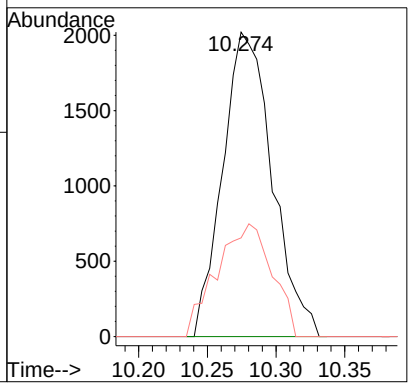


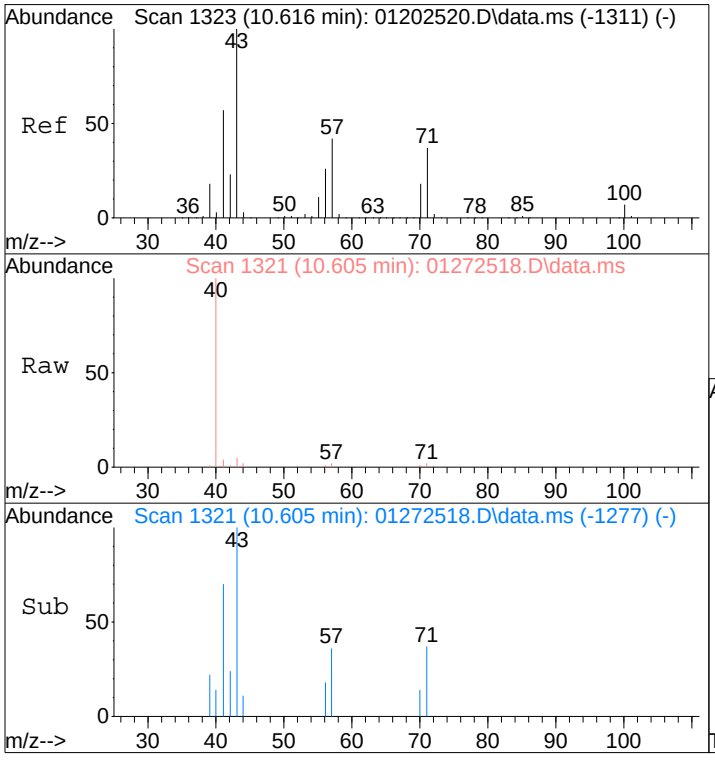


#49
2,2,4-Trimethylpentane (Isooctane)
Concen: 0.07 ng
RT: 10.27 min Scan# 1263
Delta R.T. -0.006 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 57 Resp: 5067

Ion	Ratio	Lower	Upper
57	100		
41	41.2	12.0	52.0

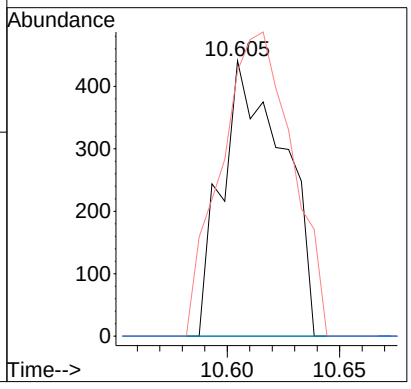


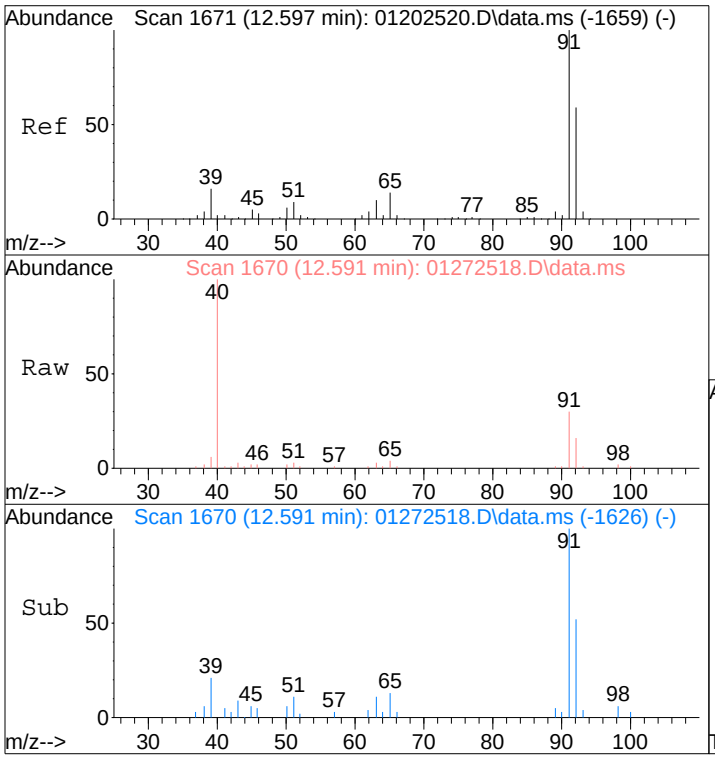


#51
n-Heptane
Concen: 0.06 ng
RT: 10.60 min Scan# 1321
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 71 Resp: 844

Ion	Ratio	Lower	Upper
71	100		
57	127.5	90.6	130.6
100	0.0	0.0	39.7

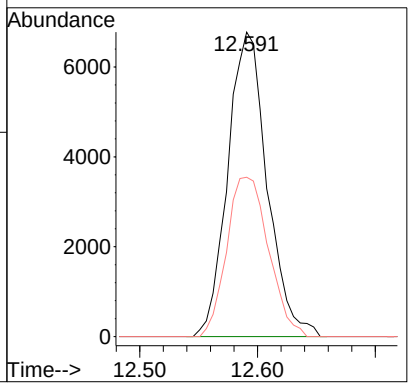


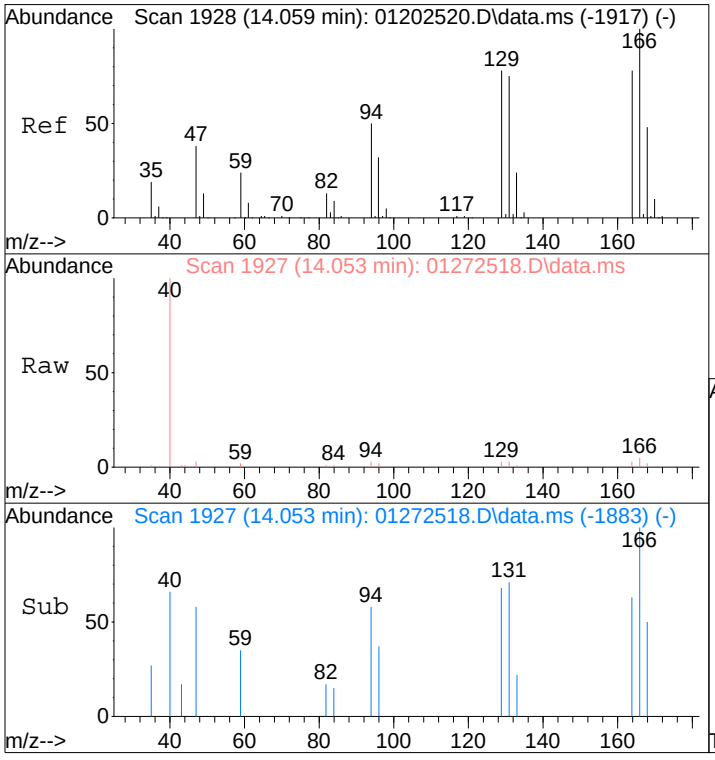


#58
Toluene
Concen: 0.26 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 91 Resp: 15735

Ion	Ratio	Lower	Upper
91	100		
92	55.6	38.4	78.4

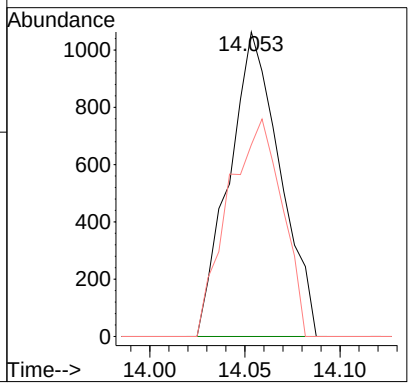


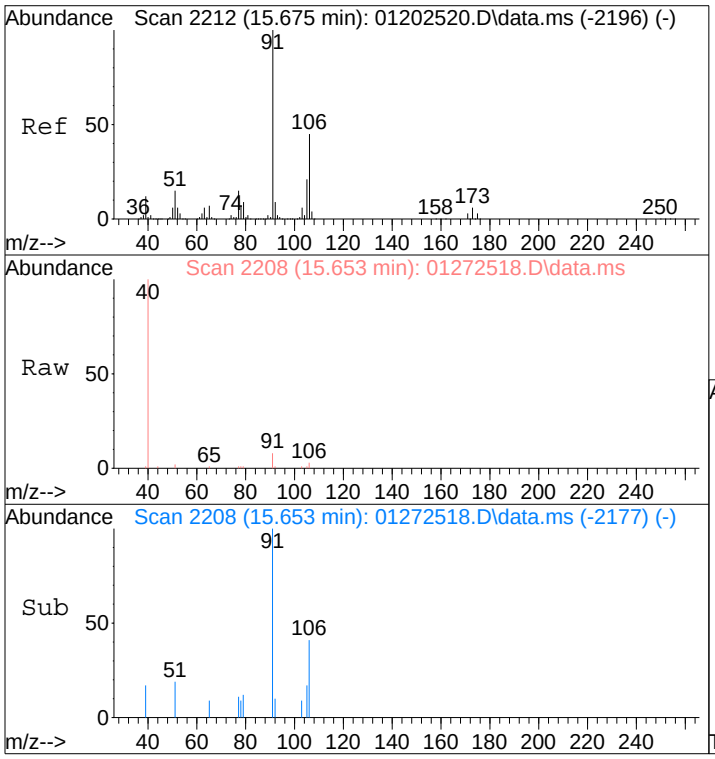


#64
Tetrachloroethene
Concen: 0.14 ng
RT: 14.05 min Scan# 1927
Delta R.T. -0.000 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion:166 Resp: 1977

Ion	Ratio	Lower	Upper
166	100		
164	75.7	58.4	98.4

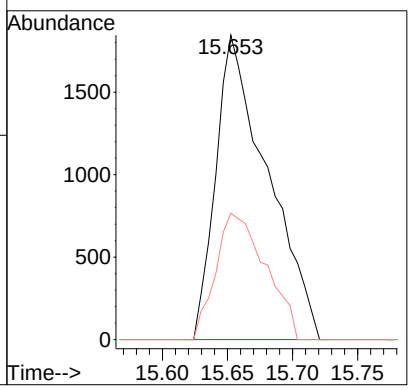




#67
m- & p-Xylenes
Concen: 0.09 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01272518.D
Acq: 27 Jan 2025 20:10

Tgt Ion: 91 Resp: 5093

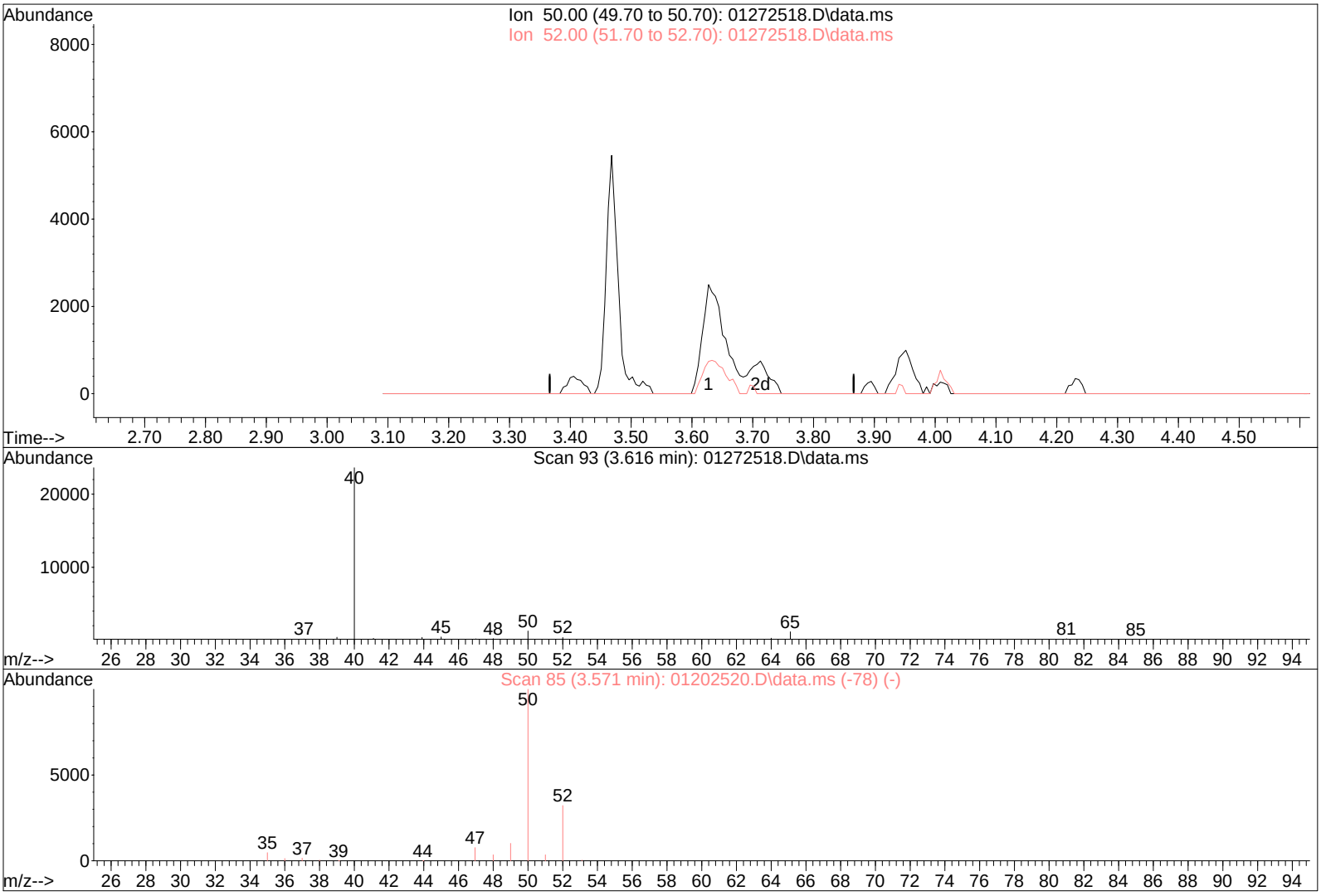
Ion	Ratio	Lower	Upper
91	100		
106	40.2	24.7	64.7



Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 11:08:34 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M



TIC: 01272518.D\data.ms

(4) Chloromethane (T)

3.616min 0.00ng d

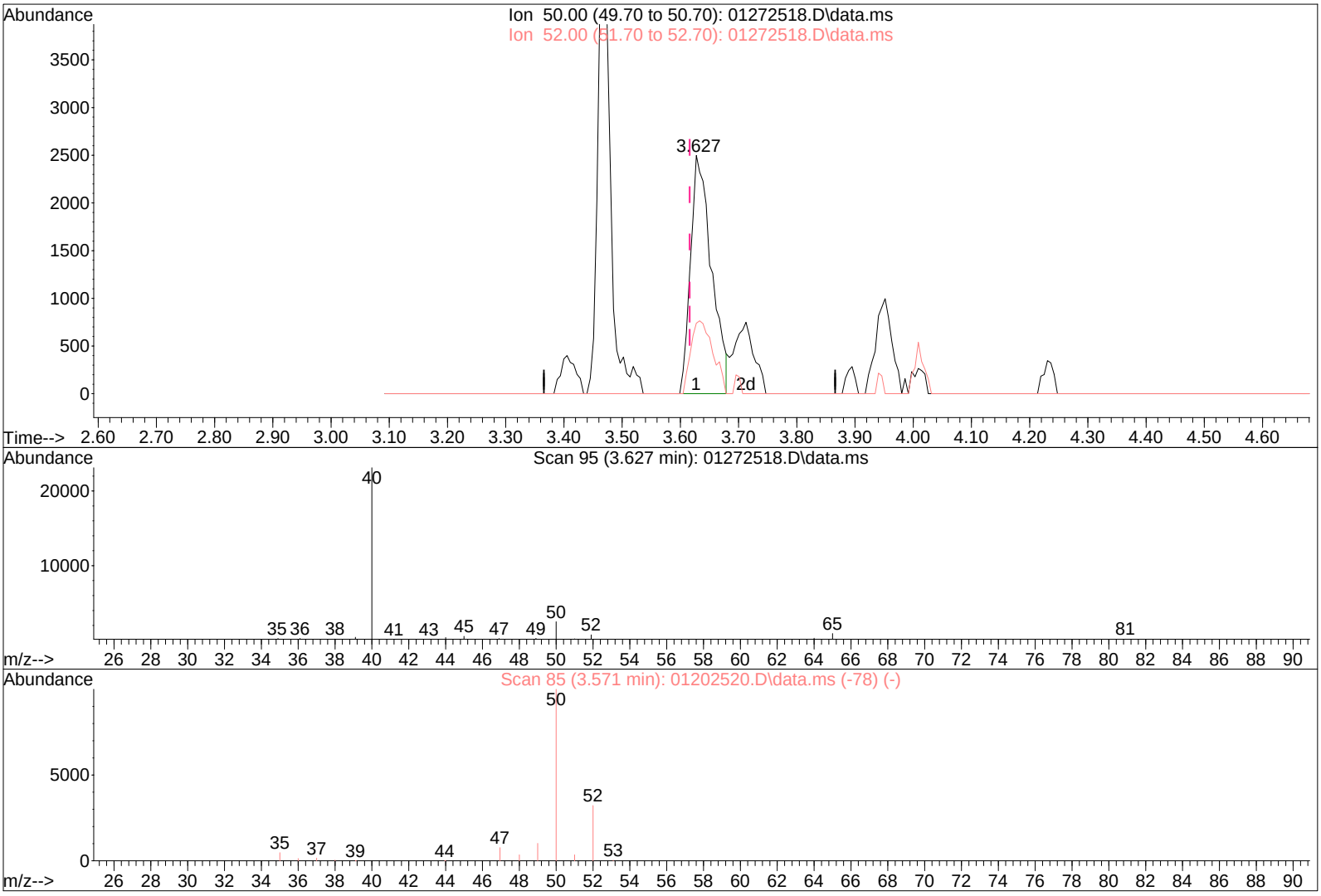
response 0

Ion	Exp%	Act%
50.00	100	0.00
52.00	32.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File : I:\MS13\DATA\2025 01\27\01272518.D Vial: 6
Acq On : 27 Jan 2025 20:10 Operator: MC
Sample : P2500076-002 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 31 11:08:34 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M



TIC: 01272518.D\data.ms

(4) Chloromethane (T)

3.627min (+0.011) 0.26ng m

response 6247

Ion	Exp%	Act%
50.00	100	100
52.00	32.20	32.37
0.00	0.00	0.00
0.00	0.00	0.00

MP

TZ 1/31/25

CG 1/31/25

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272518.D
Acq On : 27 Jan 2025 20:10
Operator : MC
Sample : P2500076-002 (1000mL)
Misc : S37-11222401
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 14:57:10 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

BCB 1/30/25

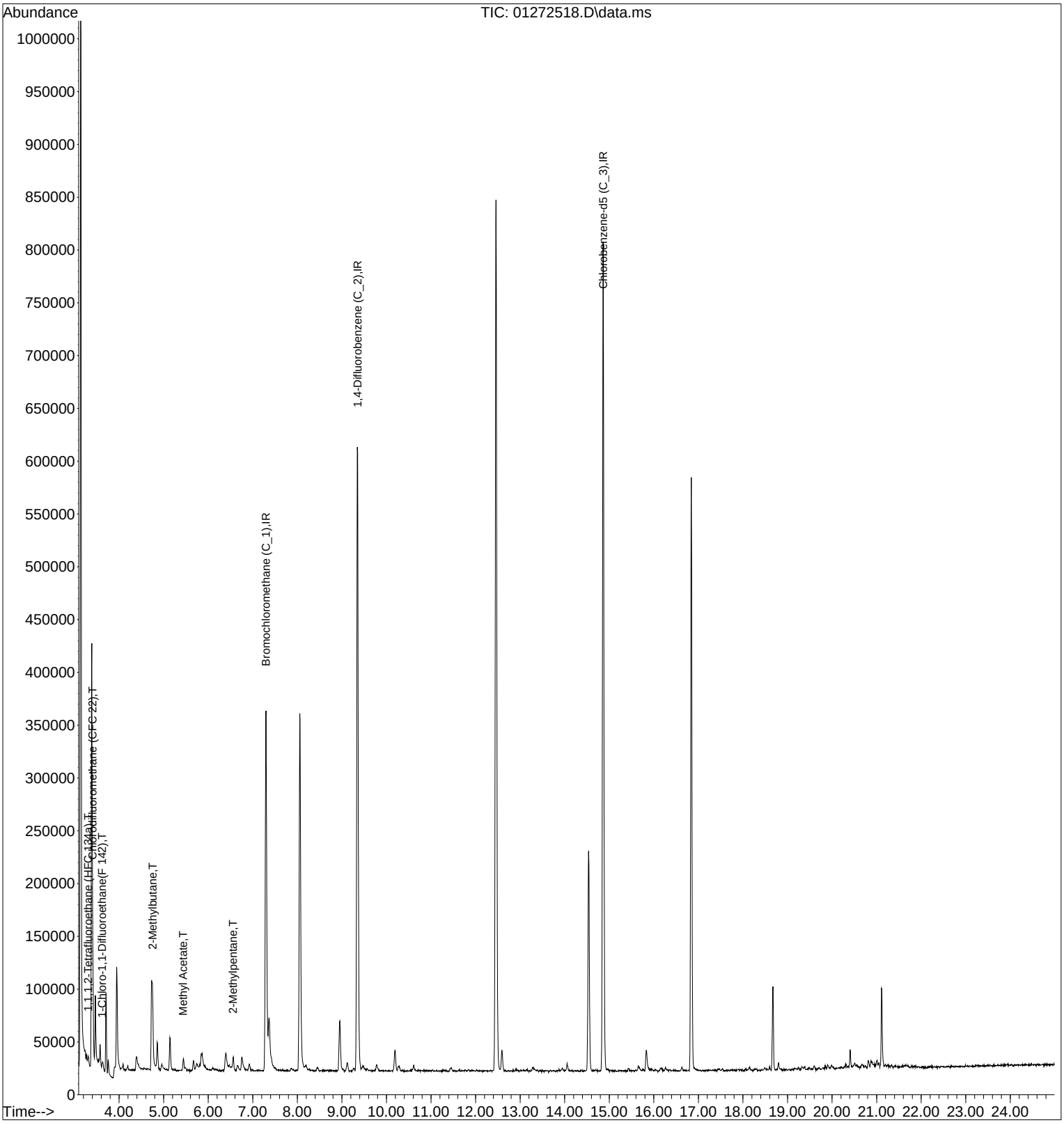
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	104063	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	481988	12.500	ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	158273	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	0.00	85	0	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	3.31	83	2766	0.217	ng	#	75
4) 1,1-Difluoroethane	3.36	65	157	N.D.			
5) Chlorodifluoromethane ...	3.41	67	1626	0.364	ng		97
6) 1-Chloro-1,1-Difluoroe...	3.62	65	1763	0.059	ng	#	72
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.75	57	11264	0.707	ng	#	71
11) Methyl Acetate	5.44	43	5171	0.112	ng	#	77
12) 2-Methylpentane	6.56	71	1611	0.122	ng	#	13
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.11	84	797	N.D.			
17) 2,3-Dimethylpentane	9.56	56	676	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.45	55	1317	N.D.			
21) 1,3-Dichloropropane	0.00	76	0	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	0.00	75	0	N.D.			
25) Bromobenzene	0.00	77	0	N.D.			
26) 2-Chlorotoluene	17.74	91	801	N.D.			
27) 4-Chlorotoluene	17.74	91	801	N.D.			
28) Indane	0.00	117	0	N.D.			
29) Indene	0.00	115	0	N.D.			
30) 1,2,4,5-Tetramethylben...	20.64	119	231	N.D.			
31) 1,2,3,4-Tetramethylben...	20.69	119	550	N.D.			
32) 1,2,3,5-Tetramethylben...	21.11	119	387	N.D.			
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272518.D
Acq On : 27 Jan 2025 20:10
Operator : MC
Sample : P2500076-002 (1000mL)
Misc : S37-11222401
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 30 14:57:10 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG6-SS** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-003

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 0.70 Liter(s)
Test Notes:
Container ID: AC02348

Initial Pressure (psig): -2.32 Final Pressure (psig): 3.77

Container Dilution Factor: 1.49

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	**0.20**	0.45	0.12	**0.077**	0.17	0.047	**J**
75-35-4	1,1-Dichloroethene	**0.42**	0.19	0.16	**0.10**	0.048	0.040	
75-09-2	Methylene Chloride	**1.4**	0.98	0.32	**0.41**	0.28	0.092	
156-60-5	trans-1,2-Dichloroethene	ND	0.45	0.16	ND	0.11	0.040	
75-34-3	1,1-Dichloroethane	**6.3**	0.45	0.17	**1.6**	0.11	0.041	
156-59-2	cis-1,2-Dichloroethene	ND	0.21	0.16	ND	0.054	0.040	
107-06-2	1,2-Dichloroethane	ND	0.21	0.13	ND	0.053	0.031	
71-55-6	1,1,1-Trichloroethane	**63**	0.22	0.14	**12**	0.040	0.026	
56-23-5	Carbon Tetrachloride	**0.75**	0.22	0.16	**0.12**	0.035	0.025	
79-01-6	Trichloroethene	**12**	0.22	0.15	**2.3**	0.042	0.029	
127-18-4	Tetrachloroethene	**79**	0.23	0.15	**12**	0.035	0.022	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 14:15:11 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	115012	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	542928	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	183218	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	318935	15.408	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 123.28%				
57) Toluene-d8 (SS2)	12.46	98	692752	10.415	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 83.28%				
73) Bromofluorobenzene (SS3)	16.84	174	181096	10.649	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.20%				
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D. d			
3) Dichlorodifluoromethan...	3.45	85	33370	1.166	ng		98
4) Chloromethane	3.61	50	1196	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	570	0.061	ng	#	42
6) Vinyl Chloride	3.79	62	2001	0.092	ng		92
7) 1,3-Butadiene	0.00	54	0	N.D. d			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.41	45	4188080	234.957	ng		99
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.62	56	3335	0.251	ng		91
13) Acetone	4.71	58	428056	33.397	ng	#	61
14) Trichlorofluoromethane	4.84	101	13993	0.605	ng		99
15) 2-Propanol (Isopropanol)	4.96	45	134228	2.331	ng		94
16) Acrylonitrile	0.00	53	0	N.D. d			
17) 1,1-Dichloroethene	5.35	96	2319	0.195	ng	#	77
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d			
19) Methylene Chloride	5.44	84	10058	0.669	ng	#	78
20) 3-Chloro-1-propene (Al...	5.60	41	489	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2089	0.228	ng		88
22) Carbon Disulfide	5.69	76	132034	2.253	ng		99
23) trans-1,2-Dichloroethene	6.21	61	112	N.D.			
24) 1,1-Dichloroethane	6.39	63	88895	2.948	ng		99
25) Methyl tert-Butyl Ether	6.46	73	4967	0.126	ng		96
26) Vinyl Acetate	0.00	86	0	N.D. d			
27) 2-Butanone (MEK)	6.73	72	28238	2.922	ng	#	84
28) cis-1,2-Dichloroethene	7.14	61	1640	0.067	ng		90
29) Diisopropyl Ether	7.37	87	418	N.D.			
30) Ethyl Acetate	7.35	61	12154	1.965	ng		96
31) n-Hexane	7.37	57	66622	2.277	ng		99
32) Chloroform	7.42	83	33704	1.368	ng		99
34) Tetrahydrofuran (THF)	7.83	72	3543	0.361	ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	8.45	97	641993	29.502	ng		97
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.85	56	1122258	No Calib		#	
41) Benzene	8.95	78	91630	1.431	ng		99
42) Carbon Tetrachloride	9.12	117	6607	0.351	ng		96
43) Cyclohexane	9.27	84	11646	0.552	ng		95
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D. d			
47) Trichloroethene	10.19	130	74063	5.772	ng		100
48) 1,4-Dioxane	10.18	88	2151	0.190	ng	#	64

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 14:15:11 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

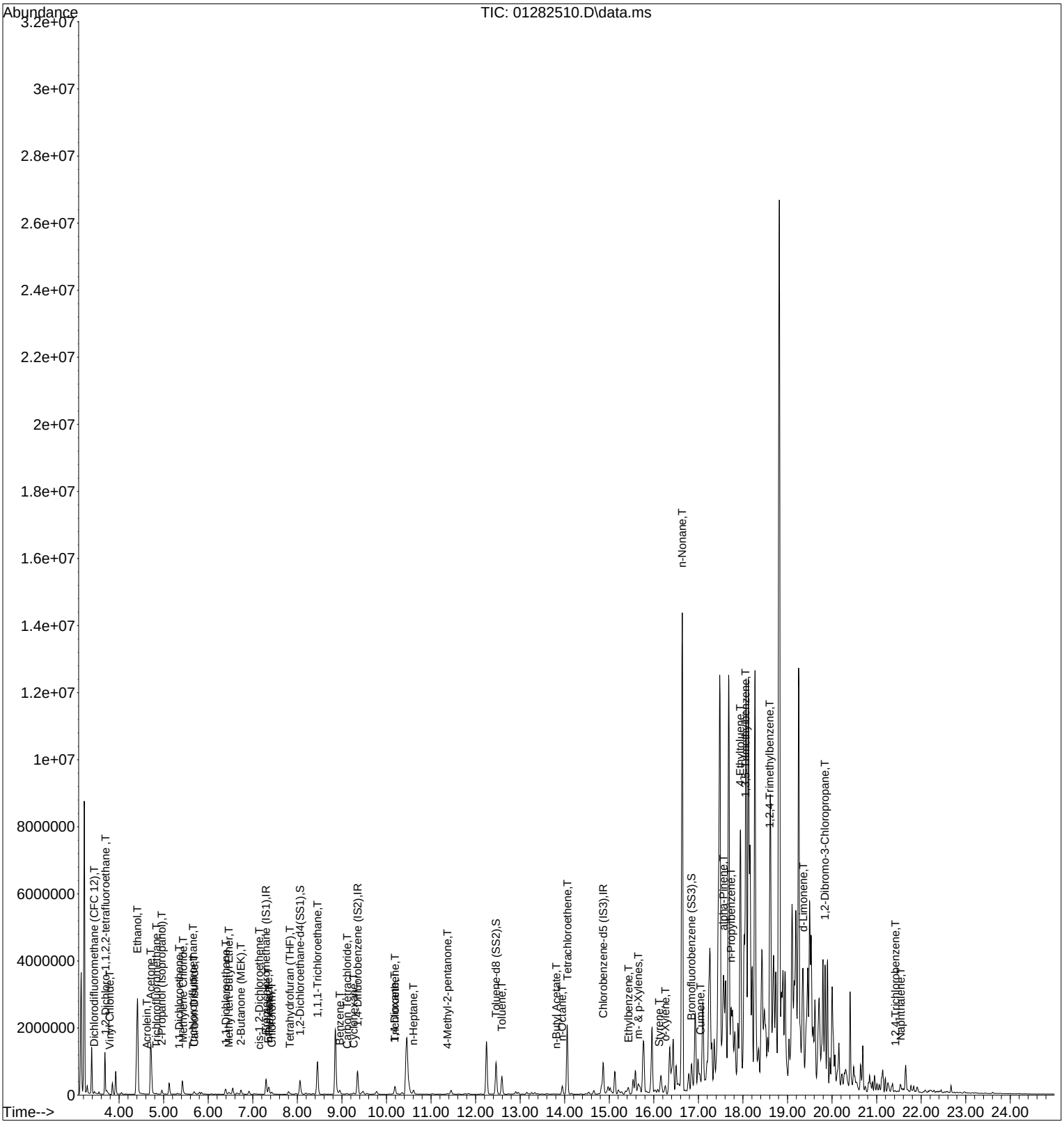
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.28	57	3736	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	10.60	71	23565	1.494 ng		91
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	11.37	58	6461	0.415 ng	#	93
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	414659	5.892 ng		99
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.81	43	14030	0.229 ng		93
63) n-Octane	13.95	57	41809	2.123 ng		94
64) Tetrachloroethene	14.06	166	592223	36.919 ng		100
65) Chlorobenzene	0.00	112	0	N.D. d		
66) Ethylbenzene	15.43	91	35438	0.445 ng		96
67) m- & p-Xylenes	15.65	91	142968	2.260 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	16.12	104	10574	0.250 ng		88
70) o-Xylene	16.26	91	78453	1.248 ng		96
71) n-Nonane	16.64	43	7871300	140.685 ng		99
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D. d		
74) Cumene	17.05	105	98259	1.359 ng		96
75) alpha-Pinene	17.56	93	96743	2.697 ng	#	60
76) n-Propylbenzene	17.74	91	310733	3.286 ng		92
77) 3-Ethyltoluene	17.05	105	98259	No Calib		
78) 4-Ethyltoluene	17.94	105	343863	5.040 ng		100
79) 1,3,5-Trimethylbenzene	18.05	105	644803	10.756 ng		99
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	98259	No Calib		
82) 1,2,4-Trimethylbenzene	18.60	105	1652017	27.657 ng		89
83) n-Decane	17.10	58	68778	No Calib	#	
84) Benzyl Chloride	0.00	91	0	N.D. d		
85) 1,3-Dichlorobenzene	18.77	146	1094	N.D.		
86) 1,4-Dichlorobenzene	18.86	146	864	N.D.		
87) sec-Butylbenzene	0.00	105	0	N.D. d		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	17.05	105	98259	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	306	N.D.		
91) d-Limonene	19.35	68	72033	2.811 ng	#	63
92) 1,2-Dibromo-3-Chloropr...	19.84	157	883	0.091 ng	#	1
93) n-Undecane	18.07	58	295984	No Calib	#	
94) 1,2,4-Trichlorobenzene	21.42	180	1518	0.079 ng	#	92
95) Naphthalene	21.54	128	77163	1.522 ng		93
96) n-Dodecane	18.95	58	19854	No Calib	#	
97) Hexachlorobutadiene	21.97	225	315	N.D.		
98) Cyclohexanone	15.43	55	79706	No Calib	#	
99) tert-Butylbenzene	0.00	119	0	N.D. d		
100) n-Butylbenzene	0.00	91	0	N.D. d		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 30 14:15:11 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 14:15:11 2025
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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	115012	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	542928	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	183218	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	318935	15.408	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 123.28%				
57) Toluene-d8 (SS2)	12.46	98	692752	10.415	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 83.28%				
73) Bromofluorobenzene (SS3)	16.84	174	181096	10.649	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.20%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.45	85	33370	1.166	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	570	0.061	ng	#	42
6) Vinyl Chloride	3.79	62	2001	0.092	ng		92
10) Ethanol	4.41	45	4188080	234.957	ng		99
12) Acrolein	4.62	56	3335	0.251	ng		91
13) Acetone	4.71	58	428056	33.397	ng	#	61
14) Trichlorofluoromethane	4.84	101	13993	0.605	ng		99
15) 2-Propanol (Isopropanol)	4.96	45	134228	2.331	ng		94
17) 1,1-Dichloroethene	5.35	96	2319	0.195	ng	#	77
19) Methylene Chloride	5.44	84	10058	0.669	ng	#	78
21) Trichlorotrifluoroethane	5.66	151	2089	0.228	ng		88
22) Carbon Disulfide	5.69	76	132034	2.253	ng		99
24) 1,1-Dichloroethane	6.39	63	88895	2.948	ng		99
25) Methyl tert-Butyl Ether	6.46	73	4967	0.126	ng		96
27) 2-Butanone (MEK)	6.73	72	28238	2.922	ng	#	84
28) cis-1,2-Dichloroethene	7.14	61	1640	0.067	ng		90
30) Ethyl Acetate	7.35	61	12154	1.965	ng		96
31) n-Hexane	7.37	57	66622	2.277	ng		99
32) Chloroform	7.42	83	33704	1.368	ng		99
34) Tetrahydrofuran (THF)	7.83	72	3543	0.361	ng	#	1
38) 1,1,1-Trichloroethane	8.45	97	641993	29.502	ng		97
41) Benzene	8.95	78	91630	1.431	ng		99
42) Carbon Tetrachloride	9.12	117	6607	0.351	ng		96
43) Cyclohexane	9.27	84	11646	0.552	ng		95
47) Trichloroethene	10.19	130	74063	5.772	ng		100
48) 1,4-Dioxane	10.18	88	2151	0.190	ng	#	64
51) n-Heptane	10.60	71	23565	1.494	ng		91
53) 4-Methyl-2-pentanone	11.37	58	6461	0.415	ng	#	93
58) Toluene	12.59	91	414659	5.892	ng		99
62) n-Butyl Acetate	13.81	43	14030	0.229	ng		93
63) n-Octane	13.95	57	41809	2.123	ng		94
64) Tetrachloroethene	14.06	166	592223	36.919	ng		100
66) Ethylbenzene	15.43	91	35438	0.445	ng		96
67) m- & p-Xylenes	15.65	91	142968	2.260	ng		98
69) Styrene	16.12	104	10574	0.250	ng		88
70) o-Xylene	16.26	91	78453	1.248	ng		96
71) n-Nonane	16.64	43	7871300	140.685	ng		99
74) Cumene	17.05	105	98259	1.359	ng		96
75) alpha-Pinene	17.56	93	96743	2.697	ng	#	60
76) n-Propylbenzene	17.74	91	310733	3.286	ng		92
78) 4-Ethyltoluene	17.94	105	343863	5.040	ng		100
79) 1,3,5-Trimethylbenzene	18.05	105	644803	10.756	ng		99
82) 1,2,4-Trimethylbenzene	18.60	105	1652017	27.657	ng		89
91) d-Limonene	19.35	68	72033	2.811	ng	#	63
92) 1,2-Dibromo-3-Chloropr...	19.84	157	883	0.091	ng	#	1

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
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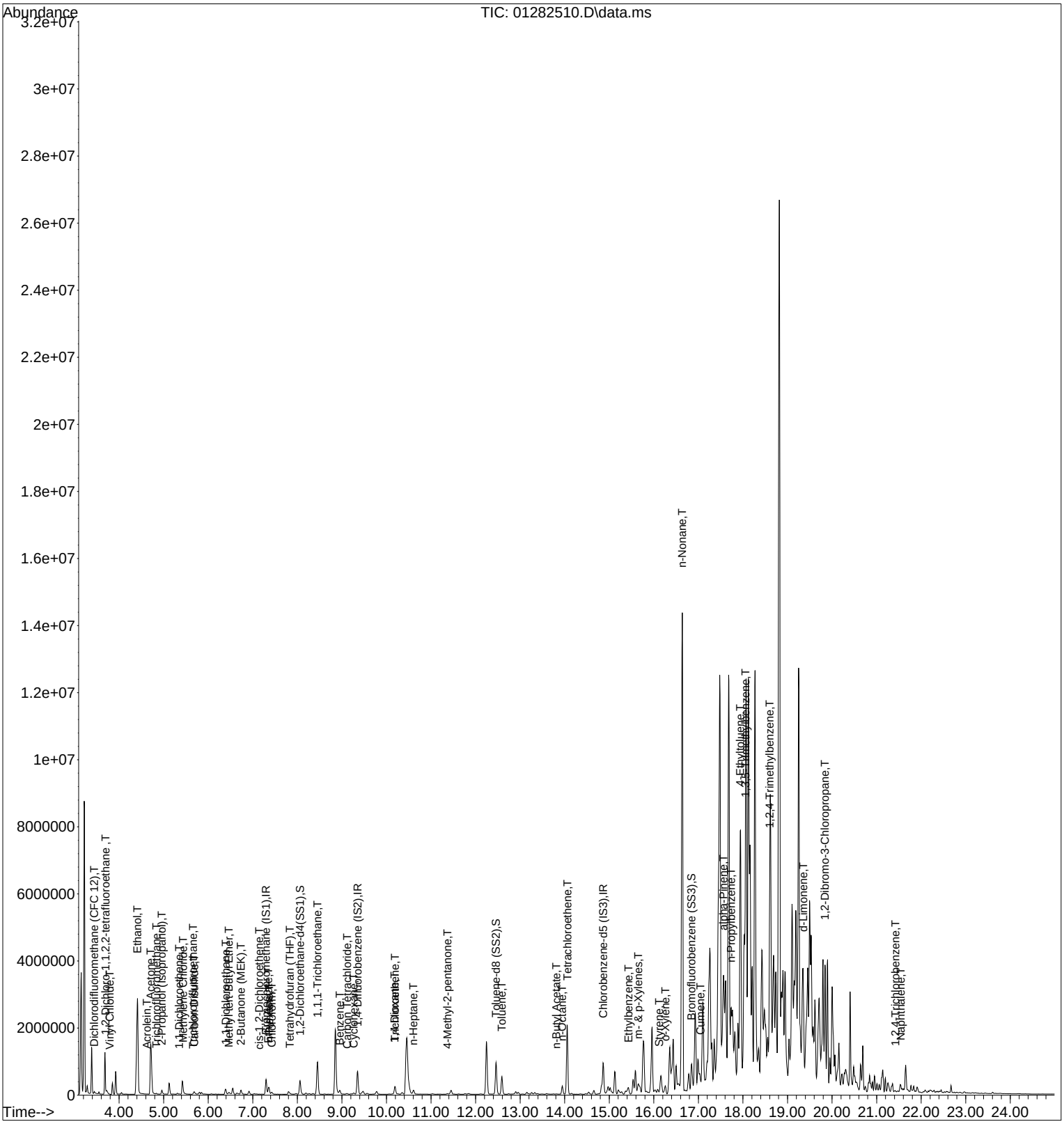
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
94) 1,2,4-Trichlorobenzene	21.42	180	1518	0.079	ng	#	92
95) Naphthalene	21.54	128	77163	1.522	ng		93

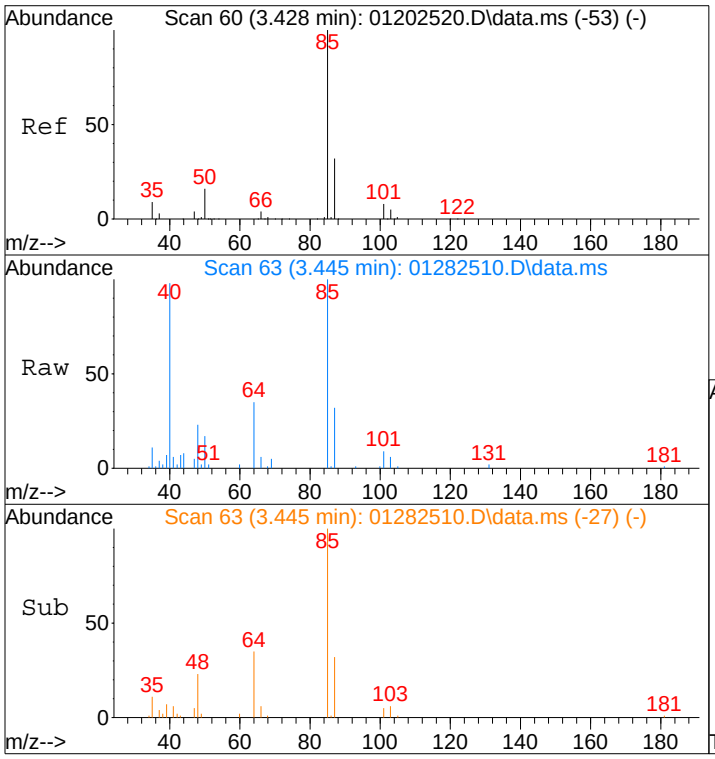
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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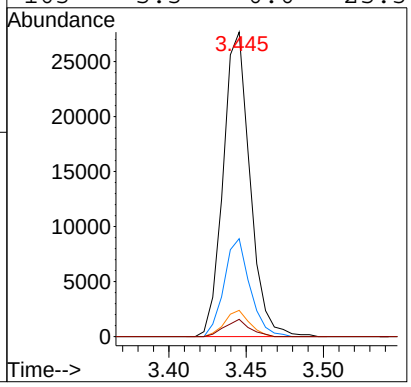


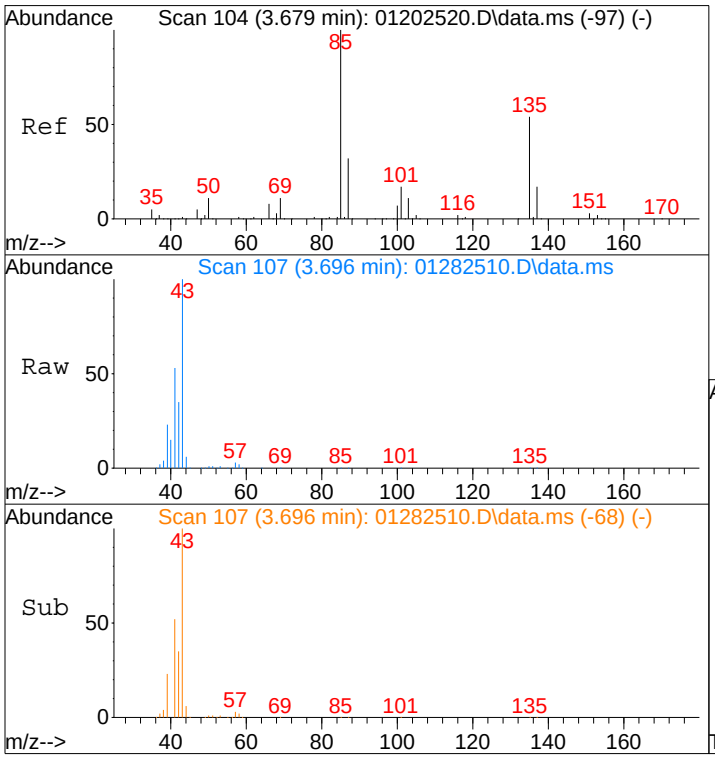


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.17 ng
RT: 3.45 min Scan# 63
Delta R.T. -0.046 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 85 Resp: 33370

Ion	Ratio	Lower	Upper
85	100		
87	31.1	12.2	52.2
101	8.0	0.0	28.4
103	5.3	0.0	25.3

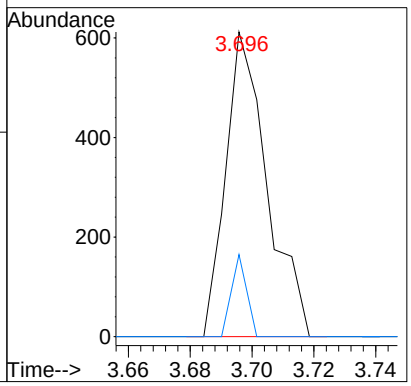


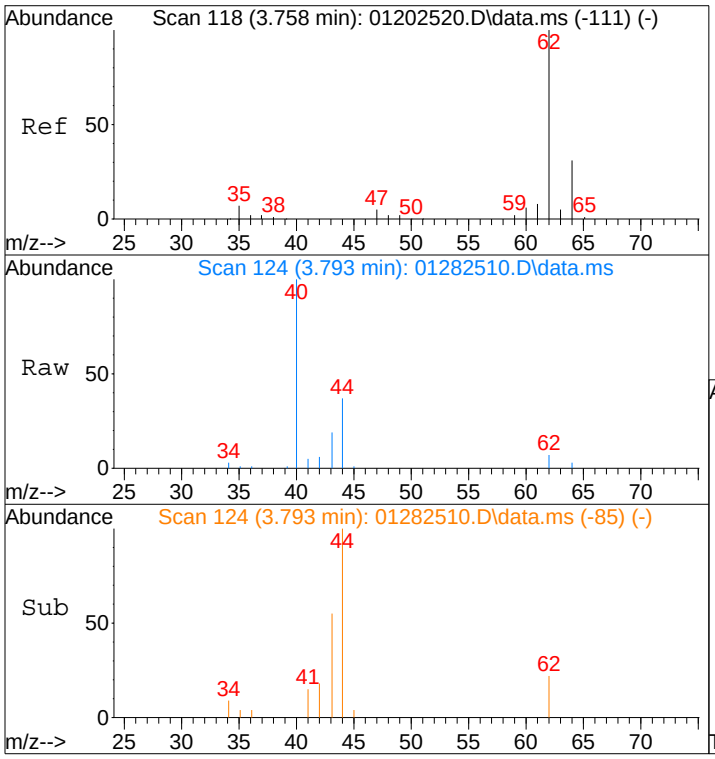


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.06 ng
RT: 3.70 min Scan# 107
Delta R.T. -0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:135 Resp: 570

Ion	Ratio	Lower	Upper
135	100		
137	0.0	12.2	52.2#

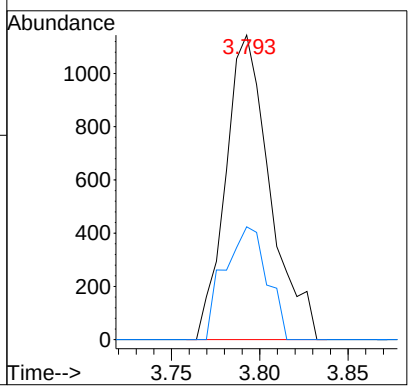


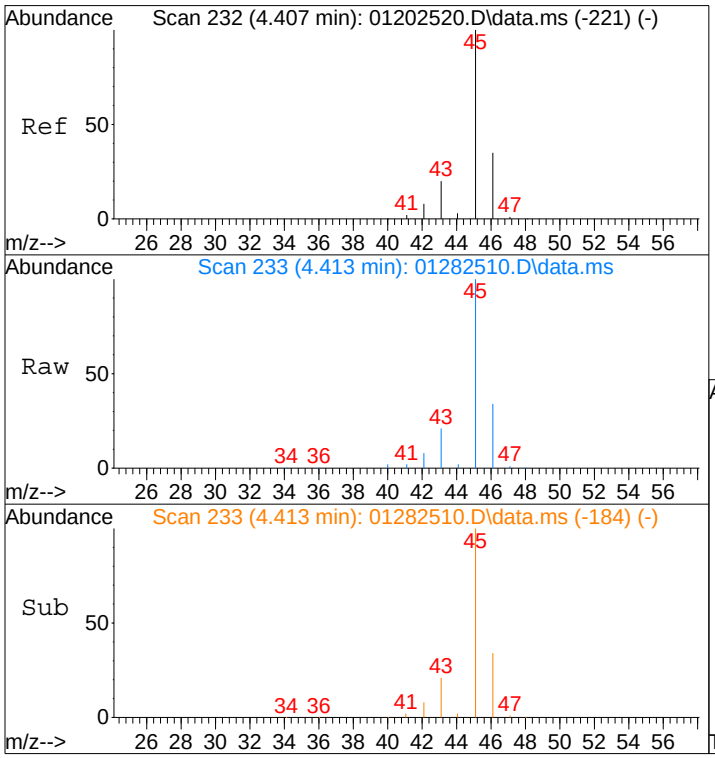


#6
Vinyl Chloride
Concen: 0.09 ng
RT: 3.79 min Scan# 124
Delta R.T. -0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 62 Resp: 2001

Ion	Ratio	Lower	Upper
62	100		
64	35.7	11.5	51.5

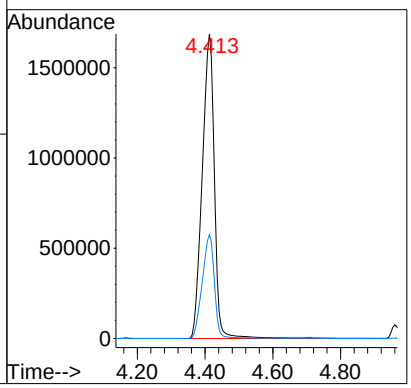


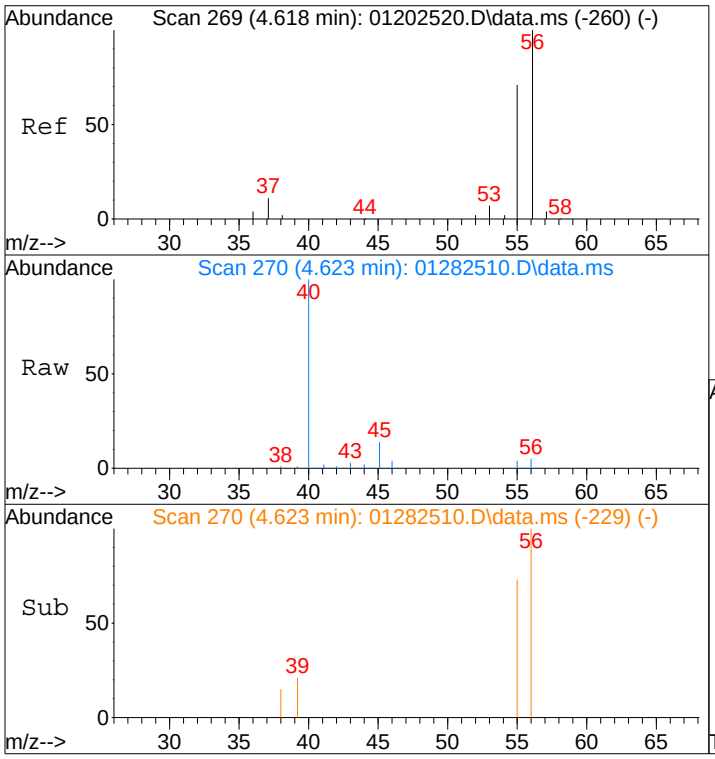


#10
Ethanol
Concen: 234.96 ng
RT: 4.41 min Scan# 233
Delta R.T. 0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 45 Resp: 4188080

Ion	Ratio	Lower	Upper
45	100		
46	34.3	15.0	55.0

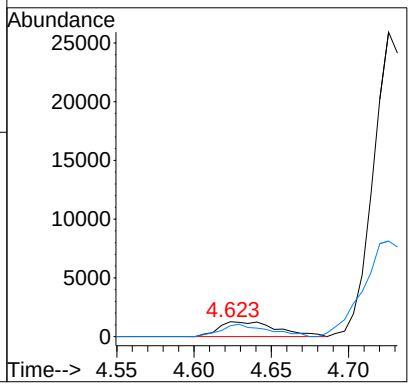


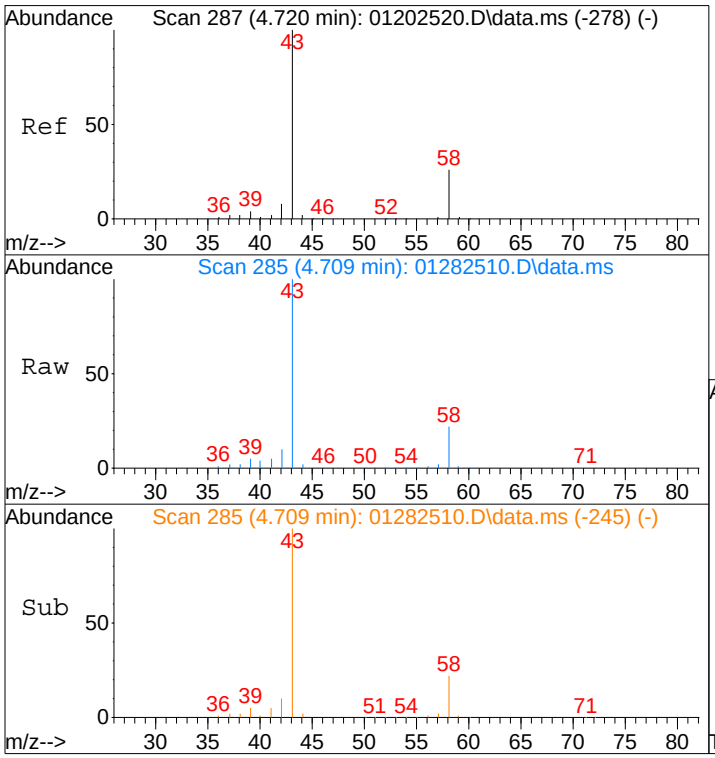


#12
Acrolein
Concen: 0.25 ng
RT: 4.62 min Scan# 270
Delta R.T. -0.017 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 56 Resp: 3335

Ion	Ratio	Lower	Upper
56	100		
55	66.3	53.6	93.6

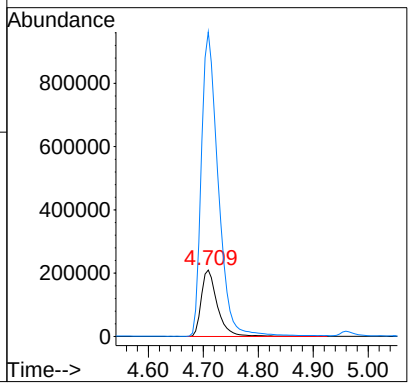


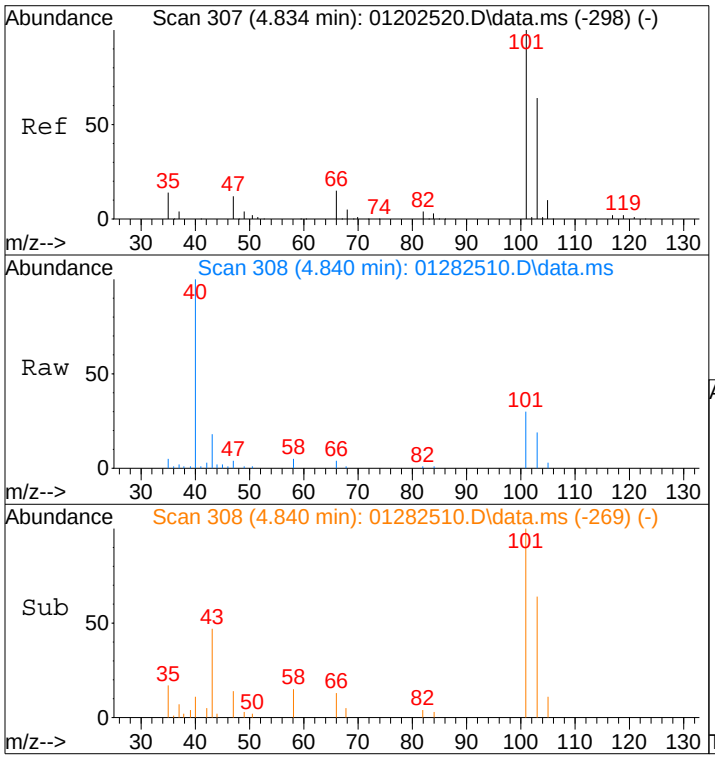


#13
Acetone
Concen: 33.40 ng
RT: 4.71 min Scan# 285
Delta R.T. -0.023 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 58 Resp: 428056

Ion	Ratio	Lower	Upper
58	100		
43	479.6	359.4	419.4#

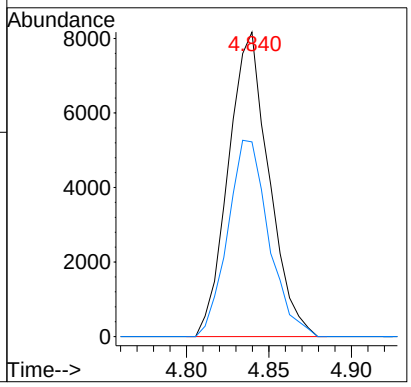


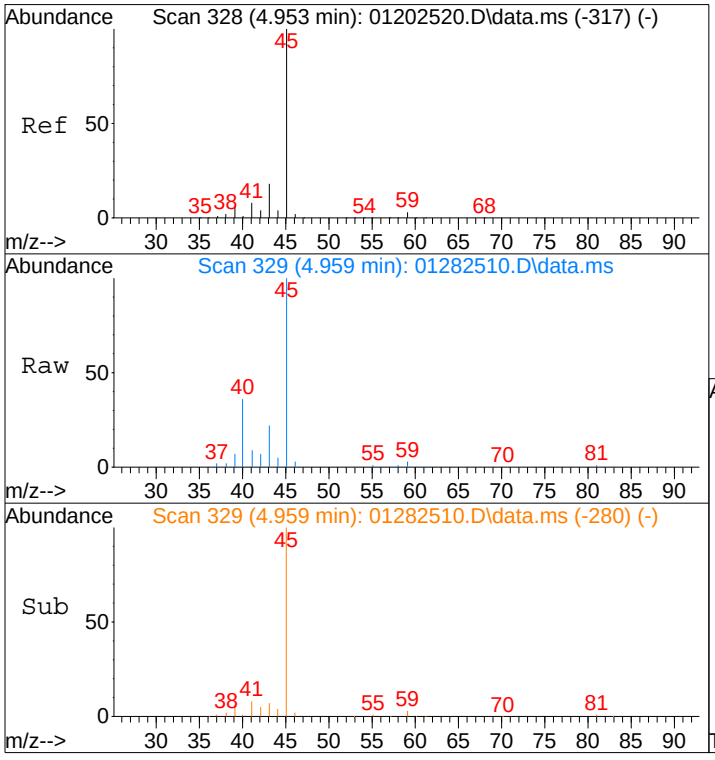


#14
Trichlorofluoromethane
Concen: 0.60 ng
RT: 4.84 min Scan# 308
Delta R.T. -0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:101 Resp: 13993

Ion	Ratio	Lower	Upper
101	100		
103	65.1	44.2	84.2

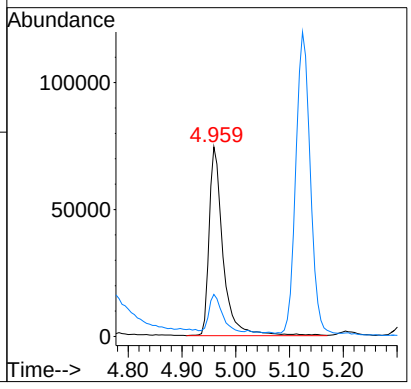


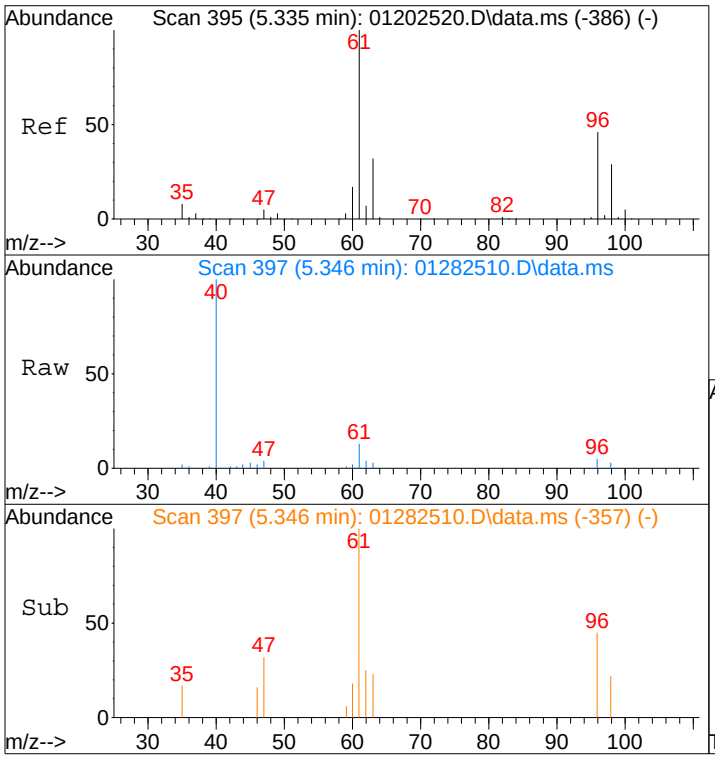


#15
2-Propanol (Isopropanol)
Concen: 2.33 ng
RT: 4.96 min Scan# 329
Delta R.T. 0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 45 Resp: 134228

Ion	Ratio	Lower	Upper
45	100		
43	21.8	0.0	38.9

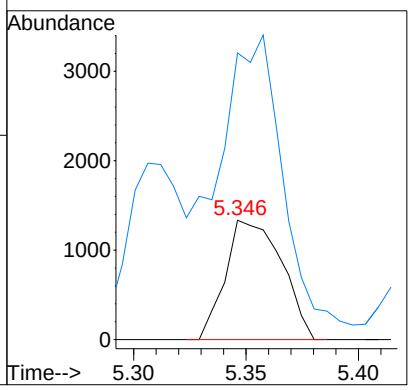


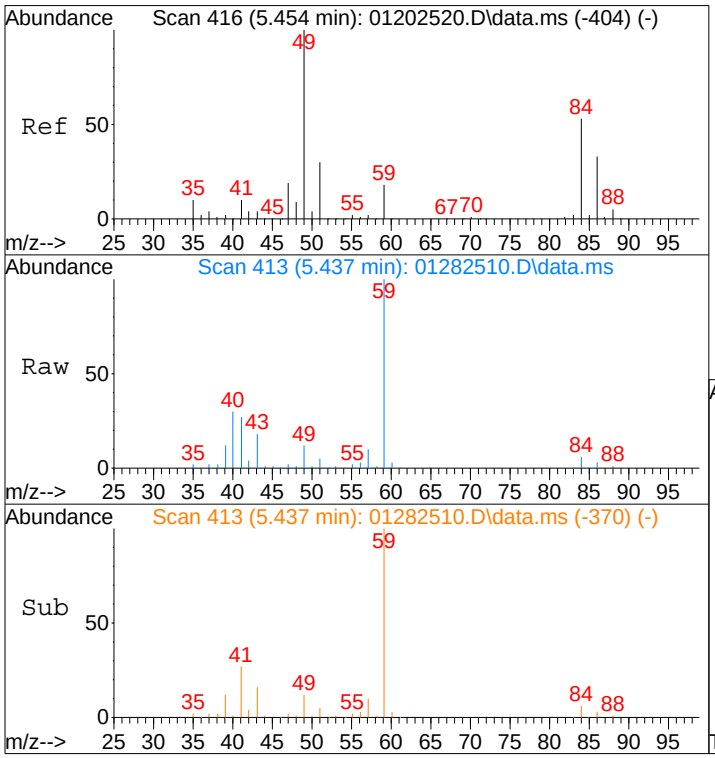


#17
1,1-Dichloroethene
Concen: 0.19 ng
RT: 5.35 min Scan# 397
Delta R.T. -0.023 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 96 Resp: 2319

Ion	Ratio	Lower	Upper
96	100		
61	254.9	197.4	237.4#

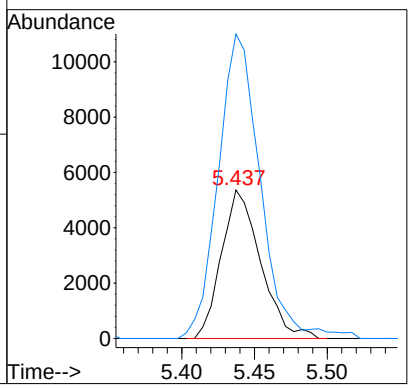


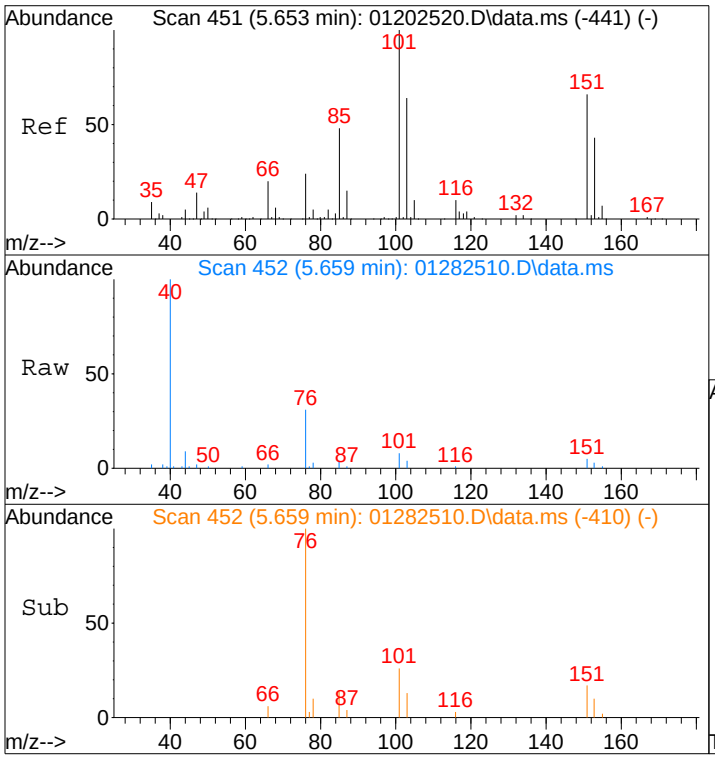


#19
Methylene Chloride
Concen: 0.67 ng
RT: 5.44 min Scan# 413
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 84 Resp: 10058

Ion	Ratio	Lower	Upper
84	100		
49	220.3	163.7	213.7#

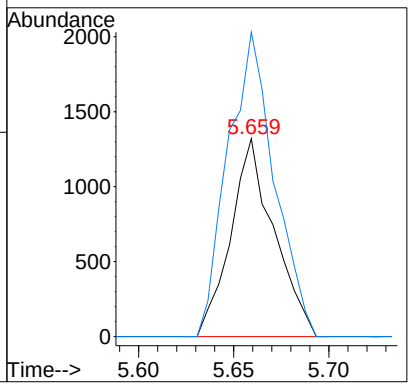


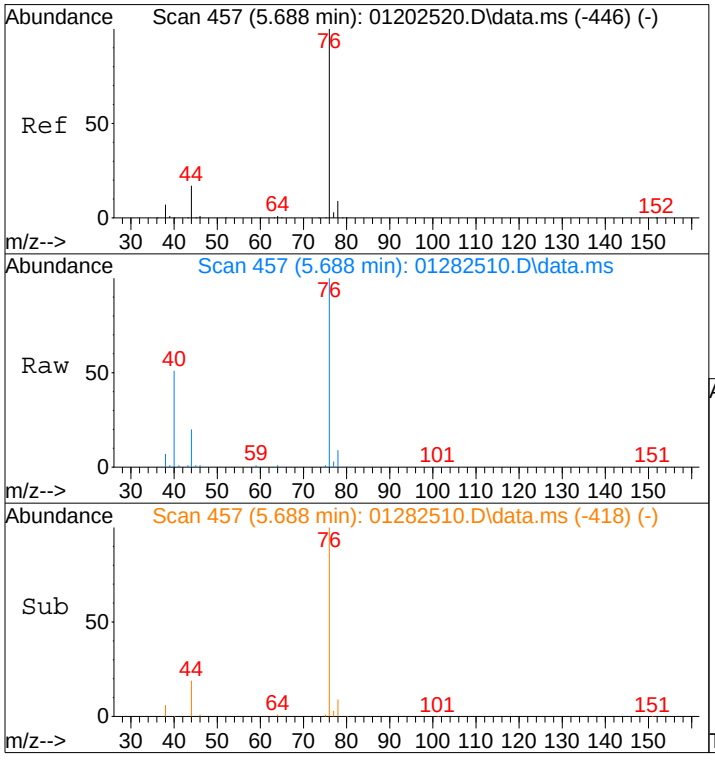


#21
Trichlorotrifluoroethane
Concen: 0.23 ng
RT: 5.66 min Scan# 452
Delta R.T. -0.011 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:151 Resp: 2089

Ion	Ratio	Lower	Upper
151	100		
101	165.5	129.9	169.9

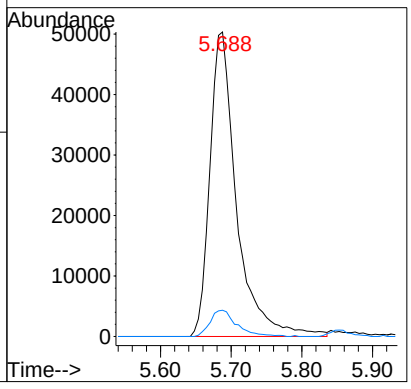


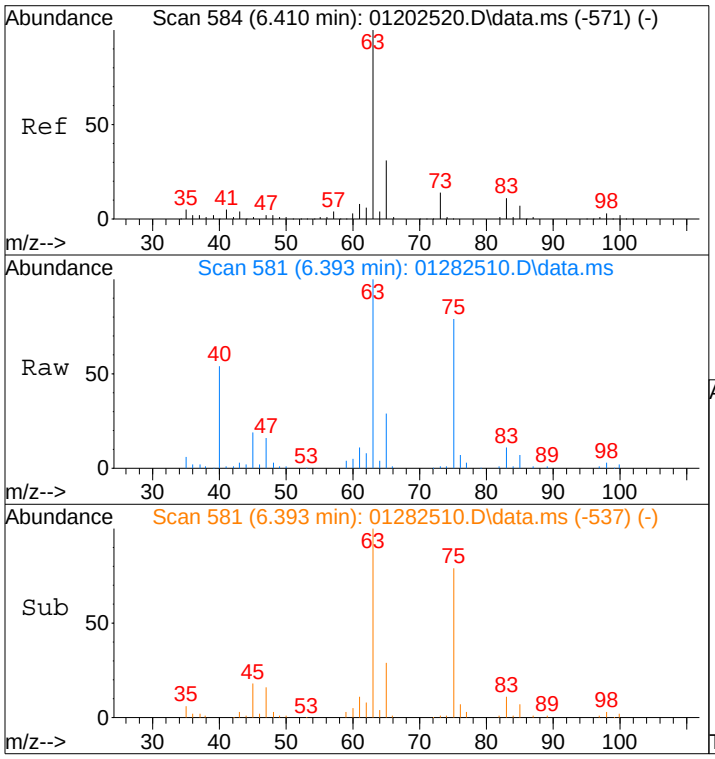


#22
Carbon Disulfide
Concen: 2.25 ng
RT: 5.69 min Scan# 457
Delta R.T. -0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 76 Resp: 132034

Ion	Ratio	Lower	Upper
76	100		
78	8.7	0.0	29.1

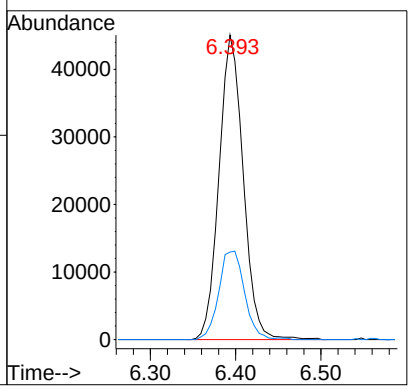


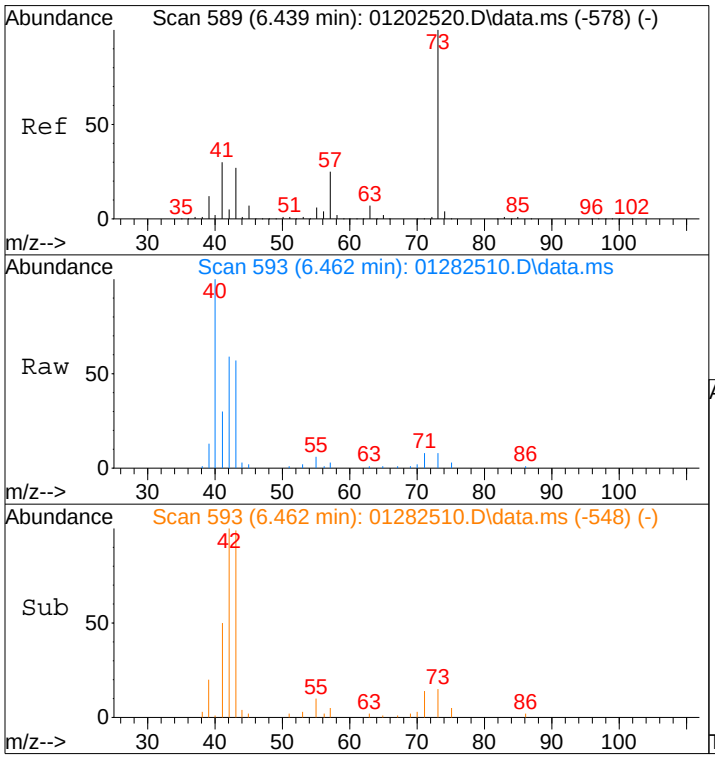


#24
1,1-Dichloroethane
Concen: 2.95 ng
RT: 6.39 min Scan# 581
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 63 Resp: 88895

Ion	Ratio	Lower	Upper
63	100		
65	30.9	11.5	51.5

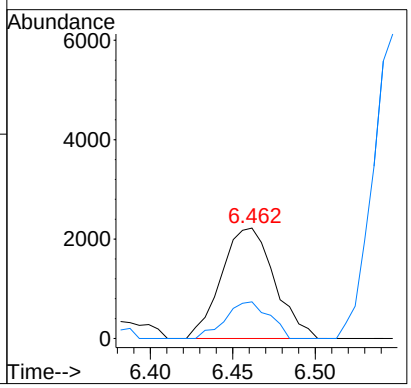


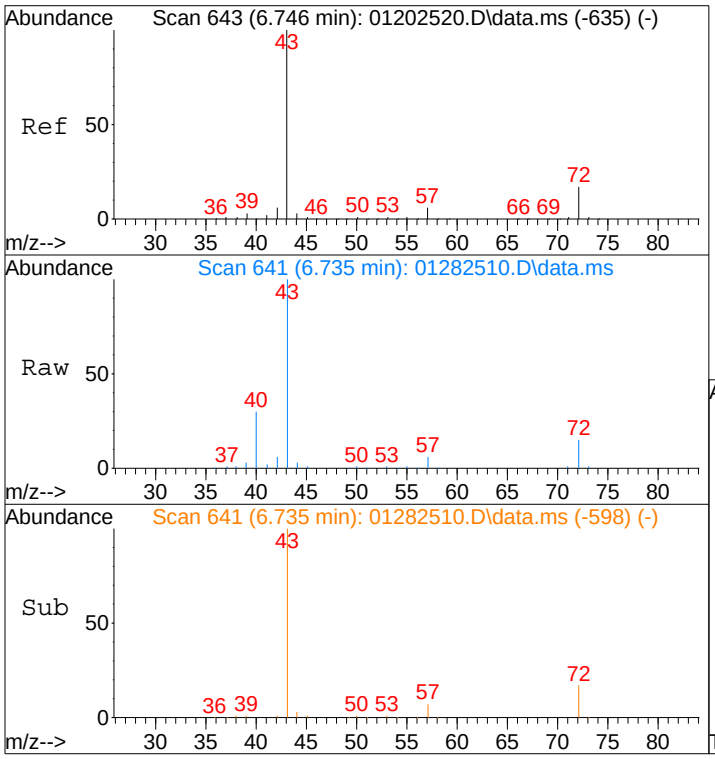


#25
Methyl tert-Butyl Ether
Concen: 0.13 ng
RT: 6.46 min Scan# 593
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 73 Resp: 4967

Ion	Ratio	Lower	Upper
73	100		
57	27.5	5.4	45.4

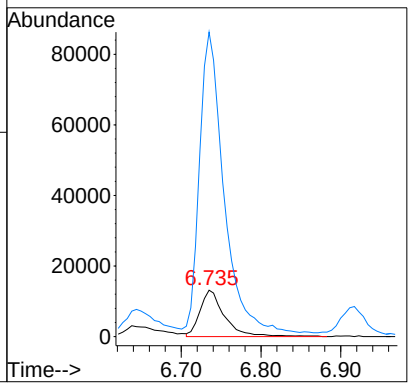


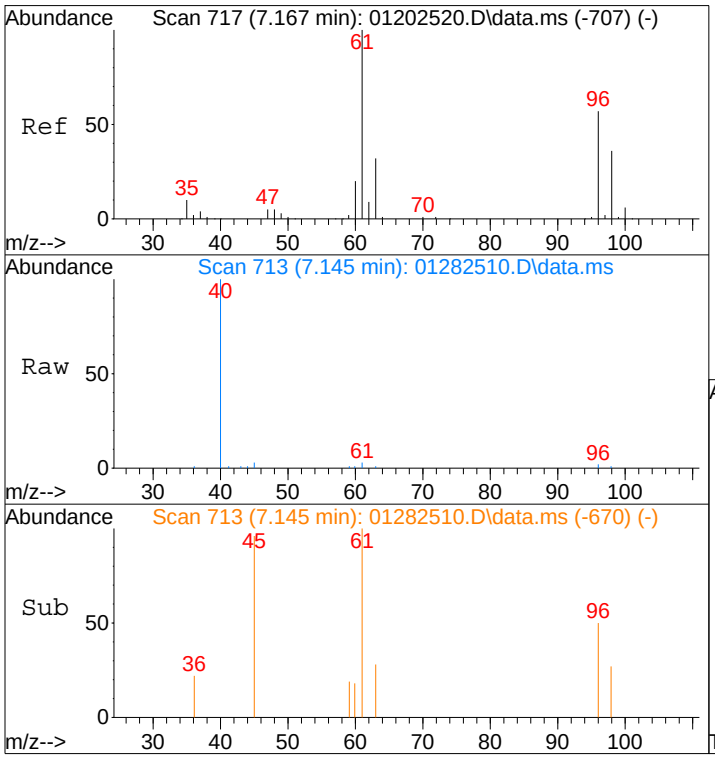


#27
2-Butanone (MEK)
Concen: 2.92 ng
RT: 6.73 min Scan# 641
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 72 Resp: 28238

Ion	Ratio	Lower	Upper
72	100		
43	649.7	579.1	619.1#

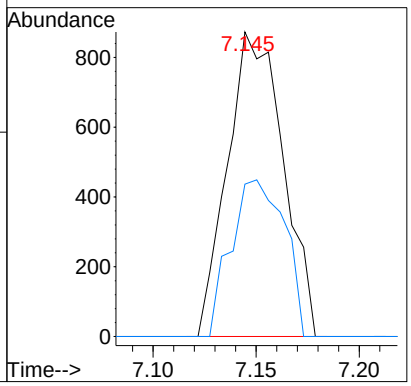


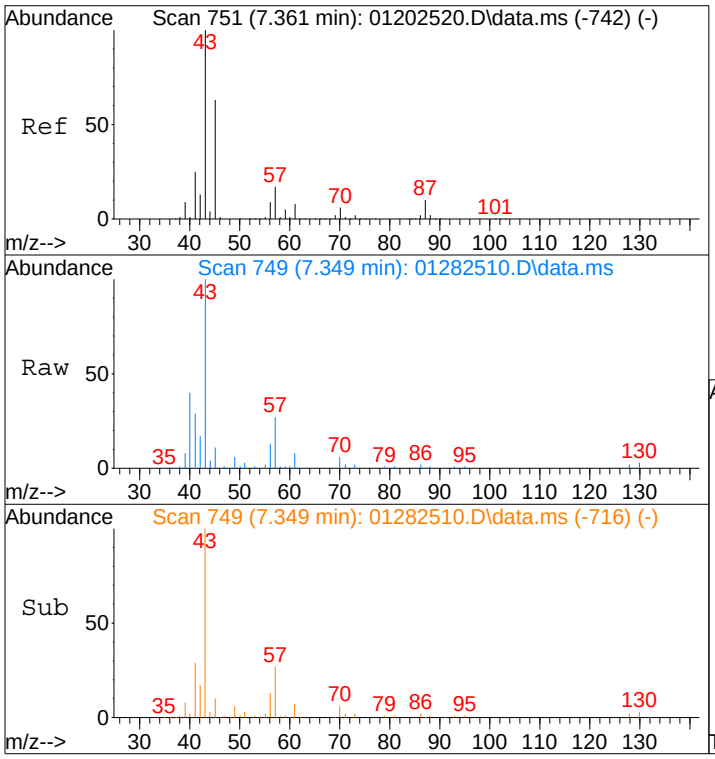


#28
cis-1,2-Dichloroethene
Concen: 0.07 ng
RT: 7.14 min Scan# 713
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 61 Resp: 1640

Ion	Ratio	Lower	Upper
61	100		
96	49.8	36.9	76.9

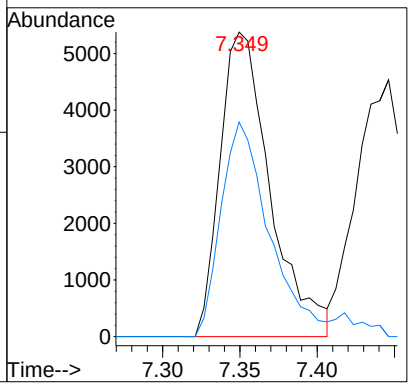


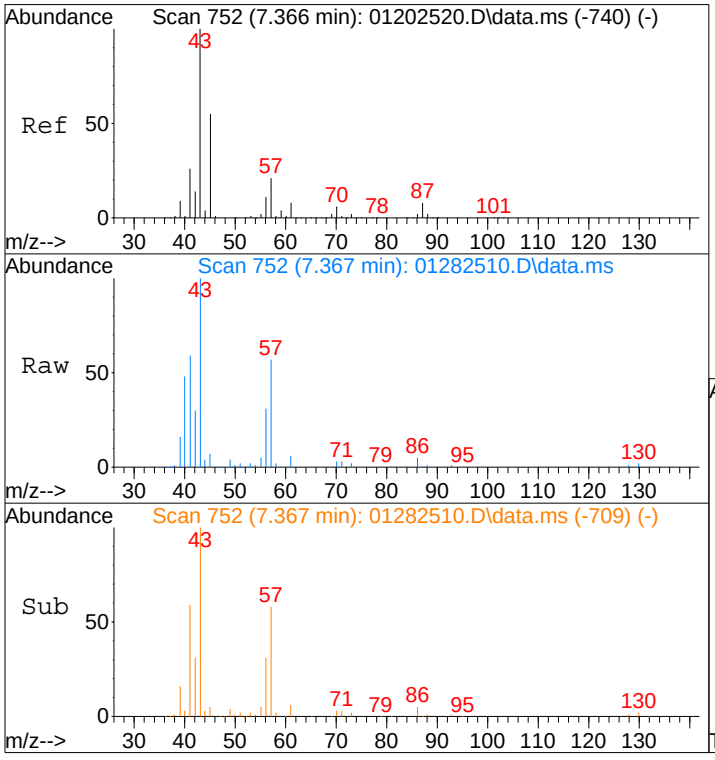


#30
Ethyl Acetate
Concen: 1.96 ng
RT: 7.35 min Scan# 749
Delta R.T. -0.011 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 61 Resp: 12154

Ion	Ratio	Lower	Upper
61	100		
70	68.0	51.2	91.2

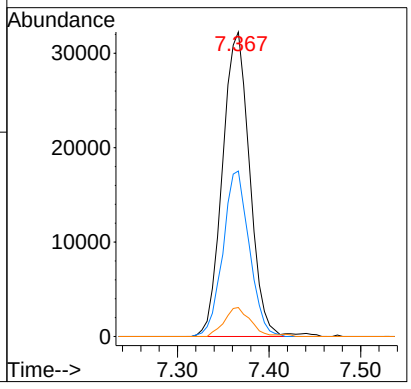


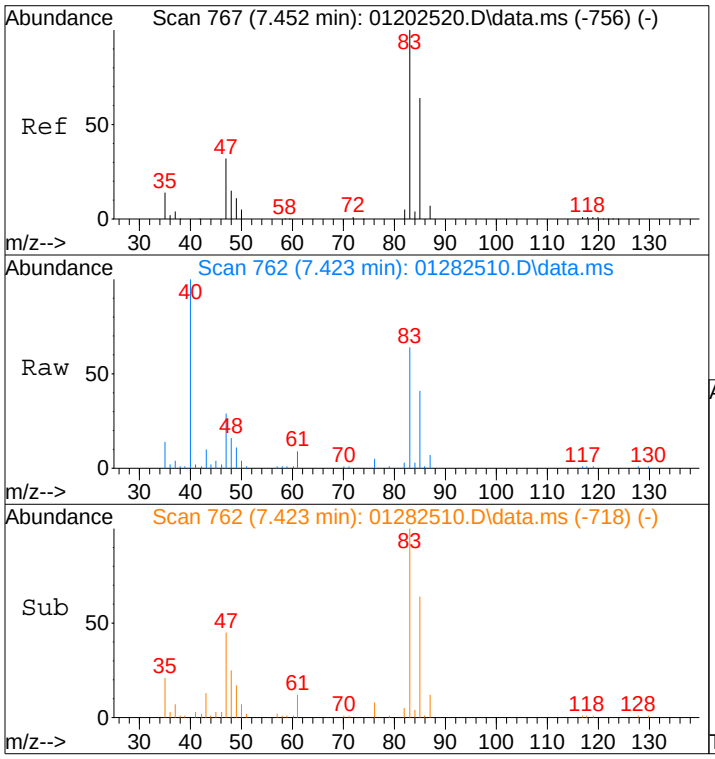


#31
n-Hexane
Concen: 2.28 ng
RT: 7.37 min Scan# 752
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 57 Resp: 66622

Ion	Ratio	Lower	Upper
57	100		
56	52.7	41.8	62.6
86	9.2	8.3	12.5

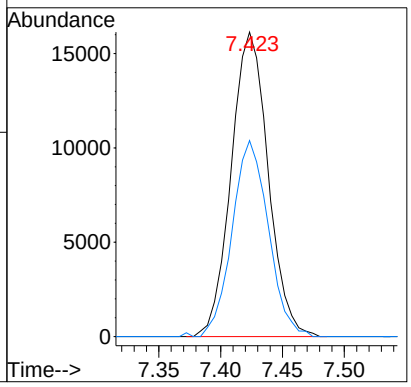


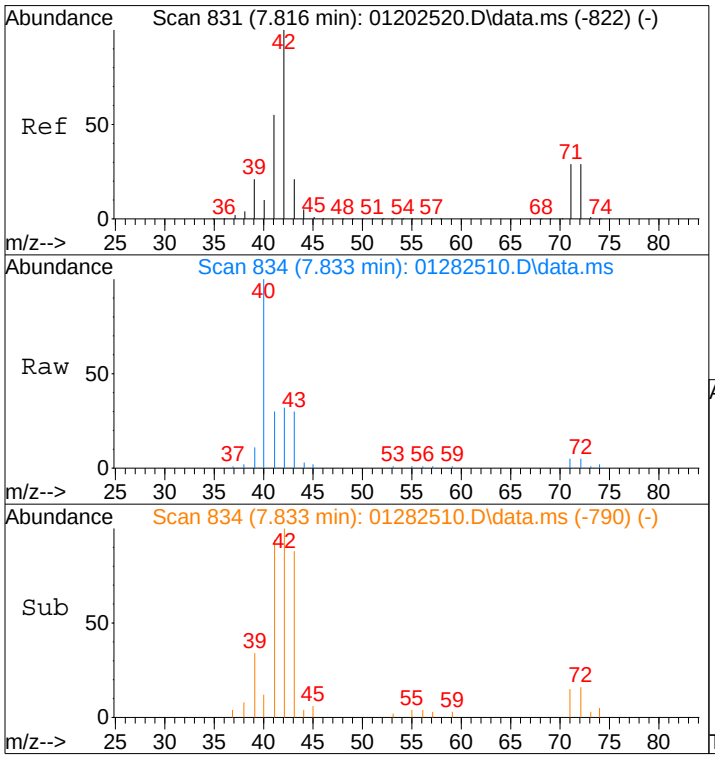


#32
Chloroform
Concen: 1.37 ng
RT: 7.42 min Scan# 762
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 83 Resp: 33704

Ion	Ratio	Lower	Upper
83	100		
85	62.9	44.0	84.0

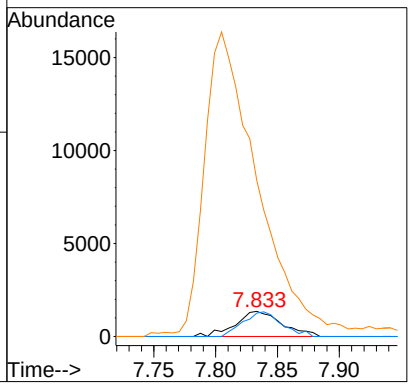


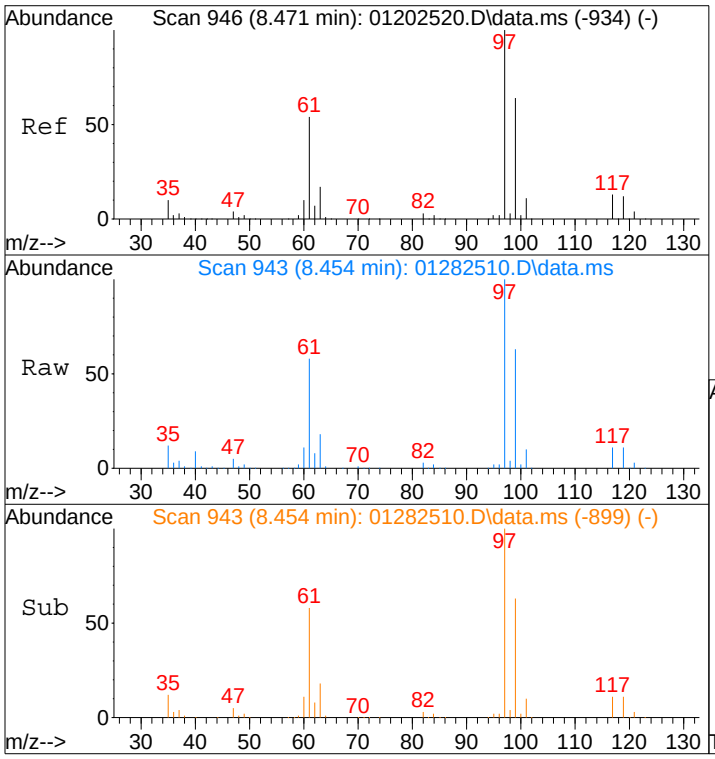


#34
Tetrahydrofuran (THF)
Concen: 0.36 ng
RT: 7.83 min Scan# 834
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 72 Resp: 3543

Ion	Ratio	Lower	Upper
72	100		
71	81.3	78.8	118.8
42	1418.8	320.3	360.3#

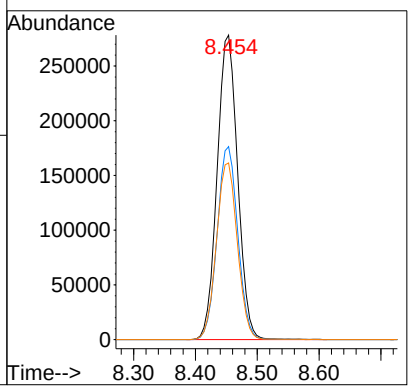


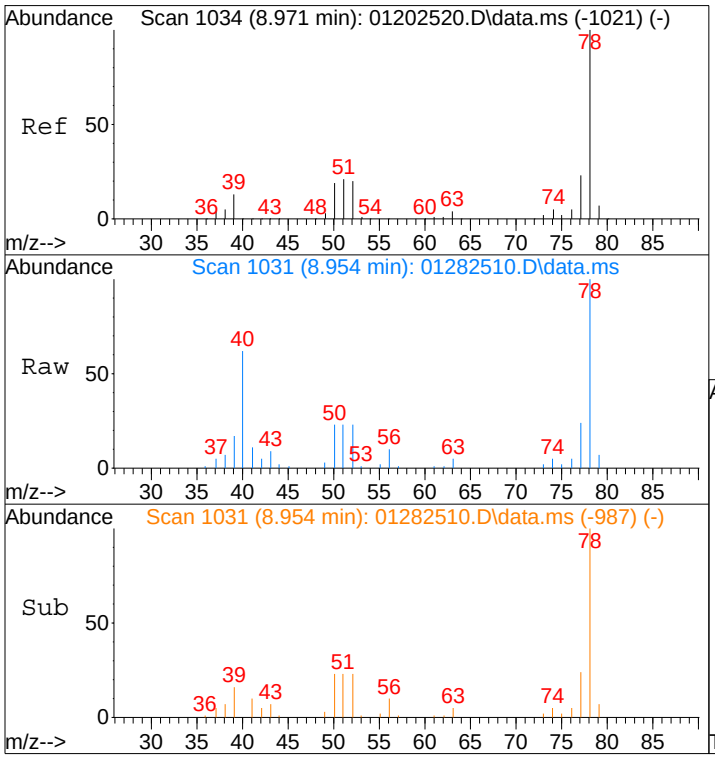


#38
1,1,1-Trichloroethane
Concen: 29.50 ng
RT: 8.45 min Scan# 943
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 97 Resp: 641993

Ion	Ratio	Lower	Upper
97	100		
99	63.8	43.8	83.8
61	59.2	34.3	74.3

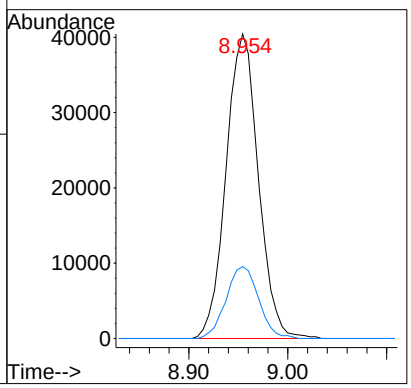


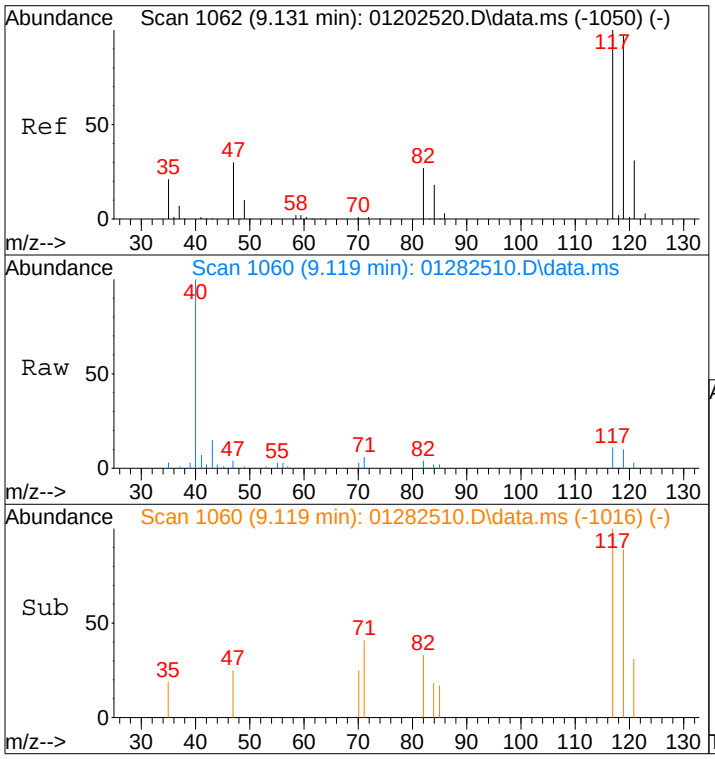


#41
Benzene
Concen: 1.43 ng
RT: 8.95 min Scan# 1031
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 78 Resp: 91630

Ion	Ratio	Lower	Upper
78	100		
77	23.8	3.4	43.4

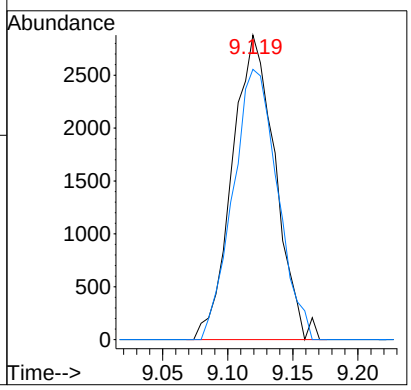


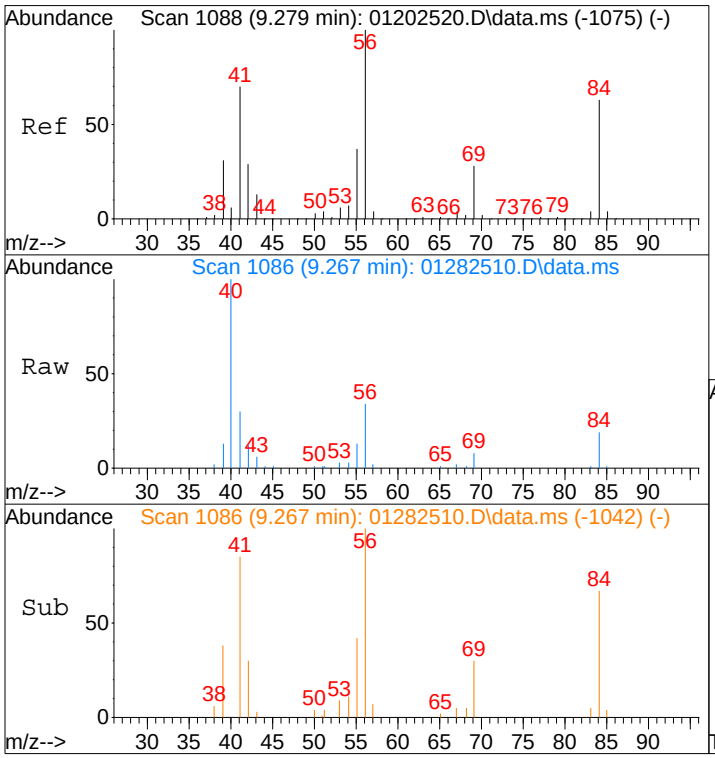


#42
Carbon Tetrachloride
Concen: 0.35 ng
RT: 9.12 min Scan# 1060
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:117 Resp: 6607

Ion	Ratio	Lower	Upper
117	100		
119	92.0	75.4	115.4

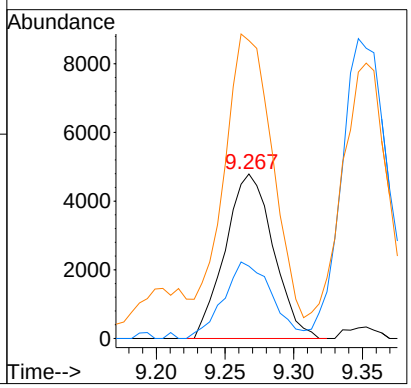


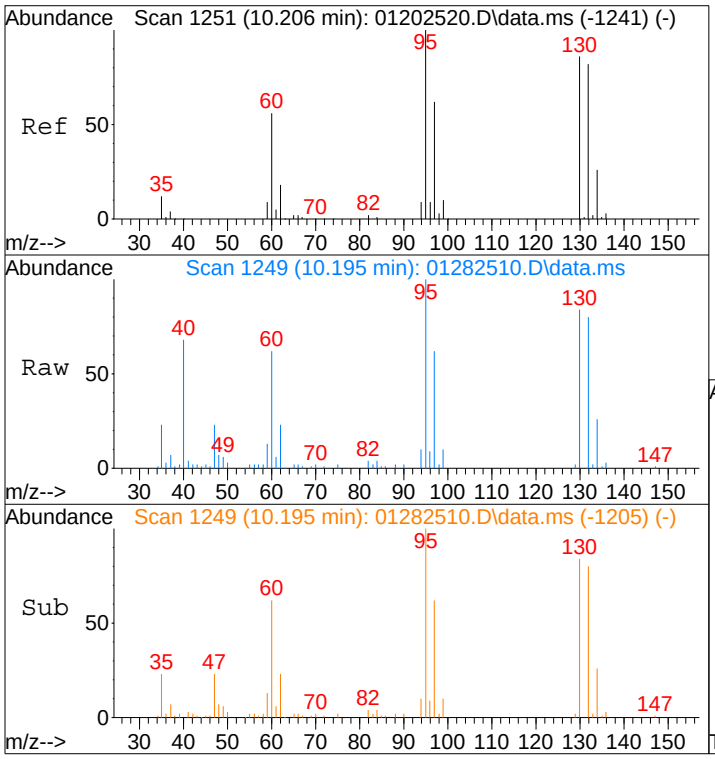


#43
Cyclohexane
Concen: 0.55 ng
RT: 9.27 min Scan# 1086
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 84 Resp: 11646

Ion	Ratio	Lower	Upper
84	100		
69	46.9	23.5	63.5
56	168.0	140.7	180.7

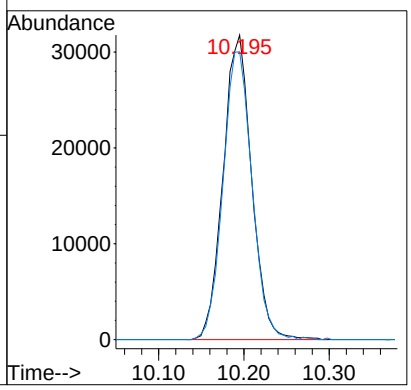


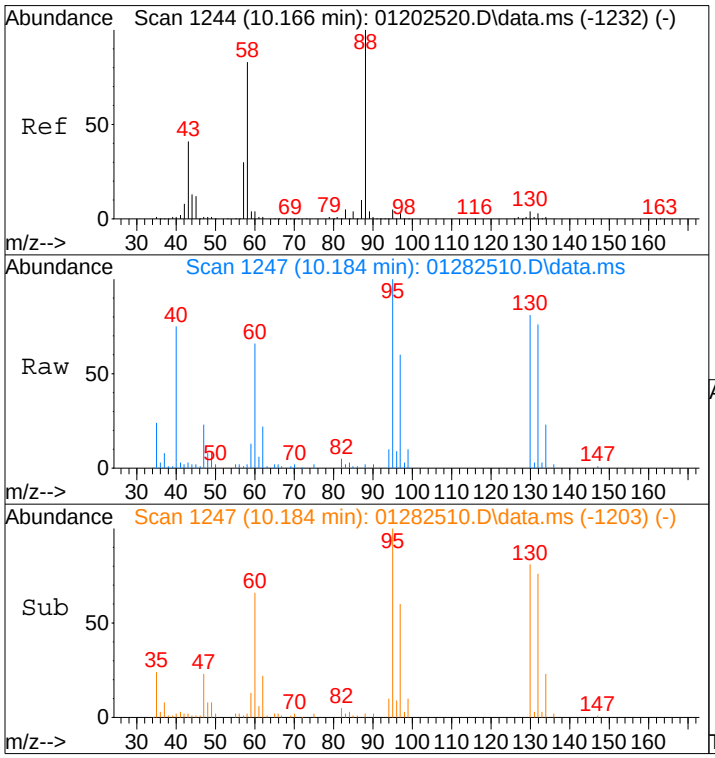


#47
Trichloroethene
Concen: 5.77 ng
RT: 10.19 min Scan# 1249
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:130 Resp: 74063

Ion	Ratio	Lower	Upper
130	100		
132	95.9	75.5	115.5

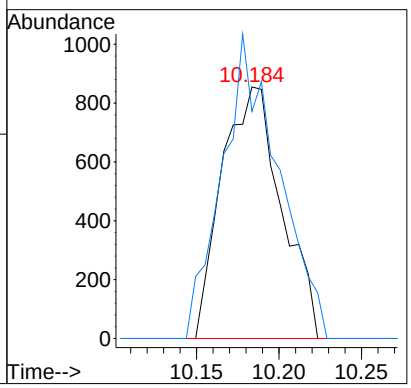


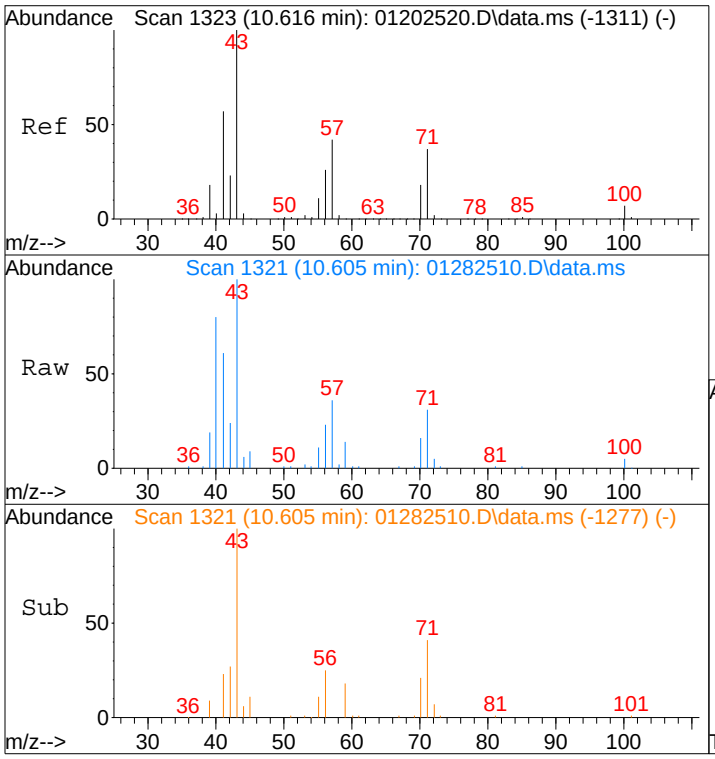


#48
1,4-Dioxane
Concen: 0.19 ng
RT: 10.18 min Scan# 1247
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 88 Resp: 2151

Ion	Ratio	Lower	Upper
88	100		
58	114.1	62.0	102.0#

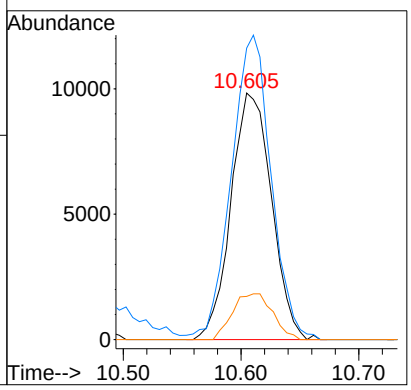


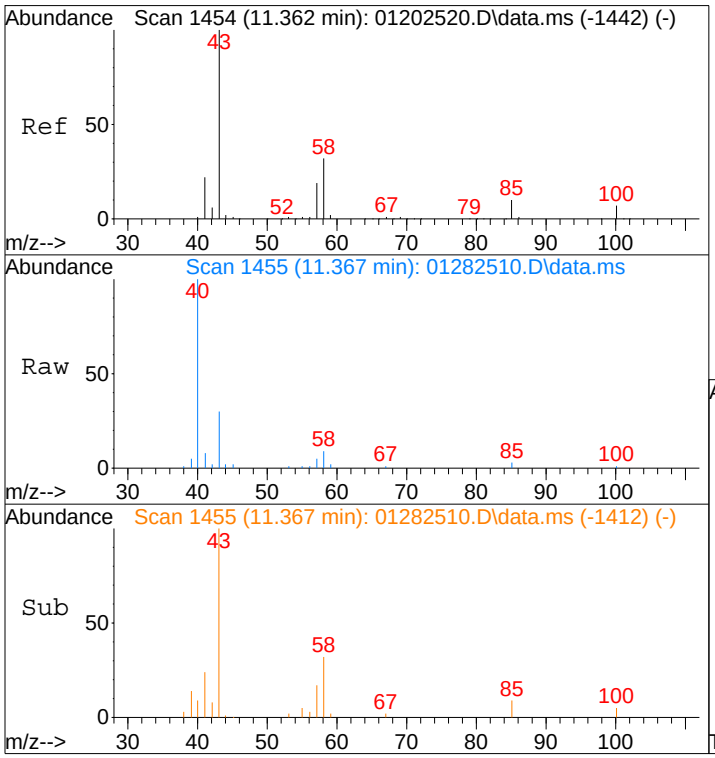


#51
n-Heptane
Concen: 1.49 ng
RT: 10.60 min Scan# 1321
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 71 Resp: 23565

Ion	Ratio	Lower	Upper
71	100		
57	121.0	90.6	130.6
100	18.4	0.0	39.7

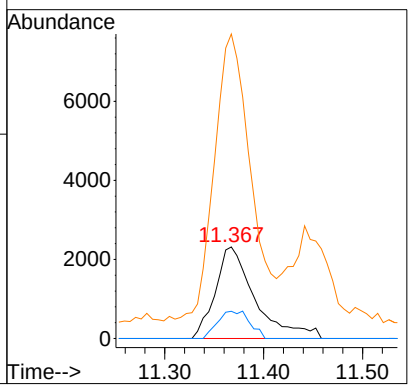


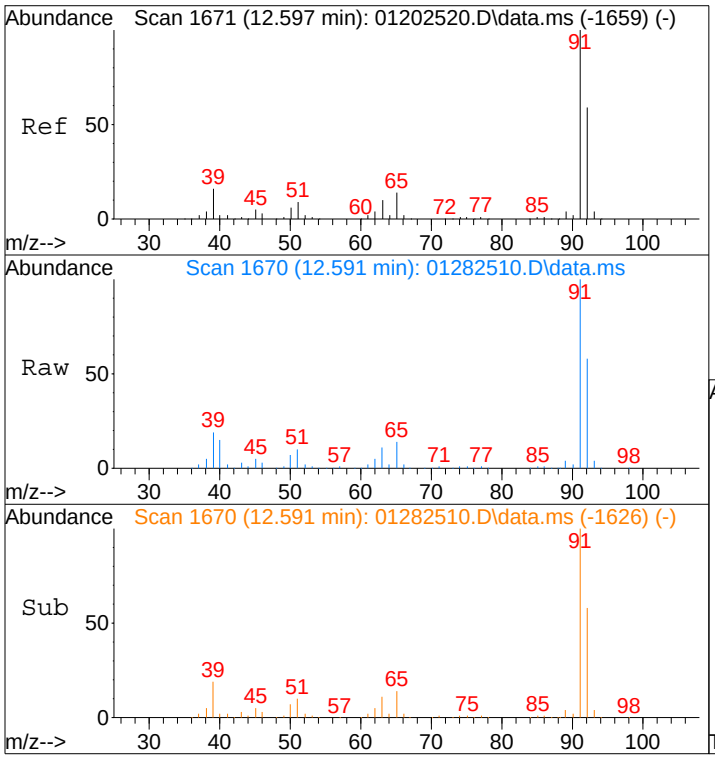


#53
4-Methyl-2-pentanone
Concen: 0.42 ng
RT: 11.37 min Scan# 1455
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 58 Resp: 6461

Ion	Ratio	Lower	Upper
58	100		
85	24.1	26.7	40.1#
43	298.3	248.9	373.3

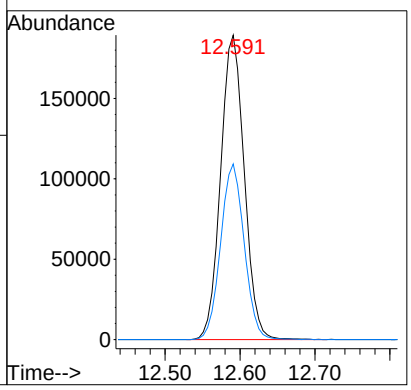


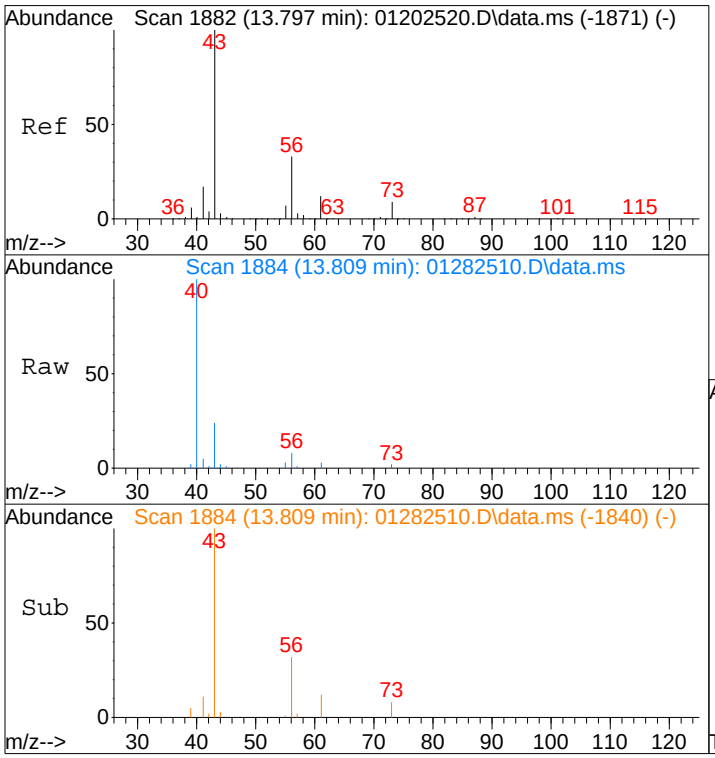


#58
Toluene
Concen: 5.89 ng
RT: 12.59 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 91 Resp: 414659

Ion	Ratio	Lower	Upper
91	100		
92	57.6	38.4	78.4

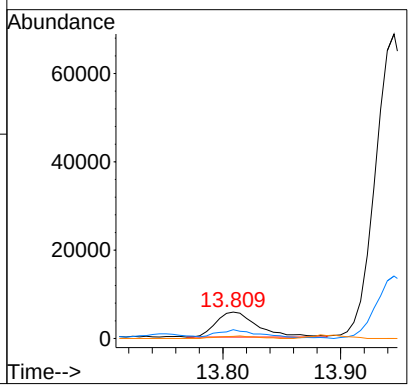


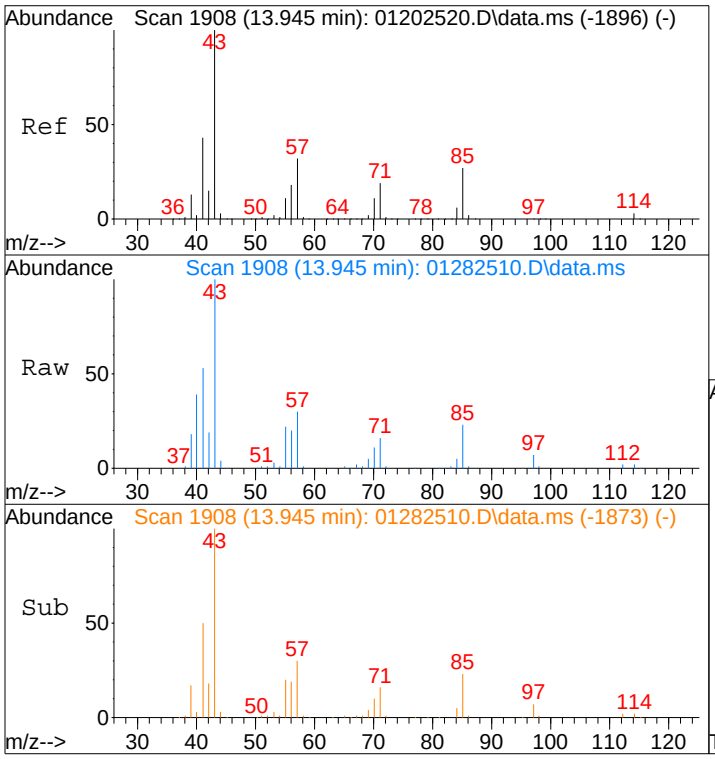


#62
n-Butyl Acetate
Concen: 0.23 ng
RT: 13.81 min Scan# 1884
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 43 Resp: 14030

Ion	Ratio	Lower	Upper
43	100		
56	38.0	13.3	53.3
73	8.5	0.0	28.9

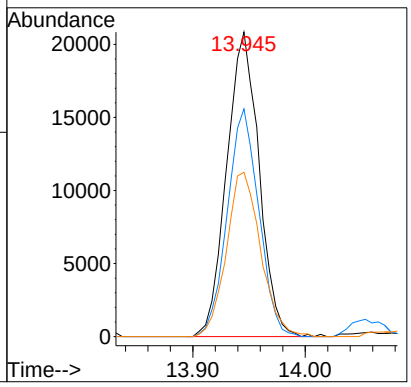


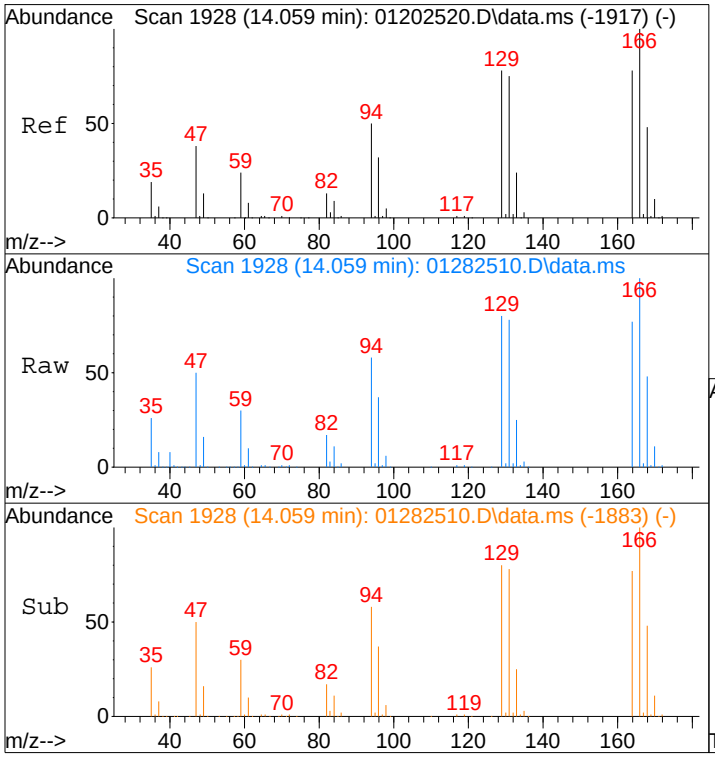


#63
n-Octane
Concen: 2.12 ng
RT: 13.95 min Scan# 1908
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 57 Resp: 41809

Ion	Ratio	Lower	Upper
57	100		
85	72.8	65.9	98.9
71	57.2	45.7	68.5

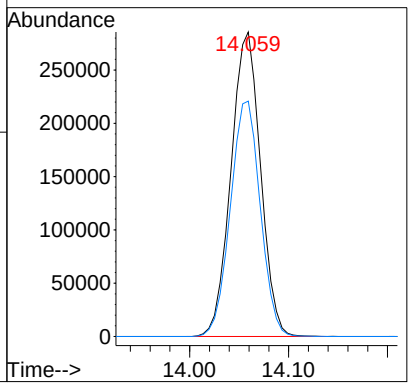


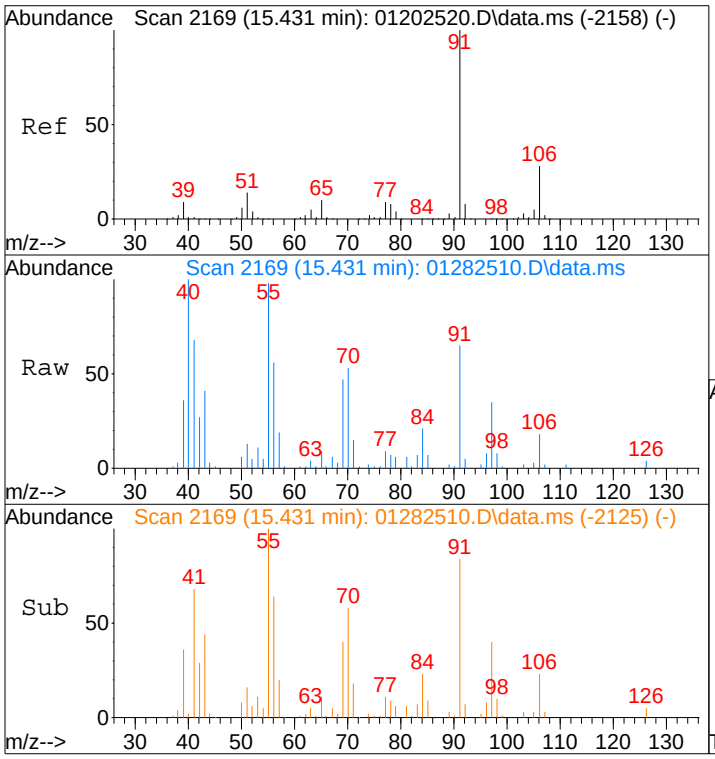


#64
Tetrachloroethene
Concen: 36.92 ng
RT: 14.06 min Scan# 1928
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:166 Resp: 592223

Ion	Ratio	Lower	Upper
166	100		
164	78.3	58.4	98.4

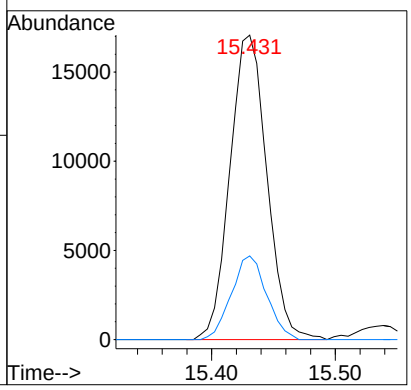


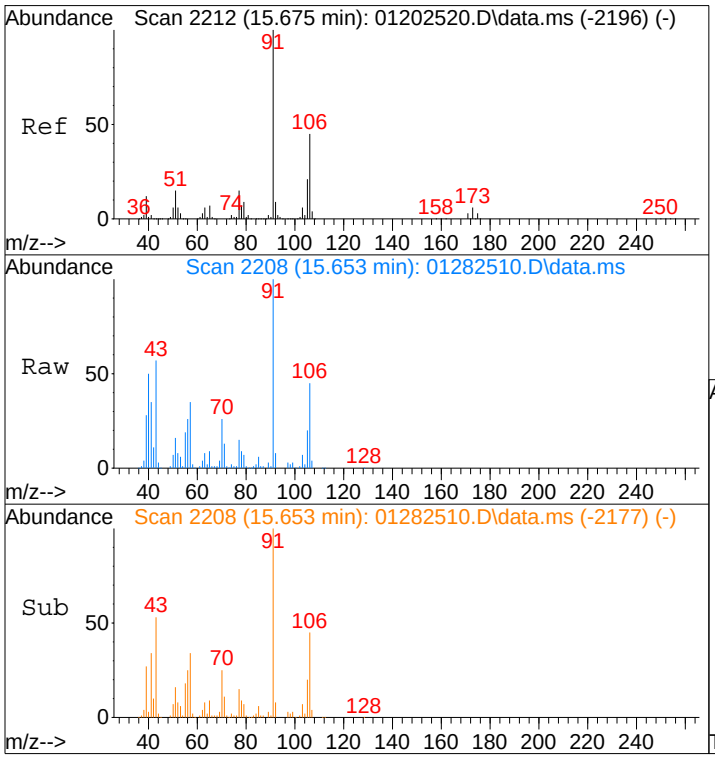


#66
Ethylbenzene
Concen: 0.44 ng
RT: 15.43 min Scan# 2169
Delta R.T. -0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 91 Resp: 35438

Ion	Ratio	Lower	Upper
91	100		
106	26.2	8.2	48.2

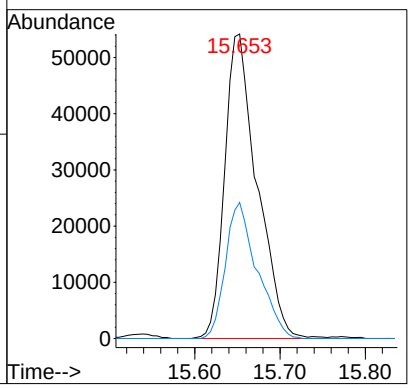


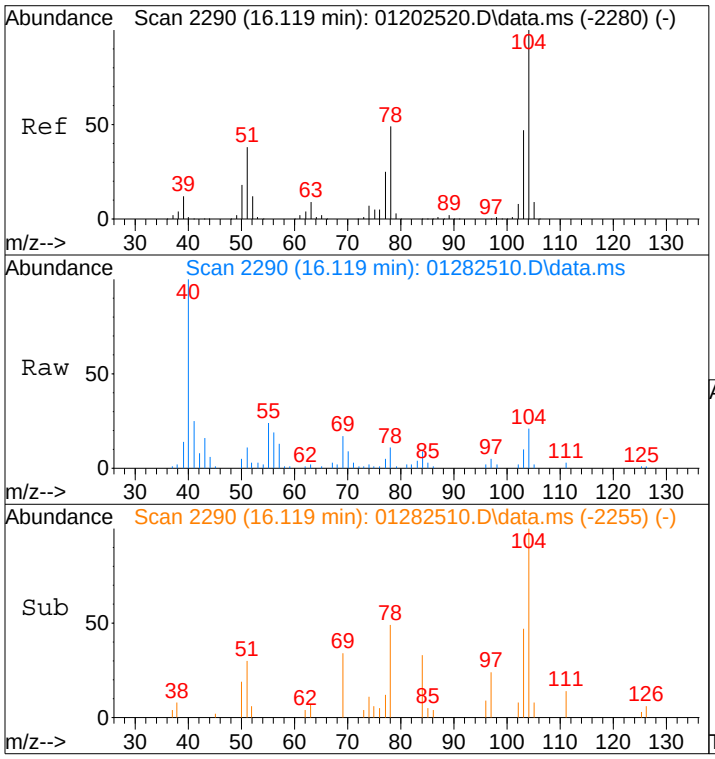


#67
m- & p-Xylenes
Concen: 2.26 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 91 Resp: 142968

Ion	Ratio	Lower	Upper
91	100		
106	43.6	24.7	64.7

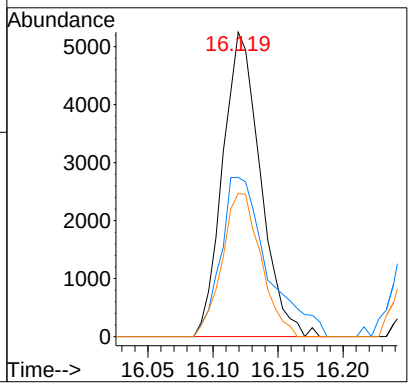


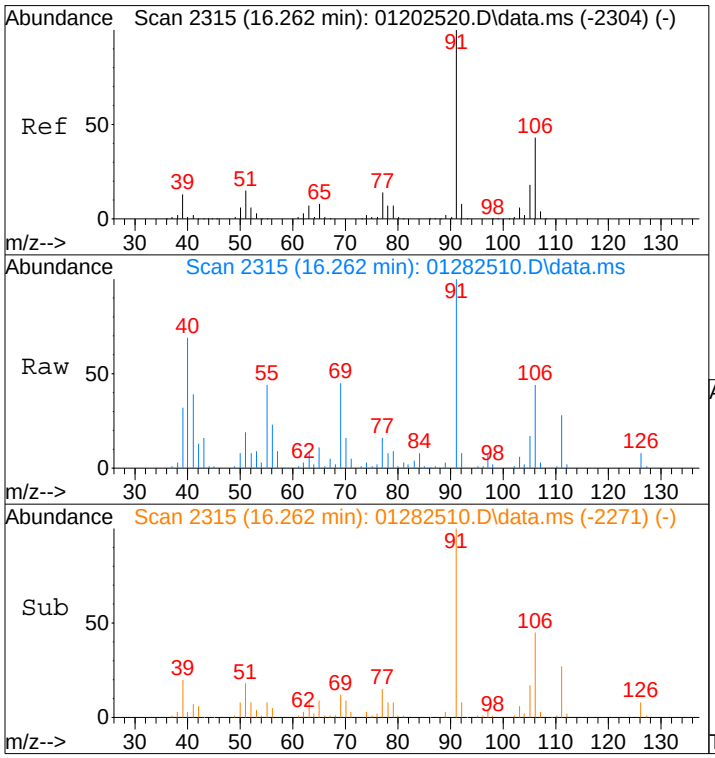


#69
Styrene
Concen: 0.25 ng
RT: 16.12 min Scan# 2290
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:104 Resp: 10574

Ion	Ratio	Lower	Upper
104	100		
78	64.3	29.2	69.2
103	48.4	27.4	67.4

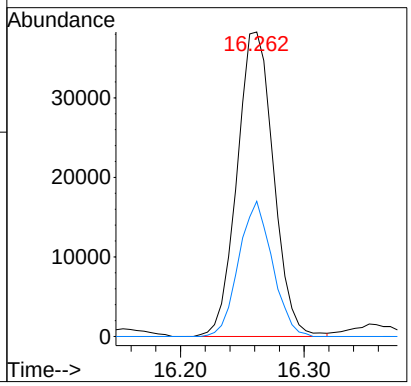


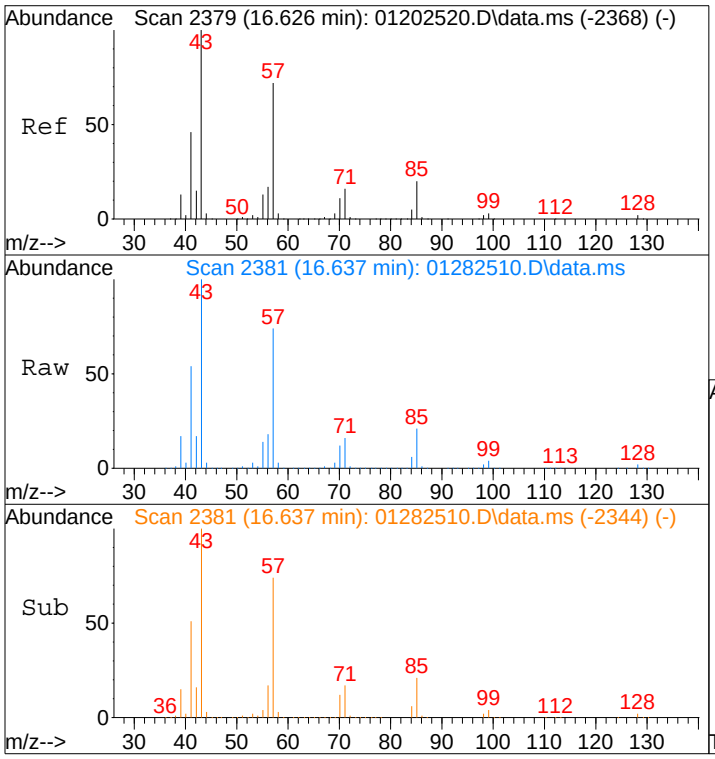


#70
o-Xylene
Concen: 1.25 ng
RT: 16.26 min Scan# 2315
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 91 Resp: 78453

Ion	Ratio	Lower	Upper
91	100		
106	41.0	23.3	63.3

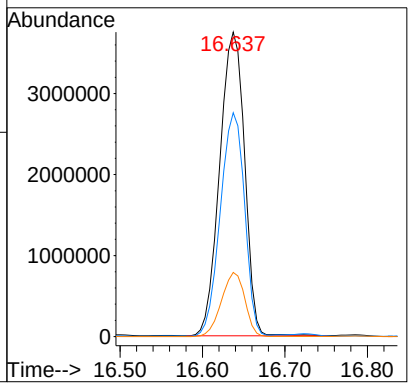


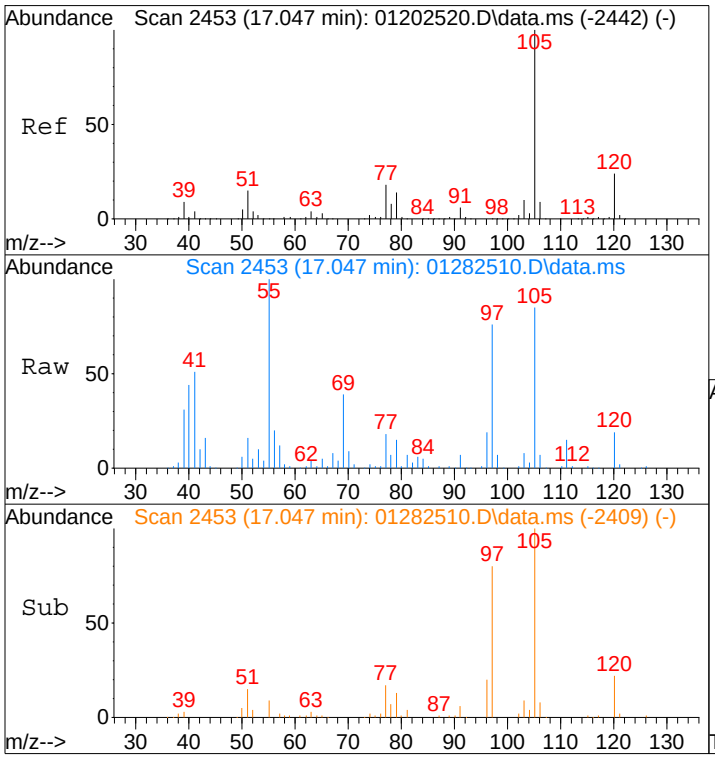


#71
n-Nonane
Concen: 140.69 ng
RT: 16.64 min Scan# 2381
Delta R.T. 0.011 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 43 Resp: 7871300

Ion	Ratio	Lower	Upper
43	100		
57	71.7	52.1	92.1
85	19.9	0.0	39.5

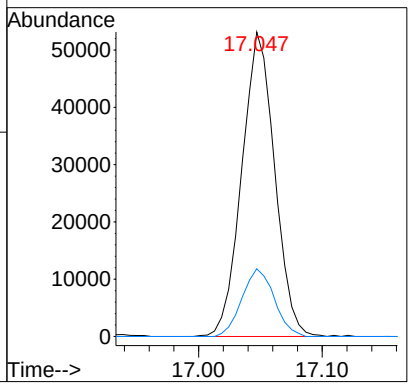


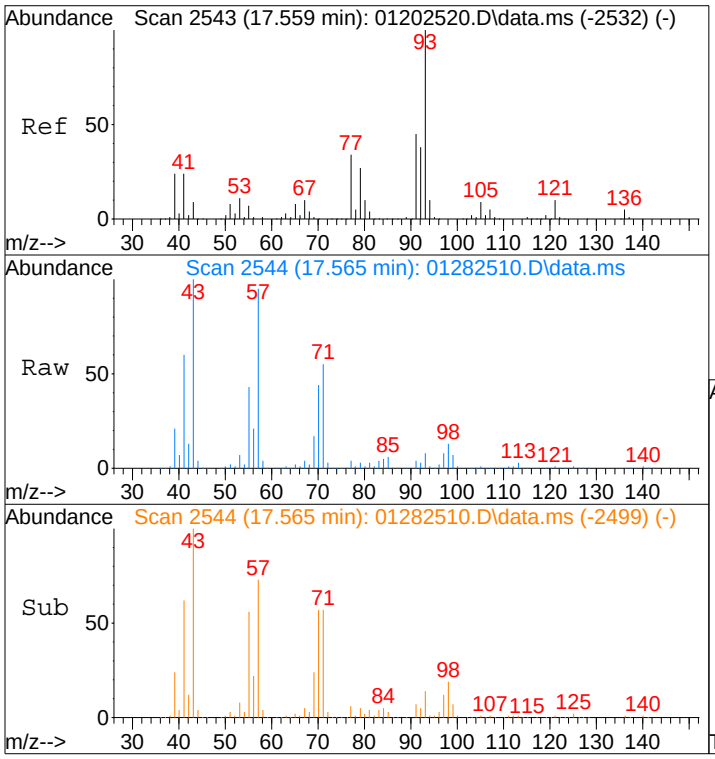


#74
Cumene
Concen: 1.36 ng
RT: 17.05 min Scan# 2453
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:105 Resp: 98259

Ion	Ratio	Lower	Upper
105	100		
120	21.9	3.7	43.7

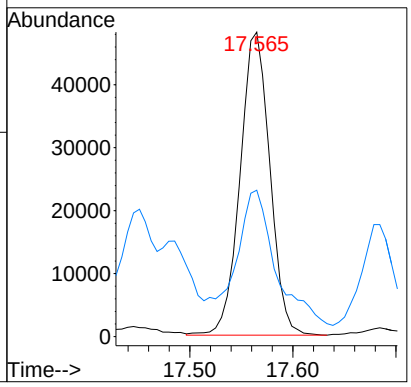


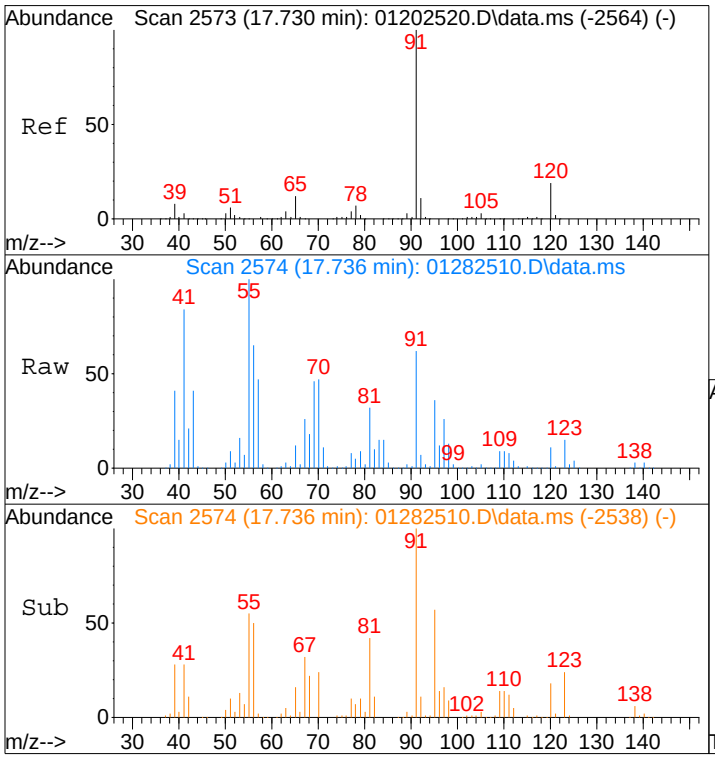


#75
alpha-Pinene
Concen: 2.70 ng
RT: 17.56 min Scan# 2544
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 93 Resp: 96743

Ion	Ratio	Lower	Upper
93	100		
77	57.1	14.1	54.1#

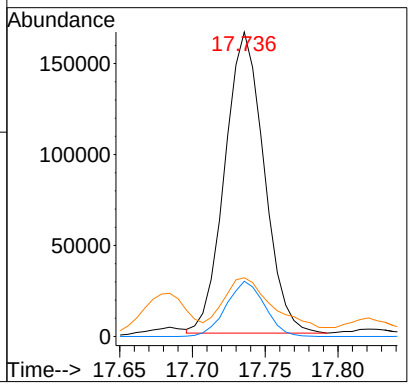


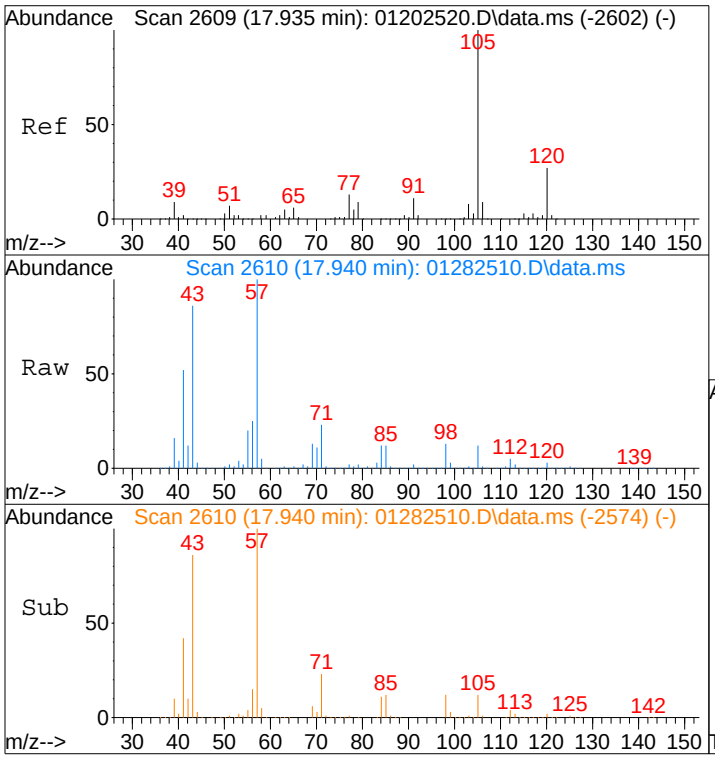


#76
n-Propylbenzene
Concen: 3.29 ng
RT: 17.74 min Scan# 2574
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 91 Resp: 310733

Ion	Ratio	Lower	Upper
91	100		
120	18.0	0.0	39.2
65	19.1	0.0	32.4

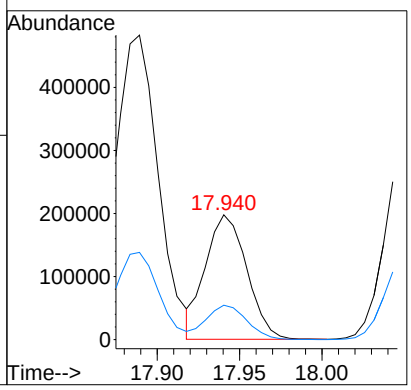


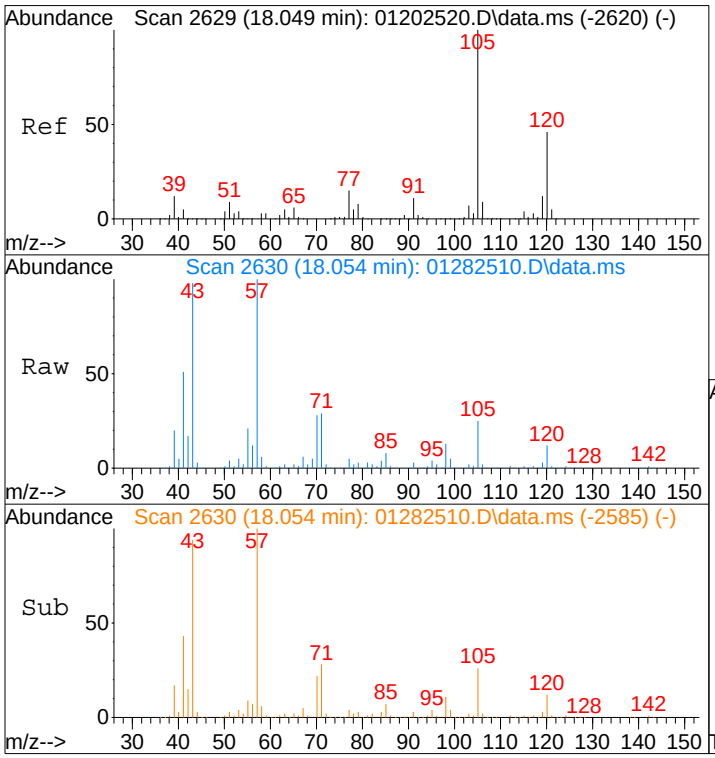


#78
4-Ethyltoluene
Concen: 5.04 ng
RT: 17.94 min Scan# 2610
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:105 Resp: 343863

Ion	Ratio	Lower	Upper
105	100		
120	27.4	7.6	47.6

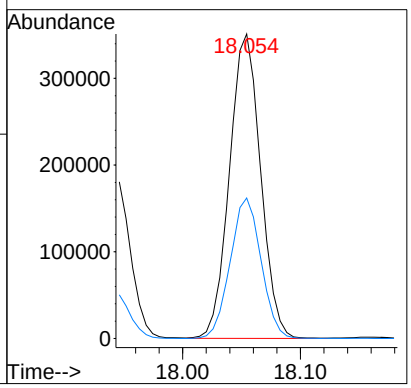


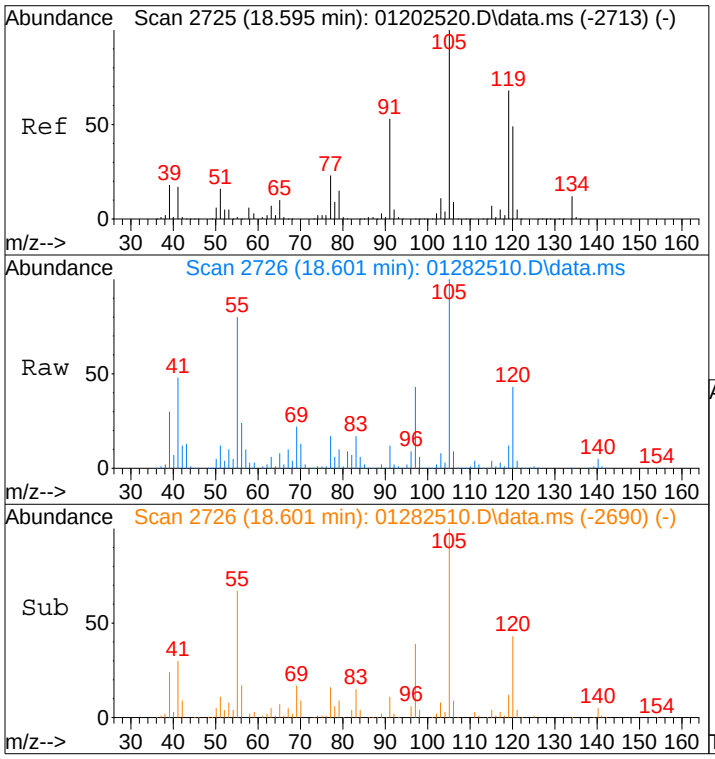


#79
1,3,5-Trimethylbenzene
Concen: 10.76 ng
RT: 18.05 min Scan# 2630
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:105 Resp: 644803

Ion	Ratio	Lower	Upper
105	100		
120	45.8	26.2	66.2

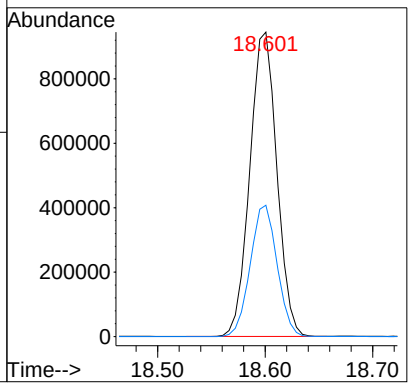


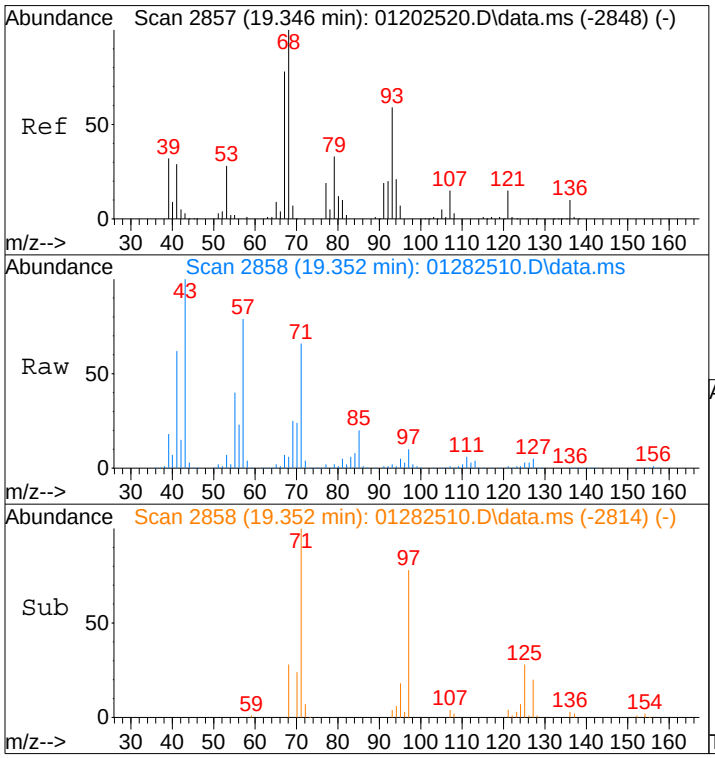


#82
1,2,4-Trimethylbenzene
Concen: 27.66 ng
RT: 18.60 min Scan# 2726
Delta R.T. 0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:105 Resp: 1652017

Ion	Ratio	Lower	Upper
105	100		
120	42.8	30.3	70.3

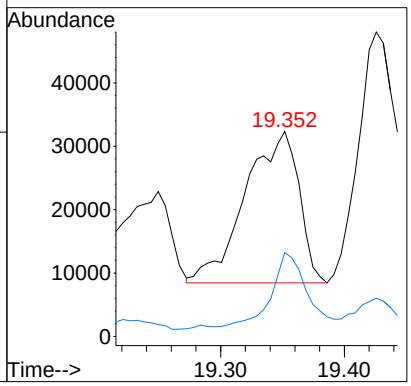


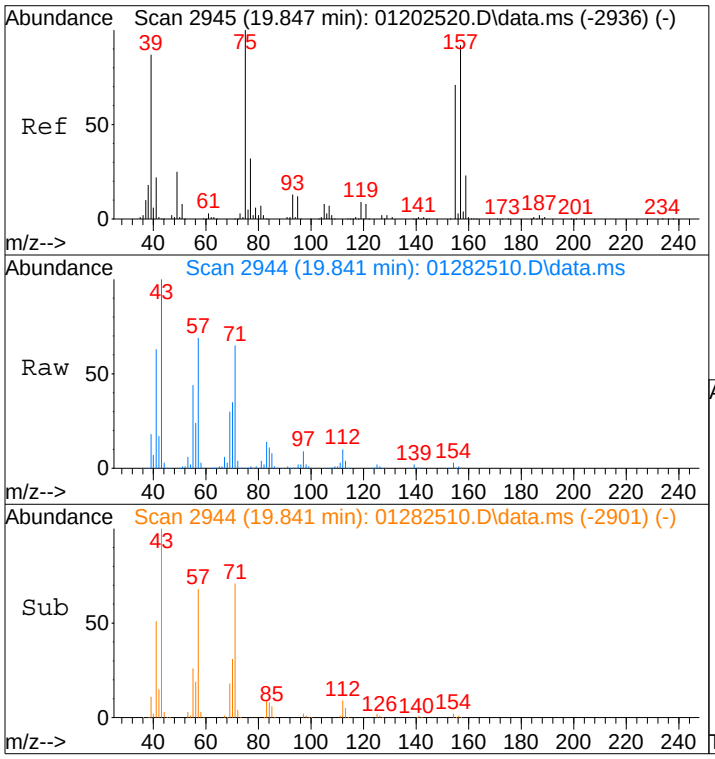


#91
d-Limonene
Concen: 2.81 ng
RT: 19.35 min Scan# 2858
Delta R.T. 0.000 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion: 68 Resp: 72033

Ion	Ratio	Lower	Upper
68	100		
93	31.4	39.0	79.0#

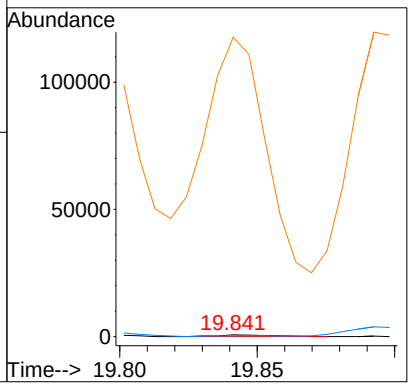


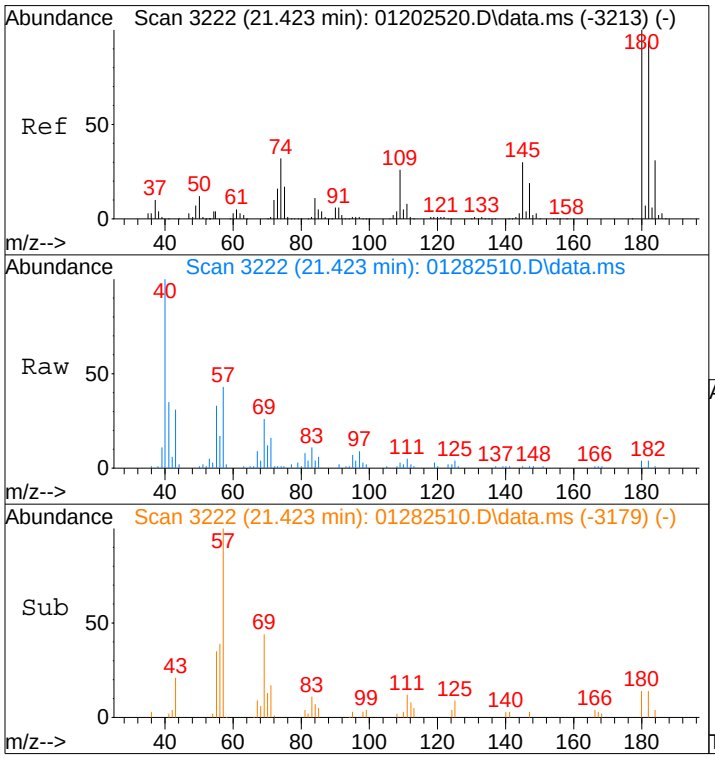


#92
1,2-Dibromo-3-Chloropropane
Concen: 0.09 ng
RT: 19.84 min Scan# 2944
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:157 Resp: 883

Ion	Ratio	Lower	Upper
157	100		
75	0.0	92.5	132.5#
39	17555.7	80.5	120.5#

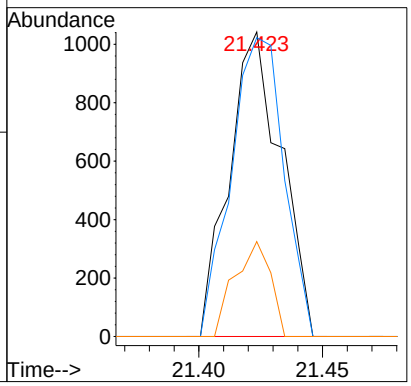


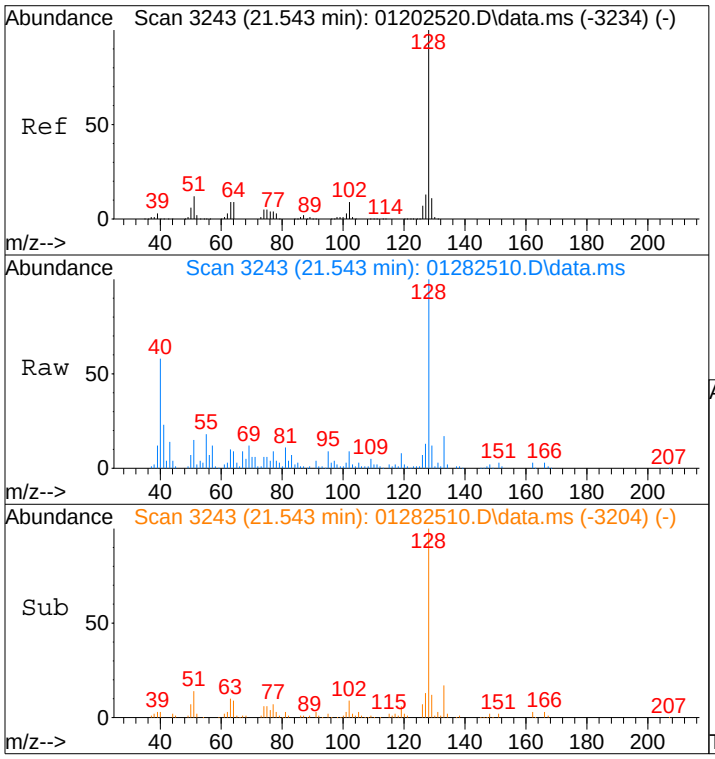


#94
1,2,4-Trichlorobenzene
Concen: 0.08 ng
RT: 21.42 min Scan# 3222
Delta R.T. -0.006 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:180 Resp: 1518

Ion	Ratio	Lower	Upper
180	100		
182	100.3	76.2	114.2
184	21.6	24.5	36.7#

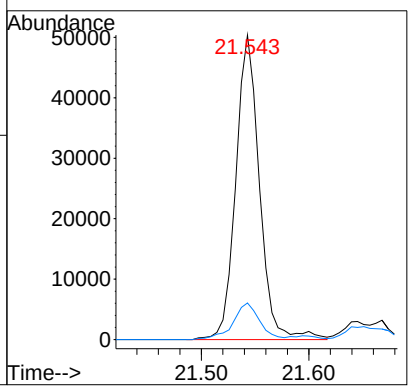




#95
Naphthalene
Concen: 1.52 ng
RT: 21.54 min Scan# 3243
Delta R.T. -0.028 min
Lab File: 01282510.D
Acq: 28 Jan 2025 12:53

Tgt Ion:128 Resp: 77163

Ion	Ratio	Lower	Upper
128	100		
129	13.5	0.0	30.9



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 08:10:54 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

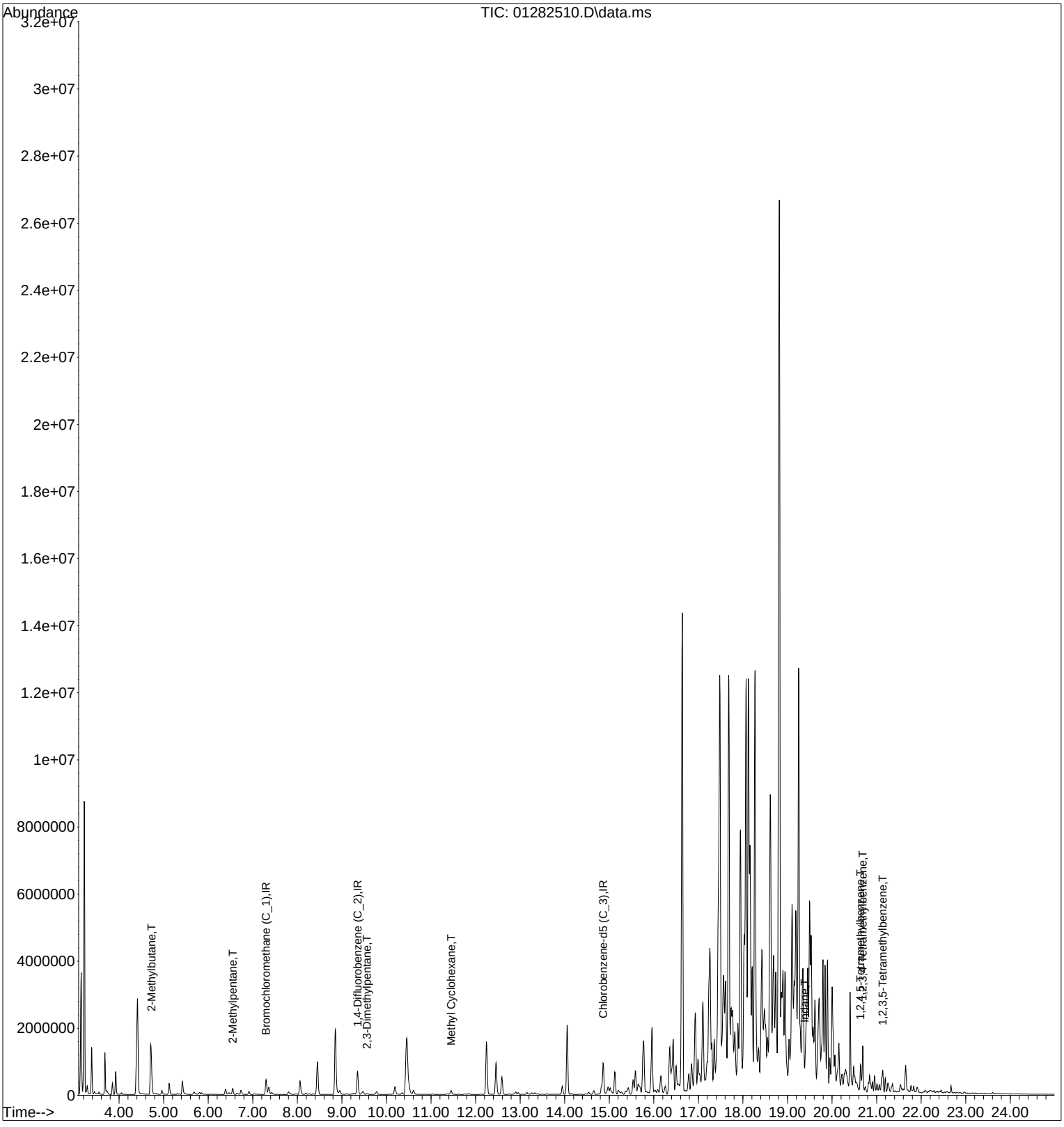
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	115389	12.500 ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	542928	12.500 ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	183376	12.500 ng		0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.21	85	129	N.D.		
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D. d		
4) 1,1-Difluoroethane	0.00	65	0	N.D.		
5) Chlorodifluoromethane ...	0.00	67	0	N.D. d		
6) 1-Chloro-1,1-Difluoroe...	3.59	65	1414	N.D.		
7) Dichlorofluoromethane ...	0.00	67	0	N.D.		
8) Vinylbromide	0.00	108	0	N.D.		
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.		
10) 2-Methylbutane	4.73	57	129626	7.336 ng	#	63
11) Methyl Acetate	0.00	43	0	N.D. d		
12) 2-Methylpentane	6.55	71	29581	2.012 ng	#	64
13) 2,2-Dichloropropane	0.00	77	0	N.D.		
14) 1,1-Dichloropropene	8.84	75	78	N.D.		
15) Thiophene	9.12	84	1301	N.D.		
17) 2,3-Dimethylpentane	9.56	56	12025	0.361 ng	#	85
18) Dibromomethane	0.00	174	0	N.D.		
20) Methyl Cyclohexane	11.45	55	53680	1.397 ng	#	86
21) 1,3-Dichloropropane	12.64	76	55	N.D.		
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		
23) 1-Chlorohexane	15.21	91	454	N.D.		
24) 1,2,3-Trichloropropane	0.00	75	0	N.D. d		
25) Bromobenzene	0.00	77	0	N.D. d		
26) 2-Chlorotoluene	0.00	91	0	N.D. d		
27) 4-Chlorotoluene	0.00	91	0	N.D. d		
28) Indane	19.39	117	56331	0.848 ng	#	85
29) Indene	19.50	115	789	N.D.		
30) 1,2,4,5-Tetramethylben...	20.64	119	338992	5.382 ng		97
31) 1,2,3,4-Tetramethylben...	20.69	119	585992	8.650 ng		99
32) 1,2,3,5-Tetramethylben...	21.14	119	216440	3.462 ng		97
33) 1,2,3-Trichlorobenzene	21.86	180	63	N.D.		

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

Quantitation Report (QT Reviewed)

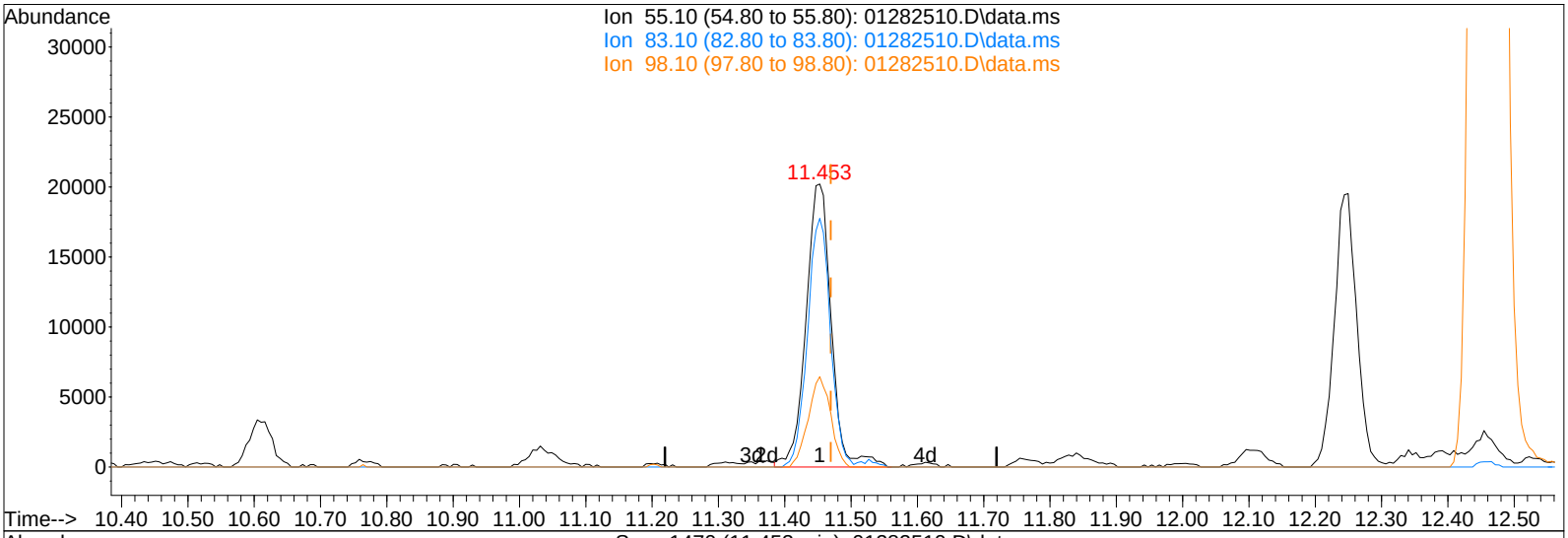
Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

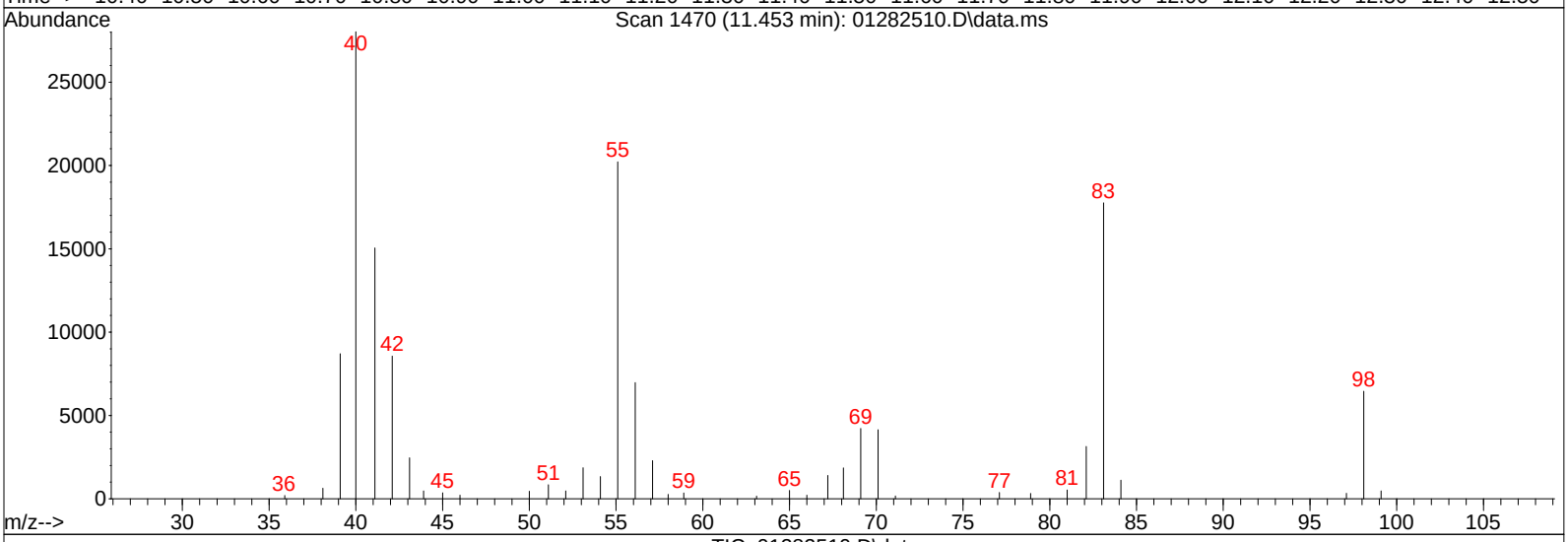
Quant Time: Jan 31 08:10:54 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282510.D
Acq On : 28 Jan 2025 12:53
Operator : MC
Sample : P2500076-003 (700mL)
Misc : S37-11222401
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 31 08:10:54 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration





TIC: 01282510.D\data.ms

(20) Methyl Cyclohexane (T)

11.453min (-0.017) 1.40ng

response 53680

Ion	Exp%	Act%
55.10	100	100
83.10	96.00	81.69
98.10	36.00	28.31#
0.00	0.00	0.00

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG6A-SS** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-004

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC01777

Initial Pressure (psig): -1.86 Final Pressure (psig): 3.82

Container Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.30	0.082	ND	0.12	0.032	
75-35-4	1,1-Dichloroethene	ND	0.13	0.11	ND	0.033	0.027	
75-09-2	Methylene Chloride	ND	0.66	0.22	ND	0.19	0.062	
156-60-5	trans-1,2-Dichloroethene	ND	0.30	0.11	ND	0.076	0.027	
75-34-3	1,1-Dichloroethane	ND	0.30	0.11	ND	0.075	0.028	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	0.11	ND	0.036	0.027	
107-06-2	1,2-Dichloroethane	ND	0.15	0.085	ND	0.036	0.021	
71-55-6	1,1,1-Trichloroethane	**4.2**	0.15	0.095	**0.77**	0.027	0.017	
56-23-5	Carbon Tetrachloride	**0.52**	0.15	0.11	**0.083**	0.023	0.017	
79-01-6	Trichloroethene	**1.4**	0.15	0.10	**0.25**	0.028	0.019	
127-18-4	Tetrachloroethene	**10**	0.16	0.099	**1.5**	0.023	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 12:53:36 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	102115	12.500 ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	485271	12.500 ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	158764	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	8.06	65	281661	15.325 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.64%			
57) Toluene-d8 (SS2)	12.46	98	614881	10.668 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.36%			
73) Bromofluorobenzene (SS3)	16.84	174	146070	9.912 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%			
Target Compounds						Qvalue
2) Propene	3.39	42	2601m	0.107 ng		
3) Dichlorodifluoromethan...	3.53	85	179	N.D.		
4) Chloromethane	3.63	50	3771	0.158 ng		77
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	714	0.086 ng		78
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	4.13	94	649	0.064 ng		97
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	4.38	45	26039	1.645 ng		98
11) Acetonitrile	4.58	41	1690	N.D.		
12) Acrolein	4.64	56	2142	0.181 ng		93
13) Acetone	4.73	58	43868	3.855 ng		94
14) Trichlorofluoromethane	4.85	101	18698	0.910 ng		100
15) 2-Propanol (Isopropanol)	4.95	45	11050	0.216 ng	#	58
16) Acrylonitrile	5.15	53	53	N.D.		
17) 1,1-Dichloroethene	5.36	96	205	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d		
19) Methylene Chloride	5.44	84	1521	0.114 ng	#	67
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.		
21) Trichlorotrifluoroethane	5.66	151	2953	0.364 ng		95
22) Carbon Disulfide	5.71	76	6832	0.131 ng		87
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	6.39	63	598	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	6.51	86	927	0.391 ng	#	52
27) 2-Butanone (MEK)	6.75	72	4783	0.557 ng	#	64
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	7.36	61	11334	2.064 ng		89
31) n-Hexane	7.37	57	540	N.D.		
32) Chloroform	7.42	83	1073	N.D.		
34) Tetrahydrofuran (THF)	7.86	72	444	0.051 ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	0.00	62	0	N.D.		
38) 1,1,1-Trichloroethane	8.45	97	56761	2.918 ng		96
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	8.90	56	5165	No Calib	#	
41) Benzene	8.95	78	3079	0.054 ng		90
42) Carbon Tetrachloride	9.12	117	6129	0.364 ng		99
43) Cyclohexane	9.35	84	282	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	10.19	130	10842	0.945 ng		96
48) 1,4-Dioxane	0.00	88	0	N.D.		

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:53:36 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

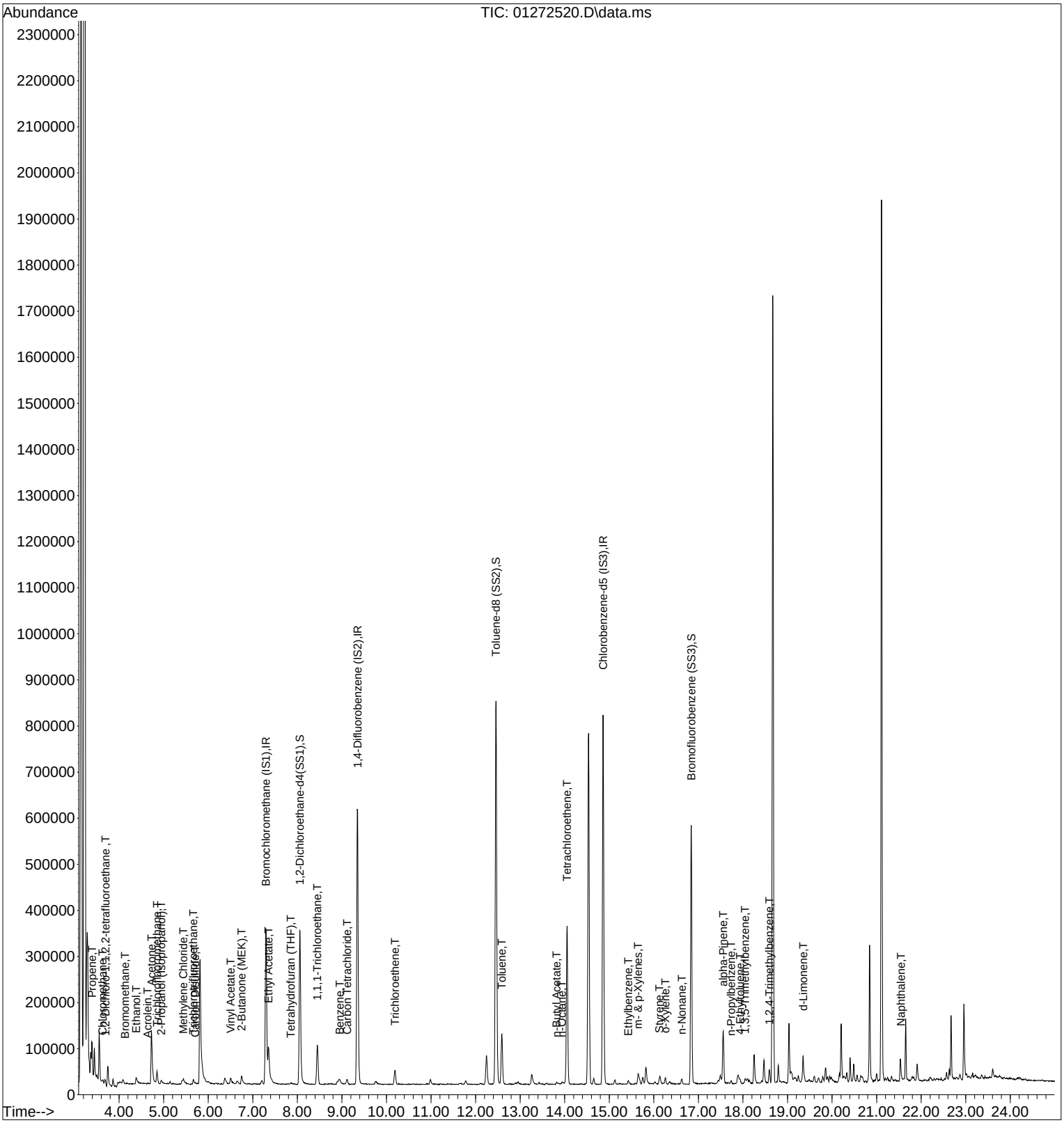
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.27	57	598	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	0.00	71	0	N.D.		
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	11.41	58	111	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	89097	1.461 ng		99
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.82	43	4679	0.088 ng		93
63) n-Octane	13.94	57	859	0.050 ng	#	73
64) Tetrachloroethene	14.05	166	99551	7.162 ng		98
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	15.43	91	6550	0.095 ng		92
67) m- & p-Xylenes	15.65	91	21533	0.393 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	16.12	104	4509	0.123 ng		98
70) o-Xylene	16.26	91	8241	0.151 ng		96
71) n-Nonane	16.63	43	7180	0.148 ng		89
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	17.05	105	977	N.D.		
75) alpha-Pinene	17.56	93	46123	1.484 ng		93
76) n-Propylbenzene	17.74	91	4356	0.053 ng		93
77) 3-Ethyltoluene	17.05	105	977	No Calib	#	
78) 4-Ethyltoluene	17.94	105	5026	0.085 ng		95
79) 1,3,5-Trimethylbenzene	18.05	105	4015	0.077 ng		92
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	977	No Calib	#	
82) 1,2,4-Trimethylbenzene	18.59	105	15379	0.297 ng		86
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	18.75	91	553	N.D.		
85) 1,3-Dichlorobenzene	18.76	146	901	N.D.		
86) 1,4-Dichlorobenzene	18.86	146	438	N.D.		
87) sec-Butylbenzene	18.95	105	738	N.D.		
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D. d		
89) 1,2,3-Trimethylbenzene	17.05	105	977	No Calib	#	
90) 1,2-Dichlorobenzene	19.28	146	121	N.D.		
91) d-Limonene	19.35	68	14486	0.652 ng		95
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	18.05	58	165	No Calib	#	
94) 1,2,4-Trichlorobenzene	21.42	180	771	N.D.		
95) Naphthalene	21.55	128	6228	0.142 ng		95
96) n-Dodecane	19.03	58	2933	No Calib	#	
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	15.52	55	119	No Calib	#	
99) tert-Butylbenzene	18.58	119	1846	N.D.		
100) n-Butylbenzene	19.70	91	2701	N.D.		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:53:36 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 09:34:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

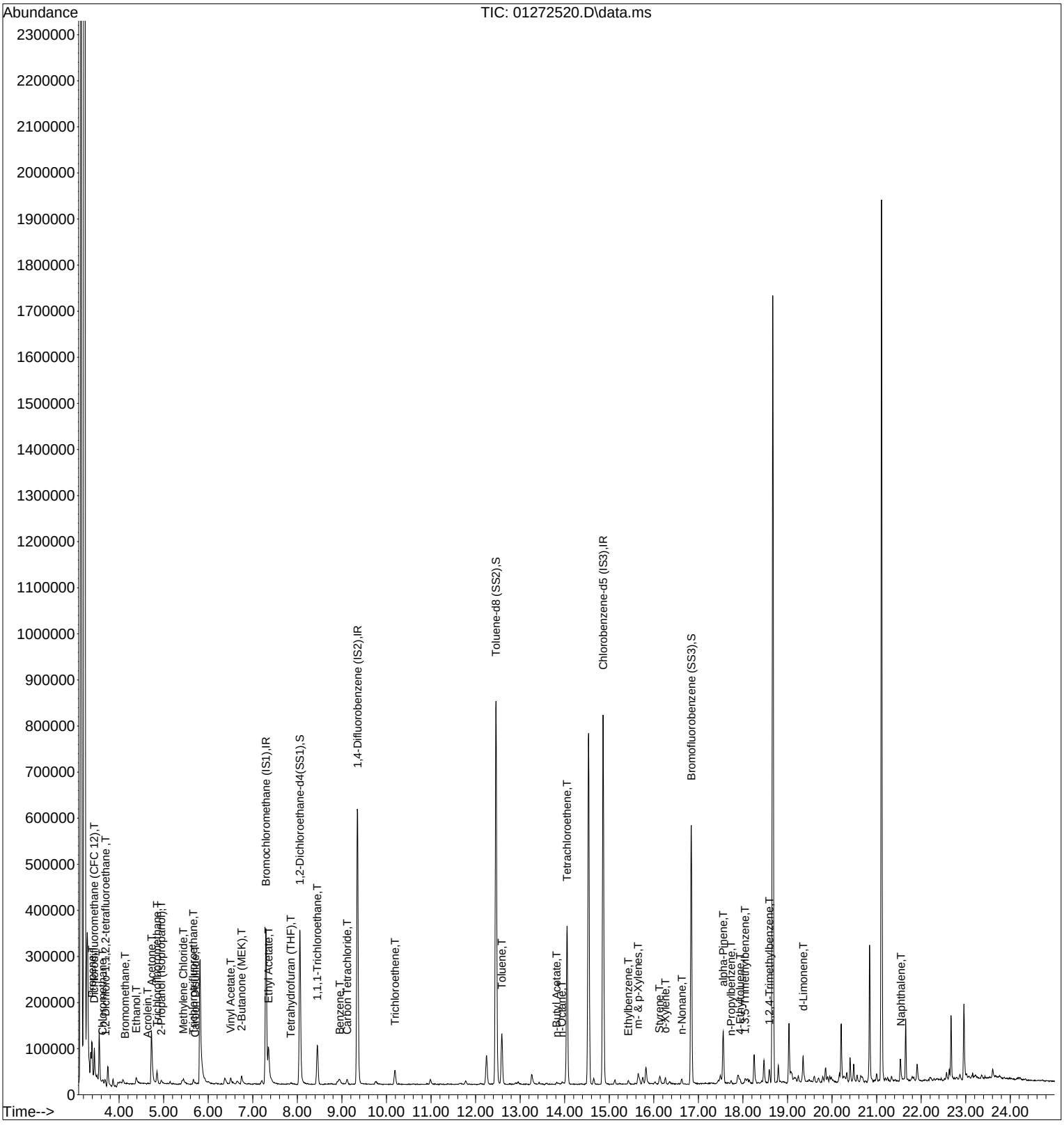
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	102115	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	485271	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	158764	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	281661	15.325	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.64%				
57) Toluene-d8 (SS2)	12.46	98	614881	10.668	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.36%				
73) Bromofluorobenzene (SS3)	16.84	174	146070	9.912	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%				
Target Compounds							Qvalue
2) Propene	3.39	42	2601m	0.107	ng		
3) Dichlorodifluoromethan...	3.45	85	42407m	1.669	ng		
4) Chloromethane	3.63	50	3771	0.158	ng		77
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	714	0.086	ng		78
8) Bromomethane	4.13	94	649	0.064	ng		97
10) Ethanol	4.38	45	26039	1.645	ng		98
12) Acrolein	4.64	56	2142	0.181	ng		93
13) Acetone	4.73	58	43868	3.855	ng		94
14) Trichlorofluoromethane	4.85	101	18698	0.910	ng		100
15) 2-Propanol (Isopropanol)	4.95	45	11050	0.216	ng	#	58
19) Methylene Chloride	5.44	84	1521	0.114	ng	#	67
21) Trichlorotrifluoroethane	5.66	151	2953	0.364	ng		95
22) Carbon Disulfide	5.71	76	6832	0.131	ng		87
26) Vinyl Acetate	6.51	86	927	0.391	ng	#	52
27) 2-Butanone (MEK)	6.75	72	4783	0.557	ng	#	64
30) Ethyl Acetate	7.36	61	11334	2.064	ng		89
34) Tetrahydrofuran (THF)	7.86	72	444	0.051	ng	#	1
38) 1,1,1-Trichloroethane	8.45	97	56761	2.918	ng		96
41) Benzene	8.95	78	3079	0.054	ng		90
42) Carbon Tetrachloride	9.12	117	6129	0.364	ng		99
47) Trichloroethene	10.19	130	10842	0.945	ng		96
58) Toluene	12.59	91	89097	1.461	ng		99
62) n-Butyl Acetate	13.82	43	4679	0.088	ng		93
63) n-Octane	13.94	57	859	0.050	ng	#	73
64) Tetrachloroethene	14.05	166	99551	7.162	ng		98
66) Ethylbenzene	15.43	91	6550	0.095	ng		92
67) m- & p-Xylenes	15.65	91	21533	0.393	ng		98
69) Styrene	16.12	104	4509	0.123	ng		98
70) o-Xylene	16.26	91	8241	0.151	ng		96
71) n-Nonane	16.63	43	7180	0.148	ng		89
75) alpha-Pinene	17.56	93	46123	1.484	ng		93
76) n-Propylbenzene	17.74	91	4356	0.053	ng		93
78) 4-Ethyltoluene	17.94	105	5026	0.085	ng		95
79) 1,3,5-Trimethylbenzene	18.05	105	4015	0.077	ng		92
82) 1,2,4-Trimethylbenzene	18.59	105	15379	0.297	ng		86
91) d-Limonene	19.35	68	14486	0.652	ng		95
95) Naphthalene	21.55	128	6228	0.142	ng		95

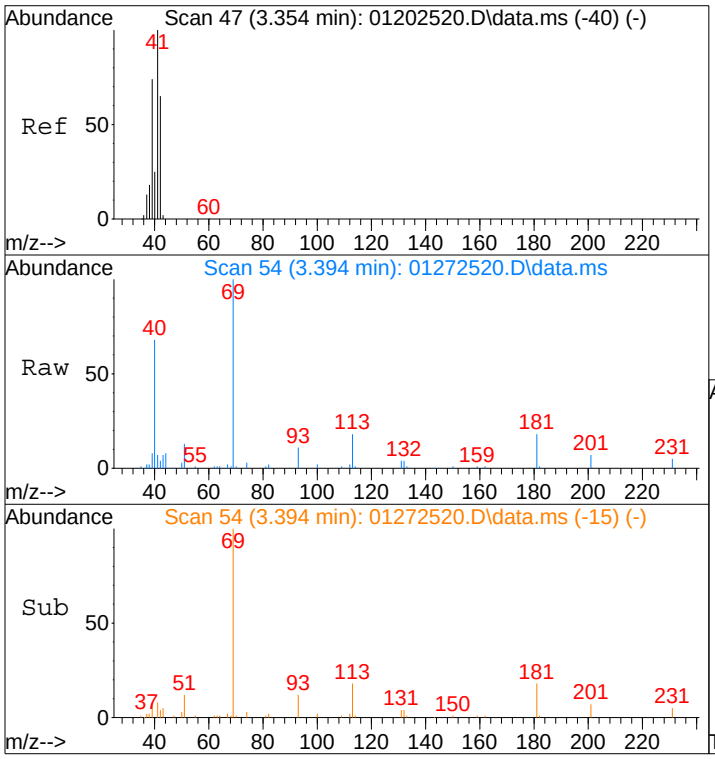
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 31 09:34:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

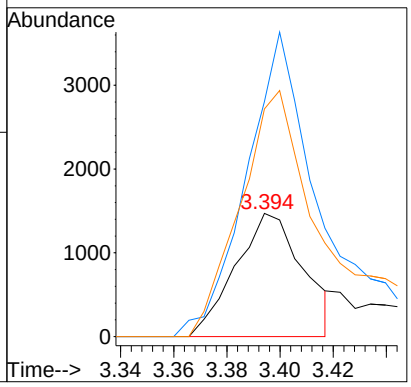


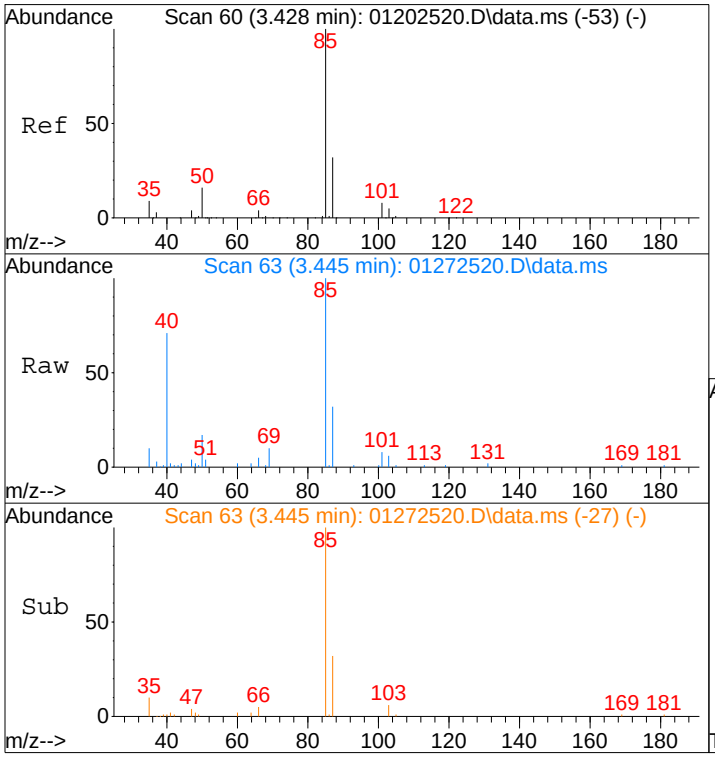


#2
Propene
Concen: 0.11 ng m
RT: 3.39 min Scan# 54
Delta R.T. -0.029 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 42 Resp: 2601

Ion	Ratio	Lower	Upper
42	100		
39	298.0	94.3	134.3#
41	272.4	136.8	176.8#

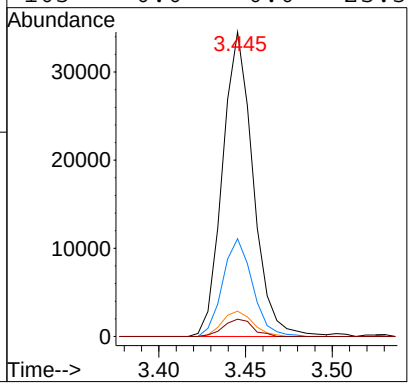


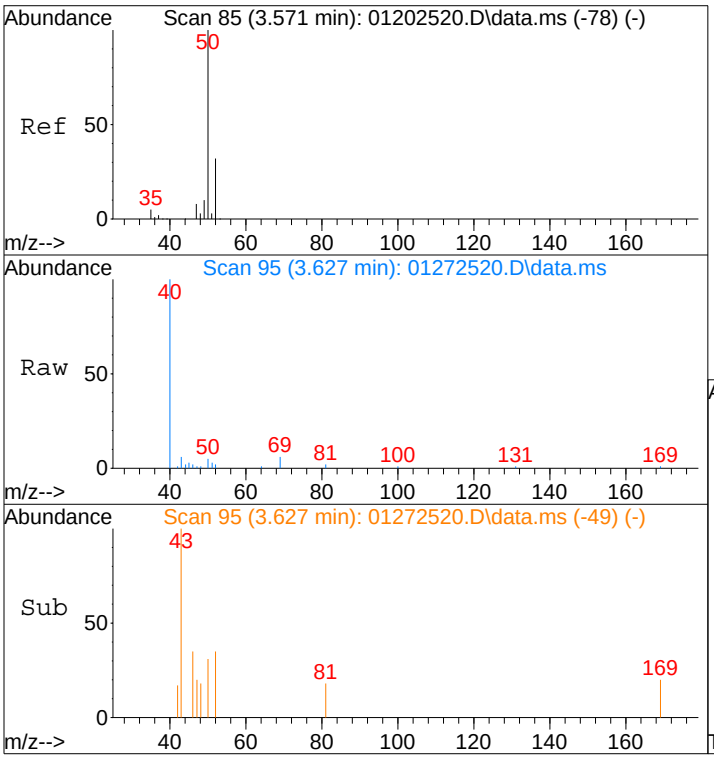


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.67 ng m
RT: 3.45 min Scan# 63
Delta R.T. -0.046 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 85 Resp: 42407

Ion	Ratio	Lower	Upper
85	100		
87	0.0	12.2	52.2#
101	0.0	0.0	28.4
103	0.0	0.0	25.3

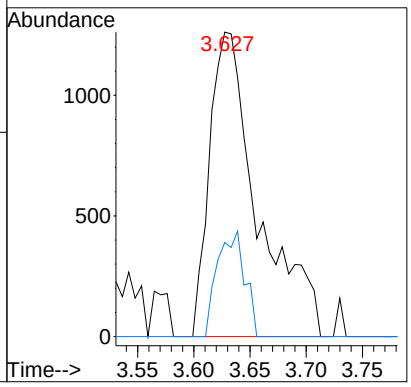


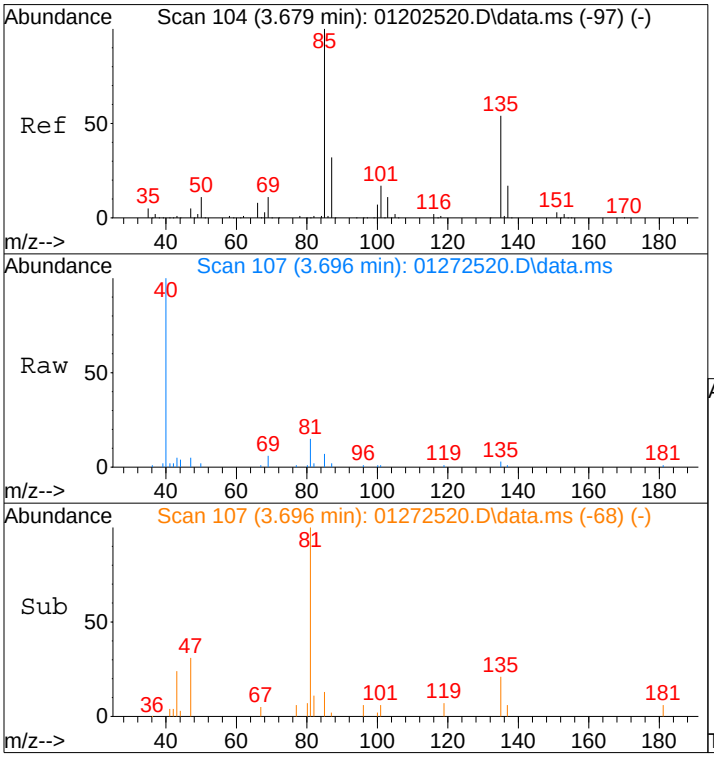


#4
Chloromethane
Concen: 0.16 ng
RT: 3.63 min Scan# 95
Delta R.T. 0.011 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 50 Resp: 3771

Ion	Ratio	Lower	Upper
50	100		
52	19.6	12.2	52.2

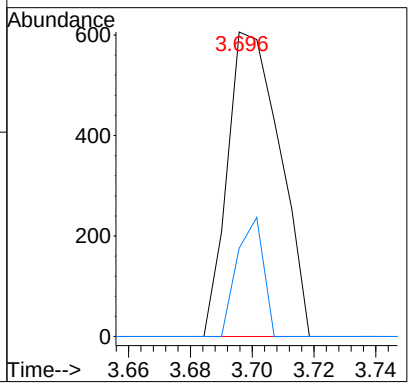


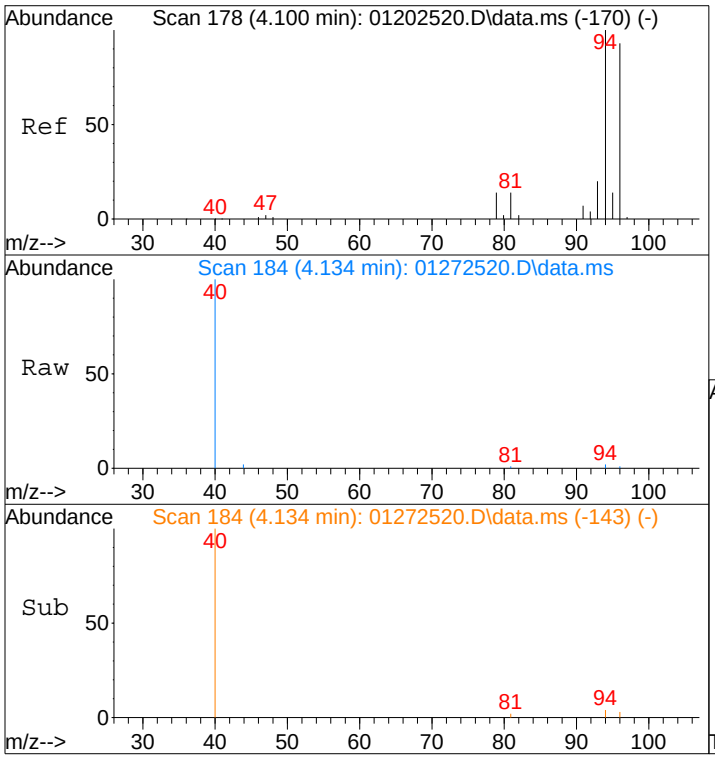


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.09 ng
RT: 3.70 min Scan# 107
Delta R.T. -0.029 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:135 Resp: 714

Ion	Ratio	Lower	Upper
135	100		
137	19.7	12.2	52.2

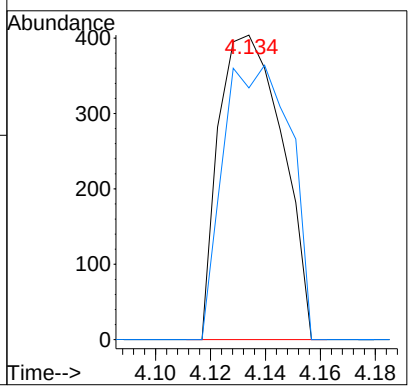


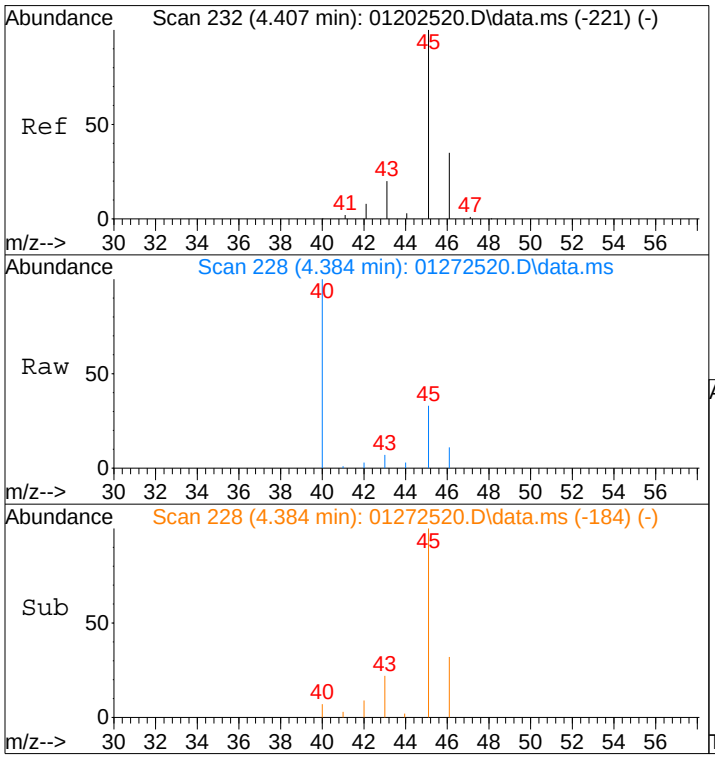


#8
Bromomethane
Concen: 0.06 ng
RT: 4.13 min Scan# 184
Delta R.T. -0.017 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 94 Resp: 649

Ion	Ratio	Lower	Upper
94	100		
96	95.5	72.7	112.7

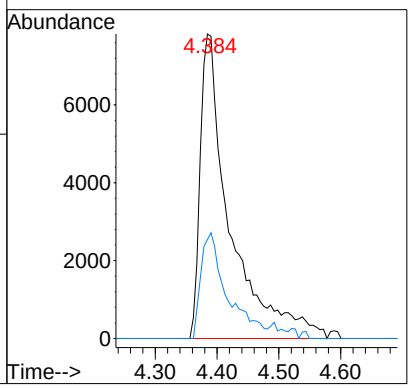


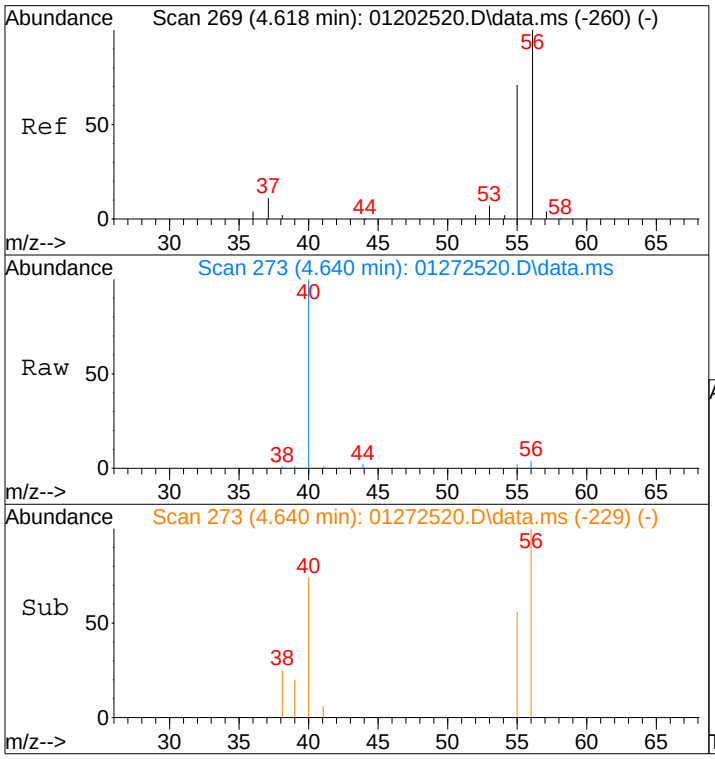


#10
Ethanol
Concen: 1.65 ng
RT: 4.38 min Scan# 228
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 45 Resp: 26039

Ion	Ratio	Lower	Upper
45	100		
46	33.7	15.0	55.0

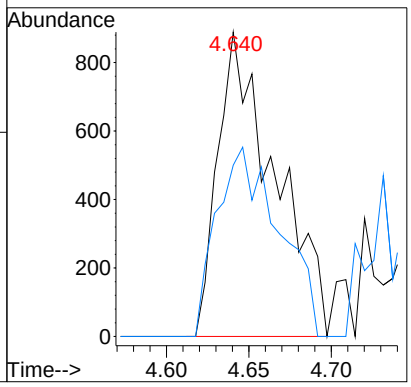


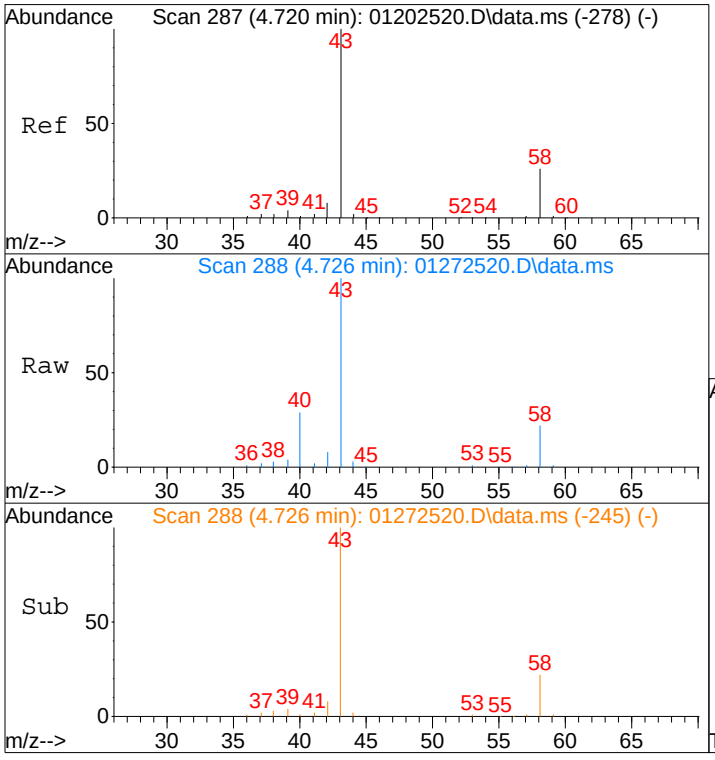


#12
Acrolein
Concen: 0.18 ng
RT: 4.64 min Scan# 273
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 56 Resp: 2142

Ion	Ratio	Lower	Upper
56	100		
55	67.9	53.6	93.6

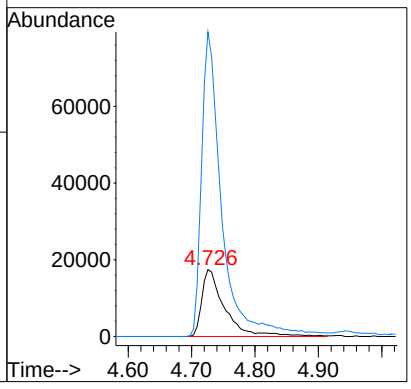


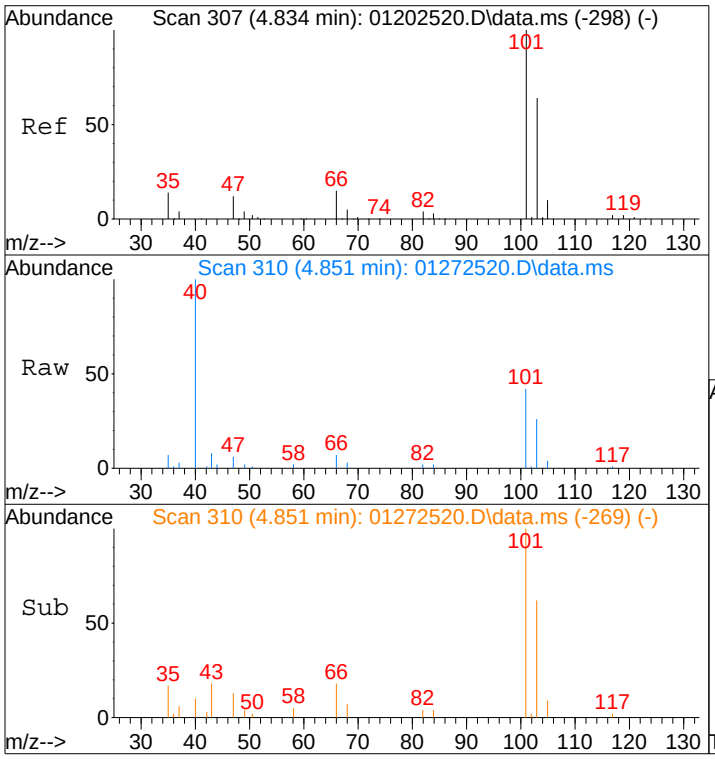


#13
Acetone
Concen: 3.85 ng
RT: 4.73 min Scan# 288
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 58 Resp: 43868

Ion	Ratio	Lower	Upper
58	100		
43	402.5	359.4	419.4

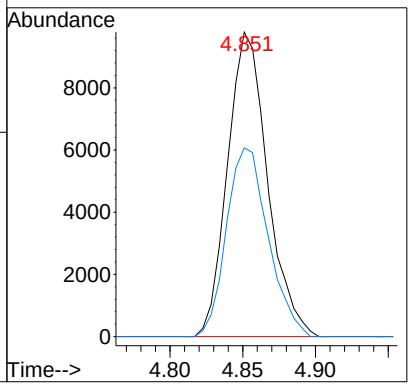


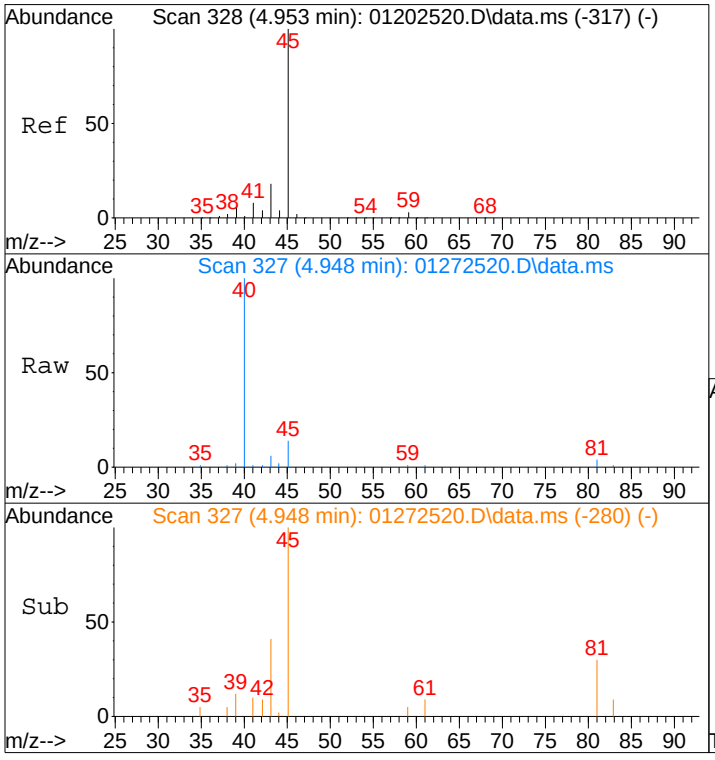


#14
Trichlorofluoromethane
Concen: 0.91 ng
RT: 4.85 min Scan# 310
Delta R.T. -0.017 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:101 Resp: 18698

Ion	Ratio	Lower	Upper
101	100		
103	64.6	44.2	84.2

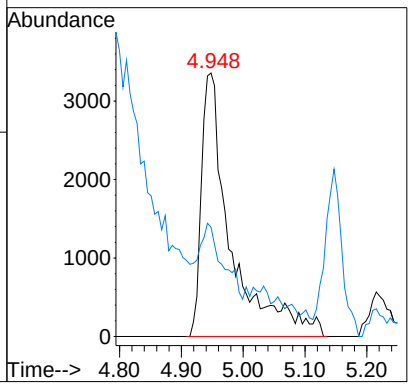


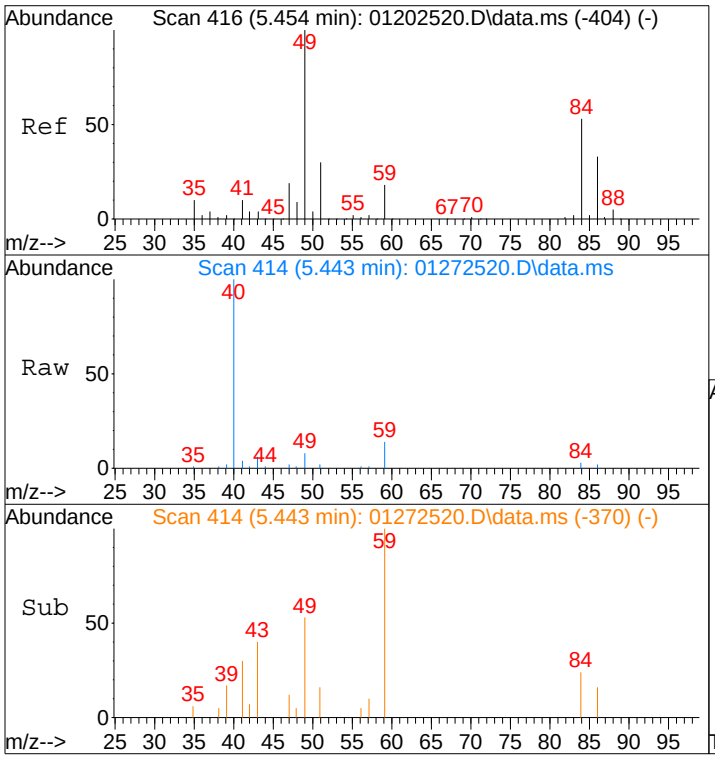


#15
2-Propanol (Isopropanol)
Concen: 0.22 ng
RT: 4.95 min Scan# 327
Delta R.T. 0.017 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 45 Resp: 11050

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

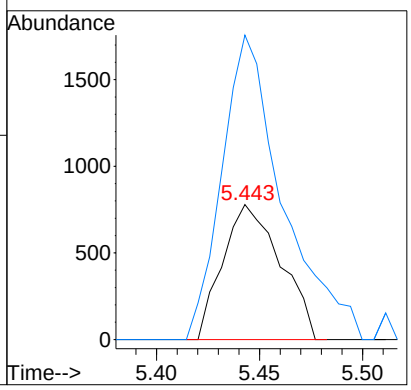


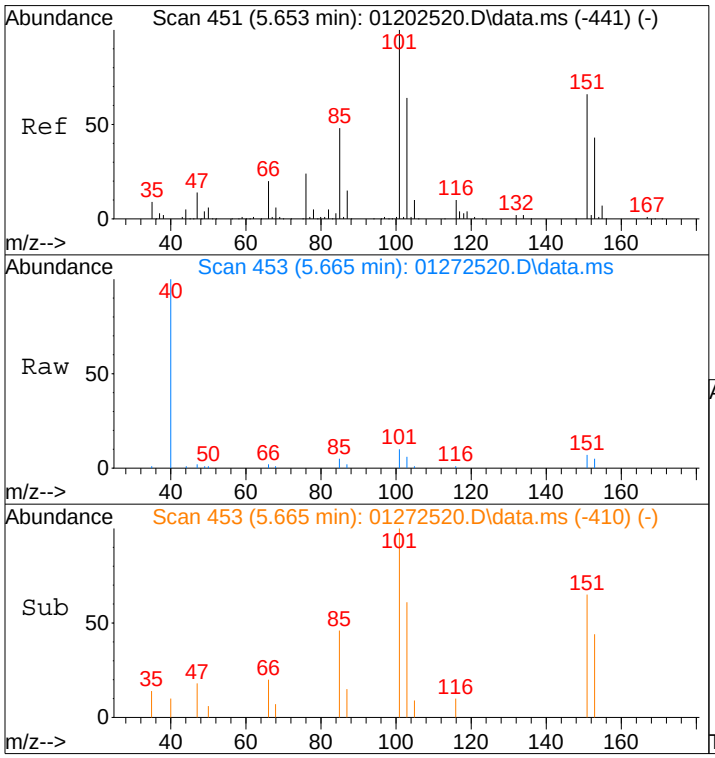


#19
Methylene Chloride
Concen: 0.11 ng
RT: 5.44 min Scan# 414
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 84 Resp: 1521

Ion	Ratio	Lower	Upper
84	100		
49	236.9	163.7	213.7#

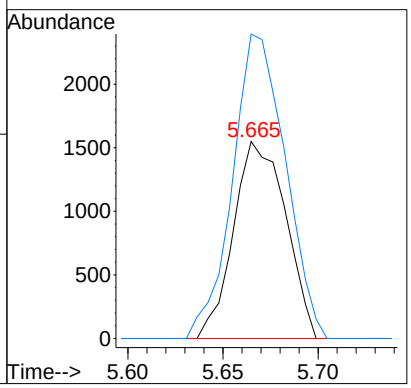


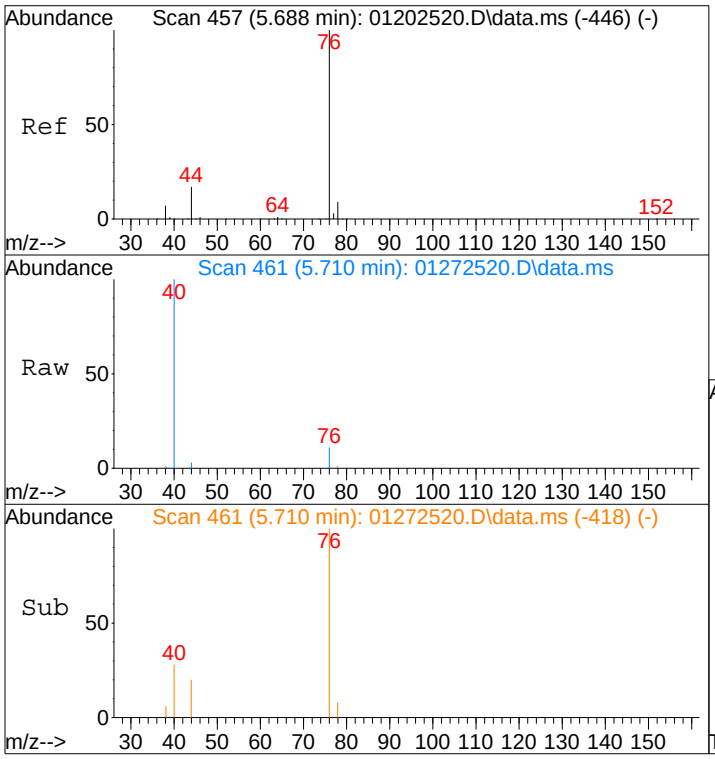


#21
Trichlorotrifluoroethane
Concen: 0.36 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:151 Resp: 2953

Ion	Ratio	Lower	Upper
151	100		
101	156.8	129.9	169.9

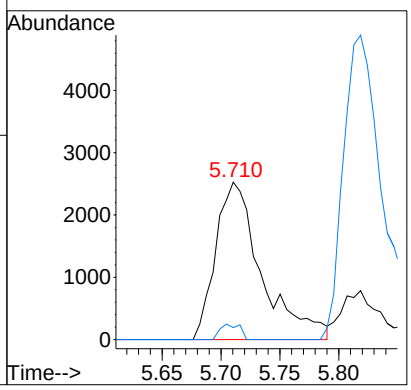


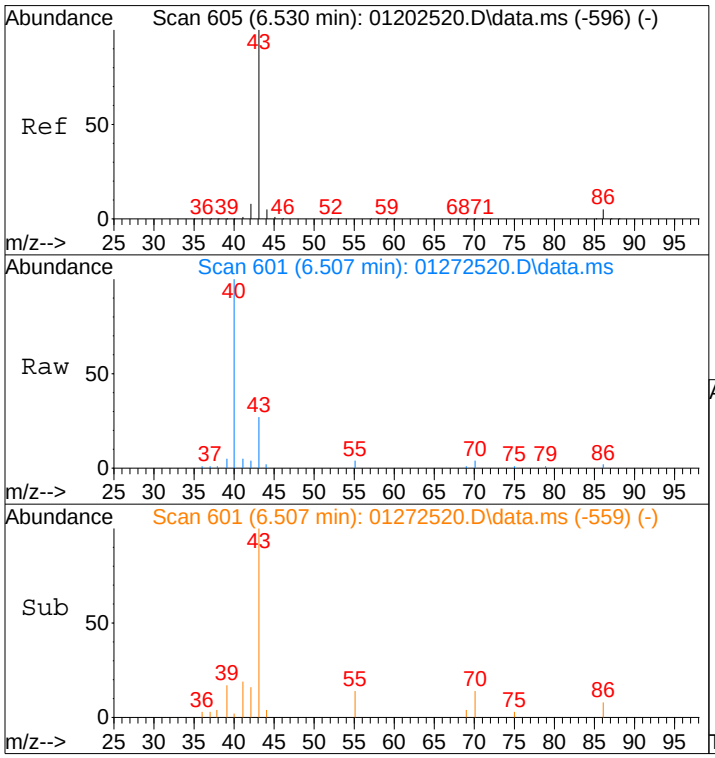


#22
Carbon Disulfide
Concen: 0.13 ng
RT: 5.71 min Scan# 461
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 76 Resp: 6832

Ion	Ratio	Lower	Upper
76	100		
78	4.2	0.0	29.1

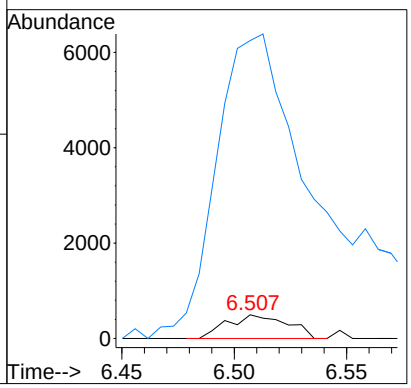


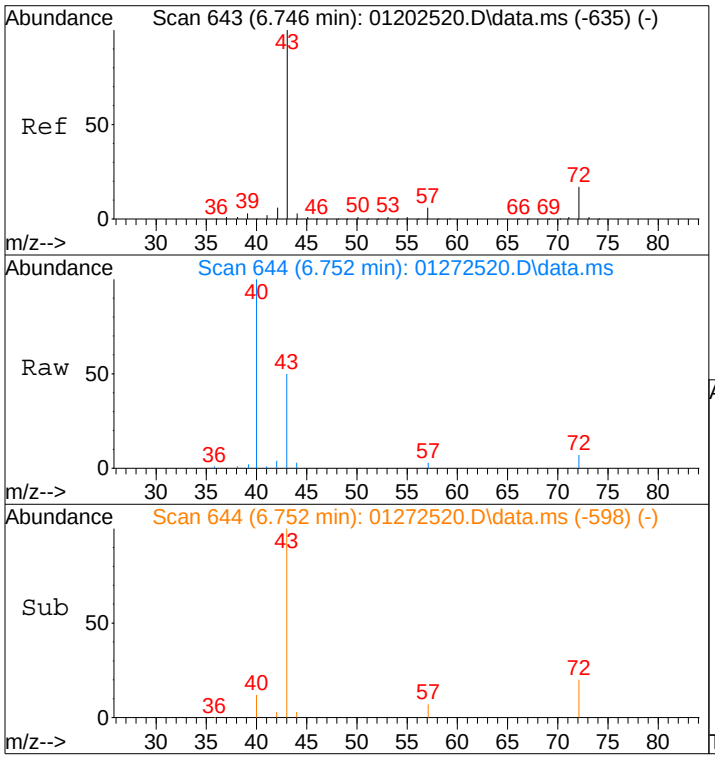


#26
Vinyl Acetate
Concen: 0.39 ng
RT: 6.51 min Scan# 601
Delta R.T. -0.011 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 86 Resp: 927

Ion	Ratio	Lower	Upper
86	100		
43	2414.6	2036.4	2076.4#

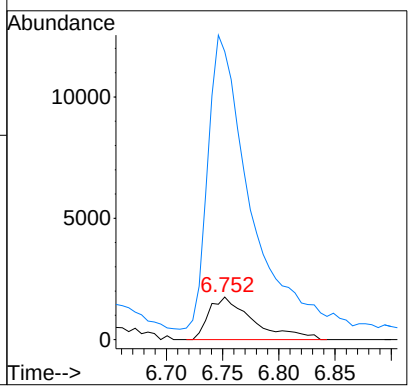


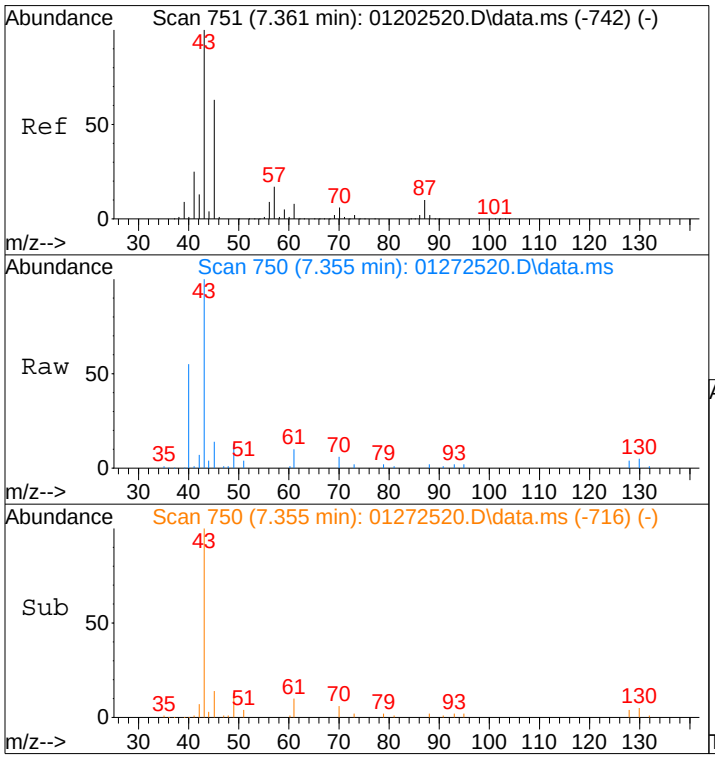


#27
2-Butanone (MEK)
Concen: 0.56 ng
RT: 6.75 min Scan# 644
Delta R.T. 0.011 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 72 Resp: 4783

Ion	Ratio	Lower	Upper
72	100		
43	710.8	579.1	619.1#

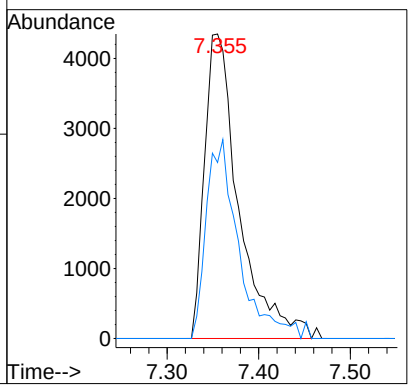


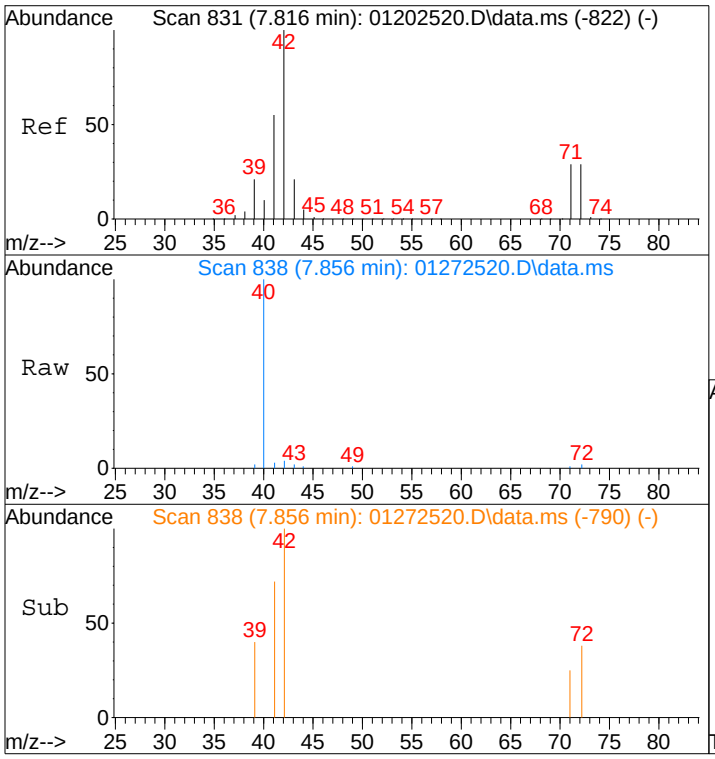


#30
Ethyl Acetate
Concen: 2.06 ng
RT: 7.36 min Scan# 750
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 61 Resp: 11334

Ion	Ratio	Lower	Upper
61	100		
70	62.1	51.2	91.2

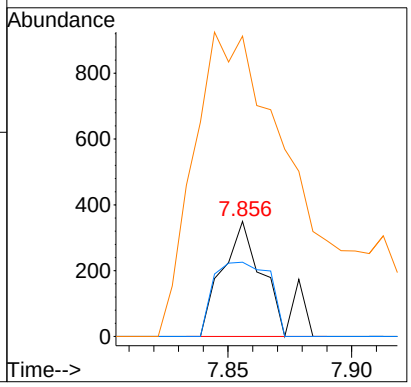


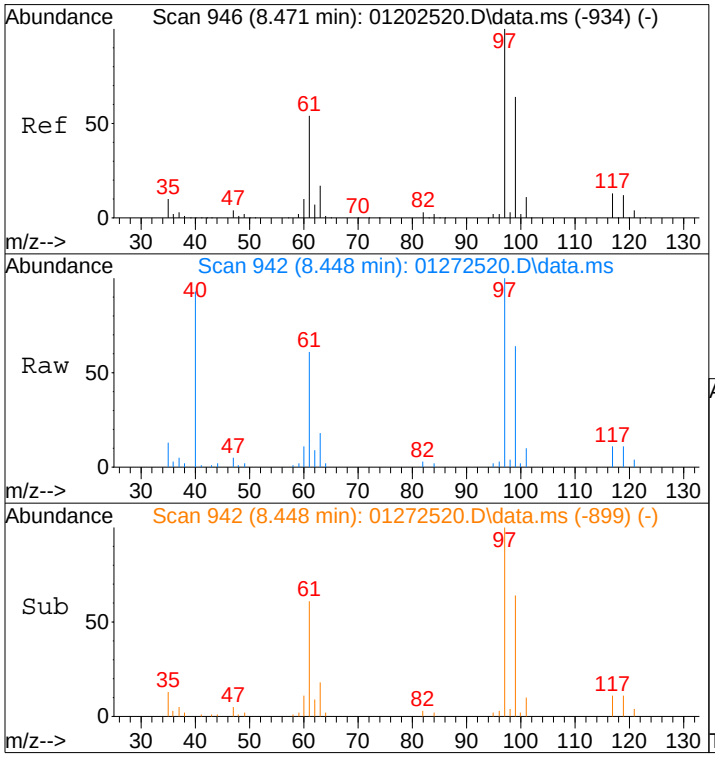


#34
Tetrahydrofuran (THF)
Concen: 0.05 ng
RT: 7.86 min Scan# 838
Delta R.T. 0.023 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 72 Resp: 444

Ion	Ratio	Lower	Upper
72	100		
71	80.0	78.8	118.8
42	648.6	320.3	360.3#

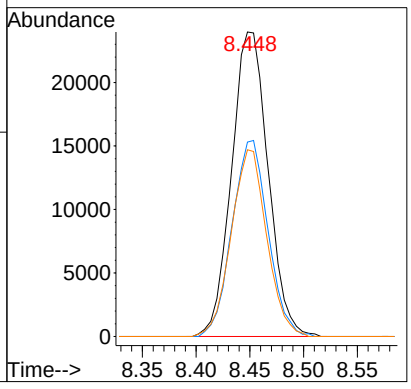


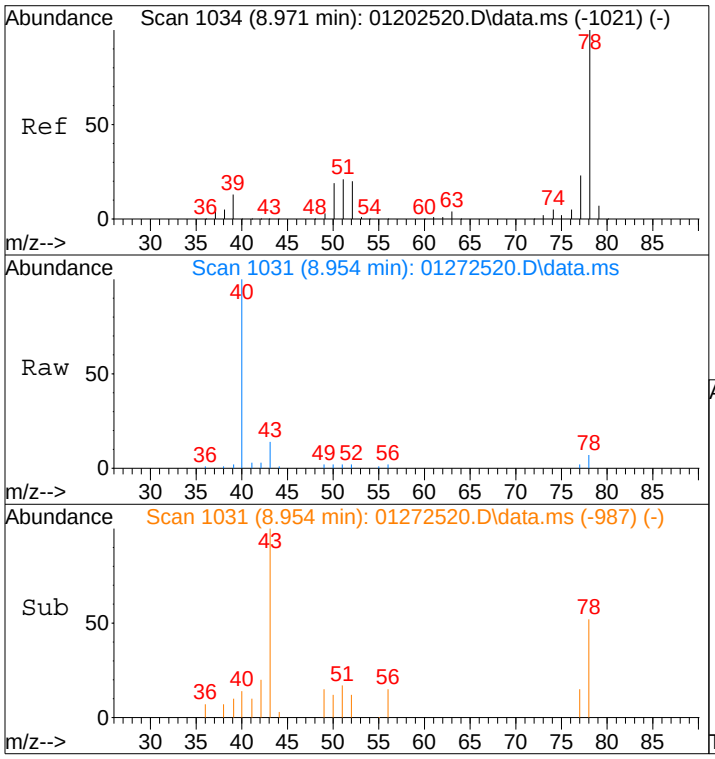


#38
1,1,1-Trichloroethane
Concen: 2.92 ng
RT: 8.45 min Scan# 942
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 97 Resp: 56761

Ion	Ratio	Lower	Upper
97	100		
99	63.3	43.8	83.8
61	59.5	34.3	74.3

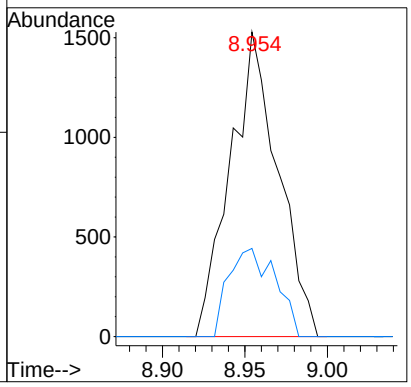


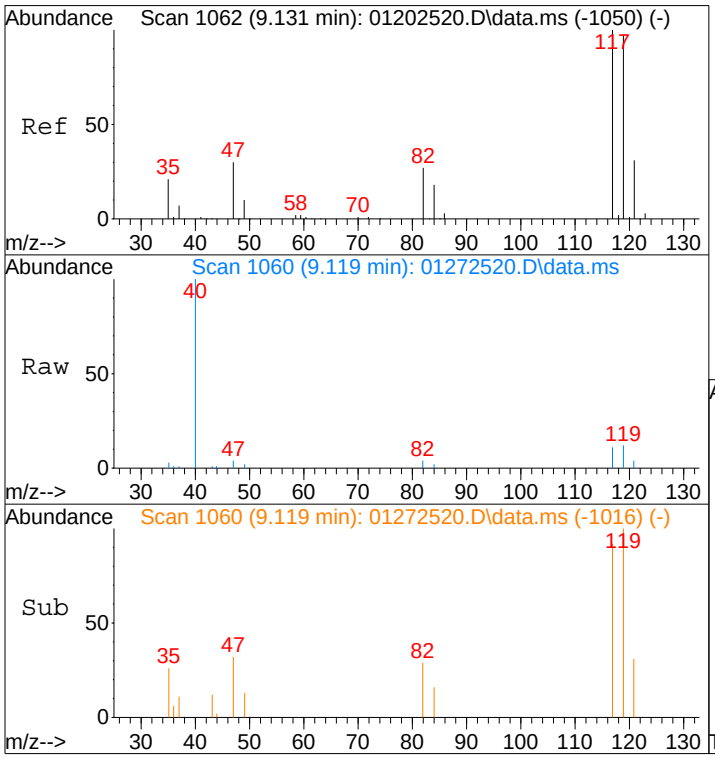


#41
Benzene
Concen: 0.05 ng
RT: 8.95 min Scan# 1031
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 78 Resp: 3079

Ion	Ratio	Lower	Upper
78	100		
77	28.3	3.4	43.4

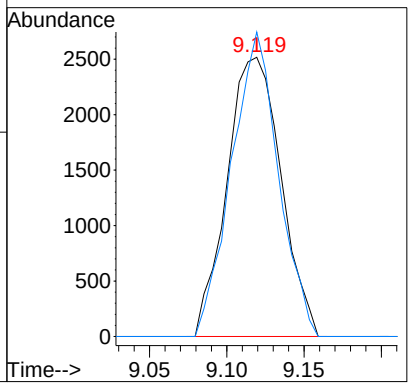


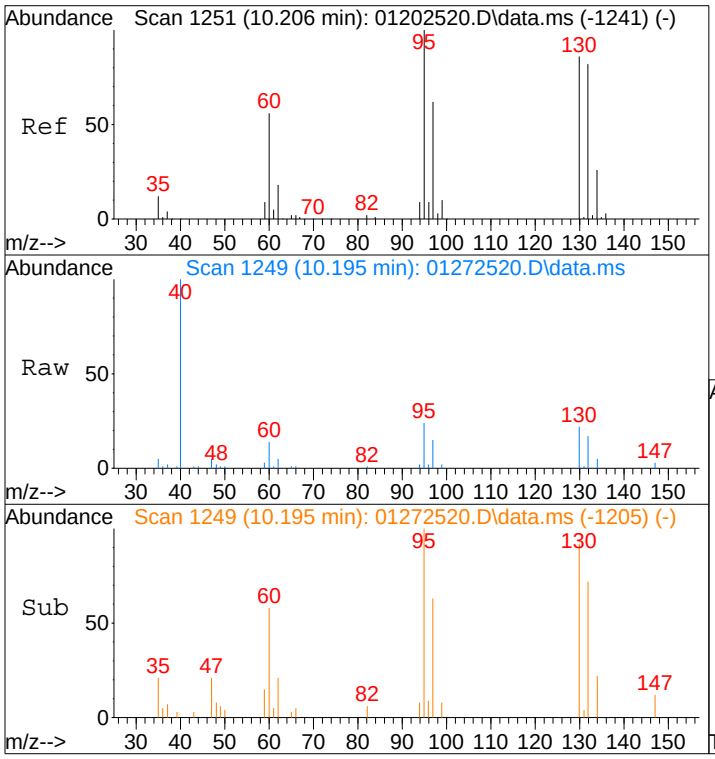


#42
Carbon Tetrachloride
Concen: 0.36 ng
RT: 9.12 min Scan# 1060
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:117 Resp: 6129

Ion	Ratio	Lower	Upper
117	100		
119	94.7	75.4	115.4

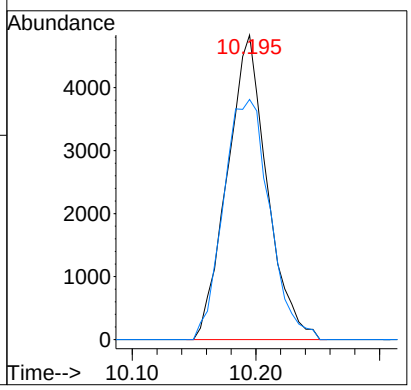


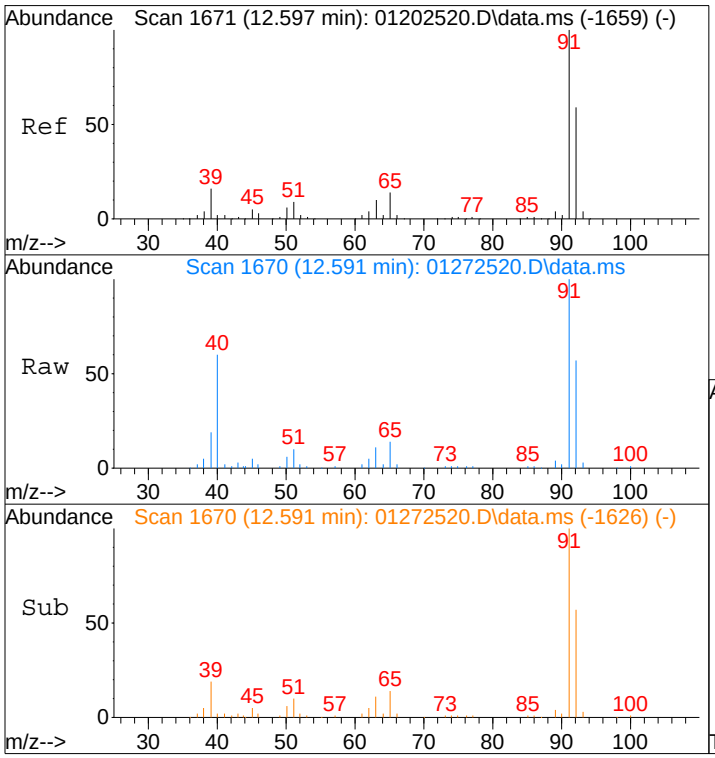


#47
Trichloroethene
Concen: 0.95 ng
RT: 10.19 min Scan# 1249
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:130 Resp: 10842

Ion	Ratio	Lower	Upper
130	100		
132	91.2	75.5	115.5

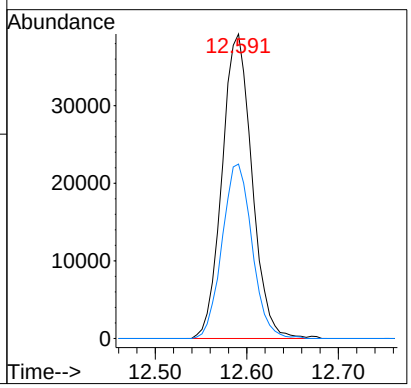


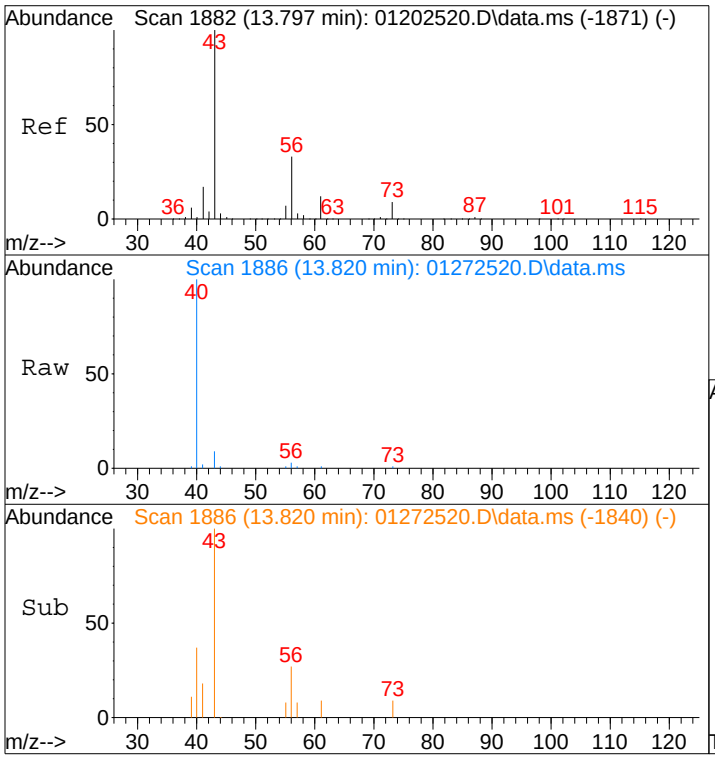


#58
Toluene
Concen: 1.46 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 91 Resp: 89097

Ion	Ratio	Lower	Upper
91	100		
92	57.4	38.4	78.4

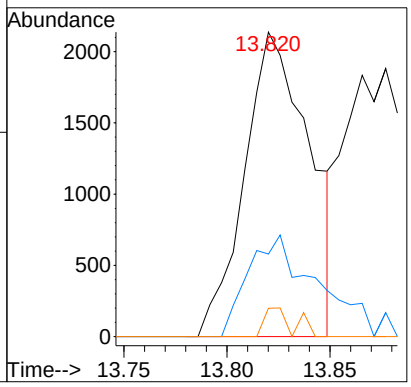


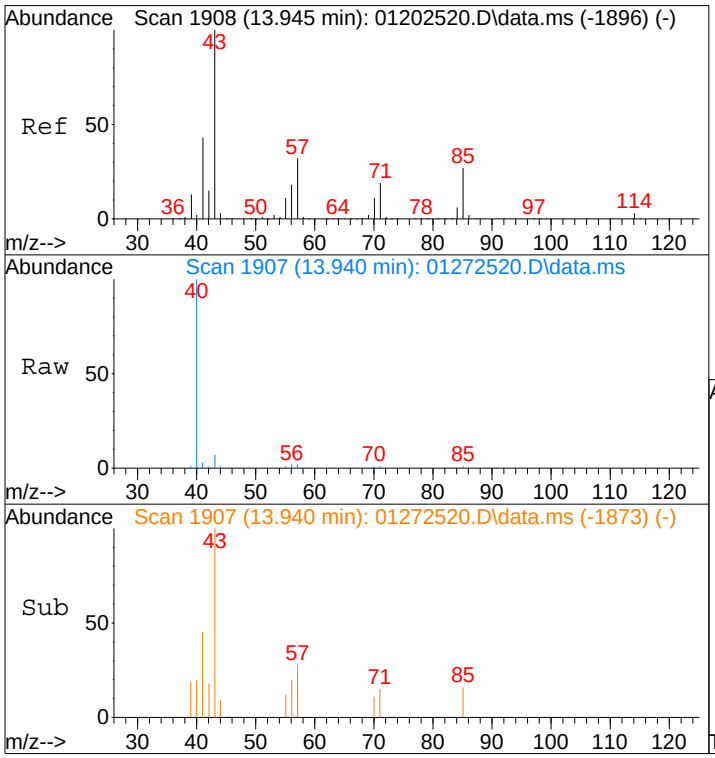


#62
n-Butyl Acetate
Concen: 0.09 ng
RT: 13.82 min Scan# 1886
Delta R.T. 0.011 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 43 Resp: 4679

Ion	Ratio	Lower	Upper
43	100		
56	36.4	13.3	53.3
73	4.1	0.0	28.9

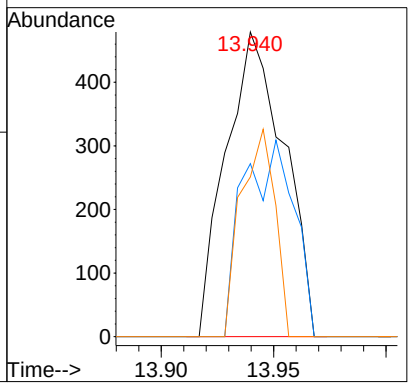


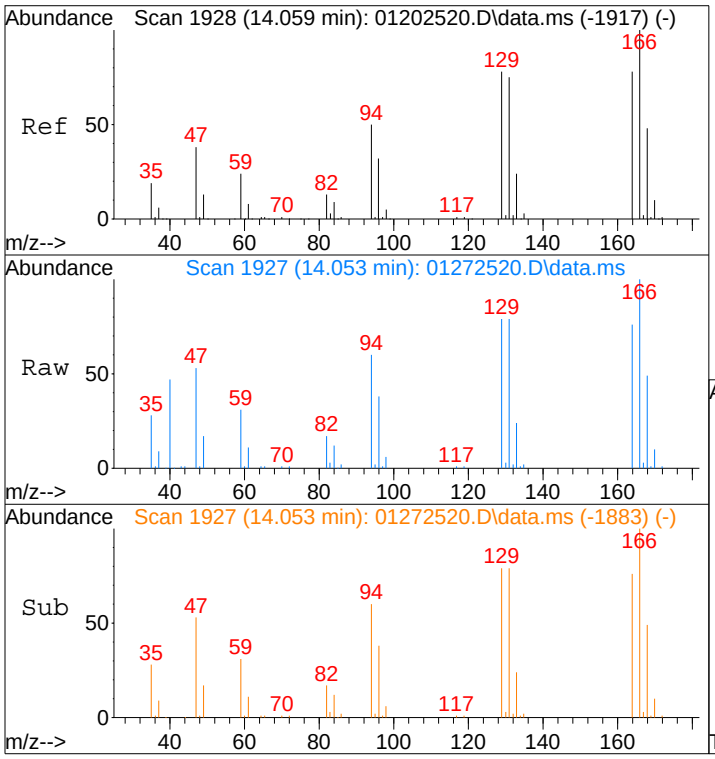


#63
n-Octane
Concen: 0.05 ng
RT: 13.94 min Scan# 1907
Delta R.T. -0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 57 Resp: 859

Ion	Ratio	Lower	Upper
57	100		
85	56.7	65.9	98.9#
71	39.8	45.7	68.5#

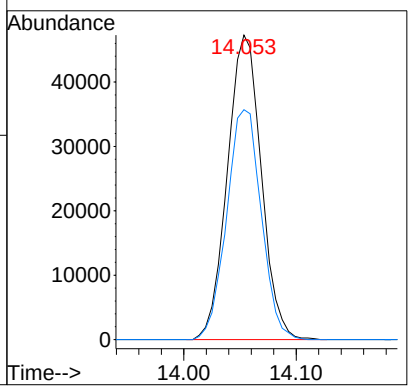


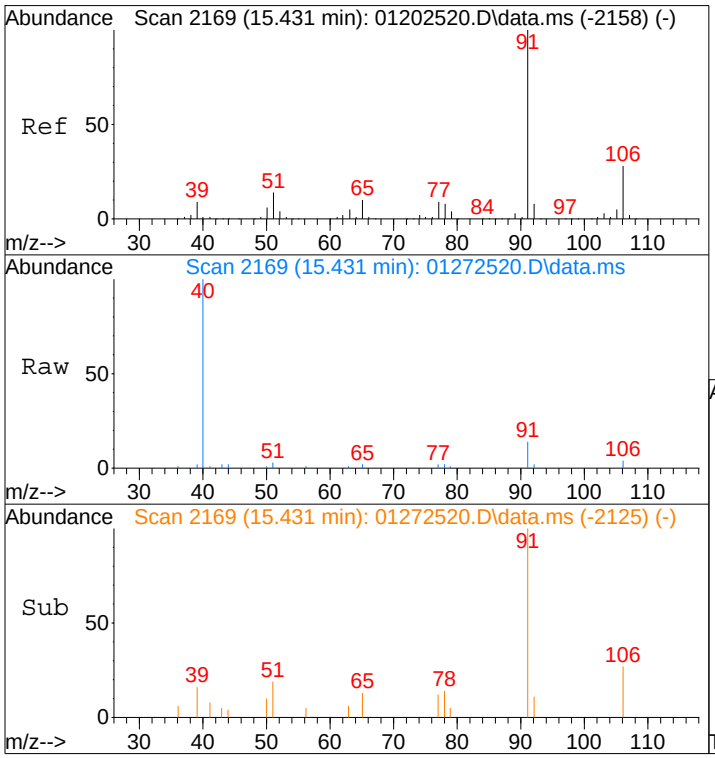


#64
Tetrachloroethene
Concen: 7.16 ng
RT: 14.05 min Scan# 1927
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:166 Resp: 99551

Ion	Ratio	Lower	Upper
166	100		
164	76.9	58.4	98.4

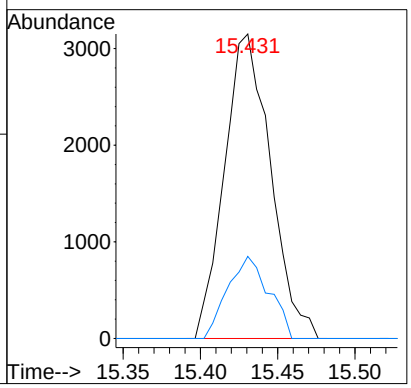


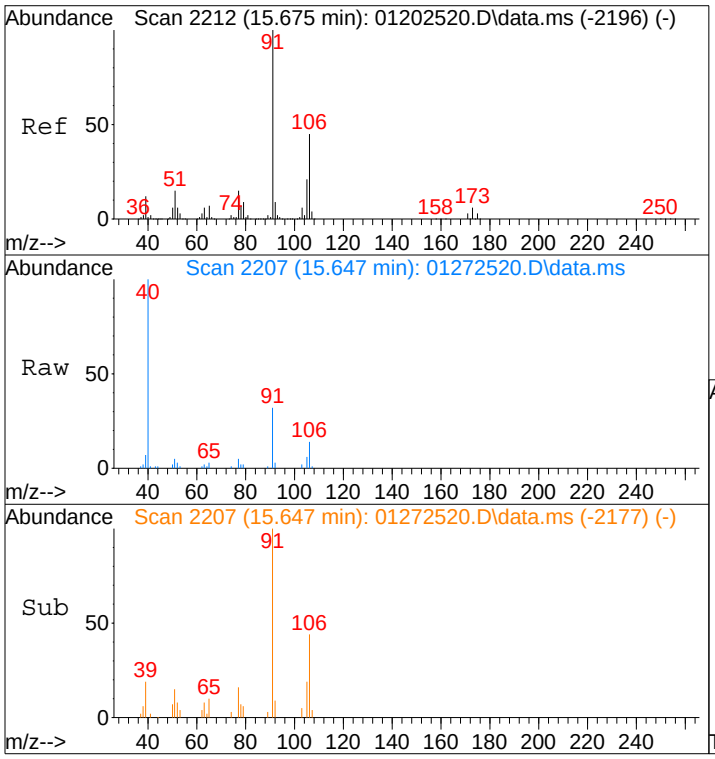


#66
Ethylbenzene
Concen: 0.09 ng
RT: 15.43 min Scan# 2169
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 91 Resp: 6550

Ion	Ratio	Lower	Upper
91	100		
106	24.1	8.2	48.2

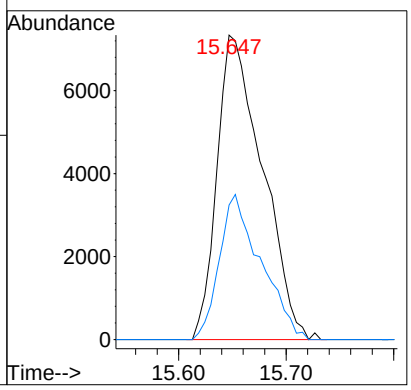


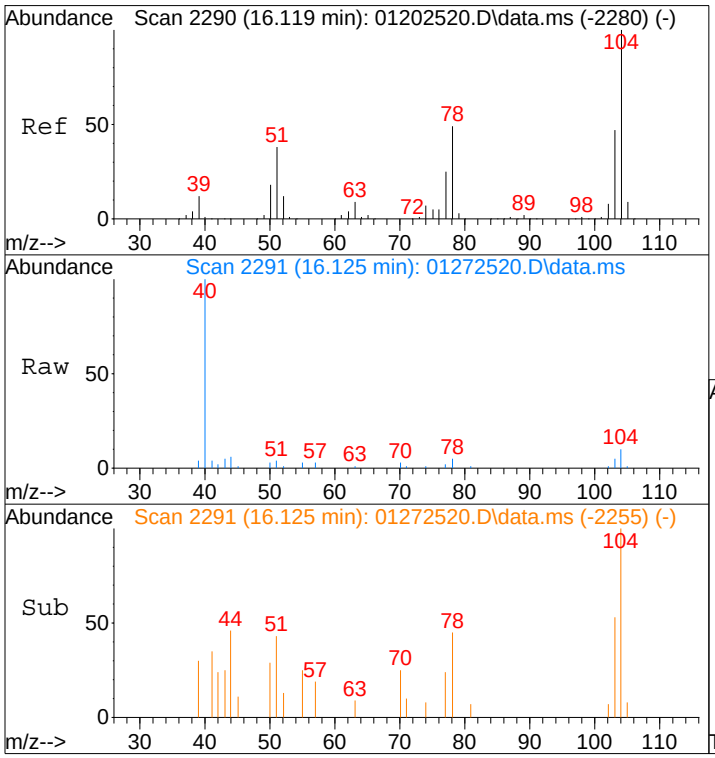


#67
m- & p-Xylenes
Concen: 0.39 ng
RT: 15.65 min Scan# 2207
Delta R.T. -0.029 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 91 Resp: 21533

Ion	Ratio	Lower	Upper
91	100		
106	43.6	24.7	64.7

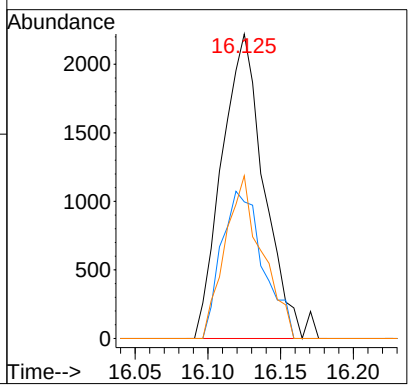


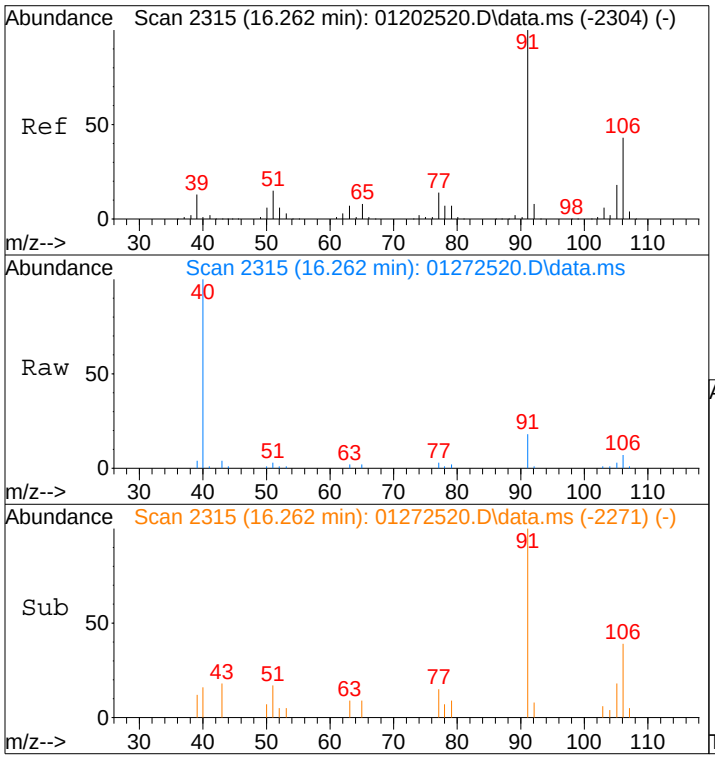


#69
Styrene
Concen: 0.12 ng
RT: 16.12 min Scan# 2291
Delta R.T. 0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:104 Resp: 4509

Ion	Ratio	Lower	Upper
104	100		
78	47.5	29.2	69.2
103	46.6	27.4	67.4

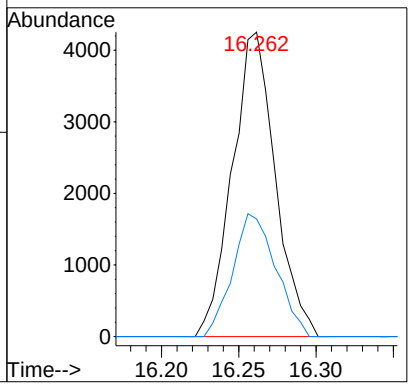


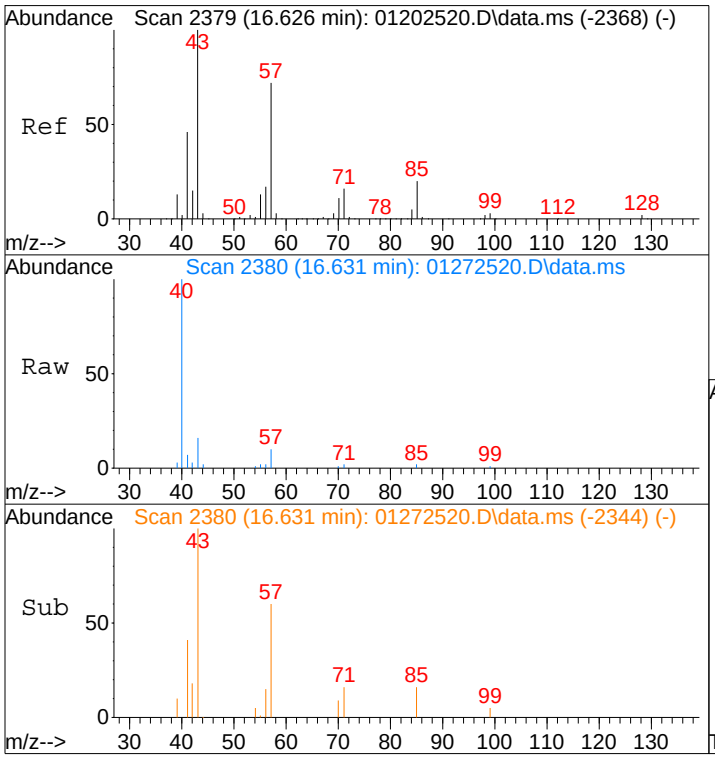


#70
o-Xylene
Concen: 0.15 ng
RT: 16.26 min Scan# 2315
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 91 Resp: 8241

Ion	Ratio	Lower	Upper
91	100		
106	40.5	23.3	63.3

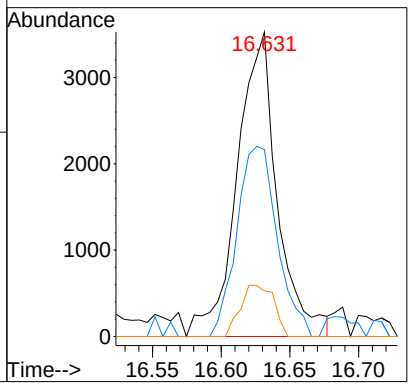


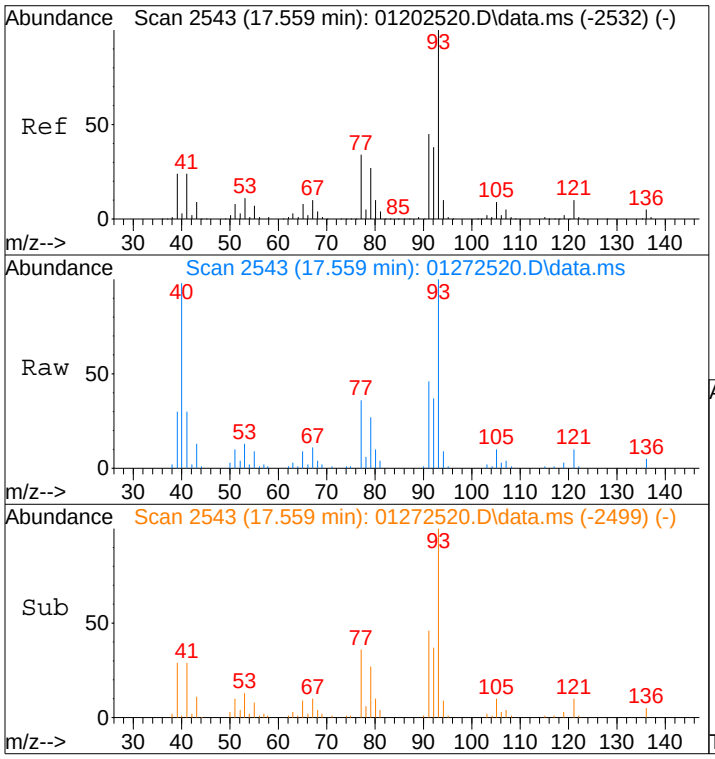


#71
n-Nonane
Concen: 0.15 ng
RT: 16.63 min Scan# 2380
Delta R.T. 0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 43 Resp: 7180

Ion	Ratio	Lower	Upper
43	100		
57	62.7	52.1	92.1
85	13.9	0.0	39.5

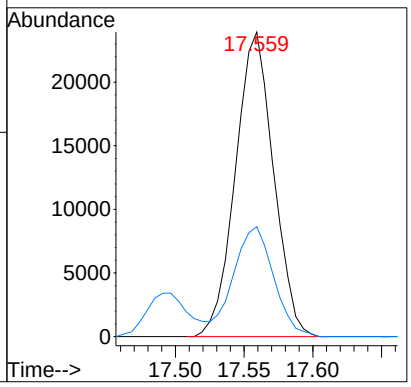


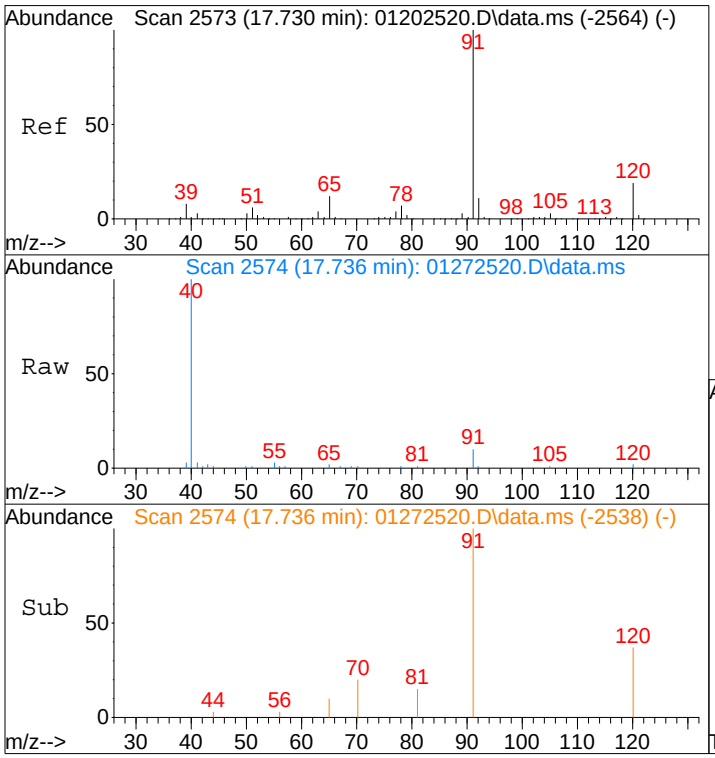


#75
alpha-Pinene
Concen: 1.48 ng
RT: 17.56 min Scan# 2543
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 93 Resp: 46123

Ion	Ratio	Lower	Upper
93	100		
77	37.9	14.1	54.1

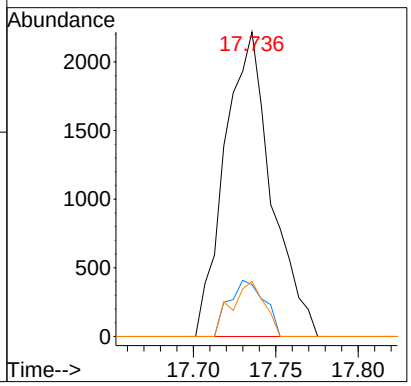


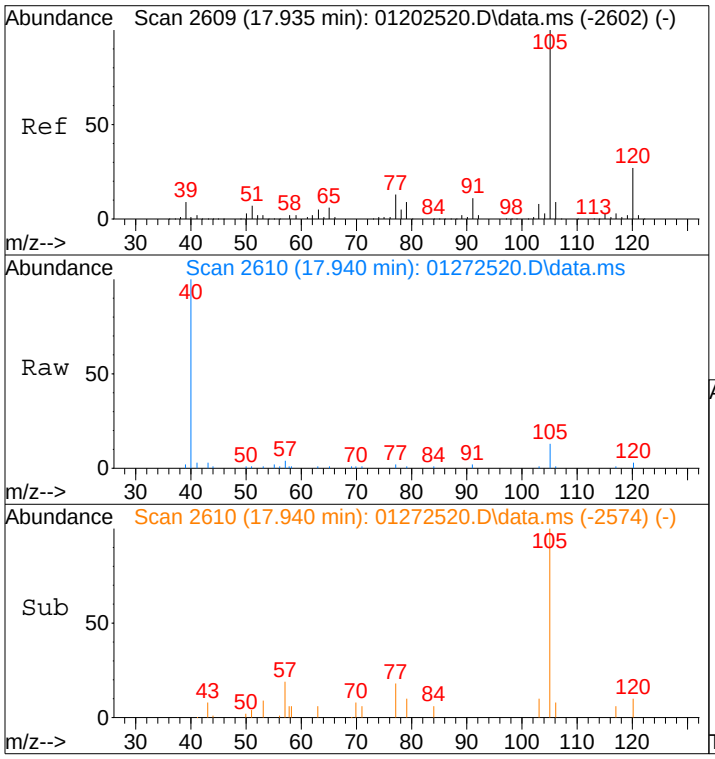


#76
n-Propylbenzene
Concen: 0.05 ng
RT: 17.74 min Scan# 2574
Delta R.T. 0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 91 Resp: 4356

Ion	Ratio	Lower	Upper
91	100		
120	14.2	0.0	39.2
65	12.8	0.0	32.4

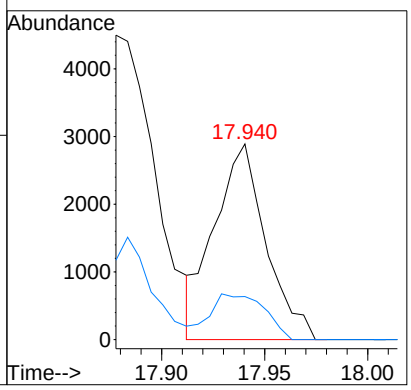


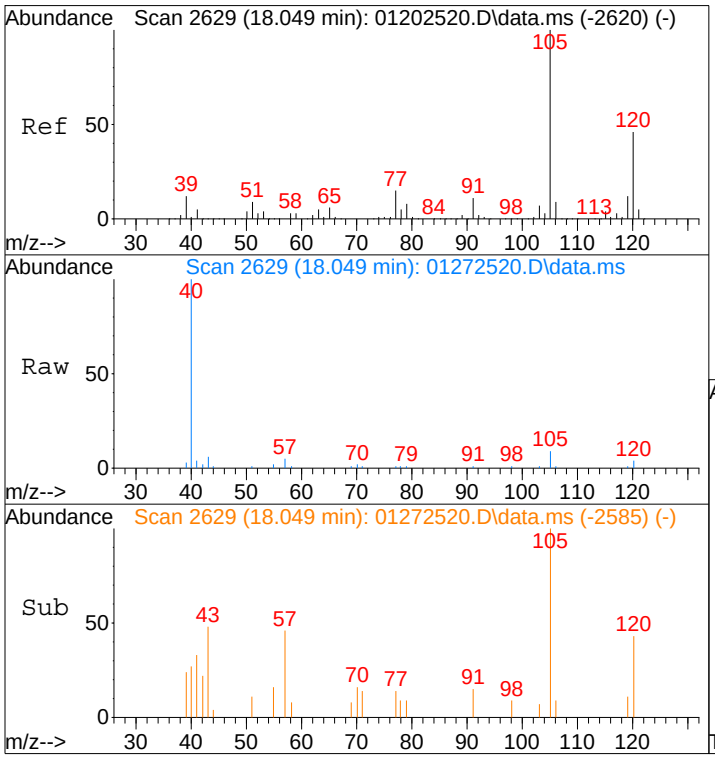


#78
4-Ethyltoluene
Concen: 0.09 ng
RT: 17.94 min Scan# 2610
Delta R.T. 0.006 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:105 Resp: 5026

Ion	Ratio	Lower	Upper
105	100		
120	24.9	7.6	47.6

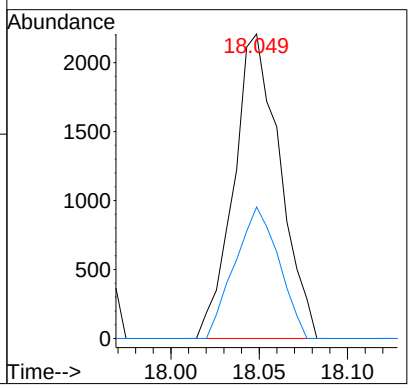


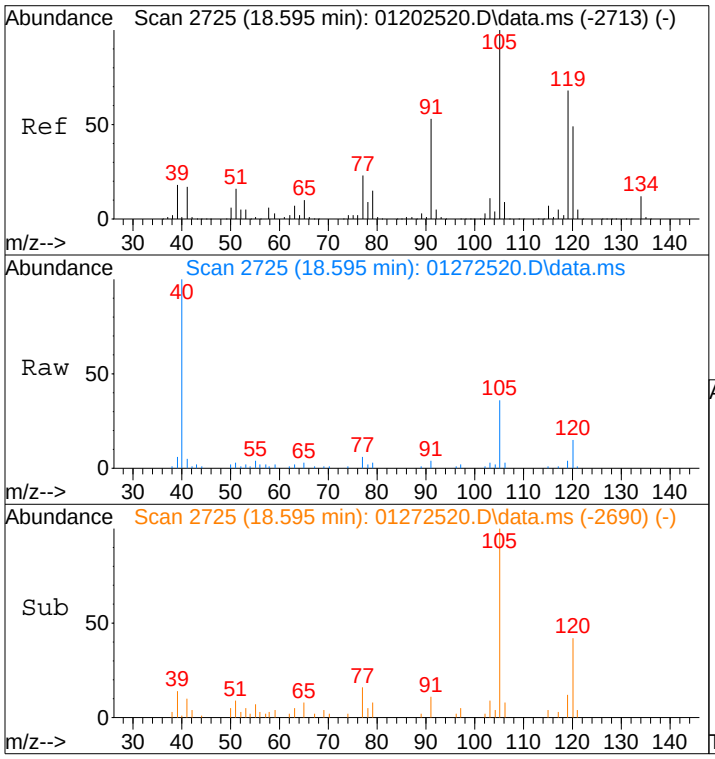


#79
1,3,5-Trimethylbenzene
Concen: 0.08 ng
RT: 18.05 min Scan# 2629
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:105 Resp: 4015

Ion	Ratio	Lower	Upper
105	100		
120	41.2	26.2	66.2

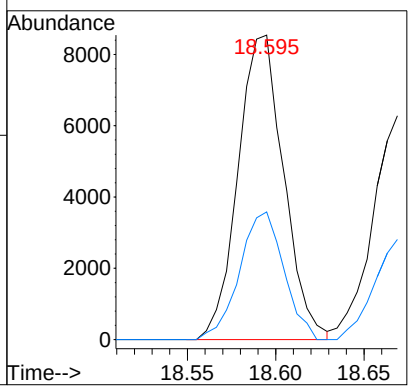


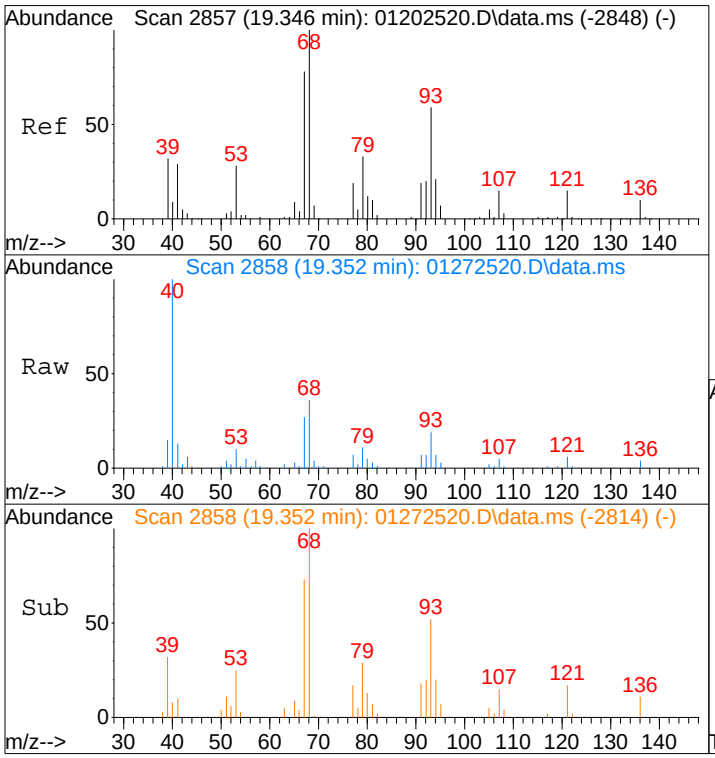


#82
1,2,4-Trimethylbenzene
Concen: 0.30 ng
RT: 18.59 min Scan# 2725
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:105 Resp: 15379

Ion	Ratio	Lower	Upper
105	100		
120	40.6	30.3	70.3

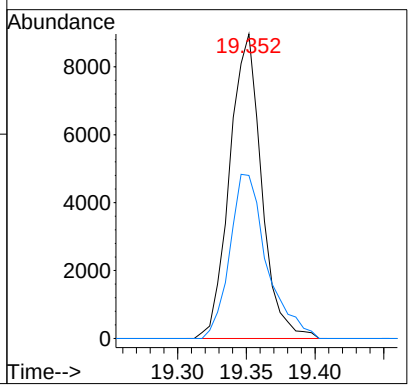


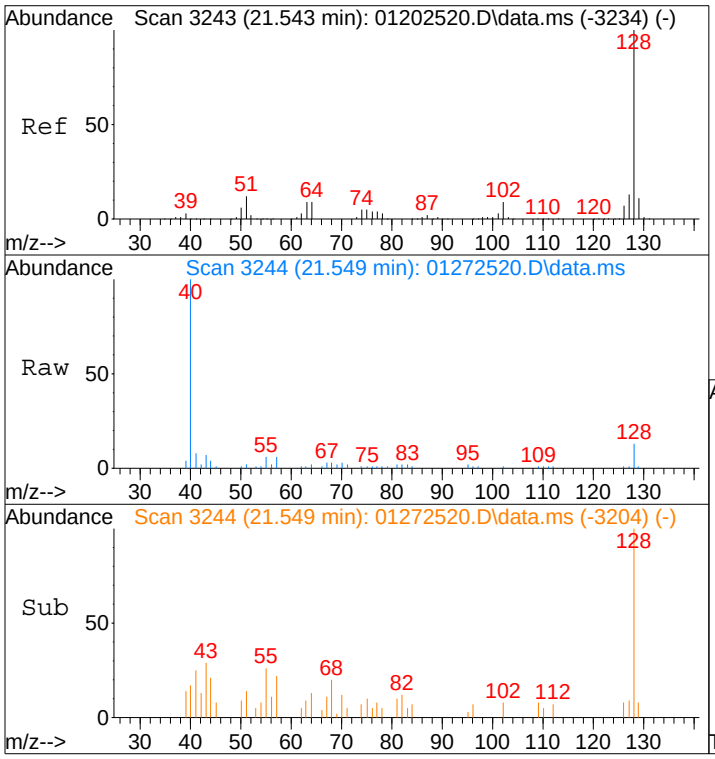


#91
d-Limonene
Concen: 0.65 ng
RT: 19.35 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion: 68 Resp: 14486

Ion	Ratio	Lower	Upper
68	100		
93	62.7	39.0	79.0

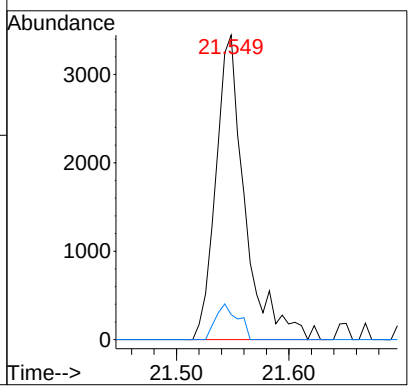




#95
Naphthalene
Concen: 0.14 ng
RT: 21.55 min Scan# 3244
Delta R.T. -0.022 min
Lab File: 01272520.D
Acq: 27 Jan 2025 21:24

Tgt Ion:128 Resp: 6228

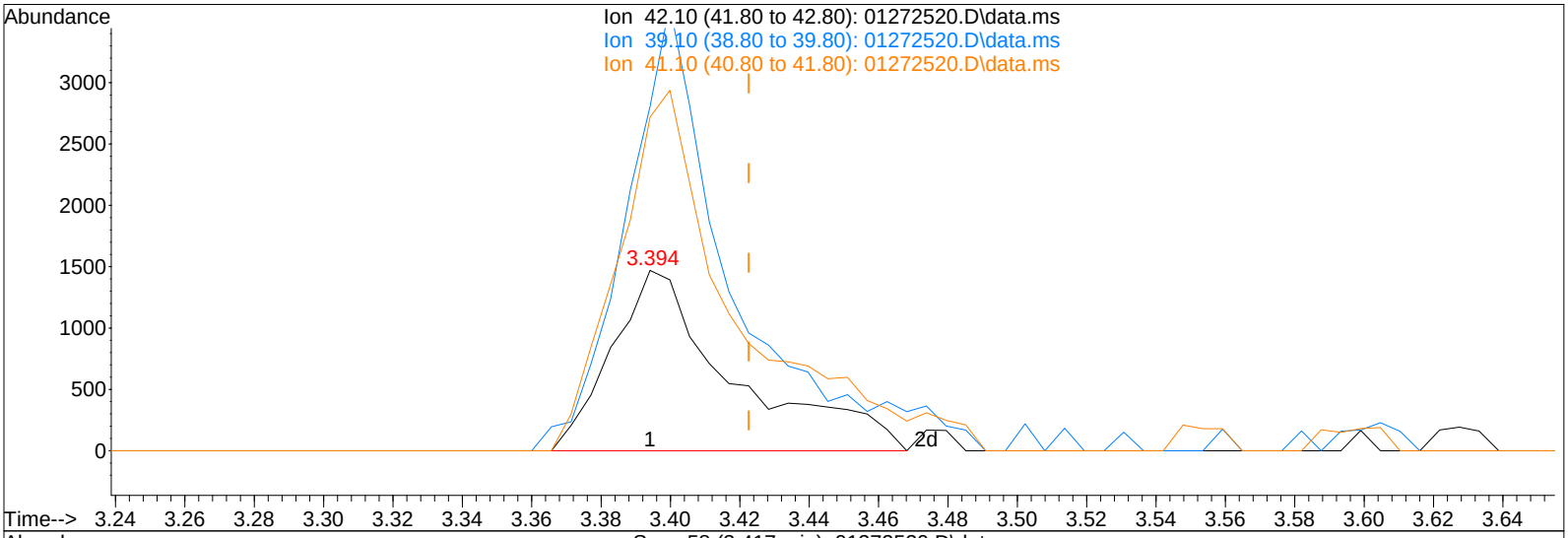
Ion	Ratio	Lower	Upper
128	100		
129	8.9	0.0	30.9

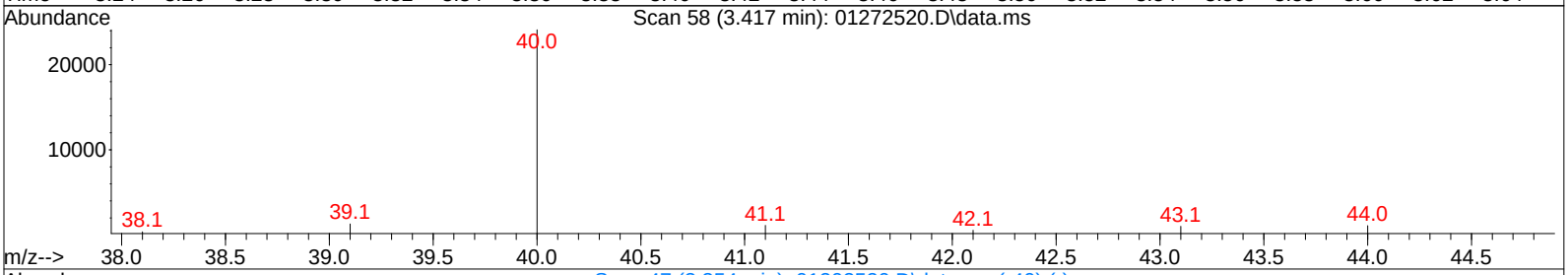


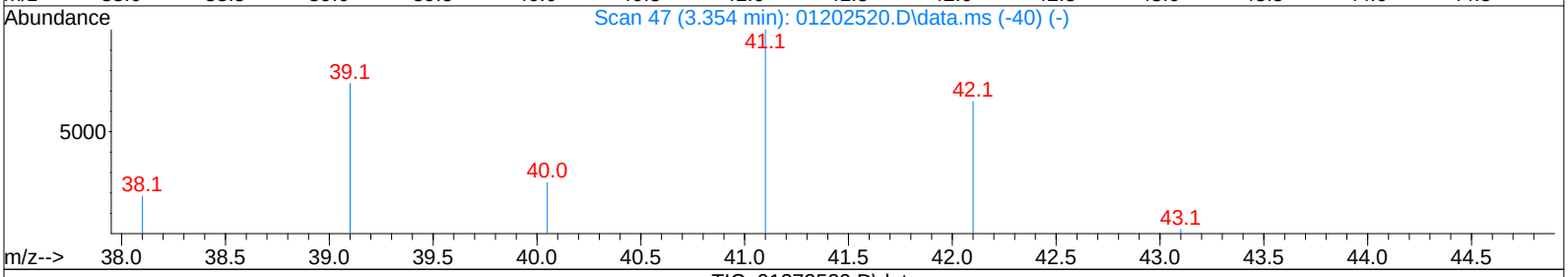
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 28 05:36:44 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01272520.D\data.ms

(2) Propene (T)

3.394min (-0.029) 0.15ng

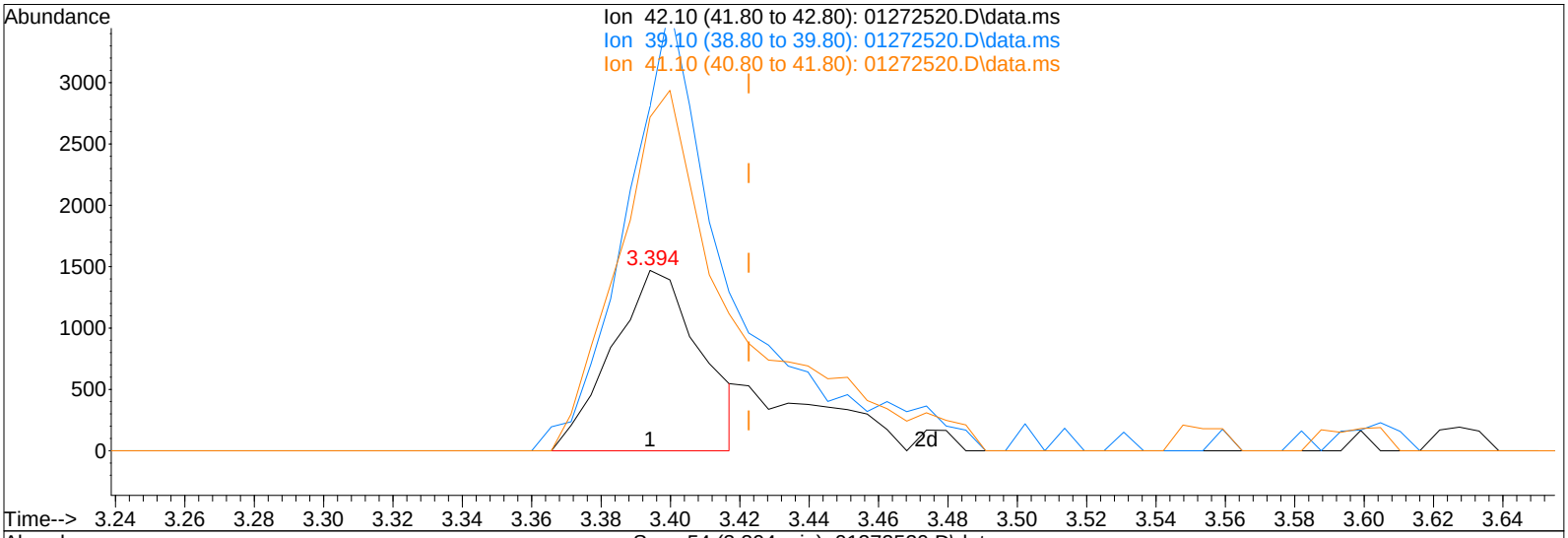
response 3555

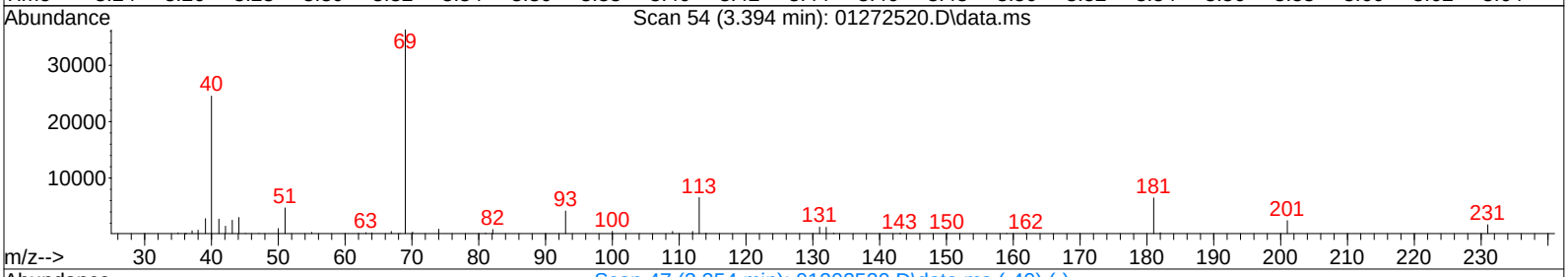
Ion	Exp%	Act%
42.10	100	100
39.10	114.30	218.03#
41.10	156.80	199.30#
0.00	0.00	0.00

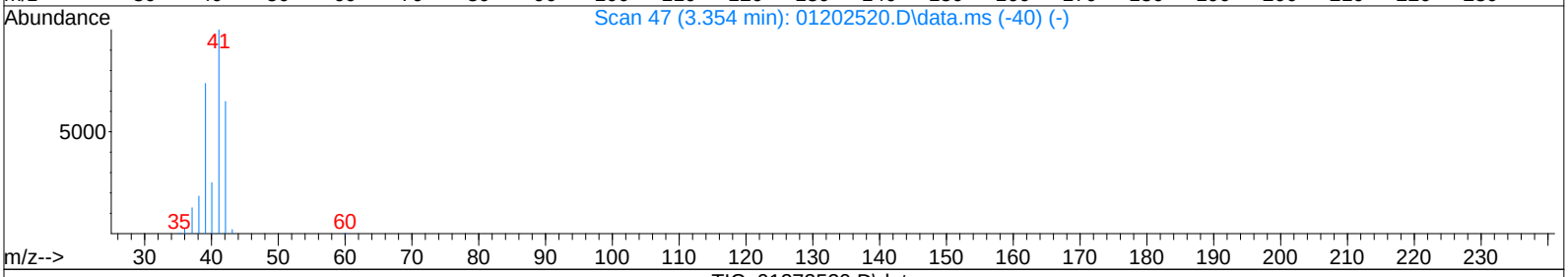
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 28 05:36:44 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01272520.D\data.ms

(2) Propene (T)

3.394min (-0.029) 0.11ng m

response 2601

Ion	Exp%	Act%
42.10	100	100
39.10	114.30	298.00#
41.10	156.80	272.40#
0.00	0.00	0.00

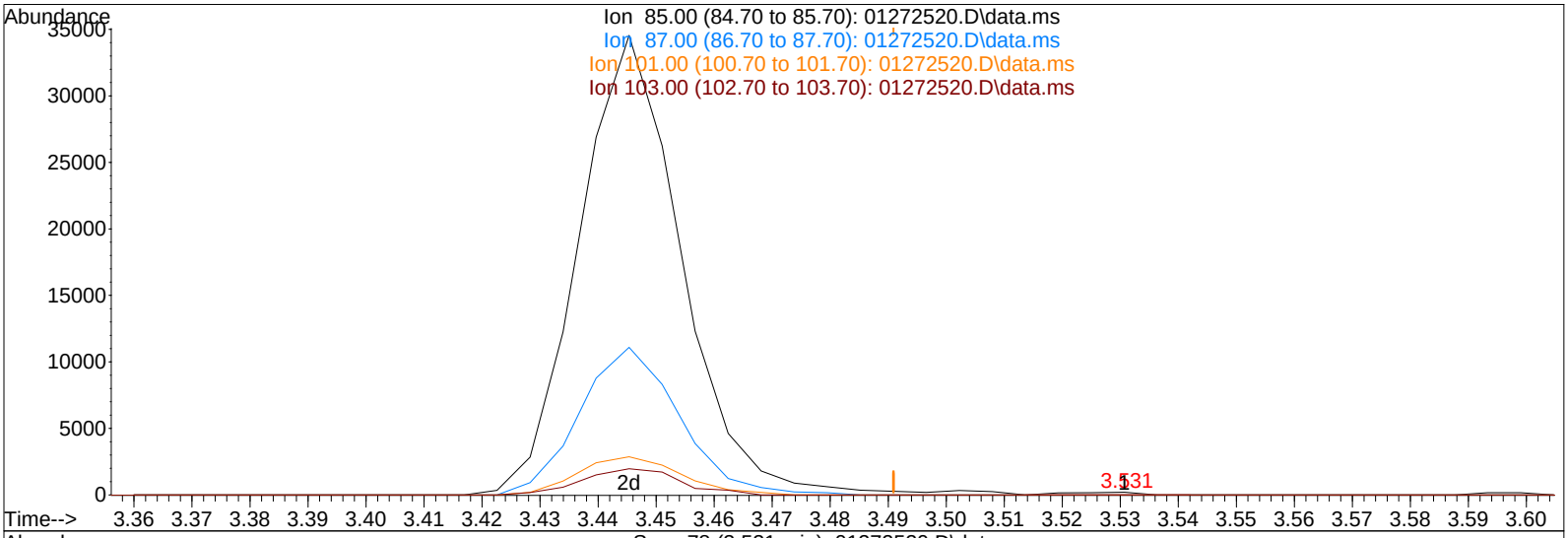
IPC

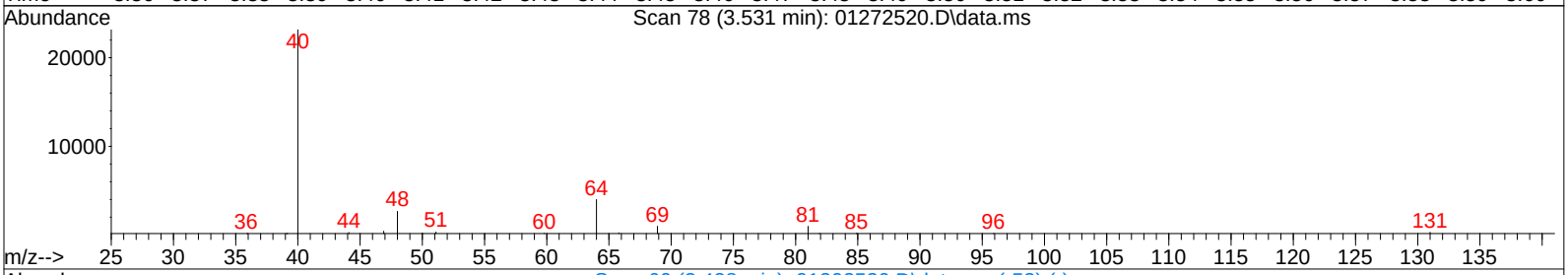
BCB 1/30/25

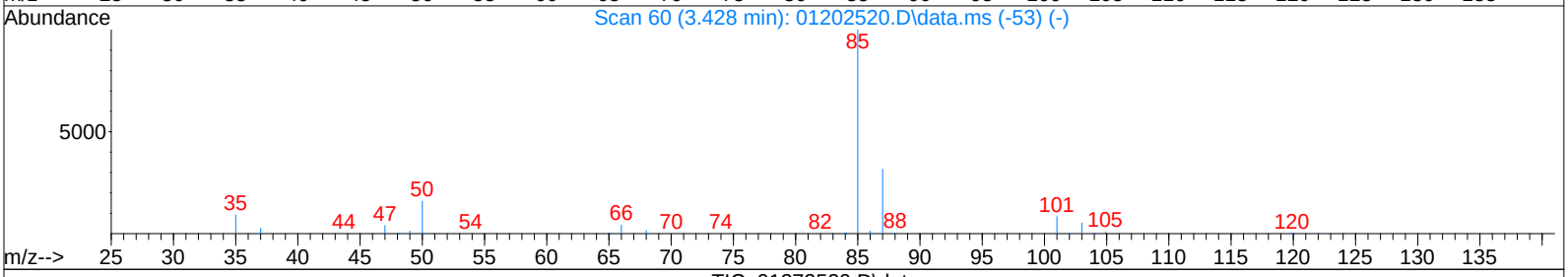
CG 1/31/25

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:53:36 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01272520.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

3.531min (+0.040) 0.01ng

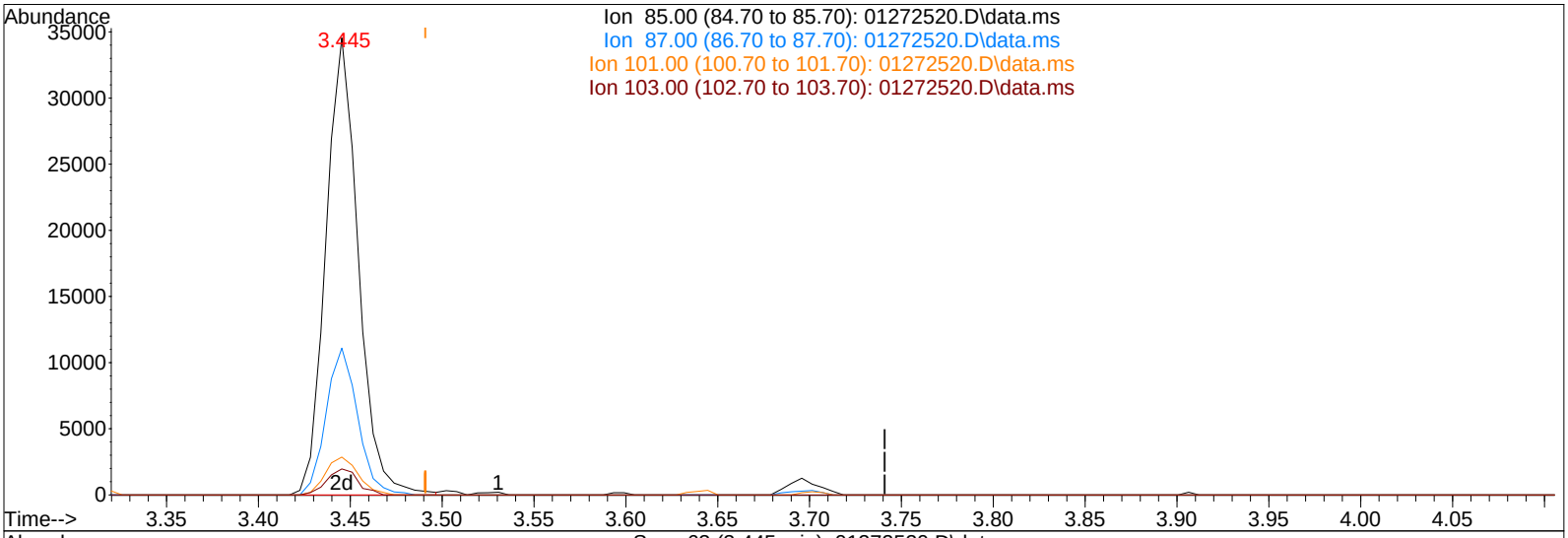
response 179

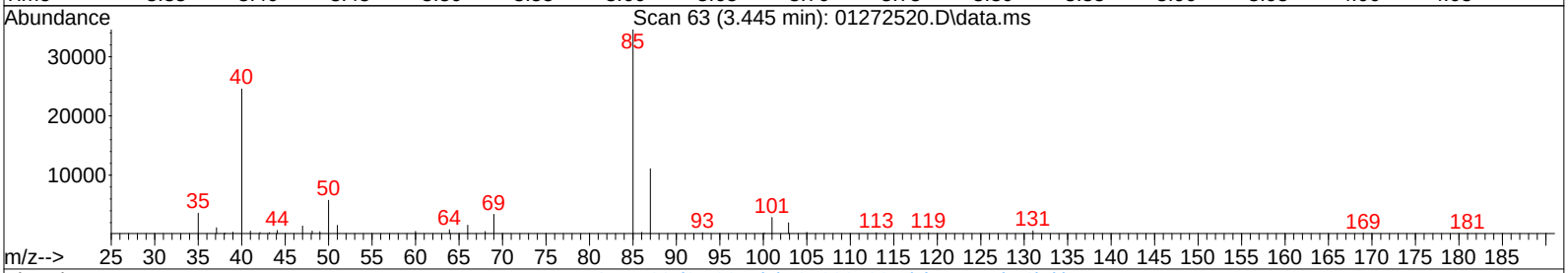
Ion	Exp%	Act%
85.00	100	100
87.00	32.20	0.00#
101.00	8.40	0.00
103.00	5.30	0.00

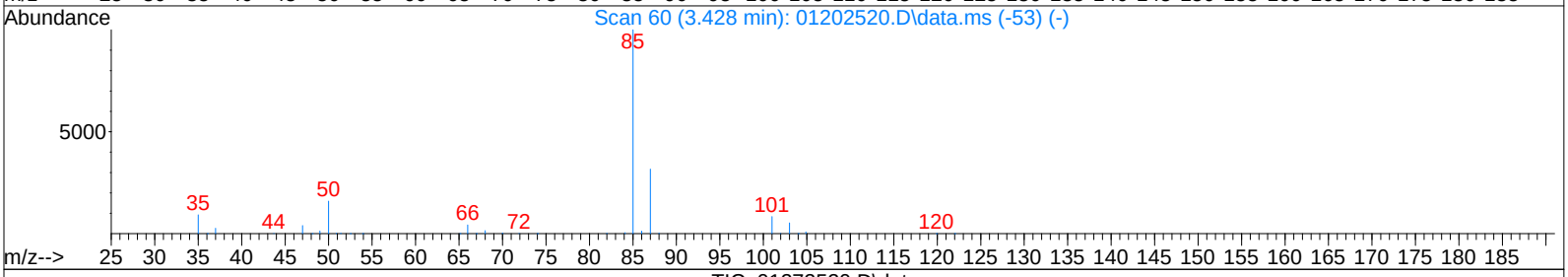
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 12:53:36 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01272520.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

3.445min (-0.046) 1.67ng m

response 42407

Ion	Exp%	Act%
85.00	100	100
87.00	32.20	0.00#
101.00	8.40	0.00
103.00	5.30	0.00

MP

1/31/25

1/31/25

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 15:10:42 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

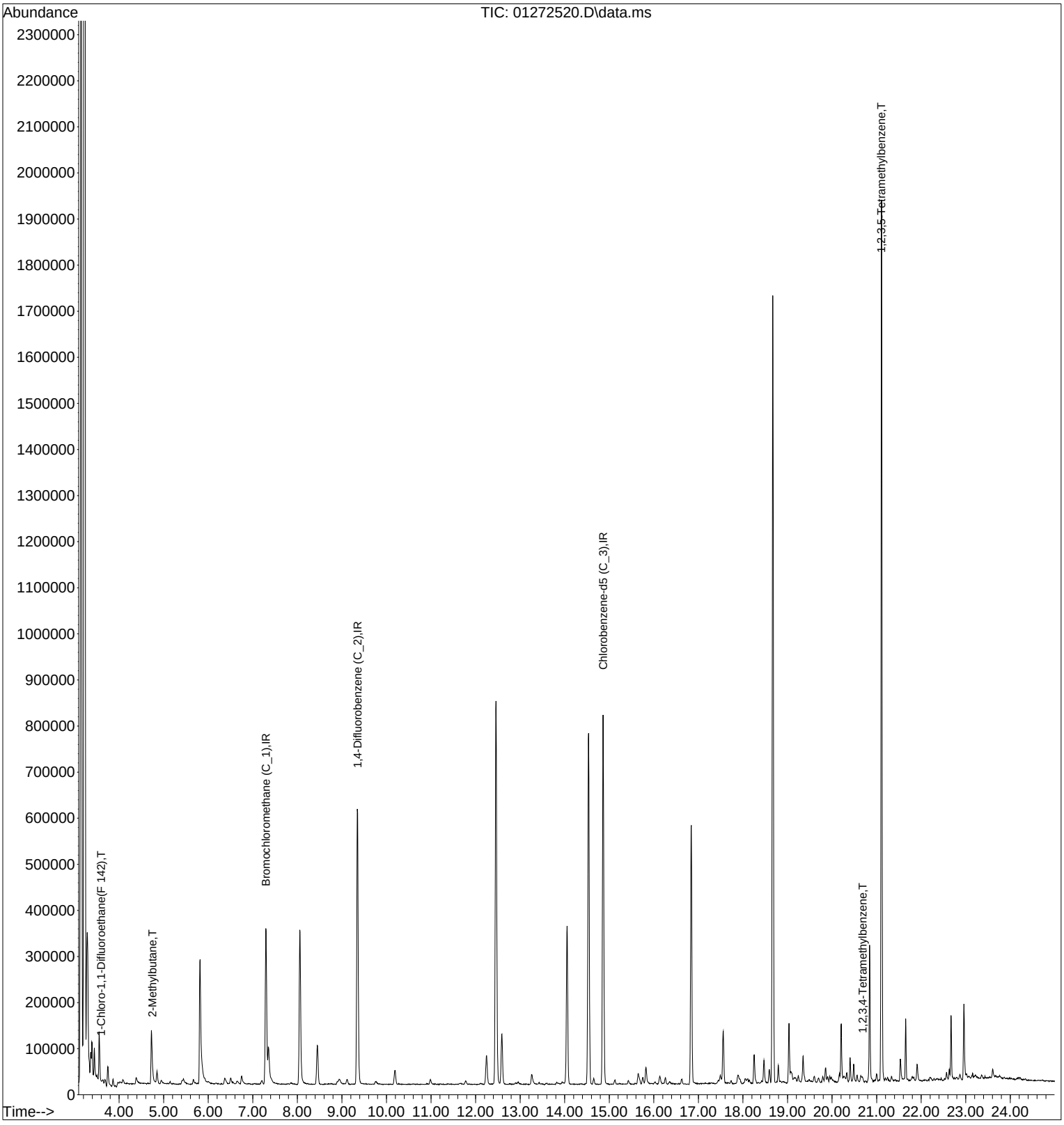
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	102176	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	485271	12.500	ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	158764	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.23	85	341	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D.	d		
4) 1,1-Difluoroethane	3.36	65	369	N.D.			
5) Chlorodifluoromethane ...	0.00	67	0	N.D.	d		
6) 1-Chloro-1,1-Difluoroe...	3.60	65	1814	0.062	ng	#	84
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.75	57	2560	0.164	ng	#	1
11) Methyl Acetate	0.00	43	0	N.D.	d		
12) 2-Methylpentane	6.57	71	175	N.D.			
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.11	84	1091	N.D.			
17) 2,3-Dimethylpentane	0.00	56	0	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.44	55	52	N.D.			
21) 1,3-Dichloropropane	12.59	76	278	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	16.36	75	543	N.D.			
25) Bromobenzene	0.00	77	0	N.D.			
26) 2-Chlorotoluene	0.00	91	0	N.D.	d		
27) 4-Chlorotoluene	0.00	91	0	N.D.	d		
28) Indane	19.39	117	1936	N.D.			
29) Indene	19.39	115	628	N.D.			
30) 1,2,4,5-Tetramethylben...	20.64	119	1667	N.D.			
31) 1,2,3,4-Tetramethylben...	20.69	119	3059	0.052	ng		90
32) 1,2,3,5-Tetramethylben...	21.10	119	8330	0.154	ng	#	83
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272520.D
Acq On : 27 Jan 2025 21:24
Operator : MC
Sample : P2500076-004 (1000mL)
Misc : S37-11222401
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 30 15:10:42 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG6A-IA** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-005

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS01460

Initial Pressure (psig): -3.31 Final Pressure (psig): 3.91

Container Dilution Factor: 1.63

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.34	0.093	ND	0.13	0.036	
75-35-4	1,1-Dichloroethene	ND	0.15	0.12	ND	0.037	0.030	
75-09-2	Methylene Chloride	**0.31**	0.75	0.24	**0.091**	0.22	0.070	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.34	0.12	ND	0.086	0.030	
75-34-3	1,1-Dichloroethane	ND	0.34	0.13	ND	0.085	0.031	
156-59-2	cis-1,2-Dichloroethene	ND	0.16	0.12	ND	0.041	0.031	
107-06-2	1,2-Dichloroethane	ND	0.16	0.096	ND	0.041	0.024	
71-55-6	1,1,1-Trichloroethane	ND	0.17	0.11	ND	0.031	0.020	
56-23-5	Carbon Tetrachloride	**0.46**	0.17	0.12	**0.073**	0.026	0.019	
79-01-6	Trichloroethene	**1.0**	0.17	0.12	**0.19**	0.032	0.022	
127-18-4	Tetrachloroethene	**0.23**	0.18	0.11	**0.035**	0.026	0.017	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 12:59:26 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	101700	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	481674	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	156013	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	279012	15.243	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.92%				
57) Toluene-d8 (SS2)	12.46	98	610802	10.784	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.24%				
73) Bromofluorobenzene (SS3)	16.84	174	141999	9.806	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.48%				
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D. d			
3) Dichlorodifluoromethan...	3.46	85	38149	1.507	ng		99
4) Chloromethane	3.60	50	7662	0.323	ng		89
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D. d			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	3.92	54	579	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.38	45	26789	1.700	ng		97
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.66	56	787	0.067	ng	#	69
13) Acetone	4.73	58	31185	2.752	ng	#	70
14) Trichlorofluoromethane	4.86	101	16632	0.813	ng		97
15) 2-Propanol (Isopropanol)	4.94	45	9919	0.195	ng	#	58
16) Acrylonitrile	5.14	53	275	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	5.43	59	1038	N.D.			
19) Methylene Chloride	5.44	84	2564	0.193	ng	#	71
20) 3-Chloro-1-propene (Al...	5.49	41	512	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2422	0.299	ng		88
22) Carbon Disulfide	5.71	76	20511	0.396	ng		95
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	6.39	63	504	N.D.			
25) Methyl tert-Butyl Ether	6.38	73	1246	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	6.75	72	5003	0.585	ng	#	70
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	7.36	61	12295	2.248	ng		86
31) n-Hexane	7.37	57	4823	0.186	ng	#	97
32) Chloroform	7.42	83	1899	0.087	ng		98
34) Tetrahydrofuran (THF)	7.86	72	171	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	8.17	62	828	N.D.			
38) 1,1,1-Trichloroethane	8.46	97	955	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.91	56	7426	No Calib		#	
41) Benzene	8.95	78	45492	0.801	ng		99
42) Carbon Tetrachloride	9.11	117	4694	0.281	ng		98
43) Cyclohexane	9.28	84	646	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	10.19	130	7220	0.634	ng		99
48) 1,4-Dioxane	0.00	88	0	N.D.			

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:59:26 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

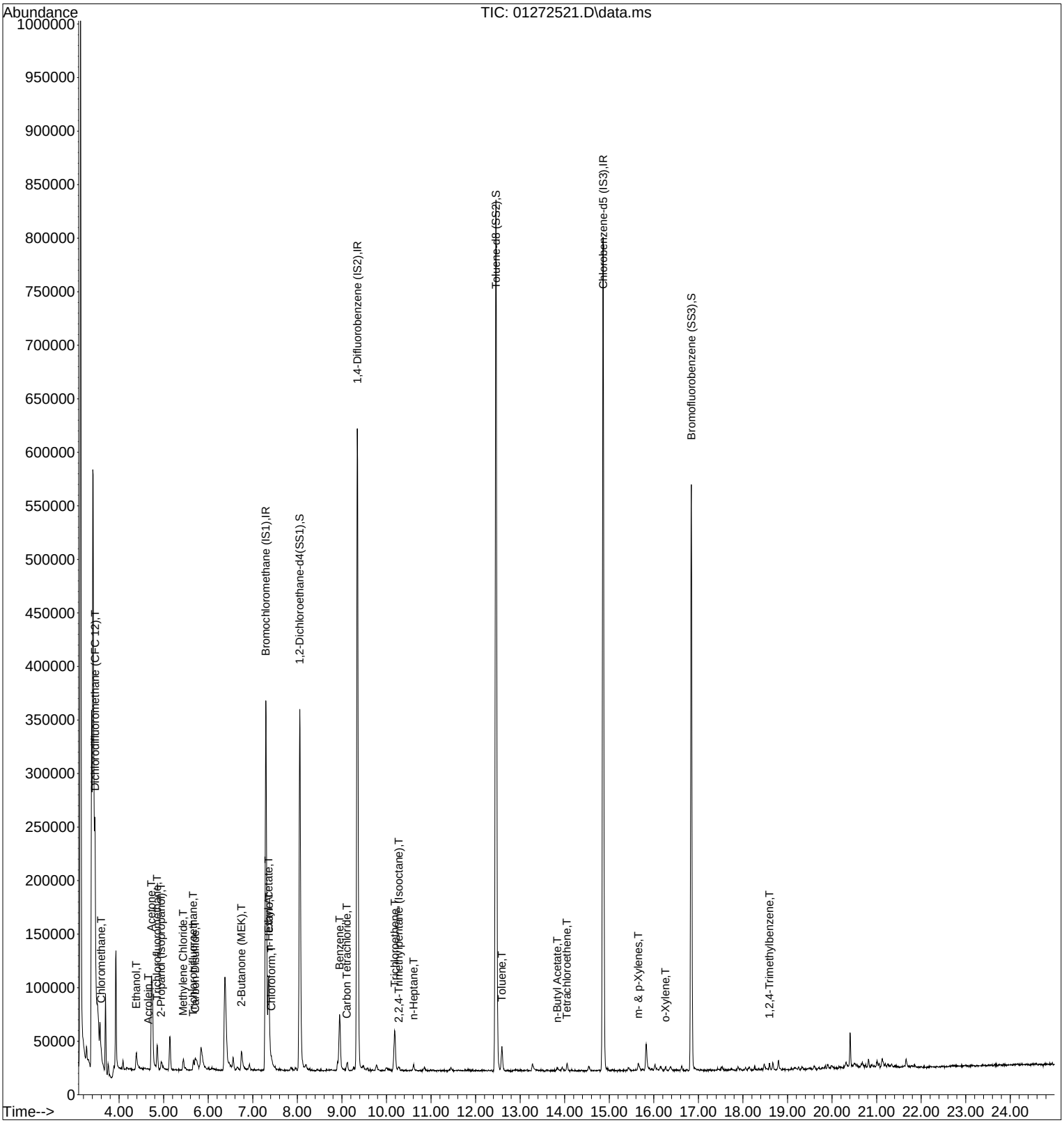
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.27	57	4311	0.062 ng		82
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	10.61	71	782	0.056 ng	#	78
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	16995	0.284 ng		100
59) 2-Hexanone	12.96	43	565	N.D.		
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.83	43	4352	0.084 ng	#	85
63) n-Octane	13.95	57	418	N.D.		
64) Tetrachloroethene	14.05	166	1973	0.144 ng		90
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	15.43	91	2793	N.D.		
67) m- & p-Xylenes	15.65	91	6771	0.126 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	0.00	104	0	N.D.		
70) o-Xylene	16.26	91	2954	0.055 ng		88
71) n-Nonane	16.63	43	2290	N.D.		
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	17.05	105	199	N.D.		
75) alpha-Pinene	0.00	93	0	N.D.		
76) n-Propylbenzene	17.74	91	971	N.D.		
77) 3-Ethyltoluene	17.05	105	199	No Calib	#	
78) 4-Ethyltoluene	17.94	105	1108	N.D.		
79) 1,3,5-Trimethylbenzene	18.06	105	1159	N.D.		
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	199	No Calib	#	
82) 1,2,4-Trimethylbenzene	18.59	105	3194	0.063 ng		87
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	0.00	91	0	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.		
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.		
87) sec-Butylbenzene	0.00	105	0	N.D.		
88) 4-Isopropyltoluene (p-...	19.16	119	1198	N.D.		
89) 1,2,3-Trimethylbenzene	17.05	105	199	No Calib	#	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	0.00	68	0	N.D.		
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	0.00	58	0	N.D.		
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	21.59	128	192	N.D.		
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.61	119	310	N.D.		
100) n-Butylbenzene	19.70	91	687	N.D.		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:59:26 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
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Data Path : I:\MS13\DATA\2025 01\27\
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BCB 1/31/25

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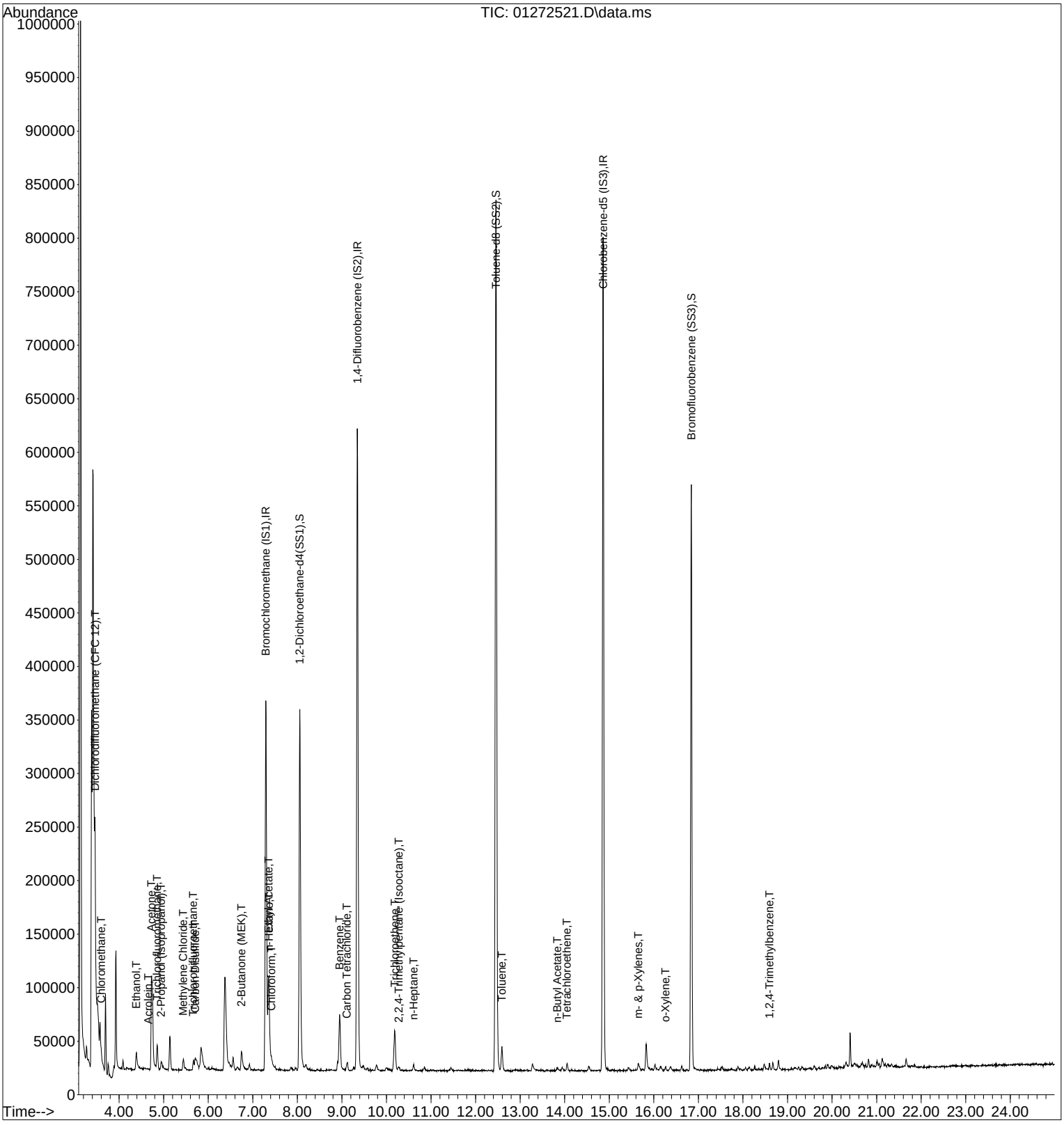
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1) Bromochloromethane (IS1)	7.29	130	101700	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	481674	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	156013	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	279012	15.243	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.92%				
57) Toluene-d8 (SS2)	12.46	98	610802	10.784	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.24%				
73) Bromofluorobenzene (SS3)	16.84	174	141999	9.806	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.48%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.46	85	38149	1.507	ng		99
4) Chloromethane	3.60	50	7662	0.323	ng		89
10) Ethanol	4.38	45	26789	1.700	ng		97
12) Acrolein	4.66	56	787	0.067	ng	#	69
13) Acetone	4.73	58	31185	2.752	ng	#	70
14) Trichlorofluoromethane	4.86	101	16632	0.813	ng		97
15) 2-Propanol (Isopropanol)	4.94	45	9919	0.195	ng	#	58
19) Methylene Chloride	5.44	84	2564	0.193	ng	#	71
21) Trichlorotrifluoroethane	5.66	151	2422	0.299	ng		88
22) Carbon Disulfide	5.71	76	20511	0.396	ng		95
27) 2-Butanone (MEK)	6.75	72	5003	0.585	ng	#	70
30) Ethyl Acetate	7.36	61	12295	2.248	ng		86
31) n-Hexane	7.37	57	4823	0.186	ng	#	97
32) Chloroform	7.42	83	1899	0.087	ng		98
41) Benzene	8.95	78	45492	0.801	ng		99
42) Carbon Tetrachloride	9.11	117	4694	0.281	ng		98
47) Trichloroethene	10.19	130	7220	0.634	ng		99
49) 2,2,4-Trimethylpentane...	10.27	57	4311	0.062	ng		82
51) n-Heptane	10.61	71	782	0.056	ng	#	78
58) Toluene	12.59	91	16995	0.284	ng		100
62) n-Butyl Acetate	13.83	43	4352	0.084	ng	#	85
64) Tetrachloroethene	14.05	166	1973	0.144	ng		90
67) m- & p-Xylenes	15.65	91	6771	0.126	ng		98
70) o-Xylene	16.26	91	2954	0.055	ng		88
82) 1,2,4-Trimethylbenzene	18.59	105	3194	0.063	ng		87

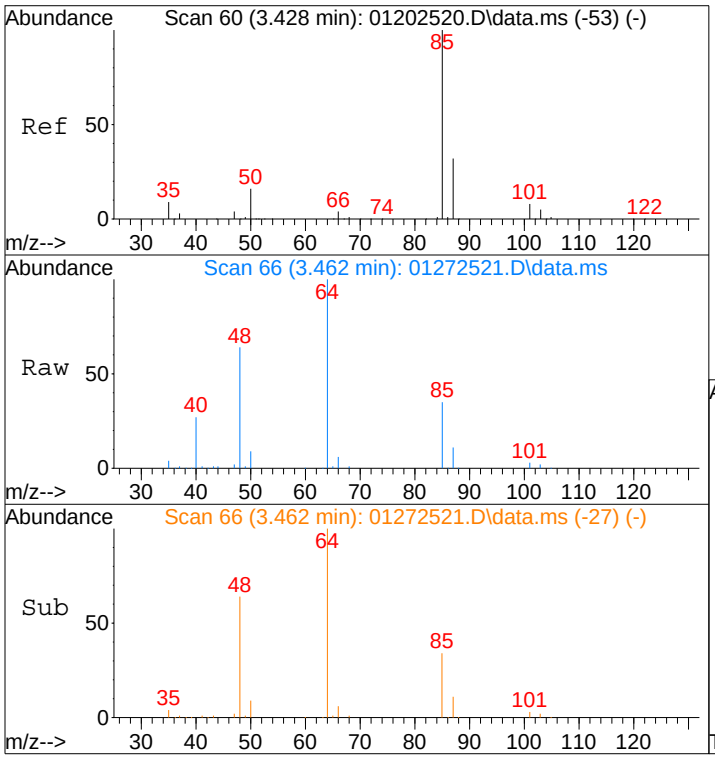
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 12:59:26 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

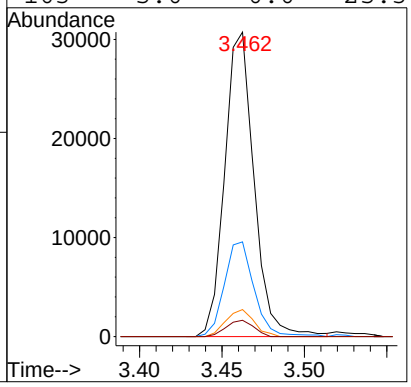


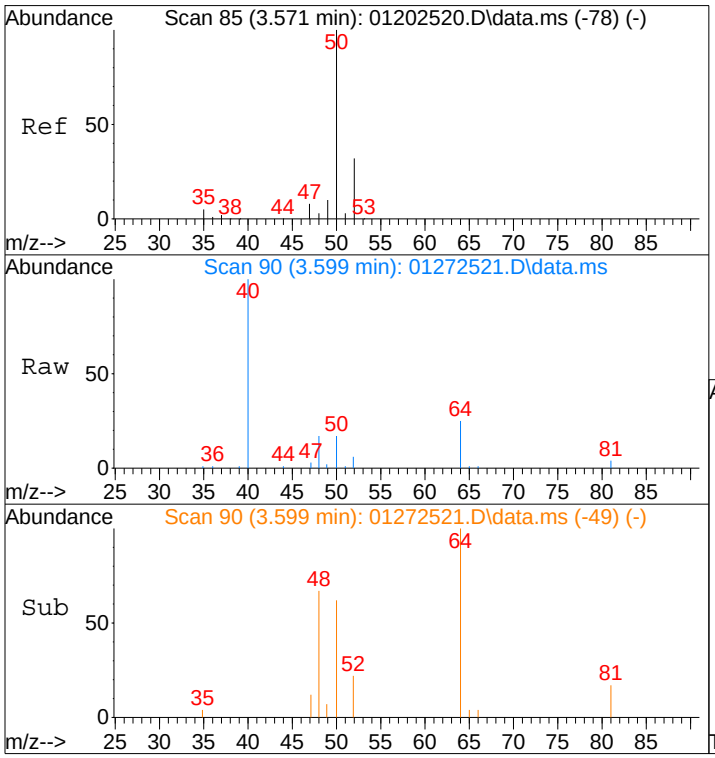


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.51 ng
RT: 3.46 min Scan# 66
Delta R.T. -0.028 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 85 Resp: 38149

Ion	Ratio	Lower	Upper
85	100		
87	31.5	12.2	52.2
101	8.5	0.0	28.4
103	5.0	0.0	25.3

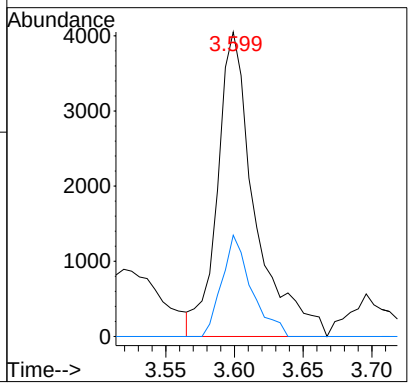


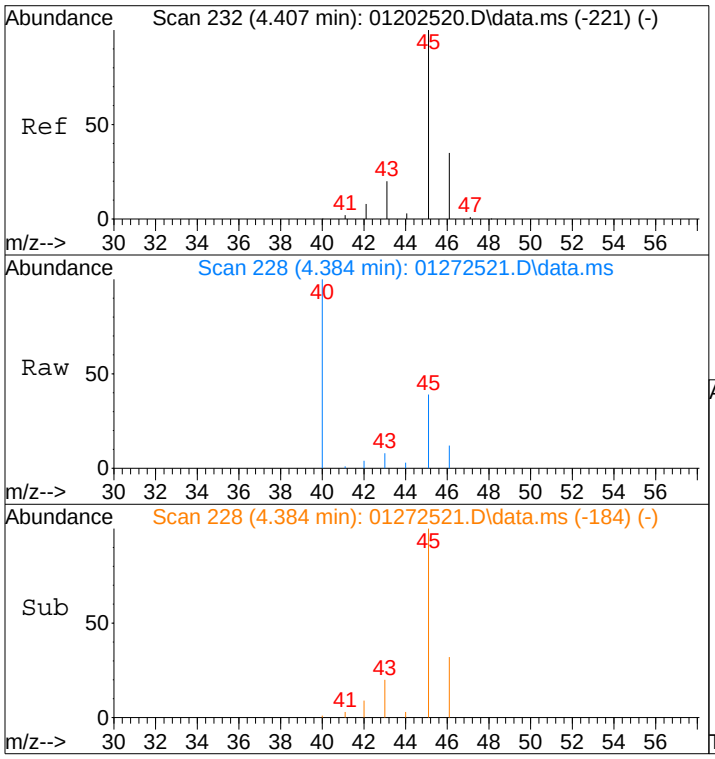


#4
Chloromethane
Concen: 0.32 ng
RT: 3.60 min Scan# 90
Delta R.T. -0.017 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 50 Resp: 7662

Ion	Ratio	Lower	Upper
50	100		
52	26.3	12.2	52.2

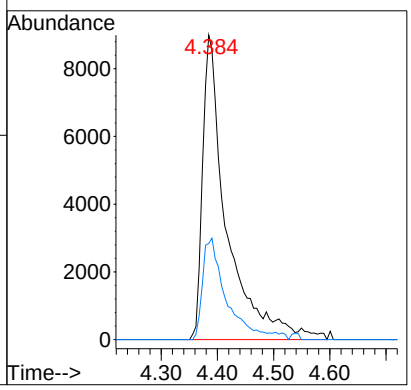


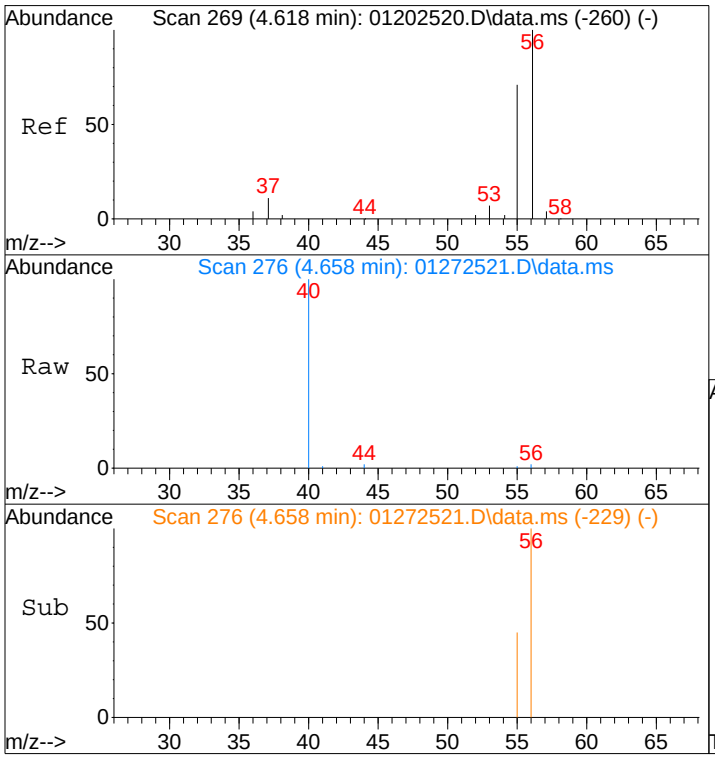


#10
Ethanol
Concen: 1.70 ng
RT: 4.38 min Scan# 228
Delta R.T. 0.000 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 45 Resp: 26789

Ion	Ratio	Lower	Upper
45	100		
46	33.2	15.0	55.0

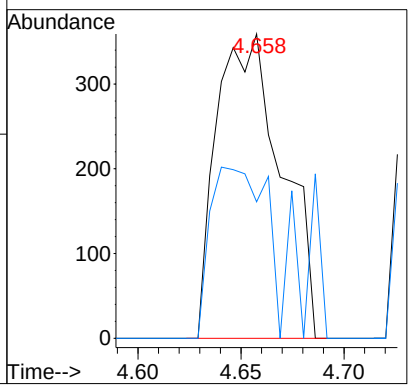


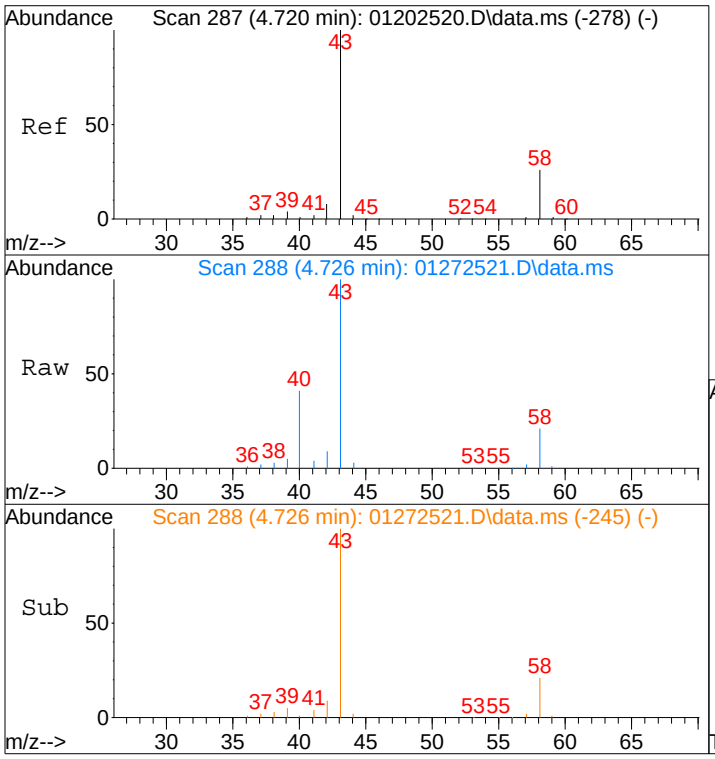


#12
Acrolein
Concen: 0.07 ng
RT: 4.66 min Scan# 276
Delta R.T. 0.017 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 56 Resp: 787

Ion	Ratio	Lower	Upper
56	100		
55	47.5	53.6	93.6#

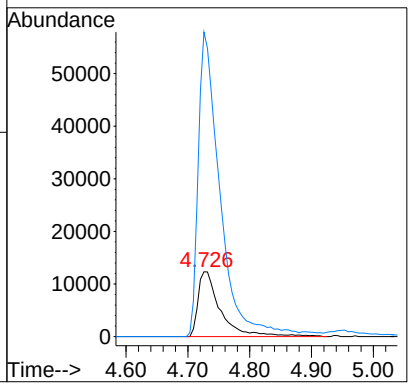


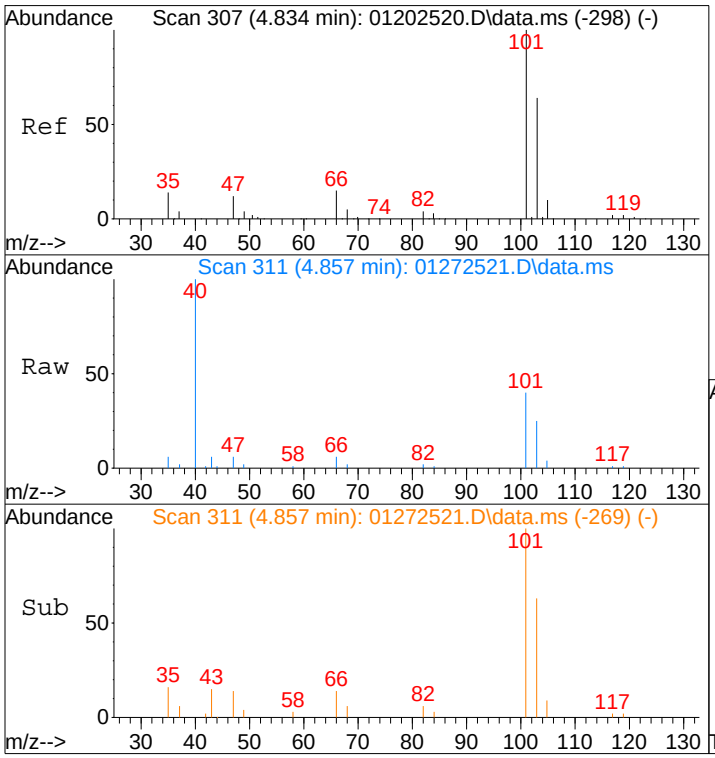


#13
Acetone
Concen: 2.75 ng
RT: 4.73 min Scan# 288
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 58 Resp: 31185

Ion	Ratio	Lower	Upper
58	100		
43	459.1	359.4	419.4#

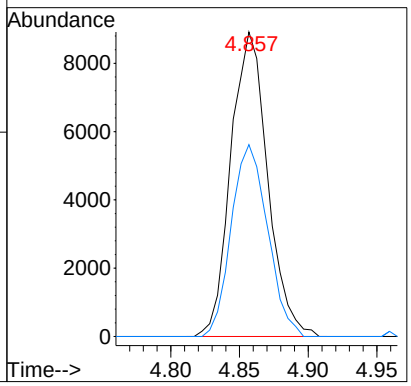


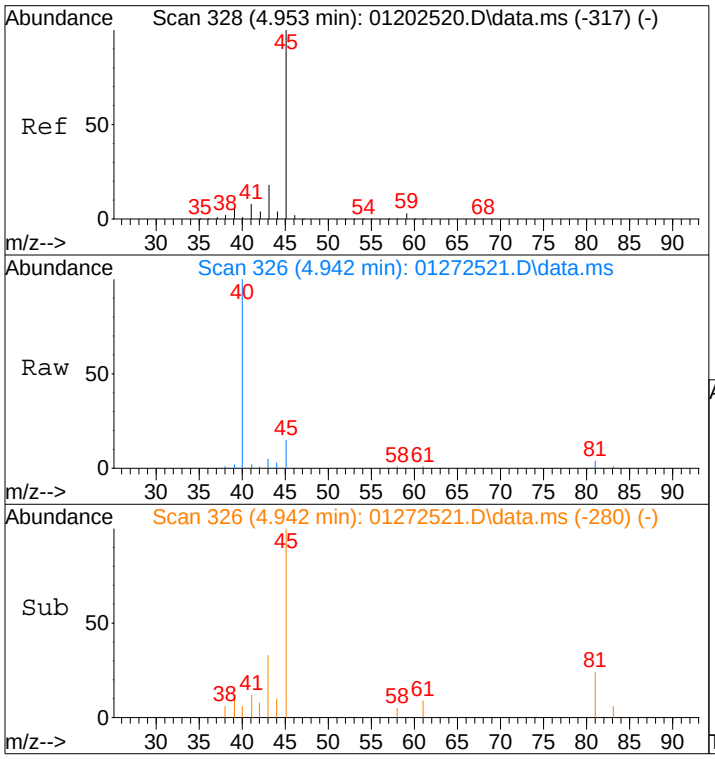


#14
Trichlorofluoromethane
Concen: 0.81 ng
RT: 4.86 min Scan# 311
Delta R.T. -0.011 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:101 Resp: 16632

Ion	Ratio	Lower	Upper
101	100		
103	62.1	44.2	84.2

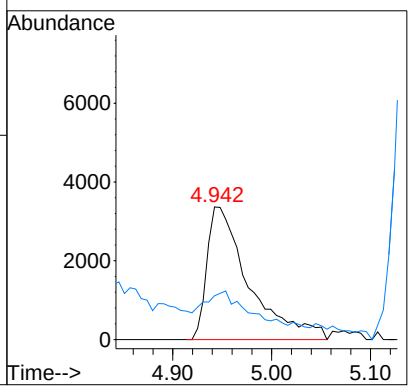


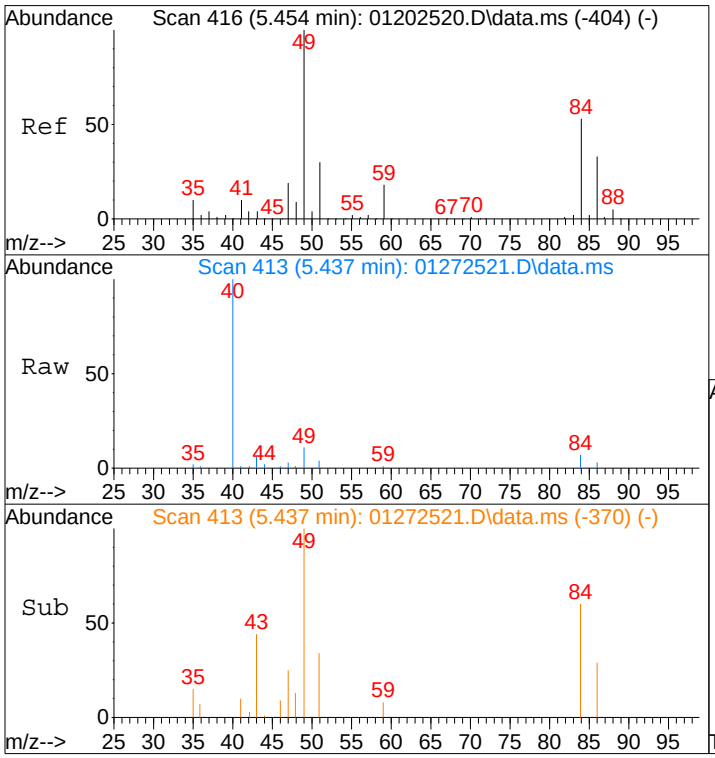


#15
2-Propanol (Isopropanol)
Concen: 0.19 ng
RT: 4.94 min Scan# 326
Delta R.T. 0.011 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 45 Resp: 9919

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

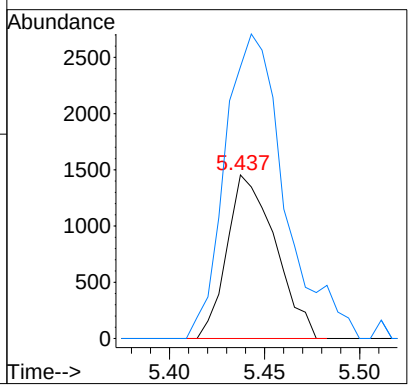


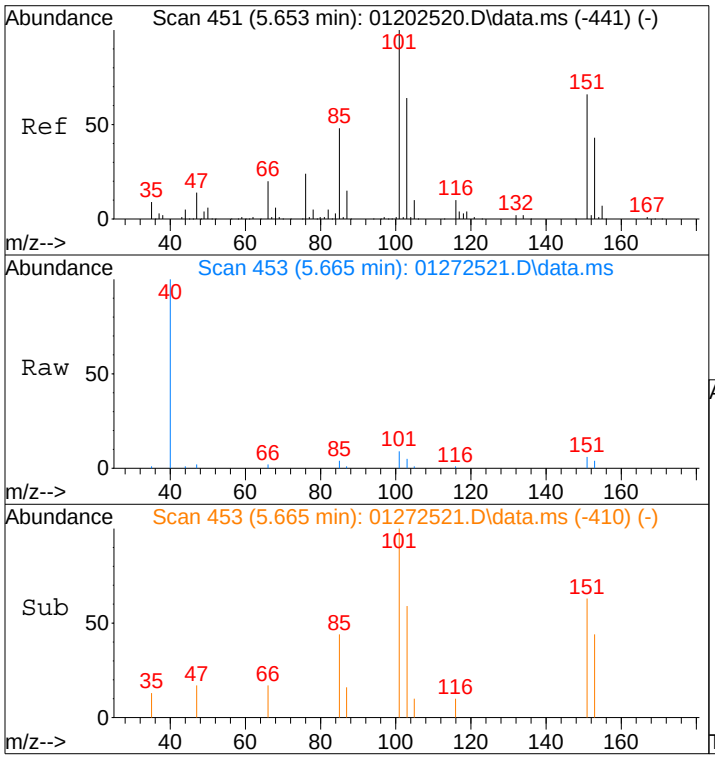


#19
Methylene Chloride
Concen: 0.19 ng
RT: 5.44 min Scan# 413
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 84 Resp: 2564

Ion	Ratio	Lower	Upper
84	100		
49	230.5	163.7	213.7#

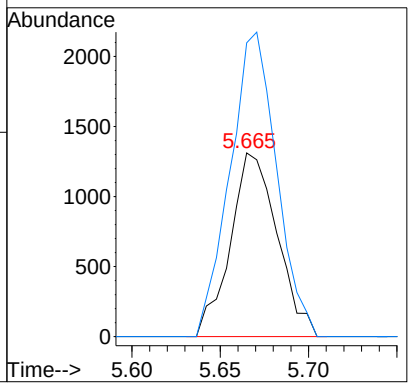


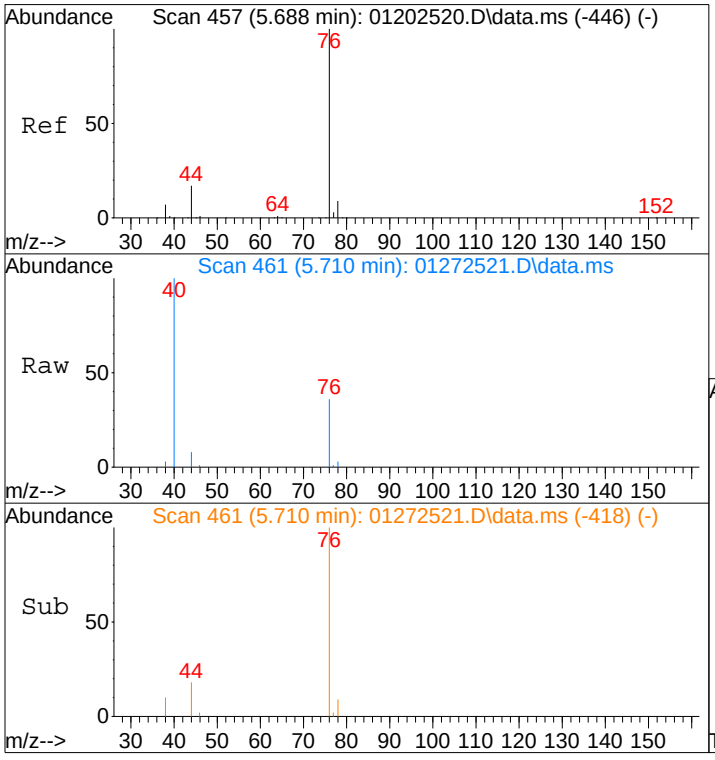


#21
Trichlorotrifluoroethane
Concen: 0.30 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:151 Resp: 2422

Ion	Ratio	Lower	Upper
151	100		
101	164.9	129.9	169.9

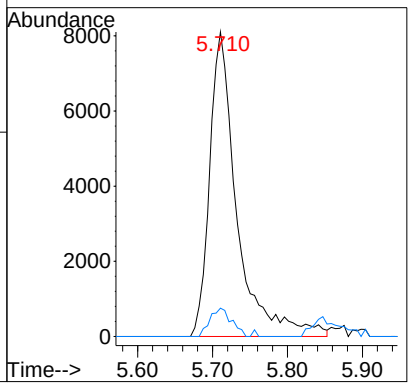


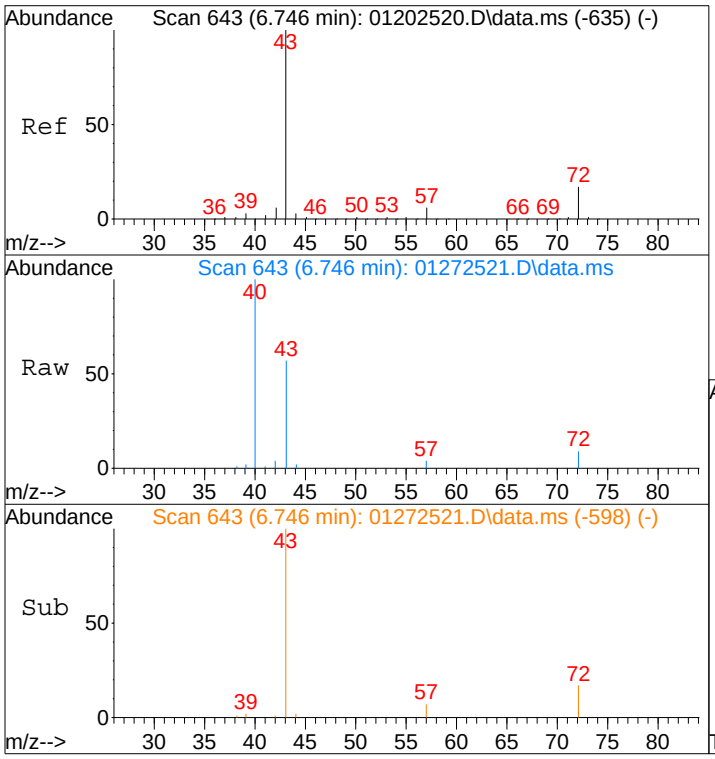


#22
Carbon Disulfide
Concen: 0.40 ng
RT: 5.71 min Scan# 461
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 76 Resp: 20511

Ion	Ratio	Lower	Upper
76	100		
78	7.3	0.0	29.1

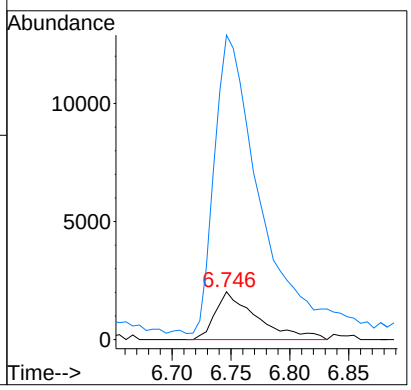


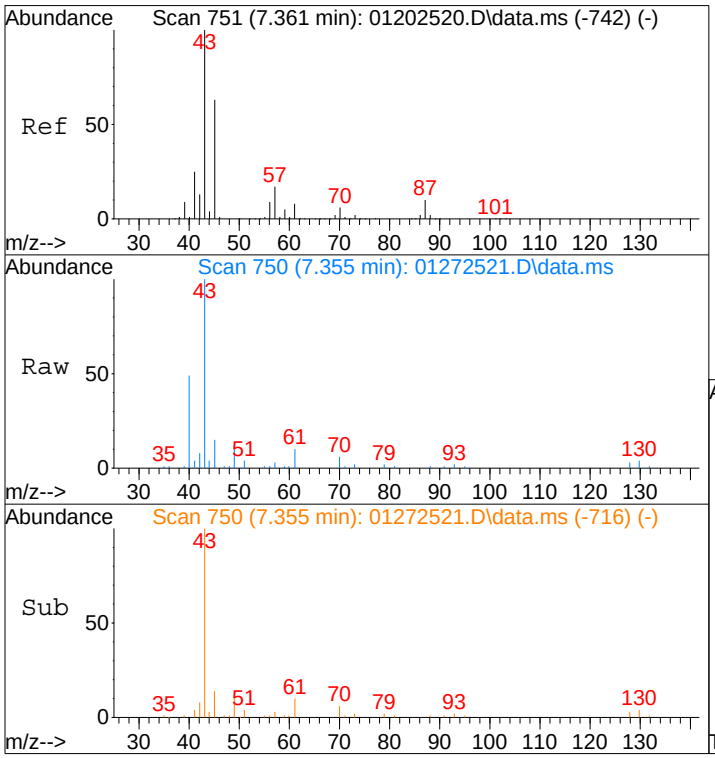


#27
2-Butanone (MEK)
Concen: 0.59 ng
RT: 6.75 min Scan# 643
Delta R.T. 0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 72 Resp: 5003

Ion	Ratio	Lower	Upper
72	100		
43	694.0	579.1	619.1#

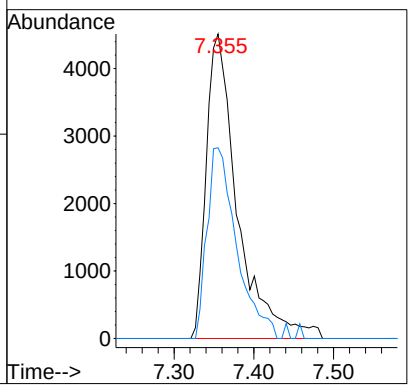


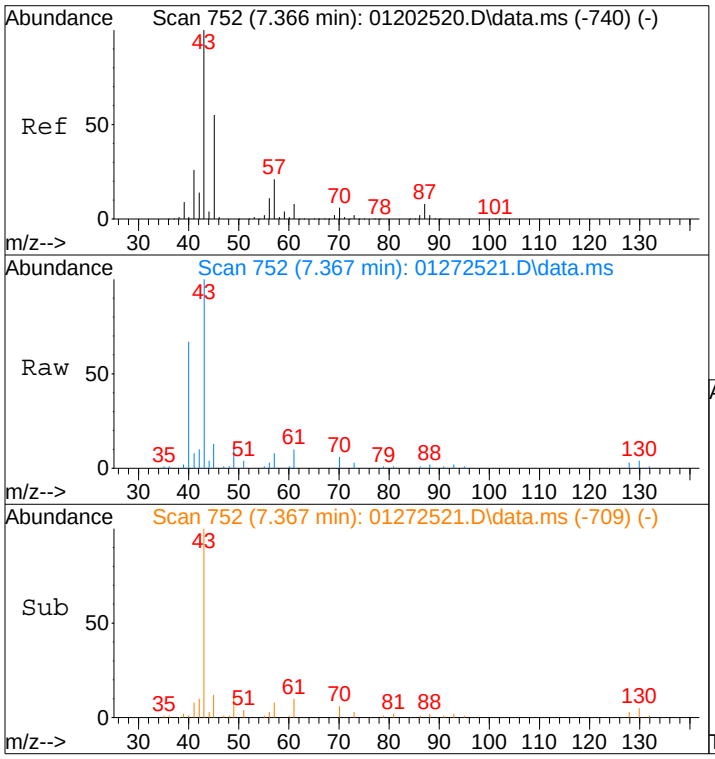


#30
Ethyl Acetate
Concen: 2.25 ng
RT: 7.36 min Scan# 750
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 61 Resp: 12295

Ion	Ratio	Lower	Upper
61	100		
70	59.3	51.2	91.2

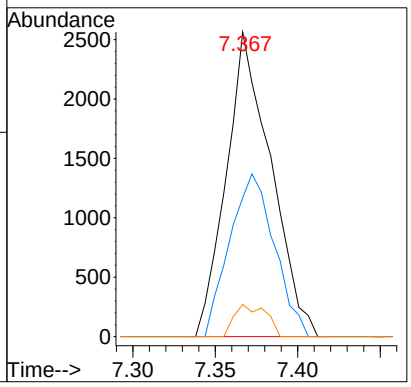


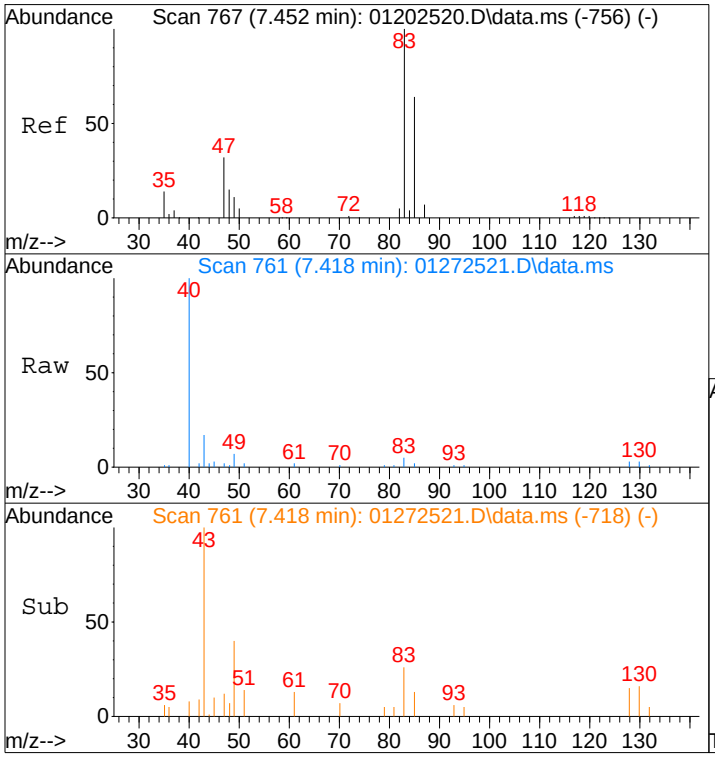


#31
n-Hexane
Concen: 0.19 ng
RT: 7.37 min Scan# 752
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 57 Resp: 4823

Ion	Ratio	Lower	Upper
57	100		
56	53.6	41.8	62.6
86	7.5	8.3	12.5#

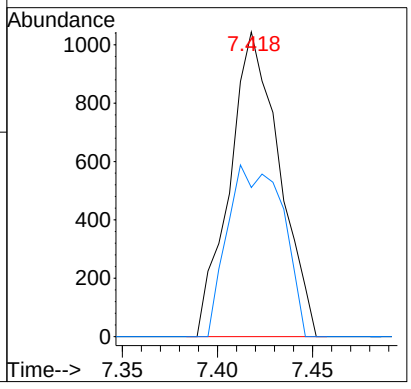


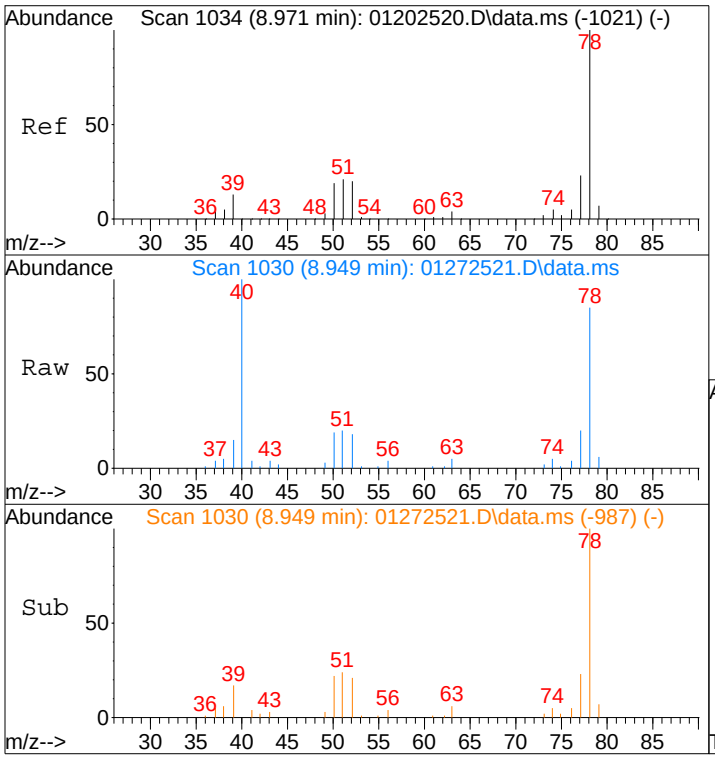


#32
Chloroform
Concen: 0.09 ng
RT: 7.42 min Scan# 761
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 83 Resp: 1899

Ion	Ratio	Lower	Upper
83	100		
85	62.6	44.0	84.0

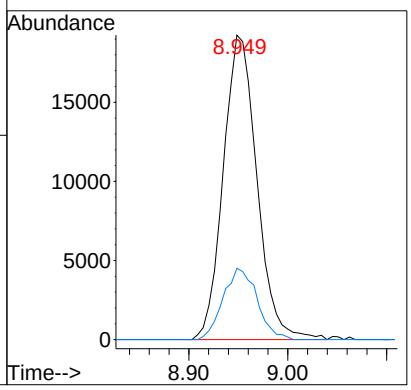


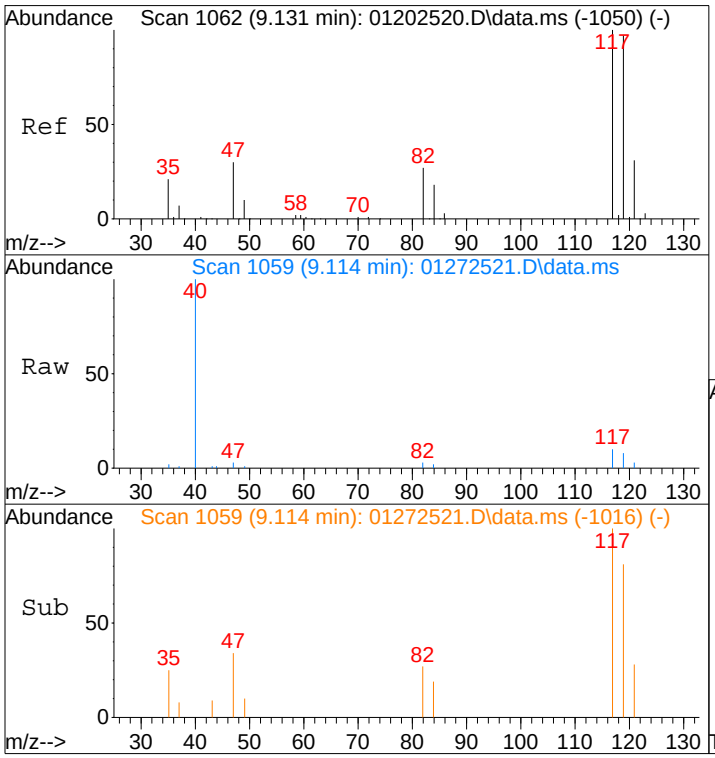


#41
Benzene
Concen: 0.80 ng
RT: 8.95 min Scan# 1030
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 78 Resp: 45492

Ion	Ratio	Lower	Upper
78	100		
77	23.7	3.4	43.4

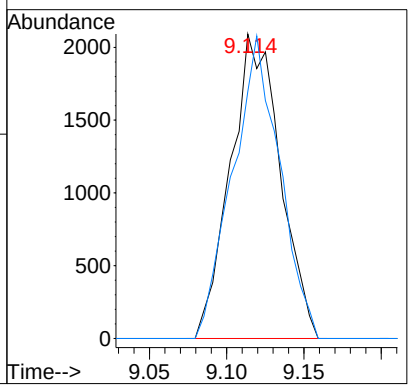


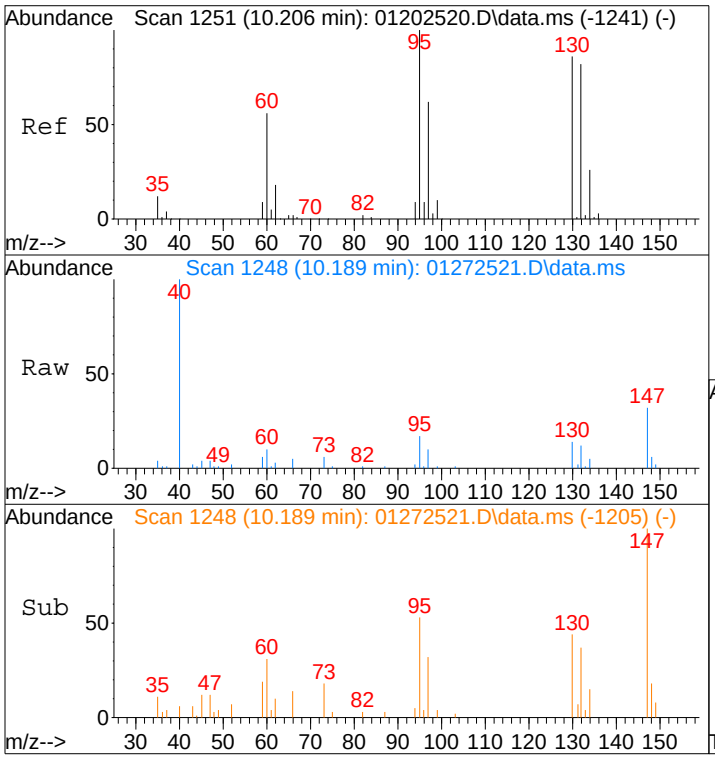


#42
Carbon Tetrachloride
Concen: 0.28 ng
RT: 9.11 min Scan# 1059
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:117 Resp: 4694

Ion	Ratio	Lower	Upper
117	100		
119	93.7	75.4	115.4

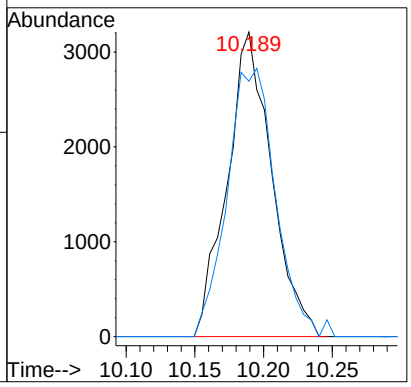


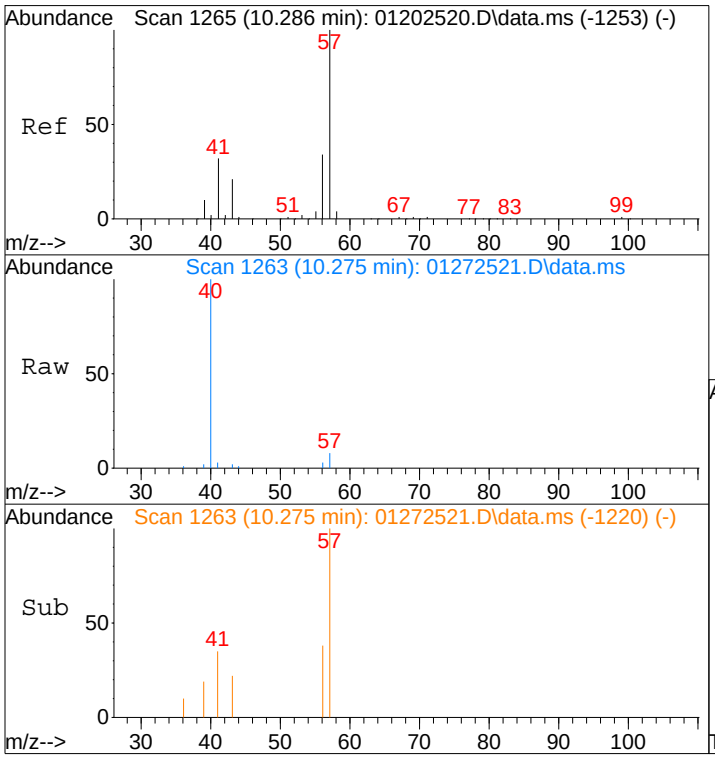


#47
Trichloroethene
Concen: 0.63 ng
RT: 10.19 min Scan# 1248
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:130 Resp: 7220

Ion	Ratio	Lower	Upper
130	100		
132	96.4	75.5	115.5

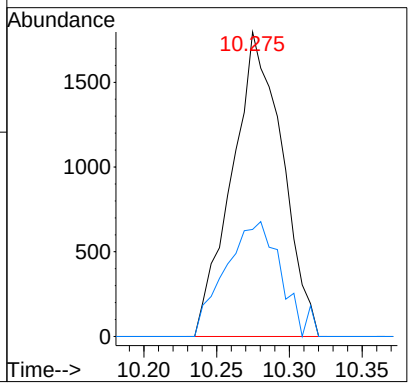


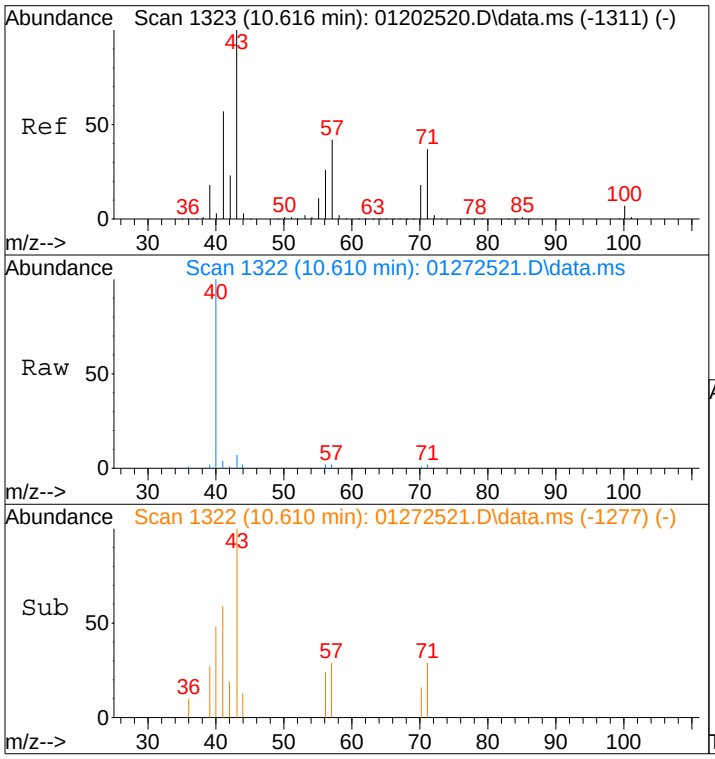


#49
2,2,4-Trimethylpentane (Isooctane)
Concen: 0.06 ng
RT: 10.27 min Scan# 1263
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 57 Resp: 4311

Ion	Ratio	Lower	Upper
57	100		
41	42.1	12.0	52.0

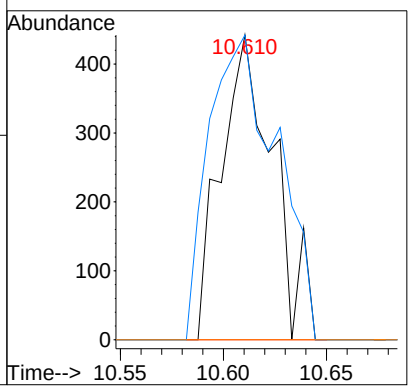


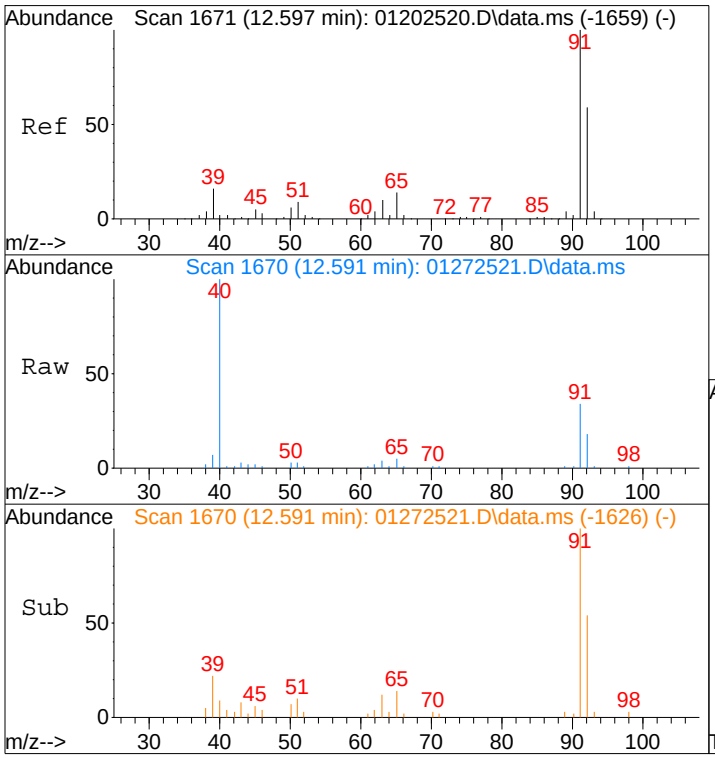


#51
n-Heptane
Concen: 0.06 ng
RT: 10.61 min Scan# 1322
Delta R.T. 0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 71 Resp: 782

Ion	Ratio	Lower	Upper
71	100		
57	129.8	90.6	130.6
100	0.0	0.0	39.7

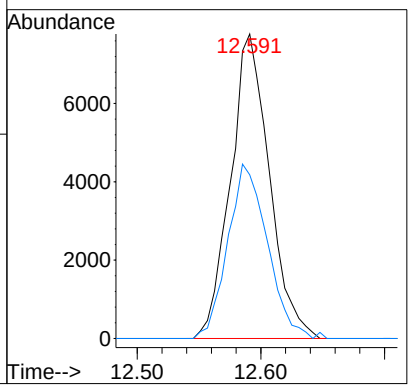


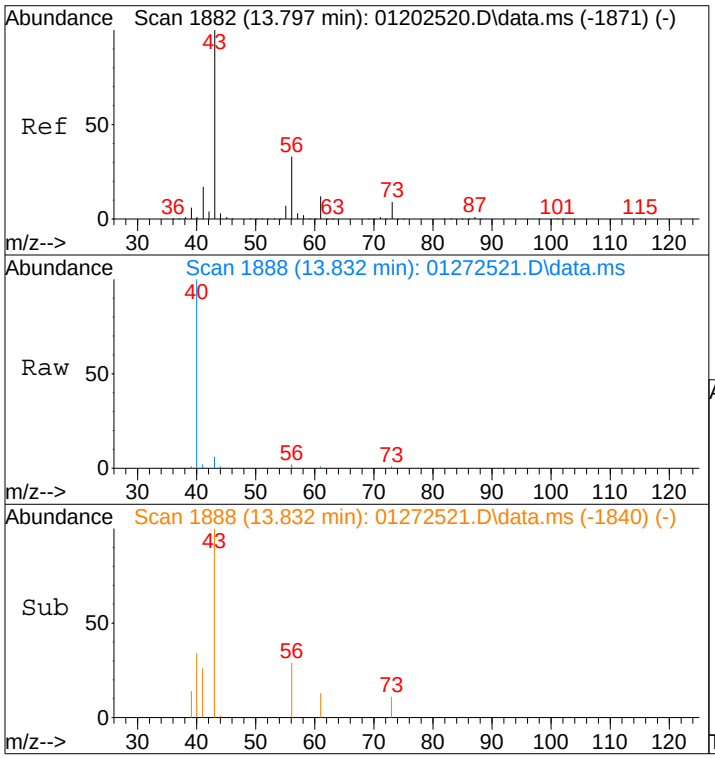


#58
Toluene
Concen: 0.28 ng
RT: 12.59 min Scan# 1670
Delta R.T. 0.000 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 91 Resp: 16995

Ion	Ratio	Lower	Upper
91	100		
92	58.5	38.4	78.4

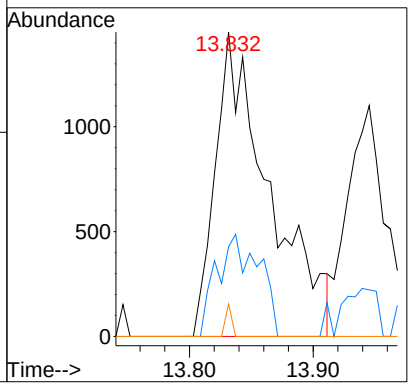


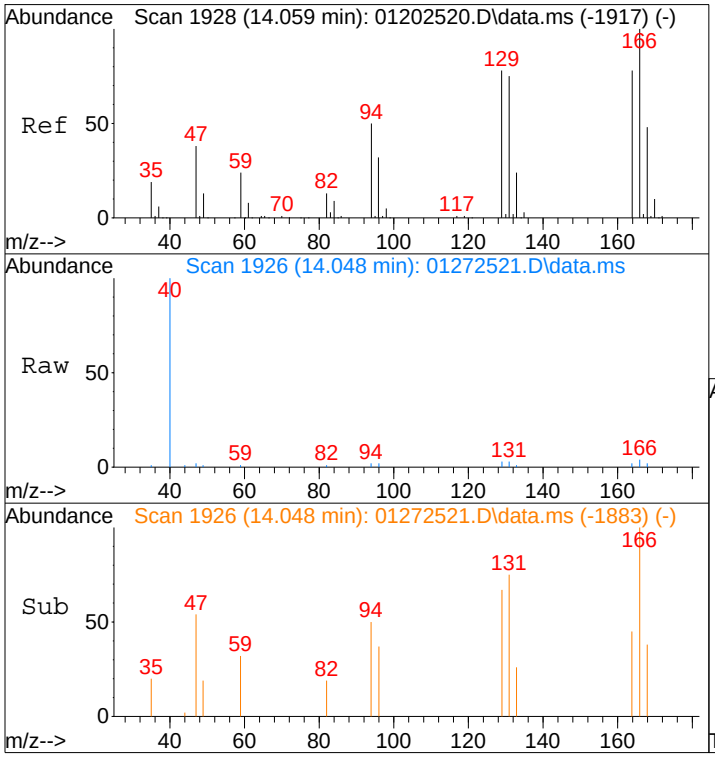


#62
n-Butyl Acetate
Concen: 0.08 ng
RT: 13.83 min Scan# 1888
Delta R.T. 0.023 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 43 Resp: 4352

Ion	Ratio	Lower	Upper
43	100		
56	26.5	13.3	53.3
73	0.0	0.0	28.9

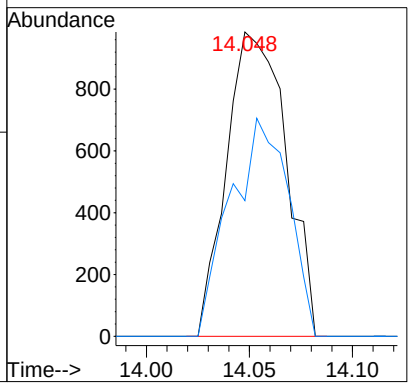


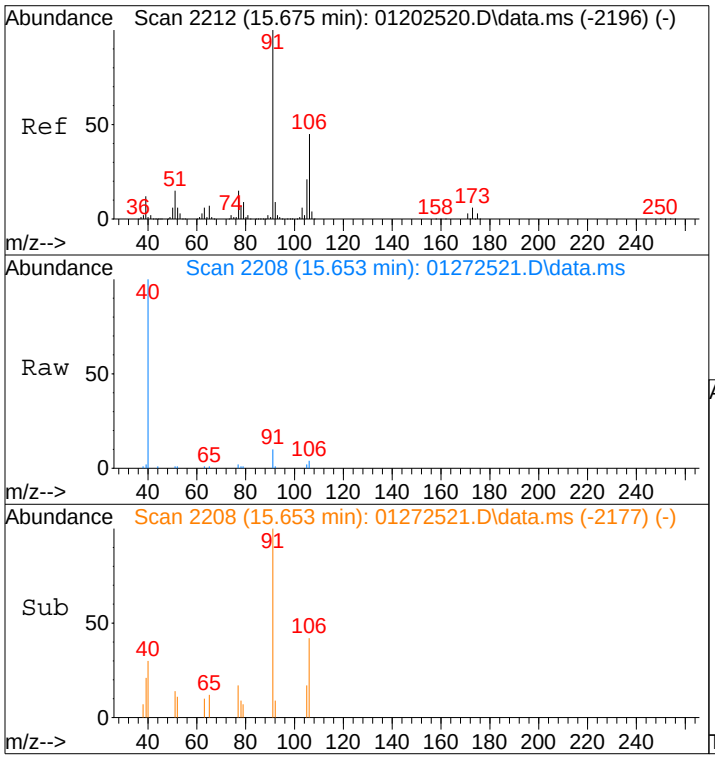


#64
Tetrachloroethene
Concen: 0.14 ng
RT: 14.05 min Scan# 1926
Delta R.T. -0.006 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:166 Resp: 1973

Ion	Ratio	Lower	Upper
166	100		
164	70.1	58.4	98.4

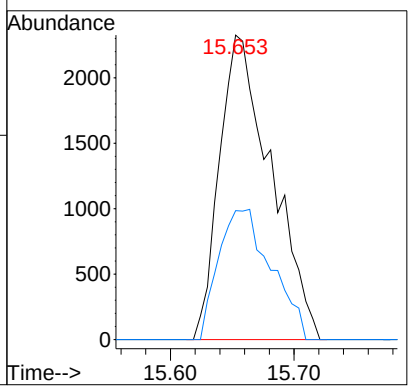


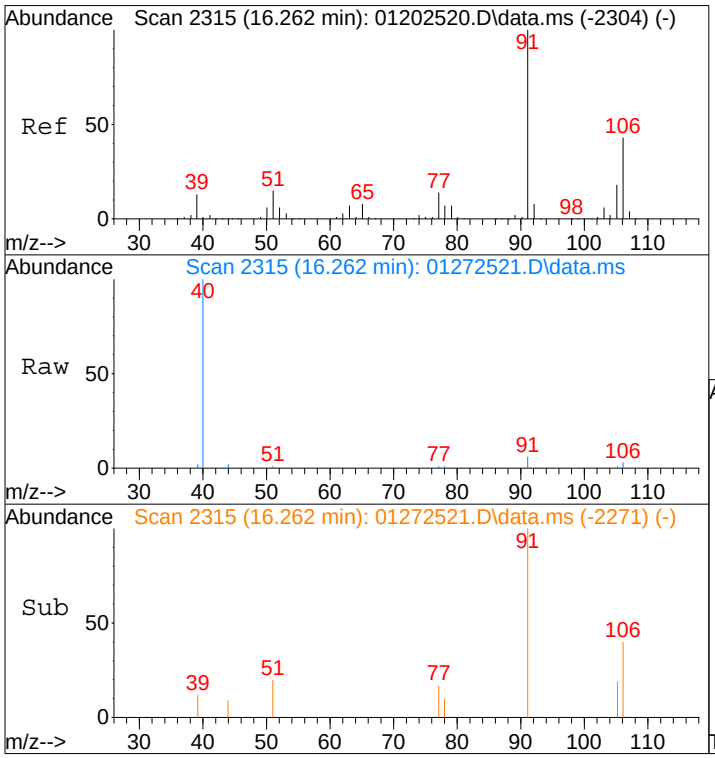


#67
m- & p-Xylenes
Concen: 0.13 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 91 Resp: 6771

Ion	Ratio	Lower	Upper
91	100		
106	43.5	24.7	64.7

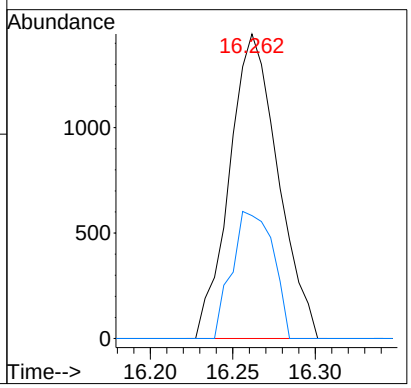


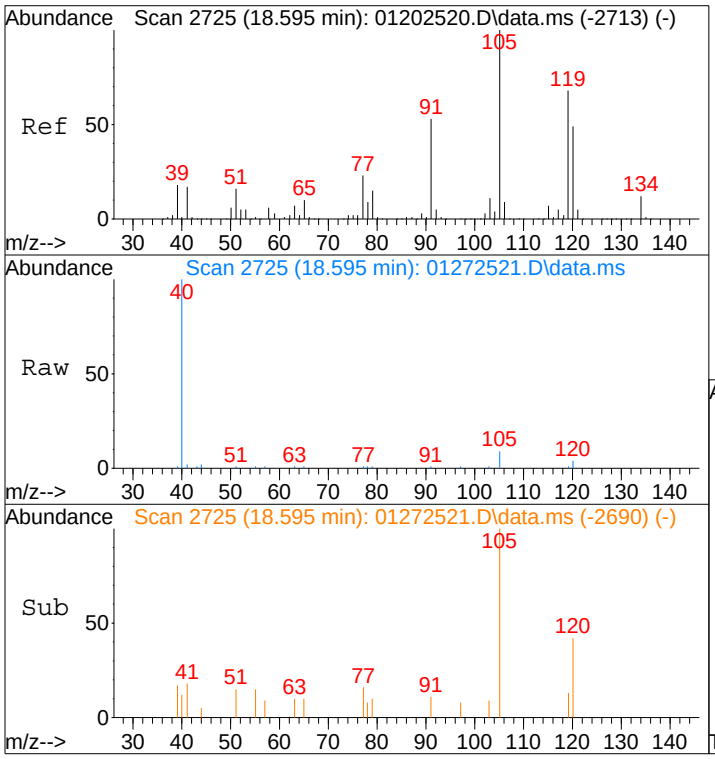


#70
o-Xylene
Concen: 0.06 ng
RT: 16.26 min Scan# 2315
Delta R.T. 0.000 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion: 91 Resp: 2954

Ion	Ratio	Lower	Upper
91	100		
106	35.3	23.3	63.3

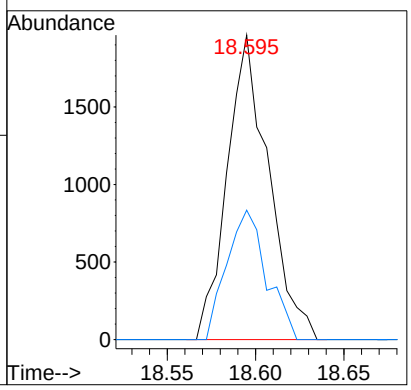




#82
1,2,4-Trimethylbenzene
Concen: 0.06 ng
RT: 18.59 min Scan# 2725
Delta R.T. 0.000 min
Lab File: 01272521.D
Acq: 27 Jan 2025 22:00

Tgt Ion:105 Resp: 3194

Ion	Ratio	Lower	Upper
105	100		
120	41.0	30.3	70.3



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 15:11:02 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

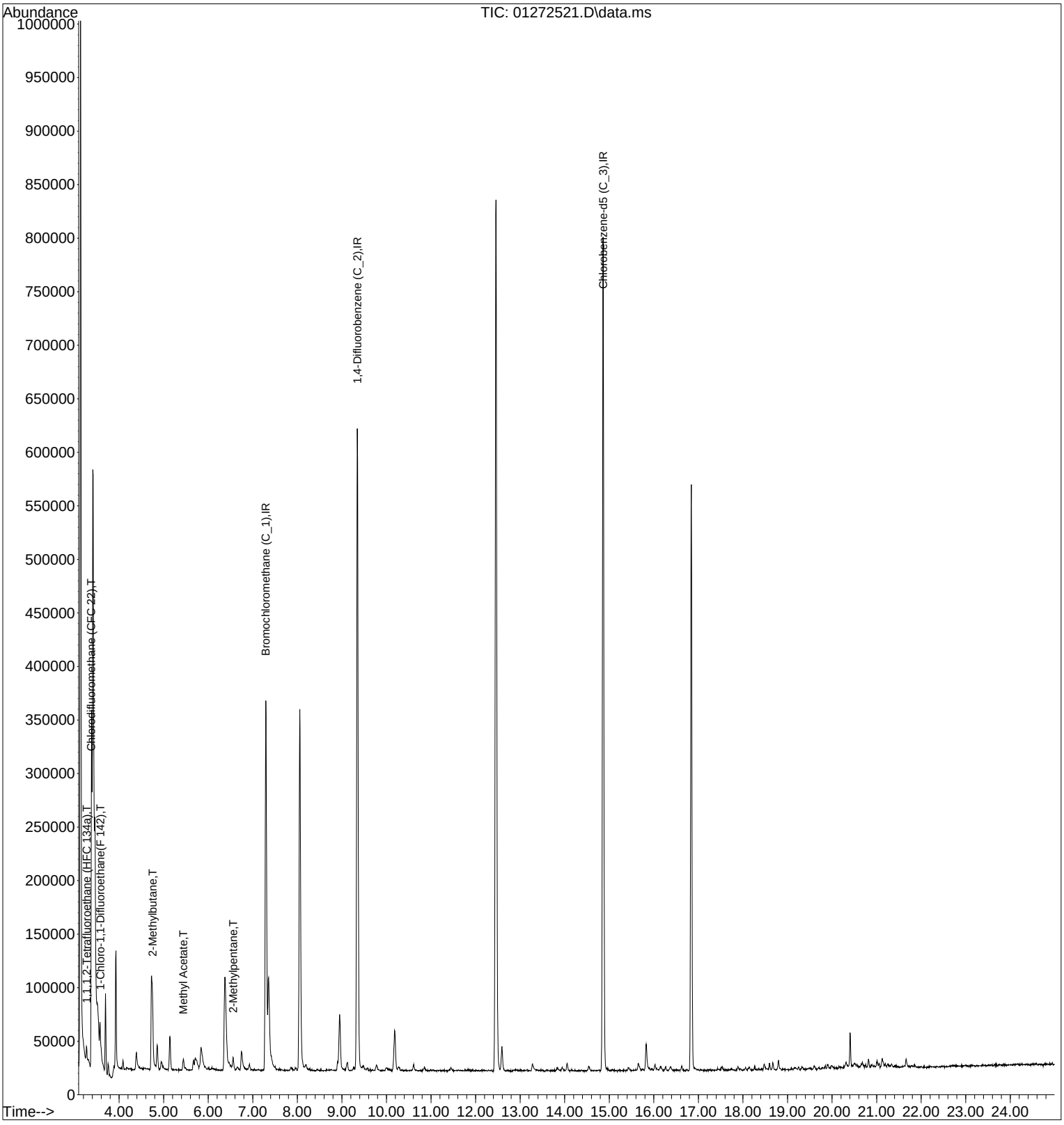
BCB 1/30/25

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (C_1)	7.29	130	101703	12.500 ng		-0.02
16) 1,4-Difluorobenzene (C_2)	9.35	114	481674	12.500 ng		-0.02
19) Chlorobenzene-d5 (C_3)	14.86	54	156013	12.500 ng		0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.24	85	317	N.D.		
3) 1,1,1,2-Tetrafluoroeth...	3.27	83	2535	0.204 ng		93
4) 1,1-Difluoroethane	3.34	65	229	N.D.		
5) Chlorodifluoromethane ...	3.38	67	1558	0.356 ng		99
6) 1-Chloro-1,1-Difluoroe...	3.58	65	1911	0.066 ng	#	72
7) Dichlorofluoromethane ...	0.00	67	0	N.D.		
8) Vinylbromide	0.00	108	0	N.D.		
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.		
10) 2-Methylbutane	4.75	57	10185	0.654 ng	#	67
11) Methyl Acetate	5.44	43	4960	0.110 ng	#	69
12) 2-Methylpentane	6.56	71	1419	0.110 ng	#	3
13) 2,2-Dichloropropane	0.00	77	0	N.D.		
14) 1,1-Dichloropropene	0.00	75	0	N.D.		
15) Thiophene	9.13	84	975	N.D.		
17) 2,3-Dimethylpentane	9.56	56	520	N.D.		
18) Dibromomethane	0.00	174	0	N.D.		
20) Methyl Cyclohexane	11.45	55	1141	N.D.		
21) 1,3-Dichloropropane	0.00	76	0	N.D.		
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		
23) 1-Chlorohexane	0.00	91	0	N.D.		
24) 1,2,3-Trichloropropane	16.37	75	589	N.D.		
25) Bromobenzene	0.00	77	0	N.D.		
26) 2-Chlorotoluene	17.74	91	971	N.D.		
27) 4-Chlorotoluene	17.74	91	971	N.D.		
28) Indane	19.40	117	238	N.D.		
29) Indene	0.00	115	0	N.D.		
30) 1,2,4,5-Tetramethylben...	20.64	119	413	N.D.		
31) 1,2,3,4-Tetramethylben...	20.69	119	1155	N.D.		
32) 1,2,3,5-Tetramethylben...	21.14	119	234	N.D.		
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.		

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

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272521.D
Acq On : 27 Jan 2025 22:00
Operator : MC
Sample : P2500076-005 (1000mL)
Misc : S37-11222401
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 30 15:11:02 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDGX-SS** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-006

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AS01325

Initial Pressure (psig): -1.85 Final Pressure (psig): 3.80

Container Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.30	0.082	ND	0.12	0.032	
75-35-4	1,1-Dichloroethene	ND	0.13	0.11	ND	0.033	0.027	
75-09-2	Methylene Chloride	ND	0.66	0.22	ND	0.19	0.062	
156-60-5	trans-1,2-Dichloroethene	ND	0.30	0.11	ND	0.076	0.027	
75-34-3	1,1-Dichloroethane	ND	0.30	0.11	ND	0.075	0.028	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	0.11	ND	0.036	0.027	
107-06-2	1,2-Dichloroethane	ND	0.15	0.085	ND	0.036	0.021	
71-55-6	1,1,1-Trichloroethane	**4.2**	0.15	0.095	**0.77**	0.027	0.017	
56-23-5	Carbon Tetrachloride	**0.51**	0.15	0.11	**0.082**	0.023	0.017	
79-01-6	Trichloroethene	**1.3**	0.15	0.10	**0.24**	0.028	0.019	
127-18-4	Tetrachloroethene	**10**	0.16	0.099	**1.5**	0.023	0.015	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272522.D
Acq On : 27 Jan 2025 22:35
Operator : MC
Sample : P2500076-006 (1000mL)
Misc : S37-11222401
ALS Vial : 10 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 13:07:58 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	95919	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	472853	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	153838	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.05	65	273107	15.820	ng		-0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 126.56%				
57) Toluene-d8 (SS2)	12.45	98	597684	10.701	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.60%				
73) Bromofluorobenzene (SS3)	16.84	174	139231	9.750	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.00%				
Target Compounds							Qvalue
2) Propene	3.43	42	446	N.D.			
3) Dichlorodifluoromethan...	3.43	85	41671	1.746	ng		99
4) Chloromethane	0.00	50	0	N.D.	d		
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	726	0.093	ng		97
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.38	45	21519	1.448	ng		92
11) Acetonitrile	4.57	41	118	N.D.			
12) Acrolein	4.65	56	872	0.079	ng		84
13) Acetone	4.73	58	26427	2.472	ng	#	78
14) Trichlorofluoromethane	4.86	101	18272	0.947	ng		97
15) 2-Propanol (Isopropanol)	4.94	45	8429	0.176	ng	#	58
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	5.40	59	19596	0.607	ng		87
19) Methylene Chloride	5.44	84	1360	0.109	ng	#	82
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2804	0.368	ng		100
22) Carbon Disulfide	0.00	76	0	N.D.	d		
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	6.39	63	436	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	6.52	86	534	0.240	ng	#	25
27) 2-Butanone (MEK)	6.75	72	4282	0.531	ng	#	67
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	7.36	61	9558	1.853	ng		90
31) n-Hexane	7.37	57	507	N.D.			
32) Chloroform	7.42	83	971	N.D.			
34) Tetrahydrofuran (THF)	7.86	72	357	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	8.45	97	55266	2.916	ng		95
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.90	56	3574	No Calib		#	
41) Benzene	8.95	78	3256	0.058	ng		97
42) Carbon Tetrachloride	9.11	117	5846	0.357	ng		95
43) Cyclohexane	9.35	84	456	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	10.18	130	9814	0.878	ng		99
48) 1,4-Dioxane	0.00	88	0	N.D.			

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272522.D
Acq On : 27 Jan 2025 22:35
Operator : MC
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Misc : S37-11222401
ALS Vial : 10 Sample Multiplier: 1

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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
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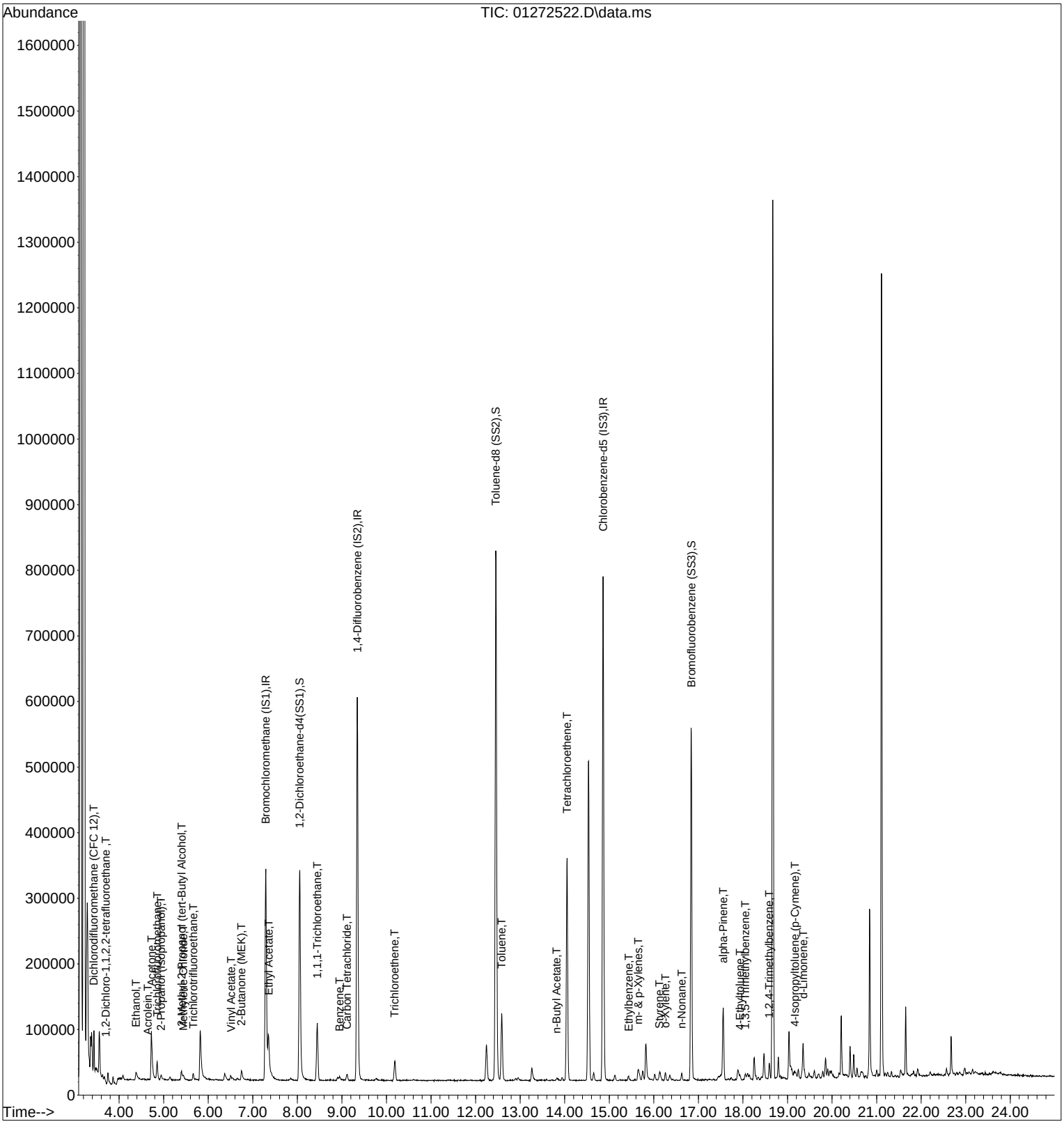
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) 2,2,4-Trimethylpentane...	10.28	57	220	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	81825	1.385 ng	100
59) 2-Hexanone	0.00	43	0	N.D. d	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.82	43	5673	0.110 ng	89
63) n-Octane	13.95	57	763	N.D.	
64) Tetrachloroethene	14.05	166	97287	7.223 ng	99
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	15.44	91	5632	0.084 ng	95
67) m- & p-Xylenes	15.65	91	17397	0.328 ng	96
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	16.12	104	3769	0.106 ng	97
70) o-Xylene	16.26	91	7417	0.140 ng	94
71) n-Nonane	16.63	43	5770	0.123 ng	89
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	17.05	105	887	N.D.	
75) alpha-Pinene	17.56	93	43978	1.460 ng	95
76) n-Propylbenzene	17.73	91	3599	N.D.	
77) 3-Ethyltoluene	17.05	105	887	No Calib #	
78) 4-Ethyltoluene	17.93	105	4259	0.074 ng	98
79) 1,3,5-Trimethylbenzene	18.05	105	3793	0.075 ng	90
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	17.05	105	887	No Calib #	
82) 1,2,4-Trimethylbenzene	18.59	105	12908	0.257 ng	87
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	18.76	91	198	N.D.	
85) 1,3-Dichlorobenzene	18.77	146	625	N.D.	
86) 1,4-Dichlorobenzene	18.86	146	115	N.D.	
87) sec-Butylbenzene	18.95	105	348	N.D.	
88) 4-Isopropyltoluene (p-...	19.16	119	3689	0.070 ng	82
89) 1,2,3-Trimethylbenzene	17.05	105	887	No Calib #	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	
91) d-Limonene	19.35	68	13705	0.637 ng	94
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	18.09	58	462	No Calib #	
94) 1,2,4-Trichlorobenzene	21.42	180	341	N.D.	
95) Naphthalene	21.55	128	1775	N.D.	
96) n-Dodecane	19.03	58	1706	No Calib #	
97) Hexachlorobutadiene	0.00	225	0	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	18.59	119	1529	N.D.	
100) n-Butylbenzene	19.70	91	2033	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

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ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 30 13:07:58 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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BCB 1/31/25

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QLast Update : Tue Jan 21 08:29:11 2025
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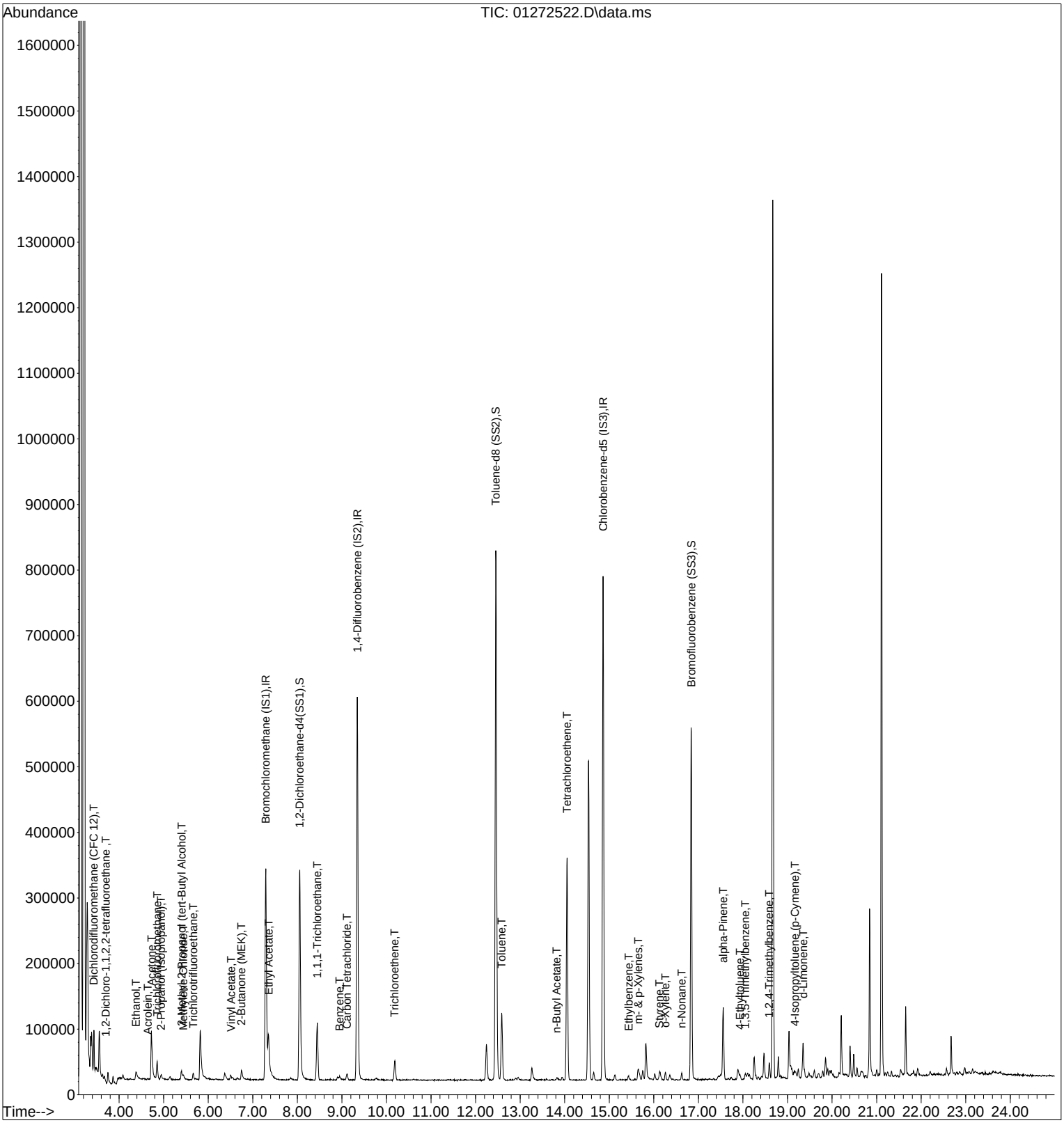
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	95919	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	472853	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	153838	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.05	65	273107	15.820	ng		-0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 126.56%				
57) Toluene-d8 (SS2)	12.45	98	597684	10.701	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.60%				
73) Bromofluorobenzene (SS3)	16.84	174	139231	9.750	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.00%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.43	85	41671	1.746	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	726	0.093	ng		97
10) Ethanol	4.38	45	21519	1.448	ng		92
12) Acrolein	4.65	56	872	0.079	ng		84
13) Acetone	4.73	58	26427	2.472	ng	#	78
14) Trichlorofluoromethane	4.86	101	18272	0.947	ng		97
15) 2-Propanol (Isopropanol)	4.94	45	8429	0.176	ng	#	58
18) 2-Methyl-2-Propanol (t...	5.40	59	19596	0.607	ng		87
19) Methylene Chloride	5.44	84	1360	0.109	ng	#	82
21) Trichlorotrifluoroethane	5.66	151	2804	0.368	ng		100
26) Vinyl Acetate	6.52	86	534	0.240	ng	#	25
27) 2-Butanone (MEK)	6.75	72	4282	0.531	ng	#	67
30) Ethyl Acetate	7.36	61	9558	1.853	ng		90
38) 1,1,1-Trichloroethane	8.45	97	55266	2.916	ng		95
41) Benzene	8.95	78	3256	0.058	ng		97
42) Carbon Tetrachloride	9.11	117	5846	0.357	ng		95
47) Trichloroethene	10.18	130	9814	0.878	ng		99
58) Toluene	12.59	91	81825	1.385	ng		100
62) n-Butyl Acetate	13.82	43	5673	0.110	ng		89
64) Tetrachloroethene	14.05	166	97287	7.223	ng		99
66) Ethylbenzene	15.44	91	5632	0.084	ng		95
67) m- & p-Xylenes	15.65	91	17397	0.328	ng		96
69) Styrene	16.12	104	3769	0.106	ng		97
70) o-Xylene	16.26	91	7417	0.140	ng		94
71) n-Nonane	16.63	43	5770	0.123	ng		89
75) alpha-Pinene	17.56	93	43978	1.460	ng		95
78) 4-Ethyltoluene	17.93	105	4259	0.074	ng		98
79) 1,3,5-Trimethylbenzene	18.05	105	3793	0.075	ng		90
82) 1,2,4-Trimethylbenzene	18.59	105	12908	0.257	ng		87
88) 4-Isopropyltoluene (p-...	19.16	119	3689	0.070	ng		82
91) d-Limonene	19.35	68	13705	0.637	ng		94

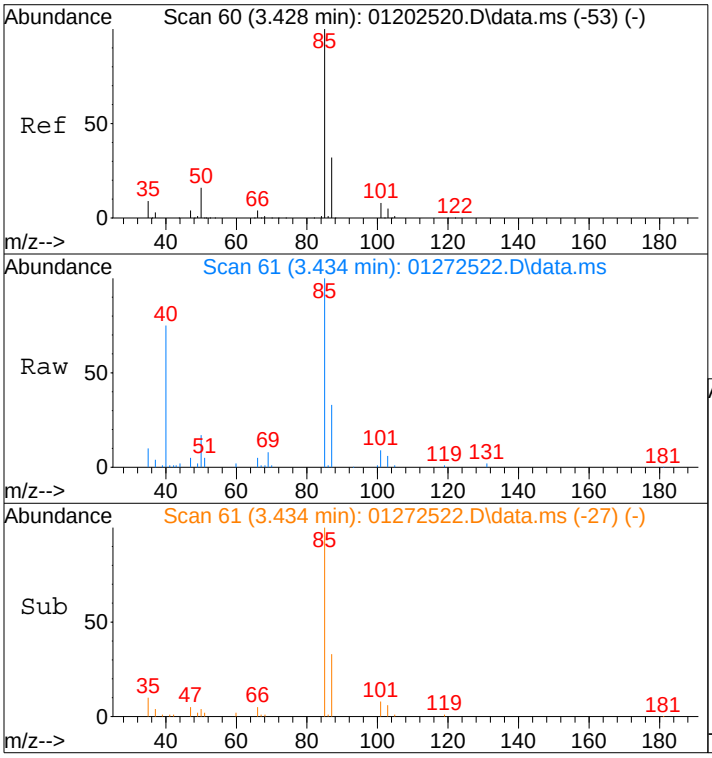
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
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Acq On : 27 Jan 2025 22:35
Operator : MC
Sample : P2500076-006 (1000mL)
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Quant Time: Jan 30 13:07:58 2025
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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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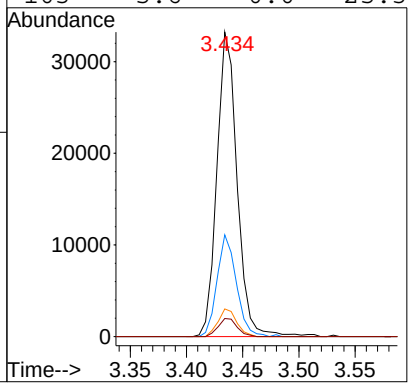


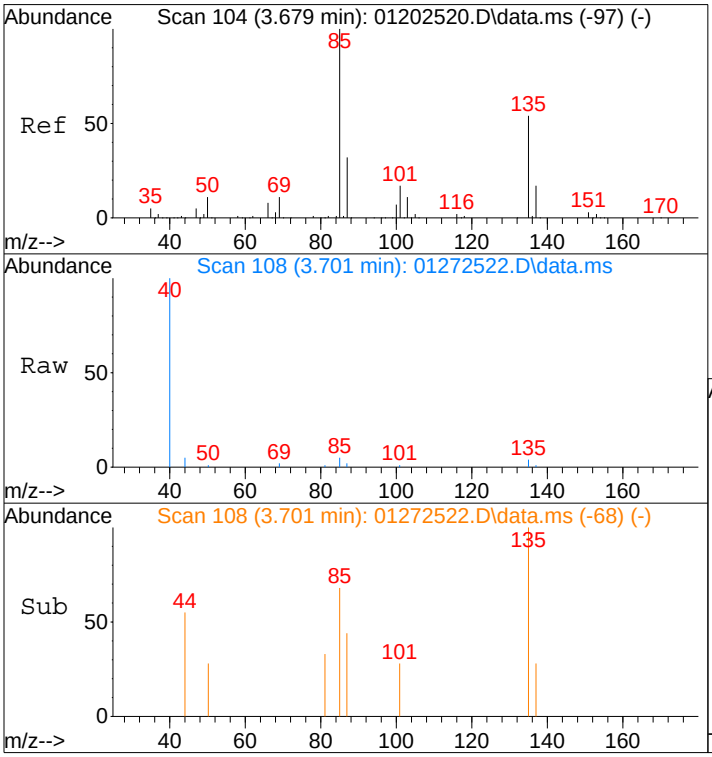


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.75 ng
RT: 3.43 min Scan# 61
Delta R.T. -0.057 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 85 Resp: 41671

Ion	Ratio	Lower	Upper
85	100		
87	31.9	12.2	52.2
101	8.4	0.0	28.4
103	5.6	0.0	25.3

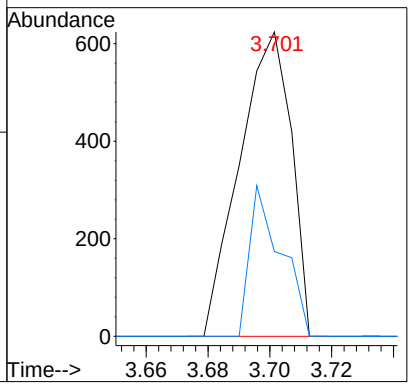


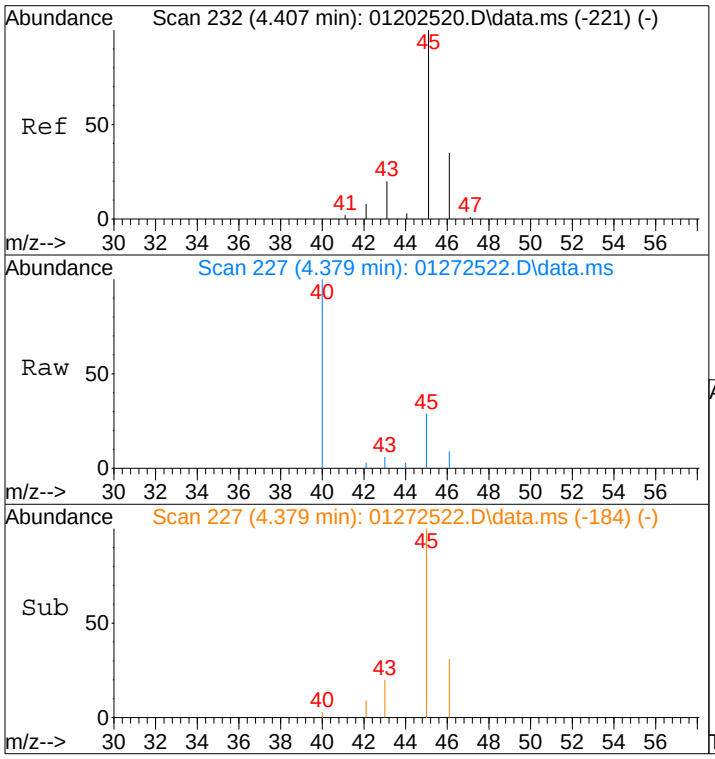


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.09 ng
RT: 3.70 min Scan# 108
Delta R.T. -0.023 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:135 Resp: 726

Ion	Ratio	Lower	Upper
135	100		
137	30.3	12.2	52.2

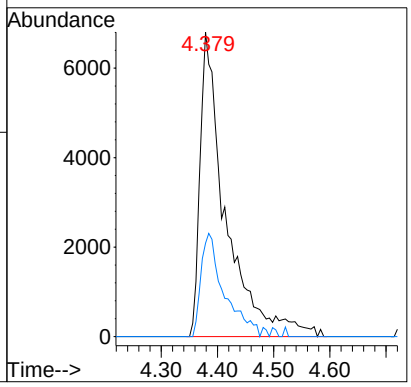


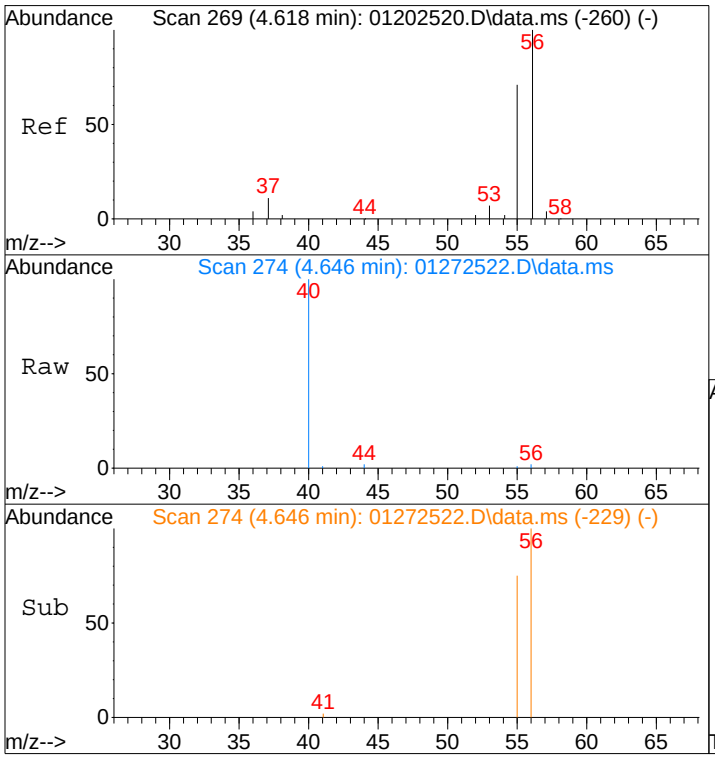


#10
Ethanol
Concen: 1.45 ng
RT: 4.38 min Scan# 227
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 45 Resp: 21519

Ion	Ratio	Lower	Upper
45	100		
46	30.6	15.0	55.0

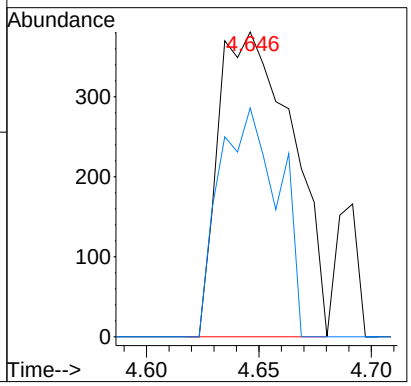


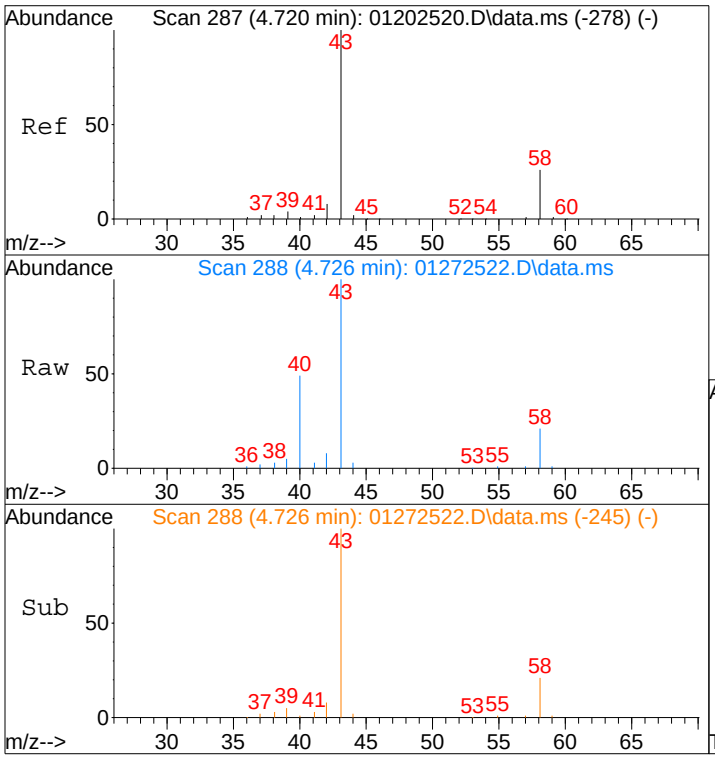


#12
Acrolein
Concen: 0.08 ng
RT: 4.65 min Scan# 274
Delta R.T. 0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 56 Resp: 872

Ion	Ratio	Lower	Upper
56	100		
55	60.3	53.6	93.6

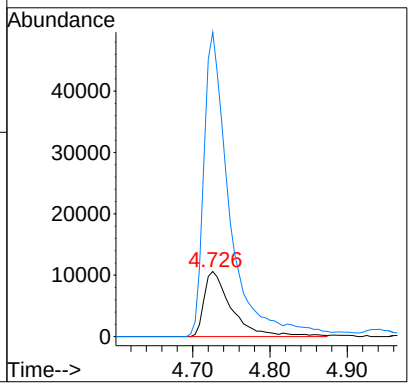


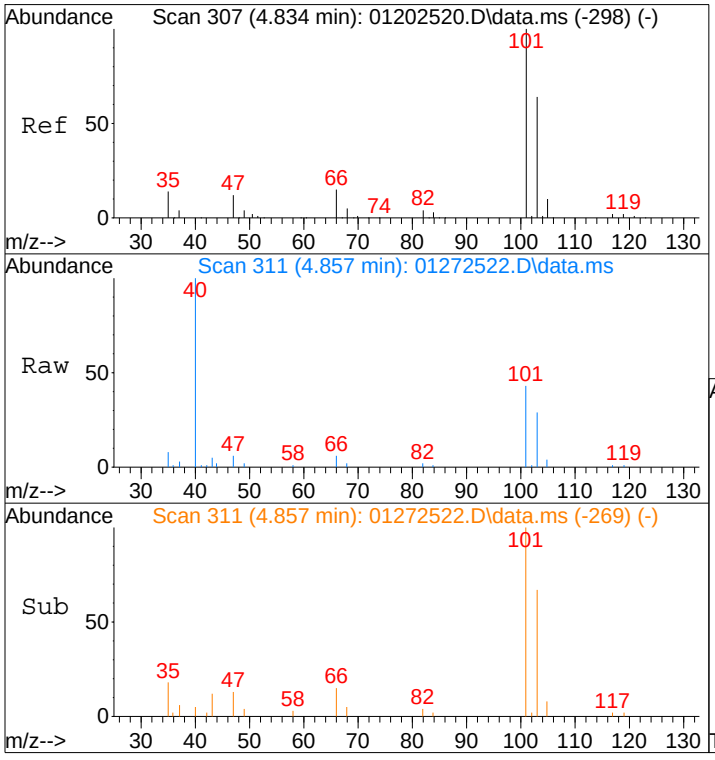


#13
Acetone
Concen: 2.47 ng
RT: 4.73 min Scan# 288
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 58 Resp: 26427

Ion	Ratio	Lower	Upper
58	100		
43	440.3	359.4	419.4#

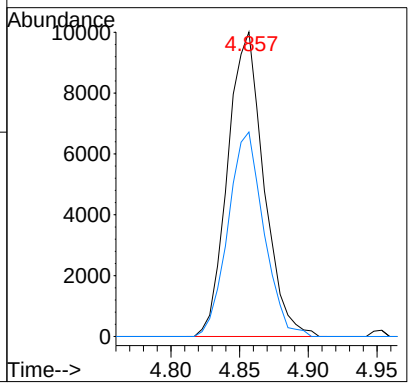


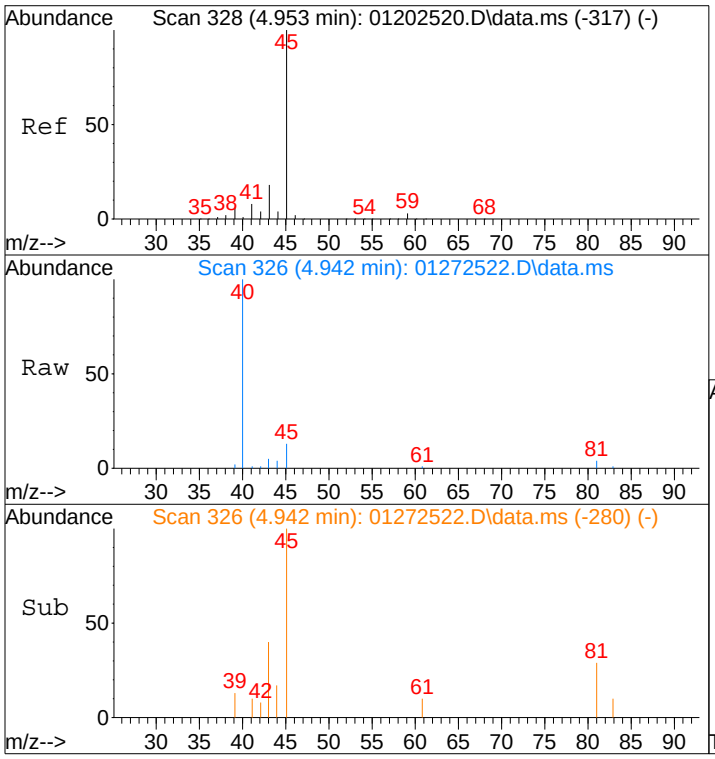


#14
Trichlorofluoromethane
Concen: 0.95 ng
RT: 4.86 min Scan# 311
Delta R.T. -0.011 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:101 Resp: 18272

Ion	Ratio	Lower	Upper
101	100		
103	66.6	44.2	84.2

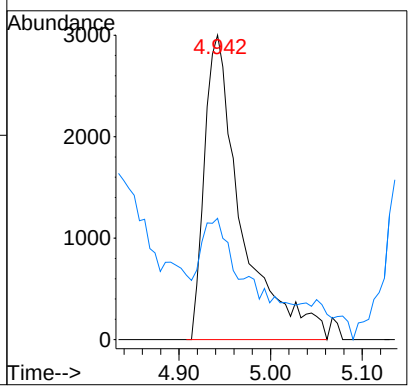


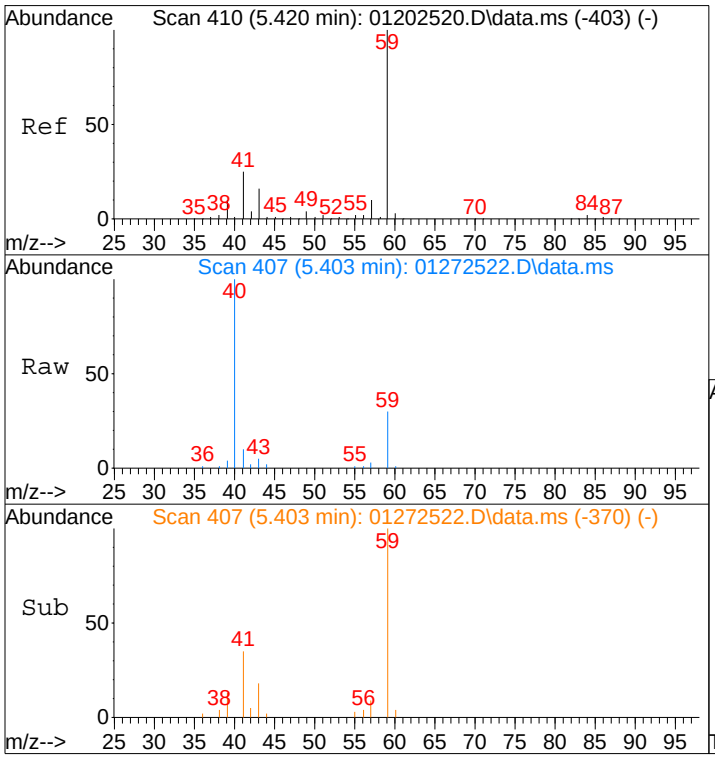


#15
2-Propanol (Isopropanol)
Concen: 0.18 ng
RT: 4.94 min Scan# 326
Delta R.T. 0.011 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 45 Resp: 8429

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

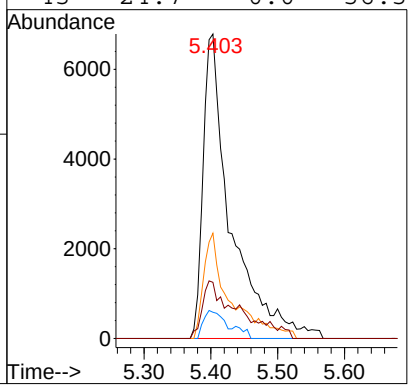


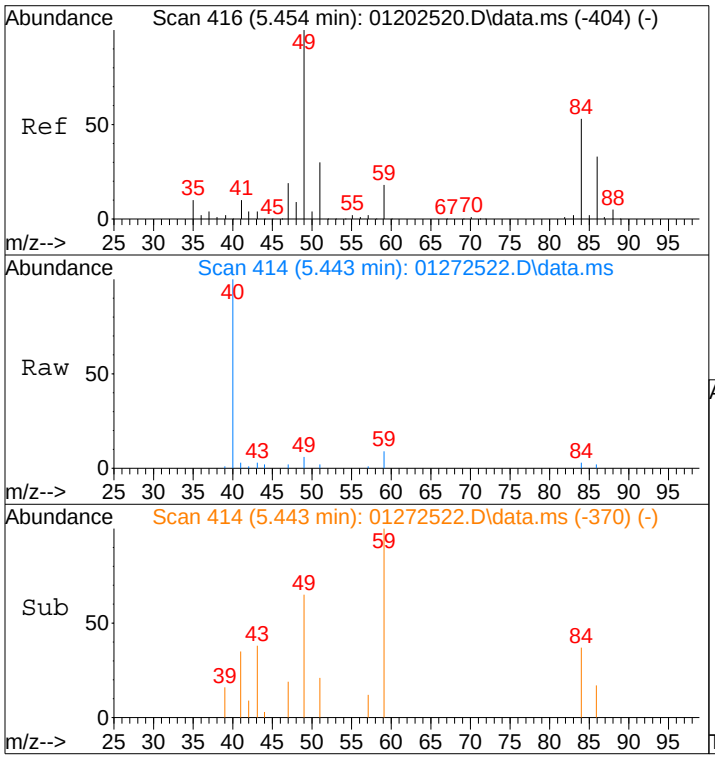


#18
2-Methyl-2-Propanol (tert-Butyl Alcohol
Concen: 0.61 ng
RT: 5.40 min Scan# 407
Delta R.T. -0.040 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 59 Resp: 19596

Ion	Ratio	Lower	Upper
59	100		
57	8.3	0.0	29.6
41	33.0	6.8	46.8
43	24.7	0.0	36.3

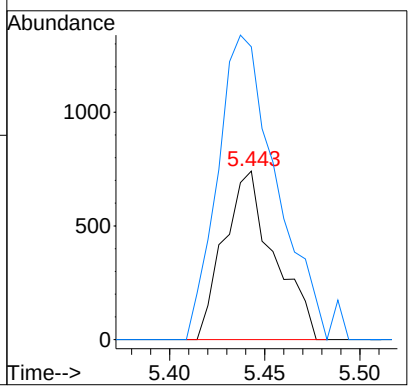


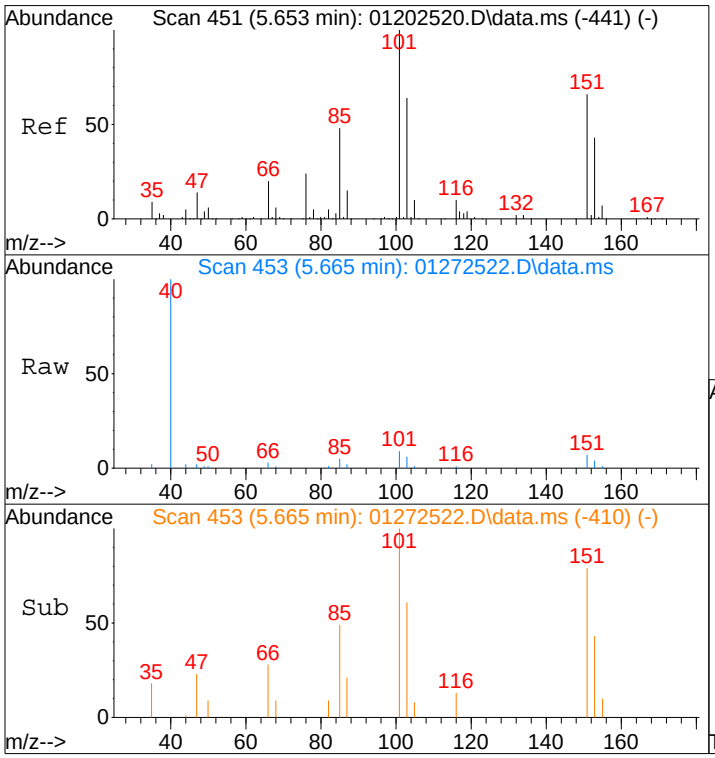


#19
Methylene Chloride
Concen: 0.11 ng
RT: 5.44 min Scan# 414
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 84 Resp: 1360

Ion	Ratio	Lower	Upper
84	100		
49	215.2	163.7	213.7#

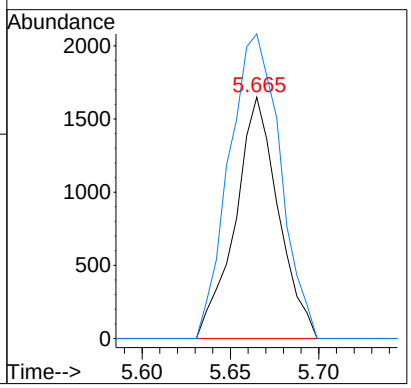


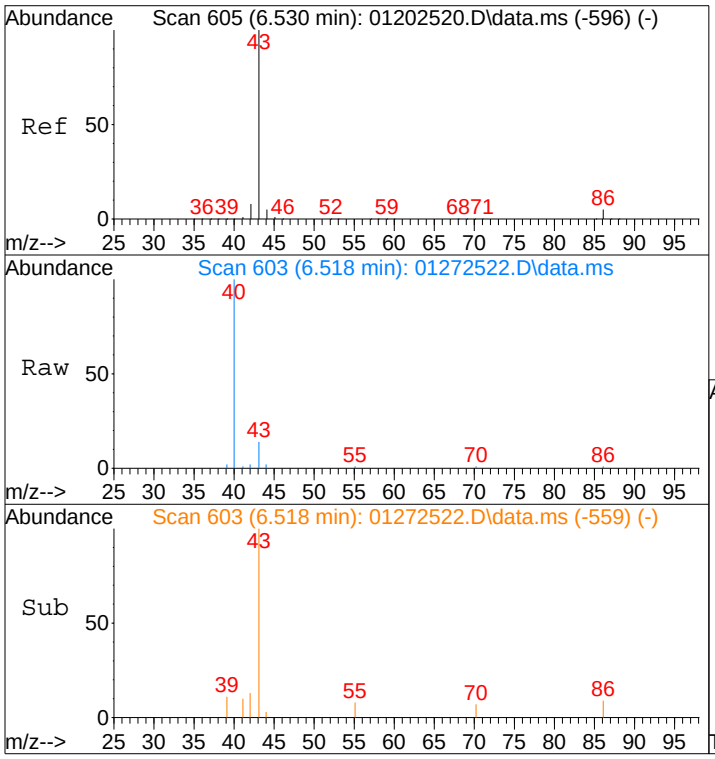


#21
Trichlorotrifluoroethane
Concen: 0.37 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:151 Resp: 2804

Ion	Ratio	Lower	Upper
151	100		
101	149.5	129.9	169.9

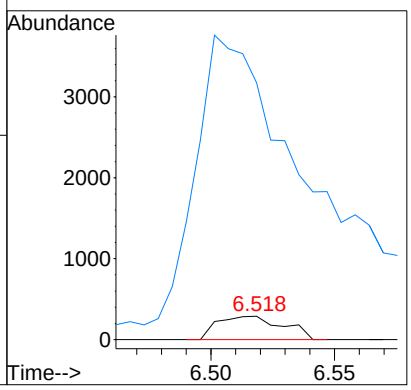


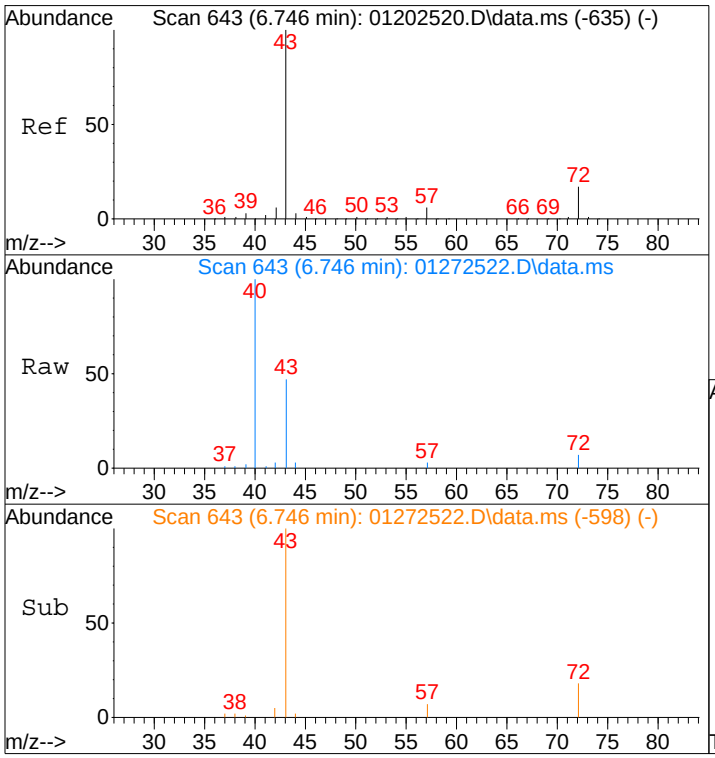


#26
Vinyl Acetate
Concen: 0.24 ng
RT: 6.52 min Scan# 603
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 86 Resp: 534

Ion	Ratio	Lower	Upper
86	100		
43	2620.4	2036.4	2076.4#

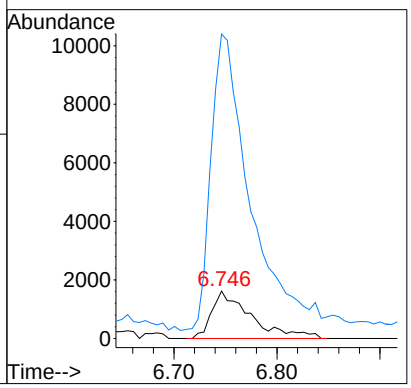


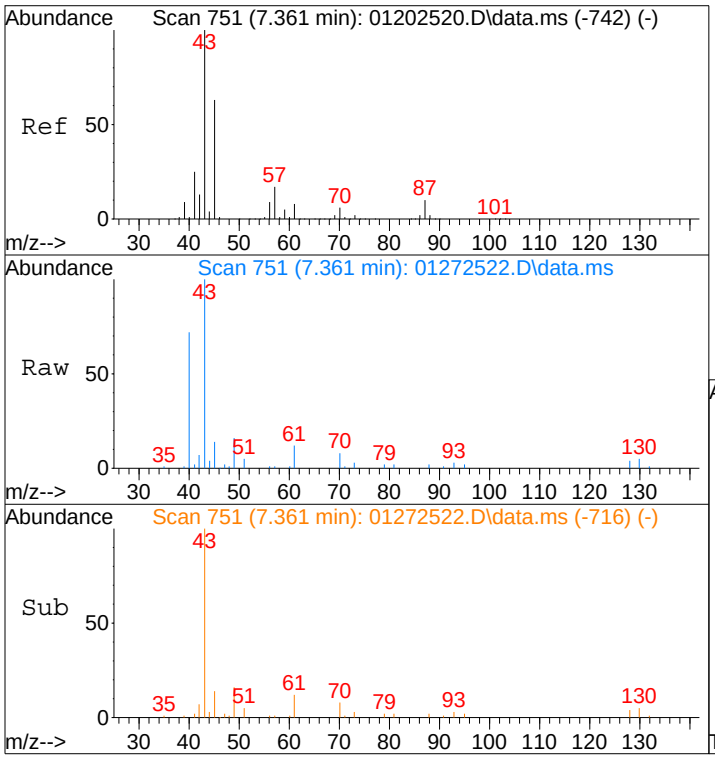


#27
2-Butanone (MEK)
Concen: 0.53 ng
RT: 6.75 min Scan# 643
Delta R.T. 0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 72 Resp: 4282

Ion	Ratio	Lower	Upper
72	100		
43	702.1	579.1	619.1#

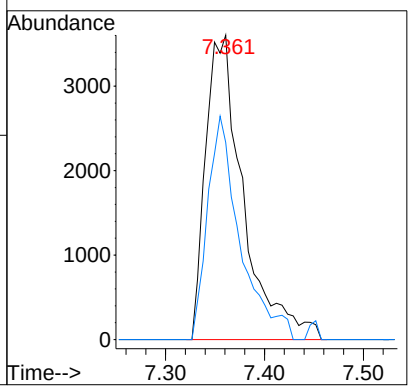


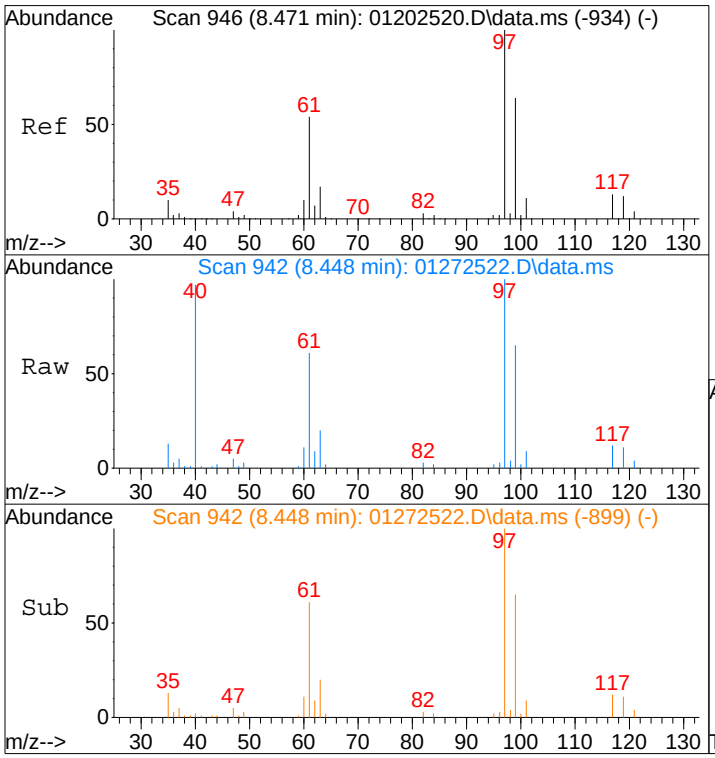


#30
Ethyl Acetate
Concen: 1.85 ng
RT: 7.36 min Scan# 751
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 61 Resp: 9558

Ion	Ratio	Lower	Upper
61	100		
70	63.1	51.2	91.2

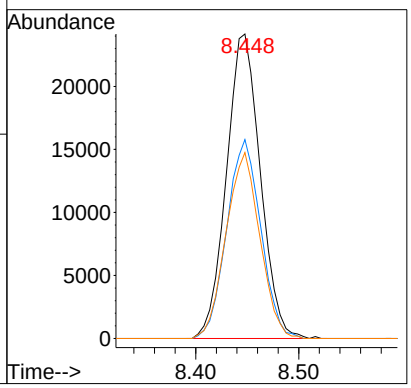


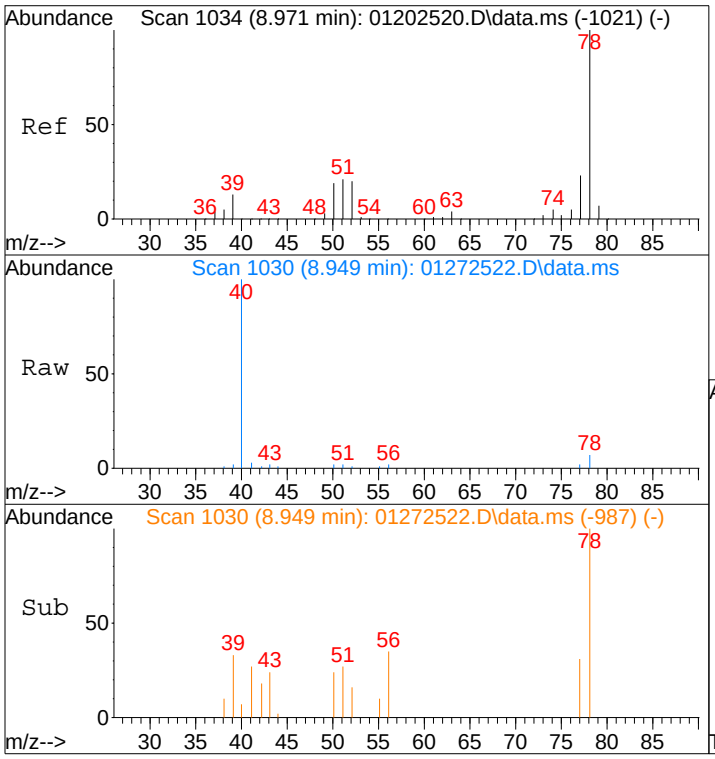


#38
1,1,1-Trichloroethane
Concen: 2.92 ng
RT: 8.45 min Scan# 942
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 97 Resp: 55266

Ion	Ratio	Lower	Upper
97	100		
99	65.5	43.8	83.8
61	60.9	34.3	74.3

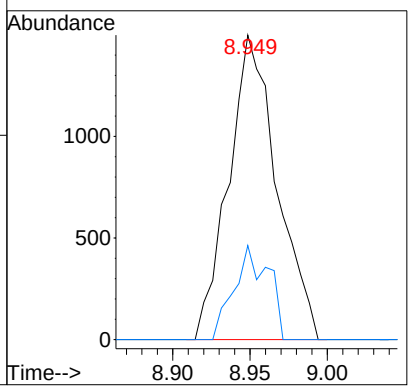


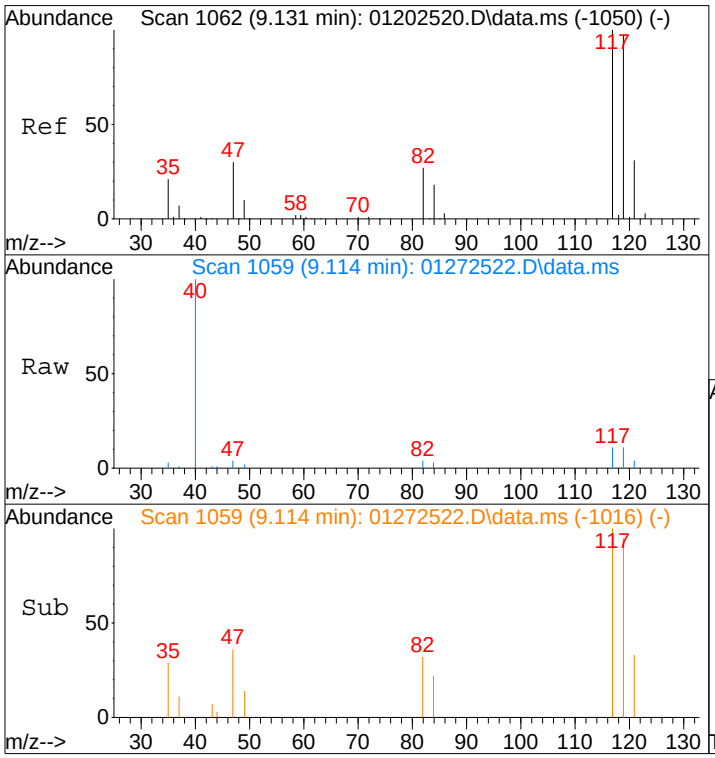


#41
Benzene
Concen: 0.06 ng
RT: 8.95 min Scan# 1030
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 78 Resp: 3256

Ion	Ratio	Lower	Upper
78	100		
77	22.0	3.4	43.4

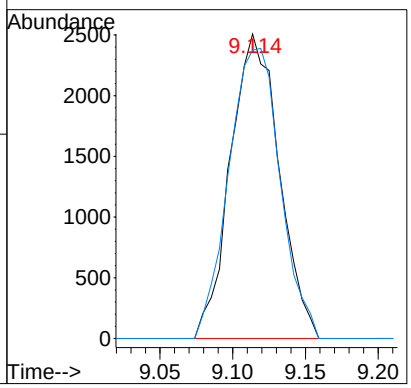


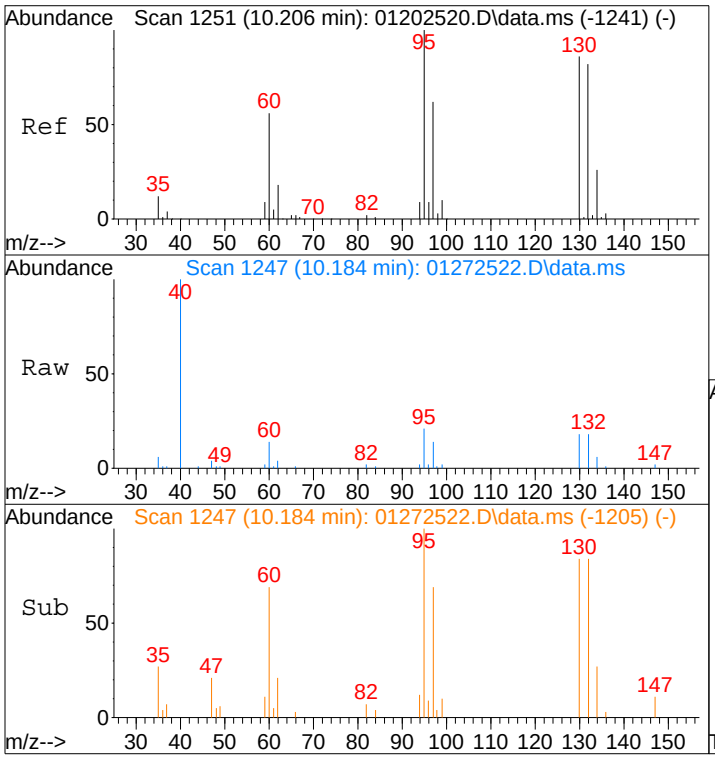


#42
Carbon Tetrachloride
Concen: 0.36 ng
RT: 9.11 min Scan# 1059
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:117 Resp: 5846

Ion	Ratio	Lower	Upper
117	100		
119	100.4	75.4	115.4

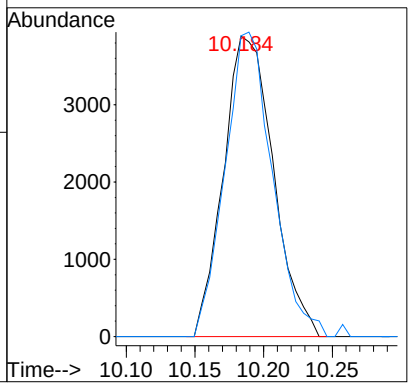


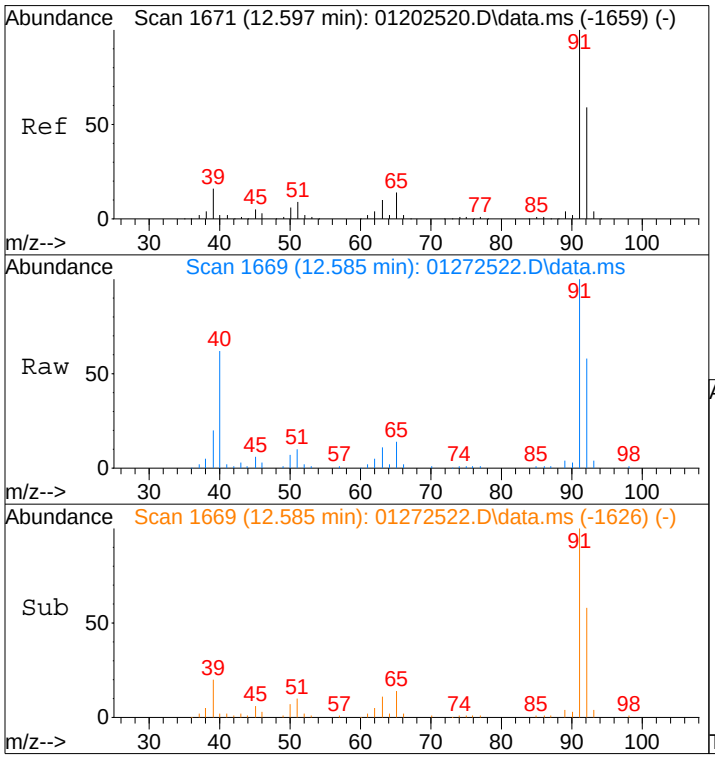


#47
Trichloroethene
Concen: 0.88 ng
RT: 10.18 min Scan# 1247
Delta R.T. -0.011 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:130 Resp: 9814

Ion	Ratio	Lower	Upper
130	100		
132	96.5	75.5	115.5

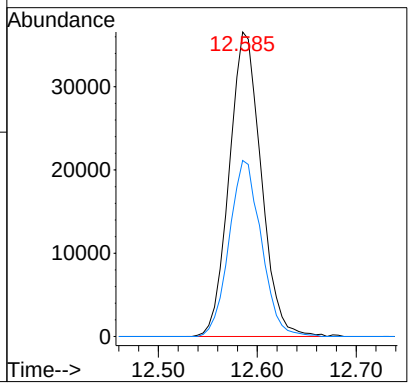


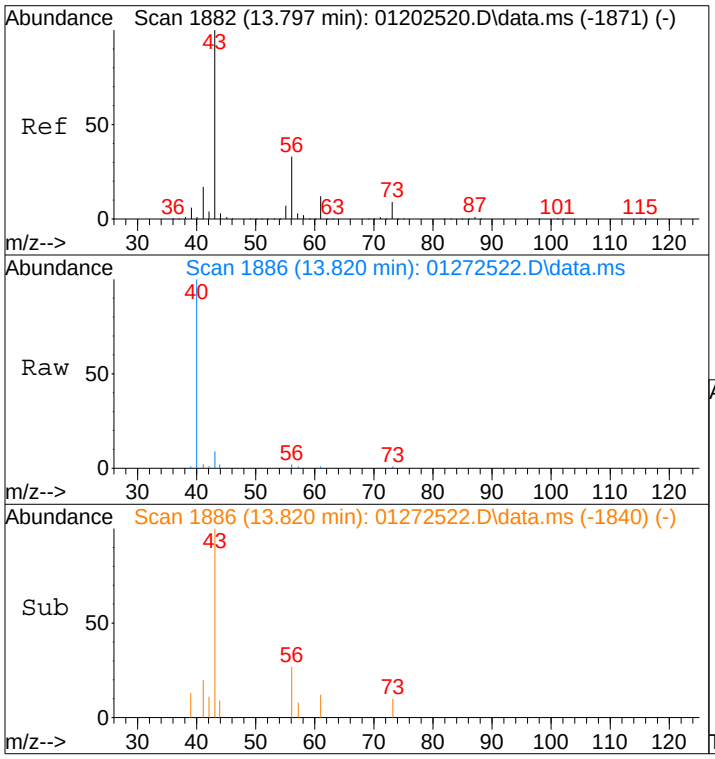


#58
Toluene
Concen: 1.38 ng
RT: 12.59 min Scan# 1669
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 91 Resp: 81825

Ion	Ratio	Lower	Upper
91	100		
92	58.3	38.4	78.4

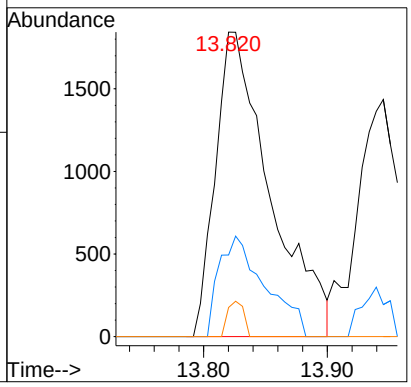


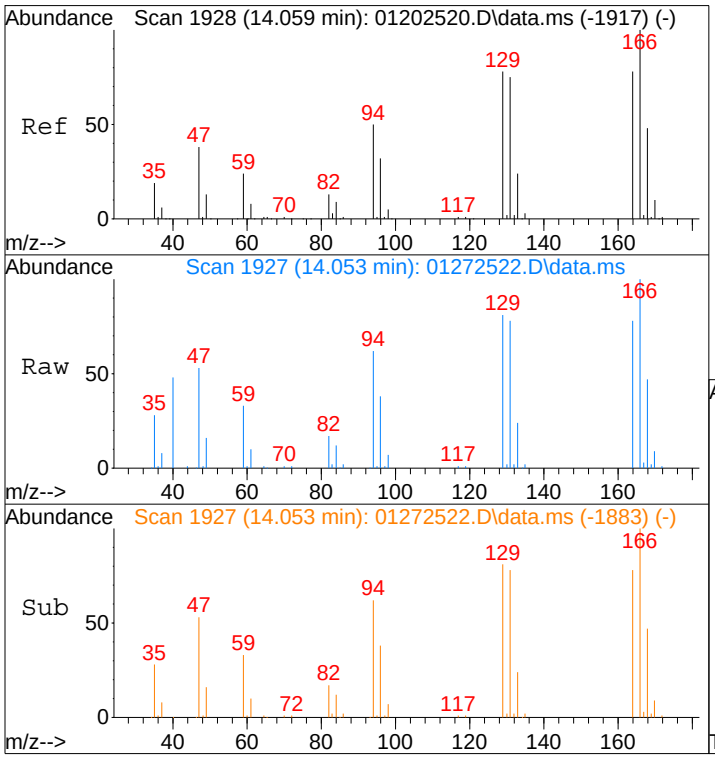


#62
n-Butyl Acetate
Concen: 0.11 ng
RT: 13.82 min Scan# 1886
Delta R.T. 0.011 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 43 Resp: 5673

Ion	Ratio	Lower	Upper
43	100		
56	27.9	13.3	53.3
73	3.5	0.0	28.9

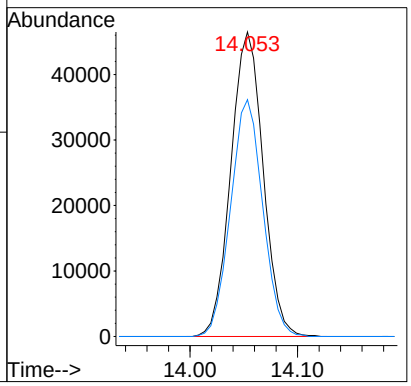


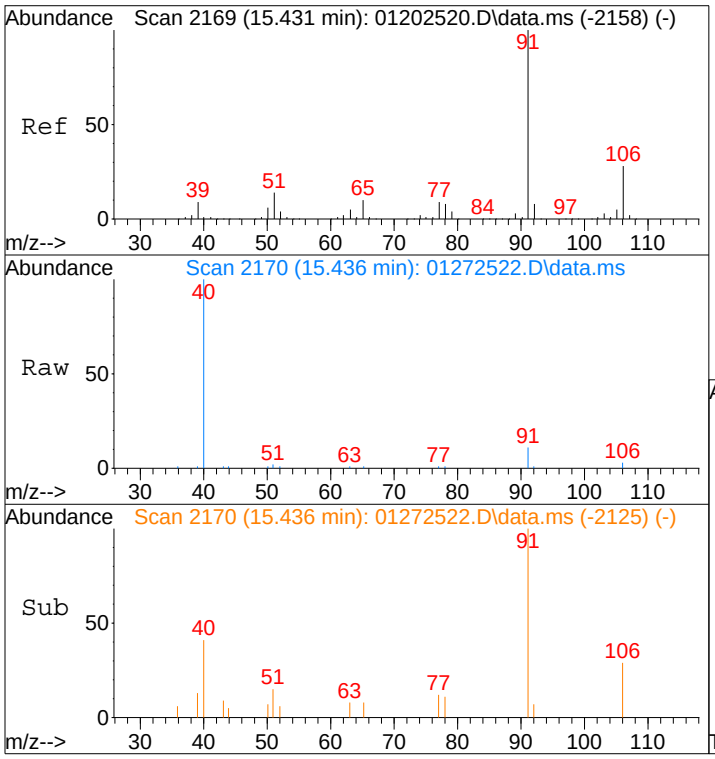


#64
Tetrachloroethene
Concen: 7.22 ng
RT: 14.05 min Scan# 1927
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:166 Resp: 97287

Ion	Ratio	Lower	Upper
166	100		
164	77.1	58.4	98.4

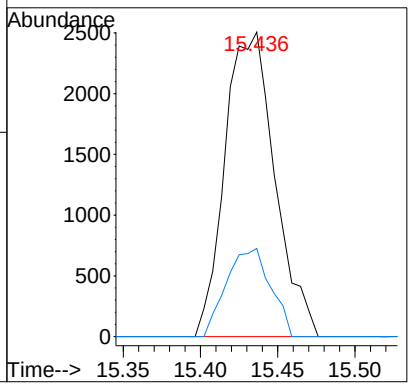


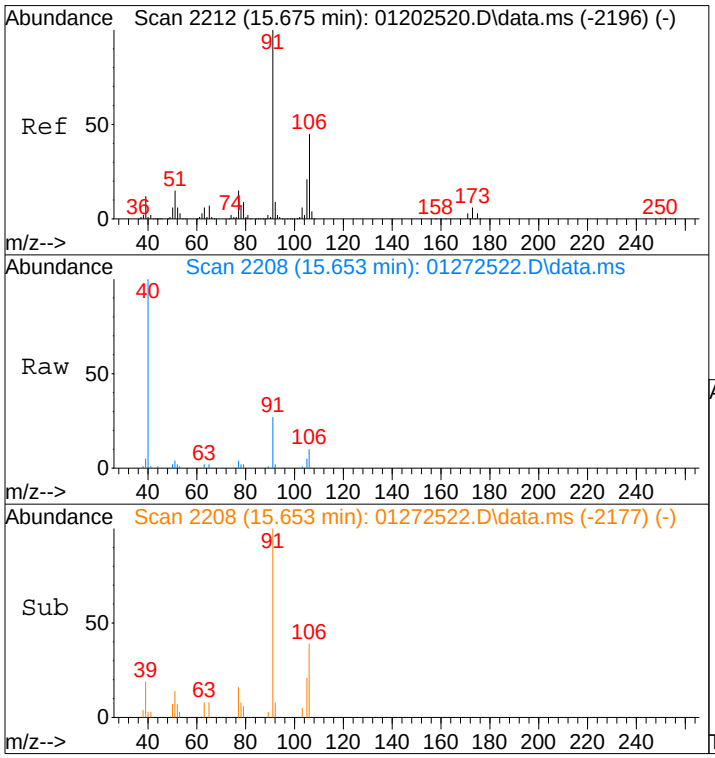


#66
Ethylbenzene
Concen: 0.08 ng
RT: 15.44 min Scan# 2170
Delta R.T. 0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 91 Resp: 5632

Ion	Ratio	Lower	Upper
91	100		
106	25.6	8.2	48.2

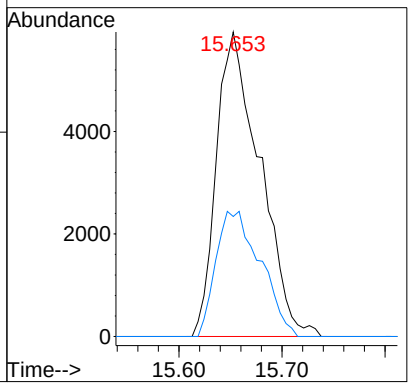


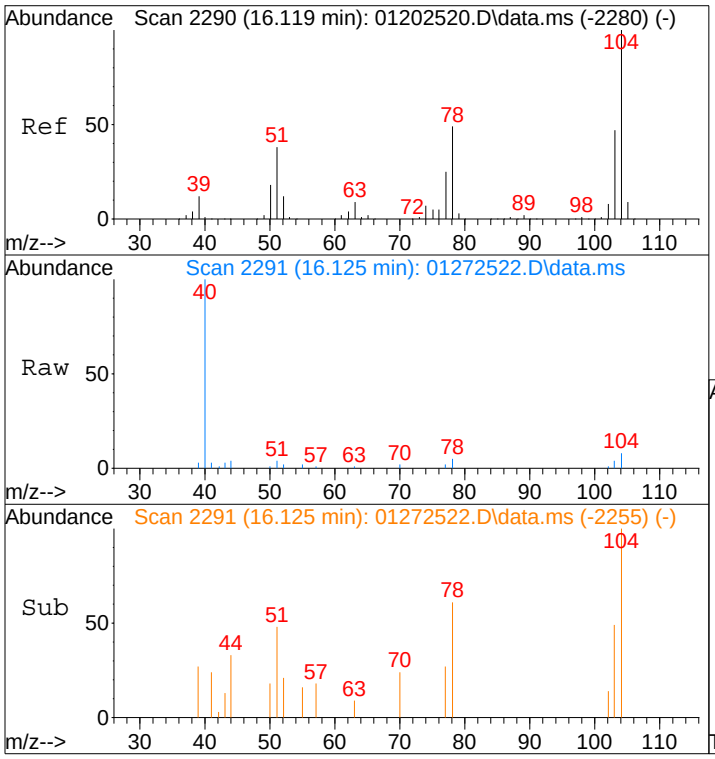


#67
m- & p-Xylenes
Concen: 0.33 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 91 Resp: 17397

Ion	Ratio	Lower	Upper
91	100		
106	42.2	24.7	64.7

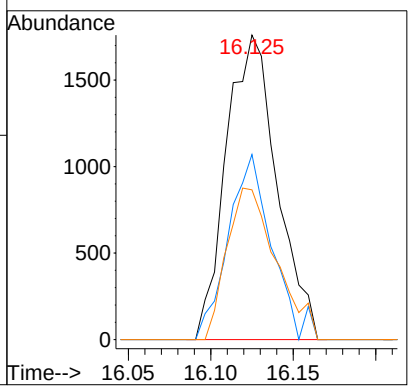


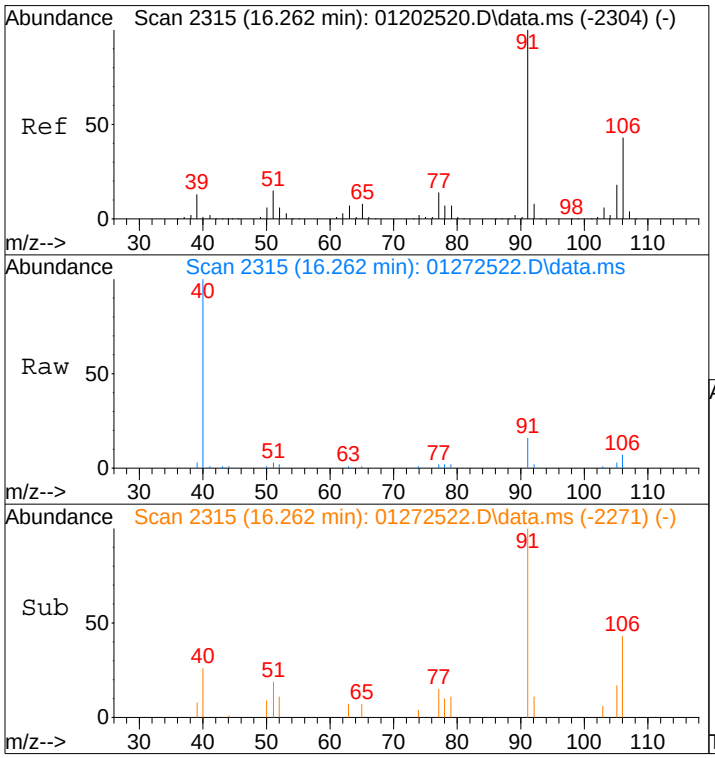


#69
Styrene
Concen: 0.11 ng
RT: 16.12 min Scan# 2291
Delta R.T. 0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:104 Resp: 3769

Ion	Ratio	Lower	Upper
104	100		
78	52.1	29.2	69.2
103	48.3	27.4	67.4

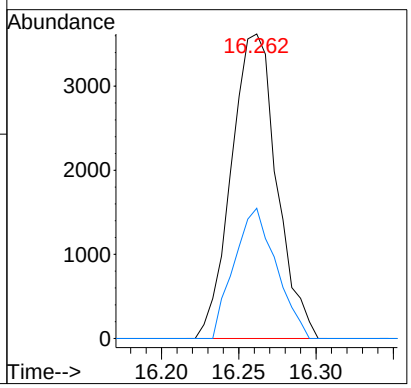


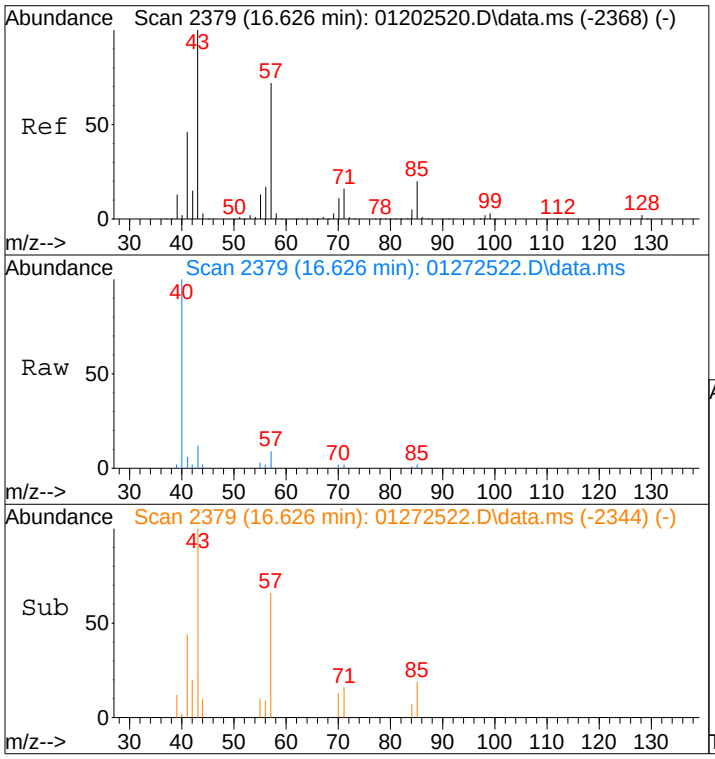


#70
o-Xylene
Concen: 0.14 ng
RT: 16.26 min Scan# 2315
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 91 Resp: 7417

Ion	Ratio	Lower	Upper
91	100		
106	39.6	23.3	63.3

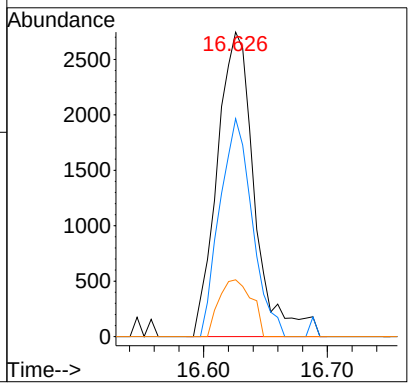


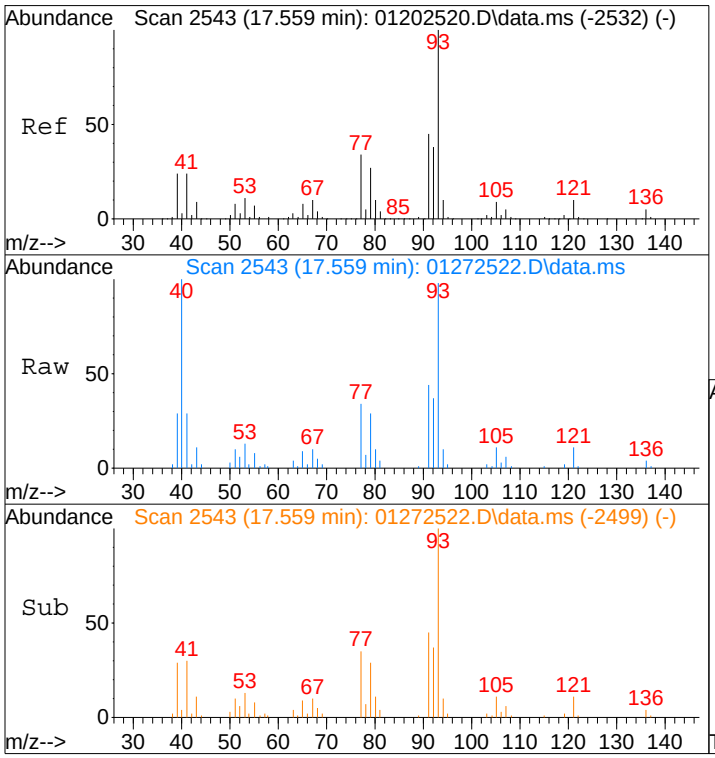


#71
n-Nonane
Concen: 0.12 ng
RT: 16.63 min Scan# 2379
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 43 Resp: 5770

Ion	Ratio	Lower	Upper
43	100		
57	62.4	52.1	92.1
85	16.3	0.0	39.5

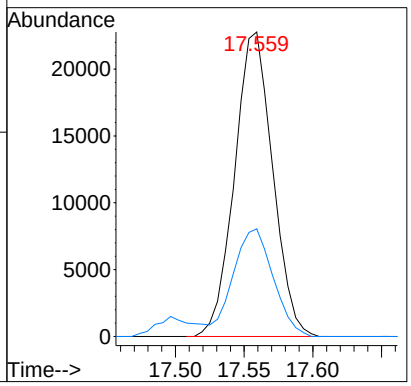


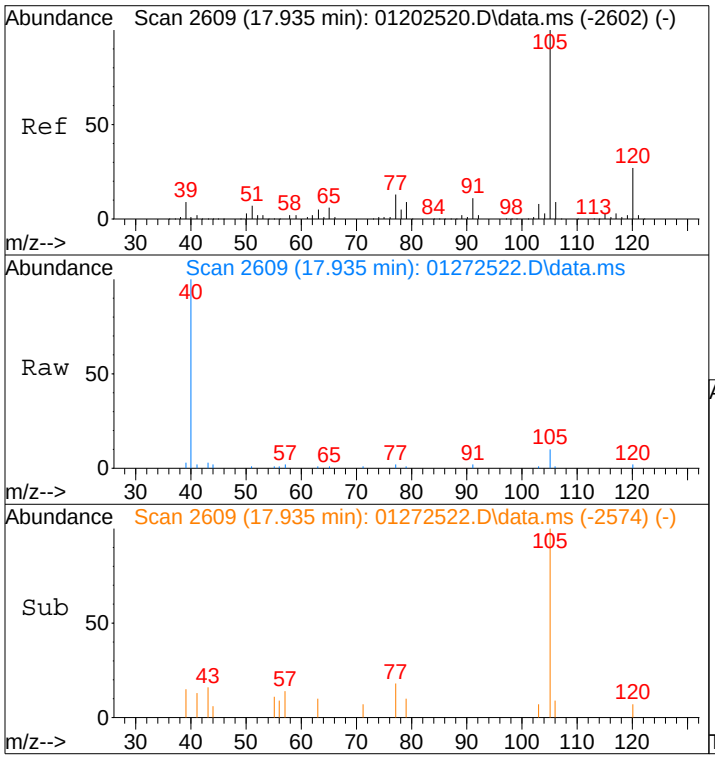


#75
alpha-Pinene
Concen: 1.46 ng
RT: 17.56 min Scan# 2543
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 93 Resp: 43978

Ion	Ratio	Lower	Upper
93	100		
77	36.9	14.1	54.1

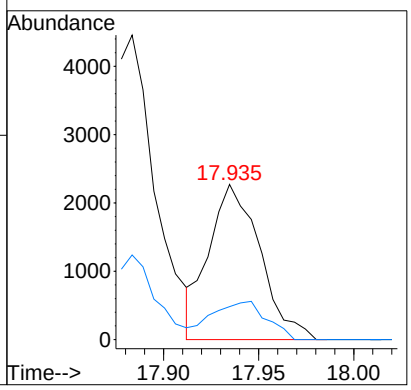


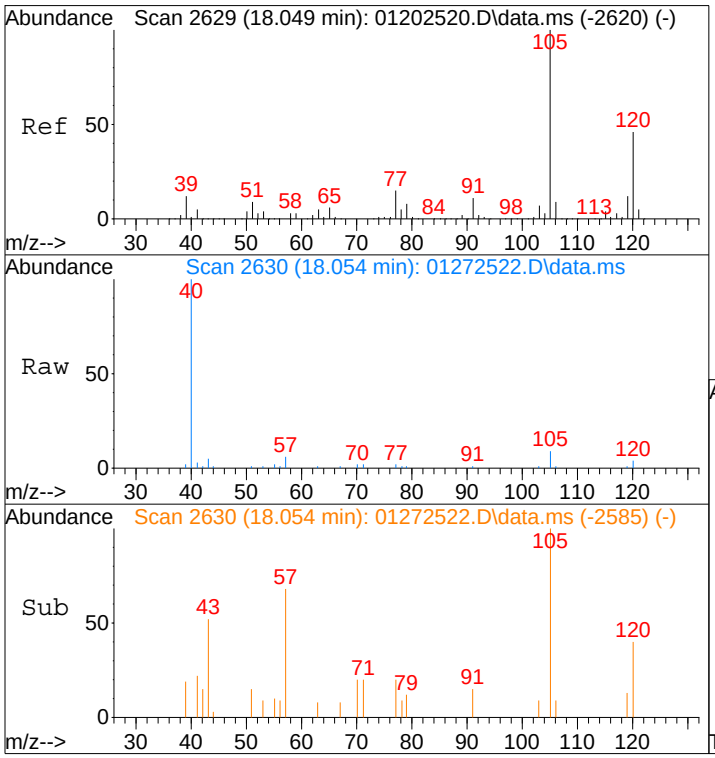


#78
4-Ethyltoluene
Concen: 0.07 ng
RT: 17.93 min Scan# 2609
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:105 Resp: 4259

Ion	Ratio	Lower	Upper
105	100		
120	26.4	7.6	47.6

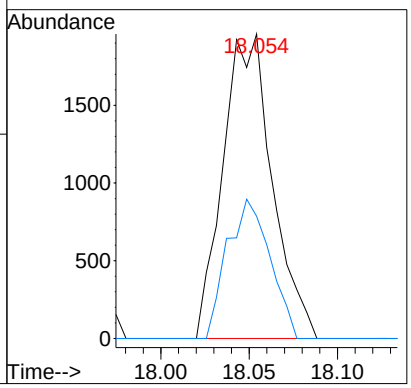


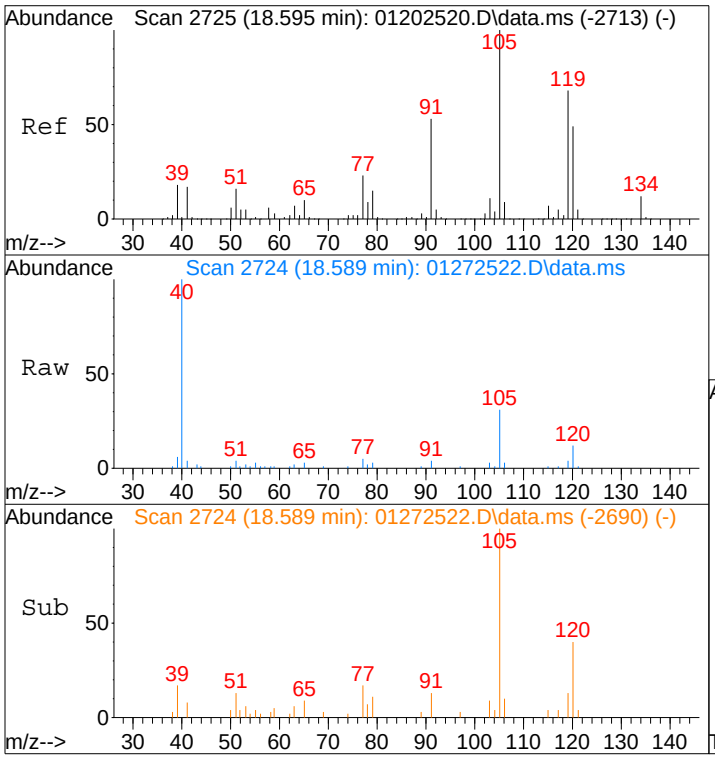


#79
1,3,5-Trimethylbenzene
Concen: 0.08 ng
RT: 18.05 min Scan# 2630
Delta R.T. 0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:105 Resp: 3793

Ion	Ratio	Lower	Upper
105	100		
120	39.7	26.2	66.2

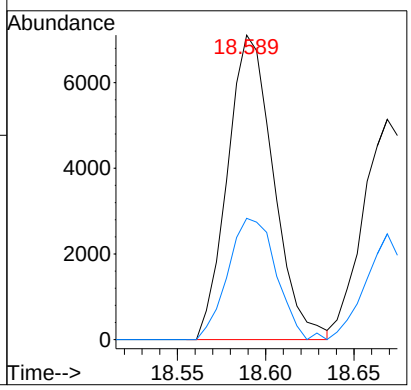


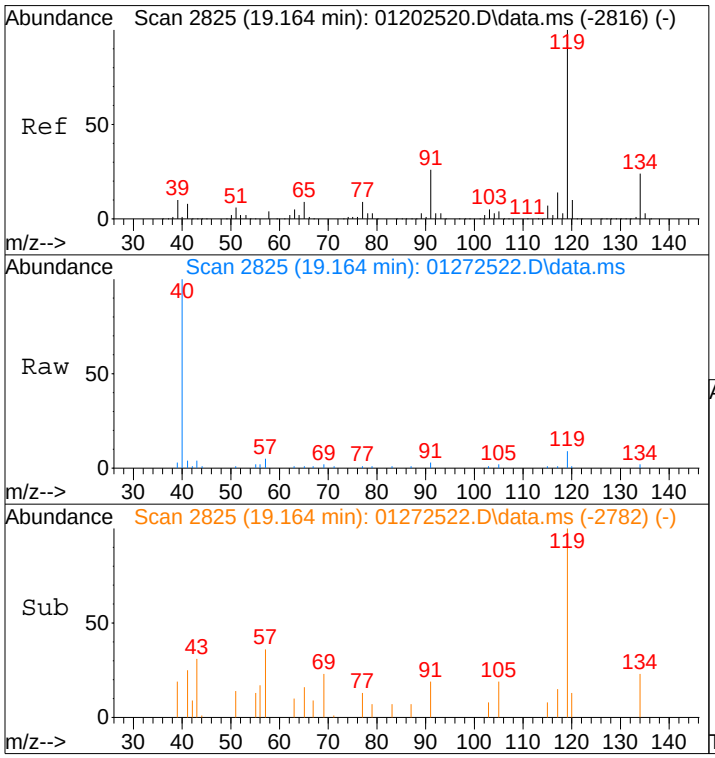


#82
1,2,4-Trimethylbenzene
Concen: 0.26 ng
RT: 18.59 min Scan# 2724
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:105 Resp: 12908

Ion	Ratio	Lower	Upper
105	100		
120	41.6	30.3	70.3

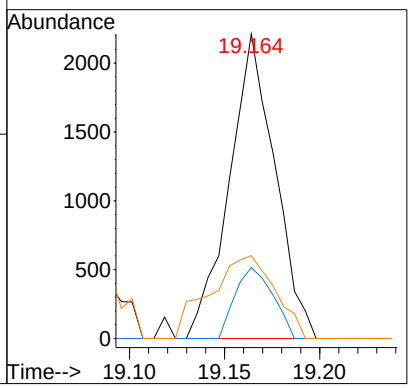


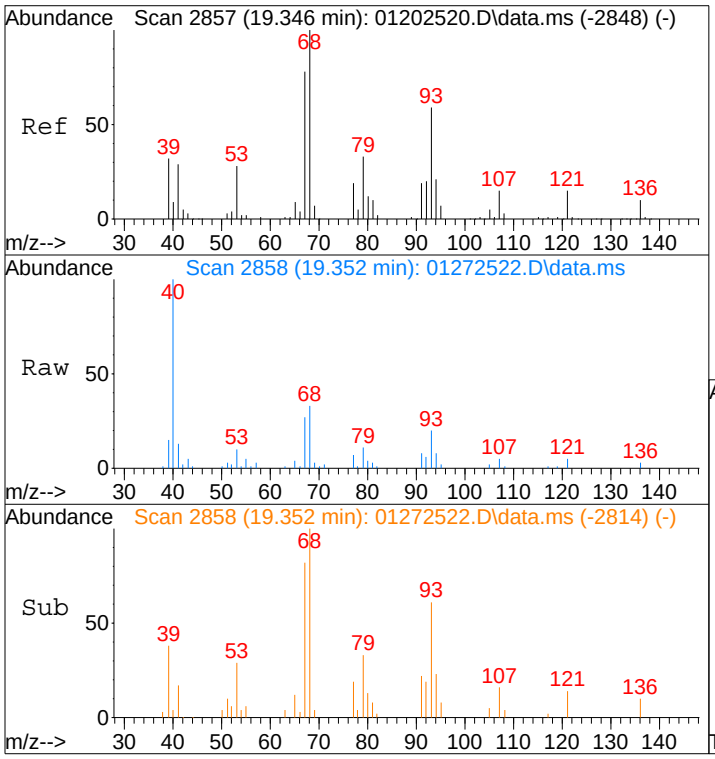


#88
4-Isopropyltoluene (p-Cymene)
Concen: 0.07 ng
RT: 19.16 min Scan# 2825
Delta R.T. -0.006 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion:119 Resp: 3689

Ion	Ratio	Lower	Upper
119	100		
134	19.2	3.8	43.8
91	38.9	5.9	45.9

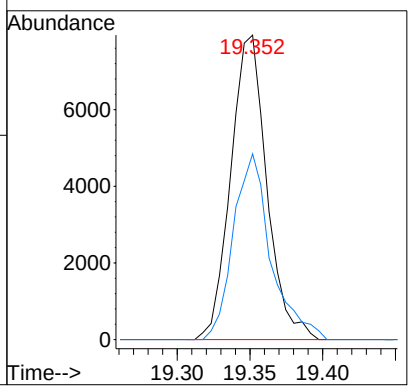




#91
d-Limonene
Concen: 0.64 ng
RT: 19.35 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 01272522.D
Acq: 27 Jan 2025 22:35

Tgt Ion: 68 Resp: 13705

Ion	Ratio	Lower	Upper
68	100		
93	63.4	39.0	79.0



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272522.D
Acq On : 27 Jan 2025 22:35
Operator : MC
Sample : P2500076-006 (1000mL)
Misc : S37-11222401
ALS Vial : 10 Sample Multiplier: 1

BCB 1/30/25

Quant Time: Jan 30 15:31:17 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

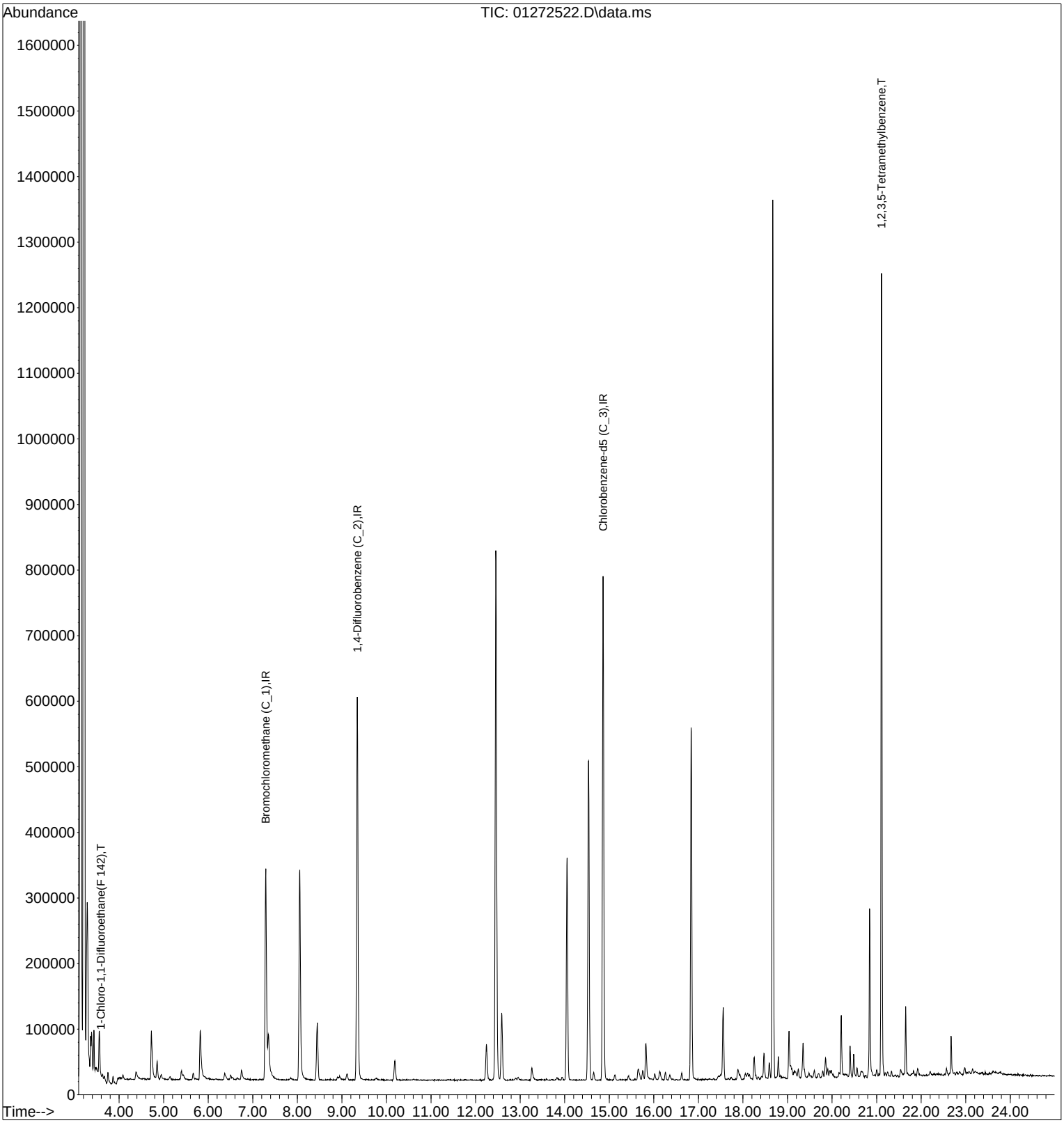
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.29	130	99181	12.500	ng		-0.02
16) 1,4-Difluorobenzene (C_2)	9.35	114	472853	12.500	ng		-0.02
19) Chlorobenzene-d5 (C_3)	14.86	54	153838	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.22	85	321	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D.	d		
4) 1,1-Difluoroethane	3.35	65	237	N.D.			
5) Chlorodifluoromethane ...	0.00	67	0	N.D.	d		
6) 1-Chloro-1,1-Difluoroe...	3.59	65	1819	0.064	ng	#	85
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	0.00	57	0	N.D.	d		
11) Methyl Acetate	0.00	43	0	N.D.	d		
12) 2-Methylpentane	0.00	71	0	N.D.			
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.11	84	1103	N.D.			
17) 2,3-Dimethylpentane	0.00	56	0	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	0.00	55	0	N.D.			
21) 1,3-Dichloropropane	12.59	76	177	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	16.36	75	1319	N.D.			
25) Bromobenzene	0.00	77	0	N.D.			
26) 2-Chlorotoluene	0.00	91	0	N.D.	d		
27) 4-Chlorotoluene	0.00	91	0	N.D.	d		
28) Indane	19.38	117	1551	N.D.			
29) Indene	19.38	115	461	N.D.			
30) 1,2,4,5-Tetramethylben...	20.69	119	1817	N.D.			
31) 1,2,3,4-Tetramethylben...	20.69	119	1817	N.D.			
32) 1,2,3,5-Tetramethylben...	21.11	119	5213	0.099	ng	#	84
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272522.D
Acq On : 27 Jan 2025 22:35
Operator : MC
Sample : P2500076-006 (1000mL)
Misc : S37-11222401
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 30 15:31:17 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG1-IA** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-007

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC00685

Initial Pressure (psig): -0.22 Final Pressure (psig): 3.73

Container Dilution Factor: 1.27

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.27	0.072	ND	0.10	0.028	
75-35-4	1,1-Dichloroethene	ND	0.11	0.094	ND	0.029	0.024	
75-09-2	Methylene Chloride	**0.37**	0.58	0.19	**0.11**	0.17	0.055	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.27	0.094	ND	0.067	0.024	
75-34-3	1,1-Dichloroethane	**0.54**	0.27	0.099	**0.13**	0.066	0.024	
156-59-2	cis-1,2-Dichloroethene	**0.56**	0.13	0.095	**0.14**	0.032	0.024	
107-06-2	1,2-Dichloroethane	ND	0.13	0.075	ND	0.032	0.019	
71-55-6	1,1,1-Trichloroethane	**0.75**	0.13	0.084	**0.14**	0.024	0.015	
56-23-5	Carbon Tetrachloride	**0.45**	0.13	0.094	**0.071**	0.021	0.015	
79-01-6	Trichloroethene	**1.4**	0.13	0.091	**0.27**	0.025	0.017	
127-18-4	Tetrachloroethene	**0.22**	0.14	0.088	**0.032**	0.021	0.013	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 13:44:03 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	99451	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.36	114	478411	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	156510	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.07	65	277370	15.496	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 124.00%				
57) Toluene-d8 (SS2)	12.46	98	608408	10.707	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.68%				
73) Bromofluorobenzene (SS3)	16.84	174	142536	9.811	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.48%				
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D. d			
3) Dichlorodifluoromethan...	3.44	85	48457	1.958	ng		98
4) Chloromethane	3.58	50	7527	0.324	ng		95
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	731	0.090	ng		78
6) Vinyl Chloride	3.79	62	266	N.D.			
7) 1,3-Butadiene	3.92	54	667	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	4.25	64	291	N.D.			
10) Ethanol	4.38	45	117351	7.614	ng		99
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.63	56	2670	0.232	ng		96
13) Acetone	4.70	58	269927	24.355	ng	#	73
14) Trichlorofluoromethane	4.83	101	20255	1.013	ng		100
15) 2-Propanol (Isopropanol)	4.94	45	40374	0.811	ng	#	58
16) Acrylonitrile	5.12	53	3295	0.150	ng	#	32
17) 1,1-Dichloroethene	5.36	96	211	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d			
19) Methylene Chloride	5.44	84	3751	0.289	ng	#	78
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D. d			
21) Trichlorotrifluoroethane	5.66	151	3234	0.409	ng		94
22) Carbon Disulfide	5.69	76	84659	1.670	ng		98
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	6.39	63	11030	0.423	ng		94
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	6.51	86	3283	1.423	ng	#	74
27) 2-Butanone (MEK)	6.73	72	41635	4.982	ng	#	79
28) cis-1,2-Dichloroethene	7.14	61	9232	0.439	ng		93
29) Diisopropyl Ether	0.00	87	0	N.D. d			
30) Ethyl Acetate	7.34	61	455454	85.155	ng		91
31) n-Hexane	7.36	57	13231	0.523	ng		93
32) Chloroform	7.43	83	22954	1.078	ng		99
34) Tetrahydrofuran (THF)	7.83	72	1910	0.225	ng	#	29
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	8.19	62	1160	0.058	ng		80
38) 1,1,1-Trichloroethane	8.45	97	11278	0.588	ng		95
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.89	56	8406	No Calib		#	
41) Benzene	8.95	78	46769	0.829	ng		99
42) Carbon Tetrachloride	9.12	117	5824	0.351	ng		98
43) Cyclohexane	9.26	84	2339	0.126	ng	#	83
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	9.92	63	697	N.D.			
46) Bromodichloromethane	10.13	83	2576	0.148	ng		80
47) Trichloroethene	10.19	130	12691	1.122	ng		96
48) 1,4-Dioxane	10.19	88	1554	0.156	ng		96

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 13:44:03 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

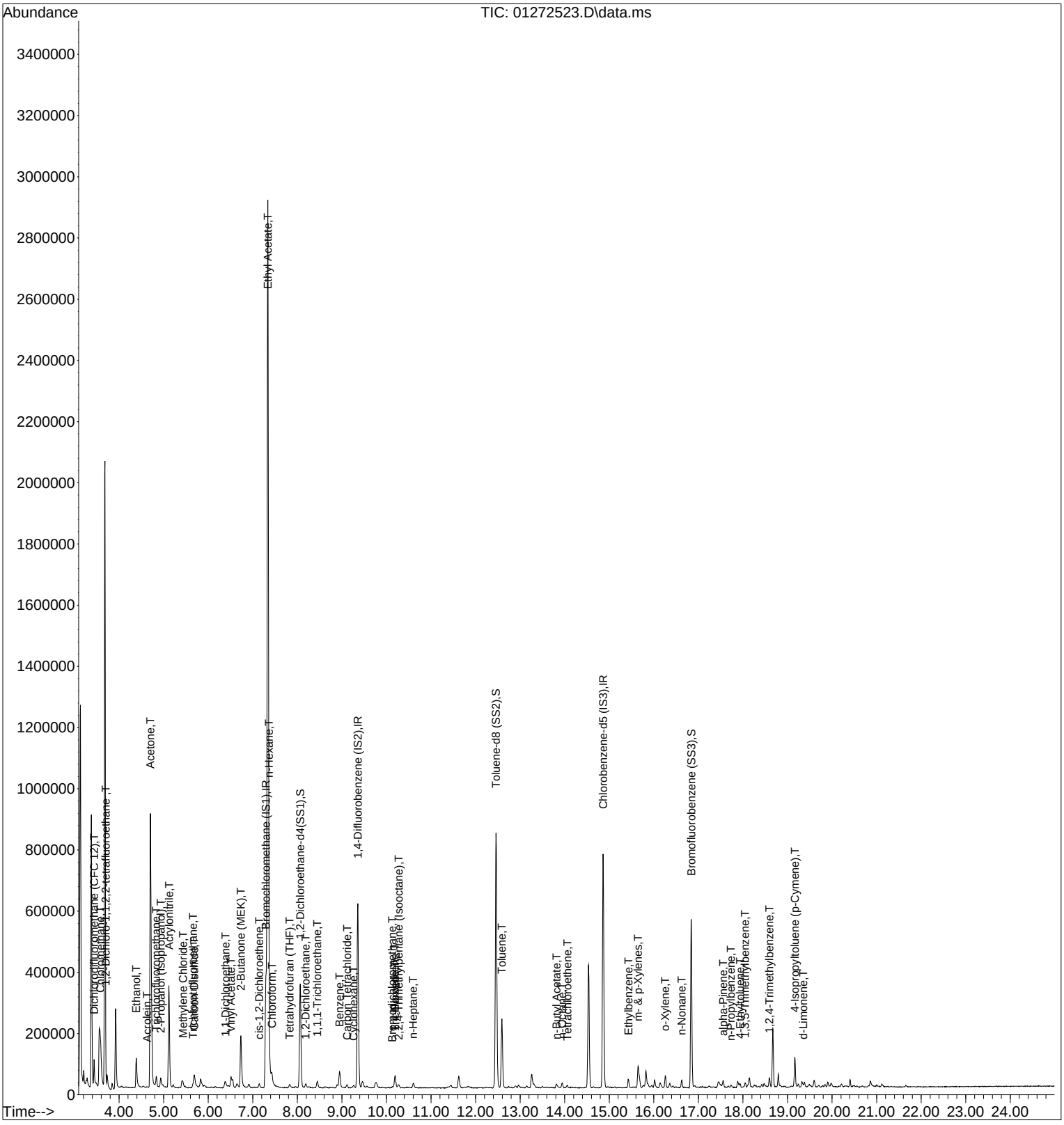
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.27	57	11834	0.170 ng		67
50) Methyl Methacrylate	0.00	100	0	N.D.		
51) n-Heptane	10.60	71	3345	0.241 ng		96
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.		
53) 4-Methyl-2-pentanone	0.00	58	0	N.D. d		
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.		
58) Toluene	12.59	91	175938	2.926 ng		98
59) 2-Hexanone	0.00	43	0	N.D. d		
60) Dibromochloromethane	13.10	129	125	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	13.81	43	15697	0.300 ng		96
63) n-Octane	13.95	57	2902	0.173 ng		88
64) Tetrachloroethene	14.06	166	2371	0.173 ng		97
65) Chlorobenzene	0.00	112	0	N.D.		
66) Ethylbenzene	15.43	91	23023	0.338 ng		98
67) m- & p-Xylenes	15.65	91	62926	1.165 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	16.12	104	539	N.D.		
70) o-Xylene	16.26	91	24931	0.464 ng		97
71) n-Nonane	16.63	43	14234	0.298 ng		91
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.		
74) Cumene	17.05	105	2223	N.D.		
75) alpha-Pinene	17.55	93	7798	0.254 ng		74
76) n-Propylbenzene	17.73	91	5694	0.070 ng		97
77) 3-Ethyltoluene	17.05	105	2223	No Calib		
78) 4-Ethyltoluene	17.93	105	5698	0.098 ng		92
79) 1,3,5-Trimethylbenzene	18.05	105	5489	0.107 ng		89
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	2223	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	15387	0.302 ng		89
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	0.00	91	0	N.D.		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.		
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.		
87) sec-Butylbenzene	18.95	105	550	N.D.		
88) 4-Isopropyltoluene (p-...	19.16	119	50414	0.943 ng		94
89) 1,2,3-Trimethylbenzene	17.05	105	2223	No Calib		
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.		
91) d-Limonene	19.35	68	2571	0.117 ng	#	67
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	18.05	58	228	No Calib	#	
94) 1,2,4-Trichlorobenzene	21.43	180	111	N.D.		
95) Naphthalene	21.58	128	267	N.D.		
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	15.40	55	310	No Calib	#	
99) tert-Butylbenzene	18.59	119	1745	N.D.		
100) n-Butylbenzene	19.70	91	1713	N.D.		
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 13:44:03 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 30 13:44:03 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	99451	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.36	114	478411	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	156510	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.07	65	277370	15.496	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 124.00%				
57) Toluene-d8 (SS2)	12.46	98	608408	10.707	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.68%				
73) Bromofluorobenzene (SS3)	16.84	174	142536	9.811	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.48%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.44	85	48457	1.958	ng		98
4) Chloromethane	3.58	50	7527	0.324	ng		95
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	731	0.090	ng		78
10) Ethanol	4.38	45	117351	7.614	ng		99
12) Acrolein	4.63	56	2670	0.232	ng		96
13) Acetone	4.70	58	269927	24.355	ng	#	73
14) Trichlorofluoromethane	4.83	101	20255	1.013	ng		100
15) 2-Propanol (Isopropanol)	4.94	45	40374	0.811	ng	#	58
16) Acrylonitrile	5.12	53	3295	0.150	ng	#	32
19) Methylene Chloride	5.44	84	3751	0.289	ng	#	78
21) Trichlorotrifluoroethane	5.66	151	3234	0.409	ng		94
22) Carbon Disulfide	5.69	76	84659	1.670	ng		98
24) 1,1-Dichloroethane	6.39	63	11030	0.423	ng		94
26) Vinyl Acetate	6.51	86	3283	1.423	ng	#	74
27) 2-Butanone (MEK)	6.73	72	41635	4.982	ng	#	79
28) cis-1,2-Dichloroethene	7.14	61	9232	0.439	ng		93
30) Ethyl Acetate	7.34	61	455454	85.155	ng		91
31) n-Hexane	7.36	57	13231	0.523	ng		93
32) Chloroform	7.43	83	22954	1.078	ng		99
34) Tetrahydrofuran (THF)	7.83	72	1910	0.225	ng	#	29
36) 1,2-Dichloroethane	8.19	62	1160	0.058	ng		80
38) 1,1,1-Trichloroethane	8.45	97	11278	0.588	ng		95
41) Benzene	8.95	78	46769	0.829	ng		99
42) Carbon Tetrachloride	9.12	117	5824	0.351	ng		98
43) Cyclohexane	9.26	84	2339	0.126	ng	#	83
46) Bromodichloromethane	10.13	83	2576	0.148	ng		80
47) Trichloroethene	10.19	130	12691	1.122	ng		96
48) 1,4-Dioxane	10.19	88	1554	0.156	ng		96
49) 2,2,4-Trimethylpentane...	10.27	57	11834	0.170	ng		67
51) n-Heptane	10.60	71	3345	0.241	ng		96
58) Toluene	12.59	91	175938	2.926	ng		98
62) n-Butyl Acetate	13.81	43	15697	0.300	ng		96
63) n-Octane	13.95	57	2902	0.173	ng		88
64) Tetrachloroethene	14.06	166	2371	0.173	ng		97
66) Ethylbenzene	15.43	91	23023	0.338	ng		98
67) m- & p-Xylenes	15.65	91	62926	1.165	ng		98
70) o-Xylene	16.26	91	24931	0.464	ng		97
71) n-Nonane	16.63	43	14234	0.298	ng		91
75) alpha-Pinene	17.55	93	7798	0.254	ng		74
76) n-Propylbenzene	17.73	91	5694	0.070	ng		97
78) 4-Ethyltoluene	17.93	105	5698	0.098	ng		92
79) 1,3,5-Trimethylbenzene	18.05	105	5489	0.107	ng		89
82) 1,2,4-Trimethylbenzene	18.59	105	15387	0.302	ng		89
88) 4-Isopropyltoluene (p-...	19.16	119	50414	0.943	ng		94
91) d-Limonene	19.35	68	2571	0.117	ng	#	67

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 13:44:03 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

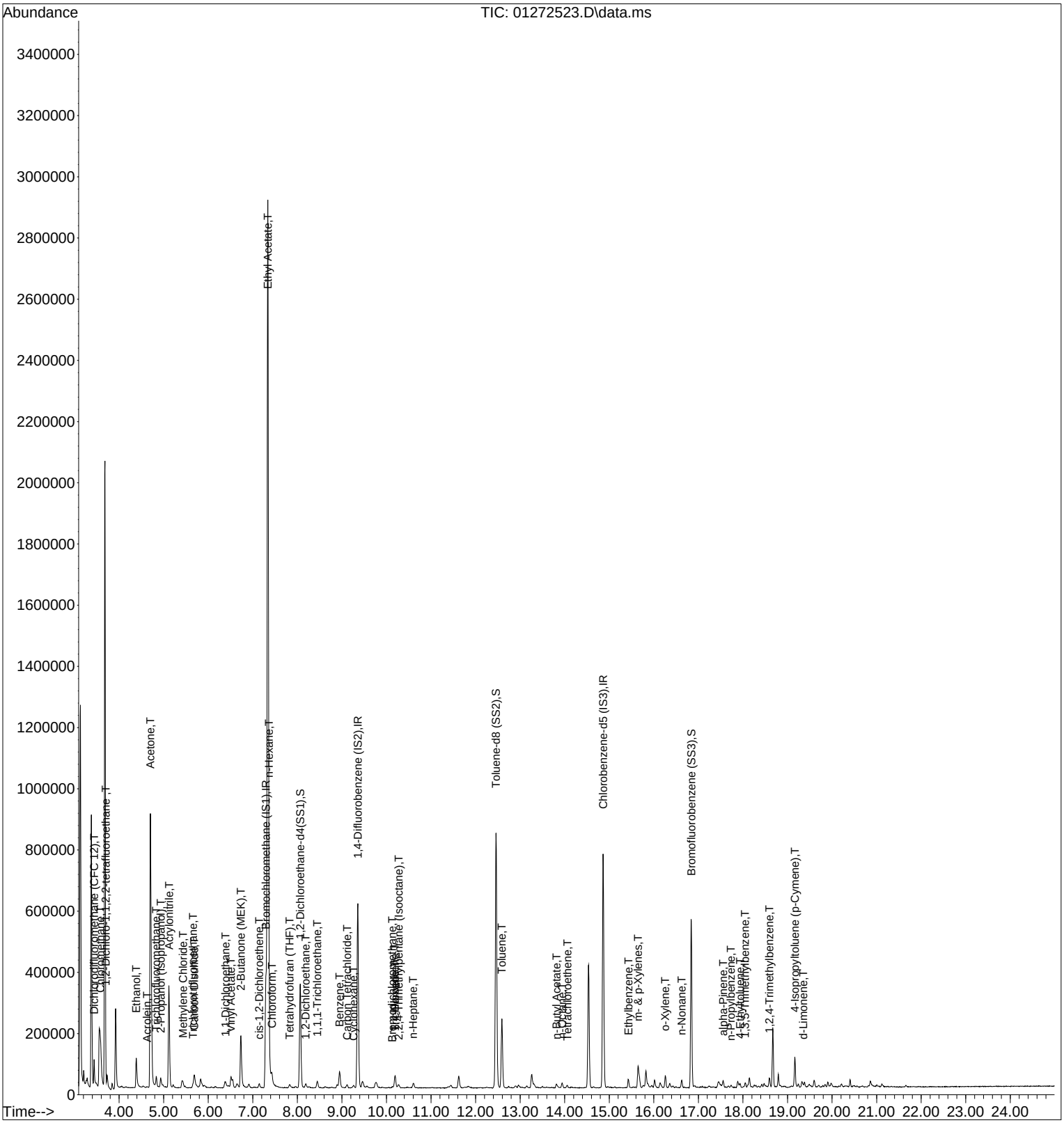
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

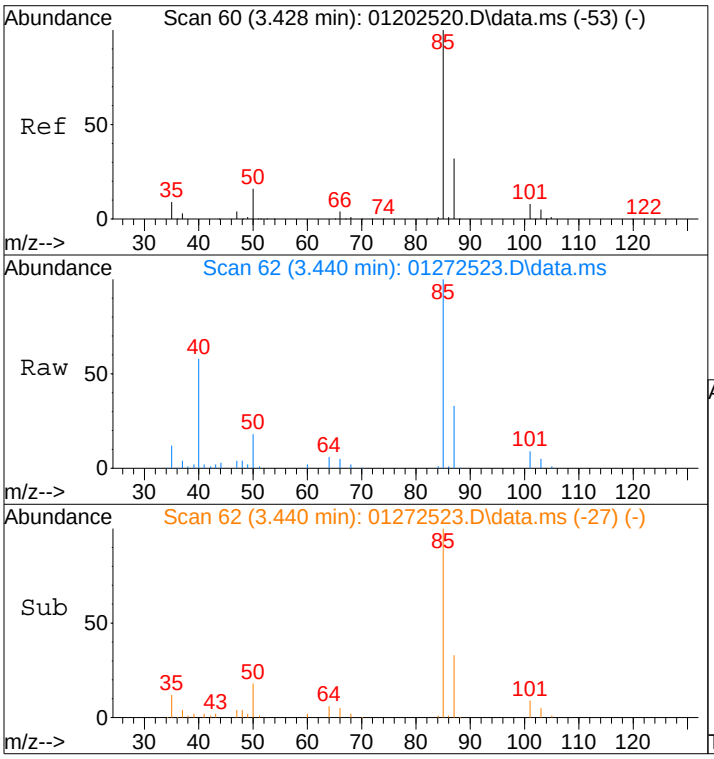
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
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Misc : S37-11222401
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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

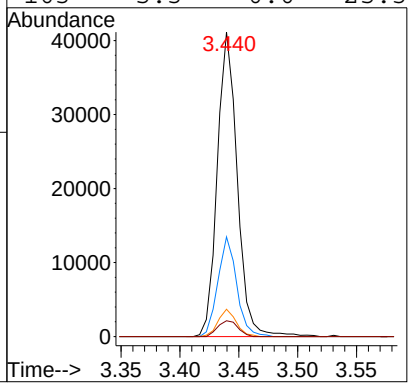


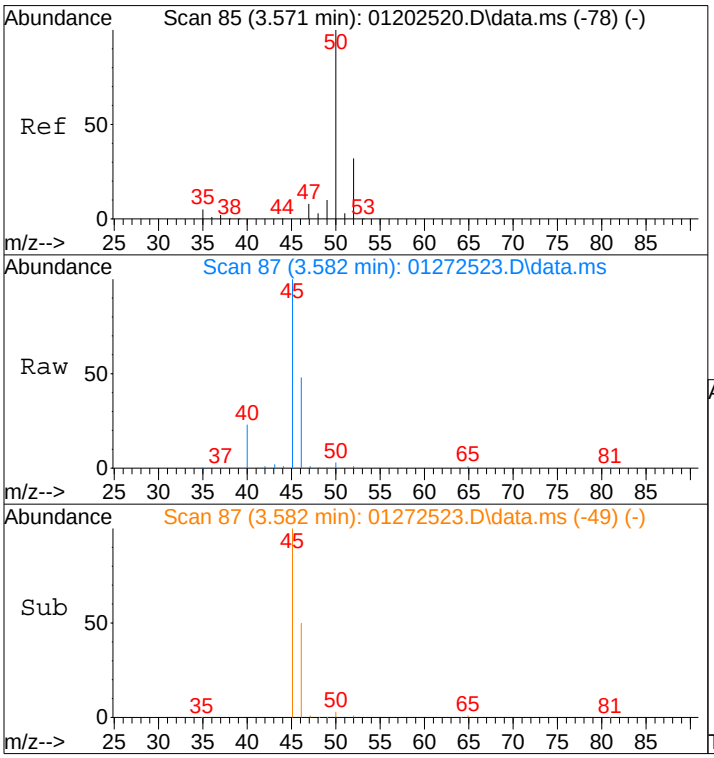


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.96 ng
RT: 3.44 min Scan# 62
Delta R.T. -0.051 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 85 Resp: 48457

Ion	Ratio	Lower	Upper
85	100		
87	30.9	12.2	52.2
101	8.1	0.0	28.4
103	5.3	0.0	25.3

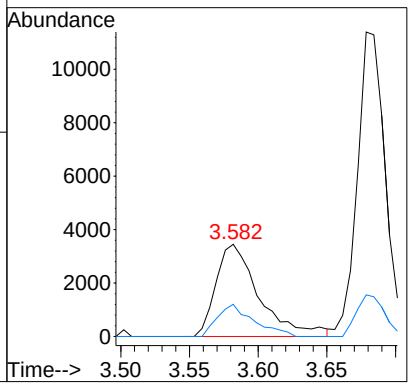


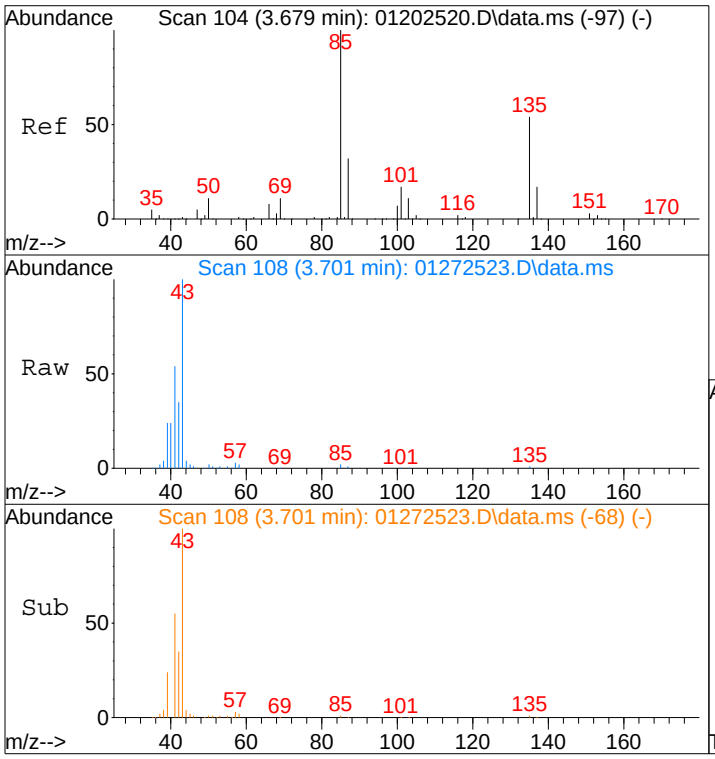


#4
Chloromethane
Concen: 0.32 ng
RT: 3.58 min Scan# 87
Delta R.T. -0.034 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 50 Resp: 7527

Ion	Ratio	Lower	Upper
50	100		
52	29.4	12.2	52.2

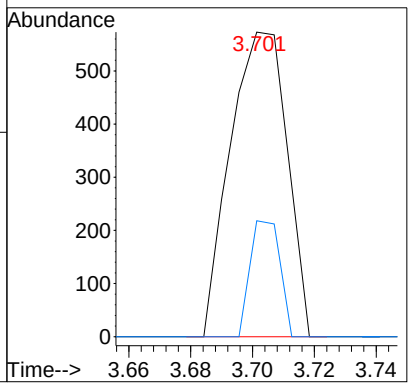


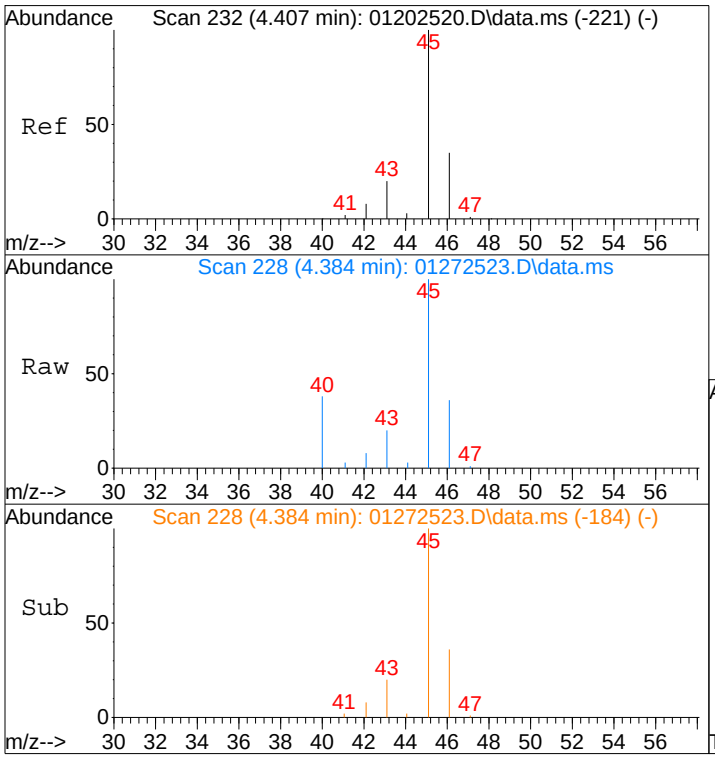


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.09 ng
RT: 3.70 min Scan# 108
Delta R.T. -0.023 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:135 Resp: 731

Ion	Ratio	Lower	Upper
135	100		
137	20.1	12.2	52.2

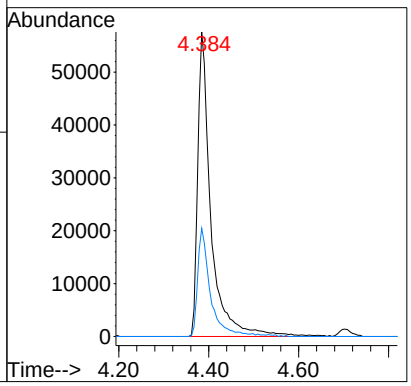


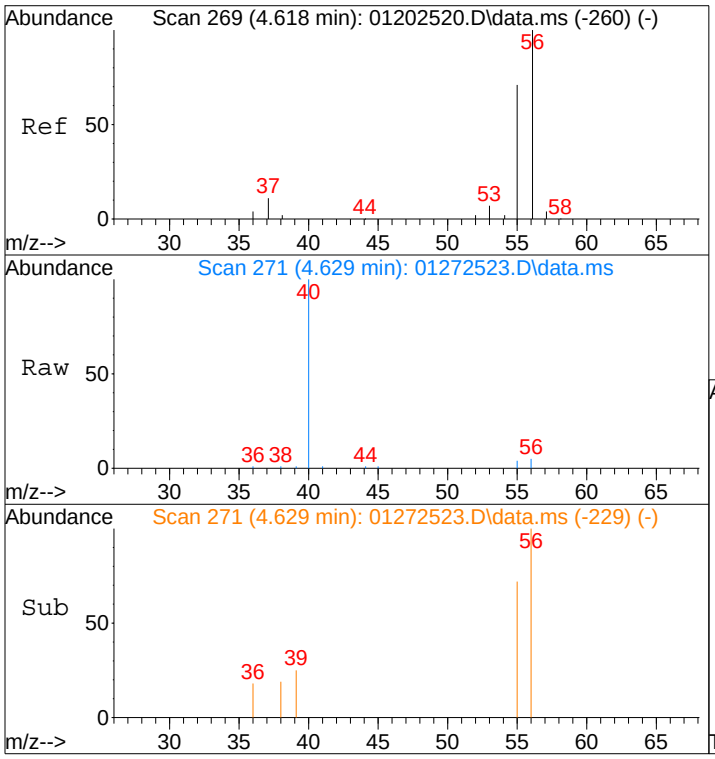


#10
Ethanol
Concen: 7.61 ng
RT: 4.38 min Scan# 228
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 45 Resp: 117351

Ion	Ratio	Lower	Upper
45	100		
46	34.7	15.0	55.0

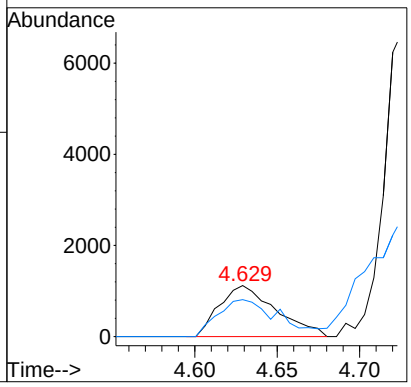


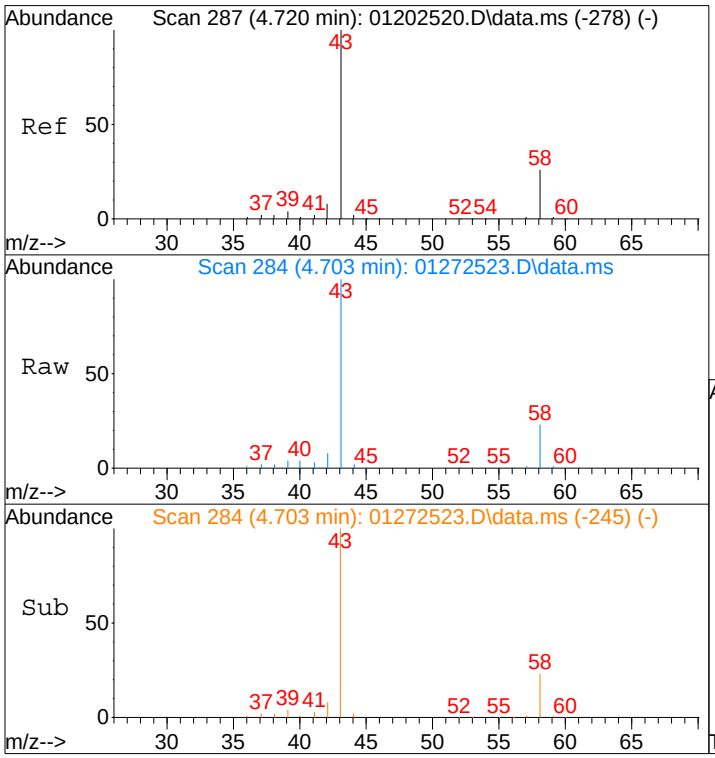


#12
Acrolein
Concen: 0.23 ng
RT: 4.63 min Scan# 271
Delta R.T. -0.012 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 56 Resp: 2670

Ion	Ratio	Lower	Upper
56	100		
55	77.3	53.6	93.6

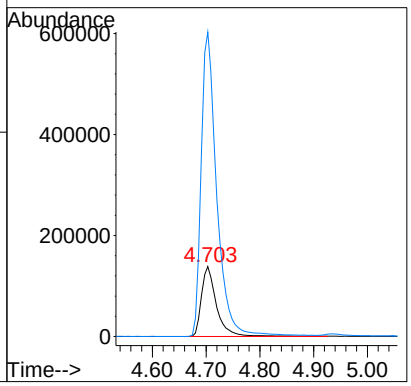


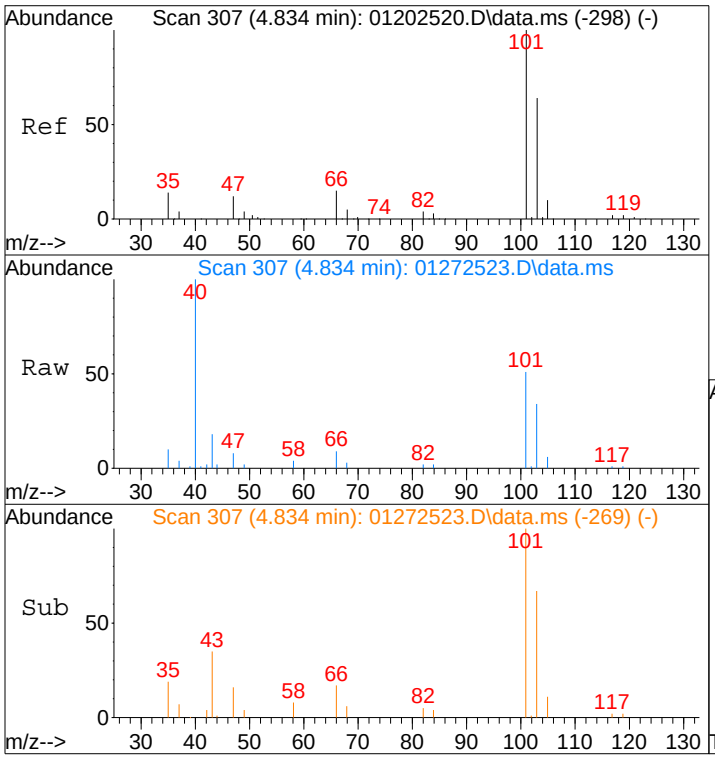


#13
Acetone
Concen: 24.35 ng
RT: 4.70 min Scan# 284
Delta R.T. -0.029 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 58 Resp: 269927

Ion	Ratio	Lower	Upper
58	100		
43	452.0	359.4	419.4#

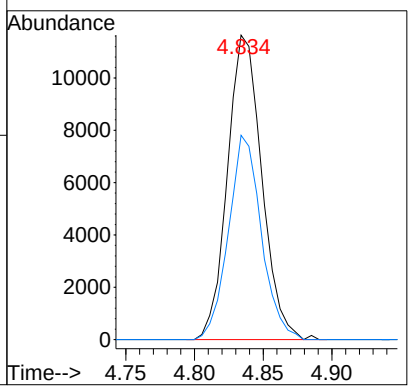


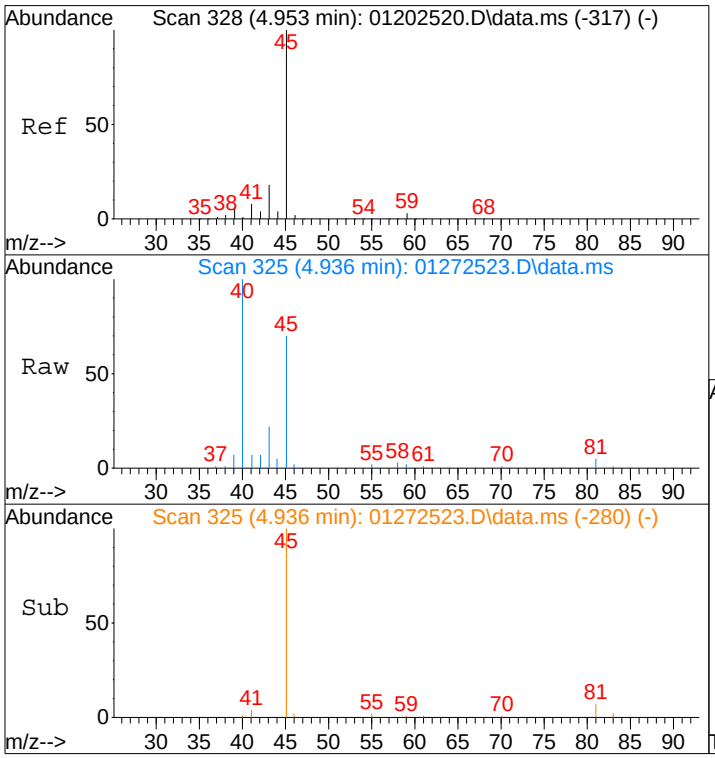


#14
Trichlorofluoromethane
Concen: 1.01 ng
RT: 4.83 min Scan# 307
Delta R.T. -0.034 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:101 Resp: 20255

Ion	Ratio	Lower	Upper
101	100		
103	64.1	44.2	84.2

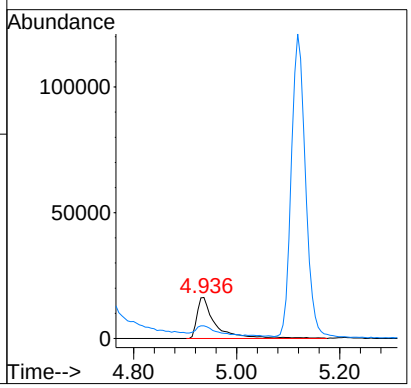


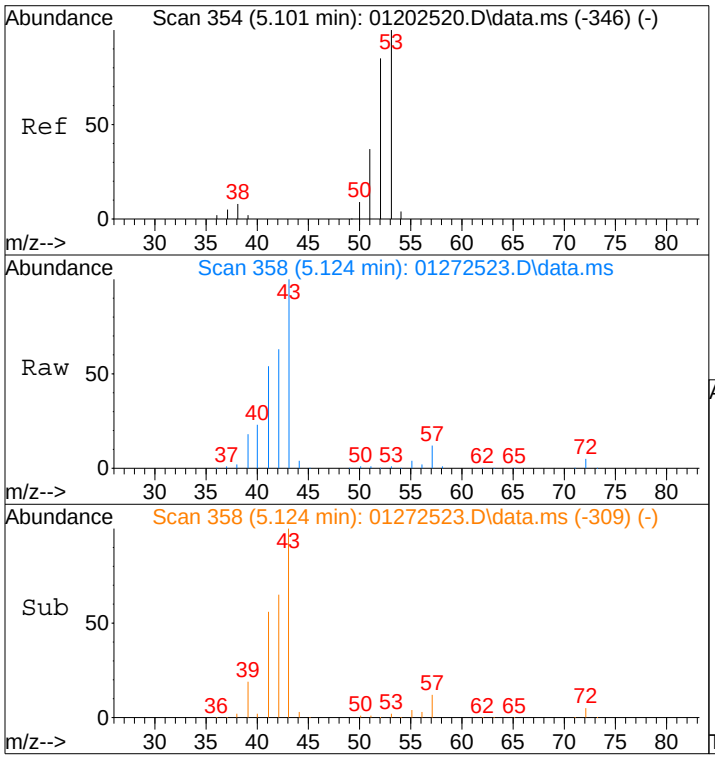


#15
2-Propanol (Isopropanol)
Concen: 0.81 ng
RT: 4.94 min Scan# 325
Delta R.T. 0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 45 Resp: 40374

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

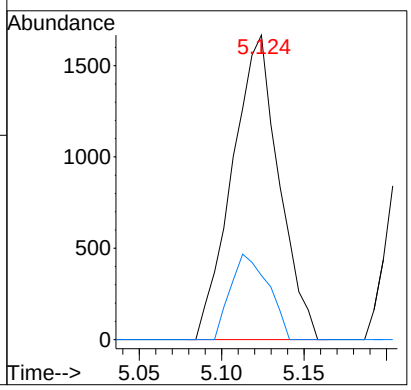


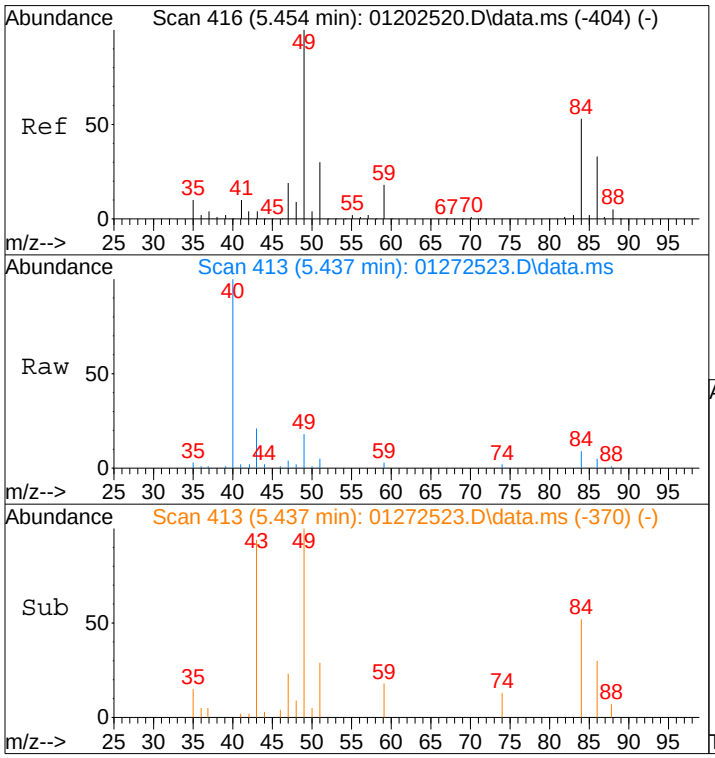


#16
Acrylonitrile
Concen: 0.15 ng
RT: 5.12 min Scan# 358
Delta R.T. 0.028 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 53 Resp: 3295

Ion	Ratio	Lower	Upper
53	100		
52	22.7	65.1	105.1#

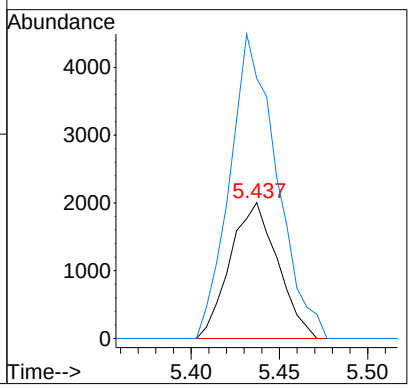


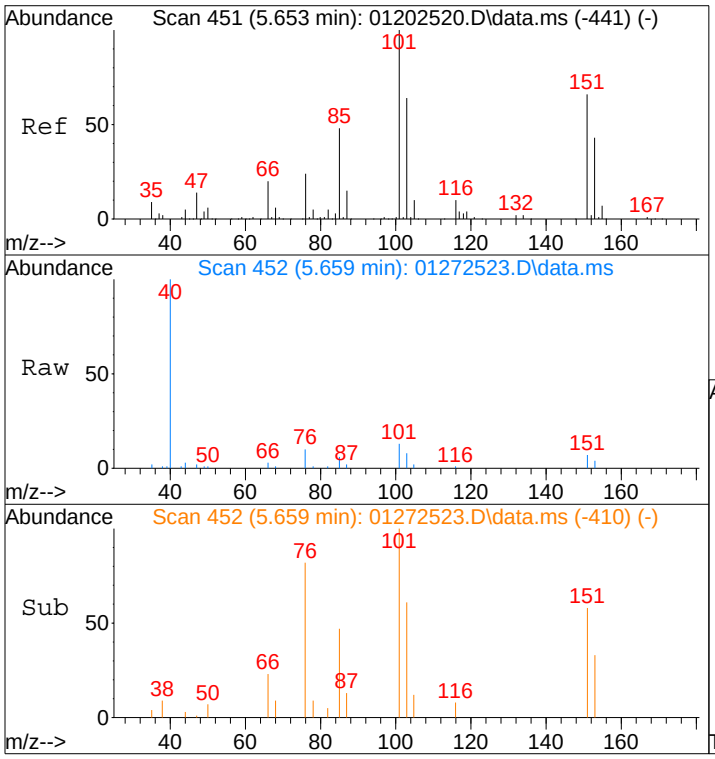


#19
Methylene Chloride
Concen: 0.29 ng
RT: 5.44 min Scan# 413
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 84 Resp: 3751

Ion	Ratio	Lower	Upper
84	100		
49	220.7	163.7	213.7#

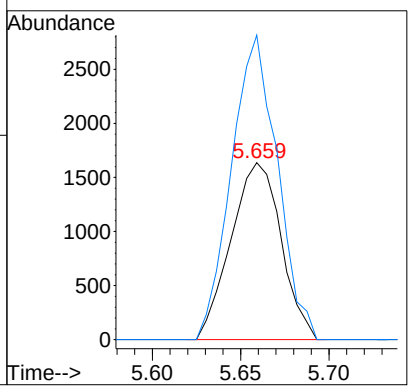


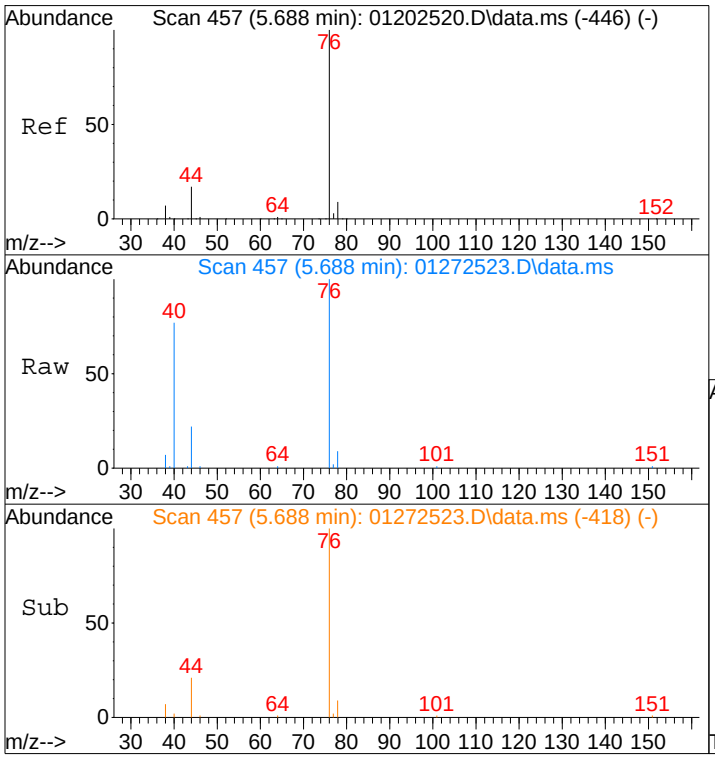


#21
Trichlorotrifluoroethane
Concen: 0.41 ng
RT: 5.66 min Scan# 452
Delta R.T. -0.012 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:151 Resp: 3234

Ion	Ratio	Lower	Upper
151	100		
101	157.6	129.9	169.9

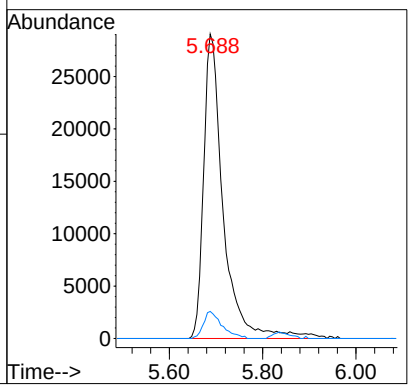


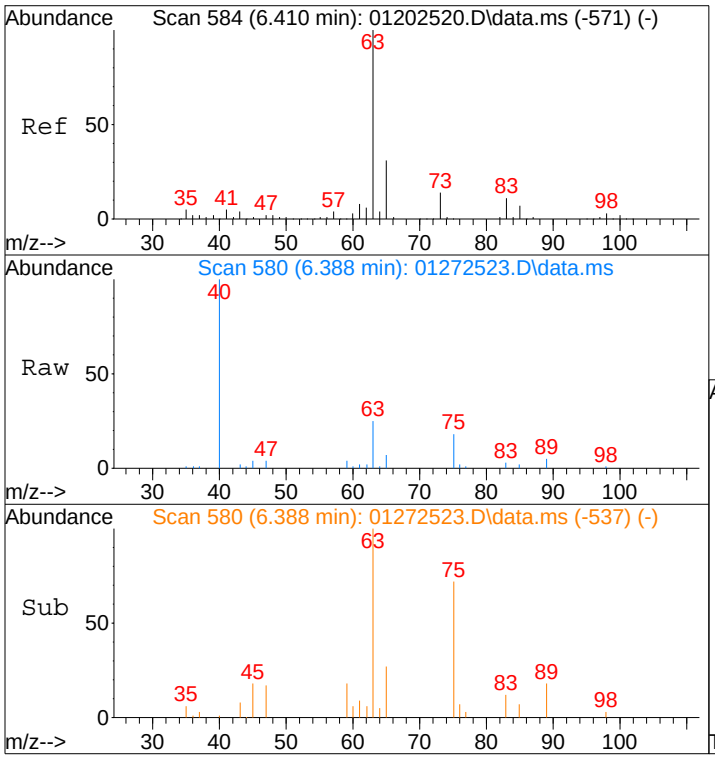


#22
Carbon Disulfide
Concen: 1.67 ng
RT: 5.69 min Scan# 457
Delta R.T. -0.029 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 76 Resp: 84659

Ion	Ratio	Lower	Upper
76	100		
78	8.5	0.0	29.1

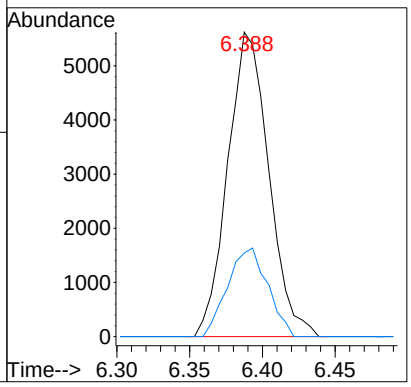


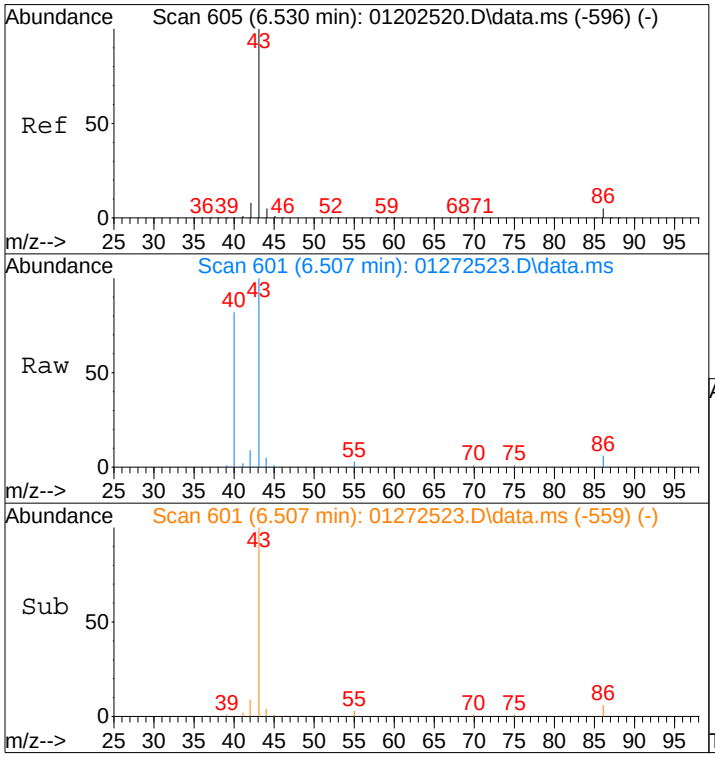


#24
1,1-Dichloroethane
Concen: 0.42 ng
RT: 6.39 min Scan# 580
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 63 Resp: 11030

Ion	Ratio	Lower	Upper
63	100		
65	28.3	11.5	51.5

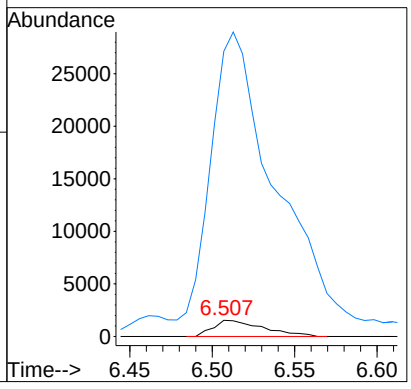


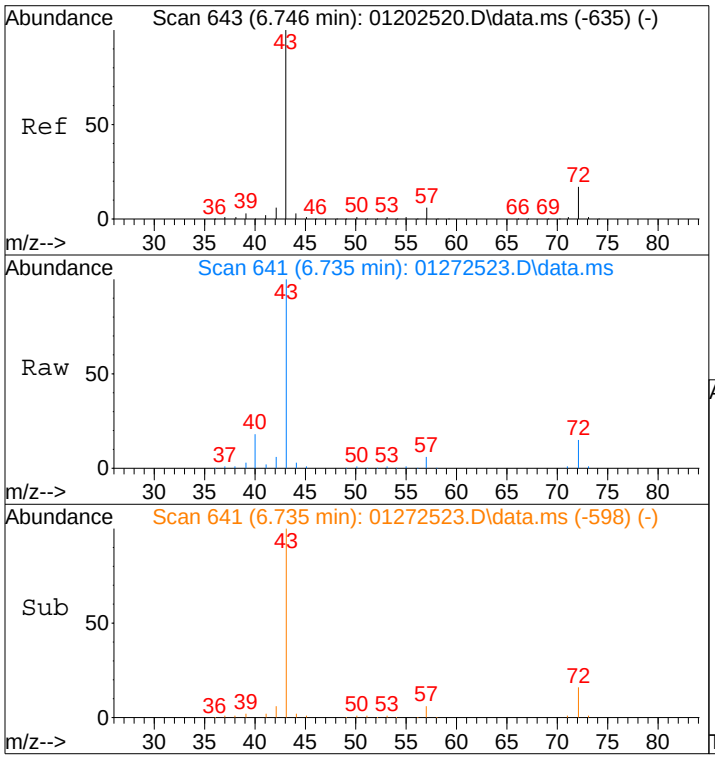


#26
Vinyl Acetate
Concen: 1.42 ng
RT: 6.51 min Scan# 601
Delta R.T. -0.012 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 86 Resp: 3283

Ion	Ratio	Lower	Upper
86	100		
43	2251.4	2036.4	2076.4#

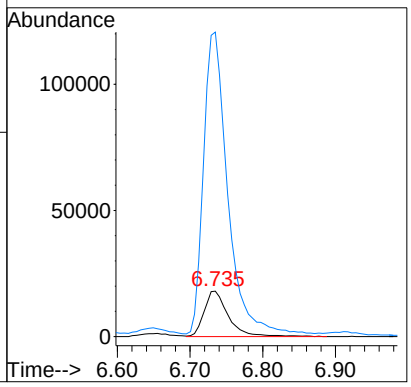


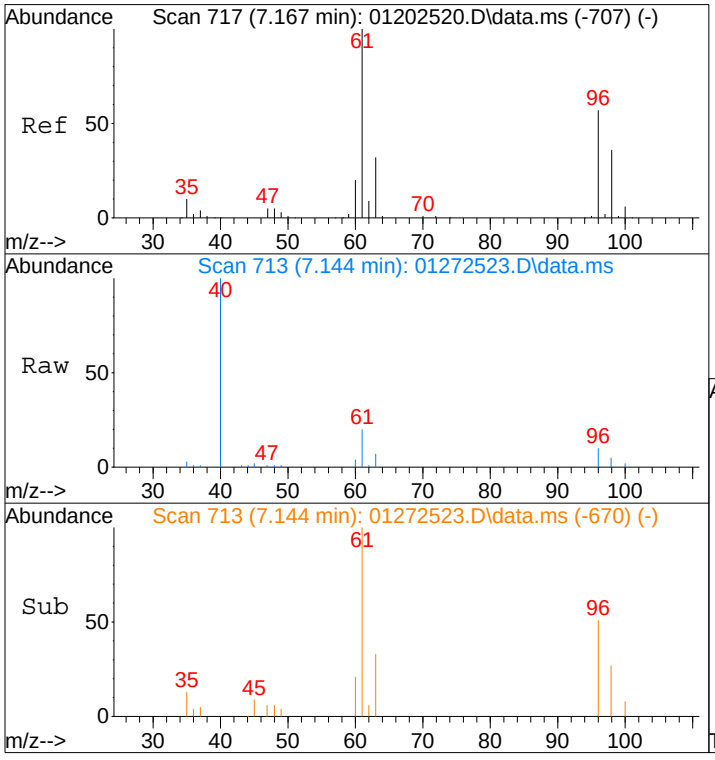


#27
2-Butanone (MEK)
Concen: 4.98 ng
RT: 6.73 min Scan# 641
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 72 Resp: 41635

Ion	Ratio	Lower	Upper
72	100		
43	664.1	579.1	619.1#

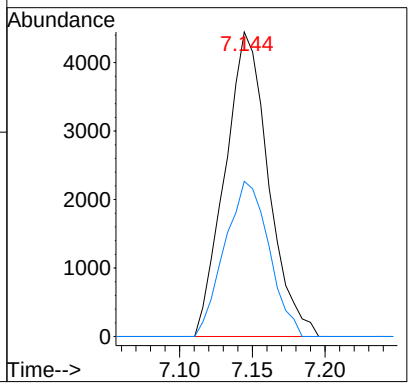


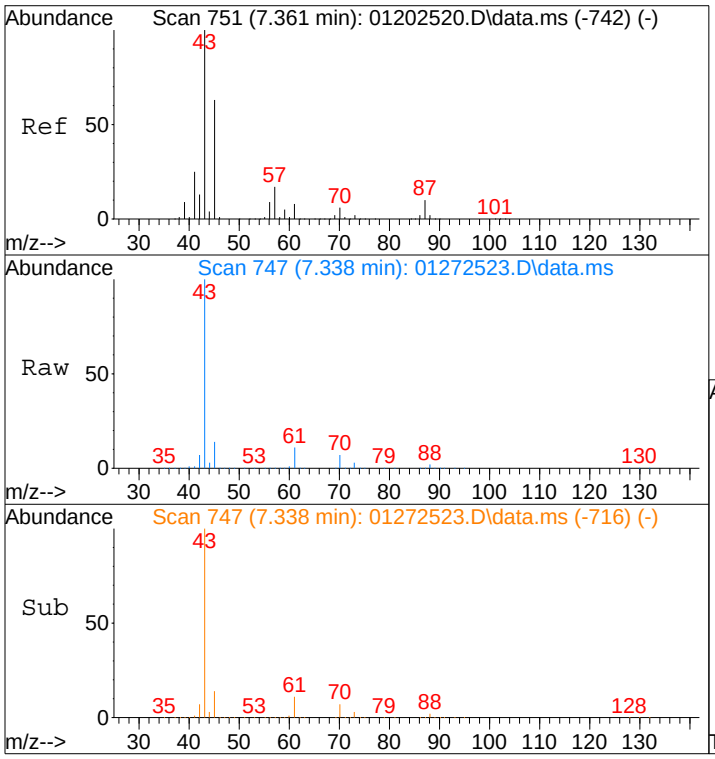


#28
cis-1,2-Dichloroethene
Concen: 0.44 ng
RT: 7.14 min Scan# 713
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 61 Resp: 9232

Ion	Ratio	Lower	Upper
61	100		
96	51.9	36.9	76.9

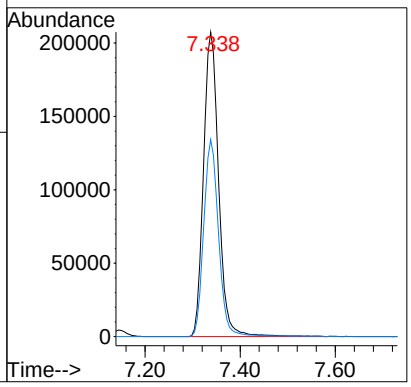


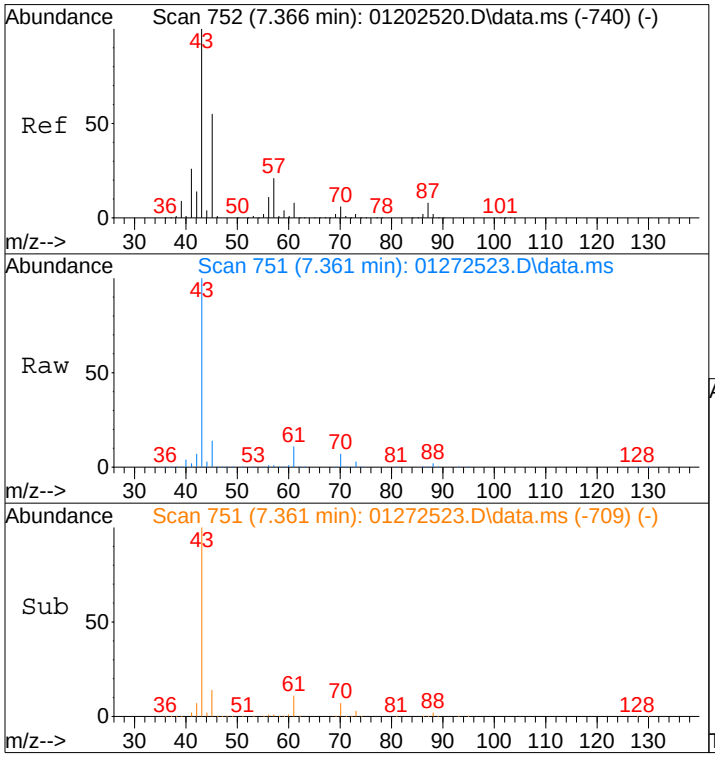


#30
Ethyl Acetate
Concen: 85.16 ng
RT: 7.34 min Scan# 747
Delta R.T. -0.023 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 61 Resp: 455454

Ion	Ratio	Lower	Upper
61	100		
70	63.6	51.2	91.2

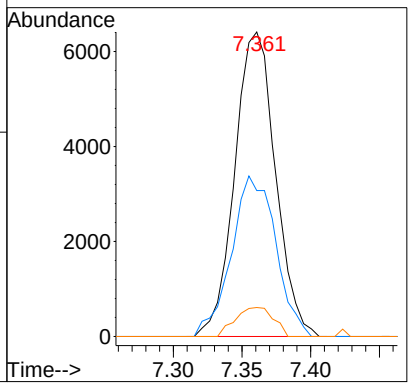


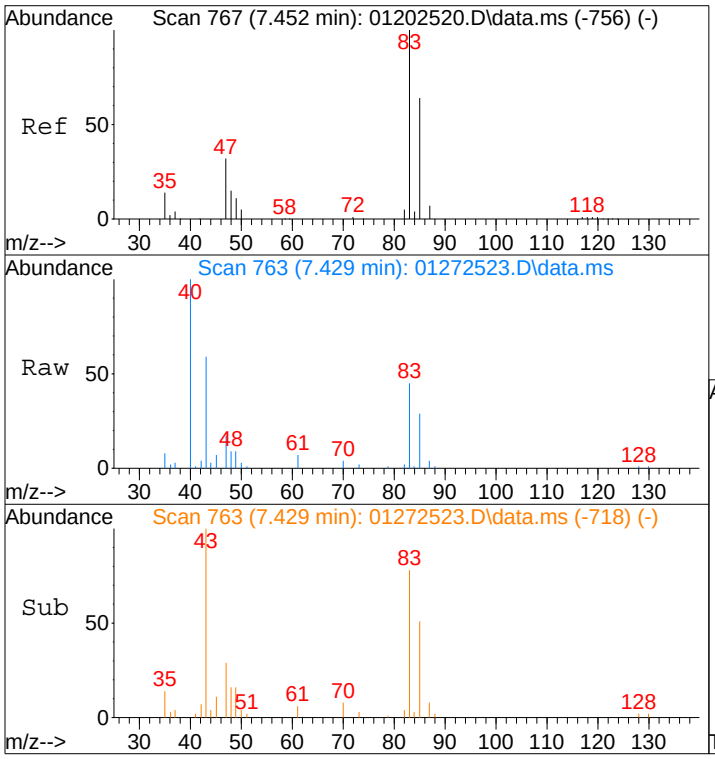


#31
n-Hexane
Concen: 0.52 ng
RT: 7.36 min Scan# 751
Delta R.T. -0.012 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 57 Resp: 13231

Ion	Ratio	Lower	Upper
57	100		
56	57.2	41.8	62.6
86	8.9	8.3	12.5

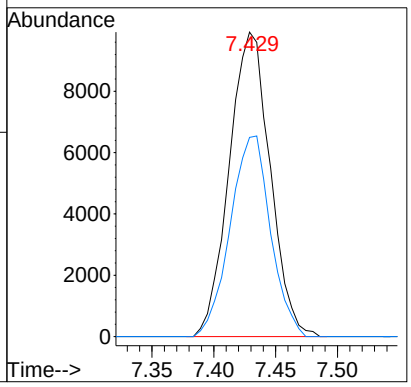


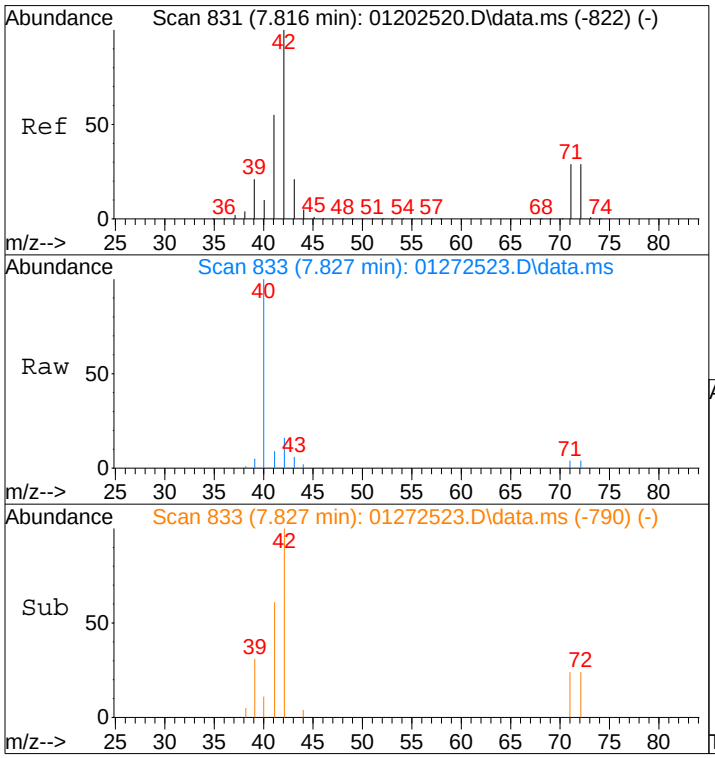


#32
Chloroform
Concen: 1.08 ng
RT: 7.43 min Scan# 763
Delta R.T. 0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 83 Resp: 22954

Ion	Ratio	Lower	Upper
83	100		
85	64.7	44.0	84.0

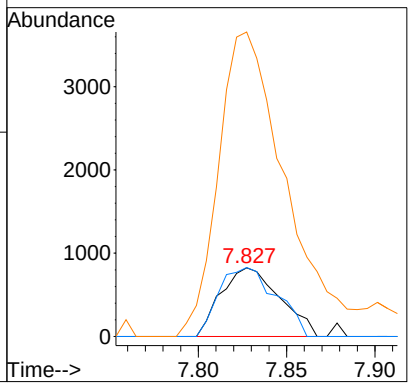


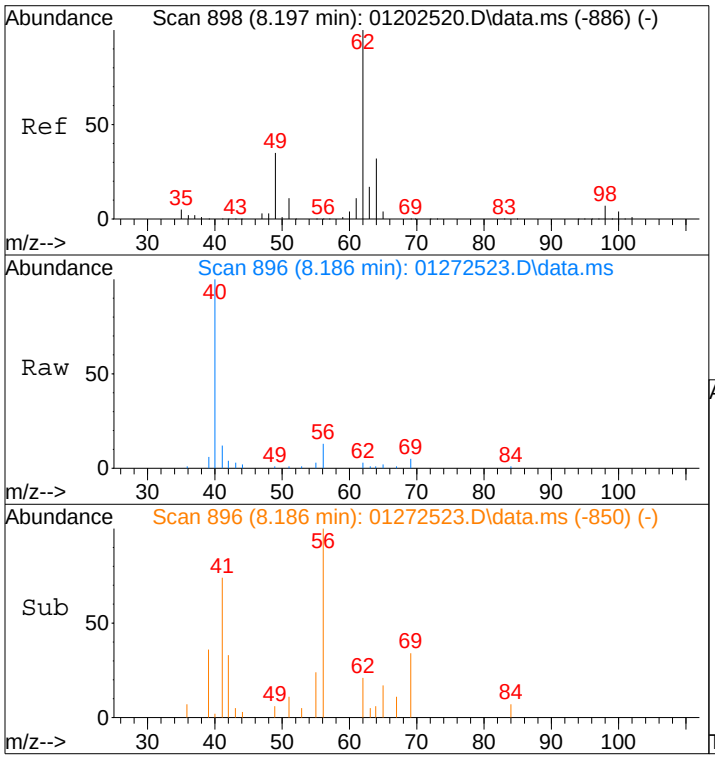


#34
Tetrahydrofuran (THF)
Concen: 0.22 ng
RT: 7.83 min Scan# 833
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 72 Resp: 1910

Ion	Ratio	Lower	Upper
72	100		
71	97.8	78.8	118.8
42	535.3	320.3	360.3#

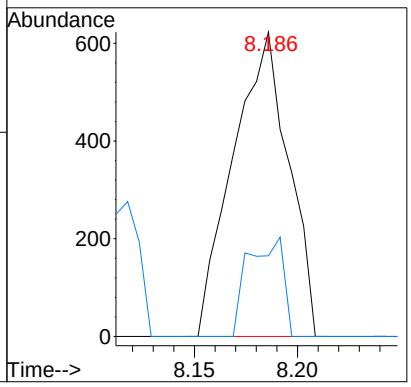


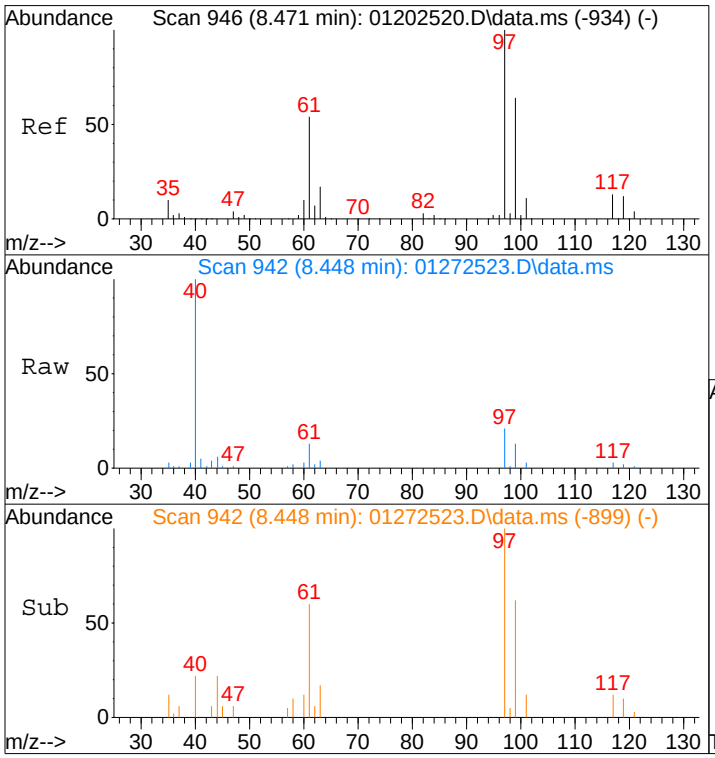


#36
1,2-Dichloroethane
Concen: 0.06 ng
RT: 8.19 min Scan# 896
Delta R.T. 0.011 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 62 Resp: 1160

Ion	Ratio	Lower	Upper
62	100		
64	20.7	12.1	52.1

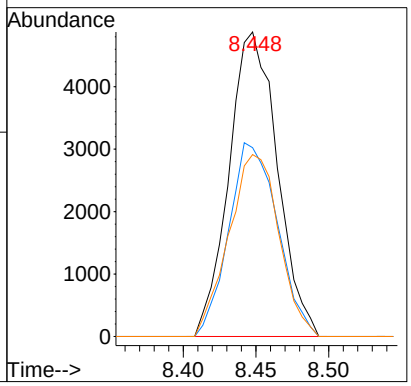


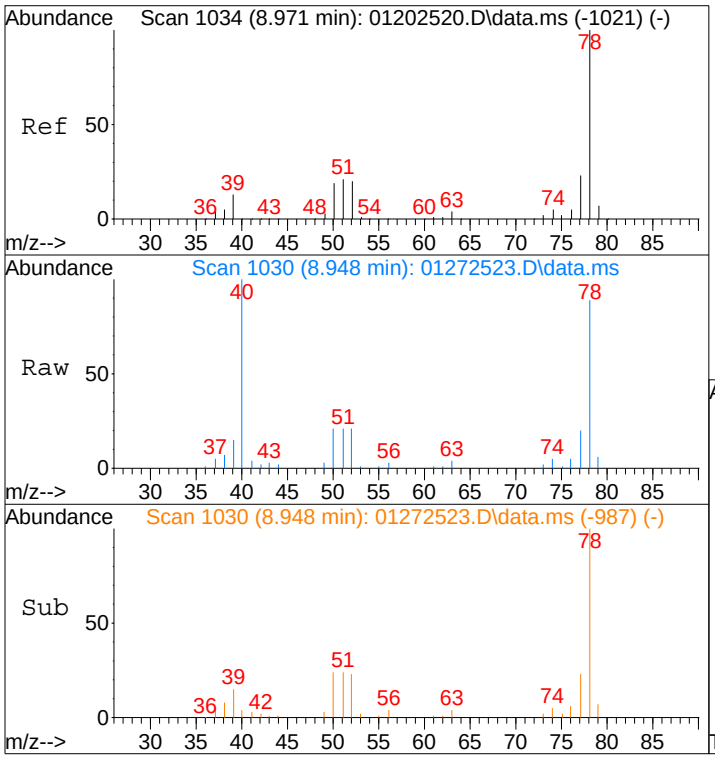


#38
1,1,1-Trichloroethane
Concen: 0.59 ng
RT: 8.45 min Scan# 942
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 97 Resp: 11278

Ion	Ratio	Lower	Upper
97	100		
99	64.0	43.8	83.8
61	62.0	34.3	74.3

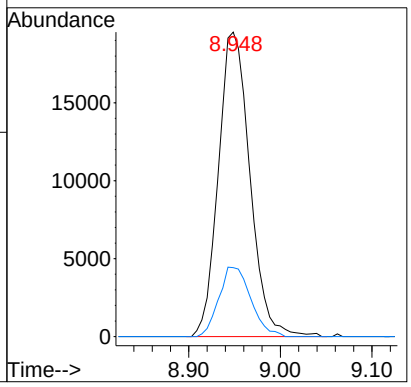


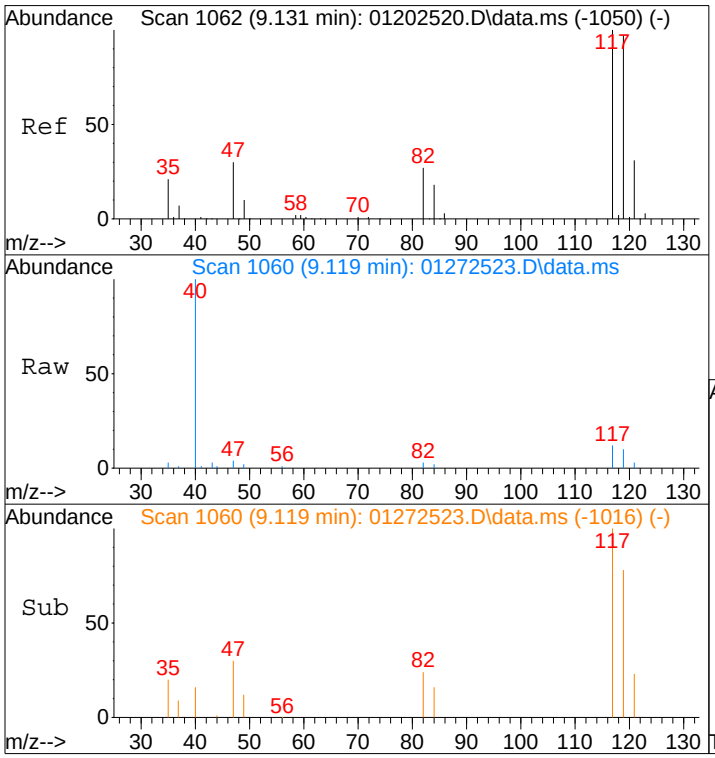


#41
Benzene
Concen: 0.83 ng
RT: 8.95 min Scan# 1030
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 78 Resp: 46769

Ion	Ratio	Lower	Upper
78	100		
77	23.1	3.4	43.4

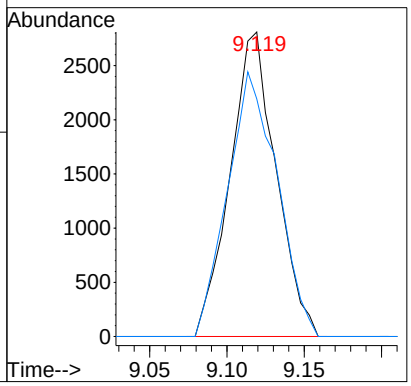


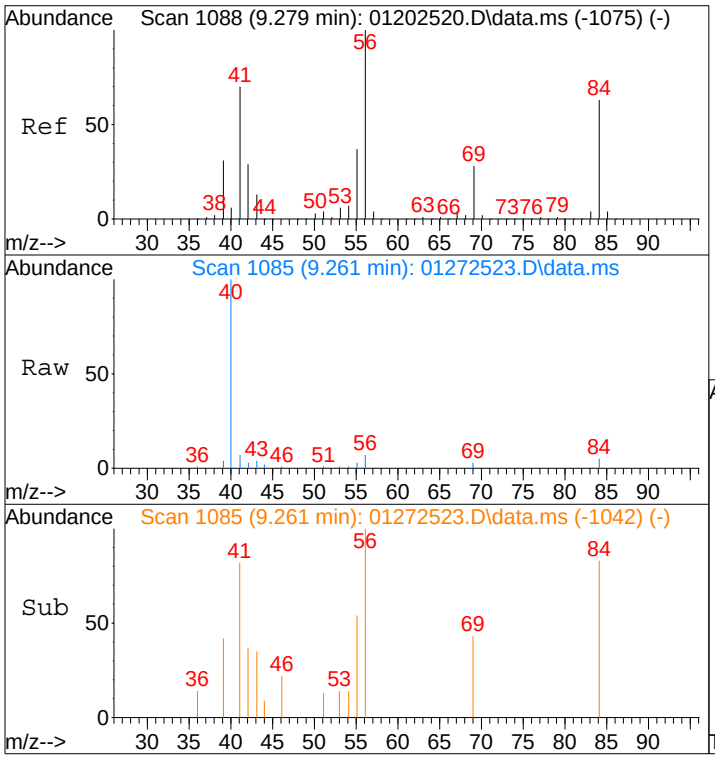


#42
Carbon Tetrachloride
Concen: 0.35 ng
RT: 9.12 min Scan# 1060
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:117 Resp: 5824

Ion	Ratio	Lower	Upper
117	100		
119	93.7	75.4	115.4

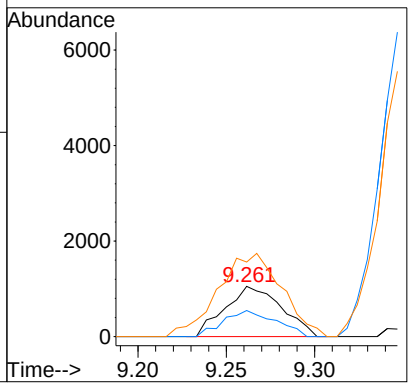


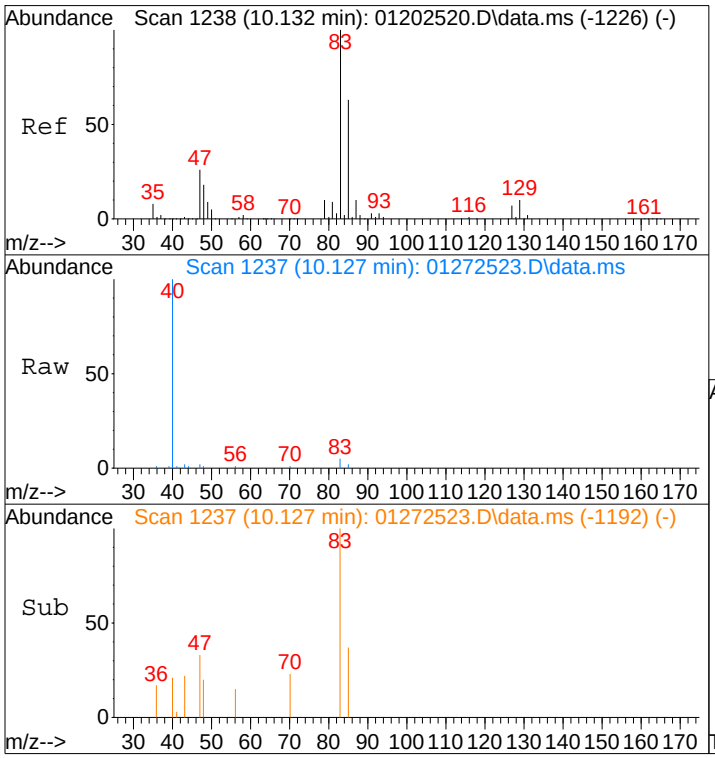


#43
Cyclohexane
Concen: 0.13 ng
RT: 9.26 min Scan# 1085
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 84 Resp: 2339

Ion	Ratio	Lower	Upper
84	100		
69	48.2	23.5	63.5
56	186.2	140.7	180.7#

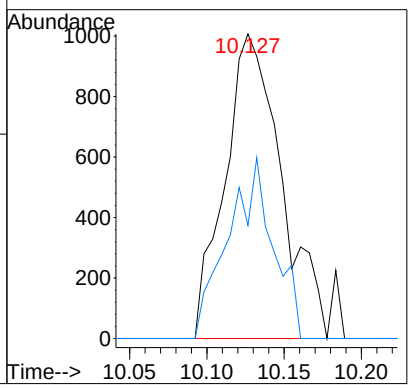


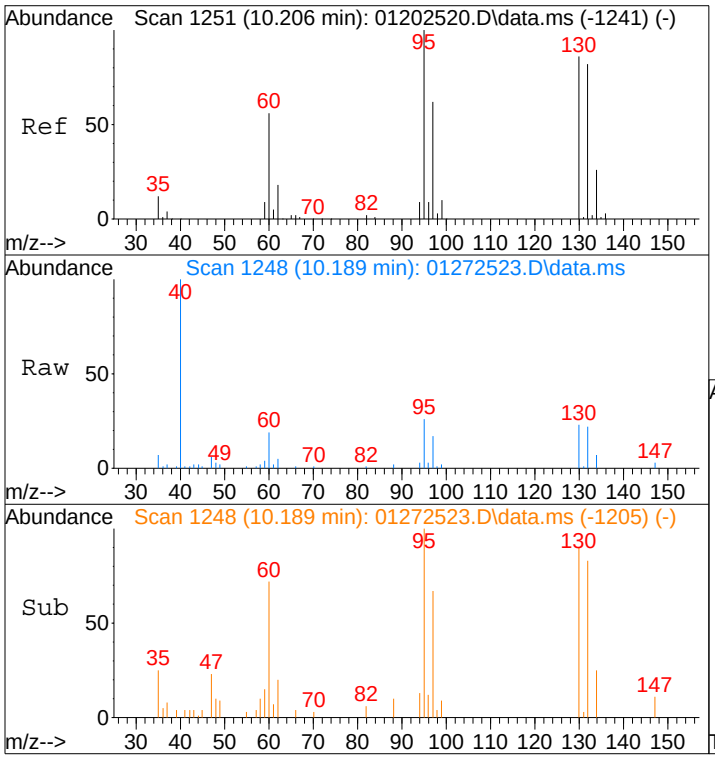


#46
Bromodichloromethane
Concen: 0.15 ng
RT: 10.13 min Scan# 1237
Delta R.T. 0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 83 Resp: 2576

Ion	Ratio	Lower	Upper
83	100		
85	47.3	43.1	83.1

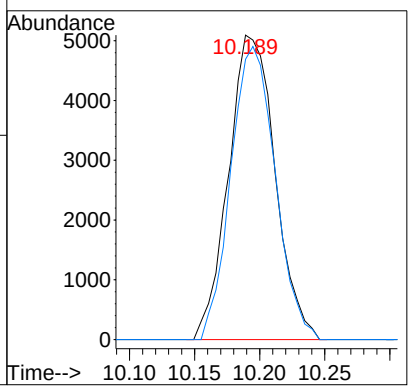


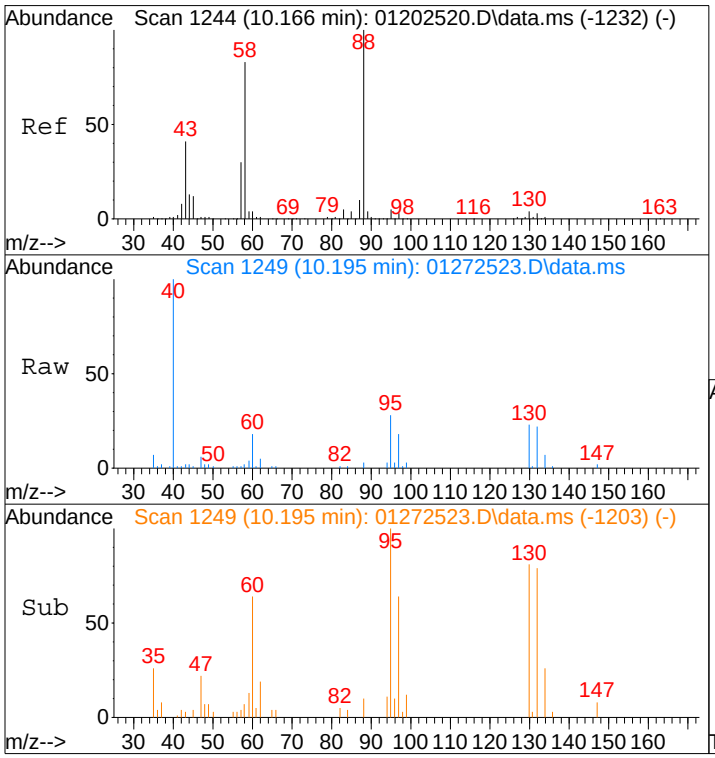


#47
Trichloroethene
Concen: 1.12 ng
RT: 10.19 min Scan# 1248
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:130 Resp: 12691

Ion	Ratio	Lower	Upper
130	100		
132	91.8	75.5	115.5

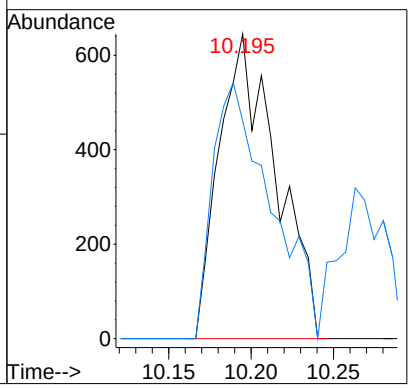


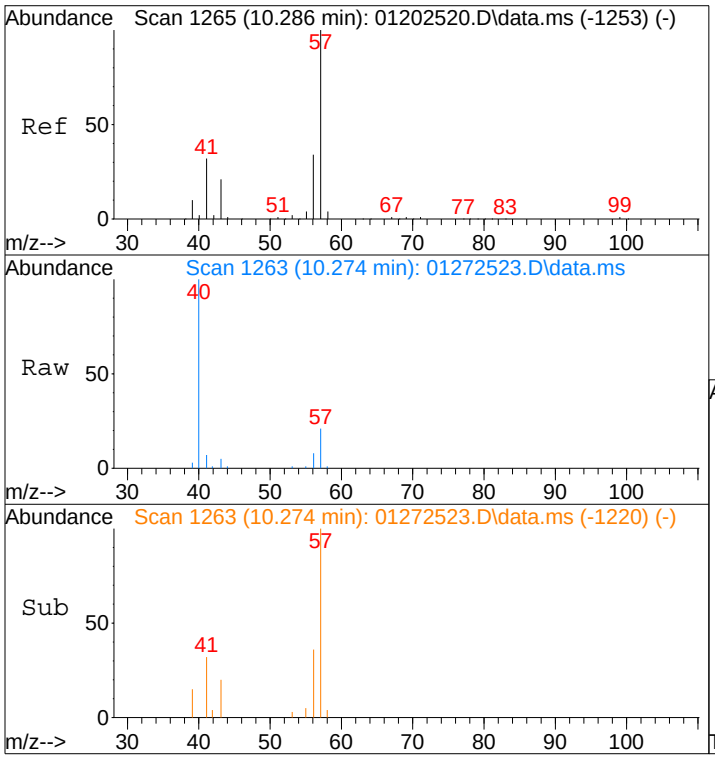


#48
1,4-Dioxane
Concen: 0.16 ng
RT: 10.19 min Scan# 1249
Delta R.T. 0.011 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 88 Resp: 1554

Ion	Ratio	Lower	Upper
88	100		
58	85.4	62.0	102.0

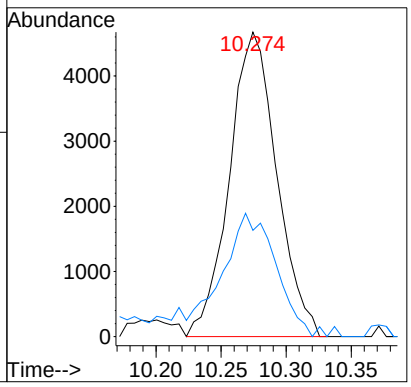


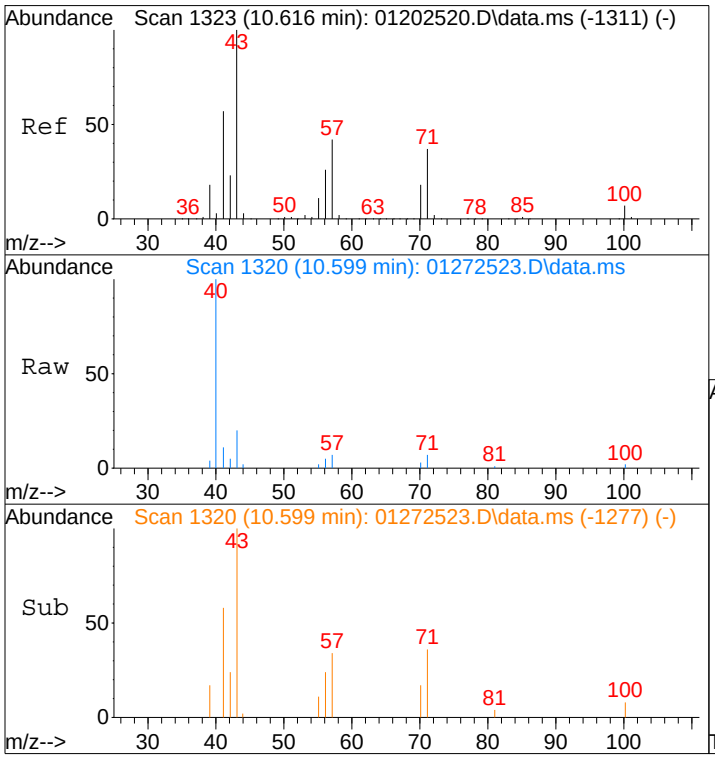


#49
2,2,4-Trimethylpentane (Isooctane)
Concen: 0.17 ng
RT: 10.27 min Scan# 1263
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 57 Resp: 11834

Ion	Ratio	Lower	Upper
57	100		
41	50.1	12.0	52.0

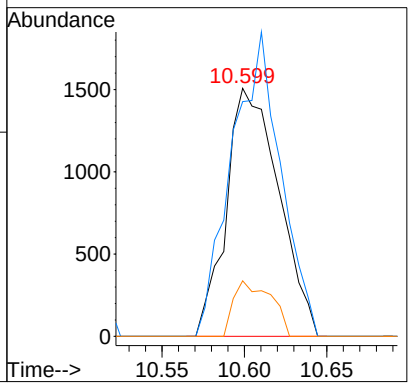


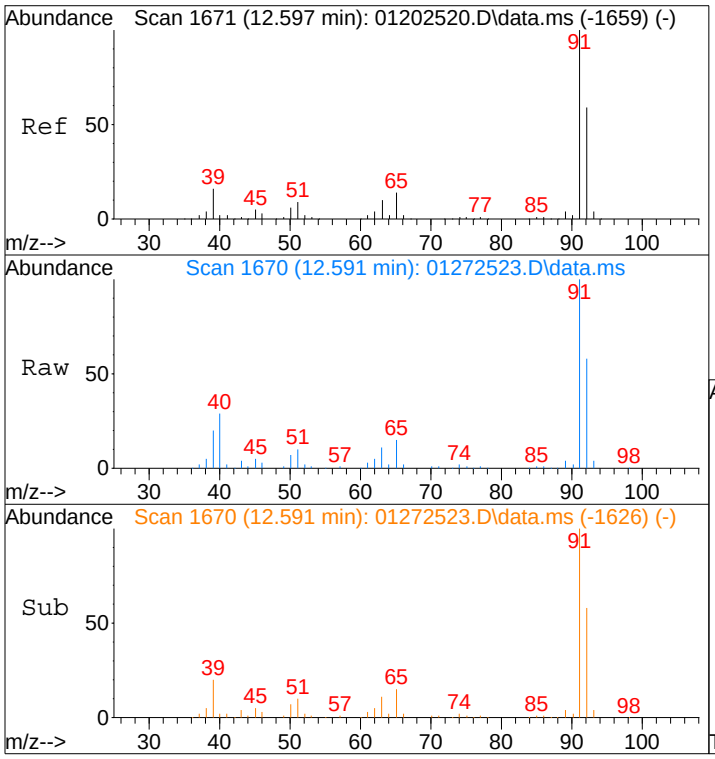


#51
n-Heptane
Concen: 0.24 ng
RT: 10.60 min Scan# 1320
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 71 Resp: 3345

Ion	Ratio	Lower	Upper
71	100		
57	114.2	90.6	130.6
100	15.9	0.0	39.7

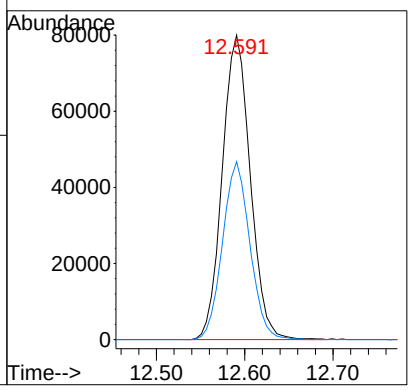


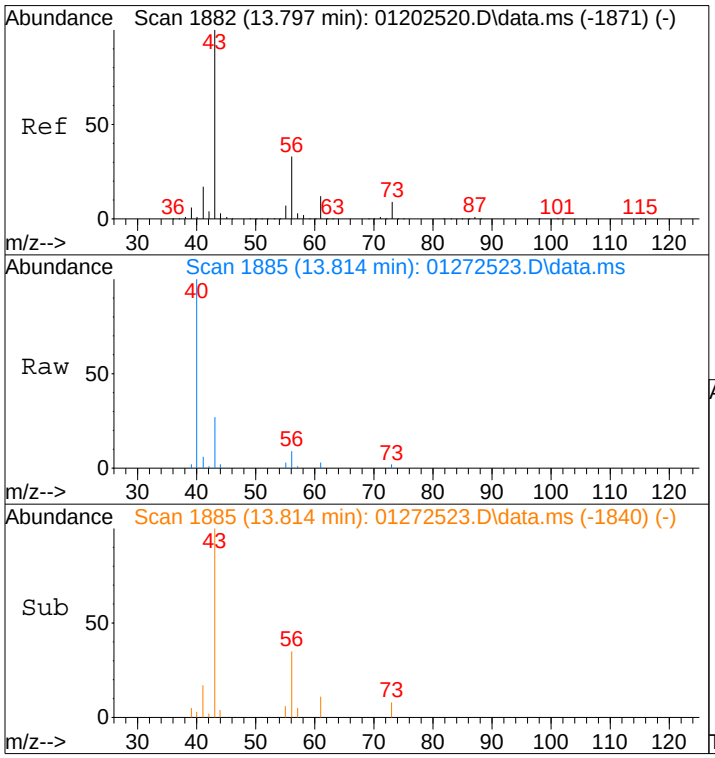


#58
Toluene
Concen: 2.93 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 91 Resp: 175938

Ion	Ratio	Lower	Upper
91	100		
92	57.2	38.4	78.4

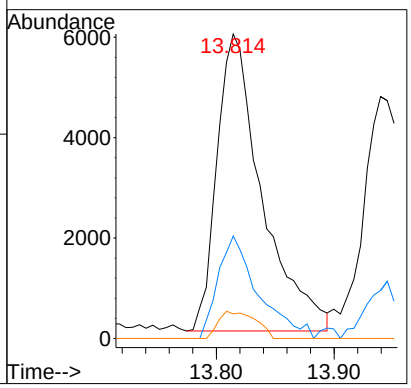


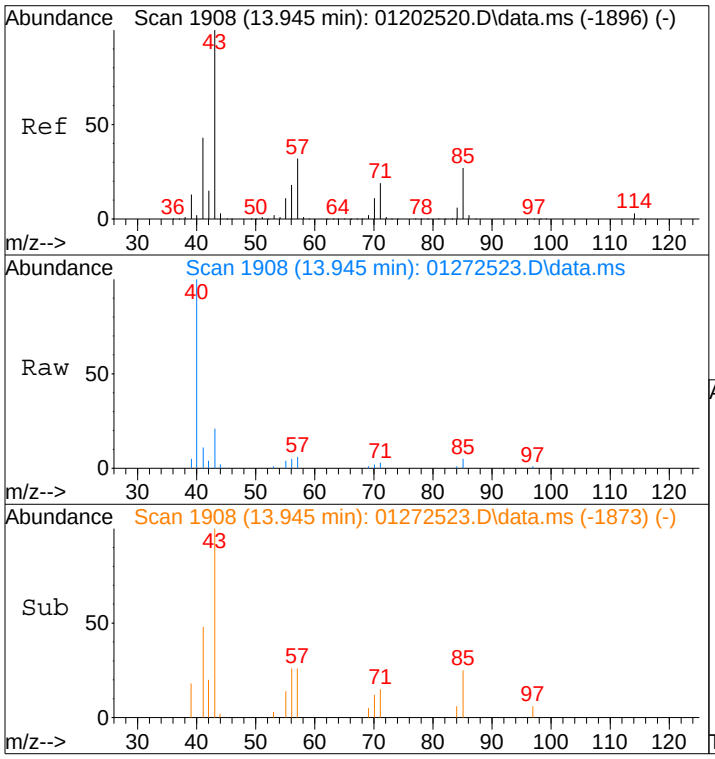


#62
n-Butyl Acetate
Concen: 0.30 ng
RT: 13.81 min Scan# 1885
Delta R.T. 0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 43 Resp: 15697

Ion	Ratio	Lower	Upper
43	100		
56	30.8	13.3	53.3
73	7.5	0.0	28.9

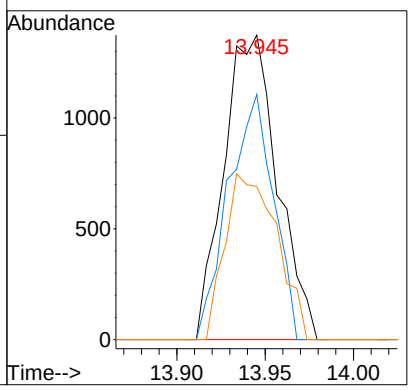


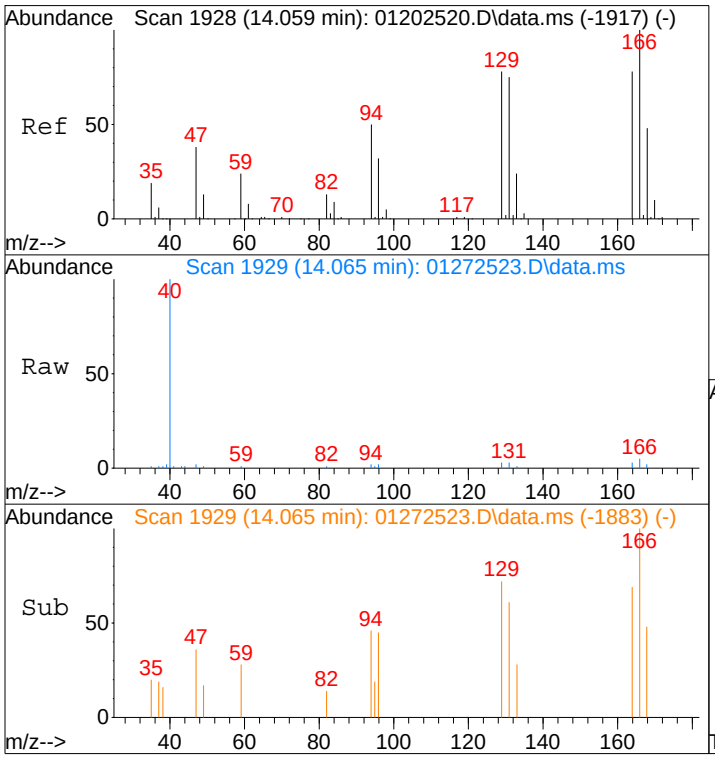


#63
n-Octane
Concen: 0.17 ng
RT: 13.95 min Scan# 1908
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 57 Resp: 2902

Ion	Ratio	Lower	Upper
57	100		
85	67.8	65.9	98.9
71	52.5	45.7	68.5

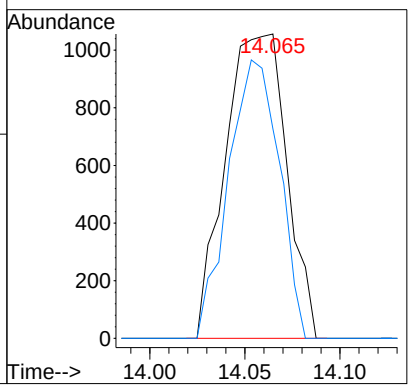


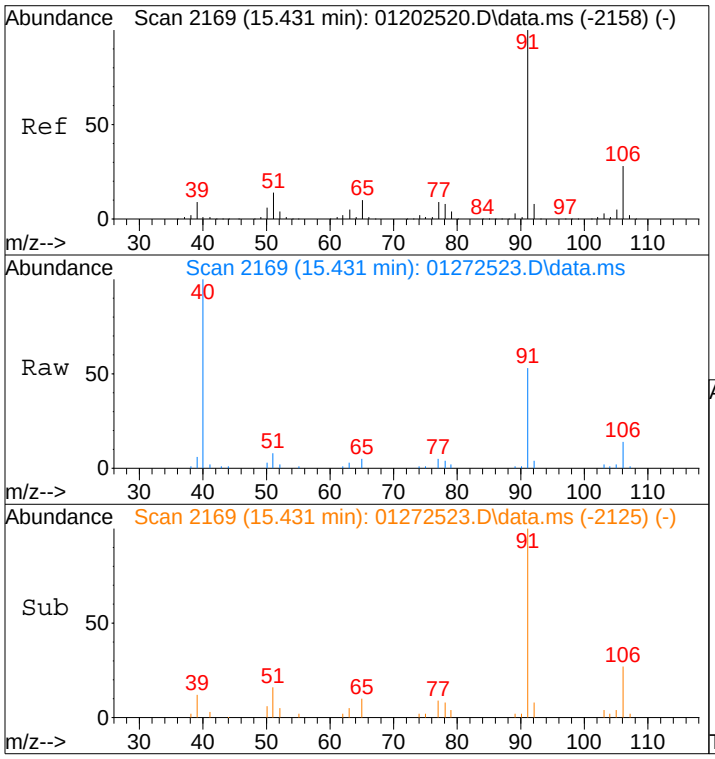


#64
Tetrachloroethene
Concen: 0.17 ng
RT: 14.06 min Scan# 1929
Delta R.T. 0.011 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:166 Resp: 2371

Ion	Ratio	Lower	Upper
166	100		
164	75.5	58.4	98.4

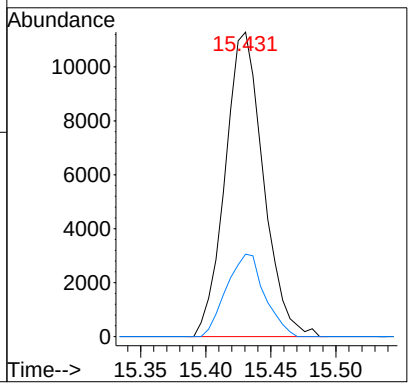


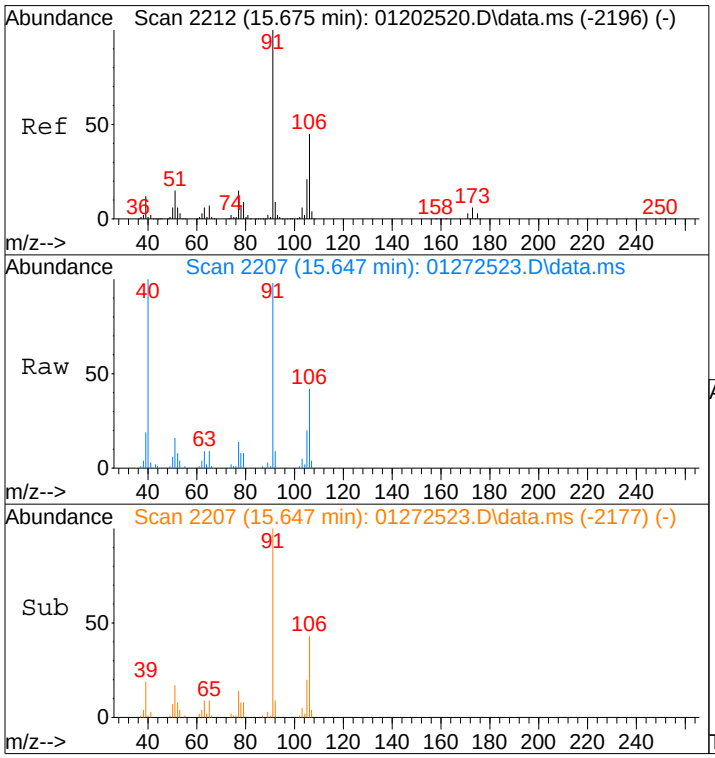


#66
Ethylbenzene
Concen: 0.34 ng
RT: 15.43 min Scan# 2169
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 91 Resp: 23023

Ion	Ratio	Lower	Upper
91	100		
106	26.9	8.2	48.2

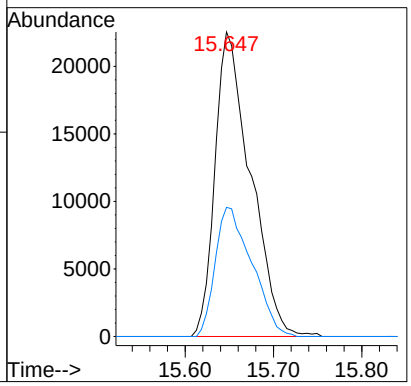


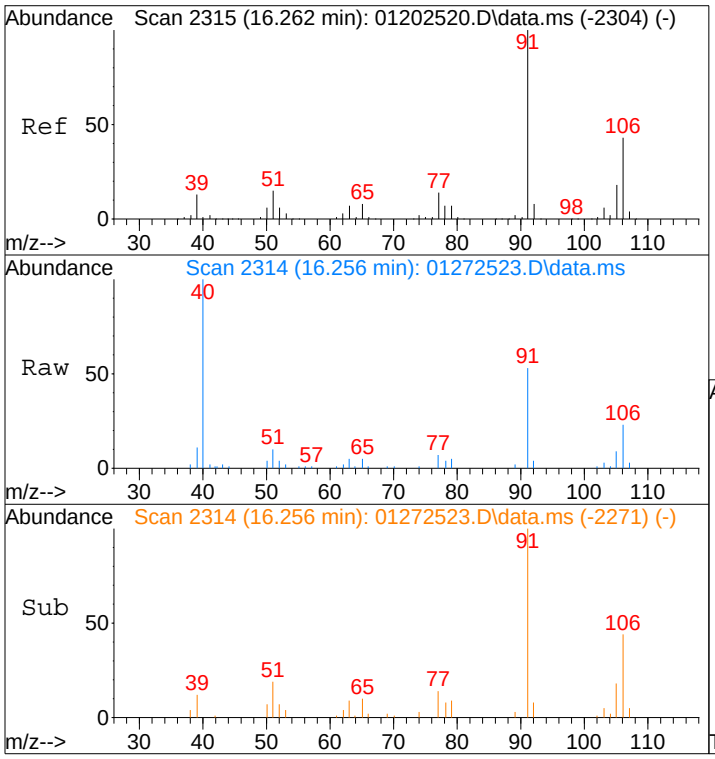


#67
m- & p-Xylenes
Concen: 1.16 ng
RT: 15.65 min Scan# 2207
Delta R.T. -0.029 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 91 Resp: 62926

Ion	Ratio	Lower	Upper
91	100		
106	43.7	24.7	64.7

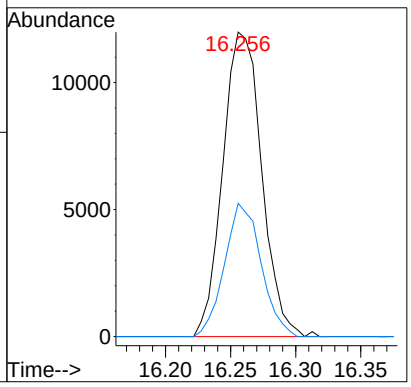


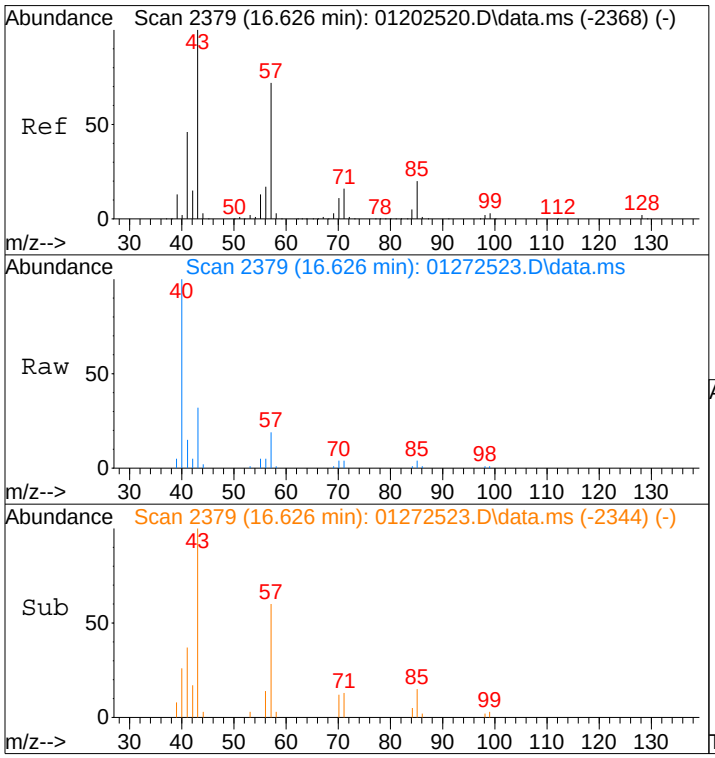


#70
o-Xylene
Concen: 0.46 ng
RT: 16.26 min Scan# 2314
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 91 Resp: 24931

Ion	Ratio	Lower	Upper
91	100		
106	41.1	23.3	63.3

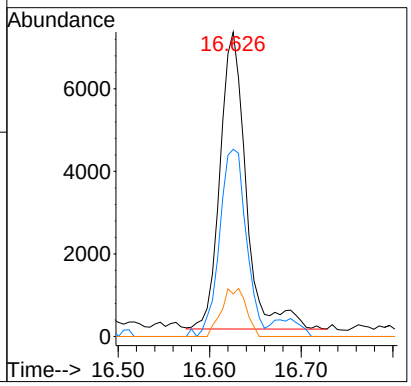


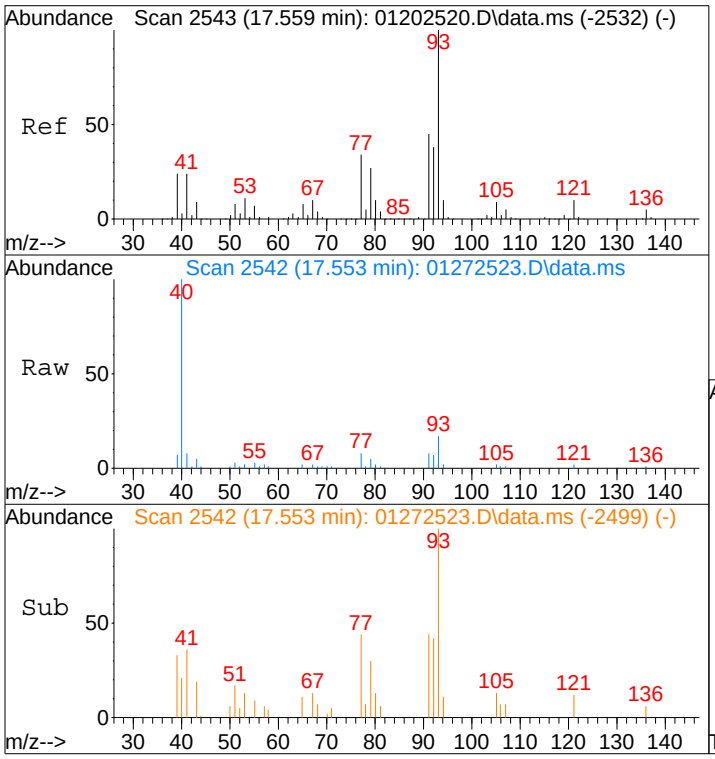


#71
n-Nonane
Concen: 0.30 ng
RT: 16.63 min Scan# 2379
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 43 Resp: 14234

Ion	Ratio	Lower	Upper
43	100		
57	64.4	52.1	92.1
85	15.2	0.0	39.5

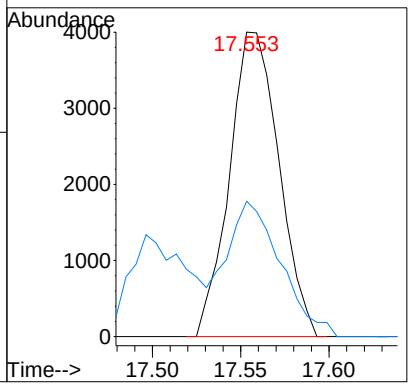


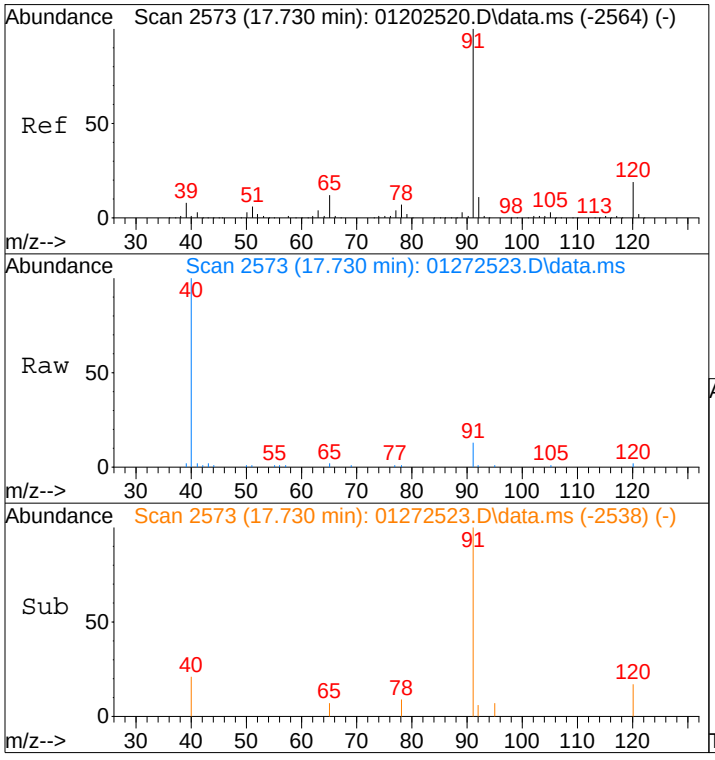


#75
alpha-Pinene
Concen: 0.25 ng
RT: 17.55 min Scan# 2542
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 93 Resp: 7798

Ion	Ratio	Lower	Upper
93	100		
77	49.0	14.1	54.1

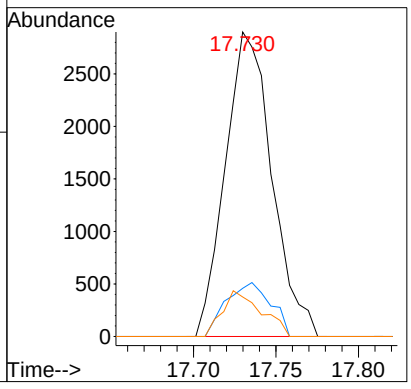


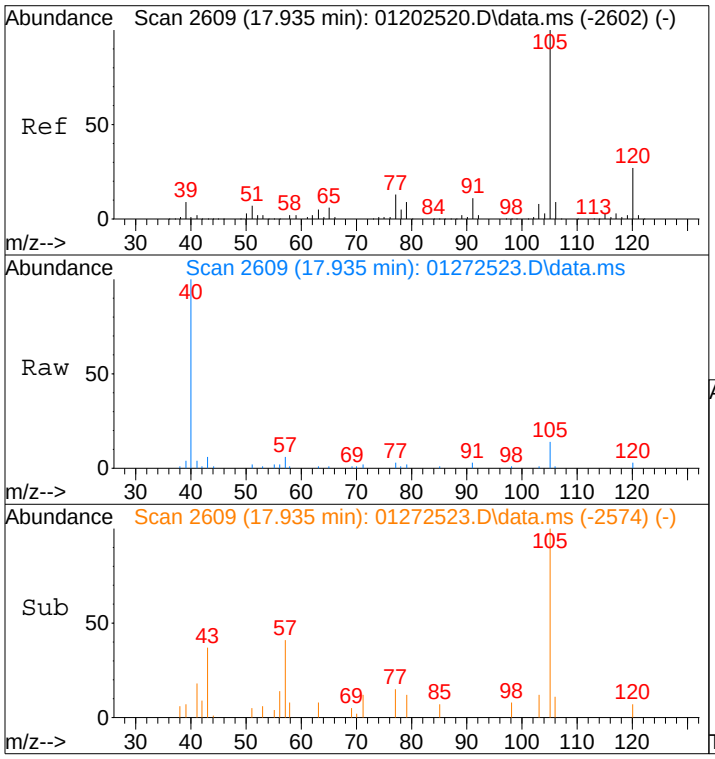


#76
n-Propylbenzene
Concen: 0.07 ng
RT: 17.73 min Scan# 2573
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 91 Resp: 5694

Ion	Ratio	Lower	Upper
91	100		
120	17.0	0.0	39.2
65	12.6	0.0	32.4

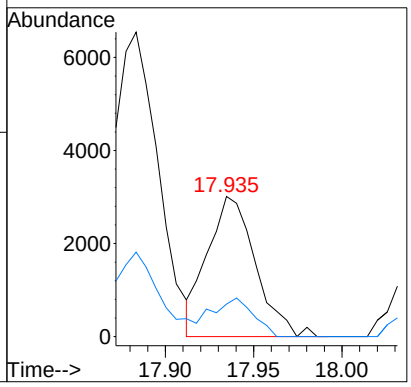


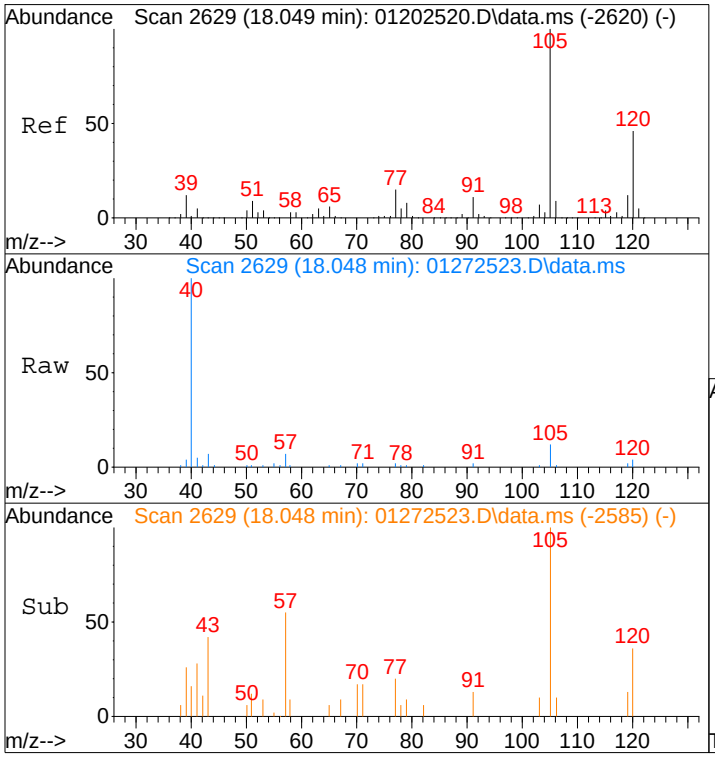


#78
4-Ethyltoluene
Concen: 0.10 ng
RT: 17.93 min Scan# 2609
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:105 Resp: 5698

Ion	Ratio	Lower	Upper
105	100		
120	23.3	7.6	47.6

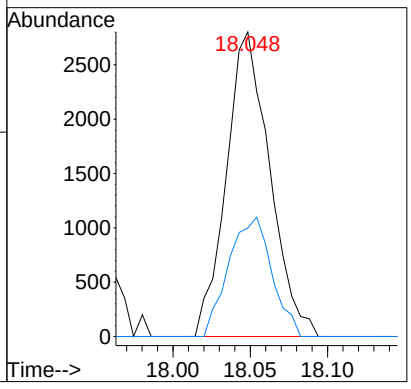


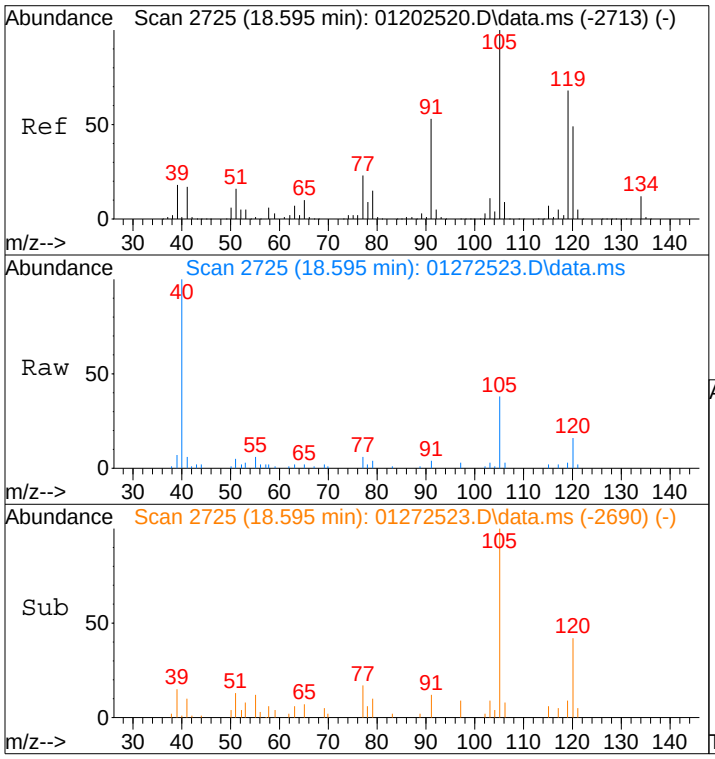


#79
1,3,5-Trimethylbenzene
Concen: 0.11 ng
RT: 18.05 min Scan# 2629
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:105 Resp: 5489

Ion	Ratio	Lower	Upper
105	100		
120	38.9	26.2	66.2

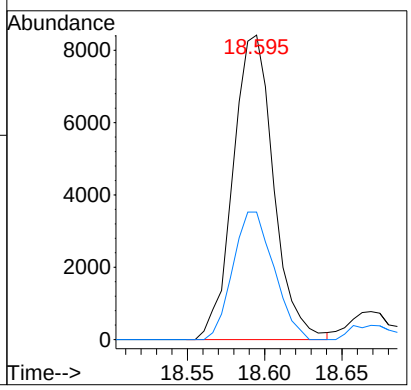


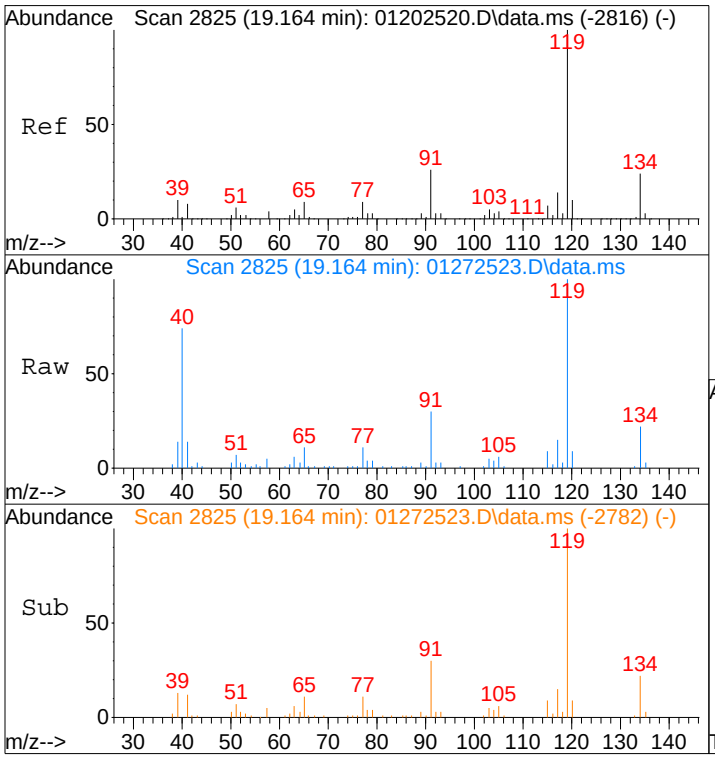


#82
1,2,4-Trimethylbenzene
Concen: 0.30 ng
RT: 18.59 min Scan# 2725
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:105 Resp: 15387

Ion	Ratio	Lower	Upper
105	100		
120	42.4	30.3	70.3

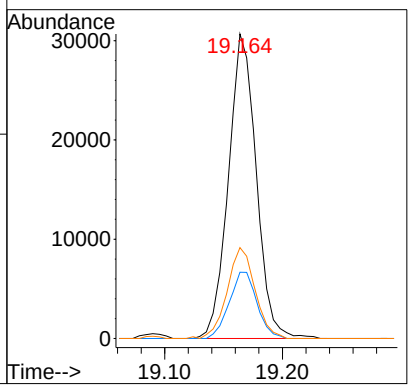


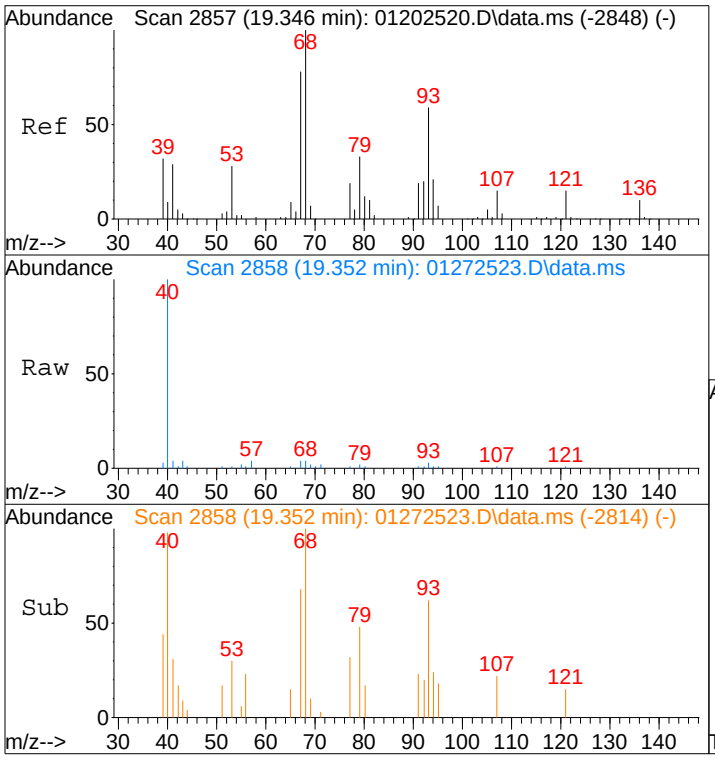


#88
4-Isopropyltoluene (p-Cymene)
Concen: 0.94 ng
RT: 19.16 min Scan# 2825
Delta R.T. -0.006 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion:119 Resp: 50414

Ion	Ratio	Lower	Upper
119	100		
134	21.7	3.8	43.8
91	29.9	5.9	45.9

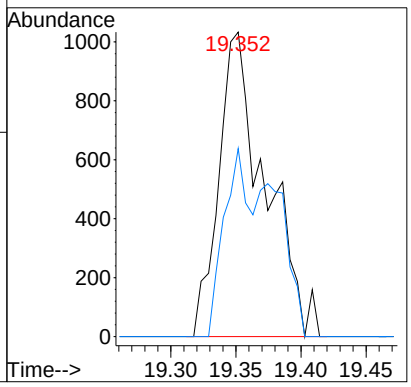




#91
d-Limonene
Concen: 0.12 ng
RT: 19.35 min Scan# 2858
Delta R.T. -0.000 min
Lab File: 01272523.D
Acq: 27 Jan 2025 23:11

Tgt Ion: 68 Resp: 2571

Ion	Ratio	Lower	Upper
68	100		
93	34.6	39.0	79.0#



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 15:36:59 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

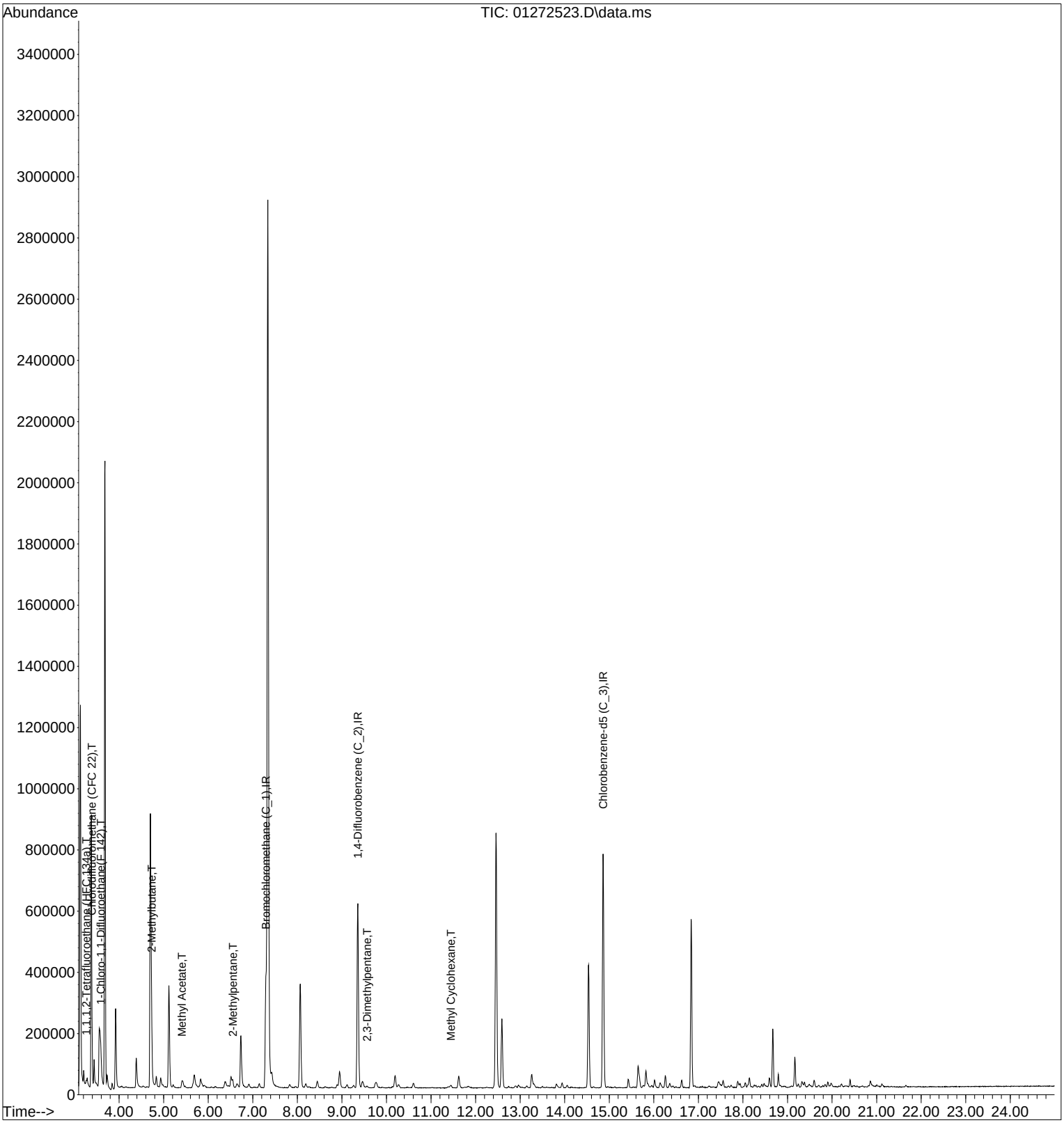
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	101170	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.36	114	478411	12.500	ng		0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	156510	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.19	85	224	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	3210	0.259	ng		99
4) 1,1-Difluoroethane	3.31	65	513	N.D.			
5) Chlorodifluoromethane ...	3.39	67	2235	0.514	ng		86
6) 1-Chloro-1,1-Difluoroe...	3.59	65	1991	0.069	ng	#	72
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.73	57	42179	2.723	ng	#	42
11) Methyl Acetate	5.41	43	36236	0.809	ng	#	85
12) 2-Methylpentane	6.56	71	3456	0.268	ng	#	1
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.11	84	1133	N.D.			
17) 2,3-Dimethylpentane	9.57	56	2265	0.077	ng	#	34
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.45	55	4645	0.142	ng	#	74
21) 1,3-Dichloropropane	12.59	76	733	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	0.00	75	0	N.D.	d		
25) Bromobenzene	17.04	77	317	N.D.			
26) 2-Chlorotoluene	0.00	91	0	N.D.	d		
27) 4-Chlorotoluene	0.00	91	0	N.D.	d		
28) Indane	19.38	117	1419	N.D.			
29) Indene	19.38	115	358	N.D.			
30) 1,2,4,5-Tetramethylben...	20.64	119	379	N.D.			
31) 1,2,3,4-Tetramethylben...	20.69	119	970	N.D.			
32) 1,2,3,5-Tetramethylben...	21.13	119	244	N.D.			
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

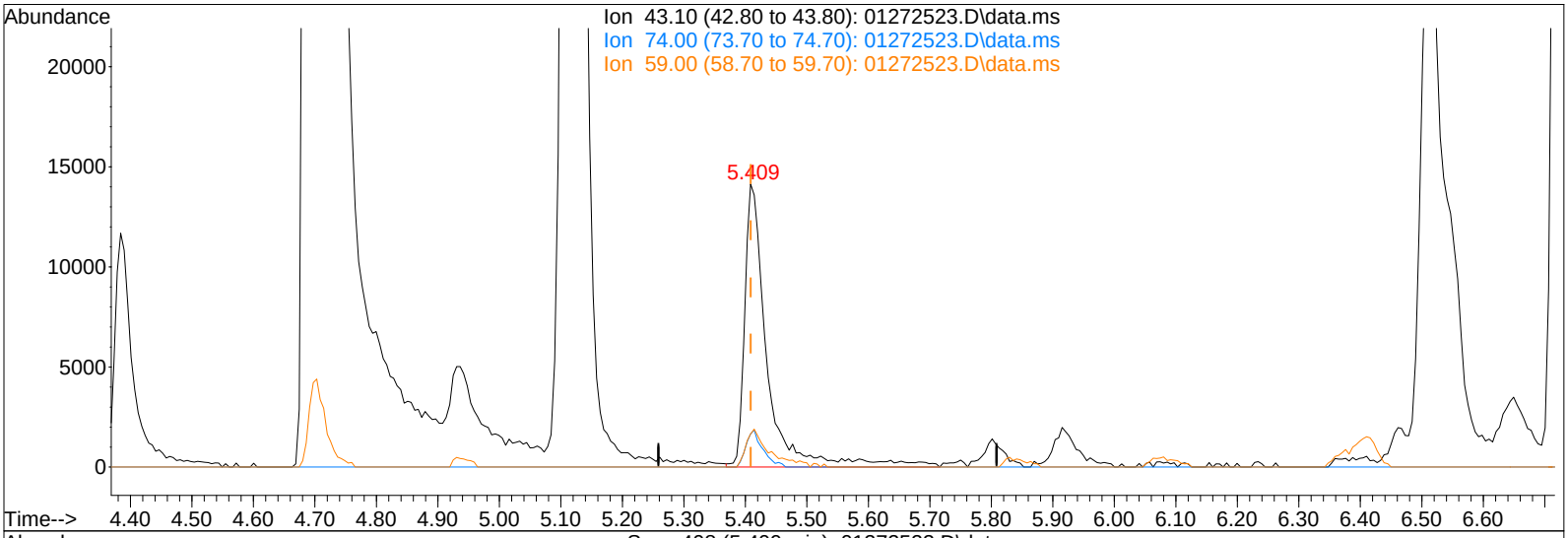
Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

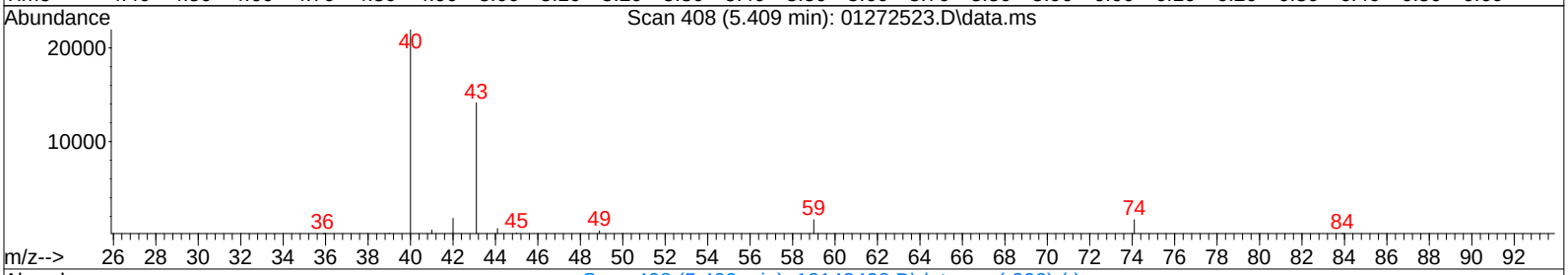
Quant Time: Jan 30 15:36:59 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

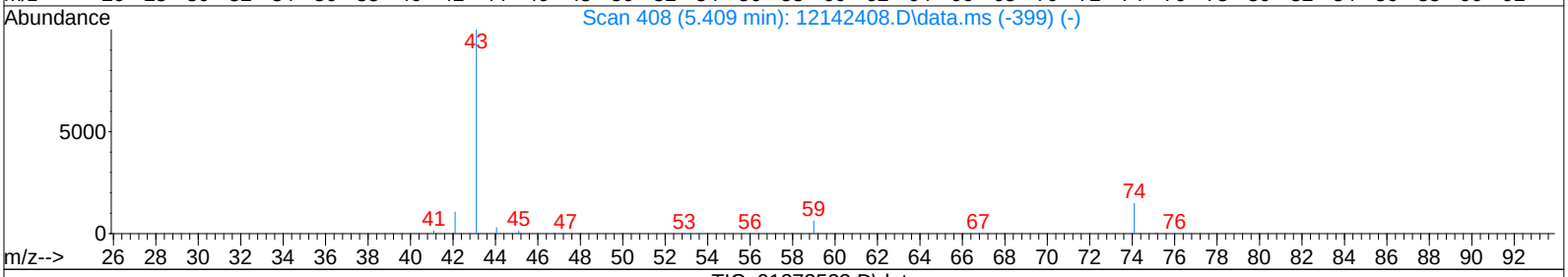


Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272523.D
Acq On : 27 Jan 2025 23:11
Operator : MC
Sample : P2500076-007 (1000mL)
Misc : S37-11222401
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 30 15:36:59 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration







TIC: 01272523.D\data.ms

(11) Methyl Acetate (T)

5.409min (-0.000) 0.81ng

response 36236

Ion	Exp%	Act%
43.10	100	100
74.00	14.80	9.66#
59.00	6.30	13.78#
0.00	0.00	0.00

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **BLDG1-SS** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-008

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02136

Initial Pressure (psig): -1.50 Final Pressure (psig): 3.63

Container Dilution Factor: 1.39

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.29	0.079	ND	0.11	0.031	
75-35-4	1,1-Dichloroethene	**0.14**	0.13	0.10	**0.036**	0.032	0.026	
75-09-2	Methylene Chloride	**0.24**	0.64	0.21	**0.070**	0.18	0.060	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.29	0.10	ND	0.074	0.026	
75-34-3	1,1-Dichloroethane	**9.6**	0.29	0.11	**2.4**	0.072	0.027	
156-59-2	cis-1,2-Dichloroethene	**1.2**	0.14	0.10	**0.30**	0.035	0.026	
107-06-2	1,2-Dichloroethane	ND	0.14	0.082	ND	0.035	0.020	
71-55-6	1,1,1-Trichloroethane	**20**	0.14	0.092	**3.7**	0.026	0.017	
56-23-5	Carbon Tetrachloride	**0.47**	0.14	0.10	**0.075**	0.023	0.016	
79-01-6	Trichloroethene	**23**	0.15	0.10	**4.2**	0.027	0.019	
127-18-4	Tetrachloroethene	**2.4**	0.15	0.096	**0.35**	0.023	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272524.D Vial: 12
Acq On : 27 Jan 2025 23:47 Operator: MC
Sample : P2500076-008 (1000mL) Inst : MS13
Misc : S37-11222401

TZ 1/31/25

Quant Time: Jan 30 13:49:37 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	97694	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	459130	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	149009	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	269092	15.304	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.40%				
57) Toluene-d8 (SS2)	12.46	98	586404	10.840	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.72%				
73) Bromofluorobenzene (SS3)	16.84	174	137024	9.907	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%				
Target Compounds							Qvalue
2) Propene	3.38	42	5130	0.220	ng	#	55
3) Dichlorodifluoromethan...	3.43	85	44161	1.817	ng		99
4) Chloromethane	3.62	50	2136	0.094	ng		69
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	646	0.081	ng		92
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	3.84	54	228	N.D.			
8) Bromomethane	4.12	94	317	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.37	45	43926	2.901	ng		96
11) Acetonitrile	4.56	41	3091	0.081	ng		89
12) Acrolein	4.63	56	4737	0.419	ng		81
13) Acetone	4.71	58	79455	7.298	ng		98
14) Trichlorofluoromethane	4.84	101	18756	0.955	ng		97
15) 2-Propanol (Isopropanol)	4.93	45	22713	0.464	ng	#	51
16) Acrylonitrile	5.13	53	119	N.D.			
17) 1,1-Dichloroethene	5.35	96	1030	0.102	ng	#	61
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D. d			
19) Methylene Chloride	5.43	84	2246	0.176	ng	#	66
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2937	0.378	ng		92
22) Carbon Disulfide	5.69	76	34597	0.695	ng		97
23) trans-1,2-Dichloroethene	6.22	61	273	N.D.			
24) 1,1-Dichloroethane	6.38	63	177482	6.929	ng		100
25) Methyl tert-Butyl Ether	6.46	73	201	N.D.			
26) Vinyl Acetate	6.50	86	3368	1.486	ng	#	41
27) 2-Butanone (MEK)	6.74	72	7023	0.855	ng	#	75
28) cis-1,2-Dichloroethene	7.14	61	17544	0.849	ng		94
29) Diisopropyl Ether	7.34	87	195	N.D.			
30) Ethyl Acetate	7.34	61	37970	7.227	ng		92
31) n-Hexane	7.36	57	1552	0.062	ng	#	76
32) Chloroform	7.42	83	75416	3.604	ng		99
34) Tetrahydrofuran (THF)	7.84	72	598	0.072	ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	8.44	97	263662	14.328	ng		96
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.90	56	4447	No Calib		#	
41) Benzene	8.95	78	4126	0.076	ng		89
42) Carbon Tetrachloride	9.12	117	5384	0.338	ng		94
43) Cyclohexane	9.36	84	342	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	10.12	83	6052	0.362	ng		98
47) Trichloroethene	10.18	130	176793	16.293	ng		99
48) 1,4-Dioxane	0.00	88	0	N.D.			
49) 2,2,4-Trimethylpentane...	10.27	57	773	N.D.			
50) Methyl Methacrylate	0.00	100	0	N.D.			

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272524.D Vial: 12
Acq On : 27 Jan 2025 23:47 Operator: MC
Sample : P2500076-008 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 30 13:49:37 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M

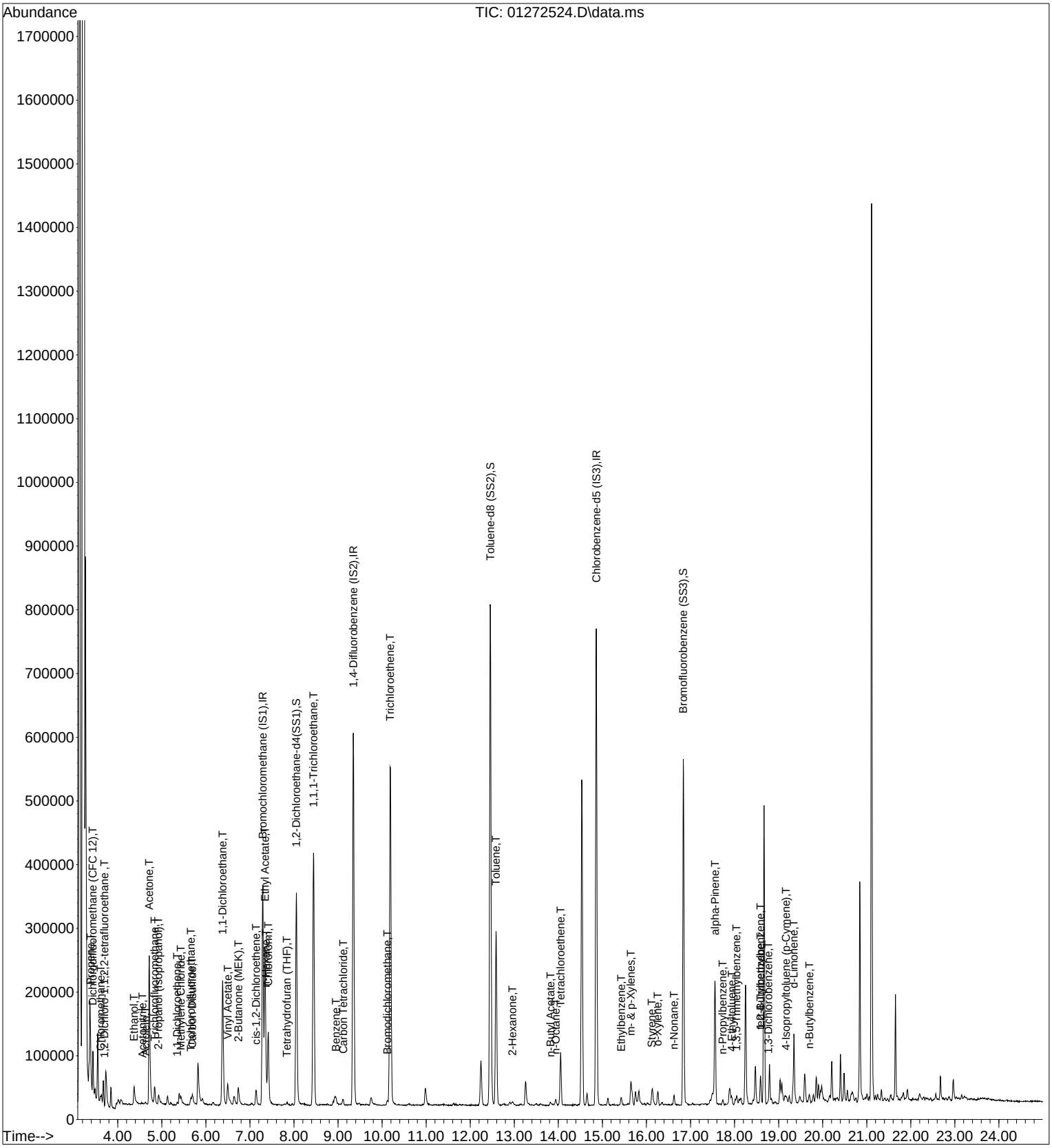
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) n-Heptane	10.60	71	277	N.D.			
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.			
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.			
58) Toluene	12.59	91	215580	3.766	ng		99
59) 2-Hexanone	12.96	43	6950	0.156	ng	#	59
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	13.83	43	5607	0.113	ng		93
63) n-Octane	13.95	57	1738	0.109	ng	#	85
64) Tetrachloroethene	14.05	166	22538	1.728	ng		99
65) Chlorobenzene	0.00	112	0	N.D.			
66) Ethylbenzene	15.43	91	11082	0.171	ng		95
67) m- & p-Xylenes	15.65	91	33152	0.644	ng		97
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	16.12	104	6493	0.189	ng		98
70) o-Xylene	16.26	91	13844	0.271	ng		97
71) n-Nonane	16.63	43	9723	0.214	ng		82
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.			
74) Cumene	17.05	105	2431	N.D.			
75) alpha-Pinene	17.55	93	77292	2.649	ng		93
76) n-Propylbenzene	17.73	91	6552	0.085	ng		93
77) 3-Ethyltoluene	17.05	105	2431	No Calib			
78) 4-Ethyltoluene	17.94	105	6925	0.125	ng		92
79) 1,3,5-Trimethylbenzene	18.04	105	5313	0.109	ng		91
80) alpha-Methylstyrene	0.00	118	0	N.D.			
81) 2-Ethyltoluene	17.05	105	2431	No Calib			
82) 1,2,4-Trimethylbenzene	18.59	105	20487	0.422	ng		88
83) n-Decane	0.00	58	0	N.D.			
84) Benzyl Chloride	18.74	91	264	N.D.			
85) 1,3-Dichlorobenzene	18.77	146	1278	0.050	ng		85
86) 1,4-Dichlorobenzene	18.85	146	242	N.D.			
87) sec-Butylbenzene	18.95	105	654	N.D.			
88) 4-Isopropyltoluene (p-...	19.16	119	5093	0.100	ng		80
89) 1,2,3-Trimethylbenzene	17.05	105	2431	No Calib			
90) 1,2-Dichlorobenzene	19.29	146	116	N.D.			
91) d-Limonene	19.35	68	25895	1.243	ng		99
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	18.05	58	263	No Calib		#	
94) 1,2,4-Trichlorobenzene	21.42	180	296	N.D.			
95) Naphthalene	21.54	128	1895	N.D.			
96) n-Dodecane	19.03	58	992	No Calib		#	
97) Hexachlorobutadiene	0.00	225	0	N.D.			
98) Cyclohexanone	15.41	55	394	No Calib		#	
99) tert-Butylbenzene	18.59	119	2350	0.054	ng	#	59
100) n-Butylbenzene	19.70	91	3120	0.061	ng	#	62
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272524.D Vial: 12
Acq On : 27 Jan 2025 23:47 Operator: MC
Sample : P2500076-008 (1000mL) Inst : MS13
Misc : S37-11222401

Quant Time: Jan 30 13:49:37 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272524.D
Acq On : 27 Jan 2025 23:47
Operator : MC
Sample : P2500076-008 (1000mL)
Misc : S37-11222401
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 13:49:37 2025 BCB 1/31/25
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.29	130	97694	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	459130	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	149009	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	269092	15.304	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 122.40%				
57) Toluene-d8 (SS2)	12.46	98	586404	10.840	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.72%				
73) Bromofluorobenzene (SS3)	16.84	174	137024	9.907	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.28%				
Target Compounds							Qvalue
2) Propene	3.38	42	5130	0.220	ng	#	55
3) Dichlorodifluoromethan...	3.43	85	44161	1.817	ng		99
4) Chloromethane	3.62	50	2136	0.094	ng		69
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	646	0.081	ng		92
10) Ethanol	4.37	45	43926	2.901	ng		96
11) Acetonitrile	4.56	41	3091	0.081	ng		89
12) Acrolein	4.63	56	4737	0.419	ng		81
13) Acetone	4.71	58	79455	7.298	ng		98
14) Trichlorofluoromethane	4.84	101	18756	0.955	ng		97
15) 2-Propanol (Isopropanol)	4.93	45	22713	0.464	ng	#	51
17) 1,1-Dichloroethene	5.35	96	1030	0.102	ng	#	61
19) Methylene Chloride	5.43	84	2246	0.176	ng	#	66
21) Trichlorotrifluoroethane	5.66	151	2937	0.378	ng		92
22) Carbon Disulfide	5.69	76	34597	0.695	ng		97
24) 1,1-Dichloroethane	6.38	63	177482	6.929	ng		100
26) Vinyl Acetate	6.50	86	3368	1.486	ng	#	41
27) 2-Butanone (MEK)	6.74	72	7023	0.855	ng	#	75
28) cis-1,2-Dichloroethene	7.14	61	17544	0.849	ng		94
30) Ethyl Acetate	7.34	61	37970	7.227	ng		92
31) n-Hexane	7.36	57	1552	0.062	ng	#	76
32) Chloroform	7.42	83	75416	3.604	ng		99
34) Tetrahydrofuran (THF)	7.84	72	598	0.072	ng	#	1
38) 1,1,1-Trichloroethane	8.44	97	263662	14.328	ng		96
41) Benzene	8.95	78	4126	0.076	ng		89
42) Carbon Tetrachloride	9.12	117	5384	0.338	ng		94
46) Bromodichloromethane	10.12	83	6052	0.362	ng		98
47) Trichloroethene	10.18	130	176793	16.293	ng		99
58) Toluene	12.59	91	215580	3.766	ng		99
59) 2-Hexanone	12.96	43	6950	0.156	ng	#	59
62) n-Butyl Acetate	13.83	43	5607	0.113	ng		93
63) n-Octane	13.95	57	1738	0.109	ng	#	85
64) Tetrachloroethene	14.05	166	22538	1.728	ng		99
66) Ethylbenzene	15.43	91	11082	0.171	ng		95
67) m- & p-Xylenes	15.65	91	33152	0.644	ng		97
69) Styrene	16.12	104	6493	0.189	ng		98
70) o-Xylene	16.26	91	13844	0.271	ng		97
71) n-Nonane	16.63	43	9723	0.214	ng		82
75) alpha-Pinene	17.55	93	77292	2.649	ng		93
76) n-Propylbenzene	17.73	91	6552	0.085	ng		93
78) 4-Ethyltoluene	17.94	105	6925	0.125	ng		92
79) 1,3,5-Trimethylbenzene	18.04	105	5313	0.109	ng		91
82) 1,2,4-Trimethylbenzene	18.59	105	20487	0.422	ng		88
85) 1,3-Dichlorobenzene	18.77	146	1278	0.050	ng		85
88) 4-Isopropyltoluene (p-...	19.16	119	5093	0.100	ng		80
91) d-Limonene	19.35	68	25895	1.243	ng		99

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272524.D
Acq On : 27 Jan 2025 23:47
Operator : MC
Sample : P2500076-008 (1000mL)
Misc : S37-11222401
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 13:49:37 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

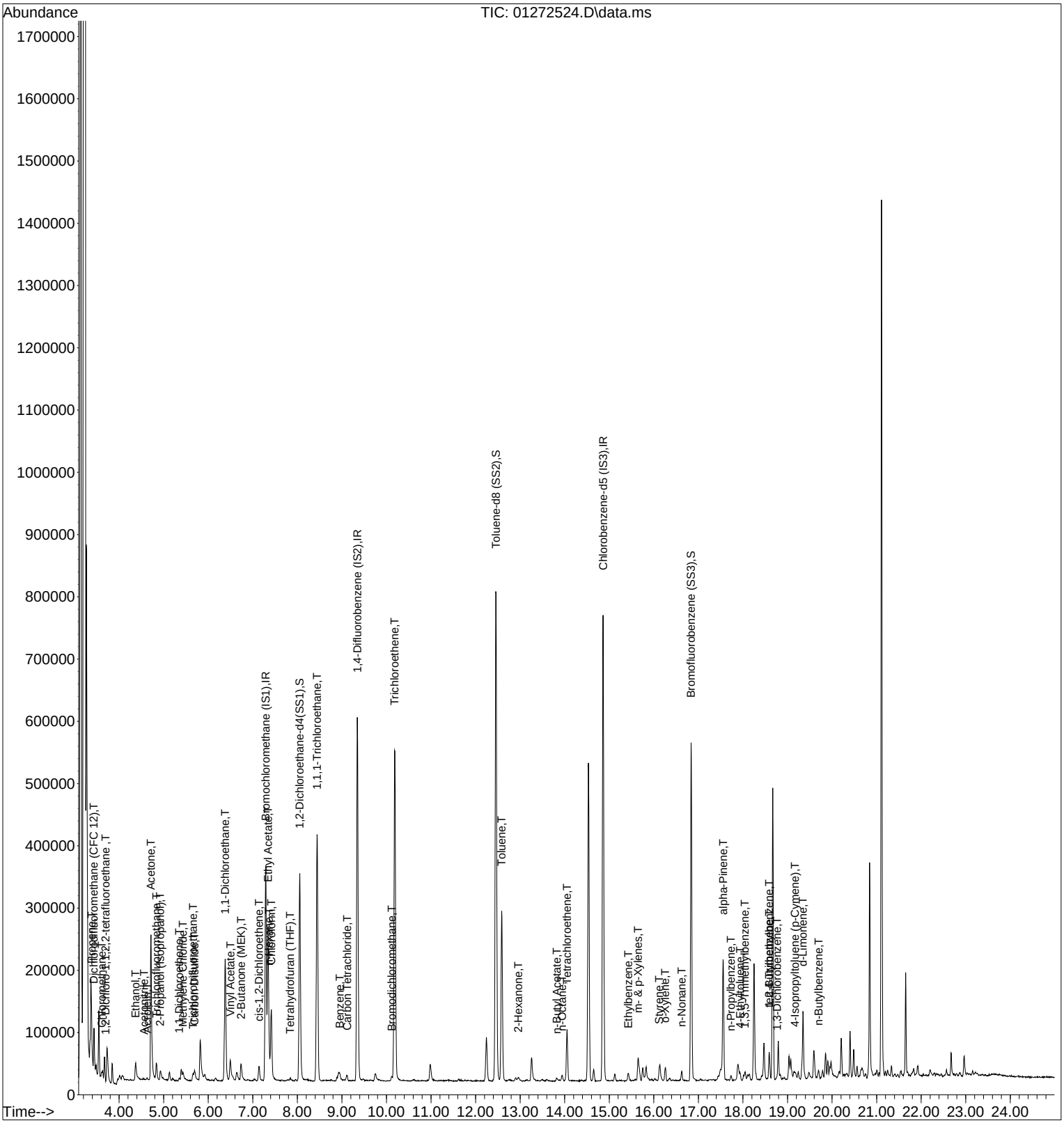
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) tert-Butylbenzene	18.59	119	2350	0.054	ng	#	59
100) n-Butylbenzene	19.70	91	3120	0.061	ng	#	62

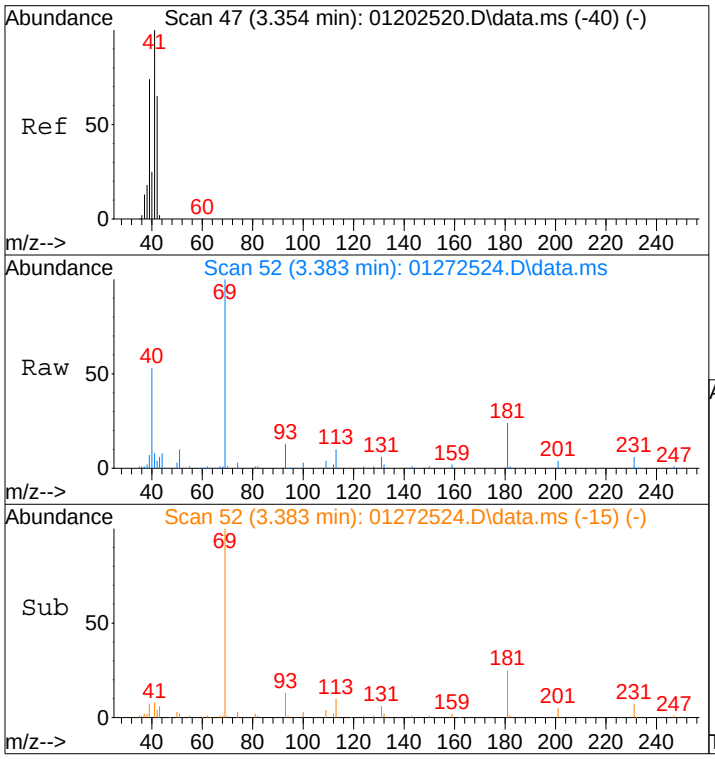
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272524.D
Acq On : 27 Jan 2025 23:47
Operator : MC
Sample : P2500076-008 (1000mL)
Misc : S37-11222401
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 30 13:49:37 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

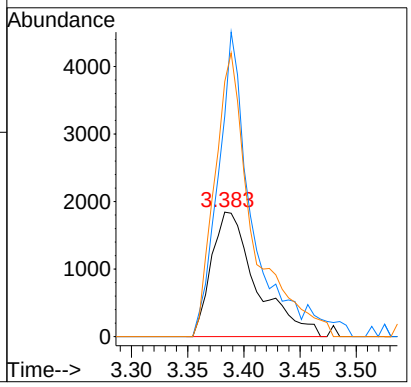


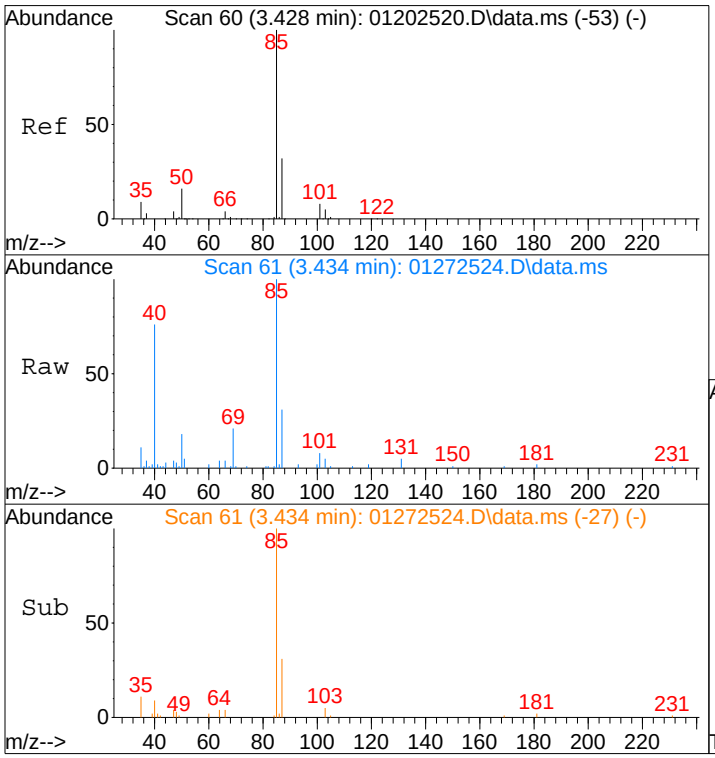


#2
Propene
Concen: 0.22 ng
RT: 3.38 min Scan# 52
Delta R.T. -0.040 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 42 Resp: 5130

Ion	Ratio	Lower	Upper
42	100		
39	189.8	94.3	134.3#
41	192.9	136.8	176.8#

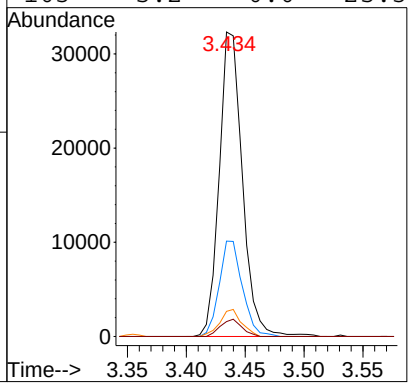


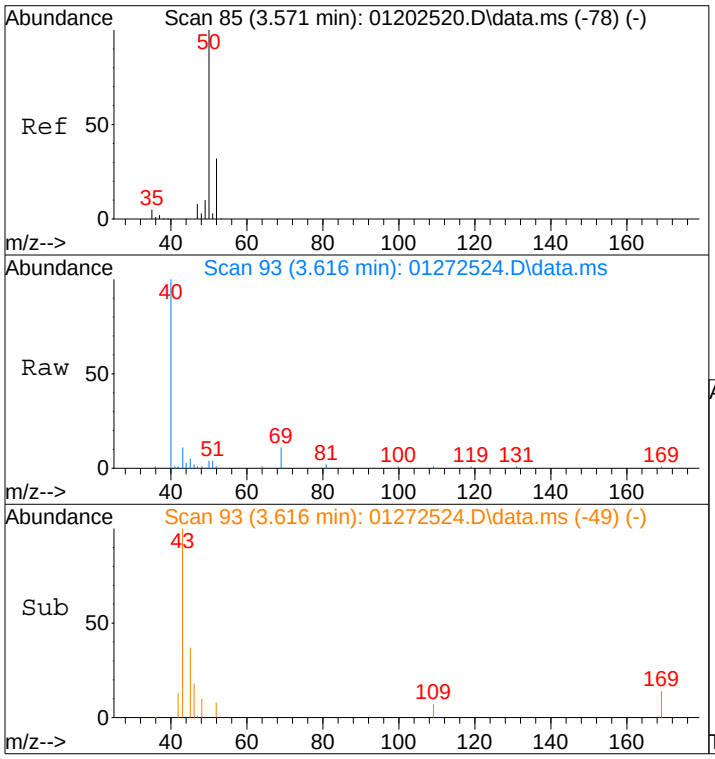


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.82 ng
RT: 3.43 min Scan# 61
Delta R.T. -0.057 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 85 Resp: 44161

Ion	Ratio	Lower	Upper
85	100		
87	31.2	12.2	52.2
101	8.4	0.0	28.4
103	5.2	0.0	25.3

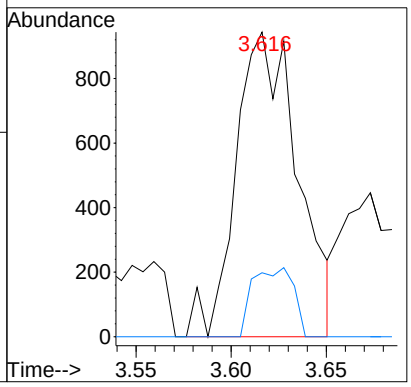


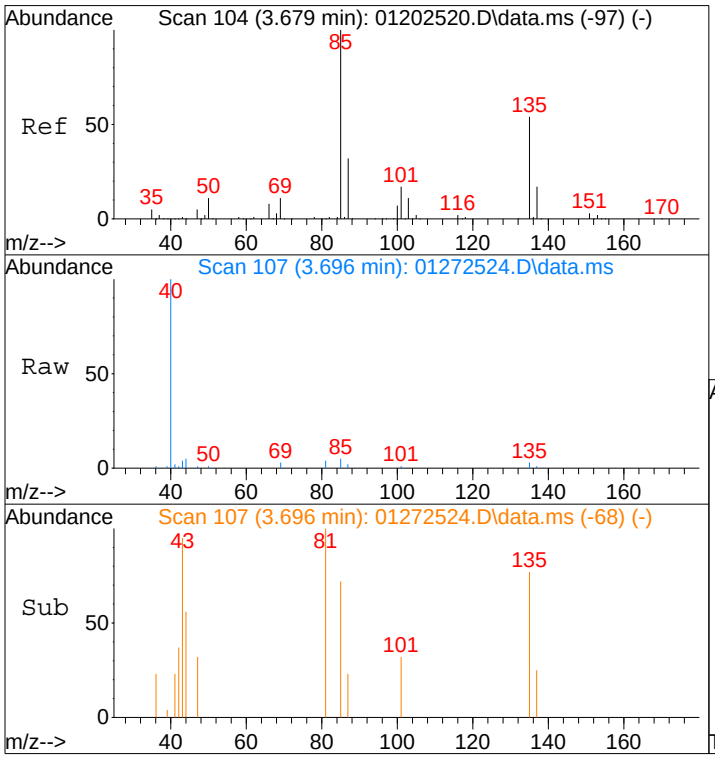


#4
Chloromethane
Concen: 0.09 ng
RT: 3.62 min Scan# 93
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 50 Resp: 2136

Ion	Ratio	Lower	Upper
50	100		
52	15.0	12.2	52.2

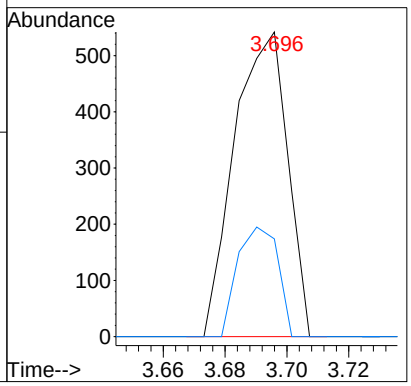


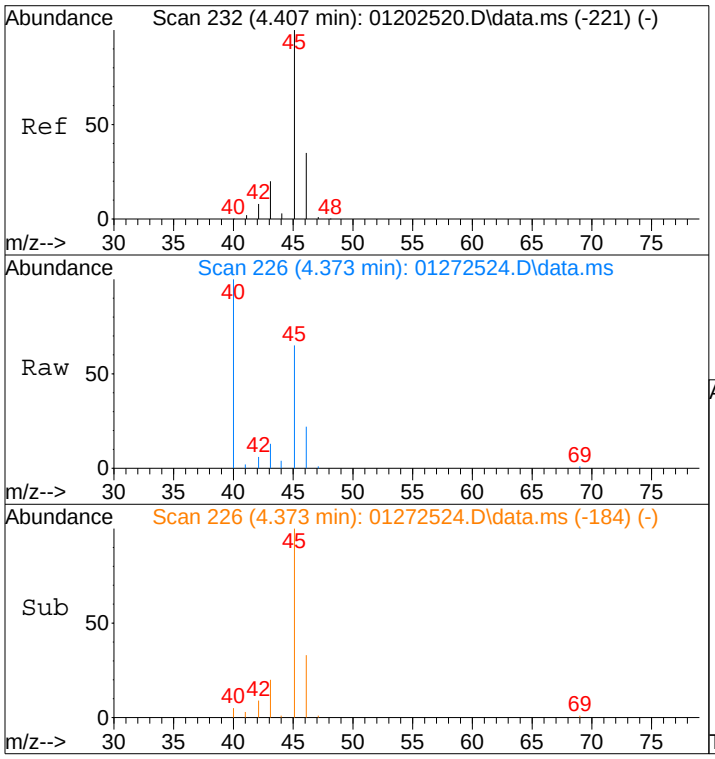


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.08 ng
RT: 3.70 min Scan# 107
Delta R.T. -0.028 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:135 Resp: 646

Ion	Ratio	Lower	Upper
135	100		
137	27.6	12.2	52.2

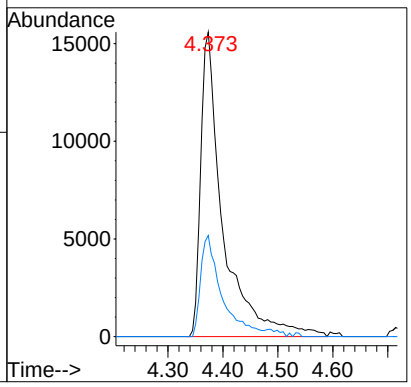


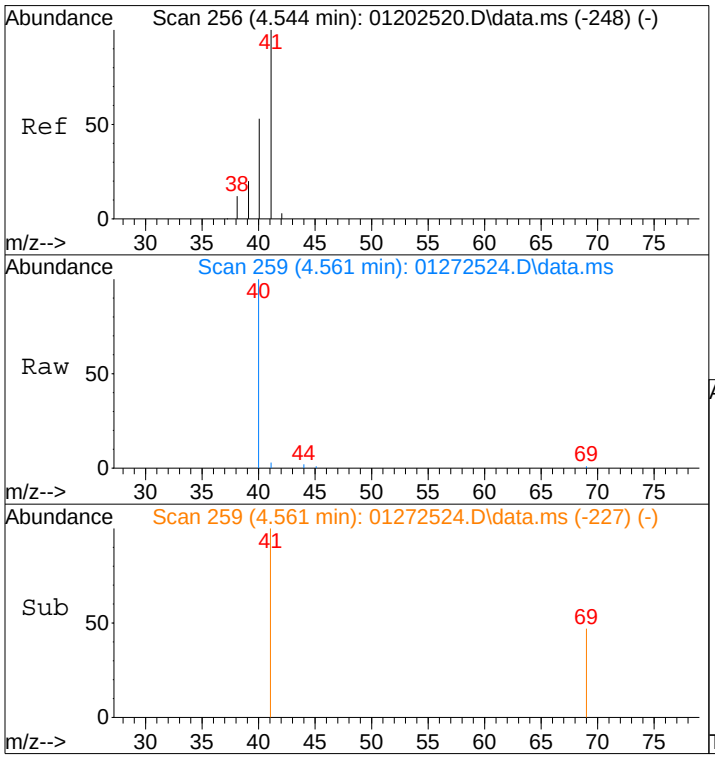


#10
Ethanol
Concen: 2.90 ng
RT: 4.37 min Scan# 226
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 45 Resp: 43926

Ion	Ratio	Lower	Upper
45	100		
46	32.8	15.0	55.0

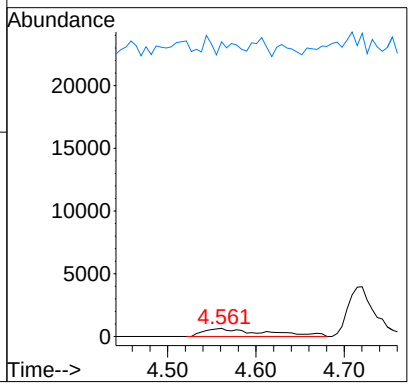


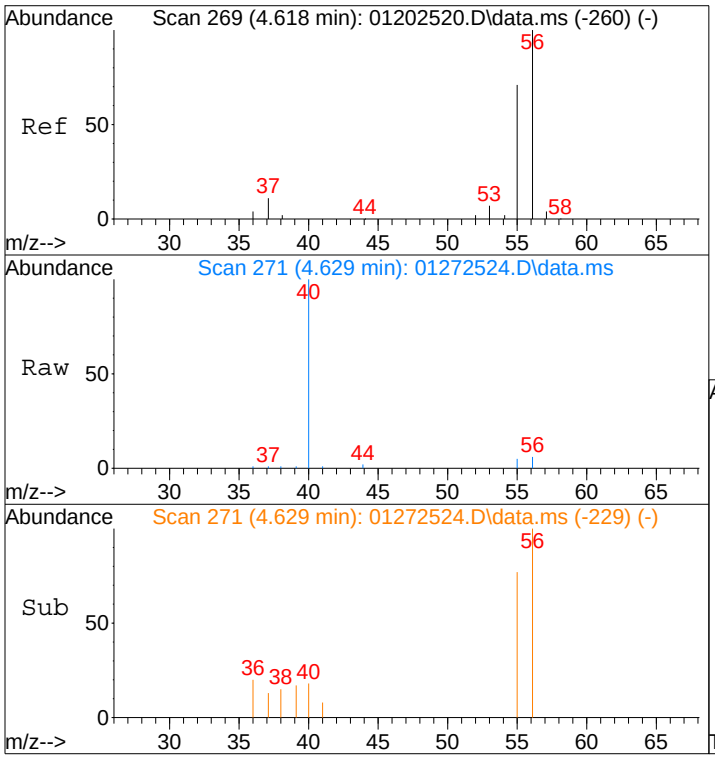


#11
Acetonitrile
Concen: 0.08 ng
RT: 4.56 min Scan# 259
Delta R.T. -0.017 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 41 Resp: 3091

Ion	Ratio	Lower	Upper
41	100		
40	44.9	32.9	72.9

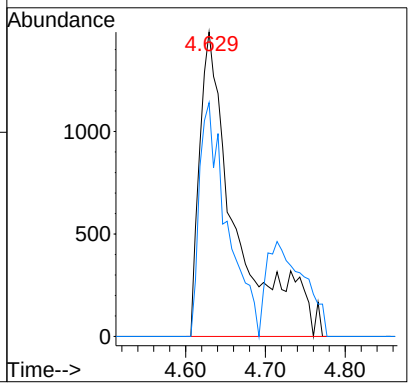


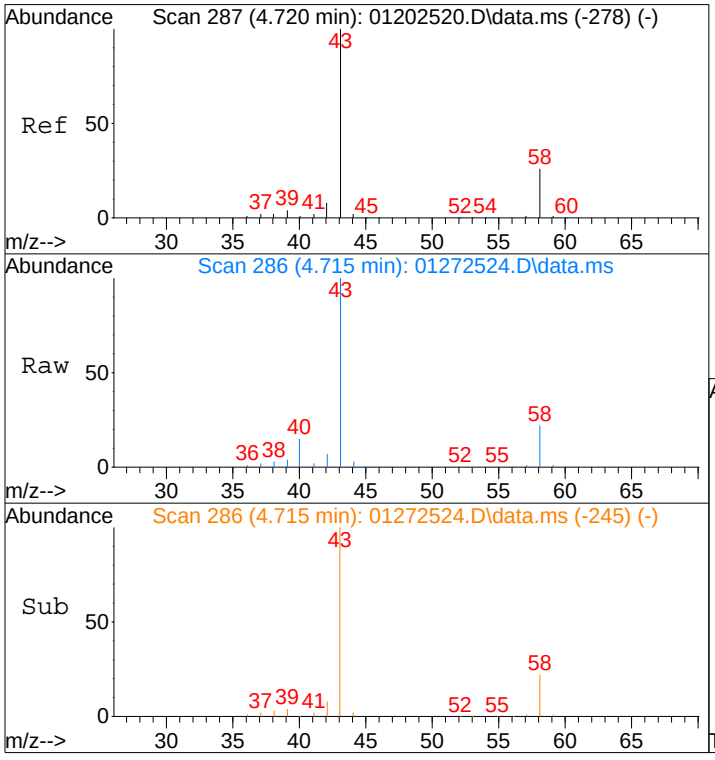


#12
Acrolein
Concen: 0.42 ng
RT: 4.63 min Scan# 271
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 56 Resp: 4737

Ion	Ratio	Lower	Upper
56	100		
55	57.8	53.6	93.6

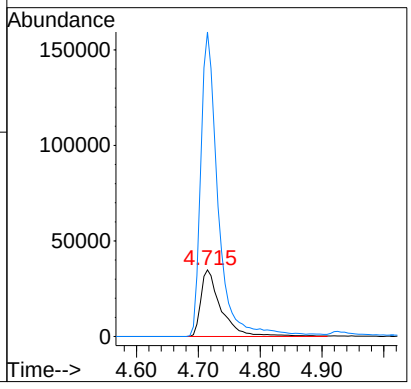


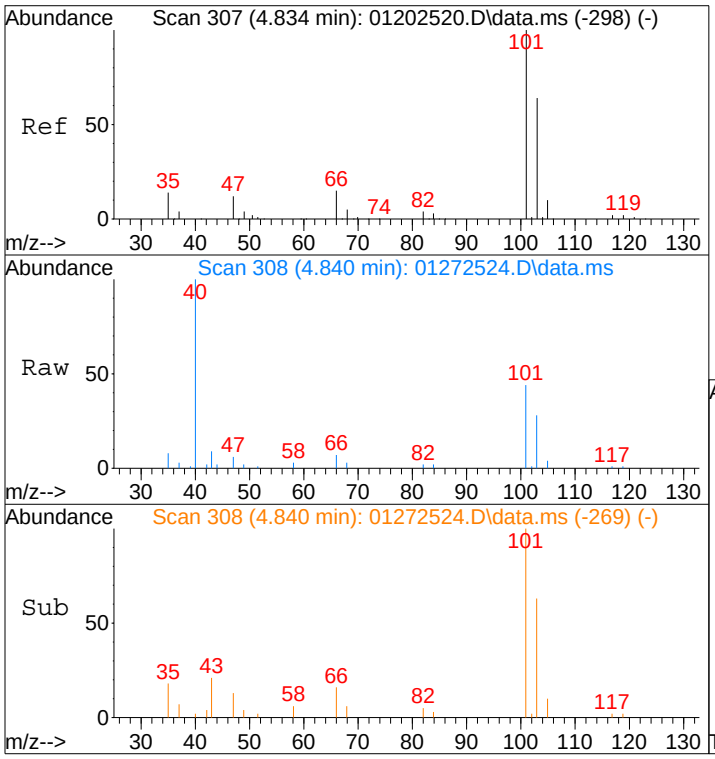


#13
Acetone
Concen: 7.30 ng
RT: 4.71 min Scan# 286
Delta R.T. -0.017 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 58 Resp: 79455

Ion	Ratio	Lower	Upper
58	100		
43	393.5	359.4	419.4

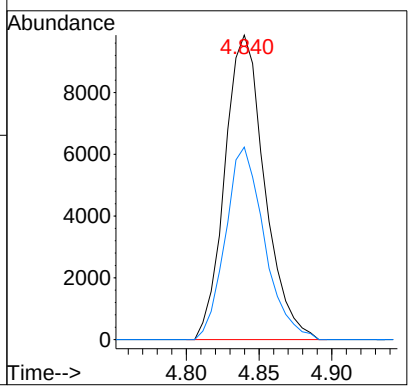


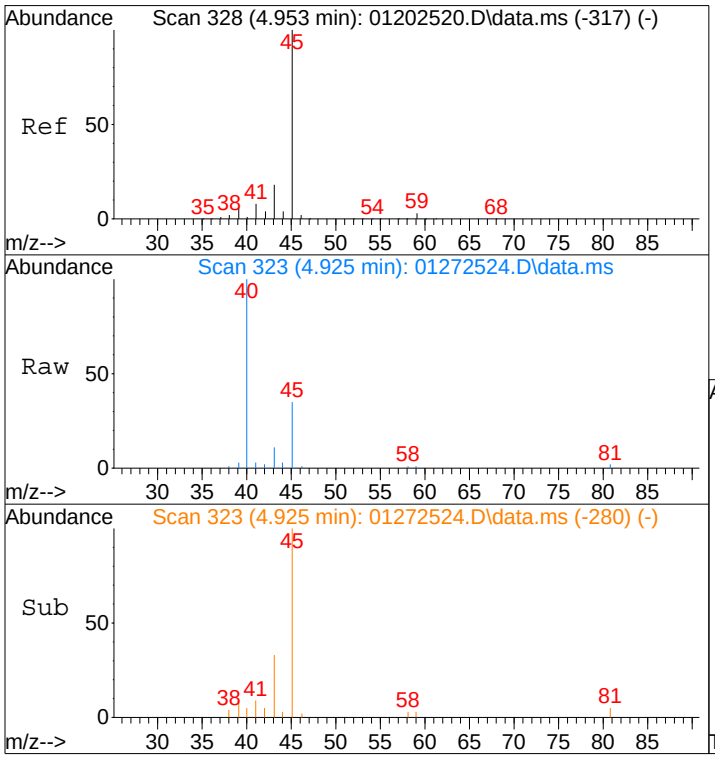


#14
Trichlorofluoromethane
Concen: 0.95 ng
RT: 4.84 min Scan# 308
Delta R.T. -0.028 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:101 Resp: 18756

Ion	Ratio	Lower	Upper
101	100		
103	61.8	44.2	84.2

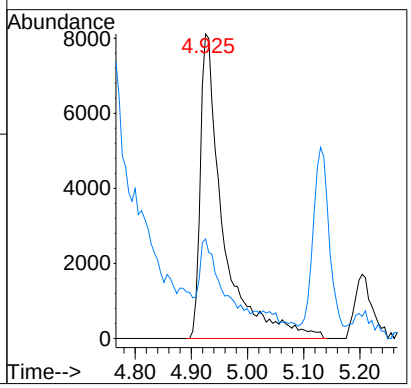


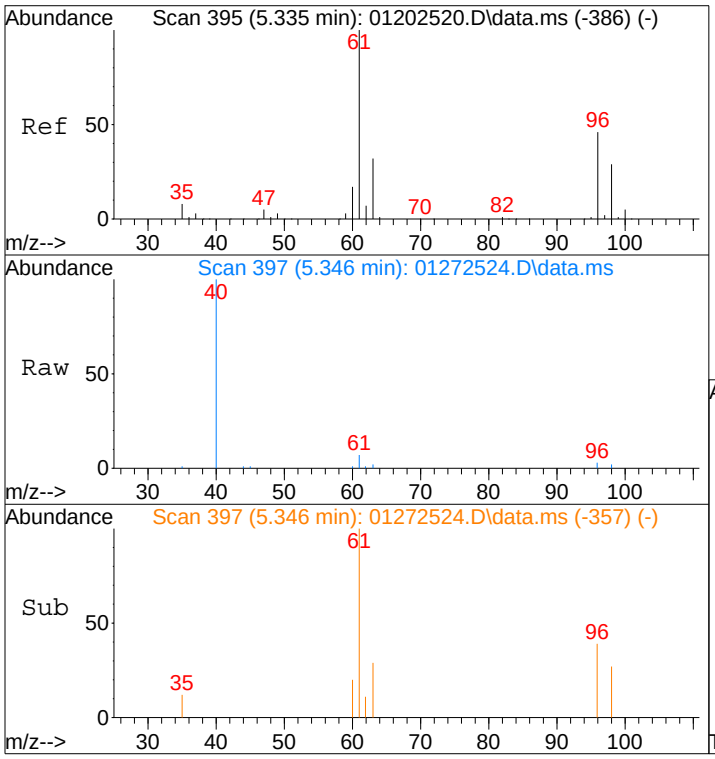


#15
2-Propanol (Isopropanol)
Concen: 0.46 ng
RT: 4.93 min Scan# 323
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 45 Resp: 22713

Ion	Ratio	Lower	Upper
45	100		
43	41.1	0.0	38.9#

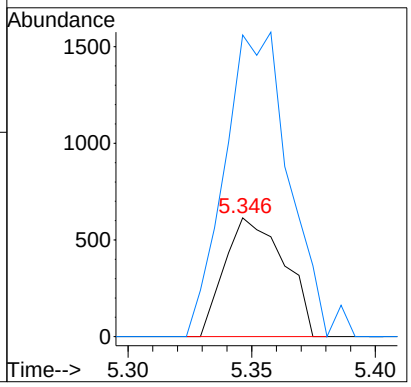


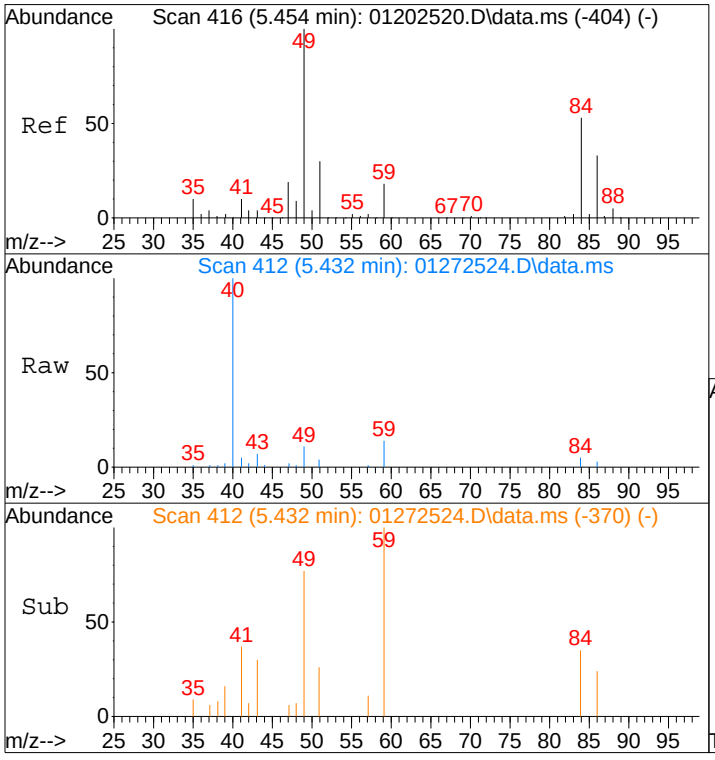


#17
1,1-Dichloroethene
Concen: 0.10 ng
RT: 5.35 min Scan# 397
Delta R.T. -0.023 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 96 Resp: 1030

Ion	Ratio	Lower	Upper
96	100		
61	279.3	197.4	237.4#

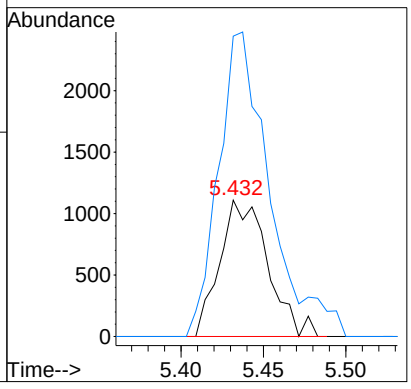


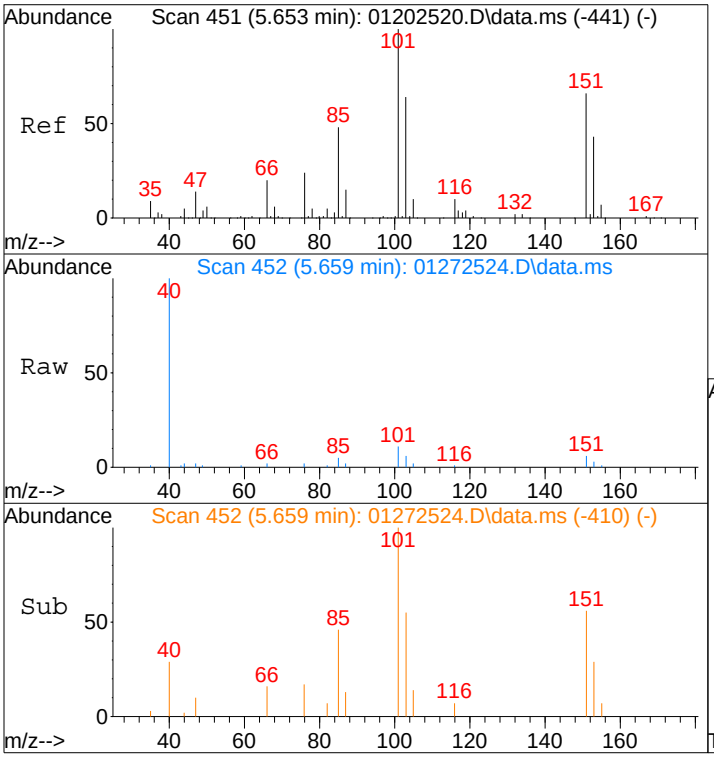


#19
Methylene Chloride
Concen: 0.18 ng
RT: 5.43 min Scan# 412
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 84 Resp: 2246

Ion	Ratio	Lower	Upper
84	100		
49	237.8	163.7	213.7#

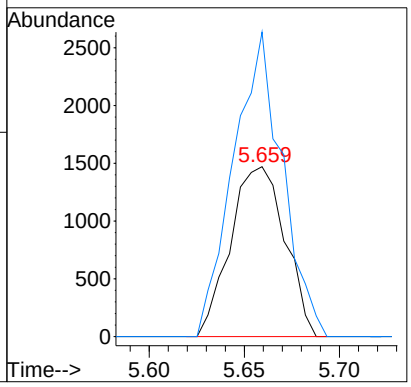


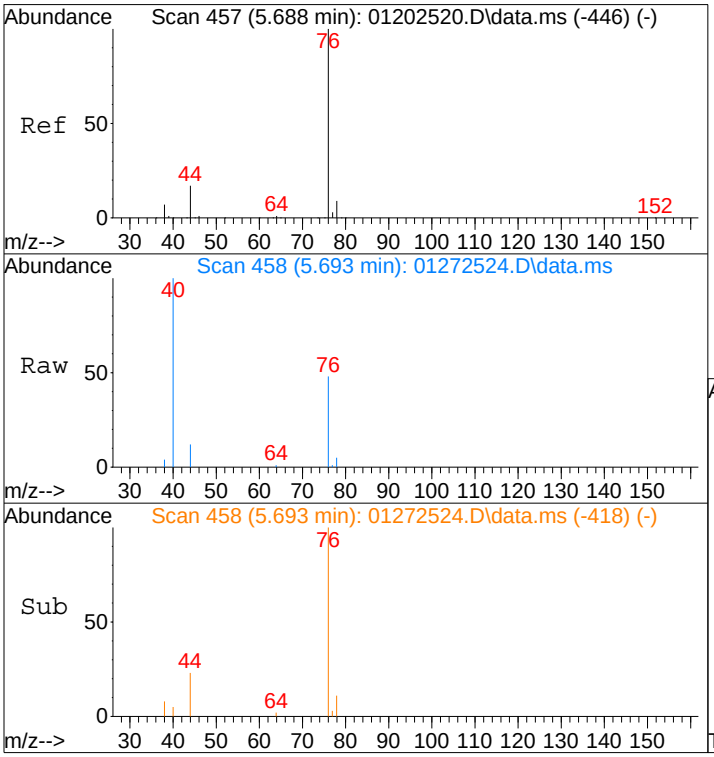


#21
Trichlorotrifluoroethane
Concen: 0.38 ng
RT: 5.66 min Scan# 452
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:151 Resp: 2937

Ion	Ratio	Lower	Upper
151	100		
101	159.8	129.9	169.9

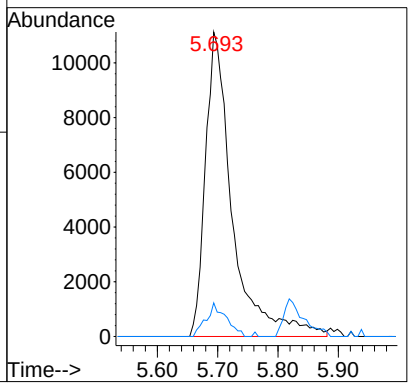


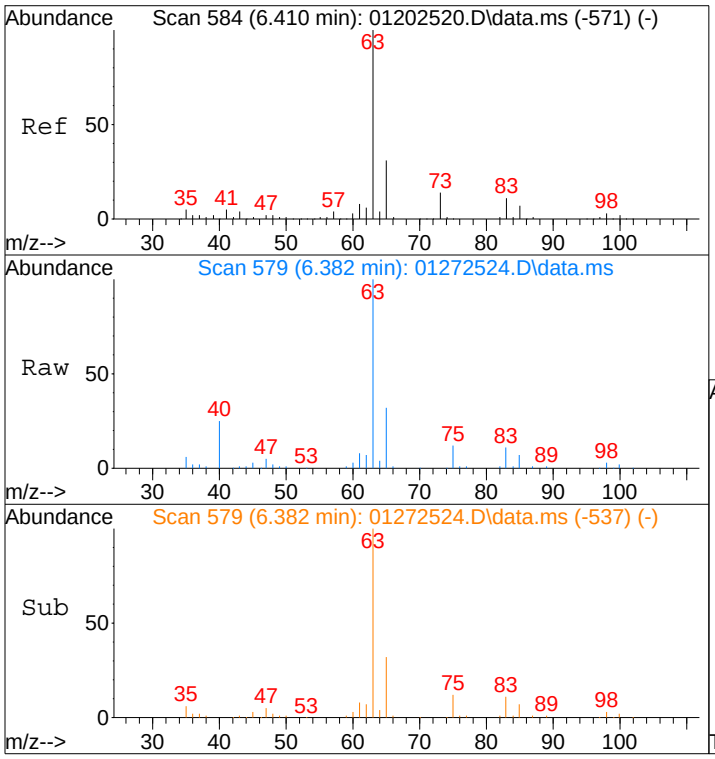


#22
Carbon Disulfide
Concen: 0.69 ng
RT: 5.69 min Scan# 458
Delta R.T. -0.023 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 76 Resp: 34597

Ion	Ratio	Lower	Upper
76	100		
78	8.1	0.0	29.1

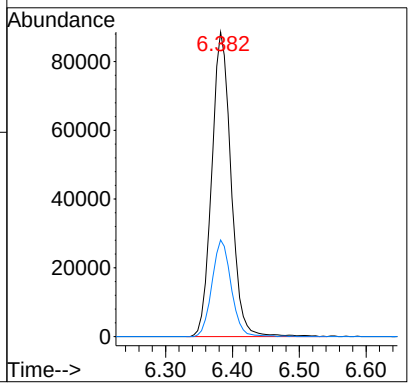


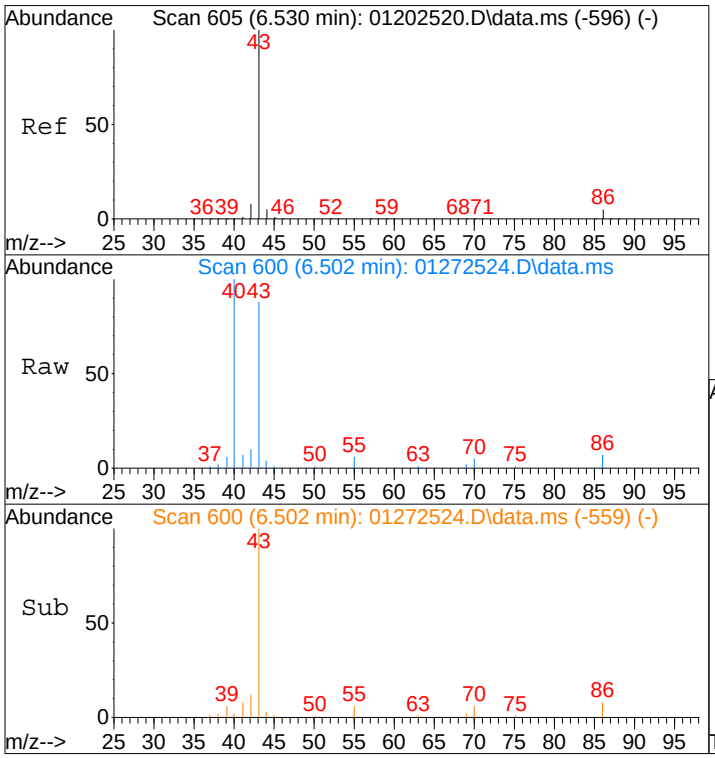


#24
1,1-Dichloroethane
Concen: 6.93 ng
RT: 6.38 min Scan# 579
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 63 Resp: 177482

Ion	Ratio	Lower	Upper
63	100		
65	31.5	11.5	51.5

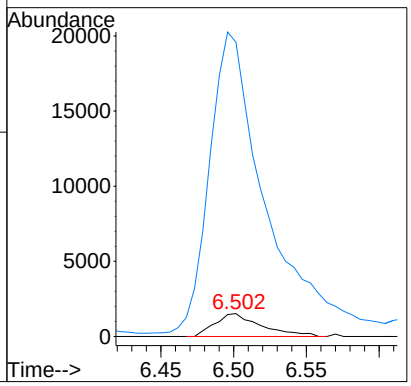


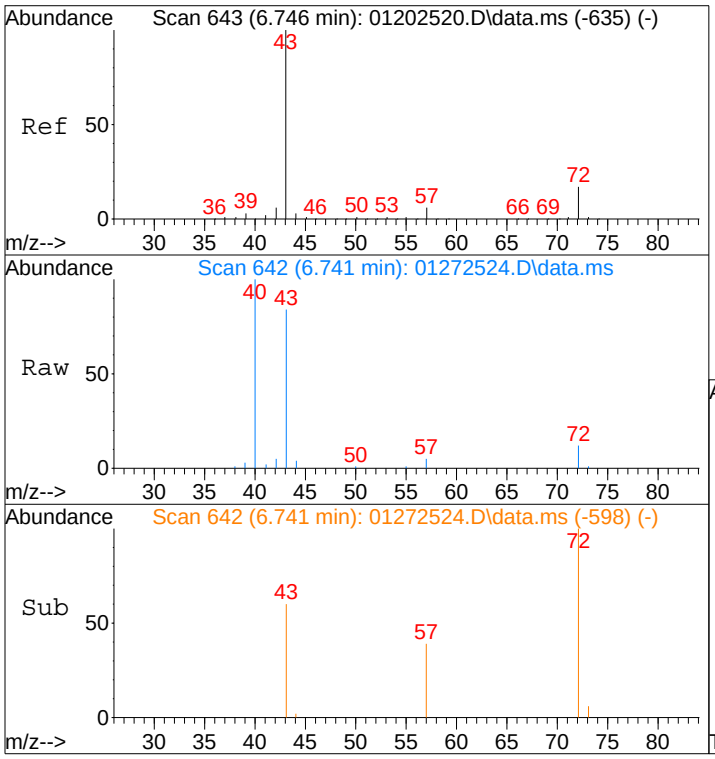


#26
Vinyl Acetate
Concen: 1.49 ng
RT: 6.50 min Scan# 600
Delta R.T. -0.017 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 86 Resp: 3368

Ion	Ratio	Lower	Upper
86	100		
43	1610.2	2036.4	2076.4#

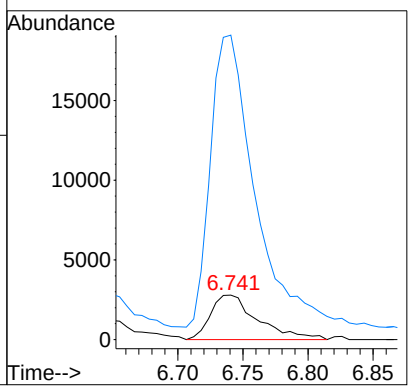


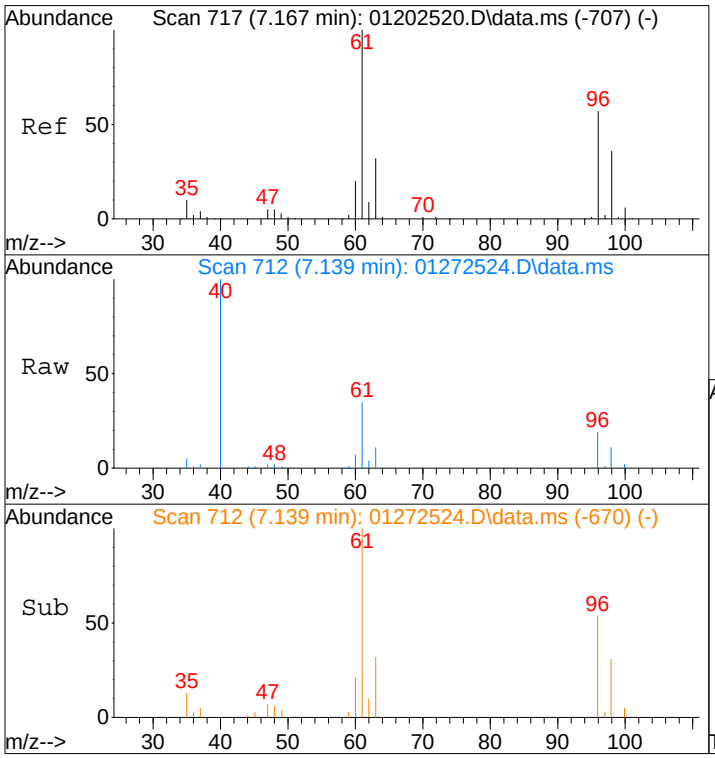


#27
2-Butanone (MEK)
Concen: 0.86 ng
RT: 6.74 min Scan# 642
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 72 Resp: 7023

Ion	Ratio	Lower	Upper
72	100		
43	676.2	579.1	619.1#

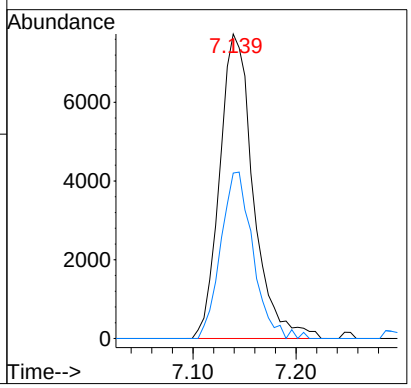


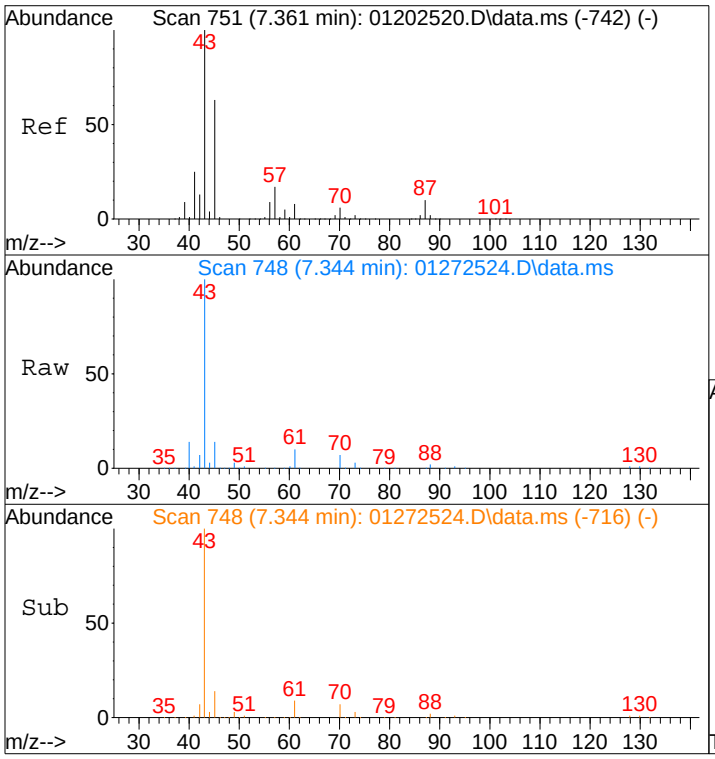


#28
cis-1,2-Dichloroethene
Concen: 0.85 ng
RT: 7.14 min Scan# 712
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 61 Resp: 17544

Ion	Ratio	Lower	Upper
61	100		
96	52.3	36.9	76.9

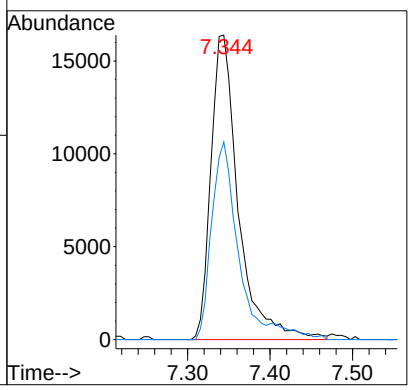


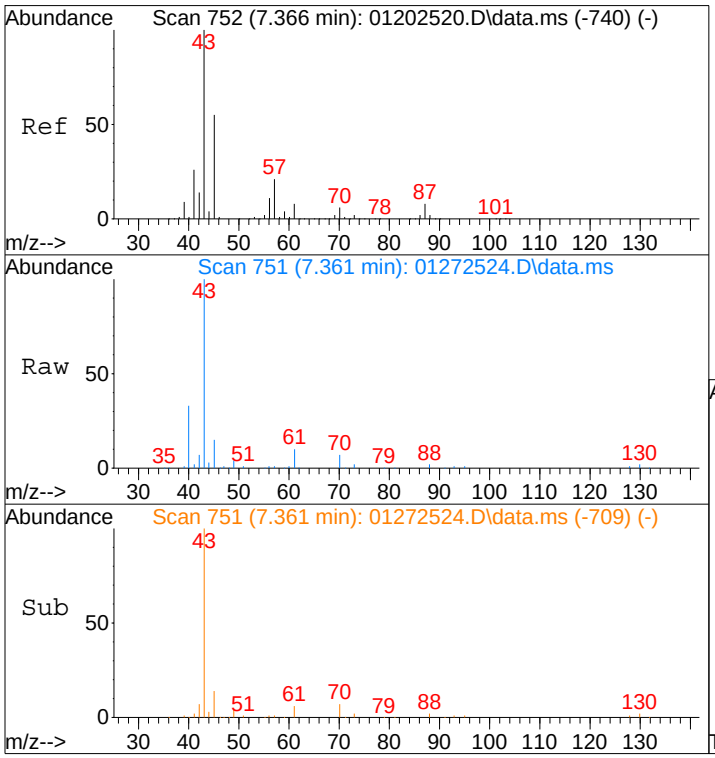


#30
Ethyl Acetate
Concen: 7.23 ng
RT: 7.34 min Scan# 748
Delta R.T. -0.017 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 61 Resp: 37970

Ion	Ratio	Lower	Upper
61	100		
70	64.7	51.2	91.2

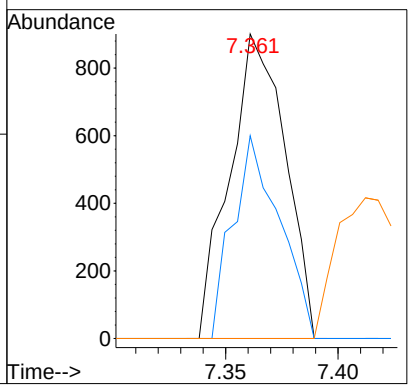


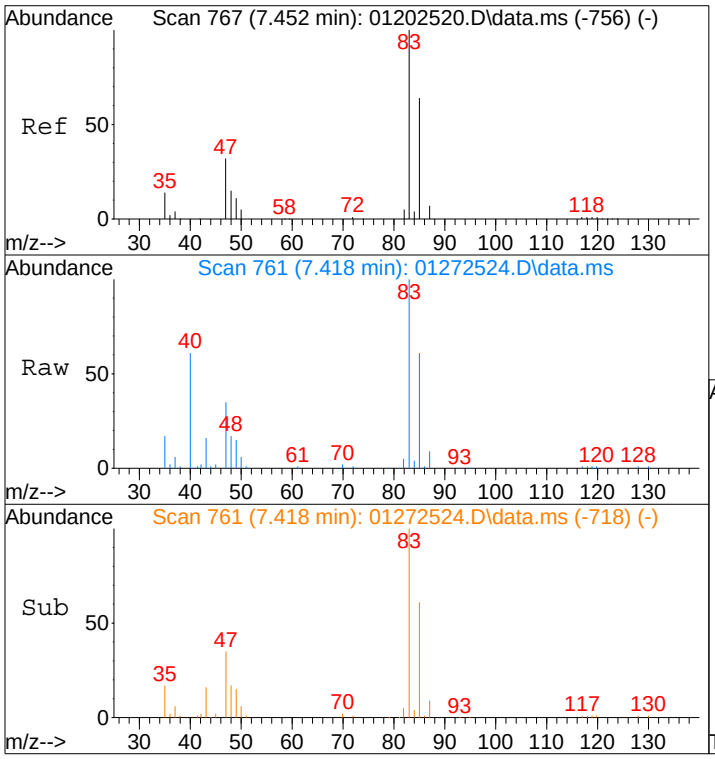


#31
n-Hexane
Concen: 0.06 ng
RT: 7.36 min Scan# 751
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 57 Resp: 1552

Ion	Ratio	Lower	Upper
57	100		
56	55.9	41.8	62.6
86	54.6	8.3	12.5#

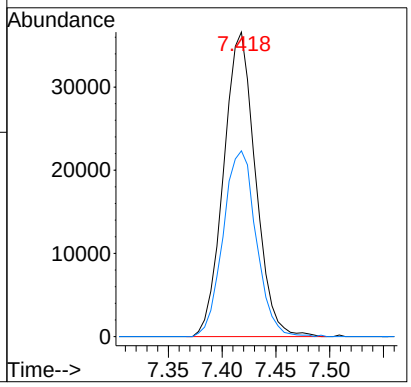


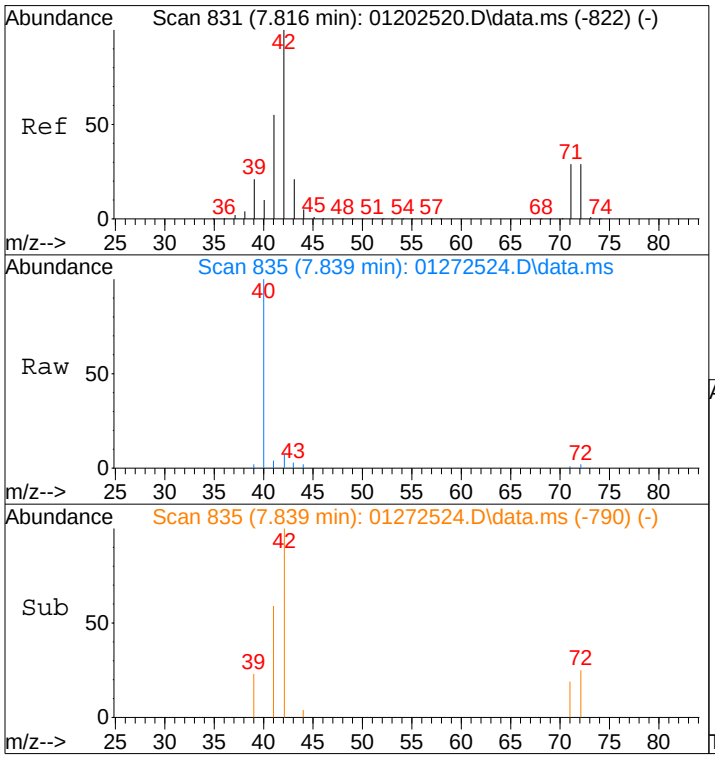


#32
Chloroform
Concen: 3.60 ng
RT: 7.42 min Scan# 761
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 83 Resp: 75416

Ion	Ratio	Lower	Upper
83	100		
85	63.3	44.0	84.0

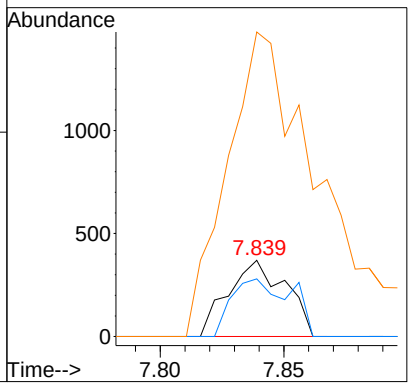


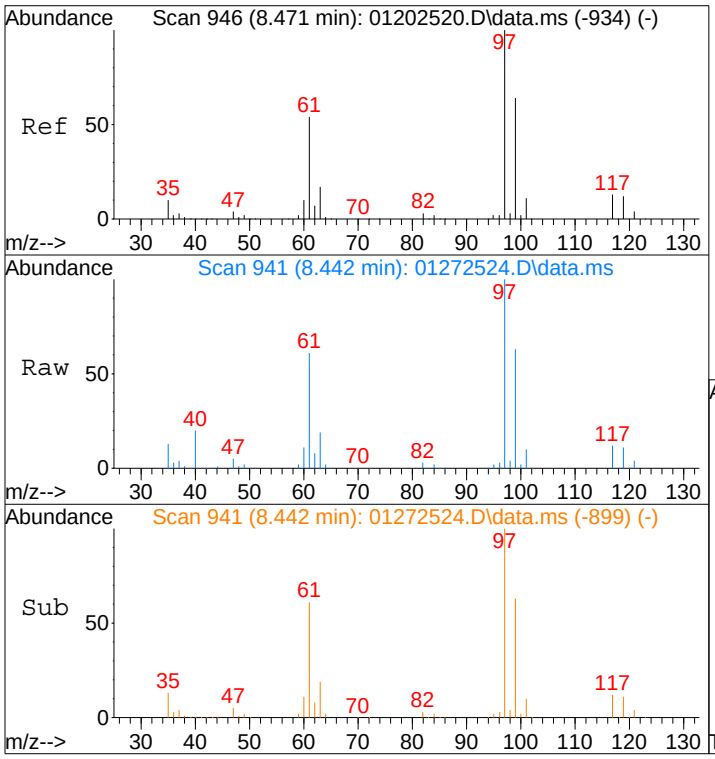


#34
Tetrahydrofuran (THF)
Concen: 0.07 ng
RT: 7.84 min Scan# 835
Delta R.T. 0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 72 Resp: 598

Ion	Ratio	Lower	Upper
72	100		
71	77.8	78.8	118.8#
42	658.2	320.3	360.3#

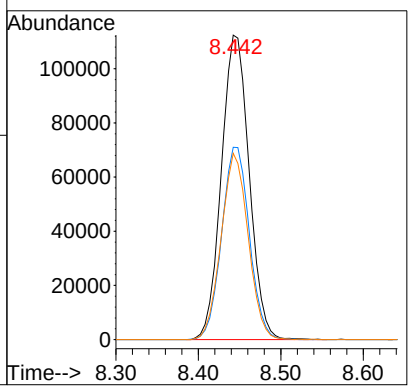


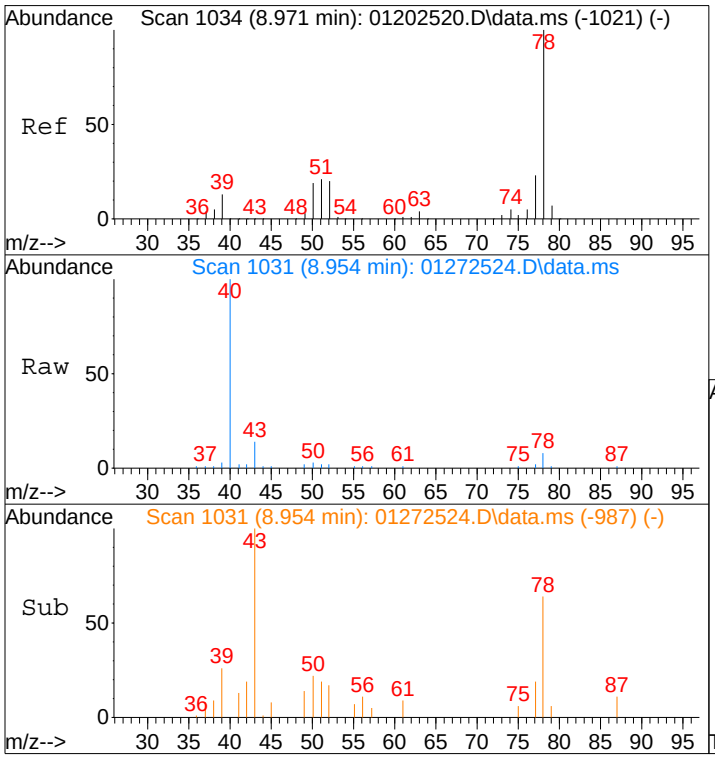


#38
1,1,1-Trichloroethane
Concen: 14.33 ng
RT: 8.44 min Scan# 941
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 97 Resp: 263662

Ion	Ratio	Lower	Upper
97	100		
99	62.9	43.8	83.8
61	59.4	34.3	74.3

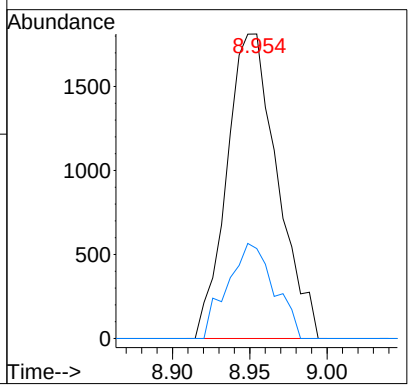


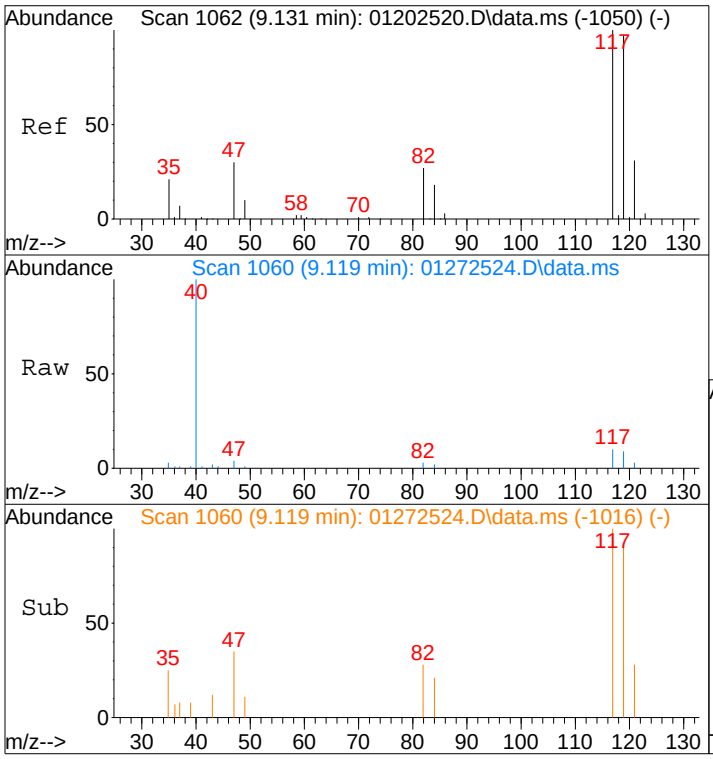


#41
Benzene
Concen: 0.08 ng
RT: 8.95 min Scan# 1031
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 78 Resp: 4126

Ion	Ratio	Lower	Upper
78	100		
77	28.9	3.4	43.4

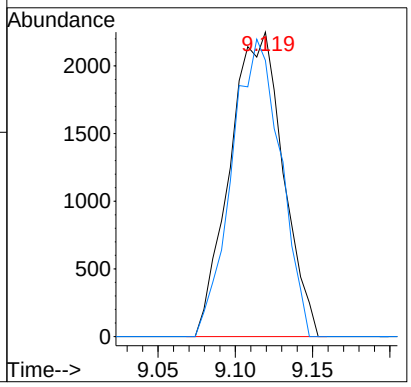


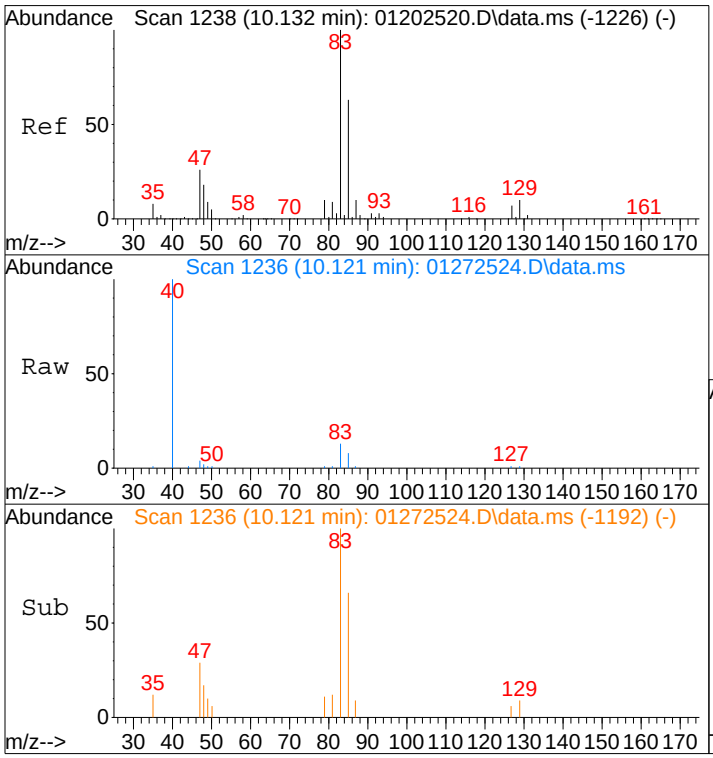


#42
Carbon Tetrachloride
Concen: 0.34 ng
RT: 9.12 min Scan# 1060
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:117 Resp: 5384

Ion	Ratio	Lower	Upper
117	100		
119	89.8	75.4	115.4

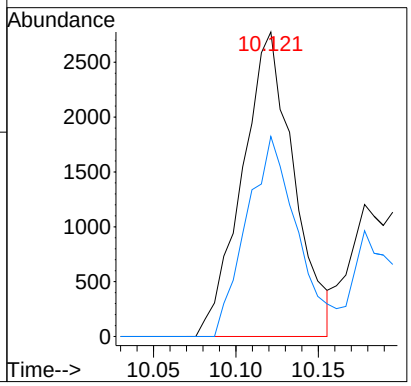


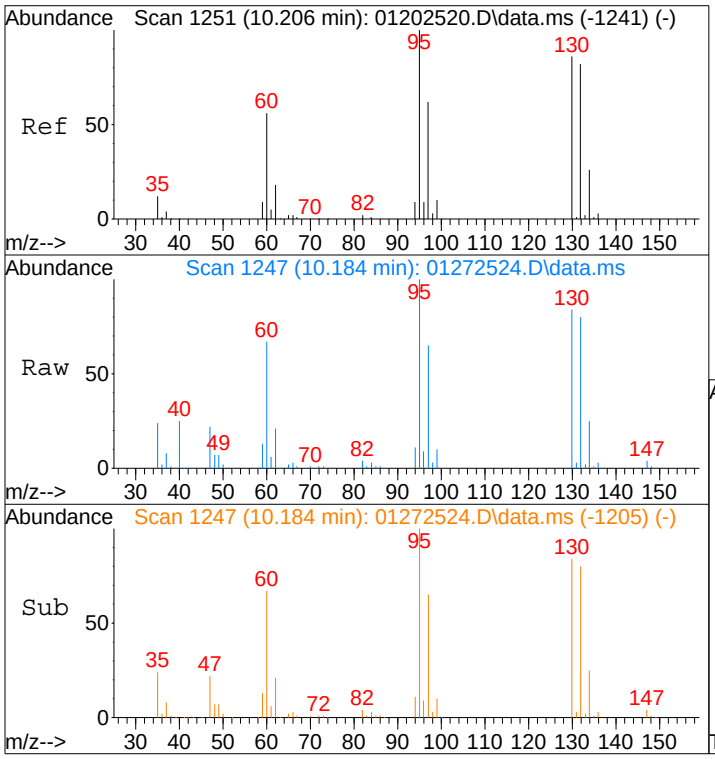


#46
Bromodichloromethane
Concen: 0.36 ng
RT: 10.12 min Scan# 1236
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 83 Resp: 6052

Ion	Ratio	Lower	Upper
83	100		
85	64.9	43.1	83.1

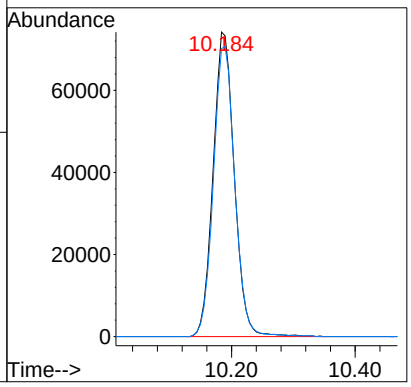


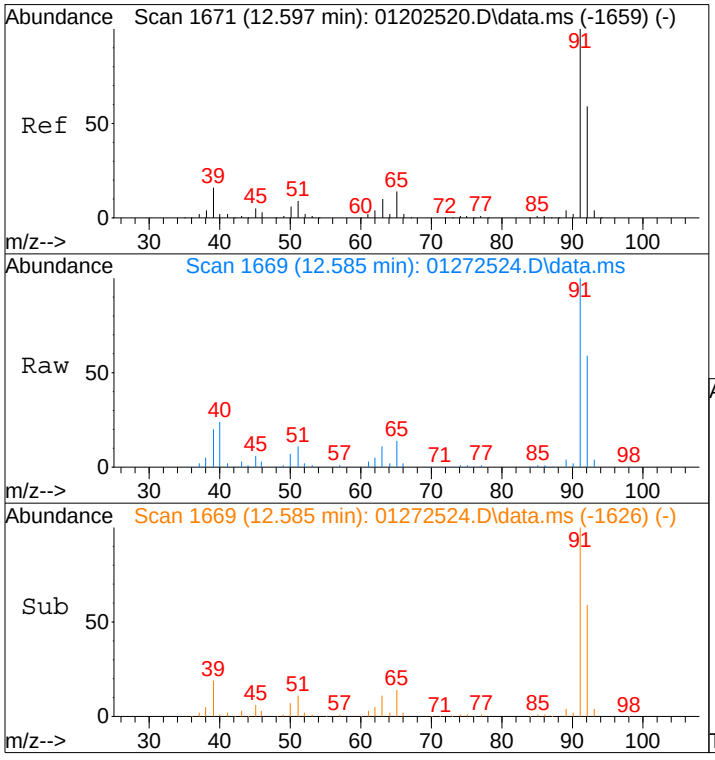


#47
Trichloroethene
Concen: 16.29 ng
RT: 10.18 min Scan# 1247
Delta R.T. -0.011 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:130 Resp: 176793

Ion	Ratio	Lower	Upper
130	100		
132	96.2	75.5	115.5

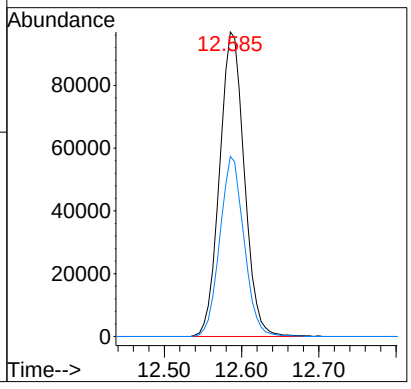


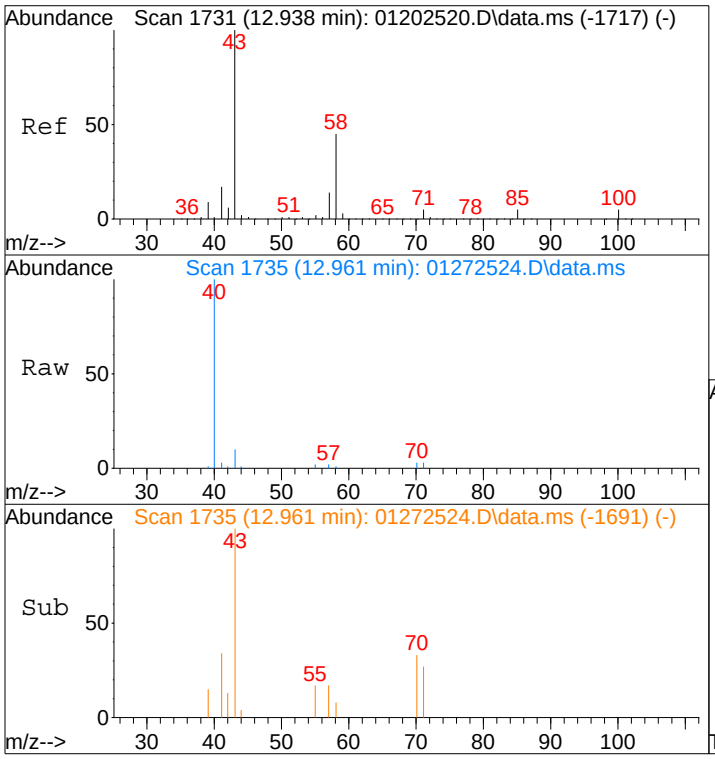


#58
Toluene
Concen: 3.77 ng
RT: 12.59 min Scan# 1669
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 215580

Ion	Ratio	Lower	Upper
91	100		
92	57.8	38.4	78.4

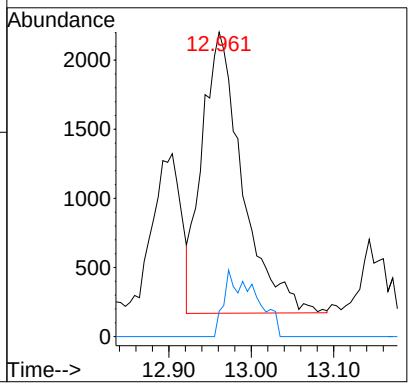


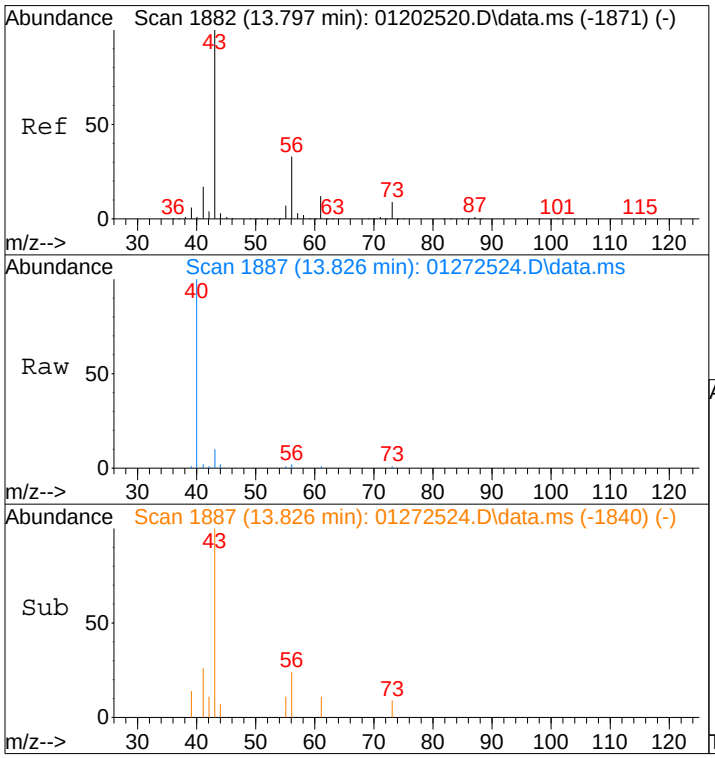


#59
2-Hexanone
Concen: 0.16 ng
RT: 12.96 min Scan# 1735
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 43 Resp: 6950

Ion	Ratio	Lower	Upper
43	100		
58	18.4	25.1	65.1#

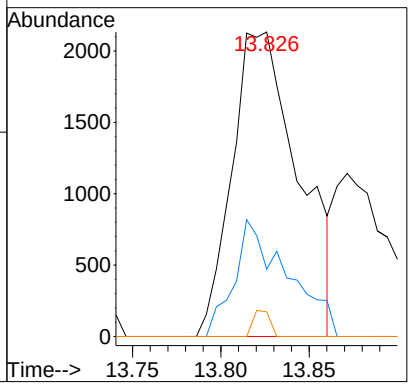


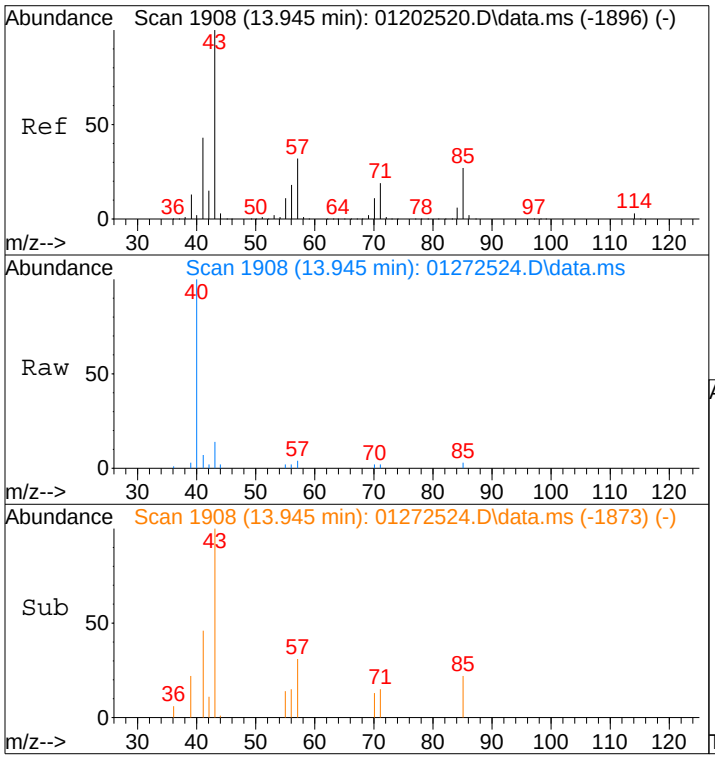


#62
n-Butyl Acetate
Concen: 0.11 ng
RT: 13.83 min Scan# 1887
Delta R.T. 0.017 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 43 Resp: 5607

Ion	Ratio	Lower	Upper
43	100		
56	30.8	13.3	53.3
73	2.2	0.0	28.9

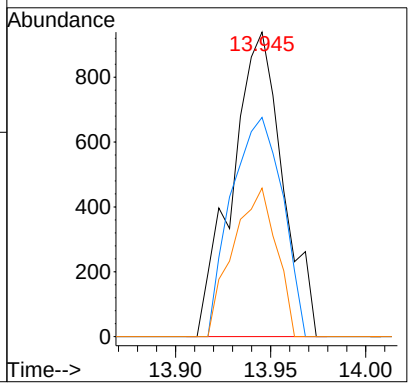


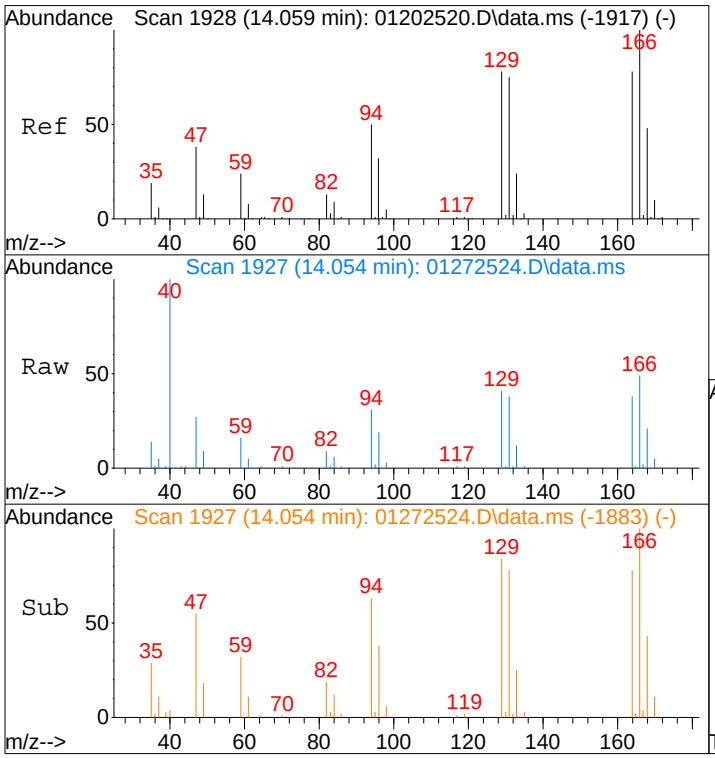


#63
n-Octane
Concen: 0.11 ng
RT: 13.95 min Scan# 1908
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 57 Resp: 1738

Ion	Ratio	Lower	Upper
57	100		
85	73.0	65.9	98.9
71	42.0	45.7	68.5#

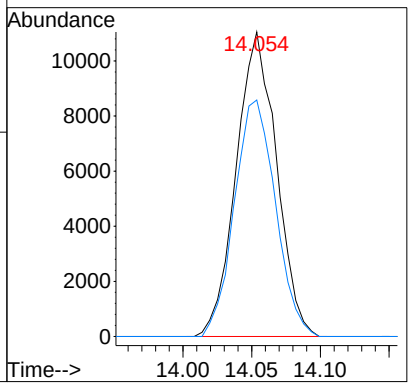


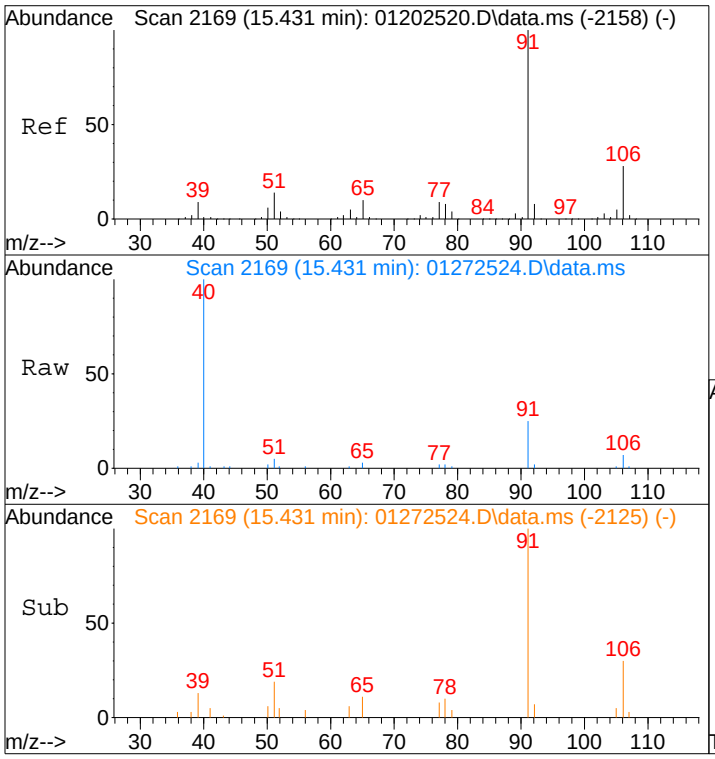


#64
Tetrachloroethene
Concen: 1.73 ng
RT: 14.05 min Scan# 1927
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:166 Resp: 22538

Ion	Ratio	Lower	Upper
166	100		
164	79.4	58.4	98.4

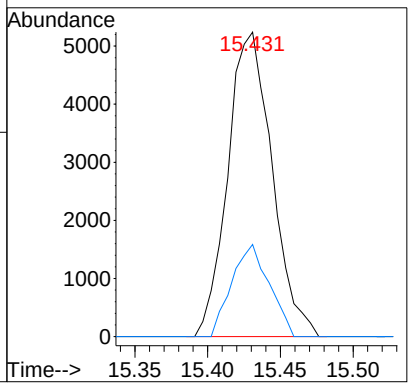


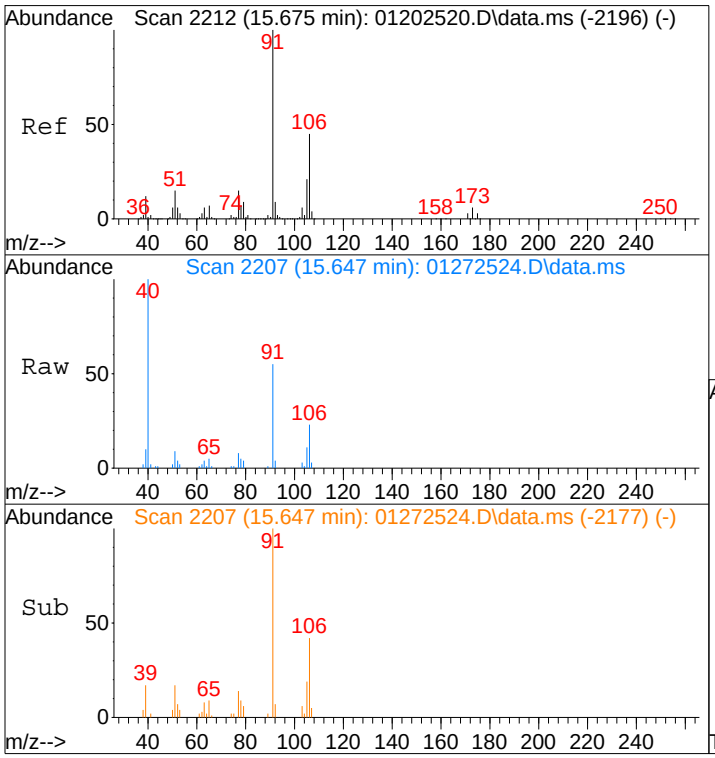


#66
Ethylbenzene
Concen: 0.17 ng
RT: 15.43 min Scan# 2169
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 11082

Ion	Ratio	Lower	Upper
91	100		
106	25.7	8.2	48.2

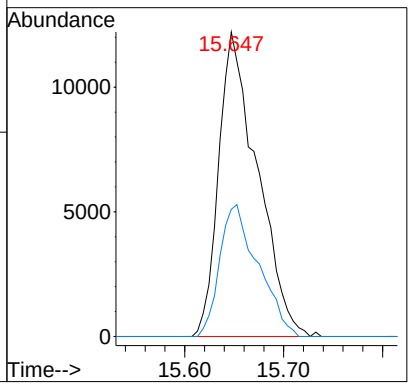


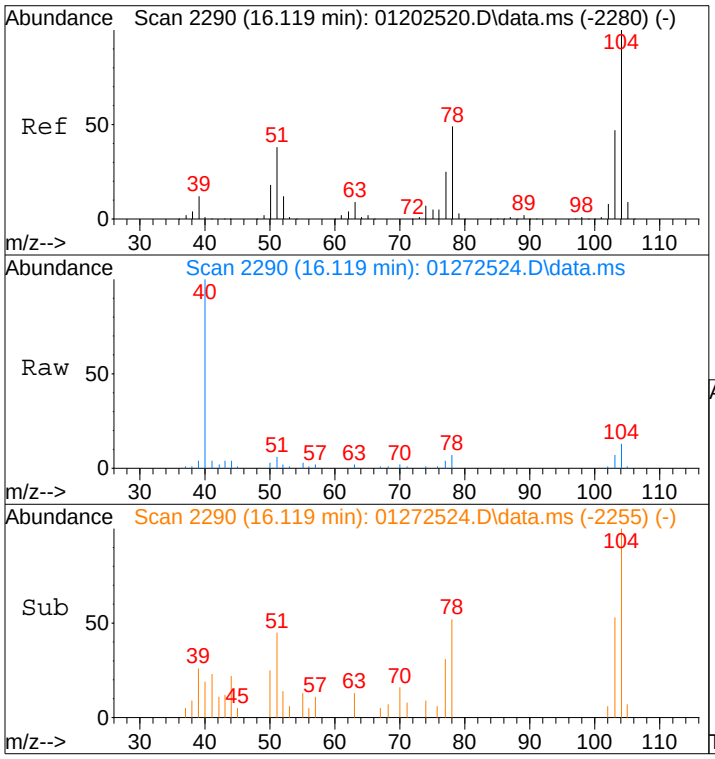


#67
m- & p-Xylenes
Concen: 0.64 ng
RT: 15.65 min Scan# 2207
Delta R.T. -0.028 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 33152

Ion	Ratio	Lower	Upper
91	100		
106	43.0	24.7	64.7

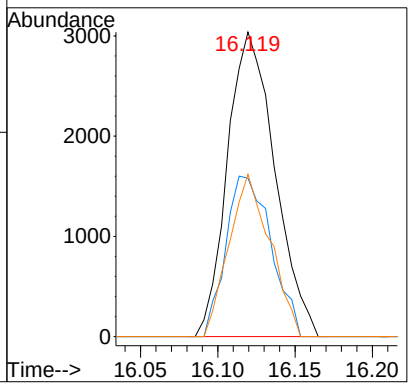


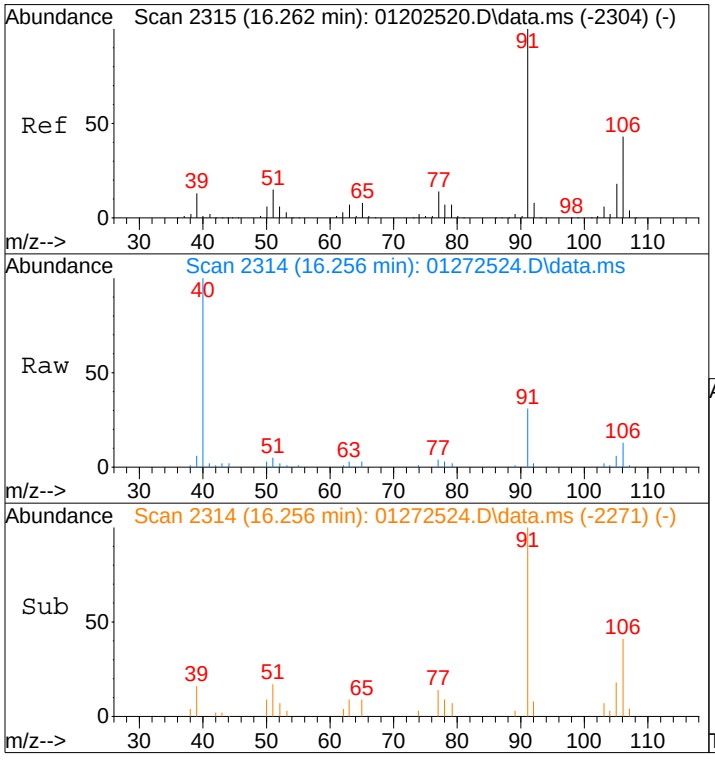


#69
Styrene
Concen: 0.19 ng
RT: 16.12 min Scan# 2290
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:104 Resp: 6493

Ion	Ratio	Lower	Upper
104	100		
78	50.3	29.2	69.2
103	46.3	27.4	67.4

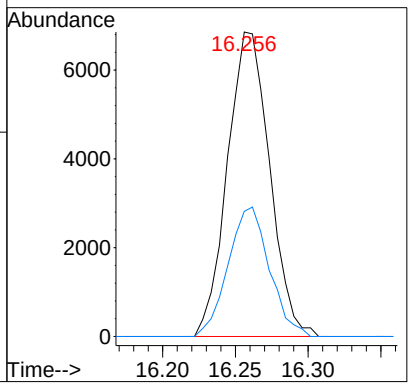


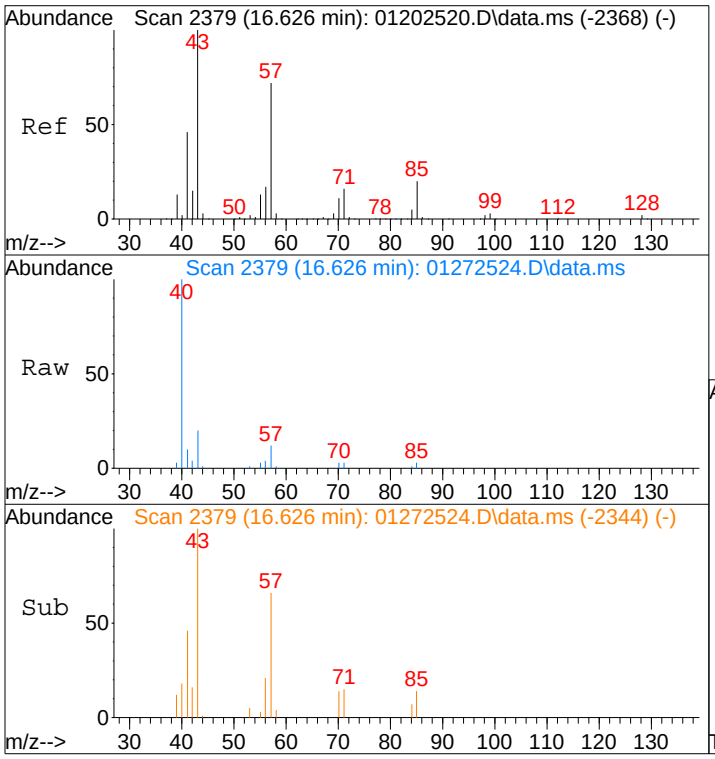


#70
o-Xylene
Concen: 0.27 ng
RT: 16.26 min Scan# 2314
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 13844

Ion	Ratio	Lower	Upper
91	100		
106	41.6	23.3	63.3

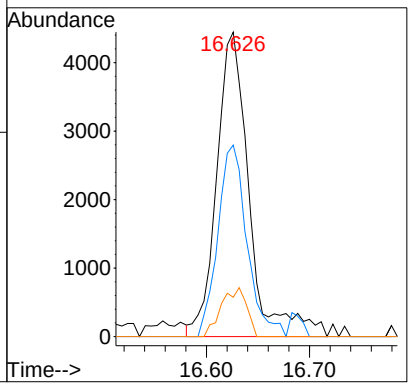


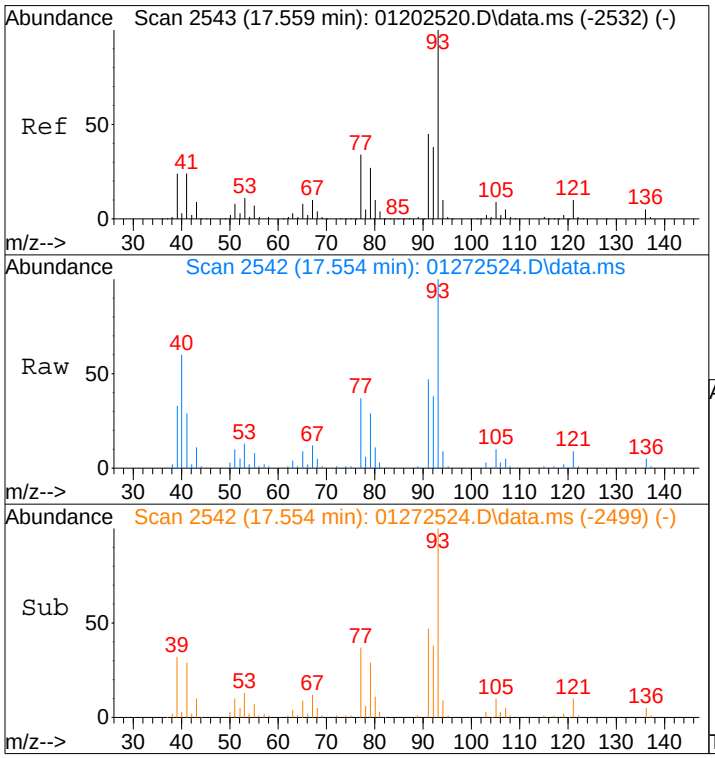


#71
n-Nonane
Concen: 0.21 ng
RT: 16.63 min Scan# 2379
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 43 Resp: 9723

Ion	Ratio	Lower	Upper
43	100		
57	56.4	52.1	92.1
85	12.6	0.0	39.5

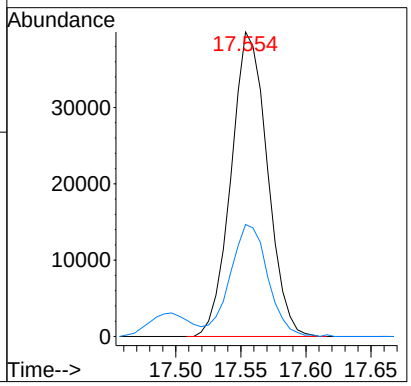


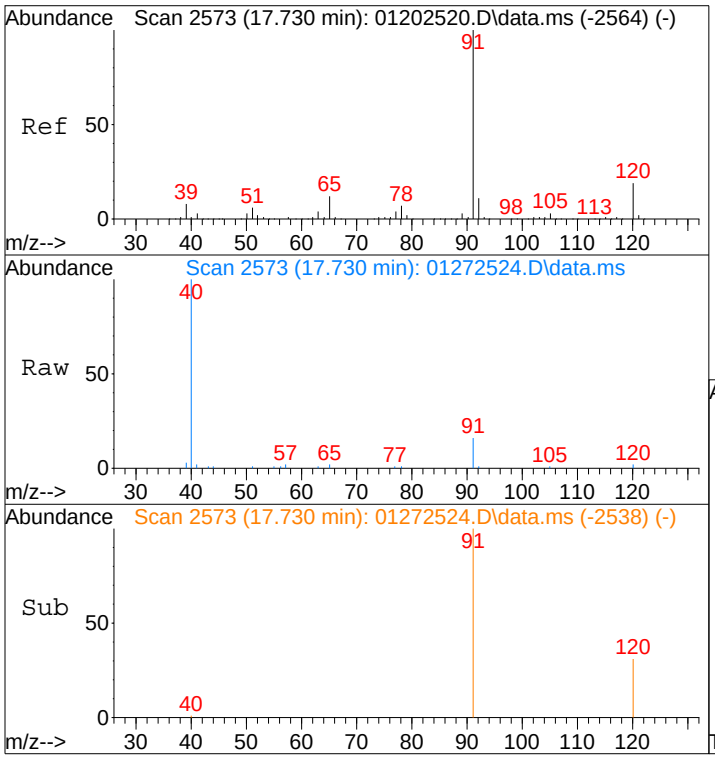


#75
alpha-Pinene
Concen: 2.65 ng
RT: 17.55 min Scan# 2542
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 93 Resp: 77292

Ion	Ratio	Lower	Upper
93	100		
77	38.3	14.1	54.1

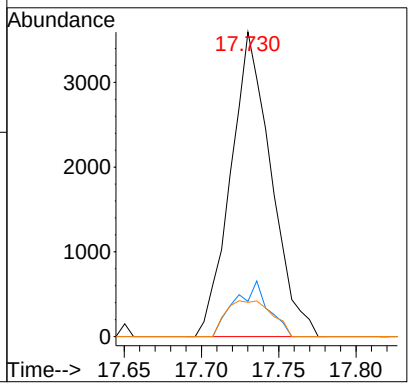


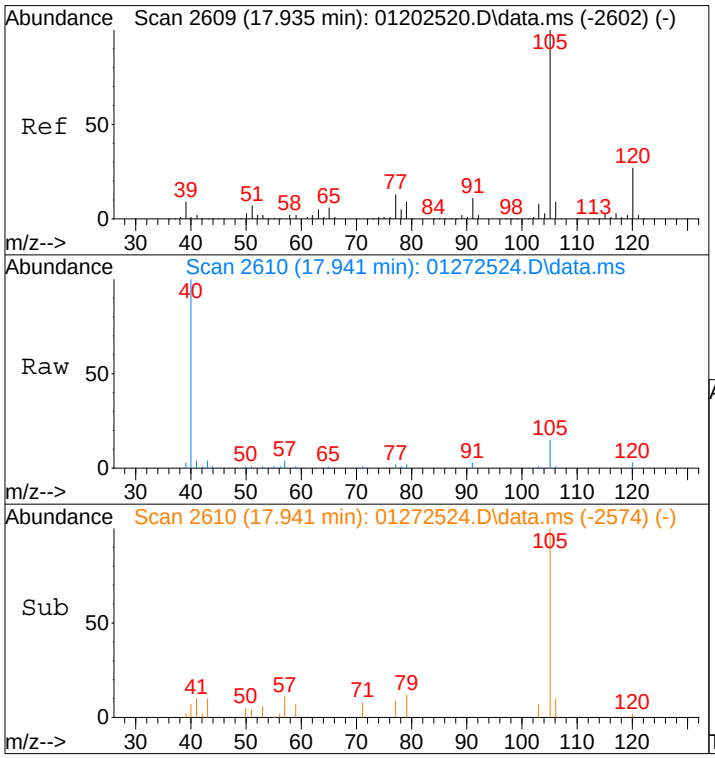


#76
n-Propylbenzene
Concen: 0.09 ng
RT: 17.73 min Scan# 2573
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 6552

Ion	Ratio	Lower	Upper
91	100		
120	15.1	0.0	39.2
65	13.5	0.0	32.4

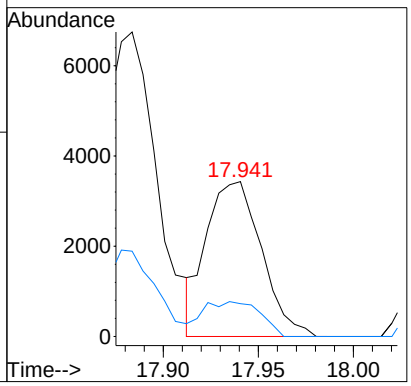


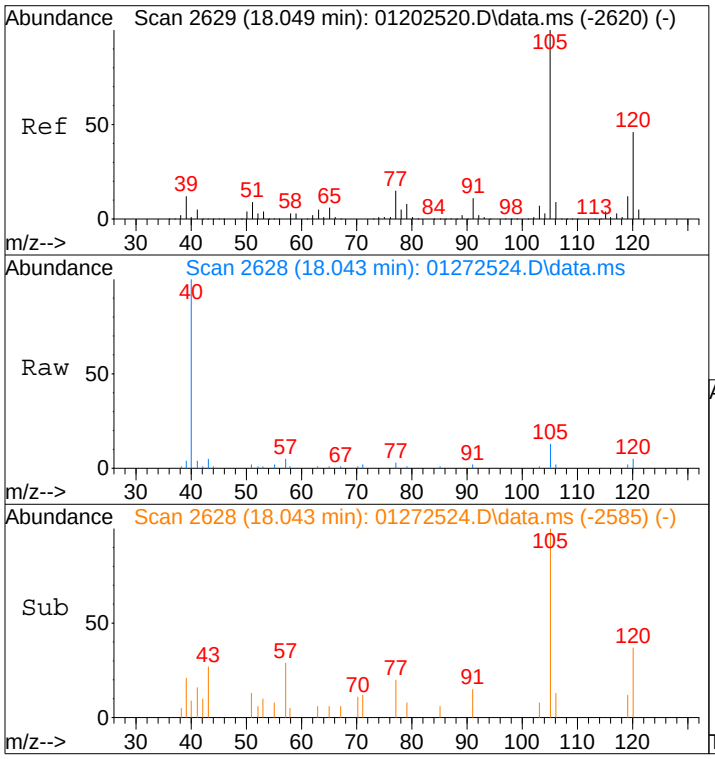


#78
4-Ethyltoluene
Concen: 0.12 ng
RT: 17.94 min Scan# 2610
Delta R.T. 0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:105 Resp: 6925

Ion	Ratio	Lower	Upper
105	100		
120	23.4	7.6	47.6

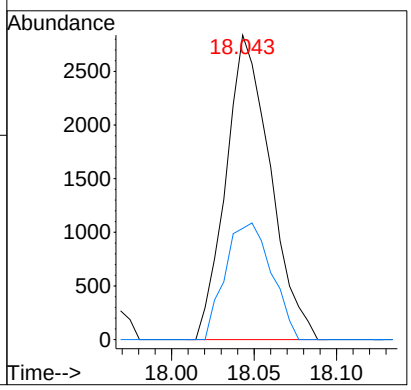


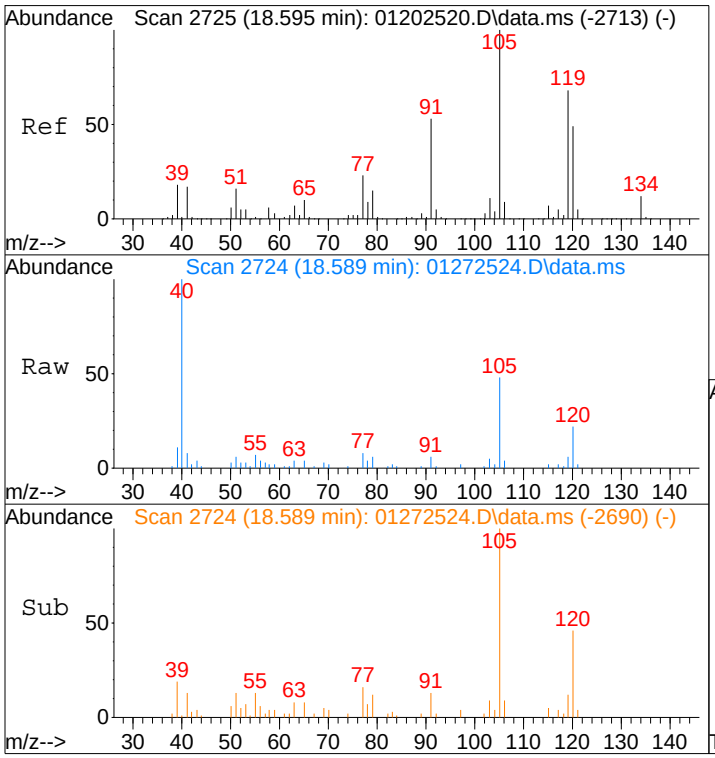


#79
1,3,5-Trimethylbenzene
Concen: 0.11 ng
RT: 18.04 min Scan# 2628
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:105 Resp: 5313

Ion	Ratio	Lower	Upper
105	100		
120	39.9	26.2	66.2

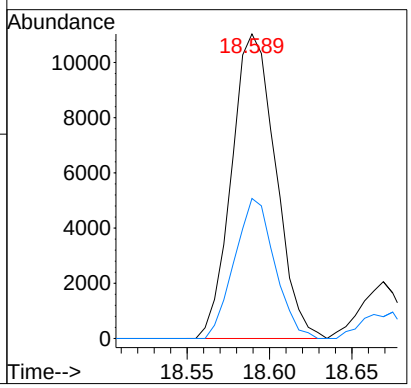


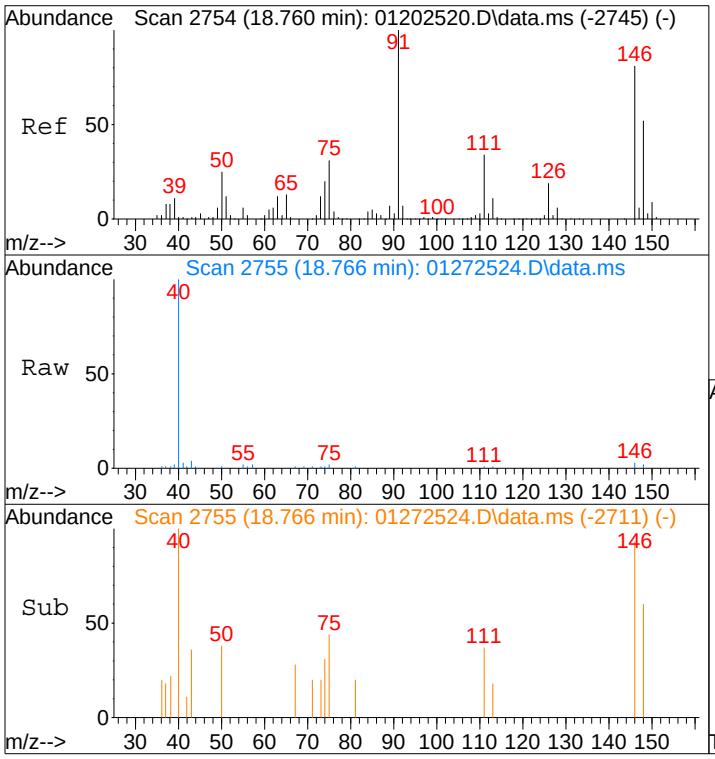


#82
1,2,4-Trimethylbenzene
Concen: 0.42 ng
RT: 18.59 min Scan# 2724
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:105 Resp: 20487

Ion	Ratio	Lower	Upper
105	100		
120	42.0	30.3	70.3

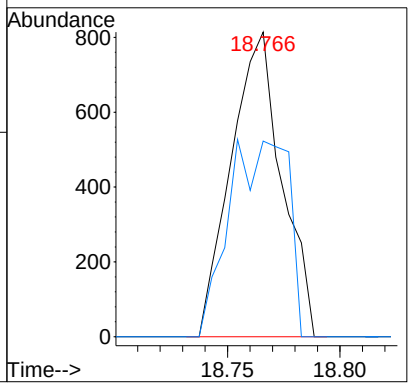


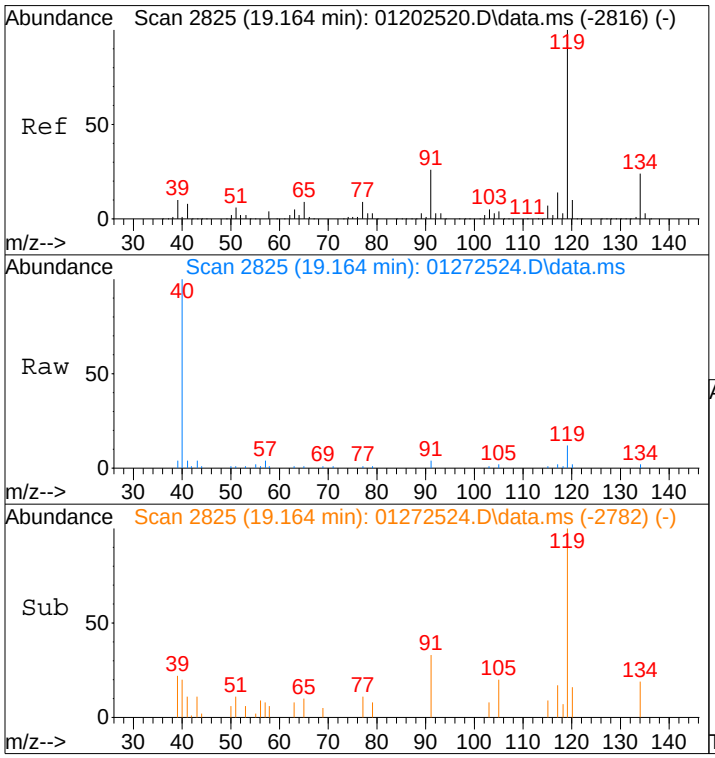


#85
1,3-Dichlorobenzene
Concen: 0.05 ng
RT: 18.77 min Scan# 2755
Delta R.T. 0.000 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:146 Resp: 1278

Ion	Ratio	Lower	Upper
146	100		
148	75.9	44.3	84.3

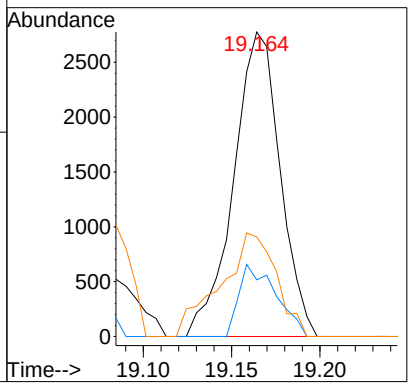


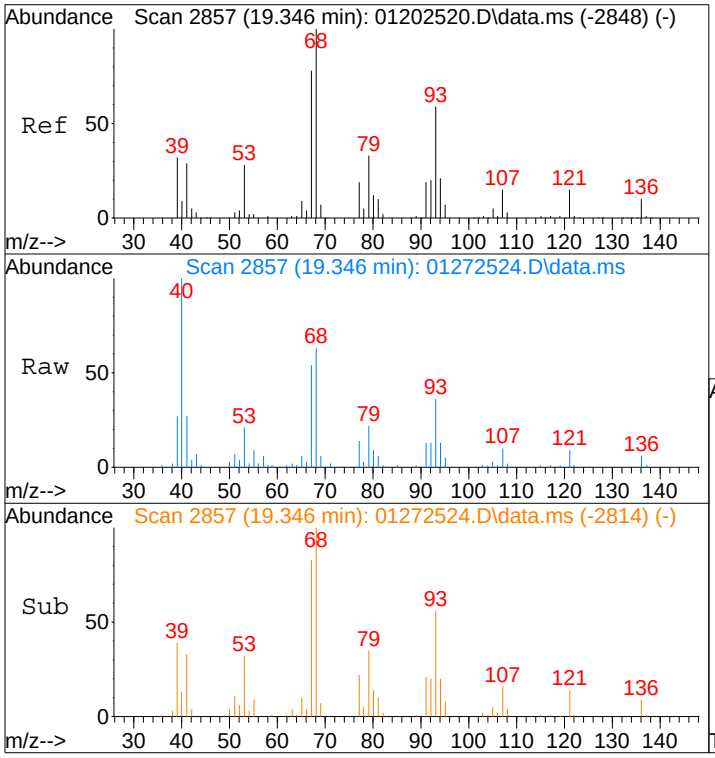


#88
4-Isopropyltoluene (p-Cymene)
Concen: 0.10 ng
RT: 19.16 min Scan# 2825
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:119 Resp: 5093

Ion	Ratio	Lower	Upper
119	100		
134	18.8	3.8	43.8
91	40.5	5.9	45.9

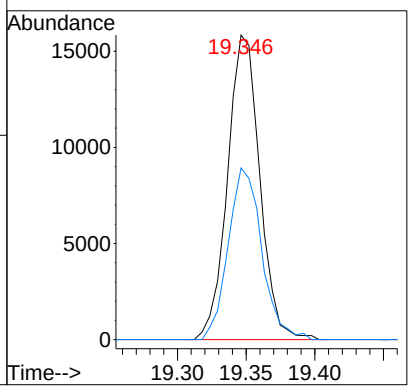


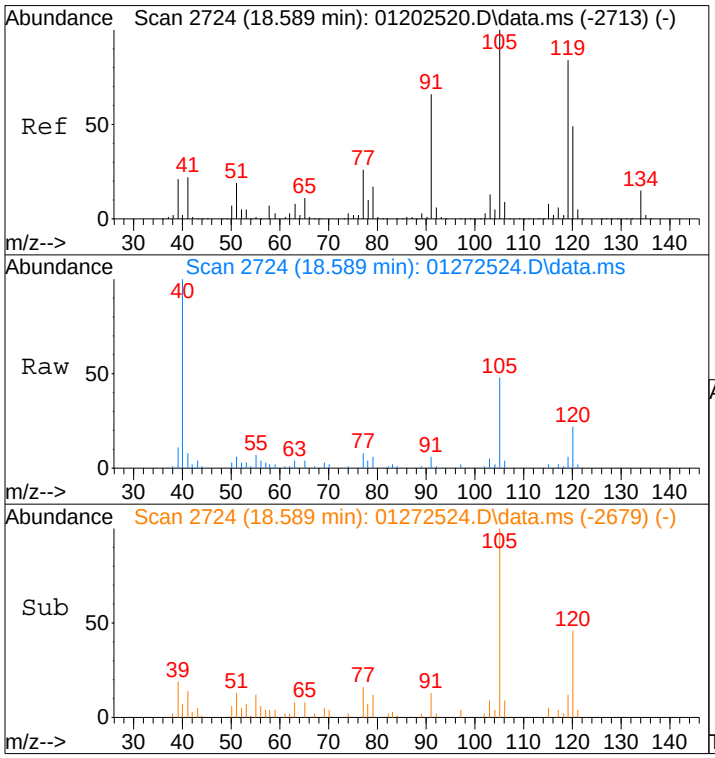


#91
d-Limonene
Concen: 1.24 ng
RT: 19.35 min Scan# 2857
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 68 Resp: 25895

Ion	Ratio	Lower	Upper
68	100		
93	58.6	39.0	79.0

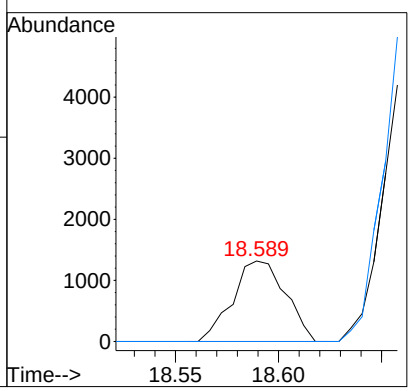


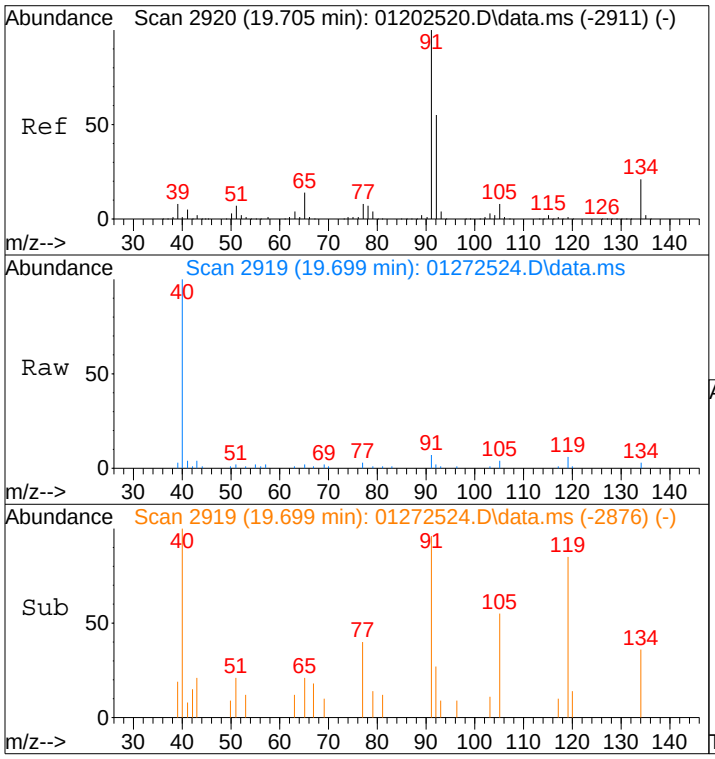


#99
tert-Butylbenzene
Concen: 0.05 ng
RT: 18.59 min Scan# 2724
Delta R.T. 0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion:119 Resp: 2350

Ion	Ratio	Lower	Upper
119	100		
134	0.0	14.3	21.5#

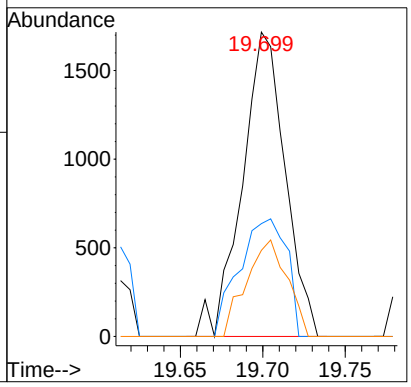




#100
n-Butylbenzene
Concen: 0.06 ng
RT: 19.70 min Scan# 2919
Delta R.T. -0.006 min
Lab File: 01272524.D
Acq: 27 Jan 2025 23:47

Tgt Ion: 91 Resp: 3120

Ion	Ratio	Lower	Upper
91	100		
134	42.7	16.5	24.7#
92	30.2	43.8	65.8#



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272524.D
Acq On : 27 Jan 2025 23:47
Operator : MC
Sample : P2500076-008 (1000mL)
Misc : S37-11222401
ALS Vial : 12 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 07:19:28 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

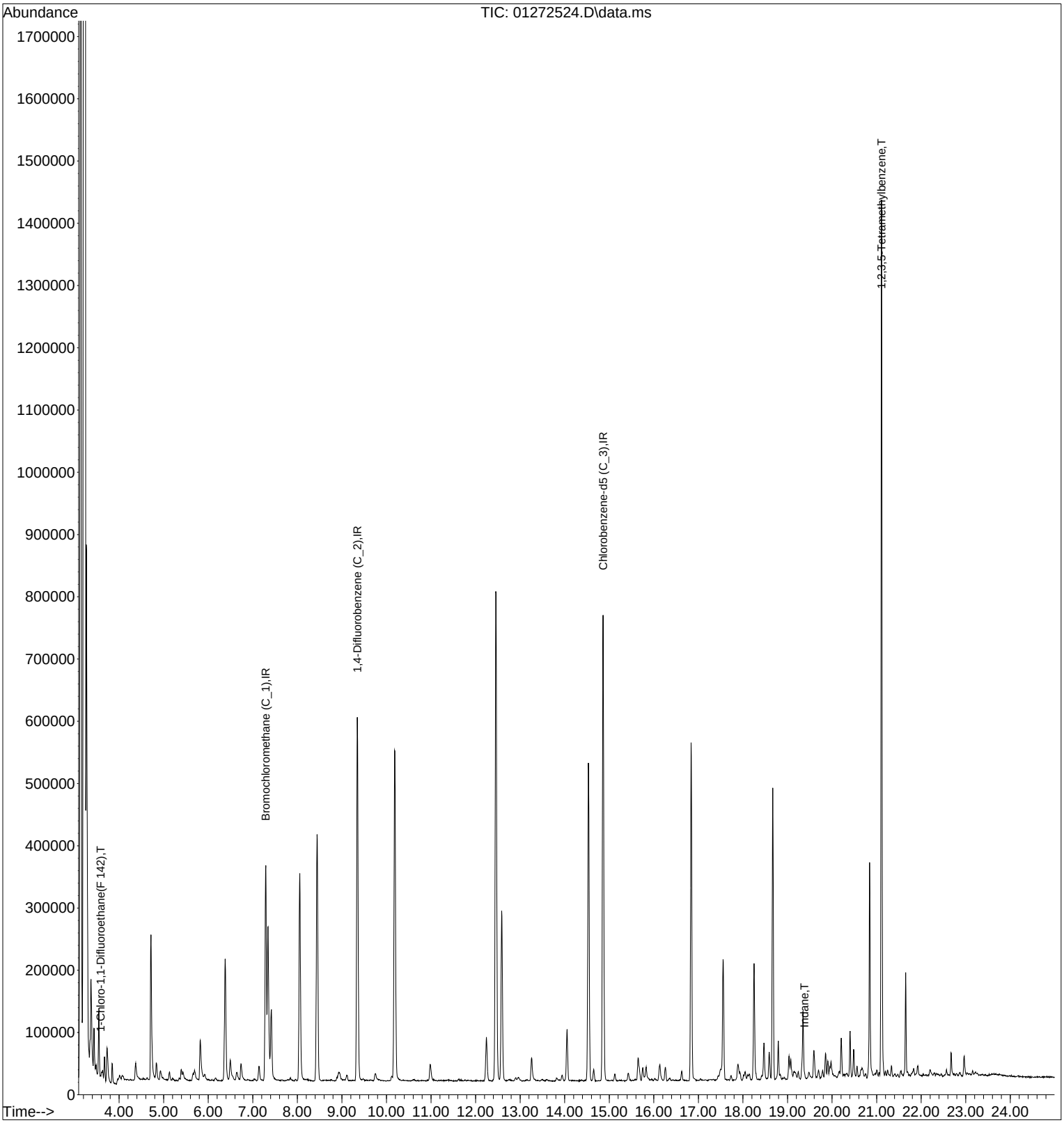
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (C_1)	7.29	130	97697	12.500 ng		-0.02
16) 1,4-Difluorobenzene (C_2)	9.35	114	459413	12.500 ng		-0.02
19) Chlorobenzene-d5 (C_3)	14.86	54	149009	12.500 ng		0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.21	85	139	N.D.		
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D. d		
4) 1,1-Difluoroethane	0.00	65	0	N.D.		
5) Chlorodifluoromethane ...	0.00	67	0	N.D. d		
6) 1-Chloro-1,1-Difluoroe...	3.59	65	2019	0.072 ng	#	79
7) Dichlorofluoromethane ...	0.00	67	0	N.D.		
8) Vinylbromide	0.00	108	0	N.D.		
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.		
10) 2-Methylbutane	0.00	57	0	N.D. d		
11) Methyl Acetate	0.00	43	0	N.D. d		
12) 2-Methylpentane	6.55	71	389	N.D.		
13) 2,2-Dichloropropane	0.00	77	0	N.D.		
14) 1,1-Dichloropropene	0.00	75	0	N.D.		
15) Thiophene	9.11	84	1101	N.D.		
17) 2,3-Dimethylpentane	0.00	56	0	N.D.		
18) Dibromomethane	0.00	174	0	N.D.		
20) Methyl Cyclohexane	11.46	55	67	N.D.		
21) 1,3-Dichloropropane	12.60	76	1014	N.D.		
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		
23) 1-Chlorohexane	0.00	91	0	N.D.		
24) 1,2,3-Trichloropropane	16.37	75	111	N.D.		
25) Bromobenzene	17.04	77	450	N.D.		
26) 2-Chlorotoluene	0.00	91	0	N.D. d		
27) 4-Chlorotoluene	0.00	91	0	N.D. d		
28) Indane	19.38	117	3155	0.058 ng	#	88
29) Indene	19.50	115	125	N.D.		
30) 1,2,4,5-Tetramethylben...	20.63	119	1630	N.D.		
31) 1,2,3,4-Tetramethylben...	20.70	119	2465	N.D.		
32) 1,2,3,5-Tetramethylben...	21.11	119	6217	0.122 ng	#	81
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.		

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272524.D
Acq On : 27 Jan 2025 23:47
Operator : MC
Sample : P2500076-008 (1000mL)
Misc : S37-11222401
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 31 07:19:28 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **OA1** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-009

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02359

Initial Pressure (psig): -0.90 Final Pressure (psig): 3.74

Container Dilution Factor: 1.34

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.28	0.076	ND	0.11	0.030	
75-35-4	1,1-Dichloroethene	ND	0.12	0.099	ND	0.030	0.025	
75-09-2	Methylene Chloride	**0.33**	0.62	0.20	**0.095**	0.18	0.058	**J**
156-60-5	trans-1,2-Dichloroethene	ND	0.28	0.099	ND	0.071	0.025	
75-34-3	1,1-Dichloroethane	ND	0.28	0.10	ND	0.070	0.026	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	0.10	ND	0.034	0.025	
107-06-2	1,2-Dichloroethane	ND	0.14	0.079	ND	0.033	0.020	
71-55-6	1,1,1-Trichloroethane	ND	0.14	0.088	ND	0.025	0.016	
56-23-5	Carbon Tetrachloride	**0.45**	0.14	0.099	**0.071**	0.022	0.016	
79-01-6	Trichloroethene	ND	0.14	0.096	ND	0.026	0.018	
127-18-4	Tetrachloroethene	ND	0.15	0.092	ND	0.022	0.014	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	99131	12.500 ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	463756	12.500 ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	149303	12.500 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	8.05	65	271013	15.190 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.52%			
57) Toluene-d8 (SS2)	12.46	98	587777	10.844 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.72%			
73) Bromofluorobenzene (SS3)	16.84	174	133162	9.609 ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 76.88%			
Target Compounds						Qvalue
2) Propene	0.00	42	0	N.D. d		
3) Dichlorodifluoromethan...	3.47	85	47367	1.920 ng		98
4) Chloromethane	3.64	50	7907	0.342 ng		93
5) 1,2-Dichloro-1,1,2,2-t...	3.72	135	828	0.102 ng	#	42
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	4.40	45	22522	1.466 ng		94
11) Acetonitrile	0.00	41	0	N.D. d		
12) Acrolein	4.65	56	72	N.D.		
13) Acetone	4.73	58	26312	2.382 ng	#	73
14) Trichlorofluoromethane	4.86	101	19570	0.982 ng		100
15) 2-Propanol (Isopropanol)	4.96	45	9373	0.189 ng	#	58
16) Acrylonitrile	5.15	53	62	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	5.47	59	453	N.D.		
19) Methylene Chloride	5.44	84	3201	0.247 ng	#	68
20) 3-Chloro-1-propene (Al...	5.49	41	146	N.D.		
21) Trichlorotrifluoroethane	5.66	151	3019	0.383 ng		96
22) Carbon Disulfide	5.72	76	4478	0.089 ng	#	75
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	0.00	86	0	N.D.		
27) 2-Butanone (MEK)	6.77	72	1733	0.208 ng	#	25
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	7.37	61	5160	0.968 ng		92
31) n-Hexane	7.37	57	2976	0.118 ng	#	93
32) Chloroform	7.42	83	1273	0.060 ng		94
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	8.17	62	1049	0.052 ng		78
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	8.95	56	846	No Calib	#	
41) Benzene	8.95	78	14103	0.258 ng		98
42) Carbon Tetrachloride	9.11	117	5377	0.334 ng		98
43) Cyclohexane	9.26	84	501	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

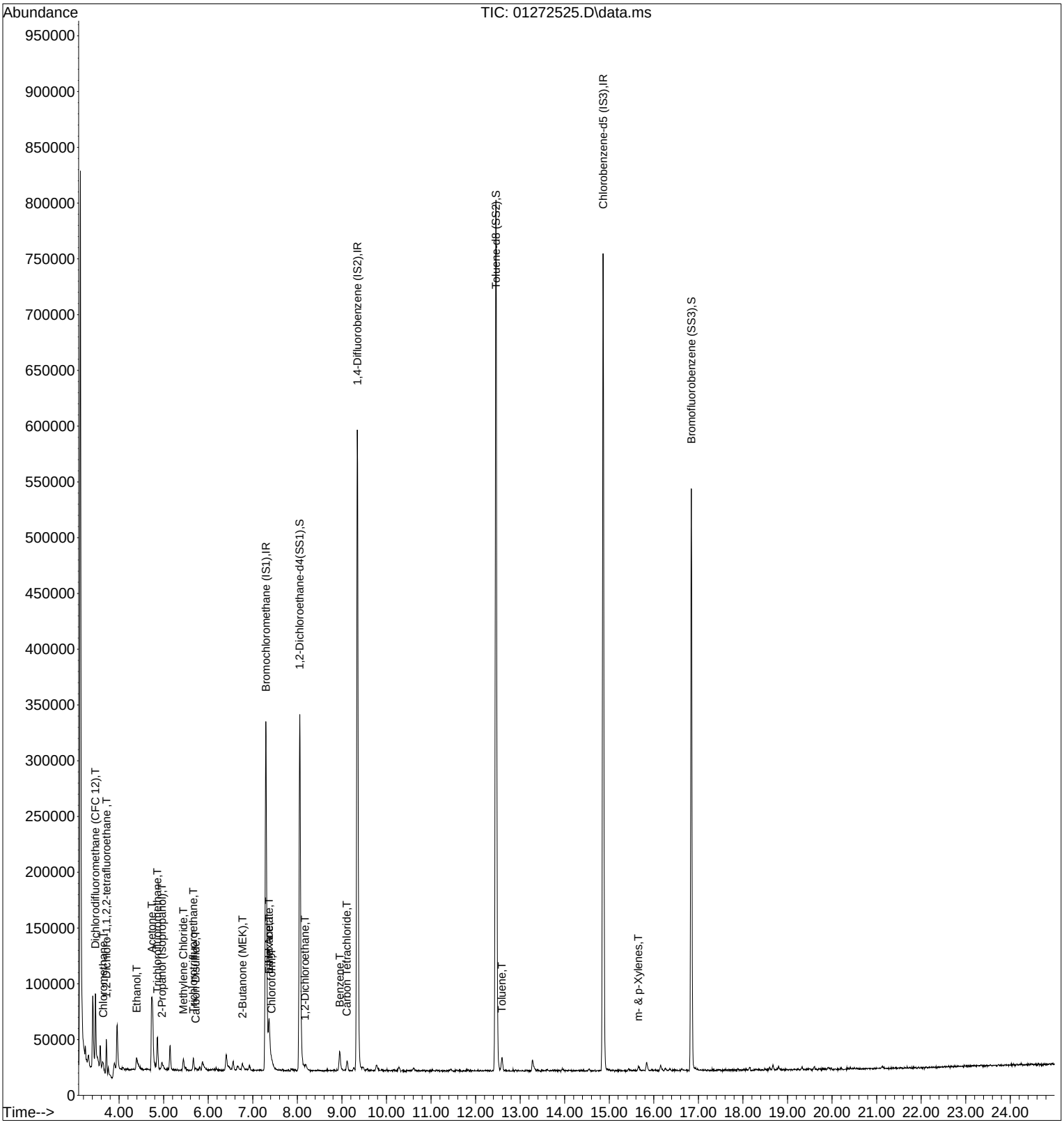
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) 2,2,4-Trimethylpentane...	10.28	57	3038	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	10.62	71	433	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	10273	0.179 ng	99
59) 2-Hexanone	12.96	43	115	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.86	43	336	N.D.	
63) n-Octane	13.95	57	247	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	15.44	91	1976	N.D.	
67) m- & p-Xylenes	15.65	91	4248	0.082 ng	92
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	16.26	91	2220	N.D.	
71) n-Nonane	16.63	43	1122	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	0.00	105	0	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	17.75	91	737	N.D.	
77) 3-Ethyltoluene	0.00	105	0	N.D.	
78) 4-Ethyltoluene	17.95	105	656	N.D.	
79) 1,3,5-Trimethylbenzene	18.05	105	535	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	0.00	105	0	N.D.	
82) 1,2,4-Trimethylbenzene	18.59	105	1765	N.D.	
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	0.00	91	0	N.D.	
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.	
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.	
87) sec-Butylbenzene	0.00	105	0	N.D.	
88) 4-Isopropyltoluene (p-...	19.17	119	276	N.D.	
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	
91) d-Limonene	19.36	68	119	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	0.00	58	0	N.D.	
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.	
95) Naphthalene	0.00	128	0	N.D.	
96) n-Dodecane	0.00	58	0	N.D.	
97) Hexachlorobutadiene	0.00	225	0	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	0.00	119	0	N.D.	
100) n-Butylbenzene	19.71	91	250	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
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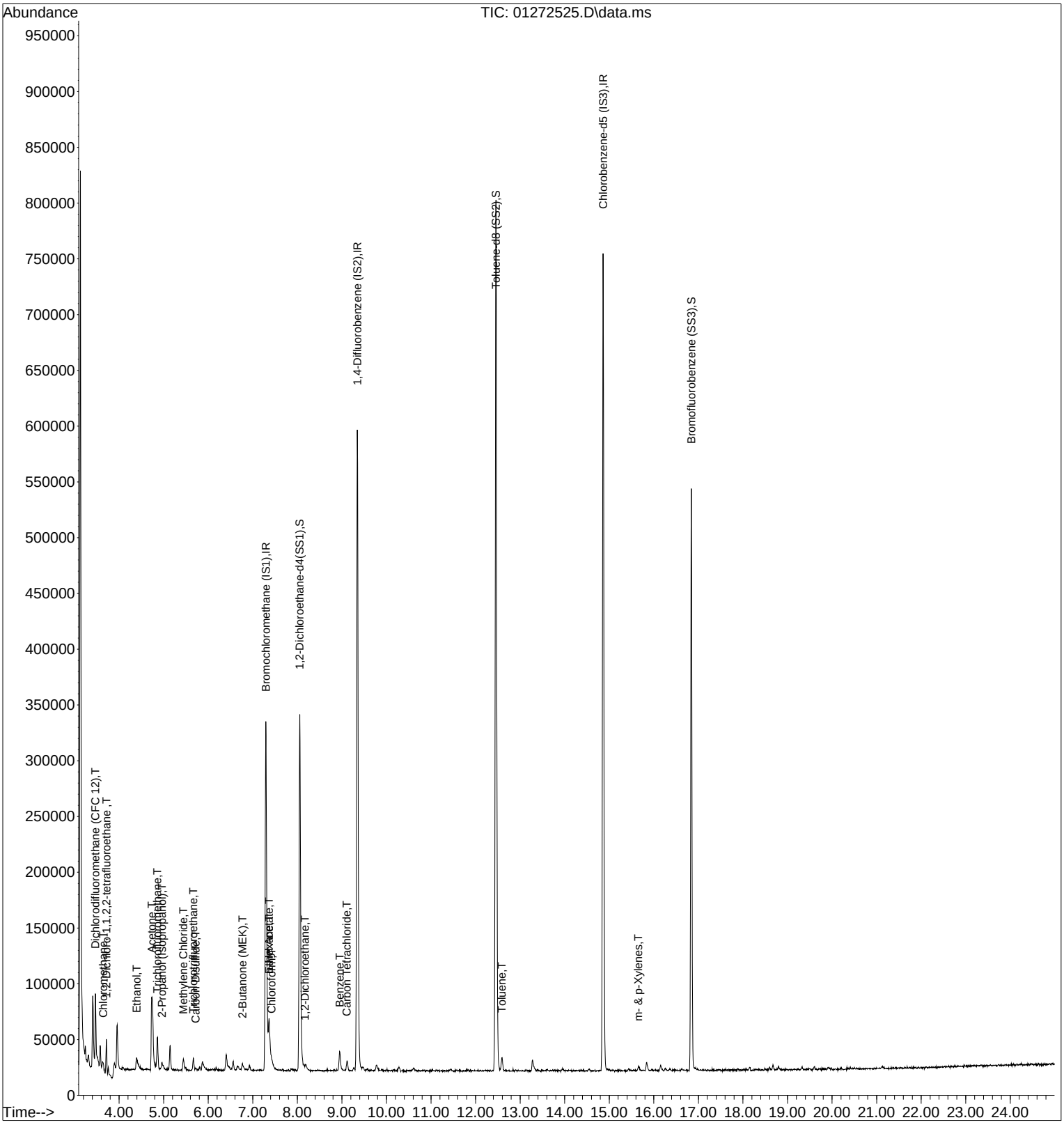
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	99131	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	463756	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	149303	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.05	65	271013	15.190	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.52%				
57) Toluene-d8 (SS2)	12.46	98	587777	10.844	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.72%				
73) Bromofluorobenzene (SS3)	16.84	174	133162	9.609	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 76.88%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.47	85	47367	1.920	ng		98
4) Chloromethane	3.64	50	7907	0.342	ng		93
5) 1,2-Dichloro-1,1,2,2-t...	3.72	135	828	0.102	ng	#	42
10) Ethanol	4.40	45	22522	1.466	ng		94
13) Acetone	4.73	58	26312	2.382	ng	#	73
14) Trichlorofluoromethane	4.86	101	19570	0.982	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	9373	0.189	ng	#	58
19) Methylene Chloride	5.44	84	3201	0.247	ng	#	68
21) Trichlorotrifluoroethane	5.66	151	3019	0.383	ng		96
22) Carbon Disulfide	5.72	76	4478	0.089	ng	#	75
27) 2-Butanone (MEK)	6.77	72	1733	0.208	ng	#	25
30) Ethyl Acetate	7.37	61	5160	0.968	ng		92
31) n-Hexane	7.37	57	2976	0.118	ng	#	93
32) Chloroform	7.42	83	1273	0.060	ng		94
36) 1,2-Dichloroethane	8.17	62	1049	0.052	ng		78
41) Benzene	8.95	78	14103	0.258	ng		98
42) Carbon Tetrachloride	9.11	117	5377	0.334	ng		98
58) Toluene	12.59	91	10273	0.179	ng		99
67) m- & p-Xylenes	15.65	91	4248	0.082	ng		92

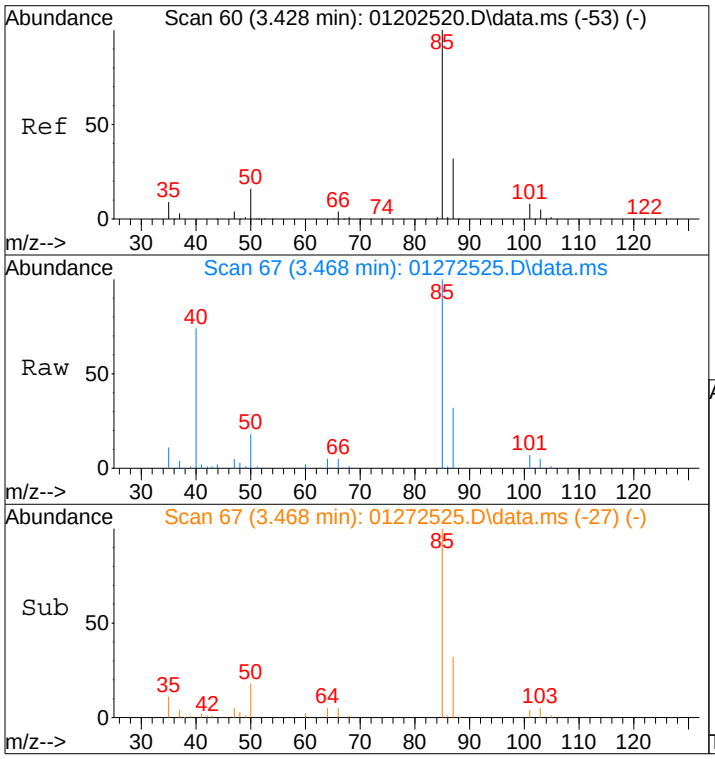
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
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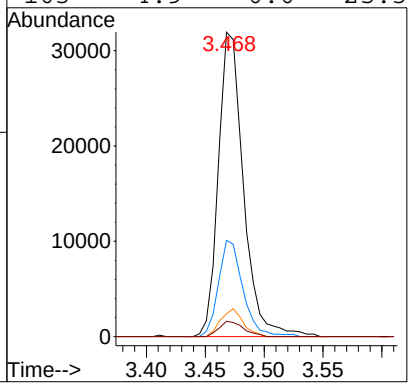


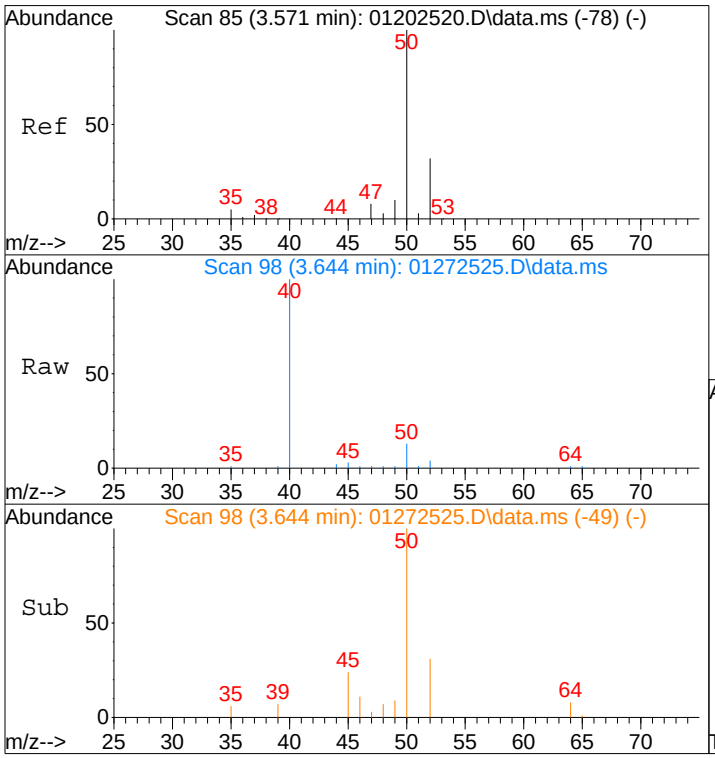


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.92 ng
RT: 3.47 min Scan# 67
Delta R.T. -0.023 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 85 Resp: 47367

Ion	Ratio	Lower	Upper
85	100		
87	30.7	12.2	52.2
101	8.2	0.0	28.4
103	4.9	0.0	25.3

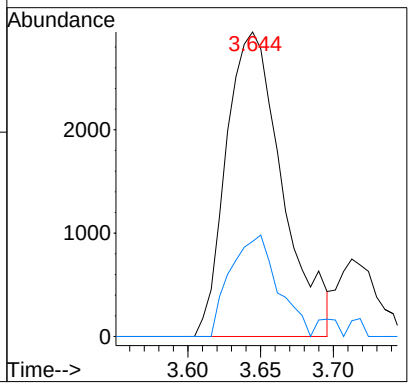


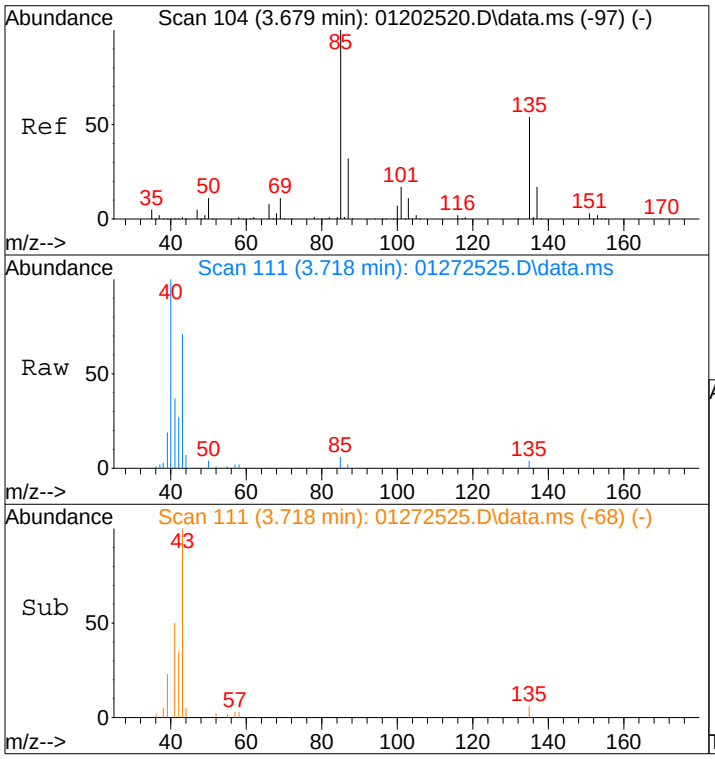


#4
Chloromethane
Concen: 0.34 ng
RT: 3.64 min Scan# 98
Delta R.T. 0.028 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 50 Resp: 7907

Ion	Ratio	Lower	Upper
50	100		
52	28.1	12.2	52.2

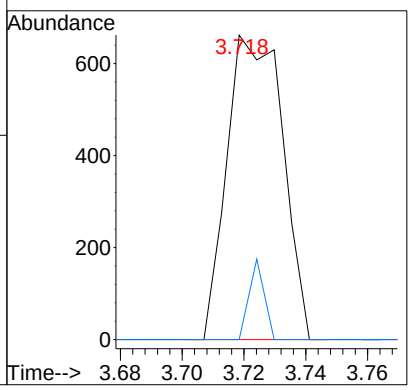


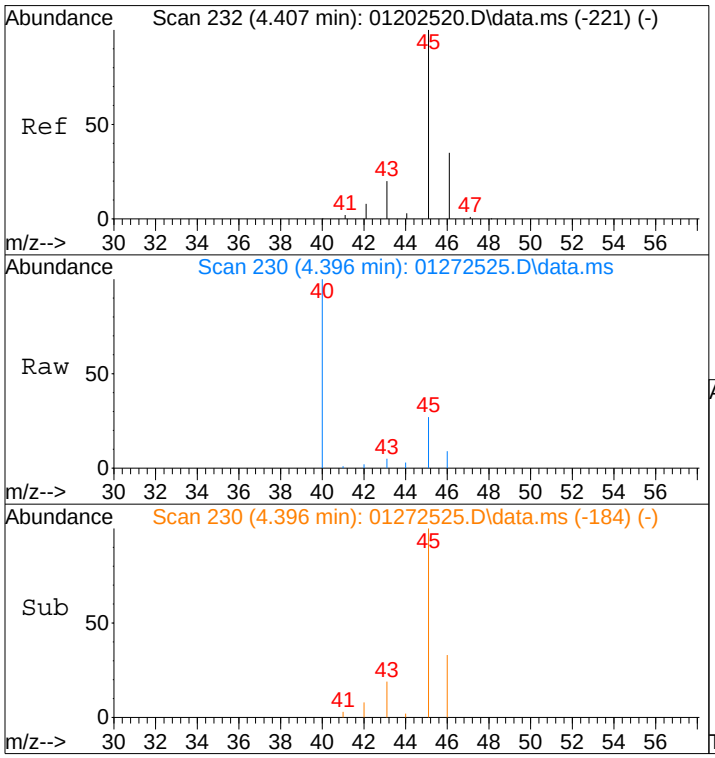


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.10 ng
RT: 3.72 min Scan# 111
Delta R.T. -0.006 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion:135 Resp: 828

Ion	Ratio	Lower	Upper
135	100		
137	0.0	12.2	52.2#

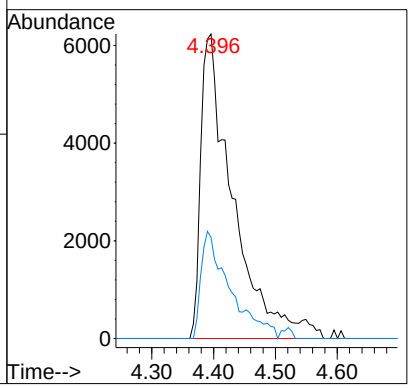


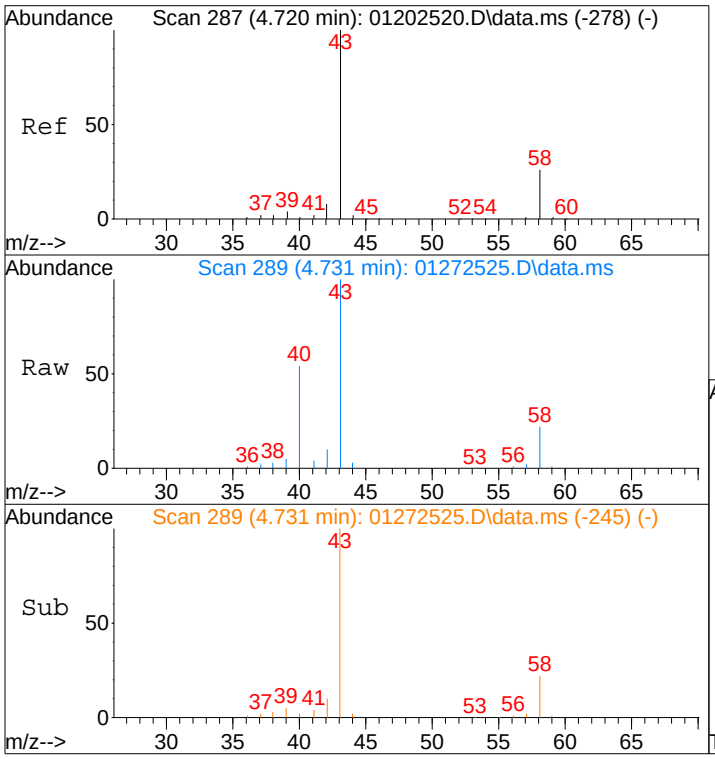


#10
Ethanol
Concen: 1.47 ng
RT: 4.40 min Scan# 230
Delta R.T. 0.011 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 45 Resp: 22522

Ion	Ratio	Lower	Upper
45	100		
46	31.6	15.0	55.0

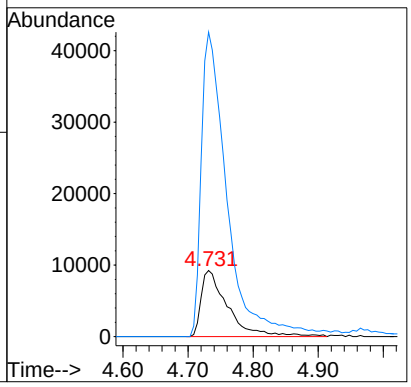


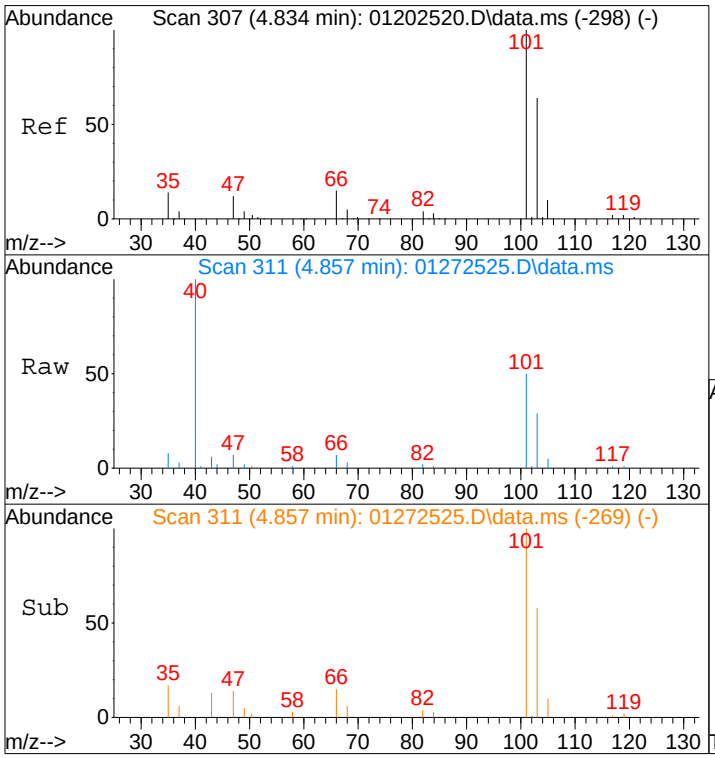


#13
Acetone
Concen: 2.38 ng
RT: 4.73 min Scan# 289
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 58 Resp: 26312

Ion	Ratio	Lower	Upper
58	100		
43	451.6	359.4	419.4#

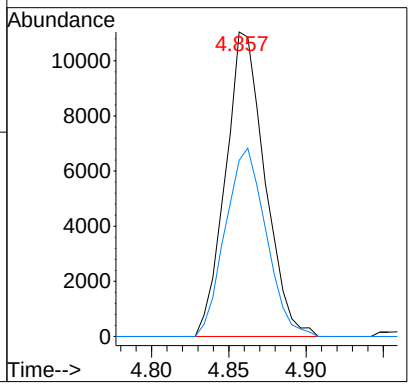


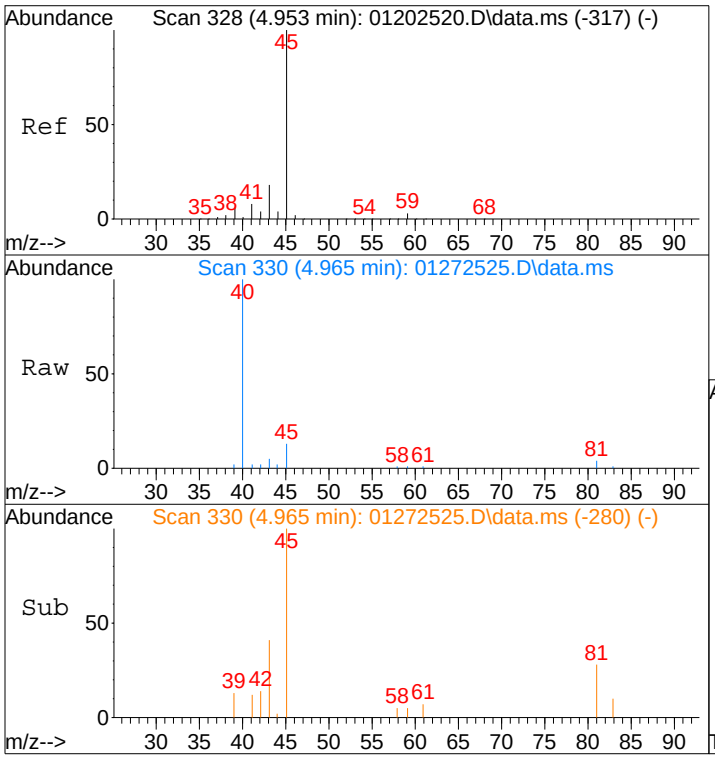


#14
Trichlorofluoromethane
Concen: 0.98 ng
RT: 4.86 min Scan# 311
Delta R.T. -0.012 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion:101 Resp: 19570

Ion	Ratio	Lower	Upper
101	100		
103	64.2	44.2	84.2

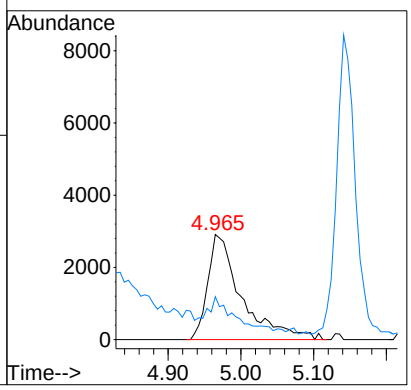


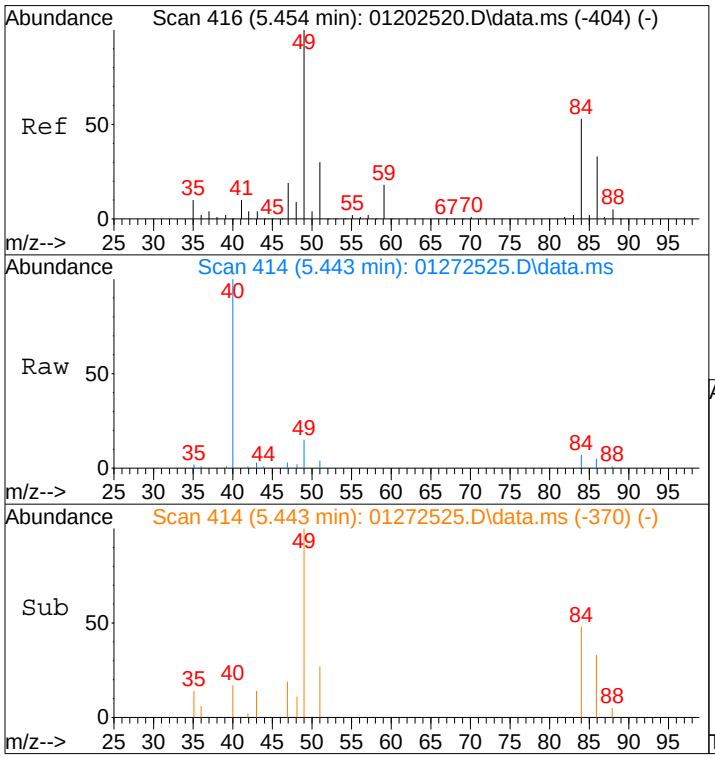


#15
2-Propanol (Isopropanol)
Concen: 0.19 ng
RT: 4.96 min Scan# 330
Delta R.T. 0.034 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 45 Resp: 9373

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

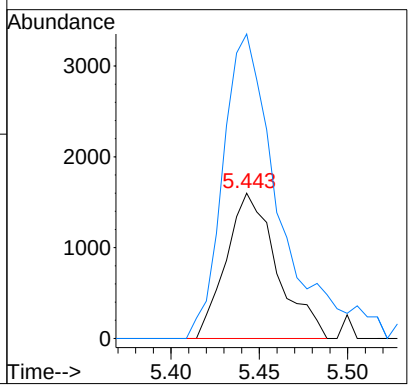


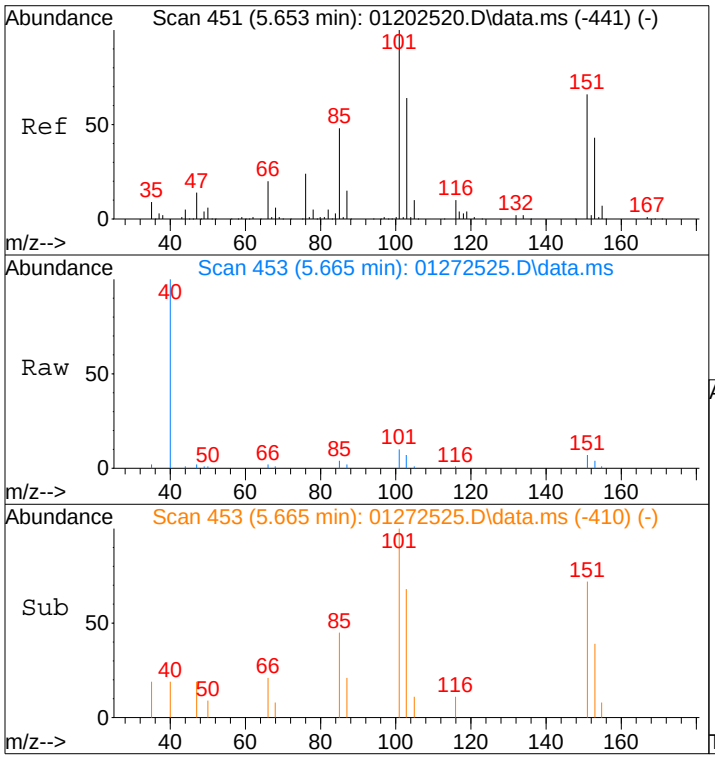


#19
Methylene Chloride
Concen: 0.25 ng
RT: 5.44 min Scan# 414
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 84 Resp: 3201

Ion	Ratio	Lower	Upper
84	100		
49	234.9	163.7	213.7#

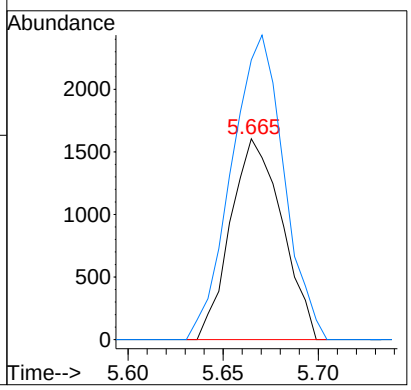


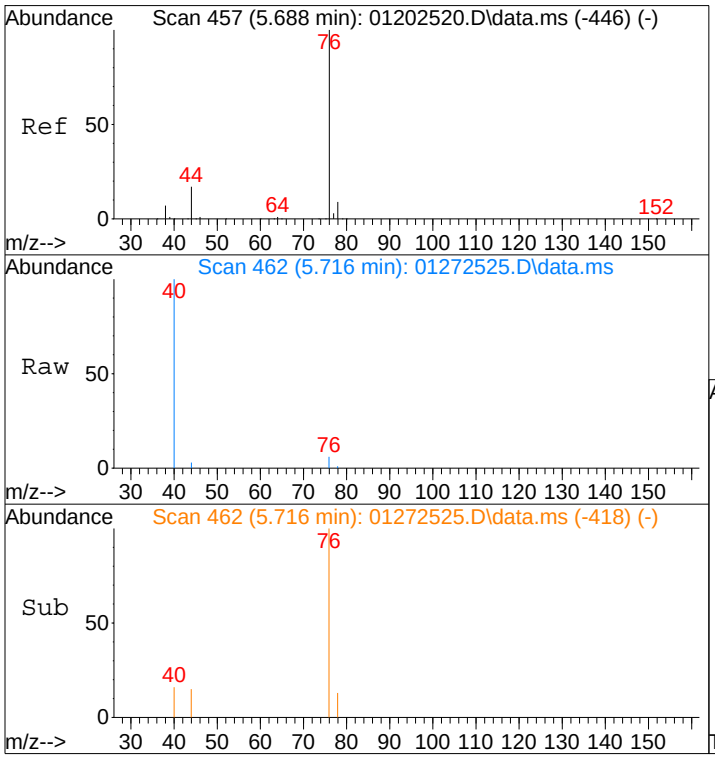


#21
Trichlorotrifluoroethane
Concen: 0.38 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion:151 Resp: 3019

Ion	Ratio	Lower	Upper
151	100		
101	154.6	129.9	169.9

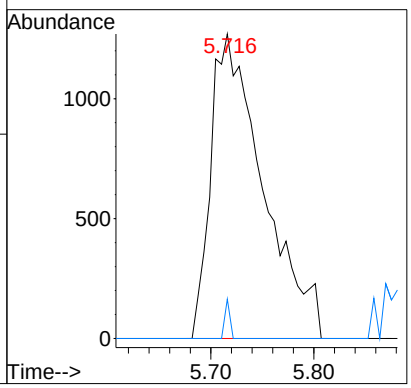


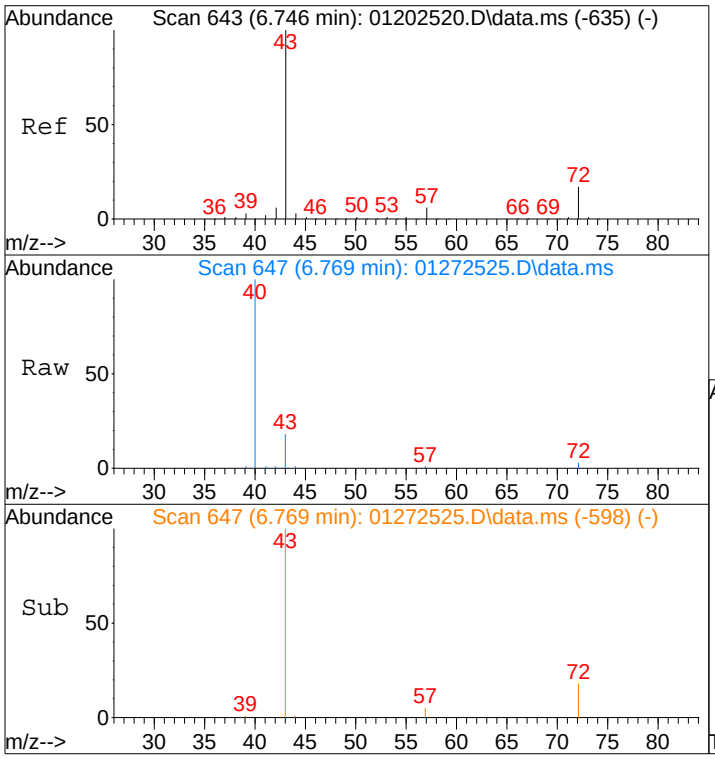


#22
Carbon Disulfide
Concen: 0.09 ng
RT: 5.72 min Scan# 462
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 76 Resp: 4478

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.1

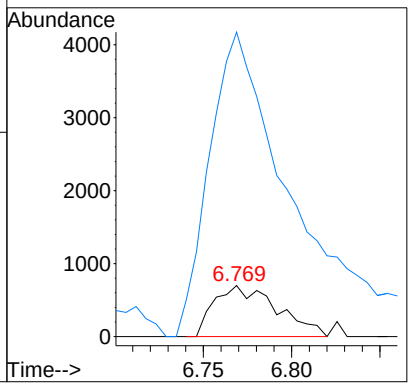


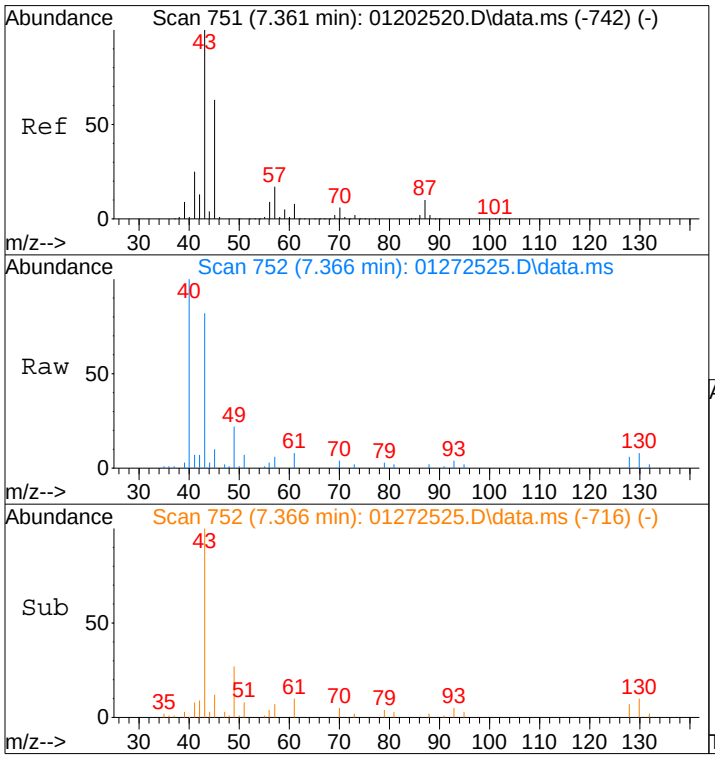


#27
2-Butanone (MEK)
Concen: 0.21 ng
RT: 6.77 min Scan# 647
Delta R.T. 0.028 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 72 Resp: 1733

Ion	Ratio	Lower	Upper
72	100		
43	832.0	579.1	619.1#

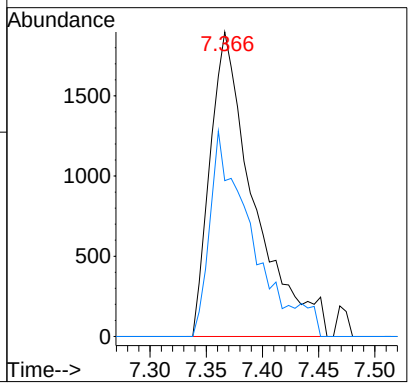


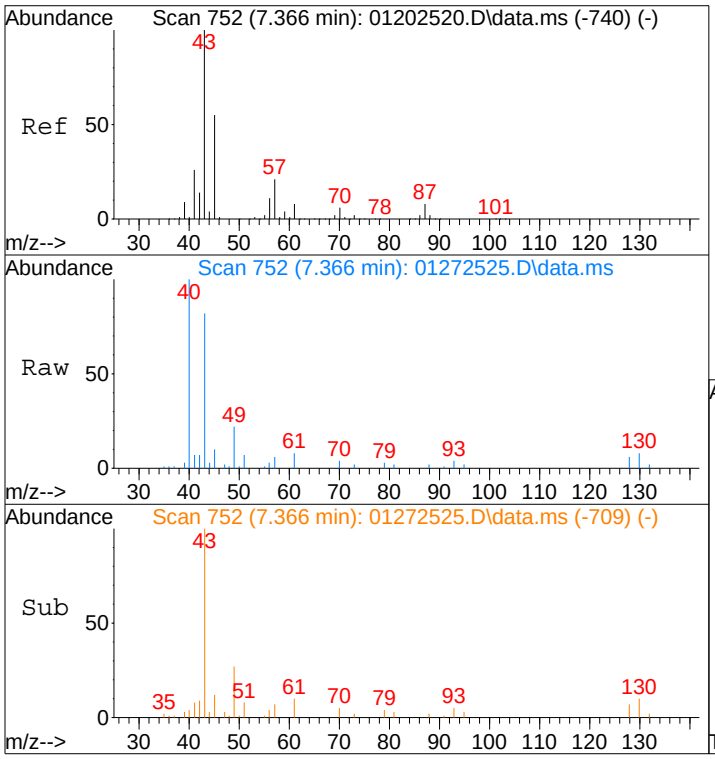


#30
Ethyl Acetate
Concen: 0.97 ng
RT: 7.37 min Scan# 752
Delta R.T. 0.006 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 61 Resp: 5160

Ion	Ratio	Lower	Upper
61	100		
70	64.5	51.2	91.2

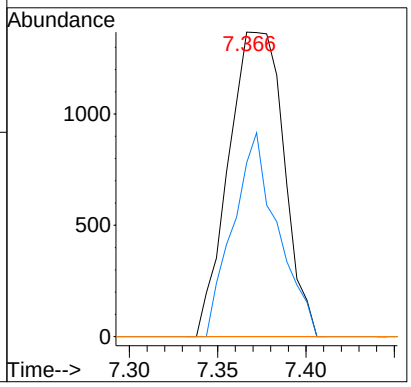


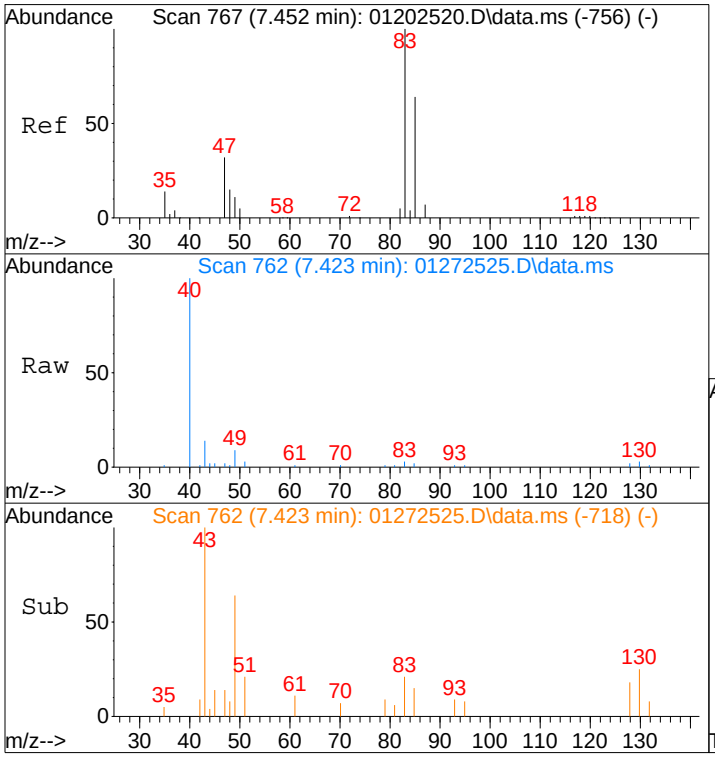


#31
n-Hexane
Concen: 0.12 ng
RT: 7.37 min Scan# 752
Delta R.T. -0.006 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 57 Resp: 2976

Ion	Ratio	Lower	Upper
57	100		
56	54.1	41.8	62.6
86	0.0	8.3	12.5#

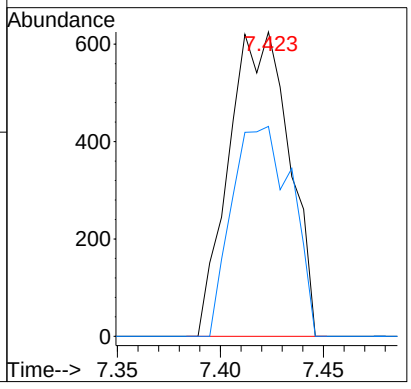


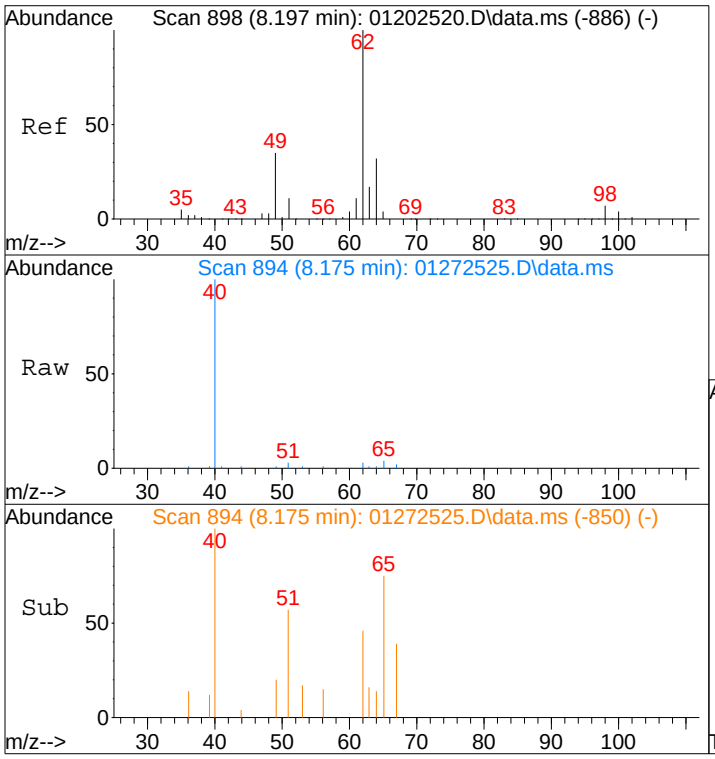


#32
Chloroform
Concen: 0.06 ng
RT: 7.42 min Scan# 762
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 83 Resp: 1273

Ion	Ratio	Lower	Upper
83	100		
85	68.5	44.0	84.0

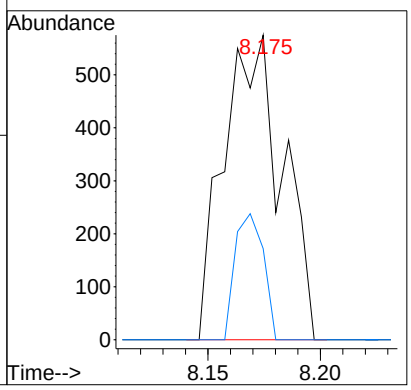


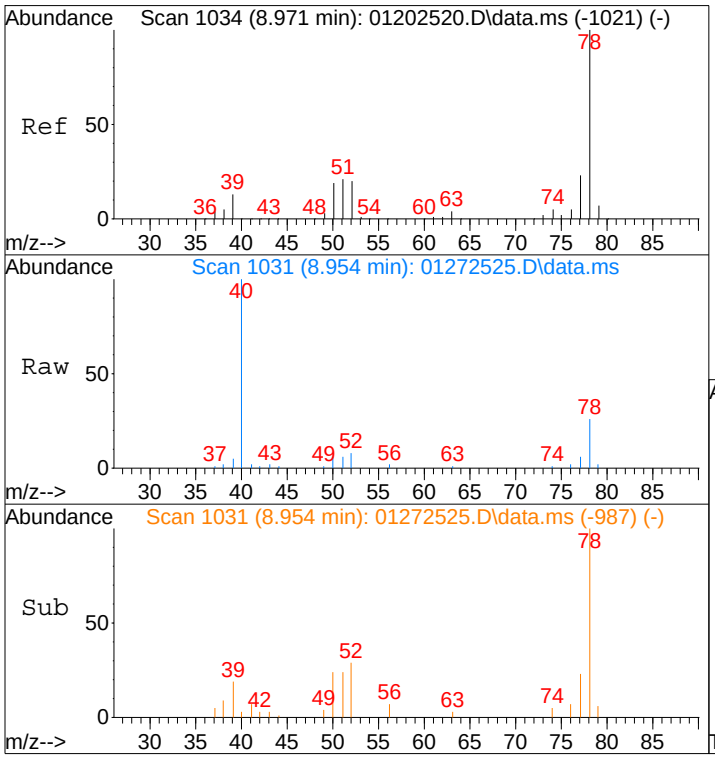


#36
1,2-Dichloroethane
Concen: 0.05 ng
RT: 8.17 min Scan# 894
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 62 Resp: 1049

Ion	Ratio	Lower	Upper
62	100		
64	20.0	12.1	52.1

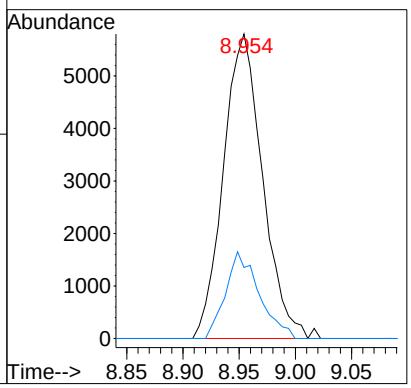


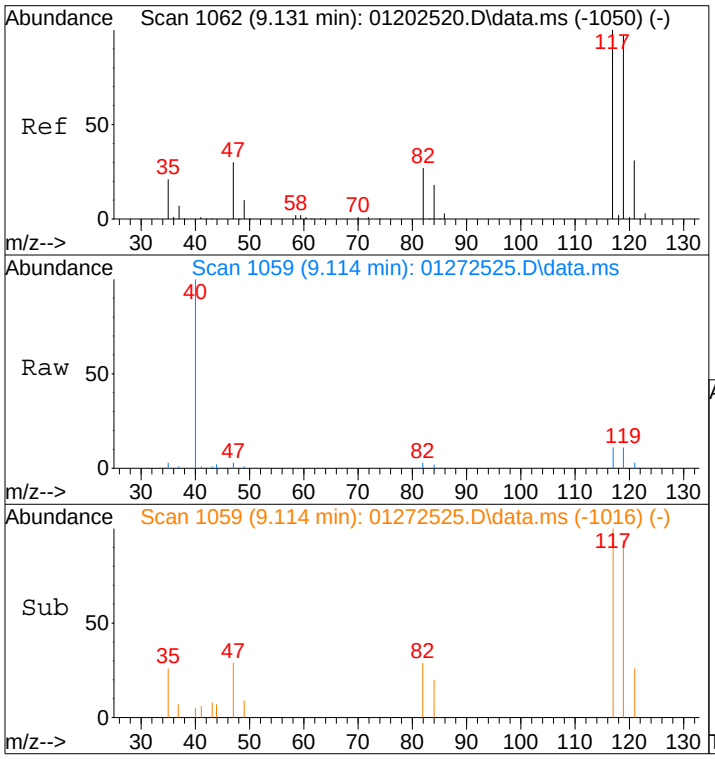


#41
Benzene
Concen: 0.26 ng
RT: 8.95 min Scan# 1031
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 78 Resp: 14103

Ion	Ratio	Lower	Upper
78	100		
77	24.3	3.4	43.4

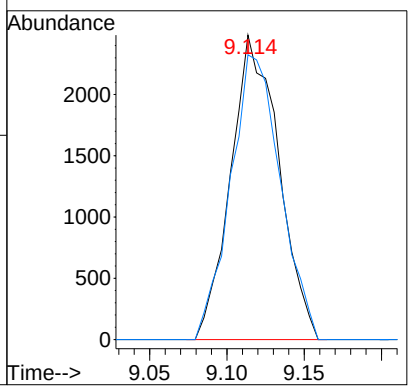


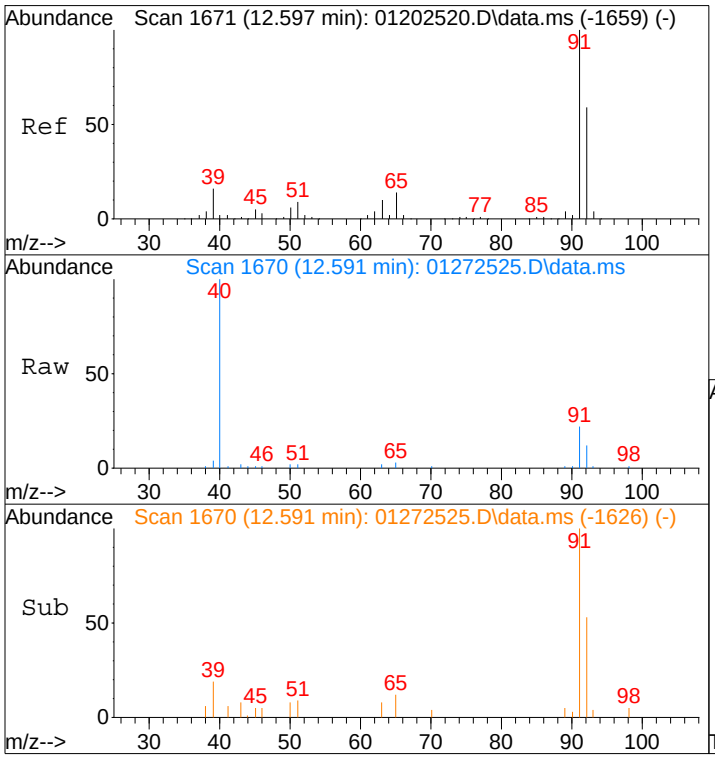


#42
Carbon Tetrachloride
Concen: 0.33 ng
RT: 9.11 min Scan# 1059
Delta R.T. -0.006 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion:117 Resp: 5377

Ion	Ratio	Lower	Upper
117	100		
119	97.0	75.4	115.4

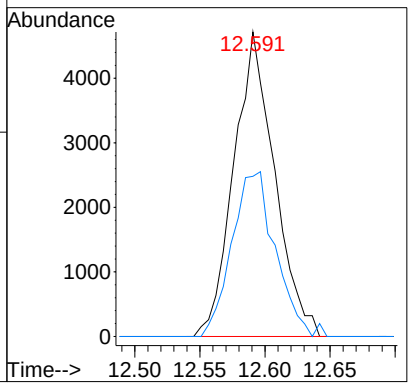


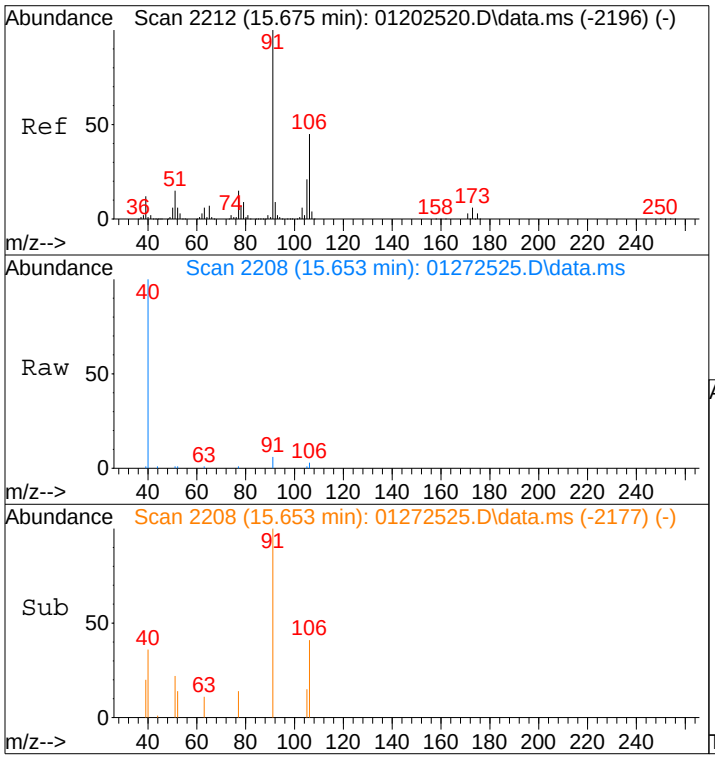


#58
Toluene
Concen: 0.18 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 91 Resp: 10273

Ion	Ratio	Lower	Upper
91	100		
92	57.9	38.4	78.4

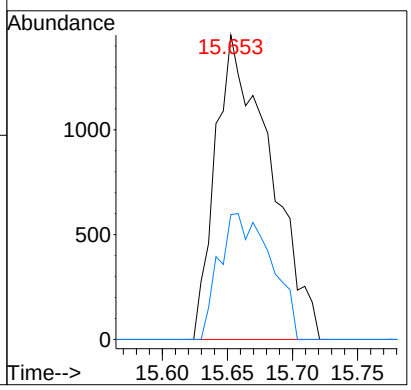




#67
m- & p-Xylenes
Concen: 0.08 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01272525.D
Acq: 28 Jan 2025 00:23

Tgt Ion: 91 Resp: 4248

Ion	Ratio	Lower	Upper
91	100		
106	39.2	24.7	64.7



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

BCB 1/31/25

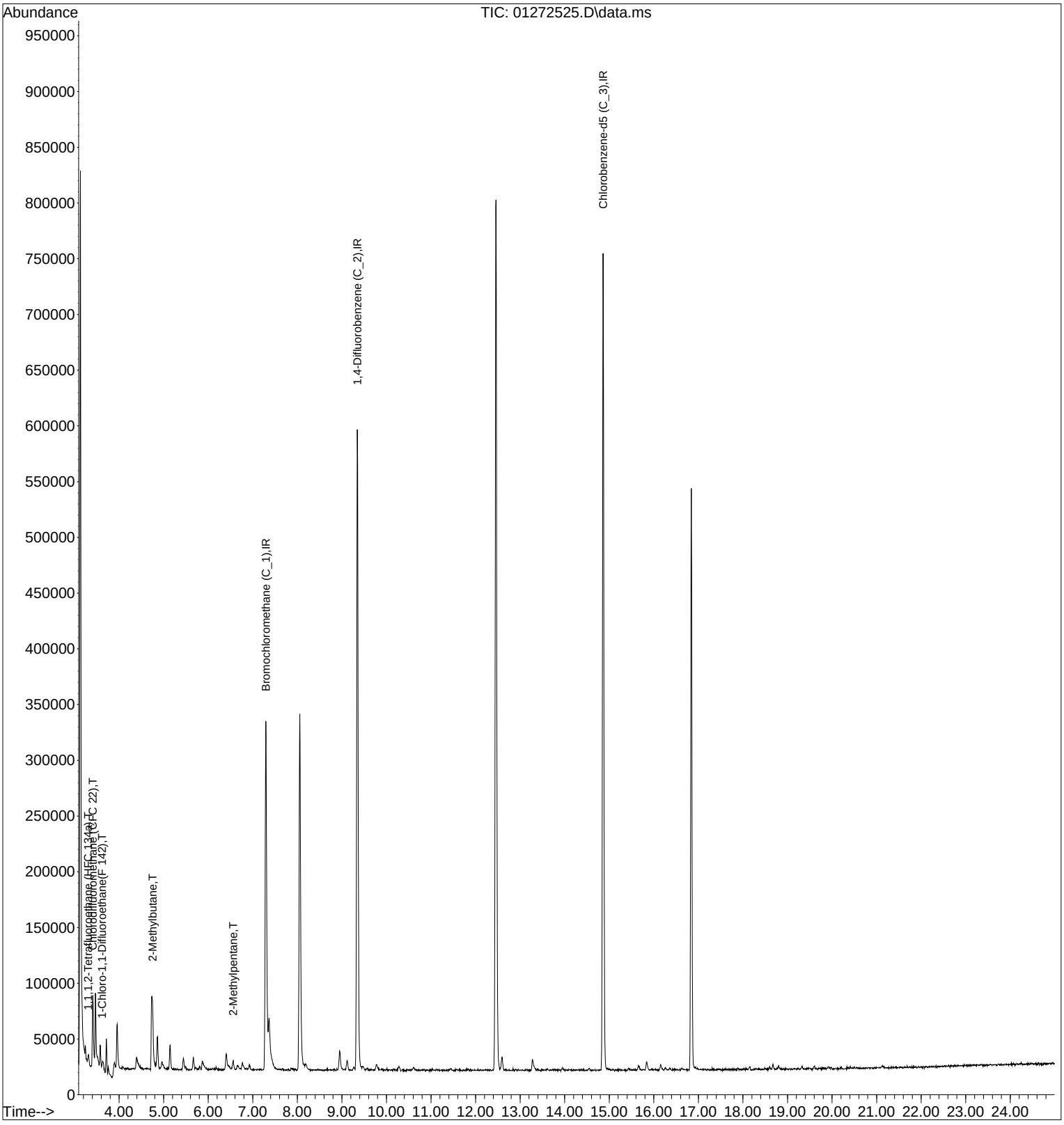
Quant Time: Jan 31 07:29:17 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	99134	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	463756	12.500	ng		-0.02
19) Chlorobenzene-d5 (C_3)	14.86	54	149303	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.25	85	176	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	3.31	83	3315	0.273	ng	#	57
4) 1,1-Difluoroethane	3.36	65	169	N.D.			
5) Chlorodifluoromethane ...	3.41	67	2033	0.477	ng	#	76
6) 1-Chloro-1,1-Difluoroe...	3.62	65	2016	0.071	ng	#	92
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.75	57	7015	0.462	ng	#	61
11) Methyl Acetate	0.00	43	0	N.D. d			
12) 2-Methylpentane	6.56	71	1077	0.085	ng	#	1
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.11	84	972	N.D.			
17) 2,3-Dimethylpentane	9.56	56	459	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.45	55	747	N.D.			
21) 1,3-Dichloropropane	0.00	76	0	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	0.00	75	0	N.D.			
25) Bromobenzene	0.00	77	0	N.D.			
26) 2-Chlorotoluene	17.75	91	737	N.D.			
27) 4-Chlorotoluene	17.75	91	737	N.D.			
28) Indane	19.39	117	135	N.D.			
29) Indene	0.00	115	0	N.D.			
30) 1,2,4,5-Tetramethylben...	0.00	119	0	N.D.			
31) 1,2,3,4-Tetramethylben...	0.00	119	0	N.D.			
32) 1,2,3,5-Tetramethylben...	0.00	119	0	N.D.			
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272525.D
Acq On : 28 Jan 2025 00:23
Operator : MC
Sample : P2500076-009 (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 07:29:17 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



Response Factor Report MS13

Method Path : I:\MS13\METHODS\
Method File : R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025
Response Via : Initial Calibration

CG 1/21/25

Calibration Files
0.1 =01202515.D 0.2 =01202516.D 0.5 =01202517.D 1.0 =01202518.D 5.0 =01202519.D 25 =01202520.D 50 =01202521.D
100 =01202522.D

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	----------ISTD----------									
2)	T	Propene	3.081	2.936	3.176	3.173	3.175	2.919	2.757	2.611	2.979	7.13
3)	T	Dichlorodifluo...	3.174	3.065	3.337	3.250	3.176	3.082	2.965	2.836	3.111	5.13
4)	T	Chloromethane	3.090	2.982	3.595	2.736	2.795	3.187	2.837	2.121	2.918	14.50
5)	T	1,2-Dichloro-1...	0.928	0.970	1.028	1.080	1.074	1.049	1.016	1.029	1.022	5.03
6)	T	Vinyl Chloride	2.893	2.649	2.909	2.440	2.160	2.063	1.912	1.828	2.357	18.19
7)	T	1,3-Butadiene	1.759	2.063	2.308	2.352	2.467	2.469	2.316	2.033	2.221	11.16
8)	T	Bromomethane	1.068	1.221	1.334	1.343	1.278	1.259	1.219	1.252	1.247	6.87
9)	T	Chloroethane	1.194	1.214	1.304	1.321	1.343	1.261	1.207	1.178	1.253	5.06
10)	T	Ethanol	2.627	2.275	2.027	1.937	1.919	1.738	1.586	1.389	1.937	20.09
11)	T	Acetonitrile			5.655	4.704	4.880	4.888	4.764	4.572	4.910	7.81
12)	T	Acrolein	1.494	1.501	1.437	1.509	1.508	1.422	1.366	1.332	1.446	4.76
13)	T	Acetone	1.537	1.510	1.497	1.489	1.476	1.338	1.216	1.082	1.393	11.91
14)	T	Trichlorofluor...	2.518	2.439	2.595	2.626	2.606	2.498	2.415	2.416	2.514	3.45
15)	T	2-Propanol (Is...	7.080	6.694	6.616	6.698	6.665	6.013	5.536	4.767	6.259	12.31
16)	T	Acrylonitrile	2.838	2.771	2.793	2.851	2.898	2.779	2.676	2.511	2.765	4.40
17)	T	1,1-Dichloroet...	1.136	1.266	1.336	1.319	1.345	1.319	1.300	1.334	1.294	5.30
18)	T	2-Methyl-2-Pro...	4.586	4.617	4.803	5.058	4.405	4.237	3.540	2.391	4.205	20.44
19)	T	Methylene Chlo...	1.701	1.647	1.731	1.649	1.660	1.585	1.563	1.533	1.633	4.19
20)	T	3-Chloro-1-pro...	3.502	3.012	3.062	3.406	3.639	3.646	3.571	3.449	3.411	7.21
21)	T	Trichlorotrifl...	0.954	1.018	1.003	1.000	0.998	0.980	0.990	1.010	0.994	2.00
22)	T	Carbon Disulfide	7.393	6.737	6.623	6.476	6.377	6.103	5.867	5.381	6.370	9.49
23)	T	trans-1,2-Dich...	2.515	2.723	2.818	2.723	2.845	2.769	2.716	2.674	2.723	3.72
24)	T	1,1-Dichloroet...	3.167	3.353	3.467	3.373	3.401	3.278	3.148	3.032	3.277	4.54
25)	T	Methyl tert-Bu...	4.684	4.567	4.951	4.712	4.285	4.278	3.849	3.009	4.292	14.43
26)	T	Vinyl Acetate	0.181	0.267	0.307	0.318	0.336	0.323	0.307	0.283	0.290	16.98
27)	T	2-Butanone (MEK)	0.846	0.995	1.058	1.096	1.155	1.120	1.085	1.048	1.050	9.11
28)	T	cis-1,2-Dichlo...	2.727	2.481	2.740	2.754	2.686	2.661	2.585	2.525	2.645	3.90
29)	T	Diisopropyl Ether	1.270	1.159	1.175	1.196	1.172	1.141	1.050	0.921	1.136	9.32
30)	T	Ethyl Acetate	0.574	0.591	0.729	0.786	0.798	0.723	0.640	0.537	0.672	14.93
31)	T	n-Hexane	3.484	3.278	3.547	3.560	3.463	3.161	2.748	2.203	3.181	15.04
32)	T	Chloroform	2.646	2.623	2.755	2.747	2.752	2.699	2.613	2.582	2.677	2.61
33)	S	1,2-Dichloroet...	2.240	2.243	2.232	2.314	2.294	2.234	2.213	2.227	2.250	1.56
34)	T	Tetrahydrofura...	1.141	1.086	1.065	1.064	1.087	1.069	1.026	1.004	1.068	3.86
35)	T	Ethyl tert-But...	1.605	1.632	1.719	1.760	1.755	1.739	1.663	1.604	1.685	3.94
36)	T	1,2-Dichloroet...	2.443	2.447	2.572	2.664	2.622	2.559	2.471	2.415	2.524	3.66
37)	IR	1,4-Difluorobenzen...	----------ISTD----------									
38)	T	1,1,1-Trichlor...	0.490	0.488	0.515	0.507	0.512	0.519	0.501	0.476	0.501	2.99

39)	T	Isopropyl Acetate									0.000	-1.00
40)	T	1-Butanol									0.000	-1.00
41)	T	Benzene	1.568	1.489	1.553	1.480	1.488	1.480	1.420	1.319	1.475	5.28
42)	T	Carbon Tetrach...	0.429	0.404	0.451	0.432	0.439	0.453	0.440	0.420	0.433	3.77
43)	T	Cyclohexane	0.497	0.484	0.512	0.500	0.502	0.497	0.470	0.423	0.486	5.85
44)	T	tert-Amyl Meth...	0.944	0.932	1.035	1.028	1.051	1.049	1.005	0.896	0.992	6.04
45)	T	1,2-Dichloropr...	0.418	0.418	0.429	0.429	0.429	0.425	0.411	0.382	0.418	3.80
46)	T	Bromodichlorom...	0.422	0.436	0.461	0.459	0.470	0.480	0.468	0.443	0.455	4.31
47)	T	Trichloroethene	0.268	0.288	0.311	0.297	0.307	0.302	0.298	0.292	0.295	4.48
48)	T	1,4-Dioxane	0.248	0.245	0.267	0.272	0.282	0.262	0.258	0.247	0.260	5.08
49)	T	2,2,4-Trimethy...	1.821	1.854	1.935	1.898	1.877	1.835	1.745	1.571	1.817	6.29
50)	T	Methyl Methacr...	0.069	0.086	0.101	0.109	0.119	0.120	0.118	0.113	0.104	17.49
51)	T	n-Heptane	0.357	0.369	0.376	0.363	0.378	0.369	0.358	0.334	0.363	3.90
52)	T	cis-1,3-Dichlo...	0.502	0.537	0.584	0.594	0.659	0.669	0.664	0.624	0.604	10.24
53)	T	4-Methyl-2-pen...	0.313	0.348	0.363	0.378	0.408	0.377	0.361	0.319	0.358	8.76
54)	T	trans-1,3-Dich...	0.328	0.347	0.418	0.450	0.525	0.555	0.562	0.532	0.465	20.05
55)	T	1,1,2-Trichlor...	0.265	0.283	0.300	0.302	0.315	0.309	0.313	0.296	0.298	5.68
56)	IR	Chlorobenzene-d5 (...	----------ISTD----------									
57)	S	Toluene-d8 (SS2)	4.600	4.507	4.468	4.492	4.575	4.504	4.560	4.600	4.538	1.14
58)	T	Toluene	5.079	4.844	5.055	4.789	4.823	4.748	4.674	4.403	4.802	4.46
59)	T	2-Hexanone	3.633	3.713	3.682	3.848	4.298	3.850	3.614	3.195	3.729	8.25
60)	T	Dibromochlorom...	1.074	1.037	1.152	1.143	1.221	1.255	1.272	1.297	1.181	8.05
61)	T	1,2-Dibromoethane	1.200	1.139	1.244	1.183	1.263	1.263	1.288	1.309	1.236	4.63
62)	T	n-Butyl Acetate	3.771	4.059	4.223	4.400	4.919	4.361	4.092	3.557	4.173	9.96
63)	T	n-Octane	1.258	1.337	1.428	1.428	1.397	1.368	1.315	1.216	1.343	5.76
64)	T	Tetrachloroethene	1.030	1.064	1.119	1.041	1.088	1.082	1.124	1.207	1.094	5.16
65)	T	Chlorobenzene	3.032	2.983	3.041	2.884	2.969	2.914	2.898	2.834	2.944	2.51
66)	T	Ethylbenzene	5.620	5.291	5.549	5.378	5.544	5.521	5.403	5.167	5.434	2.81
67)	T	m- & p-Xylenes	4.297	4.200	4.431	4.354	4.437	4.415	4.328	4.062	4.315	3.01
68)	T	Bromoform	0.723	0.703	0.784	0.801	0.899	0.951	0.985	1.015	0.858	14.08
69)	T	Styrene	2.406	2.553	2.687	2.721	3.067	3.188	3.218	3.221	2.883	11.39
70)	T	o-Xylene	4.243	4.157	4.367	4.339	4.368	4.338	4.324	4.188	4.290	1.93
71)	T	n-Nonane	3.636	3.707	4.044	4.050	4.121	3.979	3.728	3.270	3.817	7.52
72)	T	1,1,2,2-Tetrac...	2.151	2.140	2.215	2.198	2.258	2.219	2.224	2.187	2.199	1.78
73)	S	Bromofluoroben...	1.132	1.118	1.113	1.091	1.124	1.135	1.232	1.338	1.160	7.15
74)	T	Cumene	4.918	4.805	4.978	4.879	5.015	4.984	5.025	4.853	4.932	1.64
75)	T	alpha-Pinene	2.101	2.020	2.316	2.479	2.627	2.683	2.737	2.614	2.447	11.14
76)	T	n-Propylbenzene	6.267	6.359	6.543	6.480	6.669	6.578	6.589	6.129	6.452	2.86
77)	T	3-Ethyltoluene									0.000	-1.00
78)	T	4-Ethyltoluene	4.484	4.432	4.462	4.530	4.816	4.870	4.901	4.740	4.654	4.23
79)	T	1,3,5-Trimethy...	4.072	3.959	4.048	4.102	4.163	4.141	4.143	4.092	4.090	1.61
80)	T	alpha-Methylst...									0.000	-1.00
81)	T	2-Ethyltoluene									0.000	-1.00
82)	T	1,2,4-Trimethy...	3.930	3.723	4.131	4.090	4.311	4.273	4.286	3.857	4.075	5.37
83)	T	n-Decane									0.000	-1.00
84)	T	Benzyl Chloride			1.965	2.194	3.158	3.512	3.687	3.216	2.955	23.99
85)	T	1,3-Dichlorobe...	2.122	2.048	2.089	2.042	2.170	2.189	2.335	2.095	2.136	4.49
86)	T	1,4-Dichlorobe...	2.484	2.236	2.132	2.079	2.196	2.176	2.374	2.327	2.251	6.00
87)	T	sec-Butylbenzene	5.235	5.100	5.585	5.439	5.753	5.479	5.644	5.244	5.435	4.16
88)	T	4-Isopropyltol...	3.981	3.999	4.387	4.292	4.568	4.367	4.403	4.169	4.271	4.83
89)	T	1,2,3-Trimethy...									0.000	-1.00
90)	T	1,2-Dichlorobe...	2.246	2.147	2.081	1.996	2.137	2.144	2.252	2.227	2.154	4.09
91)	T	d-Limonene	1.366	1.496	1.674	1.720	2.001	1.963	1.967	1.796	1.748	13.26

92)	T	1,2-Dibromo-3-...	0.570	0.614	0.561	0.607	0.724	0.700	0.771	0.727	0.659	12.20
93)	T	n-Undecane									0.000	-1.00
94)	T	1,2,4-Trichlor...	1.611	1.271	1.104	1.128	1.327	1.291	1.435	1.386	1.319	12.49
95)	T	Naphthalene	3.768	3.060	2.772	2.879	3.803	3.521	3.956	3.917	3.460	14.00
96)	T	n-Dodecane									0.000	-1.00
97)	T	Hexachlorobuta...	1.095	0.989	0.923	0.865	0.947	0.860	1.020	0.963	0.958	8.18
98)	T	Cyclohexanone									0.000	-1.00
99)	T	tert-Butylbenzene	3.558	3.598	3.684	3.694	3.791	3.693	3.689	3.353	3.632	3.65
100)	T	n-Butylbenzene	3.368	3.992	4.294	4.391	4.834	4.562	4.667	4.228	4.292	10.66
101)	T	1,1,1,2-Tetrac...	0.907	0.913	0.959	0.940	0.985	1.008	1.009	0.994	0.964	4.25

(#) = Out of Range

R13012025.M Tue Jan 21 10:39:57 2025

CG 1/21/25

Primary Source Standards Concentrations (Working & Initial Calibration)

1ng/L Std. ID:		40ng/L Std. ID:	
4ng/L Std. ID:	S37-01202505	200ng/L Std. ID:	S37-01202503
20ng/L Std. ID:	S37-01202504	1000ng/L Std. ID:	

Dilution Factors:		1	5	25	50	250	1000	Working STD Conc.(ng/L):	4	4	20	20	20	200	200	200
	Source Std.			Primary Working Standards				Injection (L):	0.025	0.050	0.0250	0.050	0.25	0.125	0.25	0.50
Compounds	mg/m³	1000ng/L	200ng/L	40ng/L	20ng/L	4ng/L	1ng/L	ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
Propene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
Dichlorodifluoromethane	1.01	1010	202	40.4	20.2	4.04	1.01		0.101	0.202	0.505	1.01	5.05	25.25	50.5	101
Chloromethane	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Freon-114	1.08	1080	216	43.2	21.6	4.32	1.08		0.108	0.216	0.540	1.08	5.40	27.00	54.0	108
Vinyl Chloride	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
1,3-Butadiene	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Bromomethane	1.02	1020	204	40.8	20.4	4.08	1.02		0.102	0.204	0.510	1.02	5.10	25.50	51.0	102
Chloroethane	1.10	1100	220	44.0	22.0	4.40	1.10		0.110	0.220	0.550	1.10	5.50	27.50	55.0	110
Ethanol	5.25	5250	1050	210.0	105.0	21.00	5.25		0.525	1.050	2.625	5.25	26.25	131.25	262.5	525
Acetonitrile	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
Acrolein	2.18	2180	436	87.2	43.6	8.72	2.18		0.218	0.436	1.090	2.18	10.90	54.50	109.0	218
Acetone	5.12	5120	1024	204.8	102.4	20.48	5.12		0.512	1.024	2.560	5.12	25.60	128.00	256.0	512
Trichlorofluoromethane	1.01	1010	202	40.4	20.2	4.04	1.01		0.101	0.202	0.505	1.01	5.05	25.25	50.5	101
Isopropanol	2.06	2060	412	82.4	41.2	8.24	2.06		0.206	0.412	1.030	2.06	10.30	51.50	103.0	206
Acrylonitrile	2.08	2080	416	83.2	41.6	8.32	2.08		0.208	0.416	1.040	2.08	10.40	52.00	104.0	208
1,1-Dichloroethene	0.91	910	182	36.4	18.2	3.64	0.91		0.091	0.182	0.455	0.91	4.55	22.75	45.5	91
tert-Butanol	2.09	2090	418	83.6	41.8	8.36	2.09		0.209	0.418	1.045	2.09	10.45	52.25	104.5	209
Methylene Chloride	0.91	910	182	36.4	18.2	3.64	0.91		0.091	0.182	0.455	0.91	4.55	22.75	45.5	91
Allyl Chloride	1.09	1090	218	43.6	21.8	4.36	1.09		0.109	0.218	0.545	1.09	5.45	27.25	54.5	109
Trichlorotrifluoroethane	0.92	920	184	36.8	18.4	3.68	0.92		0.092	0.184	0.460	0.92	4.60	23.00	46.0	92
Carbon Disulfide	2.07	2070	414	82.8	41.4	8.28	2.07		0.207	0.414	1.035	2.07	10.35	51.75	103.5	207
trans-1,2-Dichloroethene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
1,1-Dichloroethane	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
Methyl tert-Butyl Ether	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Vinyl Acetate	5.29	5290	1058	211.6	105.8	21.16	5.29		0.529	1.058	2.645	5.29	26.45	132.25	264.5	529
2-Butanone	2.04	2040	408	81.6	40.8	8.16	2.04		0.204	0.408	1.020	2.04	10.20	51.00	102.0	204
cis-1,2-Dichloroethene	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
Diisopropyl Ether	2.09	2090	418	83.6	41.8	8.36	2.09		0.209	0.418	1.045	2.09	10.45	52.25	104.5	209
Ethyl Acetate	1.95	1950	390	78.0	39.0	7.80	1.95		0.195	0.390	0.975	1.95	9.75	48.75	97.5	195
n-Hexane	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
Chloroform	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Tetrahydrofuran	1.90	1900	380	76.0	38.0	7.60	1.90		0.190	0.380	0.950	1.90	9.50	47.50	95.0	190
Ethyl tert-Butyl Ether	2.09	2090	418	83.6	41.8	8.36	2.09		0.209	0.418	1.045	2.09	10.45	52.25	104.5	209
1,2-Dichloroethane	1.01	1010	202	40.4	20.2	4.04	1.01		0.101	0.202	0.505	1.01	5.05	25.25	50.5	101
1,1,1-Trichloroethane	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
Benzene	1.02	1020	204	40.8	20.4	4.08	1.02		0.102	0.204	0.510	1.02	5.10	25.50	51.0	102
Carbon Tetrachloride	1.02	1020	204	40.8	20.4	4.08	1.02		0.102	0.204	0.510	1.02	5.10	25.50	51.0	102
Cyclohexane	2.08	2080	416	83.2	41.6	8.32	2.08		0.208	0.416	1.040	2.08	10.40	52.00	104.0	208
tert-Amyl Methyl Ether	2.10	2100	420	84.0	42.0	8.40	2.10		0.210	0.420	1.050	2.10	10.50	52.50	105.0	210
1,2-Dichloropropane	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107
Bromodichloromethane	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107
Trichloroethene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
1,4-Dioxane	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Isooctane	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Methyl Methacrylate	2.12	2120	424	84.8	42.4	8.48	2.12		0.212	0.424	1.060	2.12	10.60	53.00	106.0	212
n-Heptane	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104

Primary Source Standards Concentrations (Working & Initial Calibration)

1ng/L Std. ID:		**40ng/L Std. ID:**	
4ng/L Std. ID:	**S37-01202505**	**200ng/L Std. ID:**	**S37-01202503**
20ng/L Std. ID:	**S37-01202504**	**1000ng/L Std. ID:**	

Dilution Factors:		**1**	**5**	**25**	**50**	**250**	**1000**	**Working STD Conc.(ng/L):**	**4**	**4**	**20**	**20**	**20**	**200**	**200**	**200**
	Source Std.			**Primary Working Standards**				**Injection (L):**	**0.025**	**0.050**	**0.0250**	**0.050**	**0.25**	**0.125**	**0.25**	**0.50**
Compounds	**mg/m³**	**1000ng/L**	**200ng/L**	**40ng/L**	**20ng/L**	**4ng/L**	**1ng/L**	**ICAL Points:**	**0.1ng**	**0.2ng**	**0.5ng**	**1ng**	**5ng**	**25ng**	**50ng**	**100ng**
cis-1,3-Dichloropropene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
4-Methyl-2-pentanone	2.10	2100	420	84.0	42.0	8.40	2.10		0.210	0.420	1.050	2.10	10.50	52.50	105.0	210
trans-1,3-Dichloropropene	0.99	990	198	39.6	19.8	3.96	0.99		0.099	0.198	0.495	0.99	4.95	24.75	49.5	99
1,1,2-Trichloroethane	1.10	1100	220	44.0	22.0	4.40	1.10		0.110	0.220	0.550	1.10	5.50	27.50	55.0	110
Toluene	1.09	1090	218	43.6	21.8	4.36	1.09		0.109	0.218	0.545	1.09	5.45	27.25	54.5	109
2-Hexanone	2.08	2080	416	83.2	41.6	8.32	2.08		0.208	0.416	1.040	2.08	10.40	52.00	104.0	208
Dibromochloromethane	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
1,2-Dibromoethane	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
n-Butyl Acetate	2.10	2100	420	84.0	42.0	8.40	2.10		0.210	0.420	1.050	2.10	10.50	52.50	105.0	210
n-Octane	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
Tetrachloroethene	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107
Chlorobenzene	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107
Ethylbenzene	1.09	1090	218	43.6	21.8	4.36	1.09		0.109	0.218	0.545	1.09	5.45	27.25	54.5	109
m-&p-Xylene	2.14	2140	428	85.6	42.8	8.56	2.14		0.214	0.428	1.070	2.14	10.70	53.50	107.0	214
Bromoform	1.09	1090	218	43.6	21.8	4.36	1.09		0.109	0.218	0.545	1.09	5.45	27.25	54.5	109
Styrene	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
o-Xylene	1.08	1080	216	43.2	21.6	4.32	1.08		0.108	0.216	0.540	1.08	5.40	27.00	54.0	108
n-Nonane	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
1,1,2,2-Tetrachloroethane	1.08	1080	216	43.2	21.6	4.32	1.08		0.108	0.216	0.540	1.08	5.40	27.00	54.0	108
Cumene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
alpha-Pinene	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107
n-Propylbenzene	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
4-Ethyltoluene	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
1,3,5-Trimethylbenzene	1.08	1080	216	43.2	21.6	4.32	1.08		0.108	0.216	0.540	1.08	5.40	27.00	54.0	108
1,2,4-Trimethylbenzene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
Benzyl Chloride	2.15	2150	430	86.0	43.0	8.60	2.15		0.215	0.430	1.075	2.15	10.75	53.75	107.5	215
1,3-Dichlorobenzene	1.06	1060	212	42.4	21.2	4.24	1.06		0.106	0.212	0.530	1.06	5.30	26.50	53.0	106
1,4-Dichlorobenzene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
sec-Butylbenzene	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
p-Isopropyltoluene	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
1,2-Dichlorobenzene	1.04	1040	208	41.6	20.8	4.16	1.04		0.104	0.208	0.520	1.04	5.20	26.00	52.0	104
d-Limonene	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
1,2-Dibromo-3-chloropropane	2.11	2110	422	84.4	42.2	8.44	2.11		0.211	0.422	1.055	2.11	10.55	52.75	105.5	211
1,2,4-Trichlorobenzene	2.17	2170	434	86.8	43.4	8.68	2.17		0.217	0.434	1.085	2.17	10.85	54.25	108.5	217
Naphthalene	1.09	1090	218	43.6	21.8	4.36	1.09		0.109	0.218	0.545	1.09	5.45	27.25	54.5	109
Hexachloro-1,3-butadiene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
tert-Butylbenzene	1.05	1050	210	42.0	21.0	4.20	1.05		0.105	0.210	0.525	1.05	5.25	26.25	52.5	105
n-Butylbenzene	1.03	1030	206	41.2	20.6	4.12	1.03		0.103	0.206	0.515	1.03	5.15	25.75	51.5	103
1,1,1,2-Tetrachloroethane	1.07	1070	214	42.8	21.4	4.28	1.07		0.107	0.214	0.535	1.07	5.35	26.75	53.5	107

Calibration Status Report MS13

Method   : I:\MS13\METHODS\R13012025.M (RTE Integrator)
Title   : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

CG 1/21/25

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	13	I:\MS13\DATA\2025_01\20\01202515.D
2	0.2	0	13	I:\MS13\DATA\2025_01\20\01202516.D
3	0.5	1	13	I:\MS13\DATA\2025_01\20\01202517.D
4	1.0	1	13	I:\MS13\DATA\2025_01\20\01202518.D
5	5.0	5	13	I:\MS13\DATA\2025_01\20\01202519.D
6	25	26	13	I:\MS13\DATA\2025_01\20\01202520.D
7	50	53	13	I:\MS13\DATA\2025_01\20\01202521.D
8	100	105	13	I:\MS13\DATA\2025_01\20\01202522.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Jan 21 08:11 2025	Jan 21 08:11 2025	20 Jan 2025 19:11
2	0.2	Jan 21 08:11 2025	Jan 21 08:13 2025	20 Jan 2025 19:47
3	0.5	Jan 21 08:11 2025	Jan 21 08:14 2025	20 Jan 2025 20:23
4	1.0	Jan 21 08:05 2025	Jan 21 08:03 2025	20 Jan 2025 20:58
5	5.0	Jan 21 08:05 2025	Jan 21 08:03 2025	20 Jan 2025 21:34
6	25	Jan 21 08:05 2025	Jan 21 08:06 2025	20 Jan 2025 22:10
7	50	Jan 21 08:05 2025	Jan 21 08:03 2025	20 Jan 2025 22:46
8	100	Jan 21 08:06 2025	Jan 21 08:03 2025	20 Jan 2025 23:21

R13012025.M Tue Jan 21 10:40:57 2025

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202515.D
Sample : 0.1ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:11 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:11:39 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	152100	12.500	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	9.35	114	693064	12.500	ng		-0.02
56) Chlorobenzene-d5 (IS3)	14.86	54	188921	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	340744	13.529	ng		-0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 108.24%				
57) Toluene-d8 (SS2)	12.46	98	869014	11.341	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 90.72%				
73) Bromofluorobenzene (SS3)	16.84	174	213861	10.056	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 80.48%				
Target Compounds							Qvalue
2) Propene	3.45	42	3937m	0.138	ng		
3) Dichlorodifluoromethan...	3.50	85	3901	0.108	ng	#	93
4) Chloromethane	3.66	50	3986m	0.149	ng		
5) 1,2-Dichloro-1,1,2,2-t...	3.74	135	1219	0.096	ng		99
6) Vinyl Chloride	3.84	62	3731	0.158	ng		85
7) 1,3-Butadiene	3.95	54	2269	0.120	ng	#	68
8) Bromomethane	4.16	94	1326	0.098	ng		90
9) Chloroethane	4.29	64	1598	0.123	ng		83
10) Ethanol	4.42	45	16779	0.930	ng		96
11) Acetonitrile	0.00	41	0	N.D.			
12) Acrolein	4.67	56	3963	0.269	ng		83
13) Acetone	4.75	58	9574	0.691	ng		92
14) Trichlorofluoromethane	4.87	101	3094	0.101	ng		100
15) 2-Propanol (Isopropanol)	4.98	45	17748	0.295	ng		86
16) Acrylonitrile	5.15	53	7182	0.263	ng		100
17) 1,1-Dichloroethene	5.36	96	1258	0.082	ng	#	84
18) 2-Methyl-2-Propanol (t...	5.45	59	11662	0.277	ng		96
19) Methylene Chloride	5.45	84	1883	0.103	ng		91
20) 3-Chloro-1-propene (Al...	5.55	41	4645	0.141	ng		86
21) Trichlorotrifluoroethane	5.68	151	1068	0.082	ng		97
22) Carbon Disulfide	5.73	76	18621	0.255	ng		93
23) trans-1,2-Dichloroethene	6.23	61	3213	0.111	ng		98
24) 1,1-Dichloroethane	6.39	63	3969	0.112	ng		100
25) Methyl tert-Butyl Ether	6.47	73	6041	0.146	ng		99
26) Vinyl Acetate	6.54	86	1166	0.355	ng	#	1
27) 2-Butanone (MEK)	6.78	72	2100	0.193	ng	#	86
28) cis-1,2-Dichloroethene	7.15	61	3418	0.120	ng		89
29) Diisopropyl Ether	7.37	87	3230	0.249	ng	#	92
30) Ethyl Acetate	7.39	61	1361	0.191	ng		79
31) n-Hexane	7.37	57	4409	0.134	ng		98
32) Chloroform	7.42	83	3413	0.109	ng		96
34) Tetrahydrofuran (THF)	7.86	72	2638	0.232	ng	#	75
35) Ethyl tert-Butyl Ether	7.90	87	4081	0.224	ng		99
36) 1,2-Dichloroethane	8.17	62	3002	0.104	ng		98
38) 1,1,1-Trichloroethane	8.45	97	2796	0.101	ng		98
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.95	78	8865	0.120	ng		98
42) Carbon Tetrachloride	9.12	117	2425	0.099	ng		98
43) Cyclohexane	9.27	84	5726	0.230	ng		99
44) tert-Amyl Methyl Ether	9.67	73	10994	0.234	ng		96
45) 1,2-Dichloropropane	9.90	63	2481	0.122	ng		92
46) Bromodichloromethane	10.13	83	2506	0.102	ng		98
47) Trichloroethene	10.20	130	1563	0.091	ng		93
48) 1,4-Dioxane	10.22	88	1458	0.110	ng	#	58
49) 2,2,4-Trimethylpentane...	10.28	57	10703	0.123	ng		100
50) Methyl Methacrylate	10.49	100	812	0.139	ng	#	41

Data File: I:\MS13\DATA\2025 01\20\01202515.D
Sample : 0.1ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:11 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:11:39 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

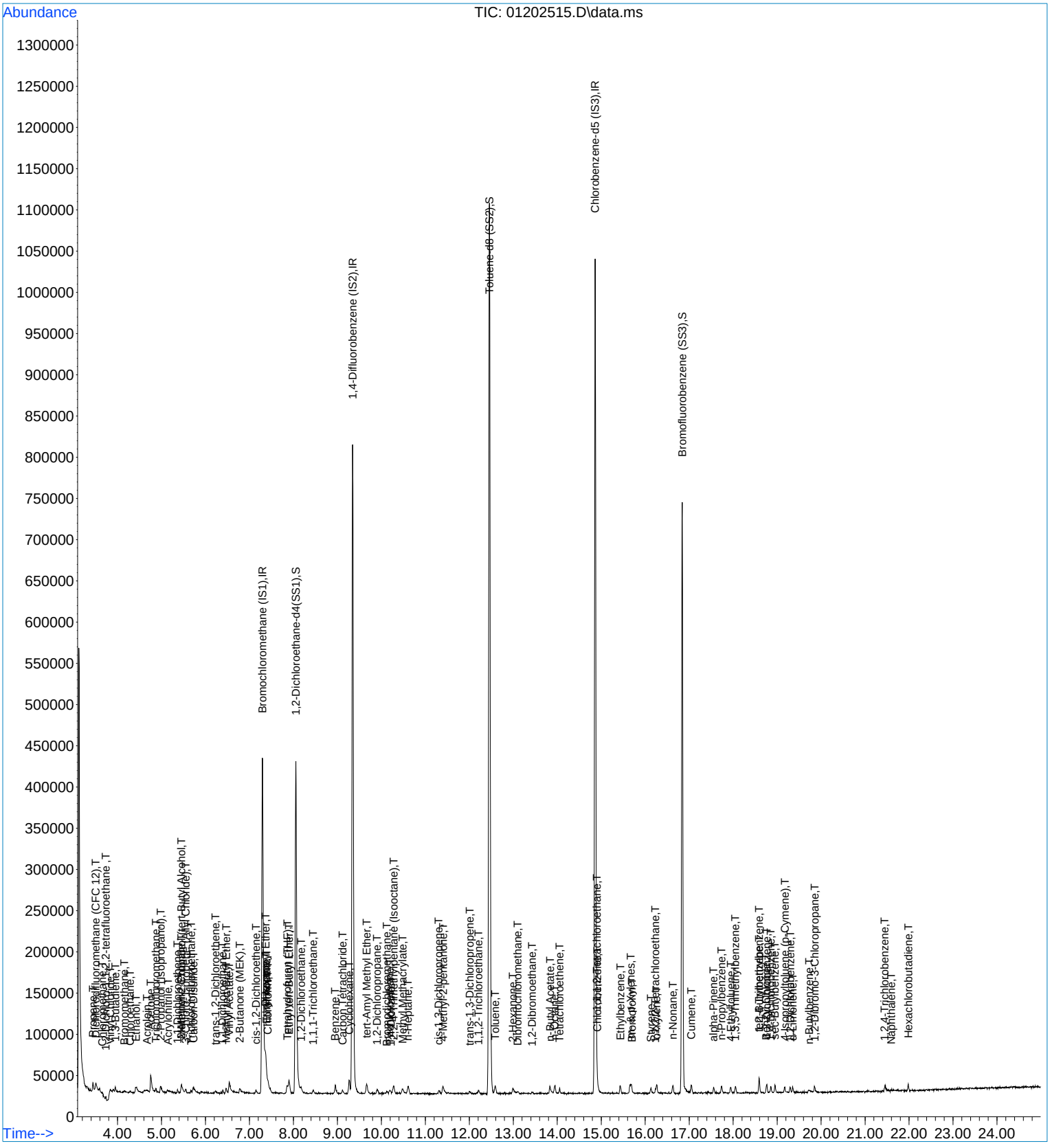
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.60	71	2060	0.113 ng		90
52) cis-1,3-Dichloropropene	11.30	75	2920	0.092 ng		91
53) 4-Methyl-2-pentanone	11.41	58	3646	0.215 ng	#	88
54) trans-1,3-Dichloropropene	12.01	75	1801	0.071 ng		79
55) 1,1,2-Trichloroethane	12.21	97	1616	0.101 ng		90
58) Toluene	12.59	91	8367	0.105 ng		98
59) 2-Hexanone	12.99	43	11422	0.212 ng		90
60) Dibromochloromethane	13.10	129	1672	0.077 ng		92
61) 1,2-Dibromoethane	13.43	107	1905	0.089 ng		98
62) n-Butyl Acetate	13.84	43	11968	0.204 ng		98
63) n-Octane	13.94	57	2016	0.098 ng		97
64) Tetrachloroethene	14.05	166	1665	0.079 ng		96
65) Chlorobenzene	14.91	112	4903	0.097 ng		99
66) Ethylbenzene	15.44	91	9258	0.101 ng		90
67) m- & p-Xylenes	15.68	91	13899	0.189 ng	#	63
68) Bromoform	15.70	173	1191	0.070 ng		96
69) Styrene	16.13	104	3854	0.077 ng		95
70) o-Xylene	16.26	91	6926	0.094 ng		98
71) n-Nonane	16.63	43	5770	0.105 ng		93
72) 1,1,2,2-Tetrachloroethane	16.23	83	3511	0.097 ng		100
74) Cumene	17.05	105	7805	0.090 ng		98
75) alpha-Pinene	17.55	93	3398	0.087 ng		98
76) n-Propylbenzene	17.74	91	9851	0.091 ng		96
77) 3-Ethyltoluene	17.05	105	7805	No Calib		
78) 4-Ethyltoluene	17.95	105	7048	0.085 ng		94
79) 1,3,5-Trimethylbenzene	18.05	105	6646	0.091 ng		91
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	7805	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	6237	0.087 ng		93
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	18.75	91	5805	0.113 ng		81
85) 1,3-Dichlorobenzene	18.77	146	3399	0.090 ng		98
86) 1,4-Dichlorobenzene	18.86	146	3942	0.100 ng		94
87) sec-Butylbenzene	18.95	105	8229	0.086 ng		93
88) 4-Isopropyltoluene (p-...	19.18	119	6257	0.079 ng		93
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D. d		
90) 1,2-Dichlorobenzene	19.30	146	3530	0.092 ng		96
91) d-Limonene	19.35	68	2127	0.073 ng		97
92) 1,2-Dibromo-3-Chloropr...	19.85	157	1819	0.137 ng	#	38
93) n-Undecane	0.00	58	0	N.D. d		
94) 1,2,4-Trichlorobenzene	21.45	180	5285	0.199 ng	#	89
95) Naphthalene	21.59	128	6208	0.091 ng	#	71
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	21.98	225	1737	0.086 ng		99
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.59	119	5646	0.086 ng		96
100) n-Butylbenzene	19.73	91	5243	0.068 ng	#	86
101) 1,1,1,2-Tetrachloroethane	14.90	131	1466	0.082 ng		97

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

Quantitation Report (QT Reviewed)

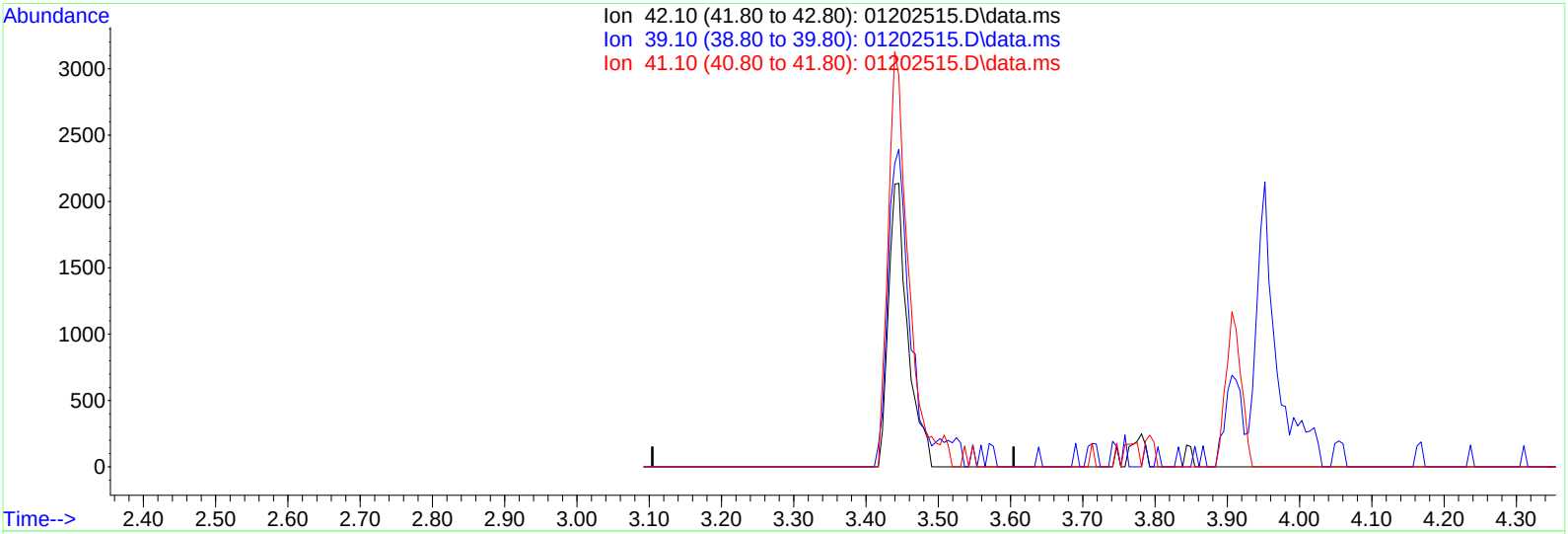
Data File: I:\MS13\DATA\2025 01\20\01202515.D
Sample : 0.1ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:11 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

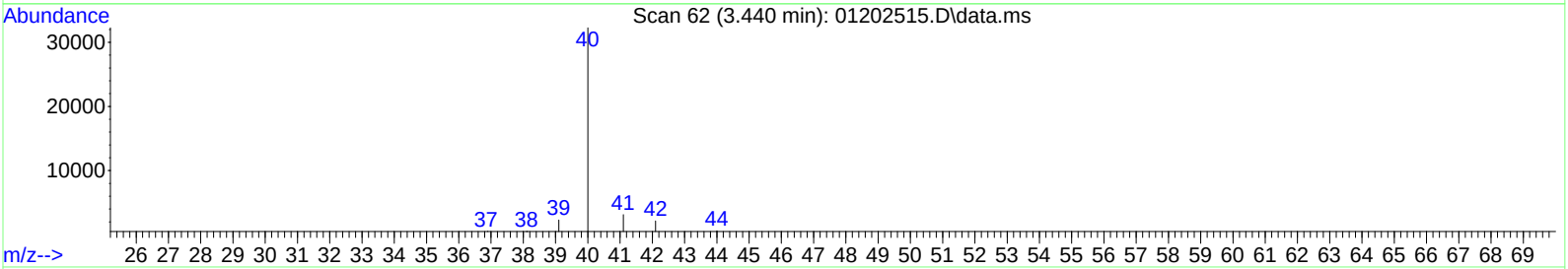
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:11:39 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

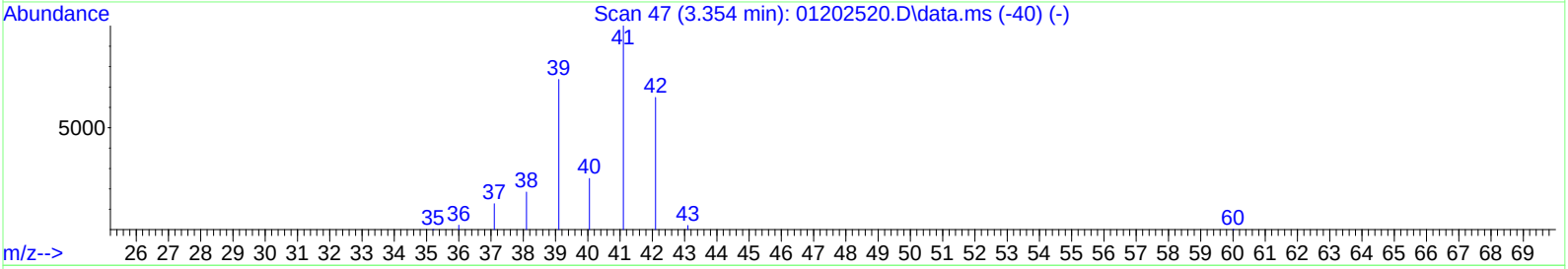


Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202515.D
Acq On : 20 Jan 2025 19:11
Operator : LS
Sample : 0.1ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:03:45 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202515.D\data.ms

(2) Propene (T)

3.354min (-3.354) 0.00ng

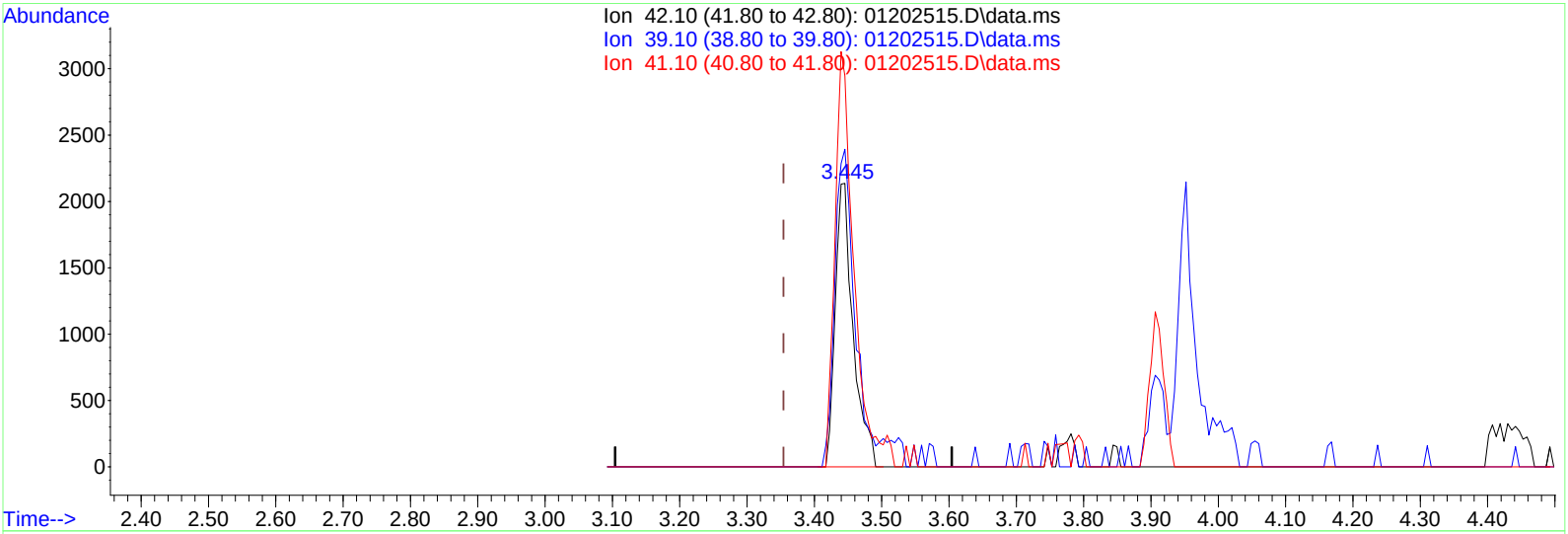
response 0

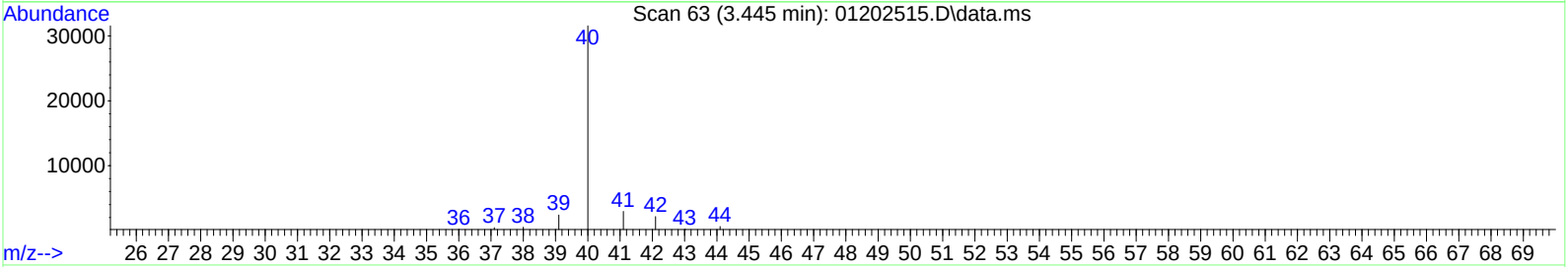
Ion	Exp%	Act%
42.10	100	0.00
39.10	114.30	0.00#
41.10	156.80	0.00#
0.00	0.00	0.00

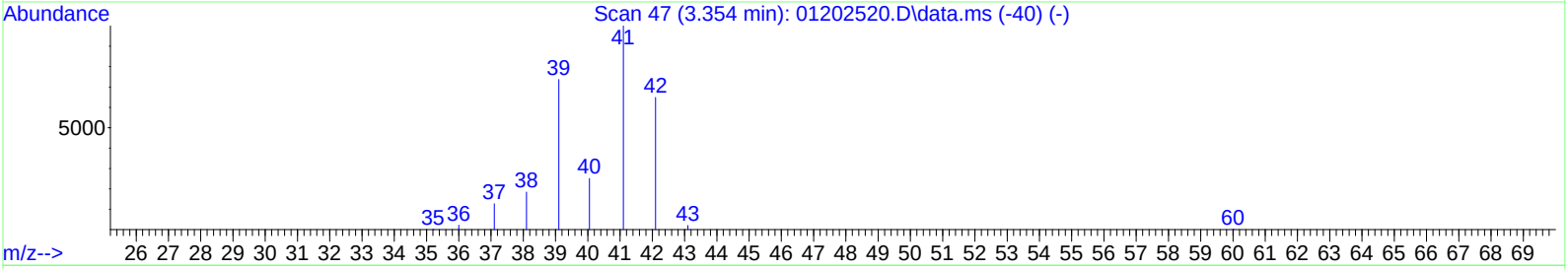
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202515.D
Acq On : 20 Jan 2025 19:11
Operator : LS
Sample : 0.1ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:03:45 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202515.D\data.ms

(2) Propene (T)

3.445min (+0.091) 0.14ng m

response 3937

Ion	Exp%	Act%
42.10	100	100
39.10	114.30	123.75
41.10	156.80	151.31
0.00	0.00	0.00

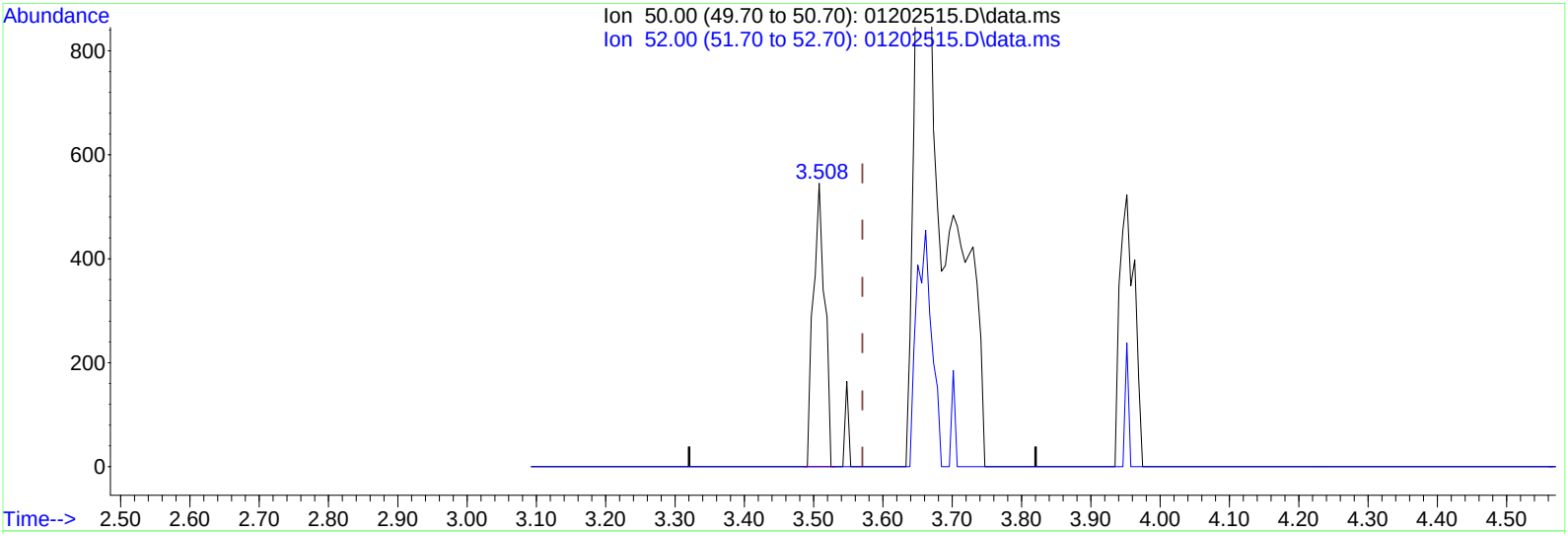
MP

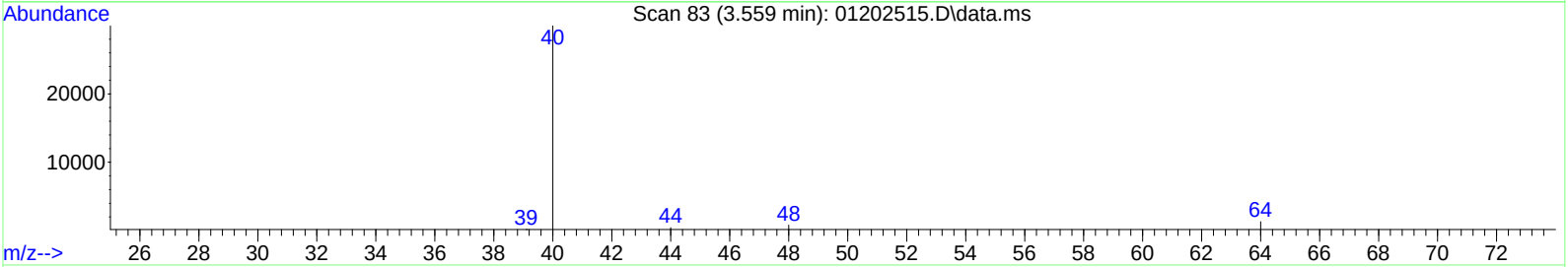
CG 1/21/25

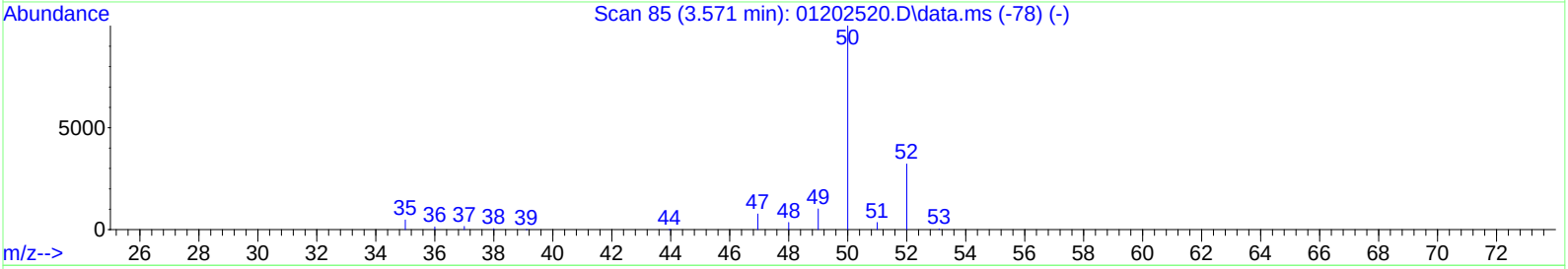
MC 1/21/25

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202515.D
Acq On : 20 Jan 2025 19:11
Operator : LS
Sample : 0.1ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:05:15 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202515.D\data.ms

(4) Chloromethane (T)

3.508min (-0.063) 0.02ng

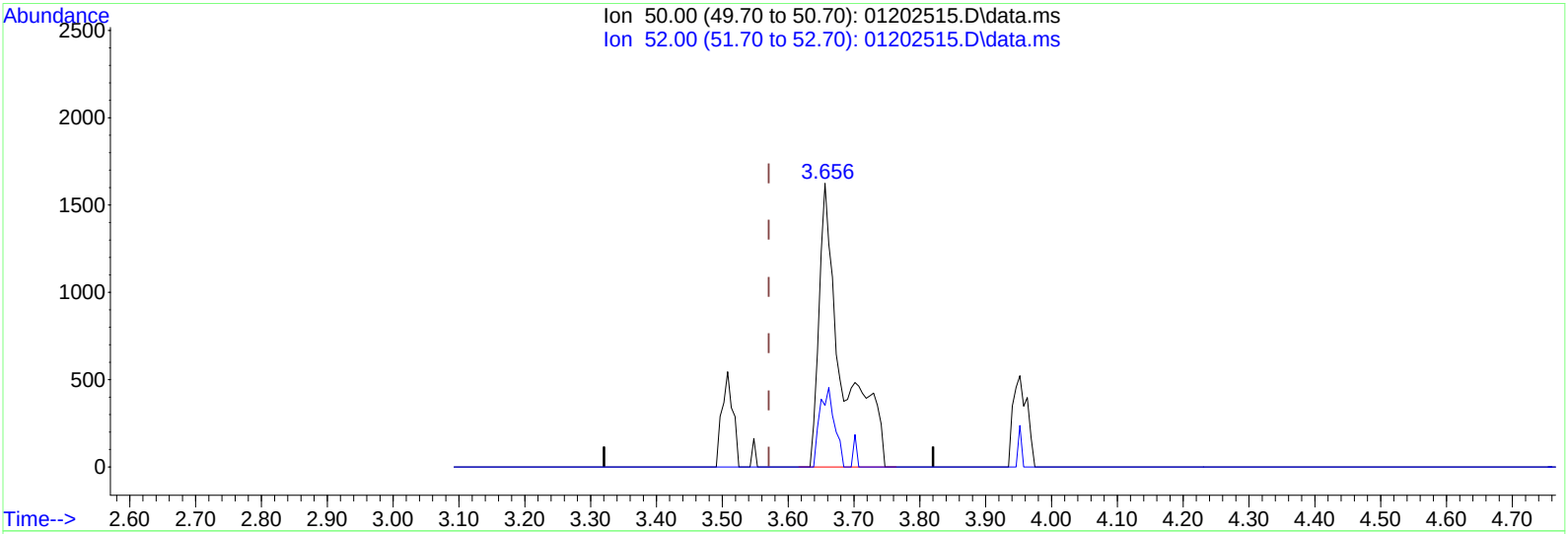
response 625

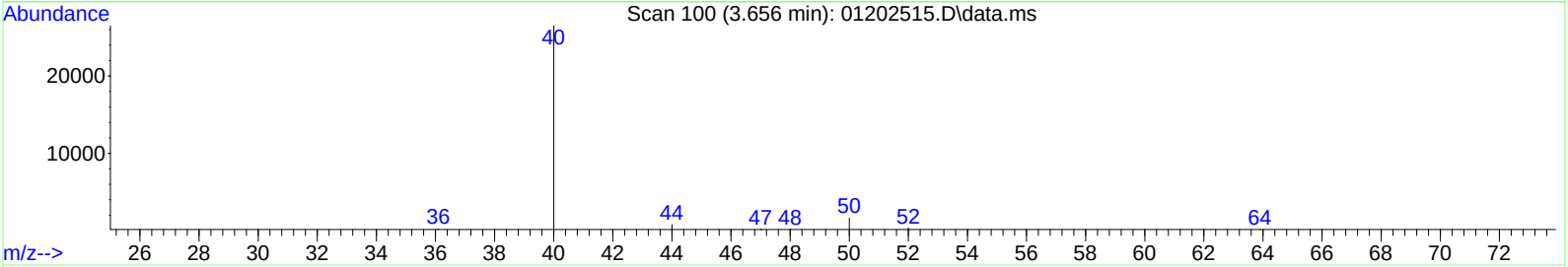
Ion	Exp%	Act%
50.00	100	100
52.00	32.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

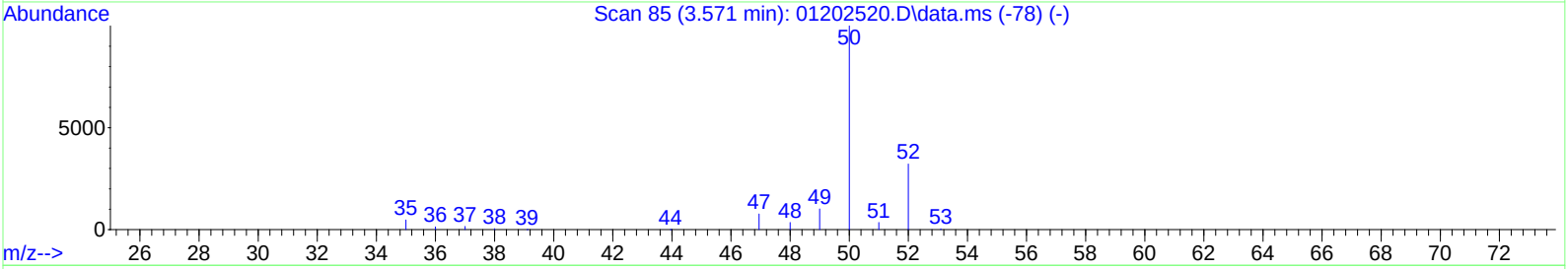
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202515.D
Acq On : 20 Jan 2025 19:11
Operator : LS
Sample : 0.1ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:05:15 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202515.D\data.ms

(4) Chloromethane (T)

3.656min (+0.085) 0.15ng m

response 3986

Ion	Exp%	Act%
50.00	100	100
52.00	32.40	19.29
0.00	0.00	0.00
0.00	0.00	0.00

MP

1/21/25

1/21/25

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202516.D
Sample : 0.2ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:47 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:13:31 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	153022	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	9.35	114	691391	12.500	ng		-0.02
56) Chlorobenzene-d5 (IS3)	14.86	54	189458	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	343256	13.547	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 108.40%				
57) Toluene-d8 (SS2)	12.46	98	853922	11.112	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 88.88%				
73) Bromofluorobenzene (SS3)	16.84	174	211817	9.932	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.44%				
Target Compounds							Qvalue
2) Propene	3.44	42	7549	0.264	ng		97
3) Dichlorodifluoromethan...	3.51	85	7580	0.209	ng		96
4) Chloromethane	3.66	50	7739m	0.287	ng		
5) 1,2-Dichloro-1,1,2,2-t...	3.74	135	2566	0.200	ng		99
6) Vinyl Chloride	3.84	62	6874	0.288	ng		89
7) 1,3-Butadiene	3.95	54	5353	0.281	ng	#	86
8) Bromomethane	4.16	94	3048	0.223	ng		98
9) Chloroethane	4.29	64	3270	0.251	ng		91
10) Ethanol	4.40	45	29241	1.612	ng		99
11) Acetonitrile	0.00	41	0	N.D.	d		
12) Acrolein	4.66	56	8012	0.541	ng		95
13) Acetone	4.75	58	18925	1.357	ng		98
14) Trichlorofluoromethane	4.88	101	6032	0.195	ng		99
15) 2-Propanol (Isopropanol)	4.97	45	33762	0.559	ng		84
16) Acrylonitrile	5.12	53	14111	0.514	ng		98
17) 1,1-Dichloroethene	5.37	96	2820	0.184	ng		96
18) 2-Methyl-2-Propanol (t...	5.45	59	23625	0.557	ng		97
19) Methylene Chloride	5.45	84	3670	0.200	ng		96
20) 3-Chloro-1-propene (Al...	5.56	41	8039	0.242	ng		92
21) Trichlorotrifluoroethane	5.68	151	2294	0.176	ng		100
22) Carbon Disulfide	5.72	76	34146	0.465	ng		96
23) trans-1,2-Dichloroethene	6.23	61	7000	0.241	ng		91
24) 1,1-Dichloroethane	6.40	63	8455	0.238	ng		96
25) Methyl tert-Butyl Ether	6.47	73	11852	0.286	ng		98
26) Vinyl Acetate	6.54	86	3453	1.046	ng	#	67
27) 2-Butanone (MEK)	6.77	72	4969	0.455	ng	#	93
28) cis-1,2-Dichloroethene	7.16	61	6257	0.218	ng		100
29) Diisopropyl Ether	7.36	87	5932	0.454	ng	#	92
30) Ethyl Acetate	7.38	61	2821	0.393	ng		96
31) n-Hexane	7.38	57	8346	0.252	ng	#	94
32) Chloroform	7.43	83	6807	0.215	ng		100
34) Tetrahydrofuran (THF)	7.84	72	5054	0.442	ng	#	83
35) Ethyl tert-Butyl Ether	7.90	87	8353	0.456	ng		96
36) 1,2-Dichloroethane	8.18	62	6052	0.209	ng		98
38) 1,1,1-Trichloroethane	8.45	97	5565	0.203	ng		97
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.96	78	16806	0.228	ng		98
42) Carbon Tetrachloride	9.13	117	4556	0.187	ng		99
43) Cyclohexane	9.27	84	11135	0.448	ng		97
44) tert-Amyl Methyl Ether	9.66	73	21653	0.463	ng		96
45) 1,2-Dichloropropane	9.91	63	4952	0.243	ng		98
46) Bromodichloromethane	10.13	83	5158	0.211	ng		93
47) Trichloroethene	10.19	130	3347	0.195	ng		92
48) 1,4-Dioxane	10.22	88	2877	0.217	ng		91
49) 2,2,4-Trimethylpentane...	10.27	57	21740	0.250	ng		99
50) Methyl Methacrylate	10.47	100	2008	0.345	ng	#	63

Data File: I:\MS13\DATA\2025 01\20\01202516.D
Sample : 0.2ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:47 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:13:31 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

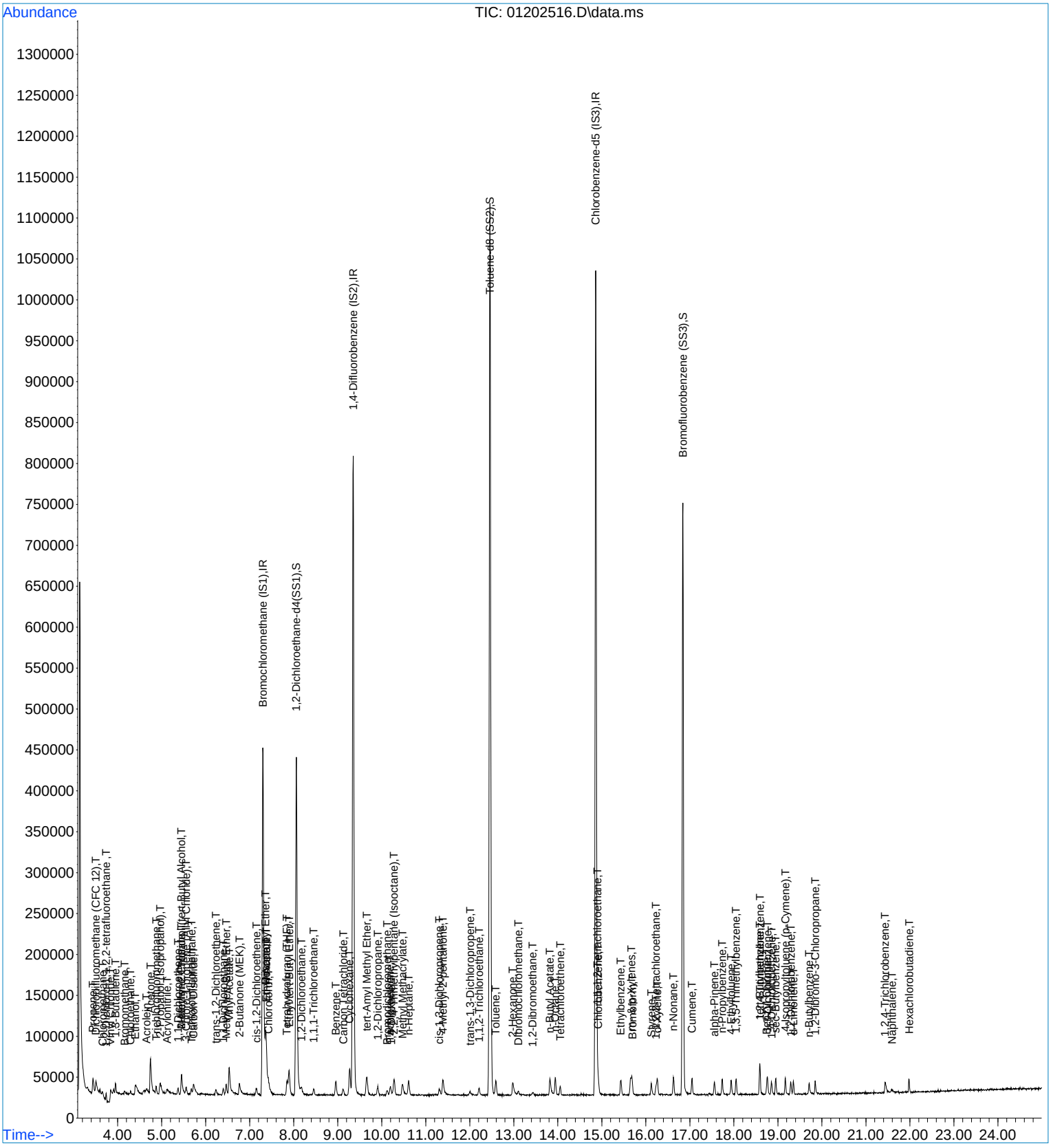
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	4243	0.233 ng		95
52) cis-1,3-Dichloropropene	11.31	75	6238	0.197 ng		95
53) 4-Methyl-2-pentanone	11.39	58	8074	0.478 ng		94
54) trans-1,3-Dichloropropene	12.01	75	3800	0.150 ng		97
55) 1,1,2-Trichloroethane	12.22	97	3439	0.215 ng		97
58) Toluene	12.59	91	16005	0.200 ng		97
59) 2-Hexanone	12.97	43	23412	0.433 ng		96
60) Dibromochloromethane	13.10	129	3238	0.149 ng		100
61) 1,2-Dibromoethane	13.43	107	3625	0.170 ng		97
62) n-Butyl Acetate	13.82	43	25836	0.439 ng		100
63) n-Octane	13.94	57	4297	0.208 ng		95
64) Tetrachloroethene	14.06	166	3451	0.164 ng		99
65) Chlorobenzene	14.92	112	9677	0.190 ng		99
66) Ethylbenzene	15.43	91	17482	0.189 ng		99
67) m- & p-Xylenes	15.68	91	27243	0.369 ng		98
68) Bromoform	15.70	173	2324	0.136 ng		98
69) Styrene	16.13	104	8202	0.162 ng		96
70) o-Xylene	16.26	91	13608	0.184 ng		97
71) n-Nonane	16.63	43	11800	0.214 ng		97
72) 1,1,2,2-Tetrachloroethane	16.23	83	7005	0.193 ng		99
74) Cumene	17.05	105	15293	0.176 ng		99
75) alpha-Pinene	17.56	93	6553	0.167 ng		97
76) n-Propylbenzene	17.74	91	20047	0.185 ng		97
77) 3-Ethyltoluene	17.05	105	15293	No Calib		
78) 4-Ethyltoluene	17.94	105	13973	0.168 ng		98
79) 1,3,5-Trimethylbenzene	18.05	105	12961	0.178 ng		98
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	0.00	105	0	N.D. d		
82) 1,2,4-Trimethylbenzene	18.59	105	11849	0.165 ng		97
83) n-Decane	0.00	58	0	N.D.		
84) Benzyl Chloride	18.75	91	10849	0.211 ng		93
85) 1,3-Dichlorobenzene	18.77	146	6582	0.174 ng		99
86) 1,4-Dichlorobenzene	18.86	146	7118	0.179 ng		95
87) sec-Butylbenzene	18.95	105	16078	0.168 ng		94
88) 4-Isopropyltoluene (p-...	19.17	119	12606	0.159 ng		97
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D. d		
90) 1,2-Dichlorobenzene	19.29	146	6769	0.176 ng		96
91) d-Limonene	19.35	68	4671	0.160 ng		93
92) 1,2-Dibromo-3-Chloropr...	19.85	157	3928	0.296 ng	#	72
93) n-Undecane	0.00	58	0	N.D. d		
94) 1,2,4-Trichlorobenzene	21.43	180	8358	0.314 ng		98
95) Naphthalene	21.59	128	10112	0.148 ng		81
96) n-Dodecane	0.00	58	0	N.D.		
97) Hexachlorobutadiene	21.98	225	3147	0.155 ng		100
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.59	119	11451	0.174 ng		100
100) n-Butylbenzene	19.71	91	12463	0.161 ng	#	93
101) 1,1,1,2-Tetrachloroethane	14.90	131	2961	0.164 ng		98

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202516.D
Sample : 0.2ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 19:47 Operator: LS
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

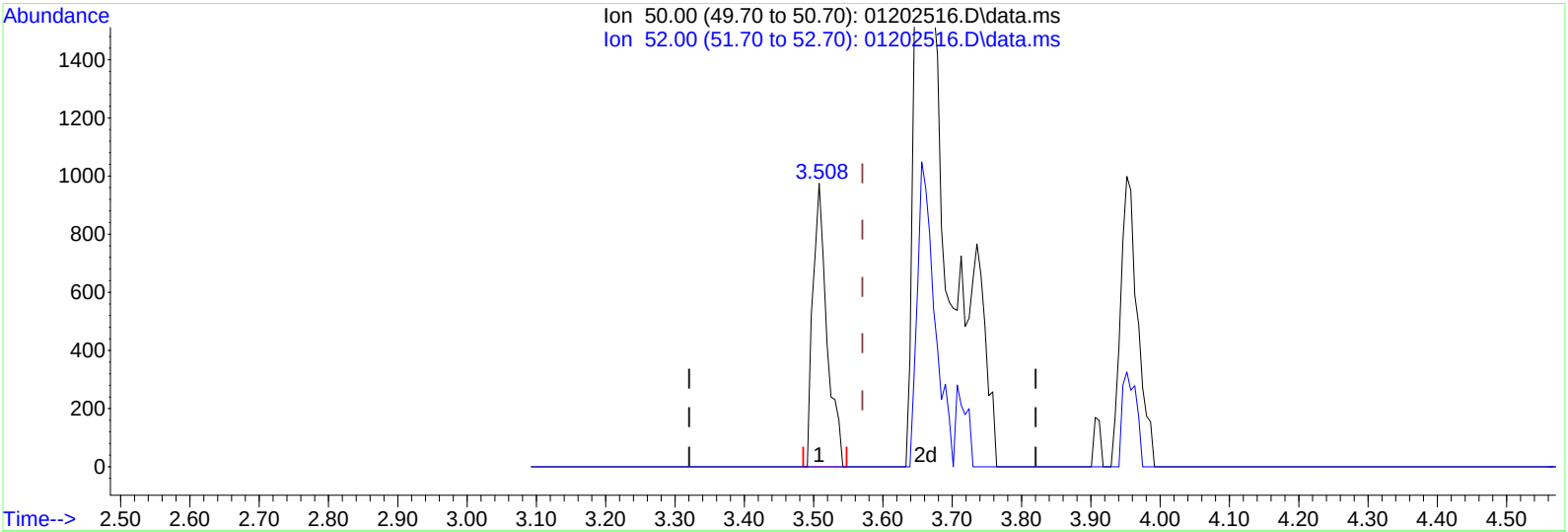
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:13:31 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

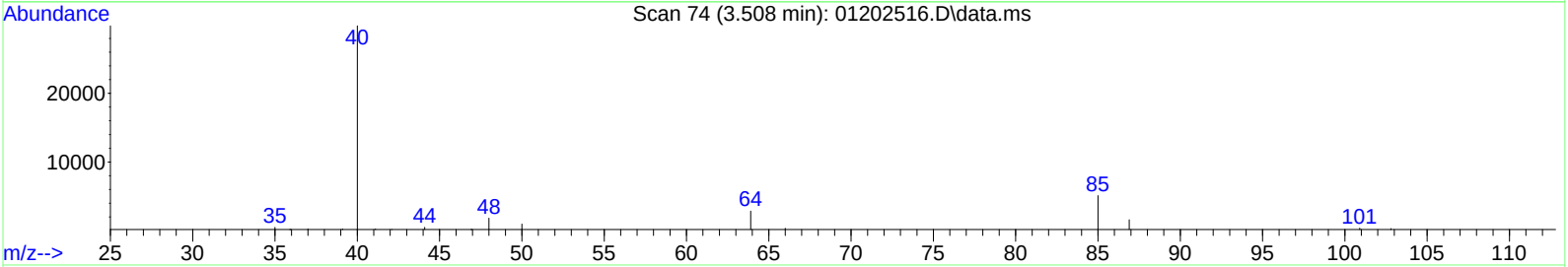


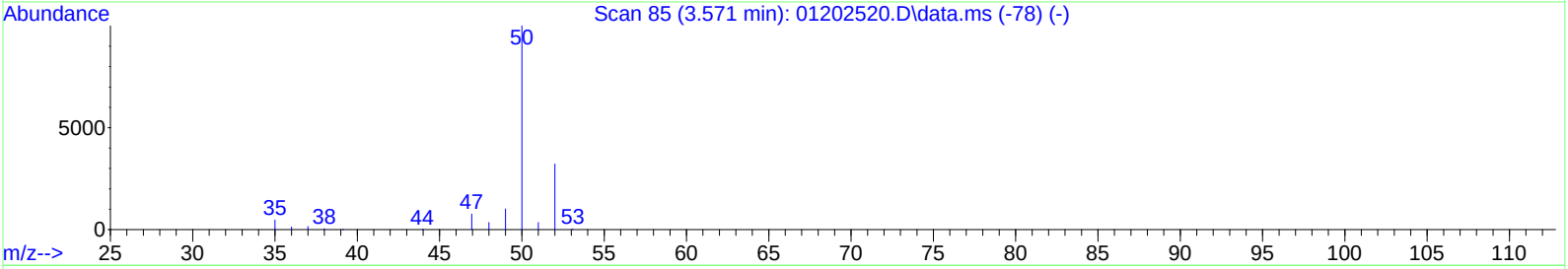
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202516.D
Acq On : 20 Jan 2025 19:47
Operator : LS
Sample : 0.2ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:05:44 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202516.D\data.ms

(4) Chloromethane (T)

3.508min (-0.063) 0.05ng

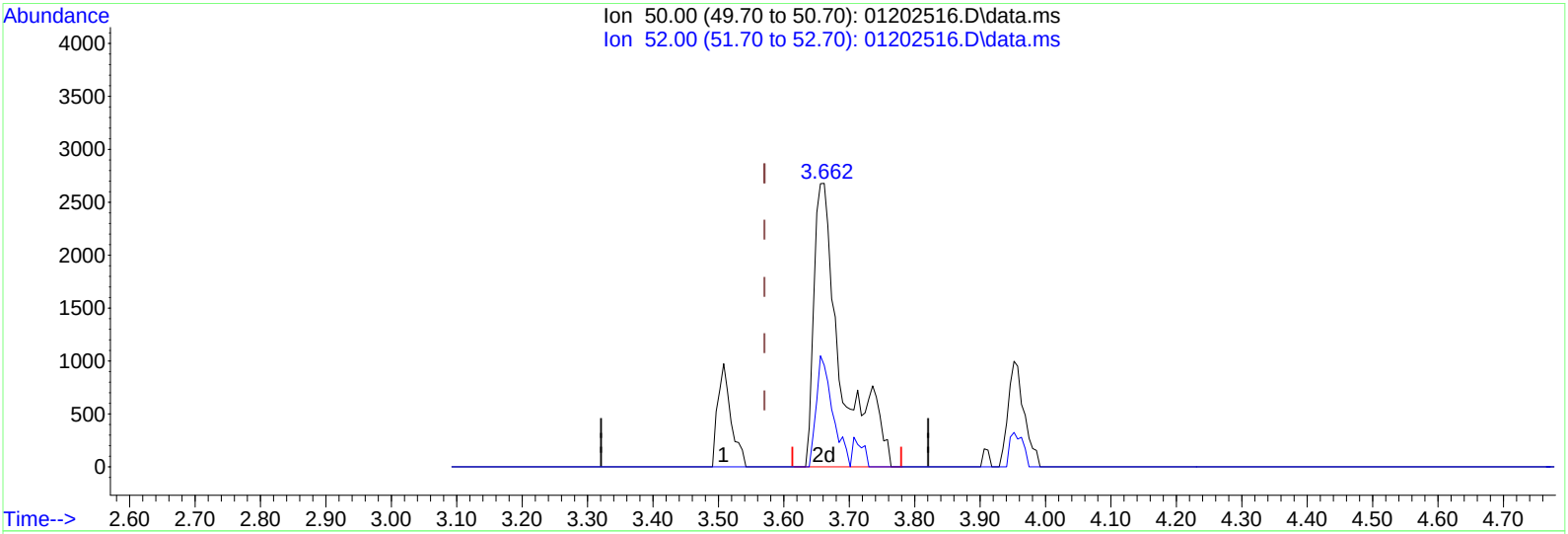
response 1369

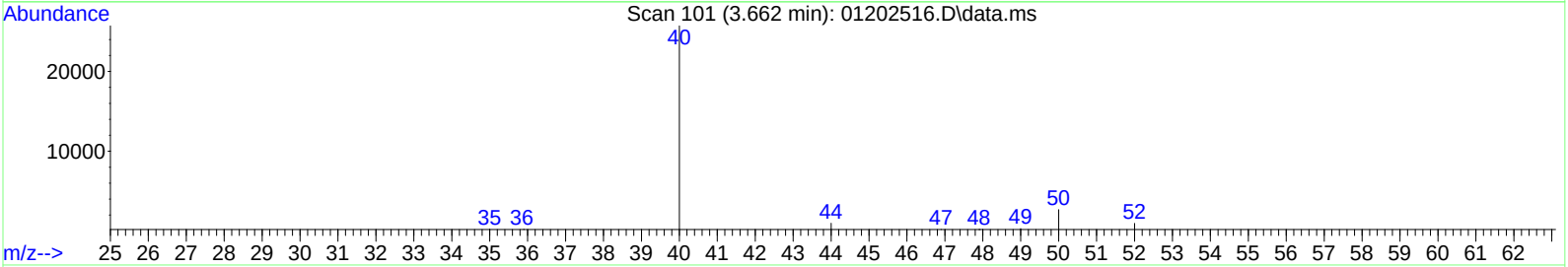
Ion	Exp%	Act%
50.00	100	100
52.00	32.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

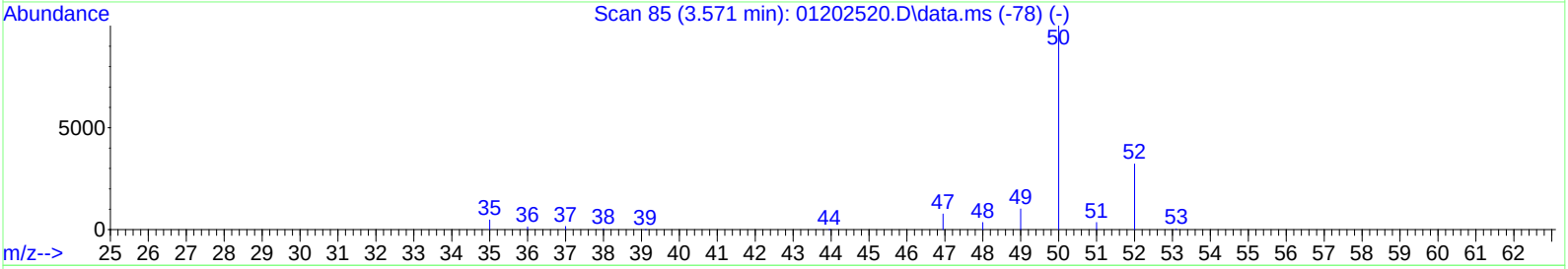
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202516.D
Acq On : 20 Jan 2025 19:47
Operator : LS
Sample : 0.2ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202505 (2/19)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 21 08:05:44 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202516.D\data.ms

(4) Chloromethane (T)

3.662min (+0.091) 0.29ng m

response 7739

Ion	Exp%	Act%
50.00	100	100
52.00	32.40	27.54
0.00	0.00	0.00
0.00	0.00	0.00

MP

CG 1/21/25

MC 1/21/25

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202517.D
Sample : 0.5ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:23 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:14:04 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	154754	12.500	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	9.35	114	698482	12.500	ng		-0.02
56) Chlorobenzene-d5 (IS3)	14.86	54	187682	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	345488	13.482	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 107.84%				
57) Toluene-d8 (SS2)	12.46	98	838552	11.015	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 88.16%				
73) Bromofluorobenzene (SS3)	16.84	174	208868	9.886	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.12%				
Target Compounds							Qvalue
2) Propene	3.42	42	20646	0.714	ng		96
3) Dichlorodifluoromethan...	3.49	85	20862	0.568	ng		97
4) Chloromethane	3.64	50	23589m	0.864	ng		
5) 1,2-Dichloro-1,1,2,2-t...	3.72	135	6871	0.529	ng		100
6) Vinyl Chloride	3.82	62	19086	0.792	ng		93
7) 1,3-Butadiene	3.94	54	15144	0.786	ng		96
8) Bromomethane	4.15	94	8424	0.609	ng		99
9) Chloroethane	4.29	64	8880	0.674	ng		95
10) Ethanol	4.38	45	65875	3.590	ng		99
11) Acetonitrile	4.58	41	36055	0.812	ng		74
12) Acrolein	4.64	56	19397	1.295	ng		99
13) Acetone	4.73	58	47440	3.363	ng		98
14) Trichlorofluoromethane	4.87	101	16227	0.519	ng		100
15) 2-Propanol (Isopropanol)	4.93	45	84369	1.380	ng		86
16) Acrylonitrile	5.10	53	35963	1.295	ng		97
17) 1,1-Dichloroethene	5.37	96	7527	0.484	ng		93
18) 2-Methyl-2-Propanol (t...	5.44	59	62135	1.449	ng		97
19) Methylene Chloride	5.44	84	9750	0.525	ng		100
20) 3-Chloro-1-propene (Al...	5.55	41	20660	0.614	ng		100
21) Trichlorotrifluoroethane	5.67	151	5710	0.432	ng		97
22) Carbon Disulfide	5.72	76	84871	1.143	ng		98
23) trans-1,2-Dichloroethene	6.23	61	18316	0.624	ng		100
24) 1,1-Dichloroethane	6.39	63	22104	0.615	ng		97
25) Methyl tert-Butyl Ether	6.46	73	32488	0.774	ng		99
26) Vinyl Acetate	6.52	86	10043	3.008	ng	#	88
27) 2-Butanone (MEK)	6.74	72	13363	1.209	ng		97
28) cis-1,2-Dichloroethene	7.15	61	17471	0.603	ng		98
29) Diisopropyl Ether	7.35	87	15204	1.150	ng	#	85
30) Ethyl Acetate	7.36	61	8799	1.212	ng		98
31) n-Hexane	7.37	57	22835	0.682	ng		98
32) Chloroform	7.42	83	18078	0.566	ng		99
34) Tetrahydrofuran (THF)	7.83	72	12528	1.082	ng	#	88
35) Ethyl tert-Butyl Ether	7.88	87	22239	1.200	ng		97
36) 1,2-Dichloroethane	8.17	62	16082	0.550	ng		98
38) 1,1,1-Trichloroethane	8.45	97	14810	0.533	ng		98
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.95	78	44266	0.595	ng		99
42) Carbon Tetrachloride	9.12	117	12854	0.521	ng		96
43) Cyclohexane	9.27	84	29775	1.185	ng		98
44) tert-Amyl Methyl Ether	9.65	73	60709	1.284	ng		98
45) 1,2-Dichloropropane	9.90	63	12834	0.624	ng		100
46) Bromodichloromethane	10.12	83	13787	0.558	ng		99
47) Trichloroethene	10.19	130	9120	0.526	ng		95
48) 1,4-Dioxane	10.18	88	7903	0.591	ng		98
49) 2,2,4-Trimethylpentane...	10.28	57	57317	0.653	ng		98
50) Methyl Methacrylate	10.45	100	5982	1.018	ng		91

Data File: I:\MS13\DATA\2025 01\20\01202517.D
Sample : 0.5ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:23 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:14:04 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

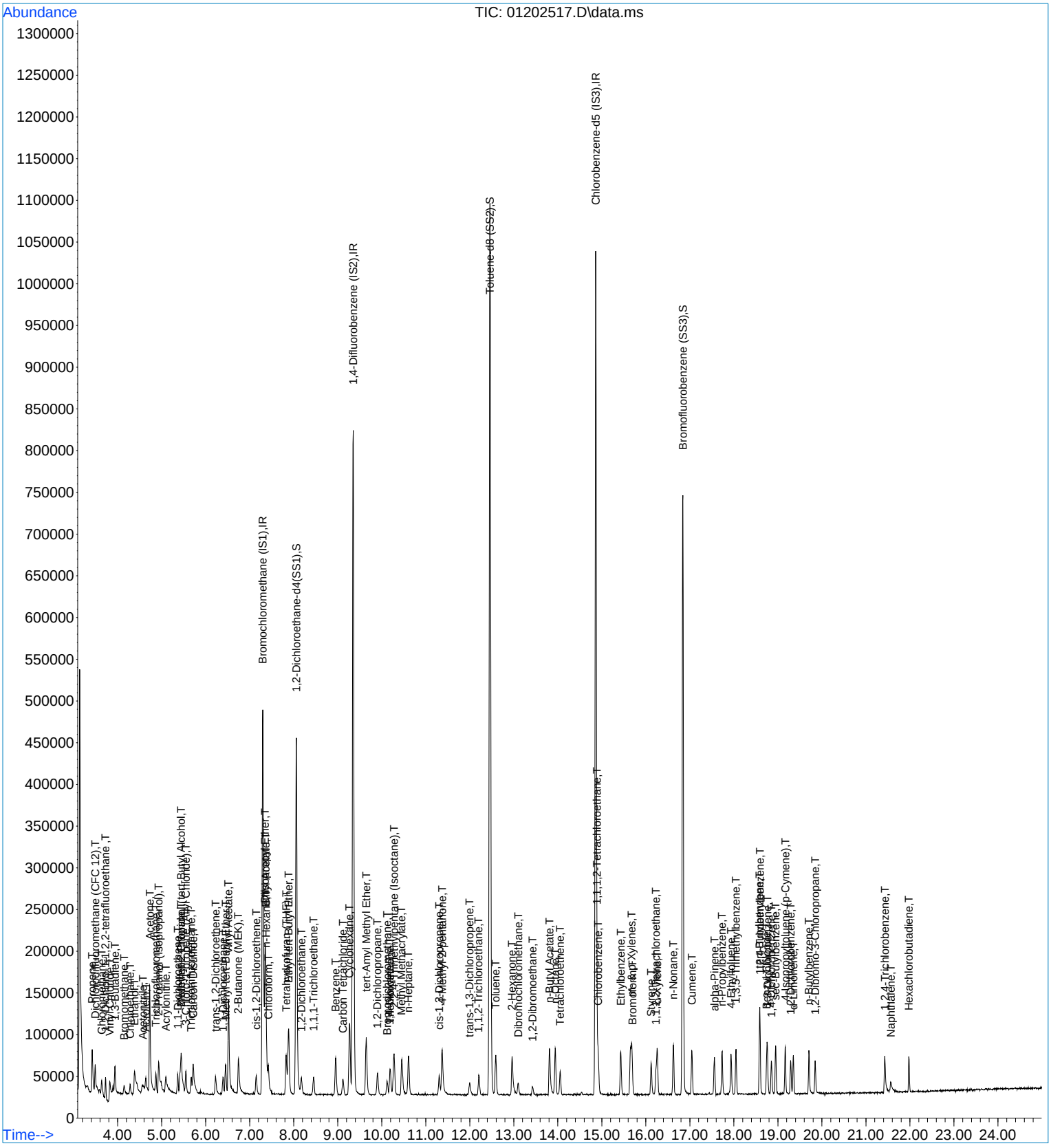
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.60	71	10934	0.595 ng		99
52) cis-1,3-Dichloropropene	11.30	75	17144	0.537 ng		99
53) 4-Methyl-2-pentanone	11.37	58	21289	1.246 ng		94
54) trans-1,3-Dichloropropene	11.99	75	11552	0.452 ng		99
55) 1,1,2-Trichloroethane	12.20	97	9232	0.572 ng		100
58) Toluene	12.59	91	41366	0.522 ng		98
59) 2-Hexanone	12.96	43	57492	1.074 ng		97
60) Dibromochloromethane	13.10	129	8906	0.414 ng		98
61) 1,2-Dibromoethane	13.43	107	9806	0.463 ng		96
62) n-Butyl Acetate	13.81	43	66584	1.142 ng		98
63) n-Octane	13.95	57	11363	0.555 ng		97
64) Tetrachloroethene	14.05	166	8989	0.432 ng		99
65) Chlorobenzene	14.92	112	24431	0.484 ng		99
66) Ethylbenzene	15.43	91	45408	0.497 ng		97
67) m- & p-Xylenes	15.68	91	71193	0.972 ng		99
68) Bromoform	15.70	173	6413	0.378 ng		97
69) Styrene	16.12	104	21381	0.427 ng		99
70) o-Xylene	16.26	91	35403	0.483 ng		100
71) n-Nonane	16.63	43	31881	0.582 ng		98
72) 1,1,2,2-Tetrachloroethane	16.23	83	17962	0.500 ng		98
74) Cumene	17.05	105	39239	0.455 ng		100
75) alpha-Pinene	17.56	93	18606	0.479 ng		95
76) n-Propylbenzene	17.73	91	51082	0.477 ng		97
77) 3-Ethyltoluene	17.05	105	39239	No Calib		
78) 4-Ethyltoluene	17.93	105	34841	0.423 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	32817	0.454 ng		99
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	39239	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	32565	0.457 ng		100
83) n-Decane	17.05	58	483	No Calib	#	
84) Benzyl Chloride	18.74	91	31718	0.622 ng		95
85) 1,3-Dichlorobenzene	18.77	146	16620	0.443 ng		99
86) 1,4-Dichlorobenzene	18.86	146	16809	0.428 ng		98
87) sec-Butylbenzene	18.95	105	43603	0.460 ng		96
88) 4-Isopropyltoluene (p-...	19.17	119	34254	0.436 ng		97
89) 1,2,3-Trimethylbenzene	17.05	105	39239	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	16246	0.427 ng		99
91) d-Limonene	19.35	68	12941	0.448 ng		100
92) 1,2-Dibromo-3-Chloropr...	19.85	157	8889	0.676 ng	#	69
93) n-Undecane	18.05	58	1315	No Calib		
94) 1,2,4-Trichlorobenzene	21.43	180	17977	0.681 ng		100
95) Naphthalene	21.57	128	22685	0.335 ng		93
96) n-Dodecane	18.95	58	474	No Calib	#	
97) Hexachlorobutadiene	21.98	225	7277	0.362 ng		100
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.58	119	29039	0.445 ng		98
100) n-Butylbenzene	19.70	91	33206	0.434 ng		98
101) 1,1,1,2-Tetrachloroethane	14.89	131	7701	0.431 ng		99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202517.D
Sample : 0.5ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:23 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

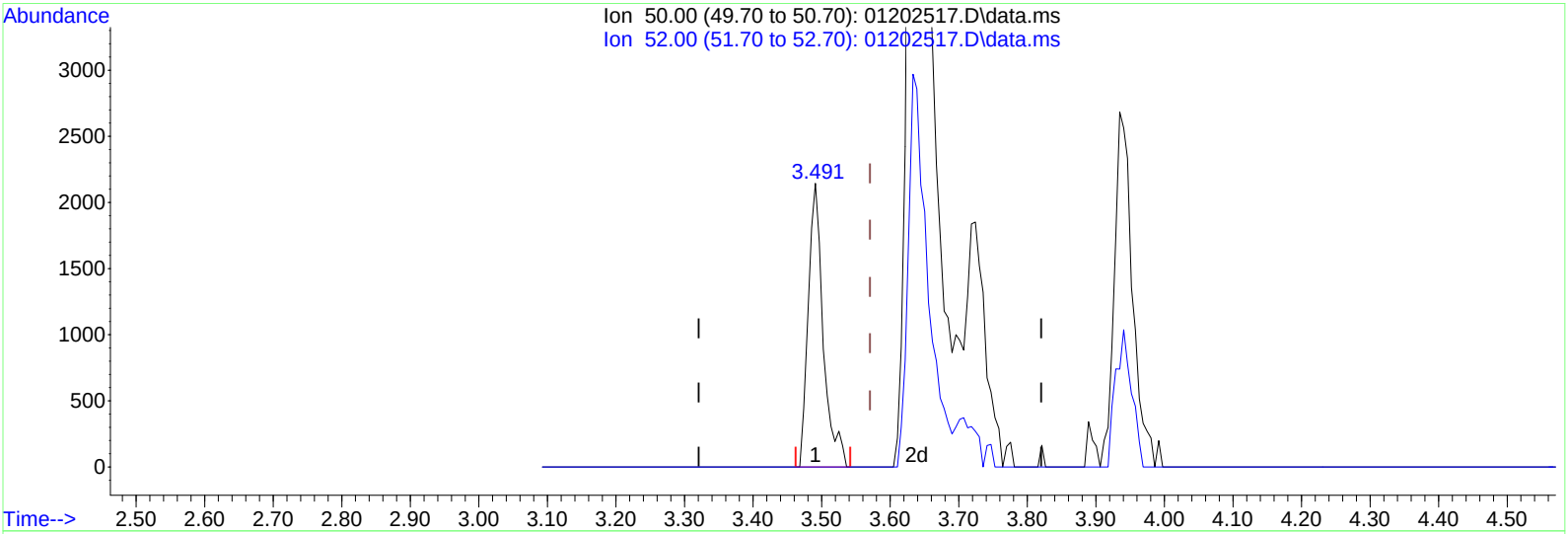
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:14:04 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

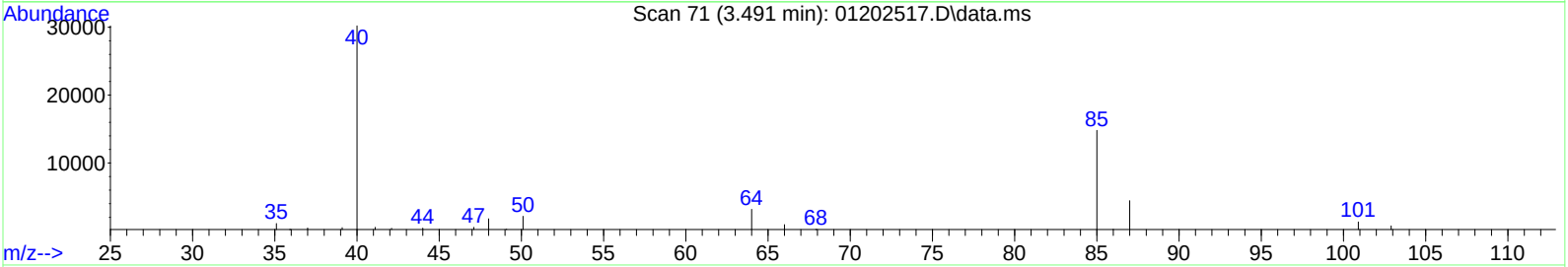


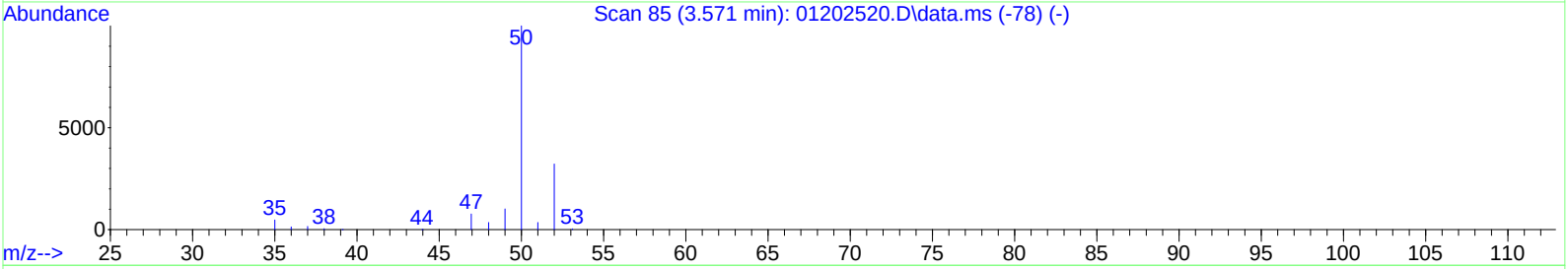
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202517.D
Acq On : 20 Jan 2025 20:23
Operator : LS
Sample : 0.5ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 08:03:49 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202517.D\data.ms

(4) Chloromethane (T)

3.491min (-0.080) 0.12ng

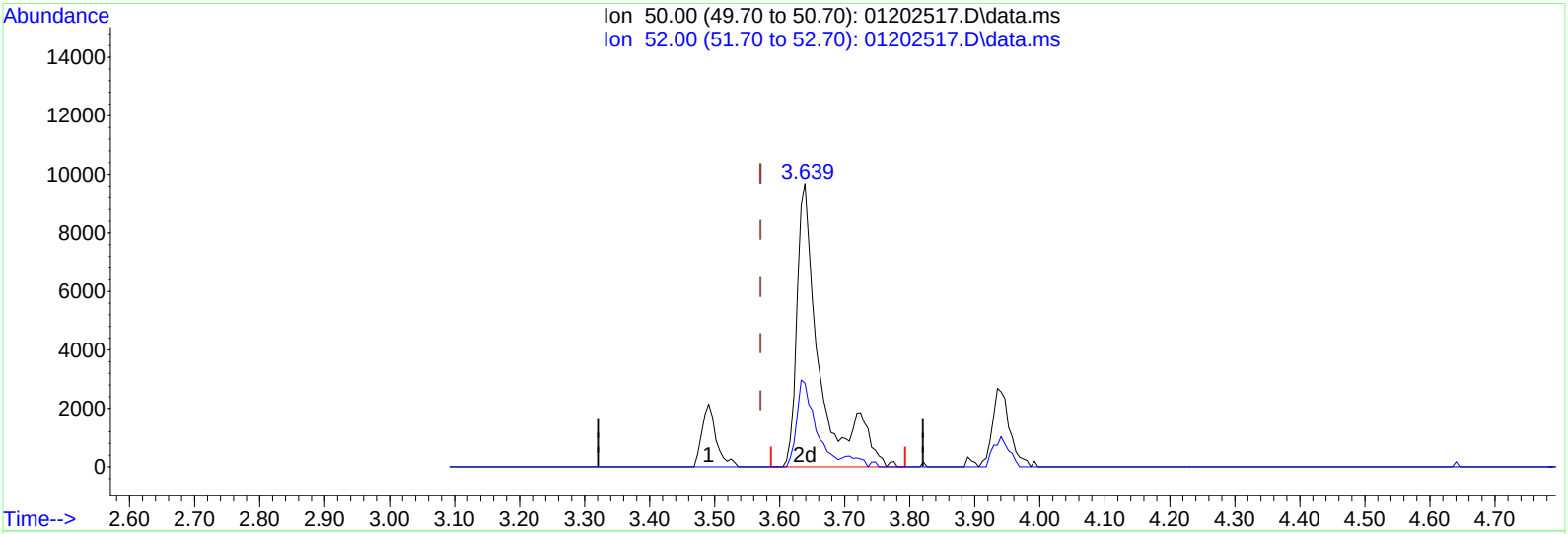
response 3265

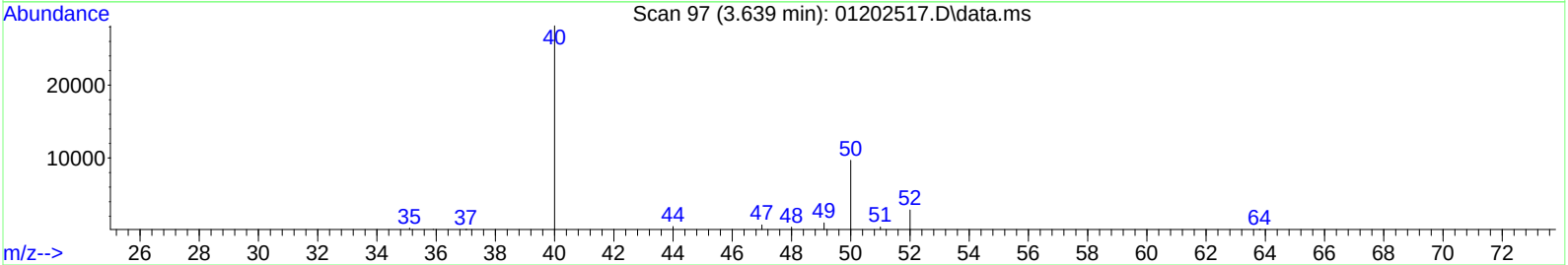
Ion	Exp%	Act%
50.00	100	100
52.00	32.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

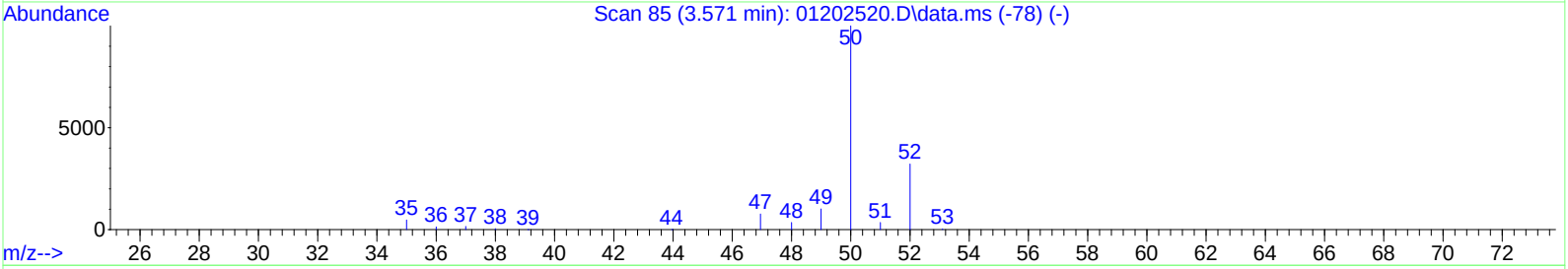
Quantitation Report (Qedit)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202517.D
Acq On : 20 Jan 2025 20:23
Operator : LS
Sample : 0.5ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 21 08:03:49 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration







TIC: 01202517.D\data.ms

(4) Chloromethane (T)

3.639min (+0.068) 0.86ng m

response 23589

Ion	Exp%	Act%
50.00	100	100
52.00	32.40	28.76
0.00	0.00	0.00
0.00	0.00	0.00

MP

1/21/25

1/21/25

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202518.D
Sample : 1.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:58 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:50 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	145723	12.500	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	9.35	114	677512	12.500	ng		-0.02
56) Chlorobenzene-d5 (IS3)	14.86	54	185639	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	337219	13.975	ng		-0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 111.84%				
57) Toluene-d8 (SS2)	12.46	98	833885	11.075	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 88.56%				
73) Bromofluorobenzene (SS3)	16.84	174	202535	9.692	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 77.52%				
Target Compounds							Qvalue
2) Propene	3.41	42	38845	1.426	ng		99
3) Dichlorodifluoromethan...	3.47	85	38262	1.107	ng		99
4) Chloromethane	3.62	50	33815	1.316	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	3.71	135	13597	1.112	ng		99
6) Vinyl Chloride	3.80	62	30152	1.329	ng		100
7) 1,3-Butadiene	3.92	54	29061	1.602	ng		97
8) Bromomethane	4.13	94	15968	1.226	ng		98
9) Chloroethane	4.27	64	16935	1.364	ng		98
10) Ethanol	4.37	45	118582	6.863	ng		99
11) Acetonitrile	4.54	41	56478	1.352	ng		80
12) Acrolein	4.63	56	38361	2.721	ng		100
13) Acetone	4.71	58	88888	6.692	ng		98
14) Trichlorofluoromethane	4.86	101	30915	1.050	ng		99
15) 2-Propanol (Isopropanol)	4.92	45	160853	2.794	ng		89
16) Acrylonitrile	5.08	53	69136	2.644	ng		98
17) 1,1-Dichloroethene	5.36	96	13993	0.956	ng		90
18) 2-Methyl-2-Propanol (t...	5.39	59	123240	3.053	ng		98
19) Methylene Chloride	5.44	84	17493	1.001	ng		98
20) 3-Chloro-1-propene (Al...	5.54	41	43274	1.367	ng		100
21) Trichlorotrifluoroethane	5.66	151	10728	0.863	ng		95
22) Carbon Disulfide	5.70	76	156274	2.235	ng		100
23) trans-1,2-Dichloroethene	6.22	61	33327	1.206	ng		99
24) 1,1-Dichloroethane	6.39	63	40503	1.198	ng		99
25) Methyl tert-Butyl Ether	6.44	73	58231	1.474	ng		99
26) Vinyl Acetate	6.51	86	19583	6.228	ng	#	81
27) 2-Butanone (MEK)	6.73	72	26066	2.504	ng		99
28) cis-1,2-Dichloroethene	7.14	61	33073	1.212	ng		100
29) Diisopropyl Ether	7.34	87	29132	2.340	ng	#	85
30) Ethyl Acetate	7.35	61	17878	2.616	ng		95
31) n-Hexane	7.37	57	43164	1.369	ng		98
32) Chloroform	7.42	83	33950	1.128	ng		99
34) Tetrahydrofuran (THF)	7.82	72	23570	2.162	ng	#	85
35) Ethyl tert-Butyl Ether	7.88	87	42892	2.457	ng		97
36) 1,2-Dichloroethane	8.17	62	31364	1.139	ng		99
38) 1,1,1-Trichloroethane	8.45	97	28284	1.050	ng		99
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.95	78	81829	1.134	ng		100
42) Carbon Tetrachloride	9.12	117	23868	0.998	ng		98
43) Cyclohexane	9.27	84	56421	2.315	ng		98
44) tert-Amyl Methyl Ether	9.64	73	117041	2.552	ng		99
45) 1,2-Dichloropropane	9.90	63	24851	1.245	ng		99
46) Bromodichloromethane	10.12	83	26628	1.111	ng		98
47) Trichloroethene	10.19	130	16897	1.005	ng		98
48) 1,4-Dioxane	10.17	88	15651	1.206	ng		94
49) 2,2,4-Trimethylpentane...	10.27	57	109041	1.281	ng		100
50) Methyl Methacrylate	10.45	100	12487	2.191	ng		93

Data File: I:\MS13\DATA\2025 01\20\01202518.D
Sample : 1.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:58 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:50 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

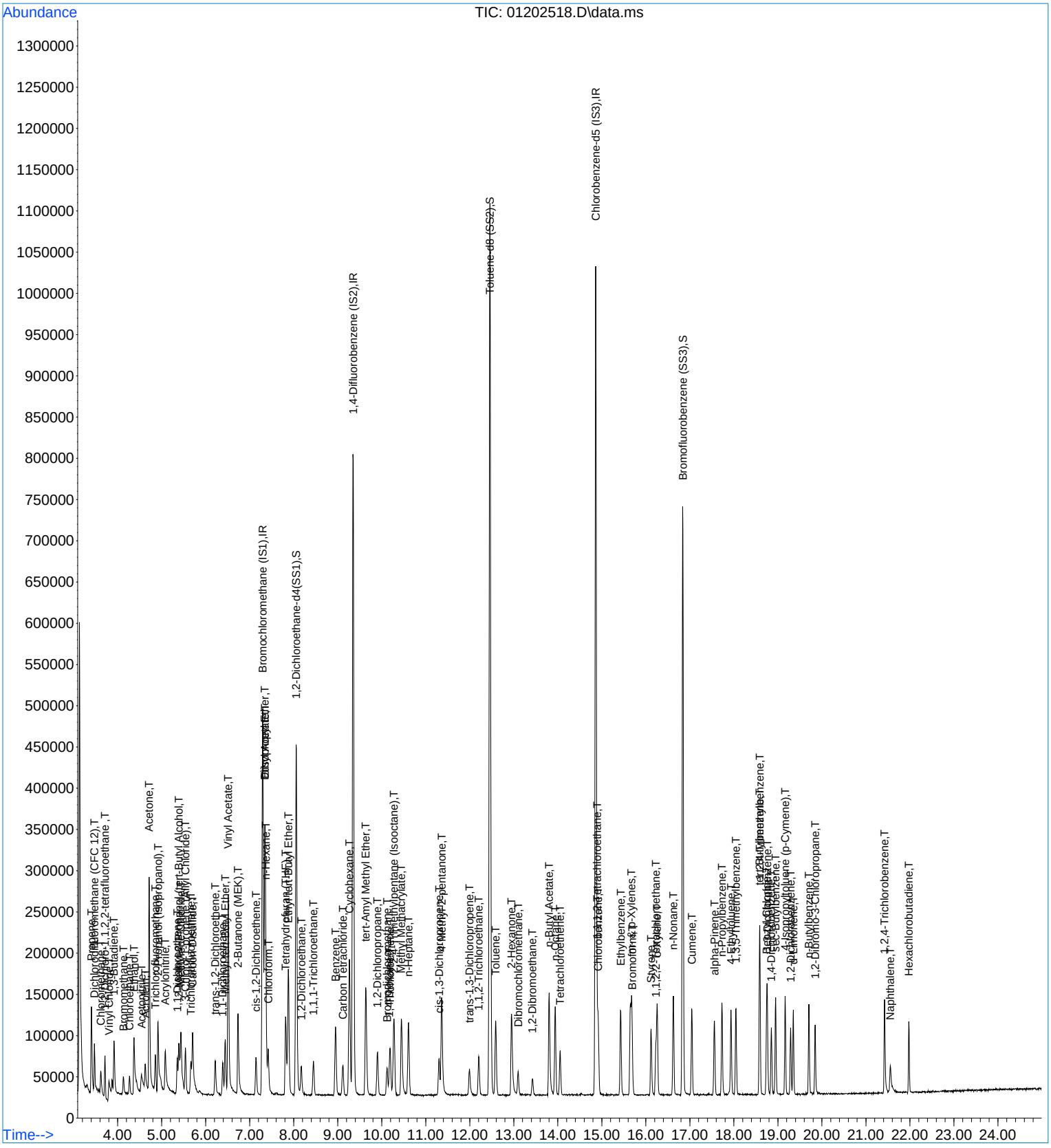
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.61	71	20453	1.148 ng		95
52) cis-1,3-Dichloropropene	11.30	75	33795	1.091 ng		99
53) 4-Methyl-2-pentanone	11.36	58	43025	2.597 ng		95
54) trans-1,3-Dichloropropene	11.99	75	24133	0.973 ng		95
55) 1,1,2-Trichloroethane	12.20	97	17980	1.148 ng		99
58) Toluene	12.59	91	77517	0.988 ng		99
59) 2-Hexanone	12.95	43	118854	2.244 ng		97
60) Dibromochloromethane	13.10	129	17490	0.821 ng		99
61) 1,2-Dibromoethane	13.42	107	18442	0.881 ng		98
62) n-Butyl Acetate	13.80	43	137229	2.380 ng		99
63) n-Octane	13.94	57	22474	1.109 ng		95
64) Tetrachloroethene	14.05	166	16546	0.804 ng		98
65) Chlorobenzene	14.92	112	45829	0.919 ng		100
66) Ethylbenzene	15.43	91	87050	0.962 ng		100
67) m- & p-Xylenes	15.67	91	138364	1.910 ng		98
68) Bromoform	15.69	173	12973	0.773 ng		97
69) Styrene	16.12	104	42839	0.865 ng		98
70) o-Xylene	16.26	91	69595	0.960 ng		99
71) n-Nonane	16.63	43	63160	1.166 ng		98
72) 1,1,2,2-Tetrachloroethane	16.23	83	35262	0.993 ng		99
74) Cumene	17.05	105	76080	0.892 ng		99
75) alpha-Pinene	17.56	93	39399	1.025 ng		99
76) n-Propylbenzene	17.73	91	100081	0.945 ng		99
77) 3-Ethyltoluene	17.05	105	76080	No Calib		
78) 4-Ethyltoluene	17.93	105	69973	0.859 ng		100
79) 1,3,5-Trimethylbenzene	18.05	105	65796	0.920 ng		100
80) alpha-Methylstyrene	0.00	118	0	N.D.		
81) 2-Ethyltoluene	17.05	105	76080	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	63777	0.906 ng		99
83) n-Decane	17.04	58	1062	No Calib	#	
84) Benzyl Chloride	18.74	91	70060	1.389 ng		98
85) 1,3-Dichlorobenzene	18.76	146	32138	0.866 ng		99
86) 1,4-Dichlorobenzene	18.85	146	32425	0.834 ng		97
87) sec-Butylbenzene	18.95	105	84006	0.897 ng		99
88) 4-Isopropyltoluene (p-...	19.16	119	66297	0.854 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	76080	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	30827	0.819 ng		100
91) d-Limonene	19.35	68	26317	0.921 ng		97
92) 1,2-Dibromo-3-Chloropr...	19.85	157	19019	1.462 ng	#	81
93) n-Undecane	18.04	58	2341	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	36336	1.392 ng		96
95) Naphthalene	21.55	128	46611	0.697 ng		97
96) n-Dodecane	18.95	58	945	No Calib	#	
97) Hexachlorobutadiene	21.98	225	13495	0.679 ng		99
98) Cyclohexanone	0.00	55	0	N.D.		
99) tert-Butylbenzene	18.58	119	57596	0.892 ng		100
100) n-Butylbenzene	19.70	91	67167	0.888 ng		97
101) 1,1,1,2-Tetrachloroethane	14.90	131	14933	0.845 ng		97

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202518.D
Sample : 1.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 20:58 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:50 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202519.D
Sample : 5.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 21:34 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:51 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.31	130	146244	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	9.36	114	672751	12.500	ng		-0.01
56) Chlorobenzene-d5 (IS3)	14.86	54	186131	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.07	65	335493	13.854	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 110.80%				
57) Toluene-d8 (SS2)	12.46	98	851567	11.279	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 90.24%				
73) Bromofluorobenzene (SS3)	16.84	174	209131	9.981	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 79.84%				
Target Compounds							Qvalue
2) Propene	3.38	42	194998	7.132	ng		99
3) Dichlorodifluoromethan...	3.45	85	187638	5.408	ng		100
4) Chloromethane	3.59	50	173308	6.719	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	67829	5.528	ng		99
6) Vinyl Chloride	3.78	62	133943	5.881	ng		99
7) 1,3-Butadiene	3.89	54	152986	8.404	ng		99
8) Bromomethane	4.11	94	76264	5.834	ng		99
9) Chloroethane	4.25	64	86443	6.938	ng		99
10) Ethanol	4.38	45	589393	33.990	ng		100
11) Acetonitrile	4.53	41	294024	7.011	ng		100
12) Acrolein	4.62	56	192302	13.590	ng		99
13) Acetone	4.71	58	442219	33.172	ng		100
14) Trichlorofluoromethane	4.85	101	153967	5.209	ng		100
15) 2-Propanol (Isopropanol)	4.93	45	803207	13.903	ng		97
16) Acrylonitrile	5.08	53	352618	13.436	ng		99
17) 1,1-Dichloroethene	5.35	96	71605	4.877	ng		96
18) 2-Methyl-2-Propanol (t...	5.40	59	538496	13.292	ng		99
19) Methylene Chloride	5.44	84	88389	5.040	ng		99
20) 3-Chloro-1-propene (Al...	5.53	41	232006	7.302	ng		100
21) Trichlorotrifluoroethane	5.66	151	53702	4.303	ng		100
22) Carbon Disulfide	5.69	76	772233	11.003	ng		100
23) trans-1,2-Dichloroethene	6.22	61	174740	6.302	ng		99
24) 1,1-Dichloroethane	6.40	63	204941	6.039	ng		99
25) Methyl tert-Butyl Ether	6.43	73	265683	6.699	ng		100
26) Vinyl Acetate	6.52	86	104023	32.967	ng	#	88
27) 2-Butanone (MEK)	6.73	72	137837	13.192	ng		96
28) cis-1,2-Dichloroethene	7.15	61	161811	5.909	ng		99
29) Diisopropyl Ether	7.34	87	143256	11.465	ng	#	82
30) Ethyl Acetate	7.35	61	91085	13.282	ng		94
31) n-Hexane	7.37	57	210708	6.660	ng		99
32) Chloroform	7.43	83	170671	5.653	ng		100
34) Tetrahydrofuran (THF)	7.81	72	120771	11.040	ng	#	89
35) Ethyl tert-Butyl Ether	7.88	87	214562	12.250	ng		96
36) 1,2-Dichloroethane	8.18	62	154886	5.604	ng		100
38) 1,1,1-Trichloroethane	8.45	97	141964	5.309	ng		99
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	8.96	78	408299	5.698	ng		99
42) Carbon Tetrachloride	9.12	117	120479	5.072	ng		99
43) Cyclohexane	9.27	84	281180	11.618	ng		98
44) tert-Amyl Methyl Ether	9.64	73	593831	13.040	ng		99
45) 1,2-Dichloropropane	9.91	63	123548	6.233	ng		100
46) Bromodichloromethane	10.13	83	135472	5.691	ng		100
47) Trichloroethene	10.20	130	86816	5.202	ng		99
48) 1,4-Dioxane	10.16	88	80543	6.251	ng		99
49) 2,2,4-Trimethylpentane...	10.28	57	535430	6.336	ng		100
50) Methyl Methacrylate	10.45	100	67760	11.973	ng		97

Data File: I:\MS13\DATA\2025 01\20\01202519.D
Sample : 5.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 21:34 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:51 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

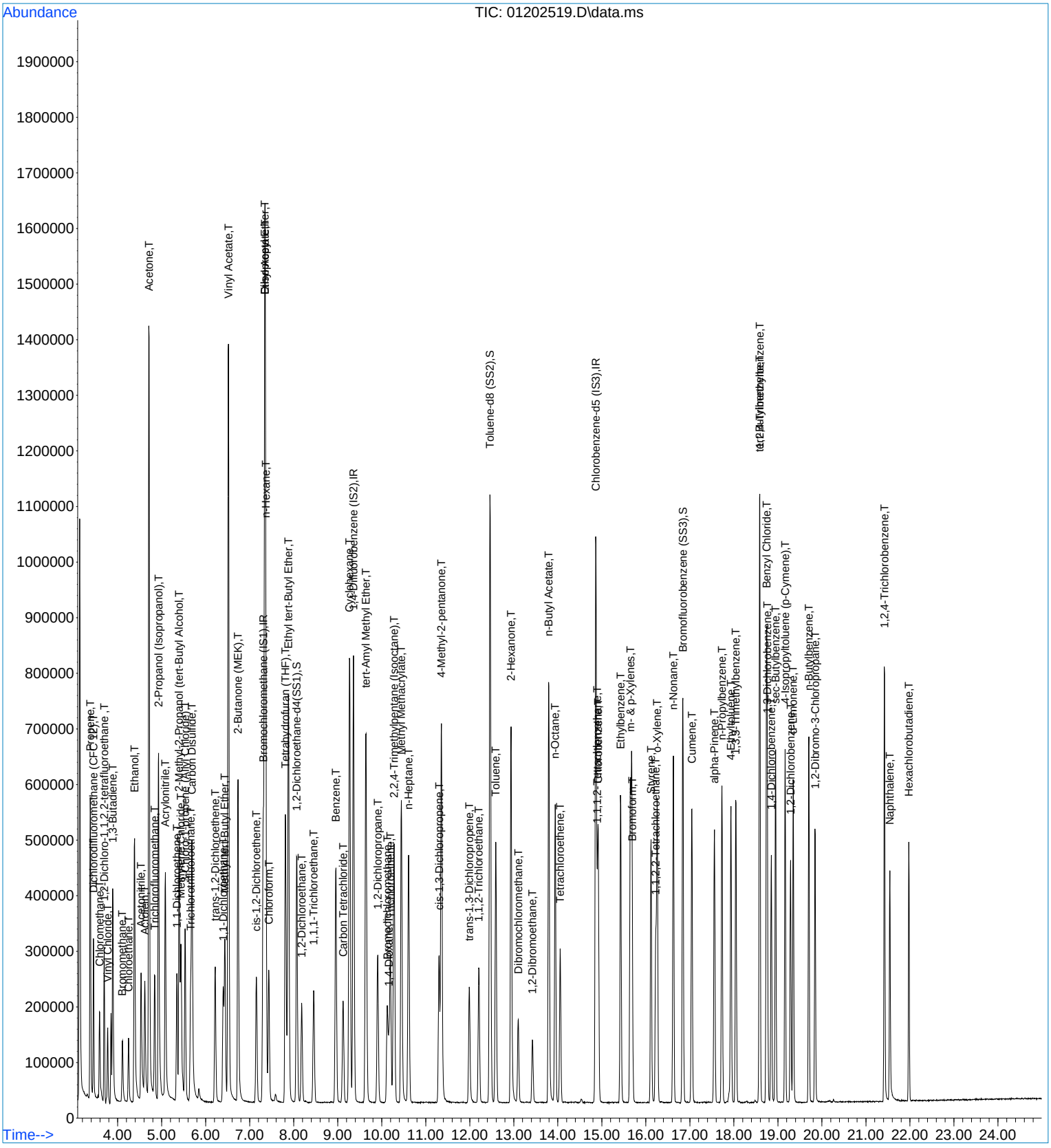
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.61	71	105855	5.985 ng		100
52) cis-1,3-Dichloropropene	11.30	75	186094	6.048 ng		99
53) 4-Methyl-2-pentanone	11.36	58	230347	14.001 ng		99
54) trans-1,3-Dichloropropene	11.99	75	139907	5.681 ng		99
55) 1,1,2-Trichloroethane	12.20	97	93217	5.994 ng		100
58) Toluene	12.59	91	391410	4.978 ng		100
59) 2-Hexanone	12.94	43	665566	12.532 ng		99
60) Dibromochloromethane	13.10	129	93663	4.385 ng		99
61) 1,2-Dibromoethane	13.42	107	98698	4.700 ng		100
62) n-Butyl Acetate	13.79	43	769150	13.302 ng		100
63) n-Octane	13.94	57	110280	5.430 ng		100
64) Tetrachloroethene	14.05	166	86693	4.200 ng		100
65) Chlorobenzene	14.92	112	236497	4.729 ng		99
66) Ethylbenzene	15.42	91	449908	4.961 ng		100
67) m- & p-Xylenes	15.65	91	706962	9.734 ng		100
68) Bromoform	15.69	173	72986	4.335 ng		99
69) Styrene	16.12	104	242078	4.877 ng		100
70) o-Xylene	16.26	91	351206	4.832 ng		100
71) n-Nonane	16.63	43	322186	5.934 ng		99
72) 1,1,2,2-Tetrachloroethane	16.22	83	181542	5.099 ng		99
74) Cumene	17.05	105	392068	4.583 ng		99
75) alpha-Pinene	17.56	93	209261	5.429 ng		99
76) n-Propylbenzene	17.73	91	516412	4.863 ng		100
77) 3-Ethyltoluene	17.05	105	392068	No Calib		
78) 4-Ethyltoluene	17.93	105	372900	4.566 ng		99
79) 1,3,5-Trimethylbenzene	18.04	105	334780	4.669 ng		99
80) alpha-Methylstyrene	17.04	118	767	No Calib	#	
81) 2-Ethyltoluene	17.05	105	392068	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	336988	4.772 ng		100
83) n-Decane	17.05	58	5691	No Calib		
84) Benzyl Chloride	18.74	91	505448	9.997 ng		99
85) 1,3-Dichlorobenzene	18.76	146	171263	4.602 ng		99
86) 1,4-Dichlorobenzene	18.85	146	171697	4.407 ng		100
87) sec-Butylbenzene	18.95	105	445449	4.743 ng		100
88) 4-Isopropyltoluene (p-...	19.16	119	353676	4.544 ng		99
89) 1,2,3-Trimethylbenzene	17.05	105	392068	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	165494	4.387 ng		99
91) d-Limonene	19.35	68	153428	5.353 ng		99
92) 1,2-Dibromo-3-Chloropr...	19.85	157	113786	8.725 ng		95
93) n-Undecane	18.04	58	11386	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	214312	8.191 ng		99
95) Naphthalene	21.54	128	308600	4.599 ng		99
96) n-Dodecane	18.94	58	4355	No Calib	#	
97) Hexachlorobutadiene	21.98	225	74032	3.717 ng		99
98) Cyclohexanone	15.48	55	911	No Calib	#	
99) tert-Butylbenzene	18.58	119	296382	4.578 ng		99
100) n-Butylbenzene	19.70	91	370721	4.886 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	78461	4.428 ng		98

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202519.D
Sample : 5.0ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 21:34 Operator: LS
Misc : S37-11222401/S37-01202504 (2/19)
ALS Vial : 7 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:51 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202520.D
Acq On : 20 Jan 2025 22:10
Operator : LS
Sample : 25ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

CG 1/21/25

Quant Time: Jan 21 08:00:28 2025
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	150976	12.500	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	9.37	114	681226	12.500	ng		-0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	188360	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.08	65	337316	13.493	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 107.92%				
57) Toluene-d8 (SS2)	12.47	98	848285	11.103	ng		-0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 88.80%				
73) Bromofluorobenzene (SS3)	16.84	174	213857	10.086	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 80.72%				
Target Compounds							Qvalue
2) Propene	3.35	42	925329	32.784	ng		99
3) Dichlorodifluoromethan...	3.43	85	939893	26.238	ng		100
4) Chloromethane	3.57	50	1020132	38.307	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.68	135	342235	27.020	ng		100
6) Vinyl Chloride	3.76	62	660699	28.098	ng		100
7) 1,3-Butadiene	3.88	54	790588	42.070	ng		96
8) Bromomethane	4.10	94	387988	28.748	ng		99
9) Chloroethane	4.24	64	418682	32.551	ng		99
10) Ethanol	4.41	45	2754560	153.875	ng		99
11) Acetonitrile	4.54	41	1520223	35.114	ng		99
12) Acrolein	4.62	56	937304	64.162	ng		99
13) Acetone	4.72	58	2067944	150.262	ng		98
14) Trichlorofluoromethane	4.83	101	761751	24.962	ng		99
15) 2-Propanol (Isopropanol)	4.95	45	3741382	62.732	ng		98
16) Acrylonitrile	5.10	53	1745989	64.444	ng		99
17) 1,1-Dichloroethene	5.33	96	362412	23.911	ng		90
18) 2-Methyl-2-Propanol (t...	5.42	59	2674632	63.951	ng		99
19) Methylene Chloride	5.45	84	435393	24.046	ng		86
20) 3-Chloro-1-propene (Al...	5.53	41	1202874	36.672	ng		93
21) Trichlorotrifluoroethane	5.65	151	272348	21.140	ng		88
22) Carbon Disulfide	5.69	76	3814681	52.650	ng		100
23) trans-1,2-Dichloroethene	6.23	61	877768	30.665	ng		95
24) 1,1-Dichloroethane	6.41	63	1019439	29.096	ng		100
25) Methyl tert-Butyl Ether	6.44	73	1369262	33.445	ng		96
26) Vinyl Acetate	6.53	86	515406	158.221	ng	#	65
27) 2-Butanone (MEK)	6.75	72	689977	63.966	ng	#	81
28) cis-1,2-Dichloroethene	7.17	61	827489	29.269	ng		95
29) Diisopropyl Ether	7.35	87	720261	55.839	ng	#	72
30) Ethyl Acetate	7.36	61	425526	60.104	ng		95
31) n-Hexane	7.37	57	992651	30.394	ng		98
32) Chloroform	7.45	83	863821	27.714	ng		99
34) Tetrahydrofuran (THF)	7.82	72	613498	54.323	ng	#	84
35) Ethyl tert-Butyl Ether	7.89	87	1097546	60.696	ng	#	90
36) 1,2-Dichloroethane	8.20	62	780327	27.350	ng		100
38) 1,1,1-Trichloroethane	8.47	97	728378	26.900	ng		98
39) Isopropyl Acetate	9.65	61	1536	No Calib		#	
40) 1-Butanol	8.92	56	1335	No Calib		#	
41) Benzene	8.97	78	2057171	28.353	ng		100
42) Carbon Tetrachloride	9.13	117	629608	26.175	ng		99
43) Cyclohexane	9.28	84	1408395	57.469	ng		91
44) tert-Amyl Methyl Ether	9.65	73	3001920	65.102	ng		96
45) 1,2-Dichloropropane	9.92	63	619635	30.874	ng		100
46) Bromodichloromethane	10.13	83	700046	29.043	ng		98
47) Trichloroethene	10.21	130	431951	25.561	ng		100
48) 1,4-Dioxane	10.17	88	378869	29.038	ng		93

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202520.D
Acq On : 20 Jan 2025 22:10
Operator : LS
Sample : 25ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 08:00:28 2025
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration

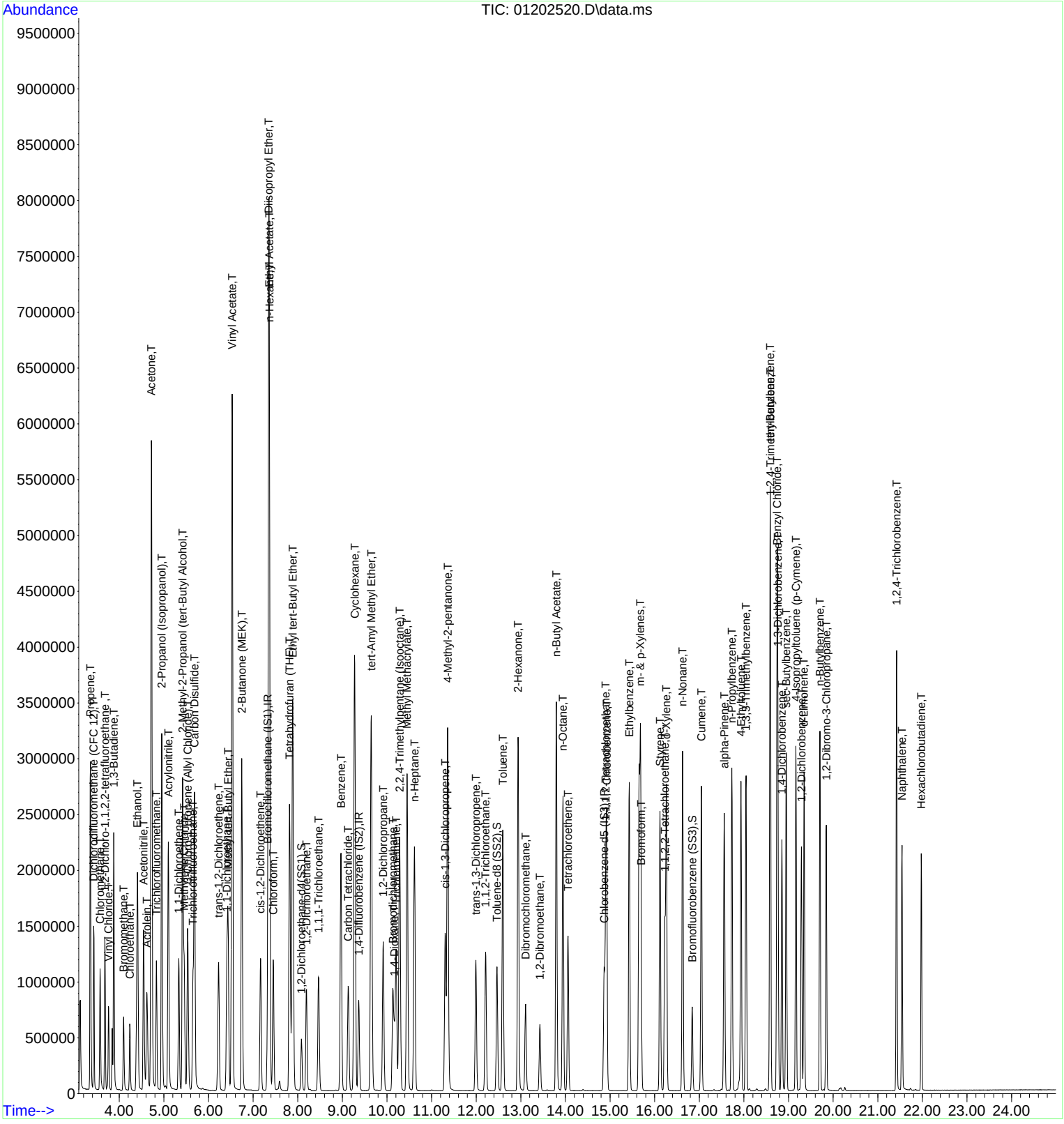
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
49) 2,2,4-Trimethylpentane...	10.29	57	2650585	30.975 ng		100
50) Methyl Methacrylate	10.45	100	345653	60.316 ng	#	85
51) n-Heptane	10.62	71	523365	29.223 ng		94
52) cis-1,3-Dichloropropene	11.30	75	957662	30.735 ng		99
53) 4-Methyl-2-pentanone	11.36	58	1080001	64.827 ng		91
54) trans-1,3-Dichloropropene	11.99	75	748392	30.011 ng		100
55) 1,1,2-Trichloroethane	12.21	97	463637	29.442 ng		97
58) Toluene	12.60	91	1949464	24.500 ng		100
59) 2-Hexanone	12.94	43	3016739	56.132 ng		97
60) Dibromochloromethane	13.11	129	486774	22.520 ng		99
61) 1,2-Dibromoethane	13.43	107	499458	23.503 ng		100
62) n-Butyl Acetate	13.80	43	3450212	58.964 ng		97
63) n-Octane	13.95	57	546186	26.574 ng		92
64) Tetrachloroethene	14.06	166	436119	20.881 ng		99
65) Chlorobenzene	14.92	112	1174541	23.207 ng		100
66) Ethylbenzene	15.43	91	2267161	24.701 ng		98
67) m- & p-Xylenes	15.68	91	3559177	48.427 ng		100
68) Bromoform	15.70	173	390480	22.919 ng		99
69) Styrene	16.12	104	1273053	25.346 ng		99
70) o-Xylene	16.26	91	1764982	23.998 ng		99
71) n-Nonane	16.63	43	1574031	28.646 ng		93
72) 1,1,2,2-Tetrachloroethane	16.23	83	902788	25.055 ng		99
74) Cumene	17.05	105	1971630	22.774 ng		99
75) alpha-Pinene	17.56	93	1081615	27.729 ng		99
76) n-Propylbenzene	17.73	91	2577697	23.985 ng		98
77) 3-Ethyltoluene	17.05	105	1971630	No Calib		
78) 4-Ethyltoluene	17.93	105	1907983	23.085 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1684812	23.218 ng		99
80) alpha-Methylstyrene	17.04	118	3406	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1971630	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1690311	23.654 ng		99
83) n-Decane	17.05	58	24060	No Calib		
84) Benzyl Chloride	18.74	91	2844217	55.590 ng		98
85) 1,3-Dichlorobenzene	18.76	146	874158	23.212 ng		100
86) 1,4-Dichlorobenzene	18.85	146	861430	21.850 ng		100
87) sec-Butylbenzene	18.95	105	2146683	22.586 ng		99
88) 4-Isopropyltoluene (p-...	19.16	119	1710881	21.722 ng		100
89) 1,2,3-Trimethylbenzene	17.05	105	1971630	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	840084	22.006 ng		100
91) d-Limonene	19.35	68	761850	26.268 ng		94
92) 1,2-Dibromo-3-Chloropr...	19.85	157	556183	42.141 ng		83
93) n-Undecane	18.04	58	55119	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	1055188	39.850 ng		100
95) Naphthalene	21.54	128	1446466	21.302 ng		100
96) n-Dodecane	18.95	58	20470	No Calib	#	
97) Hexachlorobutadiene	21.98	225	340242	16.881 ng		99
98) Cyclohexanone	15.44	55	785	No Calib	#	
99) tert-Butylbenzene	18.59	119	1460973	22.301 ng		100
100) n-Butylbenzene	19.70	91	1770208	23.054 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	406316	22.662 ng		99

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

Quantitation Report (Not Reviewed)

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202520.D
Acq On : 20 Jan 2025 22:10
Operator : LS
Sample : 25ng R13012025 ICAL Std.
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 21 08:00:28 2025
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202521.D
Sample : 50ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 22:46 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:55 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.34	130	153188	12.500	ng		0.01
37) 1,4-Difluorobenzene (IS2)	9.38	114	696080	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.87	54	194261	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	338962	13.363	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 106.88%				
57) Toluene-d8 (SS2)	12.47	98	885812	11.242	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 89.92%				
73) Bromofluorobenzene (SS3)	16.84	174	239277	10.942	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 87.52%				
Target Compounds							Qvalue
2) Propene	3.36	42	1773815	61.937	ng		100
3) Dichlorodifluoromethan...	3.43	85	1835074	50.488	ng		100
4) Chloromethane	3.58	50	1842825	68.201	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	672520	52.330	ng		100
6) Vinyl Chloride	3.77	62	1241957	52.056	ng		100
7) 1,3-Butadiene	3.89	54	1504464	78.902	ng		98
8) Bromomethane	4.11	94	761832	55.633	ng		100
9) Chloroethane	4.25	64	813567	62.338	ng		100
10) Ethanol	4.43	45	5102989	280.946	ng		100
11) Acetonitrile	4.56	41	3006837	68.449	ng		100
12) Acrolein	4.63	56	1824755	123.108	ng		99
13) Acetone	4.74	58	3815114	273.213	ng		98
14) Trichlorofluoromethane	4.84	101	1494536	48.268	ng		100
15) 2-Propanol (Isopropanol)	4.97	45	6988071	115.477	ng		100
16) Acrylonitrile	5.12	53	3411049	124.082	ng		99
17) 1,1-Dichloroethene	5.35	96	724847	47.133	ng		98
18) 2-Methyl-2-Propanol (t...	5.44	59	4533693	106.836	ng		100
19) Methylene Chloride	5.47	84	871293	47.426	ng		96
20) 3-Chloro-1-propene (Al...	5.55	41	2385167	71.666	ng		98
21) Trichlorotrifluoroethane	5.66	151	558113	42.696	ng		98
22) Carbon Disulfide	5.69	76	7442280	101.235	ng		100
23) trans-1,2-Dichloroethene	6.24	61	1747271	60.160	ng		99
24) 1,1-Dichloroethane	6.42	63	1986975	55.893	ng		100
25) Methyl tert-Butyl Ether	6.45	73	2500117	60.185	ng		100
26) Vinyl Acetate	6.55	86	995657	301.237	ng	#	75
27) 2-Butanone (MEK)	6.76	72	1356647	123.955	ng		94
28) cis-1,2-Dichloroethene	7.18	61	1631661	56.879	ng		99
29) Diisopropyl Ether	7.36	87	1344461	102.725	ng	#	87
30) Ethyl Acetate	7.37	61	765223	106.525	ng		97
31) n-Hexane	7.37	57	1751027	52.840	ng		99
32) Chloroform	7.46	83	1697233	53.666	ng		100
34) Tetrahydrofuran (THF)	7.83	72	1194883	104.275	ng		98
35) Ethyl tert-Butyl Ether	7.90	87	2130063	116.094	ng		97
36) 1,2-Dichloroethane	8.20	62	1529068	52.819	ng		100
38) 1,1,1-Trichloroethane	8.48	97	1437530	51.957	ng		100
39) Isopropyl Acetate	9.65	61	2838	No Calib		#	
40) 1-Butanol	8.90	56	4334	No Calib		#	
41) Benzene	8.98	78	4031907	54.384	ng		100
42) Carbon Tetrachloride	9.14	117	1250444	50.875	ng		100
43) Cyclohexane	9.28	84	2723117	108.745	ng		99
44) tert-Amyl Methyl Ether	9.65	73	5874343	124.676	ng		99
45) 1,2-Dichloropropane	9.92	63	1223315	59.652	ng		99
46) Bromodichloromethane	10.14	83	1395687	56.668	ng		100
47) Trichloroethene	10.21	130	871914	50.496	ng		99
48) 1,4-Dioxane	10.18	88	760119	57.015	ng		100
49) 2,2,4-Trimethylpentane...	10.29	57	5150730	58.908	ng		100
50) Methyl Methacrylate	10.46	100	697178	119.061	ng		98

Data File: I:\MS13\DATA\2025 01\20\01202521.D
Sample : 50ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 22:46 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:55 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

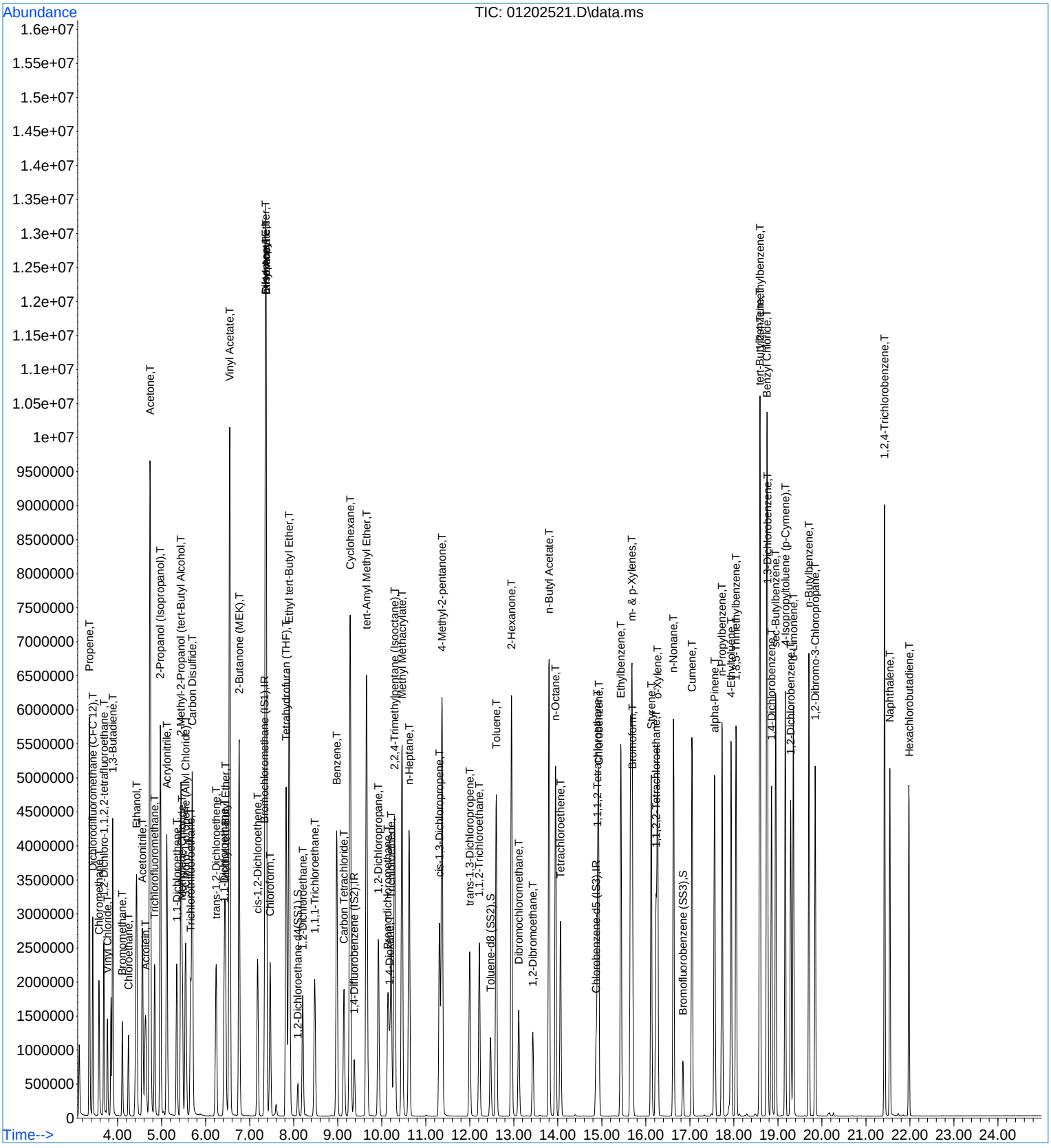
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) n-Heptane	10.62	71	1037388	56.688	ng		99
52) cis-1,3-Dichloropropene	11.31	75	1942642	61.015	ng		100
53) 4-Methyl-2-pentanone	11.37	58	2111830	124.057	ng		97
54) trans-1,3-Dichloropropene	12.00	75	1548866	60.785	ng		99
55) 1,1,2-Trichloroethane	12.22	97	959543	59.632	ng		100
58) Toluene	12.60	91	3958657	48.240	ng		100
59) 2-Hexanone	12.95	43	5840449	105.371	ng		99
60) Dibromochloromethane	13.11	129	1018451	45.686	ng		99
61) 1,2-Dibromoethane	13.43	107	1050491	47.931	ng		99
62) n-Butyl Acetate	13.80	43	6676961	110.642	ng		99
63) n-Octane	13.95	57	1083253	51.104	ng		97
64) Tetrachloroethene	14.06	166	934843	43.400	ng		100
65) Chlorobenzene	14.93	112	2409120	46.153	ng		100
66) Ethylbenzene	15.43	91	4576357	48.346	ng		99
67) m- & p-Xylenes	15.68	91	7196853	94.947	ng		99
68) Bromoform	15.70	173	834658	47.503	ng		100
69) Styrene	16.12	104	2650299	51.164	ng		100
70) o-Xylene	16.27	91	3628483	47.836	ng		99
71) n-Nonane	16.63	43	3041713	53.675	ng		97
72) 1,1,2,2-Tetrachloroethane	16.23	83	1866535	50.229	ng		100
74) Cumene	17.05	105	4099485	45.915	ng		99
75) alpha-Pinene	17.56	93	2275463	56.564	ng		99
76) n-Propylbenzene	17.73	91	5324808	48.042	ng		99
77) 3-Ethyltoluene	17.05	105	4099130	No Calib			
78) 4-Ethyltoluene	17.94	105	3960779	46.466	ng		100
79) 1,3,5-Trimethylbenzene	18.05	105	3477120	46.461	ng		99
80) alpha-Methylstyrene	17.05	118	6455	No Calib		#	
81) 2-Ethyltoluene	17.05	105	4099485	No Calib			
82) 1,2,4-Trimethylbenzene	18.59	105	3497209	47.453	ng		100
83) n-Decane	17.05	58	47765	No Calib			
84) Benzyl Chloride	18.75	91	6159248	116.724	ng		98
85) 1,3-Dichlorobenzene	18.77	146	1923593	49.527	ng		100
86) 1,4-Dichlorobenzene	18.86	146	1937248	47.645	ng		100
87) sec-Butylbenzene	18.95	105	4561011	46.530	ng		99
88) 4-Isopropyltoluene (p-...	19.17	119	3558322	43.805	ng		100
89) 1,2,3-Trimethylbenzene	17.05	105	4099485	No Calib			
90) 1,2-Dichlorobenzene	19.29	146	1820797	46.247	ng		100
91) d-Limonene	19.35	68	1574371	52.633	ng		98
92) 1,2-Dibromo-3-Chloropr...	19.85	157	1263991	92.861	ng		89
93) n-Undecane	18.05	58	110181	No Calib			
94) 1,2,4-Trichlorobenzene	21.42	180	2420476	88.634	ng		100
95) Naphthalene	21.54	128	3350932	47.851	ng		100
96) n-Dodecane	18.95	58	41158	No Calib		#	
97) Hexachlorobutadiene	21.98	225	832017	40.026	ng		100
98) Cyclohexanone	15.44	55	1673	No Calib			
99) tert-Butylbenzene	18.59	119	3009635	44.546	ng		99
100) n-Butylbenzene	19.70	91	3735270	47.169	ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	838562	45.349	ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202521.D
Sample : 50ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 22:46 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:55 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202522.D
Sample : 100ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 23:21 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.36	130	155831	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.39	114	744488	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	201687	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.11	65	347030	13.449	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 107.60%				
57) Toluene-d8 (SS2)	12.48	98	927664	11.340	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 90.72%				
73) Bromofluorobenzene (SS3)	16.85	174	269780	11.883	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 95.04%				
Target Compounds							Qvalue
2) Propene	3.37	42	3418046	117.326	ng		99
3) Dichlorodifluoromethan...	3.45	85	3570474	96.567	ng		100
4) Chloromethane	3.59	50	2803158	101.983	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.70	135	1385993	106.017	ng		100
6) Vinyl Chloride	3.78	62	2415067	99.509	ng		100
7) 1,3-Butadiene	3.91	54	2686654	138.512	ng		96
8) Bromomethane	4.12	94	1592552	114.325	ng		100
9) Chloroethane	4.26	64	1615381	121.675	ng		99
10) Ethanol	4.46	45	9092765	492.114	ng		100
11) Acetonitrile	4.59	41	5870358	131.368	ng		99
12) Acrolein	4.66	56	3620777	240.134	ng		99
13) Acetone	4.76	58	6904341	486.057	ng		88
14) Trichlorofluoromethane	4.86	101	3042598	96.597	ng		100
15) 2-Propanol (Isopropanol)	5.00	45	12242849	198.880	ng		100
16) Acrylonitrile	5.14	53	6511974	232.865	ng		99
17) 1,1-Dichloroethene	5.36	96	1512872	96.705	ng		92
18) 2-Methyl-2-Propanol (t...	5.46	59	6230527	144.332	ng		100
19) Methylene Chloride	5.49	84	1738672	93.034	ng		91
20) 3-Chloro-1-propene (Al...	5.56	41	4687095	138.442	ng		96
21) Trichlorotrifluoroethane	5.67	151	1157931	87.080	ng		95
22) Carbon Disulfide	5.71	76	13886537	185.691	ng		99
23) trans-1,2-Dichloroethene	6.25	61	3500464	118.480	ng		97
24) 1,1-Dichloroethane	6.44	63	3893524	107.665	ng		100
25) Methyl tert-Butyl Ether	6.46	73	3975865	94.087	ng		100
26) Vinyl Acetate	6.57	86	1863489	554.237	ng	#	15
27) 2-Butanone (MEK)	6.78	72	2664355	239.309	ng	#	79
28) cis-1,2-Dichloroethene	7.20	61	3242738	111.123	ng		96
29) Diisopropyl Ether	7.37	87	2400739	180.320	ng	#	69
30) Ethyl Acetate	7.39	61	1304399	178.502	ng		93
31) n-Hexane	7.38	57	2856666	84.743	ng		98
32) Chloroform	7.49	83	3411667	106.046	ng		100
34) Tetrahydrofuran (THF)	7.84	72	2378077	204.010	ng	#	91
35) Ethyl tert-Butyl Ether	7.91	87	4180452	223.982	ng	#	89
36) 1,2-Dichloroethane	8.22	62	3040990	103.263	ng		100
38) 1,1,1-Trichloroethane	8.49	97	2921840	98.738	ng		99
39) Isopropyl Acetate	9.67	61	5402	No Calib		#	
40) 1-Butanol	8.90	56	9195	No Calib		#	
41) Benzene	8.99	78	8015332	101.083	ng		100
42) Carbon Tetrachloride	9.15	117	2548891	96.961	ng		99
43) Cyclohexane	9.30	84	5236977	195.536	ng		95
44) tert-Amyl Methyl Ether	9.67	73	11201994	222.291	ng		98
45) 1,2-Dichloropropane	9.93	63	2434207	110.981	ng		100
46) Bromodichloromethane	10.15	83	2822596	107.152	ng		100
47) Trichloroethene	10.23	130	1823440	98.736	ng		100
48) 1,4-Dioxane	10.19	88	1562317	109.567	ng		97
49) 2,2,4-Trimethylpentane...	10.30	57	9918509	106.060	ng		100
50) Methyl Methacrylate	10.47	100	1422652	227.157	ng		92

Data File: I:\MS13\DATA\2025 01\20\01202522.D
Sample : 100ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 23:21 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration

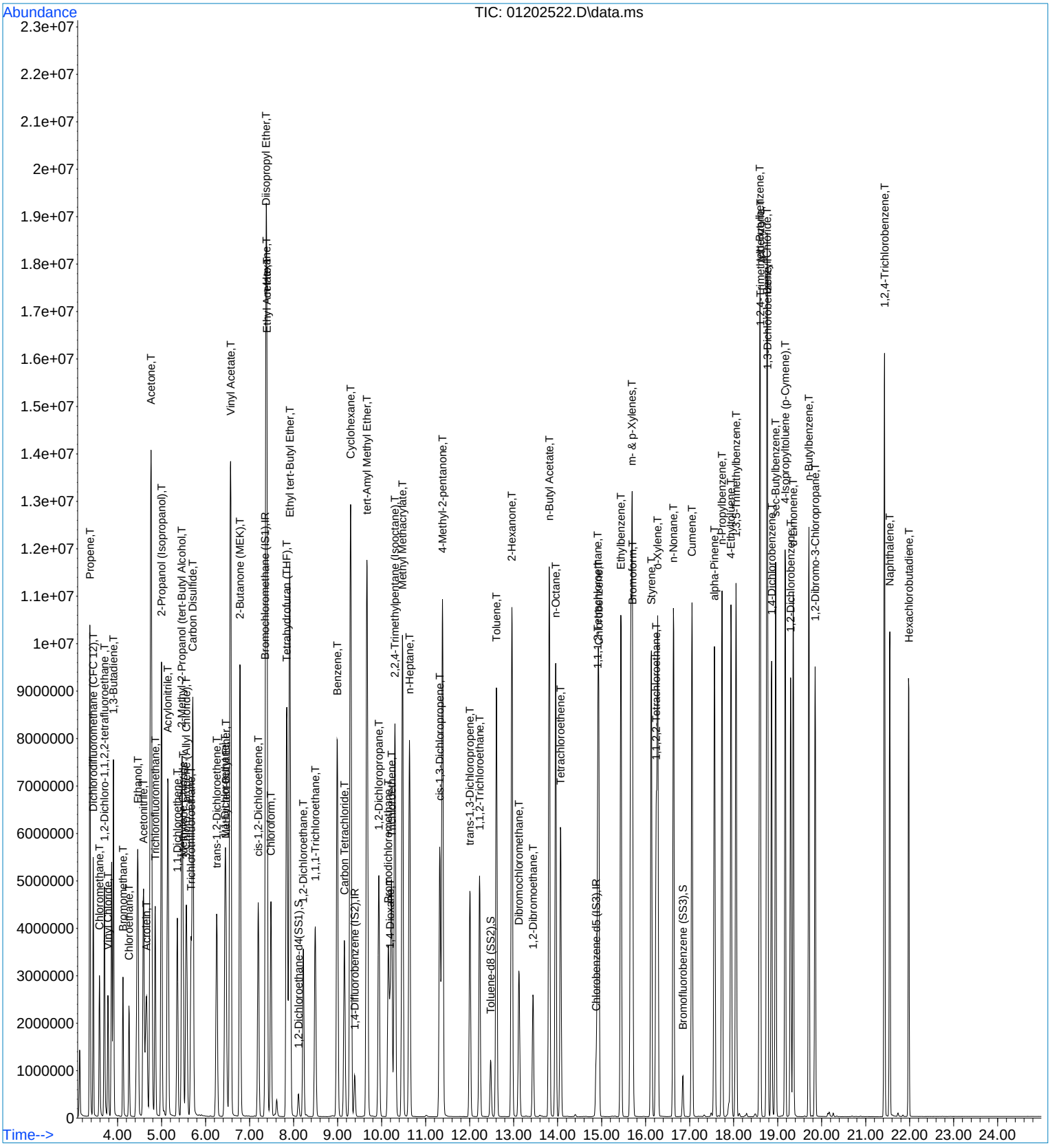
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
51) n-Heptane	10.63	71	2065982	105.554	ng		96
52) cis-1,3-Dichloropropene	11.32	75	3900364	114.539	ng		100
53) 4-Methyl-2-pentanone	11.38	58	3991759	219.244	ng		92
54) trans-1,3-Dichloropropene	12.00	75	3136532	115.089	ng		100
55) 1,1,2-Trichloroethane	12.23	97	1936470	112.520	ng		99
58) Toluene	12.61	91	7744276	90.897	ng		99
59) 2-Hexanone	12.96	43	10721801	186.316	ng		97
60) Dibromochloromethane	13.12	129	2155629	93.137	ng		99
61) 1,2-Dibromoethane	13.44	107	2217019	97.431	ng		100
62) n-Butyl Acetate	13.81	43	12050701	192.336	ng		96
63) n-Octane	13.96	57	2080135	94.520	ng		93
64) Tetrachloroethene	14.07	166	2083415	93.161	ng		100
65) Chlorobenzene	14.94	112	4892975	90.287	ng		100
66) Ethylbenzene	15.44	91	9086630	92.459	ng		98
67) m- & p-Xylenes	15.69	91	14024746	178.215	ng		99
68) Bromoform	15.70	173	1784784	97.837	ng		100
69) Styrene	16.13	104	5508815	102.433	ng		99
70) o-Xylene	16.27	91	7298490	92.677	ng		98
71) n-Nonane	16.63	43	5540692	94.173	ng		94
72) 1,1,2,2-Tetrachloroethane	16.24	83	3811027	98.779	ng		100
74) Cumene	17.05	105	8221898	88.696	ng		98
75) alpha-Pinene	17.56	93	4513209	108.059	ng		99
76) n-Propylbenzene	17.74	91	10284798	89.375	ng		98
77) 3-Ethyltoluene	17.05	105	8221898	No Calib			
78) 4-Ethyltoluene	17.94	105	7953311	89.870	ng		98
79) 1,3,5-Trimethylbenzene	18.05	105	7131186	91.778	ng		98
80) alpha-Methylstyrene	17.05	118	11937	No Calib		#	
81) 2-Ethyltoluene	17.05	105	8221898	No Calib			
82) 1,2,4-Trimethylbenzene	18.61	105	6534869	85.405	ng		99
83) n-Decane	17.05	58	93773	No Calib			
84) Benzyl Chloride	18.76	91	11156452	203.642	ng		96
85) 1,3-Dichlorobenzene	18.77	146	3583859	88.877	ng		100
86) 1,4-Dichlorobenzene	18.86	146	3943180	93.408	ng		100
87) sec-Butylbenzene	18.95	105	8800353	86.473	ng		98
88) 4-Isopropyltoluene (p-...	19.17	119	6995905	82.953	ng		99
89) 1,2,3-Trimethylbenzene	17.05	105	8221898	No Calib			
90) 1,2-Dichlorobenzene	19.29	146	3736251	91.404	ng		99
91) d-Limonene	19.35	68	2985391	96.131	ng		96
92) 1,2-Dibromo-3-Chloropr...	19.85	157	2476100	175.213	ng		87
93) n-Undecane	18.05	58	214819	No Calib			
94) 1,2,4-Trichlorobenzene	21.43	180	4852499	171.149	ng		99
95) Naphthalene	21.55	128	6888921	94.751	ng		99
96) n-Dodecane	18.95	58	76923	No Calib		#	
97) Hexachlorobutadiene	21.98	225	1632103	75.625	ng		100
98) Cyclohexanone	15.45	55	7070	No Calib		#	
99) tert-Butylbenzene	18.59	119	5681139	80.991	ng		98
100) n-Butylbenzene	19.71	91	7026773	85.466	ng		98
101) 1,1,1,2-Tetrachloroethane	14.91	131	1715572	89.361	ng		99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202522.D
Sample : 100ng R13012025 ICAL Std. Inst : MS13
Acq On : 20 Jan 2025 23:21 Operator: LS
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 8 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 08:03:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:00:01 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202528.D
Sample : ICV R13012025 25ng Inst : MS13
Acq On : 21 Jan 2025 10:43 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

CG 1/21/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 11:08:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	167704	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.37	114	768332	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	204379	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	364098	12.063	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 96.48%				
57) Toluene-d8 (SS2)	12.47	98	953414	12.849	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 102.80%				
73) Bromofluorobenzene (SS3)	16.84	174	249337	13.143	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 105.12%				
Target Compounds							Qvalue
2) Propene	3.36	42	958919m	23.995	ng		
3) Dichlorodifluoromethan...	3.43	85	990565	23.736	ng		100
4) Chloromethane	3.58	50	1041936	26.614	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.68	135	380986	27.791	ng		100
6) Vinyl Chloride	3.76	62	660597	20.893	ng		100
7) 1,3-Butadiene	3.88	54	800941	26.880	ng		99
8) Bromomethane	4.11	94	421132	25.175	ng		99
9) Chloroethane	4.24	64	413145	24.582	ng		99
10) Ethanol	4.41	45	2963935	114.036	ng		100
11) Acetonitrile	4.55	41	1585336	24.064	ng		100
12) Acrolein	4.62	56	973786	50.184	ng		99
13) Acetone	4.73	58	2167241	115.960	ng		99
14) Trichlorofluoromethane	4.84	101	792291	23.489	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	4103951	48.874	ng		100
16) Acrylonitrile	5.11	53	1830004	49.337	ng		99
17) 1,1-Dichloroethene	5.34	96	451839	26.020	ng		97
18) 2-Methyl-2-Propanol (t...	5.43	59	3066685	54.365	ng		100
19) Methylene Chloride	5.46	84	510568	23.298	ng		97
20) 3-Chloro-1-propene (Al...	5.54	41	1143165	24.981	ng		99
21) Trichlorotrifluoroethane	5.66	151	338082	25.347	ng		98
22) Carbon Disulfide	5.69	76	4048627	47.375	ng		100
23) trans-1,2-Dichloroethene	6.23	61	936966	25.650	ng		98
24) 1,1-Dichloroethane	6.42	63	1095720	24.919	ng		100
25) Methyl tert-Butyl Ether	6.44	73	1535234	26.662	ng		100
26) Vinyl Acetate	6.54	86	558168	143.427	ng	#	91
27) 2-Butanone (MEK)	6.75	72	718836	51.008	ng		97
28) cis-1,2-Dichloroethene	7.17	61	882183	24.860	ng		99
29) Diisopropyl Ether	7.35	87	741347	48.661	ng		98
30) Ethyl Acetate	7.36	61	438656	48.636	ng		99
31) n-Hexane	7.37	57	1031178	24.165	ng		100
32) Chloroform	7.46	83	910265	25.343	ng		100
34) Tetrahydrofuran (THF)	7.82	72	665112	46.423	ng		98
35) Ethyl tert-Butyl Ether	7.89	87	1148724	50.820	ng		98
36) 1,2-Dichloroethane	8.20	62	802381	23.695	ng		100
38) 1,1,1-Trichloroethane	8.47	97	766465	24.889	ng		99
39) Isopropyl Acetate	9.65	61	1484	No Calib		#	
40) 1-Butanol	8.94	56	1446	No Calib		#	
41) Benzene	8.97	78	2170244	23.943	ng		100
42) Carbon Tetrachloride	9.14	117	659575	24.759	ng		99
43) Cyclohexane	9.28	84	1500163	50.250	ng		99
44) tert-Amyl Methyl Ether	9.65	73	3146379	51.578	ng		99
45) 1,2-Dichloropropane	9.92	63	637699	24.842	ng		100
46) Bromodichloromethane	10.13	83	748699	26.766	ng		100
47) Trichloroethene	10.21	130	460825	25.377	ng		100
48) 1,4-Dioxane	10.17	88	383528	23.971	ng		99
49) 2,2,4-Trimethylpentane...	10.29	57	2750981	24.630	ng		99
50) Methyl Methacrylate	10.46	100	375085	58.563	ng		97

Data File: I:\MS13\DATA\2025 01\20\01202528.D
Sample : ICV R13012025 25ng Inst : MS13
Acq On : 21 Jan 2025 10:43 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 11:08:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

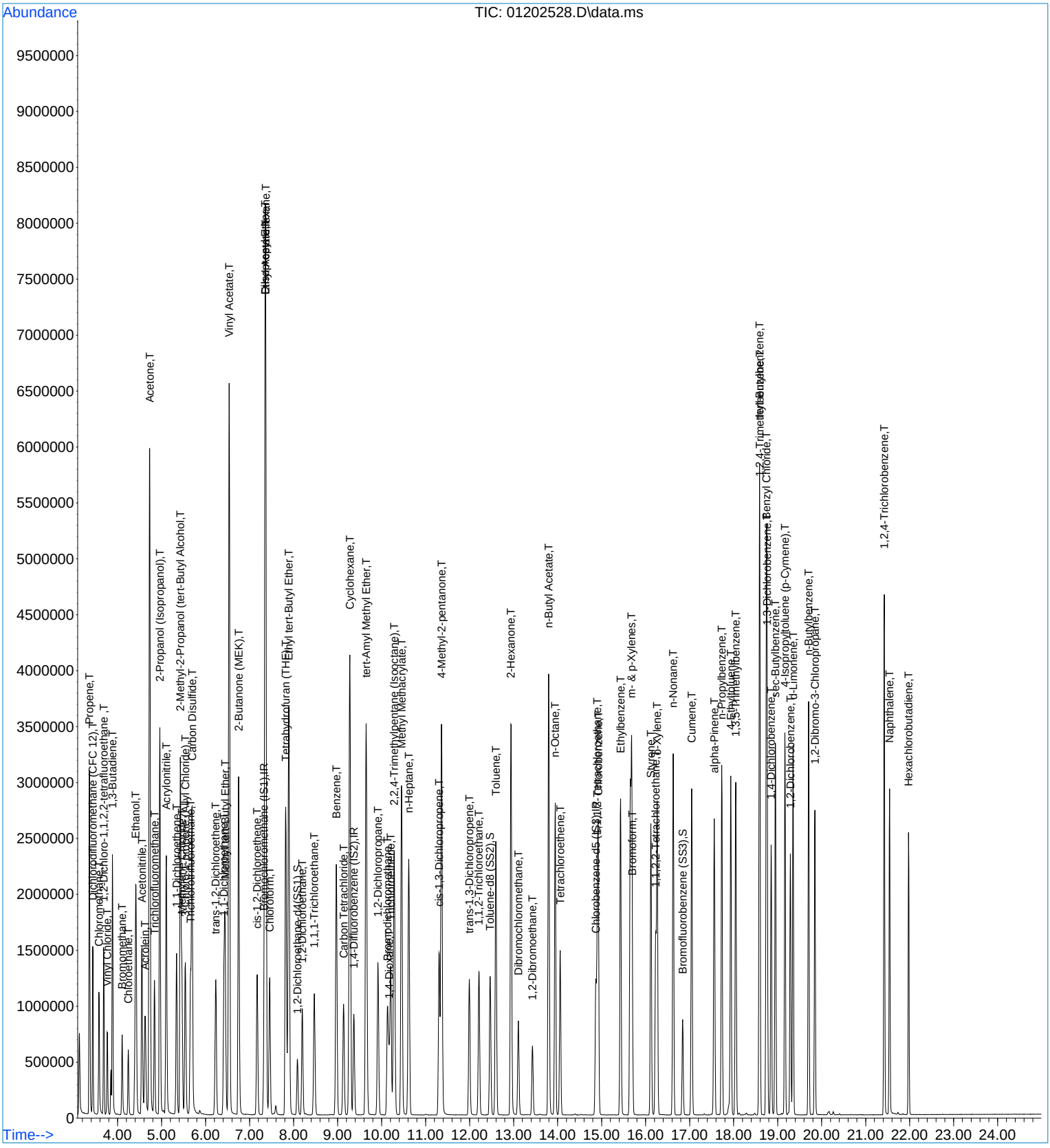
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	564542	25.297 ng		98
52) cis-1,3-Dichloropropene	11.30	75	1004108	27.040 ng		99
53) 4-Methyl-2-pentanone	11.36	58	1172787	53.241 ng		98
54) trans-1,3-Dichloropropene	11.99	75	784492	27.474 ng		99
55) 1,1,2-Trichloroethane	12.21	97	487333	26.619 ng		99
58) Toluene	12.60	91	2041230	25.999 ng		100
59) 2-Hexanone	12.94	43	3332650	54.660 ng		99
60) Dibromochloromethane	13.11	129	542541	28.086 ng		99
61) 1,2-Dibromoethane	13.43	107	530194	26.237 ng		100
62) n-Butyl Acetate	13.80	43	3866062	56.666 ng		99
63) n-Octane	13.95	57	572422	26.059 ng		99
64) Tetrachloroethene	14.06	166	463612	25.909 ng		100
65) Chlorobenzene	14.92	112	1231452	25.580 ng		100
66) Ethylbenzene	15.43	91	2347167	26.418 ng		99
67) m- & p-Xylenes	15.68	91	3684715	52.222 ng		100
68) Bromoform	15.70	173	428436	30.549 ng		100
69) Styrene	16.12	104	1359006	28.835 ng		99
70) o-Xylene	16.26	91	1834331	26.149 ng		99
71) n-Nonane	16.63	43	1641512	26.301 ng		98
72) 1,1,2,2-Tetrachloroethane	16.23	83	945810	26.305 ng		100
74) Cumene	17.05	105	2136839	26.498 ng		99
75) alpha-Pinene	17.56	93	1170503	29.252 ng		99
76) n-Propylbenzene	17.73	91	2813296	26.669 ng		99
77) 3-Ethyltoluene	17.05	105	2136725	No Calib		
78) 4-Ethyltoluene	17.93	105	2123209	27.899 ng		100
79) 1,3,5-Trimethylbenzene	18.05	105	1783458	26.669 ng		99
80) alpha-Methylstyrene	17.04	118	3501	No Calib	#	
81) 2-Ethyltoluene	17.05	105	2136839	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1796544	26.963 ng		99
83) n-Decane	17.04	58	25467	No Calib		
84) Benzyl Chloride	18.74	91	3198471	66.195 ng		99
85) 1,3-Dichlorobenzene	18.76	146	946901	27.110 ng		99
86) 1,4-Dichlorobenzene	18.85	146	952132	25.873 ng		100
87) sec-Butylbenzene	18.95	105	2407636	27.094 ng		99
88) 4-Isopropyltoluene (p-...	19.16	119	1945899	27.867 ng		99
89) 1,2,3-Trimethylbenzene	17.05	105	2136839	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	912179	25.902 ng		100
91) d-Limonene	19.35	68	863138	30.200 ng		99
92) 1,2-Dibromo-3-Chloropr...	19.85	157	660801	61.294 ng		93
93) n-Undecane	18.05	58	57036	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	1247850	57.863 ng		100
95) Naphthalene	21.54	128	1950240	34.477 ng		100
96) n-Dodecane	18.95	58	22408	No Calib	#	
97) Hexachlorobutadiene	21.98	225	409431	26.145 ng		99
98) Cyclohexanone	15.45	55	9975	No Calib	#	
99) tert-Butylbenzene	18.59	119	1627112	27.396 ng		99
100) n-Butylbenzene	19.70	91	2071010	29.511 ng		100
101) 1,1,1,2-Tetrachloroethane	14.90	131	435282	27.613 ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\20\01202528.D
Sample : ICV R13012025 25ng Inst : MS13
Acq On : 21 Jan 2025 10:43 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

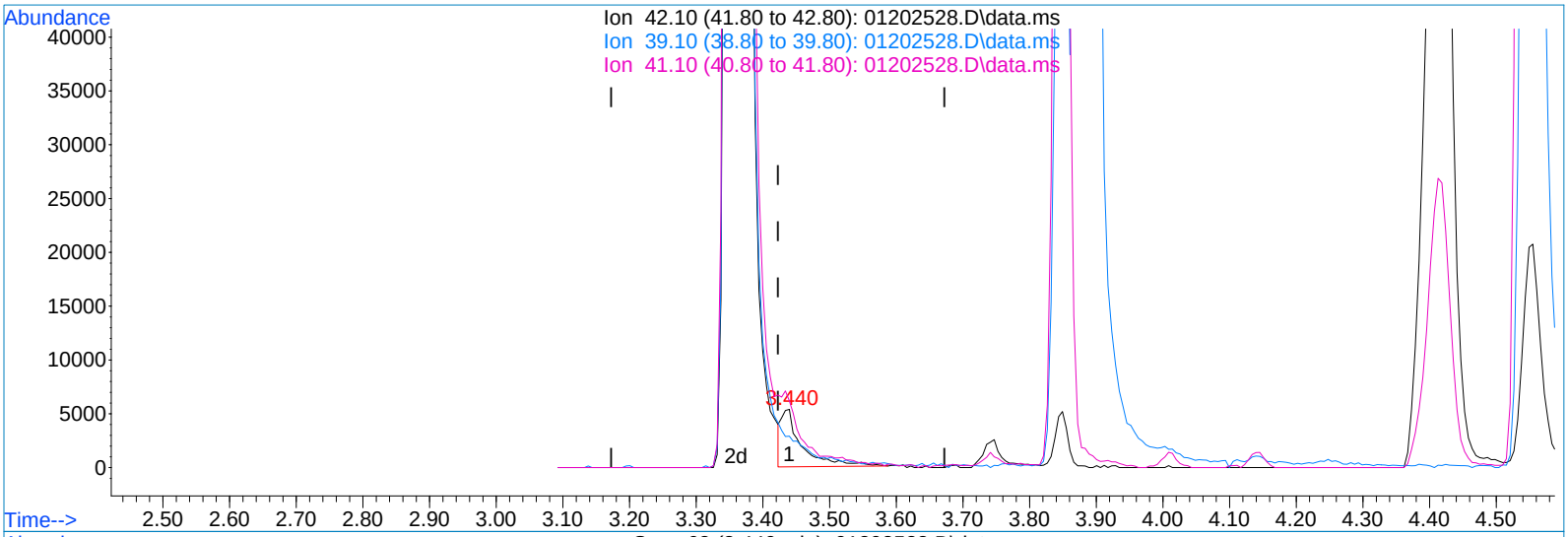
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 11:08:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

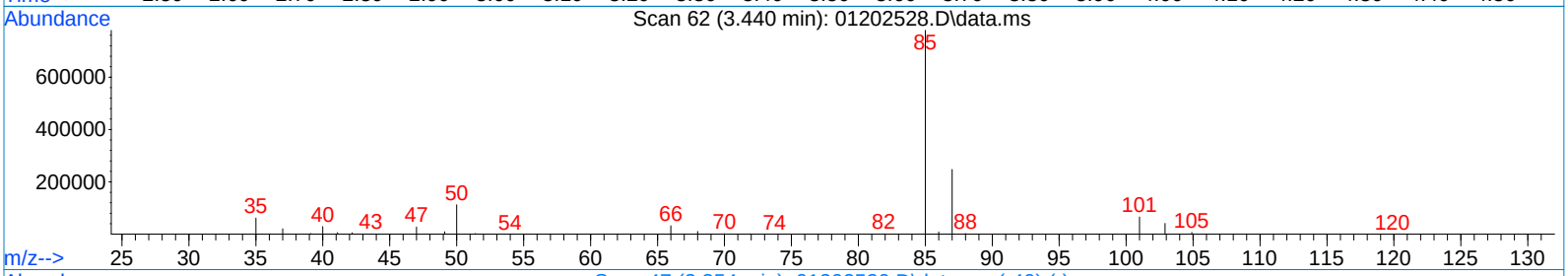


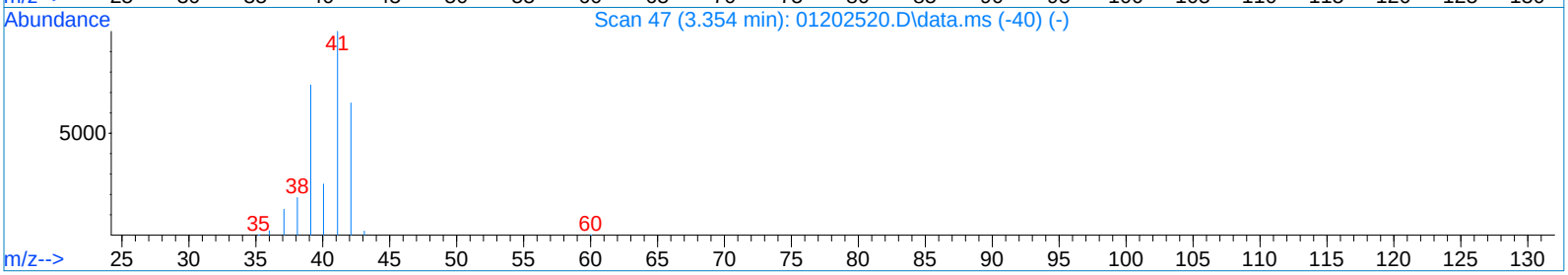
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2025 01\20\01202528.D
Sample : ICV R13012025 25ng Inst : MS13
Acq On : 21 Jan 2025 10:43 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 11:07:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration







TIC: 01202528.D\data.ms

(2) Propene (T)

3.440min (+0.017) 0.29ng

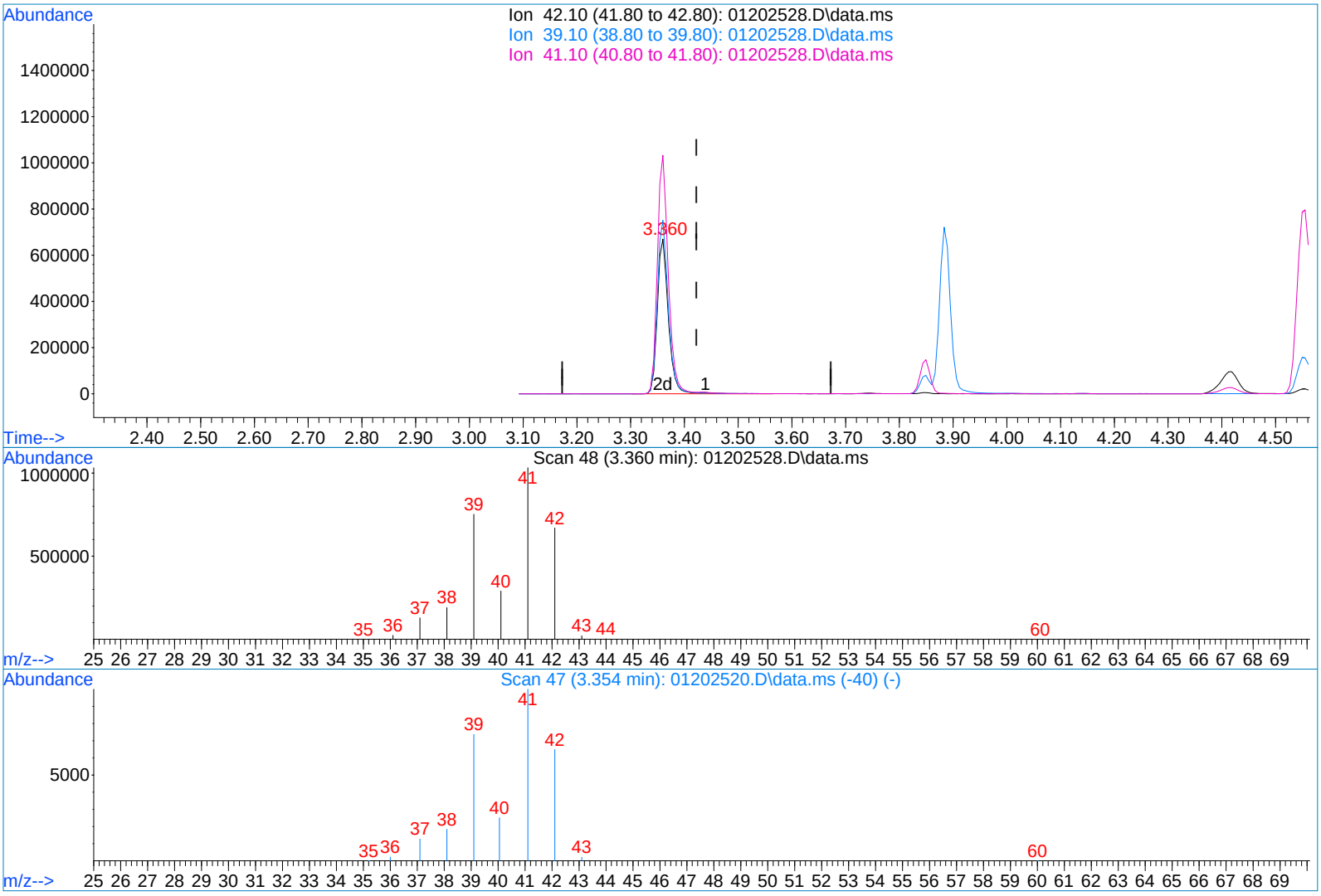
response 11601

Ion	Exp%	Act%
42.10	100	100
39.10	114.30	0.00#
41.10	156.80	0.00#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2025 01\20\01202528.D
Sample : ICV R13012025 25ng Inst : MS13
Acq On : 21 Jan 2025 10:43 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 21 11:07:42 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



TIC: 01202528.D\data.ms

(2) Propene (T)

3.360min (-0.063) 24.00ng m

response 958919

Ion	Exp%	Act%
42.10	100	100
39.10	114.30	111.03
41.10	156.80	152.89
0.00	0.00	0.00

MC 1/21/25

WP

ALS Environmental

CG 1/21/25

LCS Acceptance Criteria

ICV R13012025 25ng

	RT
Bromochloromethane (IS1)	7.33
1,4-Difluorobenzene (IS2)	9.37
Chlorobenzene-d5 (IS3)	14.87

Datafile: 01202528.D
Instrument: MS-13
Date: 1/21/25

CAS No	Analyte	Amount Found	Spike Amount	% REC	ALS LCS Limits	ALS Pass/Fail	70-130 LCS Limits	70-130 Pass/Fail	DOD LCS Limits	DOD Pass/Fail
115-07-1	Propene	23.995	26.500	91	50-133	ok	70-130	ok	57-136	ok
75-71-8	Dichlorodifluoromethane	23.736	25.750	92	66-122	ok	70-130	ok	59-128	ok
74-87-3	Chloromethane	26.614	26.000	102	56-131	ok	70-130	ok	59-132	ok
76-14-2	Freon 114	27.791	26.000	107	63-120	ok	70-130	ok	63-121	ok
75-01-4	Vinyl Chloride	20.893	26.250	80	57-129	ok	70-130	ok	64-127	ok
106-99-0	1,3-Butadiene	26.880	26.500	101	62-132	ok	70-130	ok	66-134	ok
74-83-9	Bromomethane	25.175	26.250	96	72-120	ok	70-130	ok	63-134	ok
75-00-3	Chloroethane	24.582	26.500	93	67-123	ok	70-130	ok	63-127	ok
64-17-5	Ethanol	114.036	131.5	87	52-120	ok	70-130	ok	59-125	ok
75-05-8	Acetonitrile	24.064	26.500	91	50-114	ok	70-130	ok	63-132	ok
107-02-8	Acrolein	50.184	52.750	95	63-125	ok	70-130	ok	62-126	ok
67-64-1	Acetone	115.960	131.8	88	61-120	ok	70-130	ok	58-128	ok
75-69-4	Trichlorofluoromethane	23.489	26.000	90	65-122	ok	70-130	ok	62-126	ok
67-63-0	Isopropanol	48.874	52.000	94	59-132	ok	70-130	ok	52-125	ok
107-13-1	Acrylonitrile	49.337	52.500	94	60-128	ok	70-130	ok	71-137	ok
75-35-4	1,1-Dichloroethene	26.020	26.000	100	75-120	ok	70-130	ok	61-133	ok
75-65-0	tert-Butanol	54.365	51.500	106	60-143	ok	70-130	ok	24-150	ok
75-09-2	Methylene Chloride	23.298	25.500	91	71-123	ok	70-130	ok	62-115	ok
107-05-1	Allyl Chloride	24.981	26.750	93	50-118	ok	70-130	ok	71-131	ok
76-13-1	Trichlorotrifluoroethane	25.347	26.250	97	65-121	ok	70-130	ok	66-126	ok
75-15-0	Carbon Disulfide	47.375	53.750	88	69-115	ok	70-130	ok	57-134	ok
156-60-5	trans-1,2-Dichloroethene	25.650	27.250	94	67-123	ok	70-130	ok	67-124	ok
75-34-3	1,1-Dichloroethane	24.919	27.250	91	66-120	ok	70-130	ok	68-126	ok
1634-04-4	Methyl tert-Butyl Ether	26.662	27.000	99	65-124	ok	70-130	ok	66-126	ok
108-05-4	Vinyl Acetate	143.427	136.3	105	76-147	ok	70-130	ok	56-139	ok
78-93-3	2-Butanone	51.008	51.500	99	70-125	ok	70-130	ok	67-130	ok
156-59-2	cis-1,2-Dichloroethene	24.860	26.750	93	64-120	ok	70-130	ok	70-121	ok
108-20-3	Diisopropyl Ether	48.661	53.250	91	64-120	ok	70-130	ok	70-117	ok
141-78-6	Ethyl Acetate	48.636	49.750	98	56-120	ok	70-130	ok	65-128	ok
110-54-3	n-Hexane	24.165	26.500	91	60-125	ok	70-130	ok	63-120	ok
67-66-3	Chloroform	25.343	27.000	94	64-121	ok	70-130	ok	68-123	ok
109-99-9	Tetrahydrofuran	46.423	50.500	92	67-117	ok	70-130	ok	64-123	ok
637-92-3	Ethyl tert-Butyl Ether	50.820	53.250	95	69-121	ok	70-130	ok	61-130	ok
107-06-2	1,2-Dichloroethane	23.695	25.500	93	64-138	ok	70-130	ok	65-128	ok
71-55-6	1,1,1-Trichloroethane	24.889	26.250	95	67-125	ok	70-130	ok	68-125	ok
108-21-4	Isopropyl Acetate	0.000	-	-	-	-	70-130	-	65-129	-
71-36-3	1-Butanol	0.000	-	-	-	-	70-130	-	62-133	-
71-43-2	Benzene	23.943	25.750	93	73-128	ok	70-130	ok	69-119	ok
56-23-5	Carbon Tetrachloride	24.759	26.250	94	71-134	ok	70-130	ok	68-132	ok
110-82-7	Cyclohexane	50.250	53.750	93	71-118	ok	70-130	ok	70-117	ok
994-05-8	tert-Amyl Methyl Ether	51.578	53.500	96	70-126	ok	70-130	ok	62-133	ok
78-87-5	1,2-Dichloropropane	24.842	26.750	93	68-121	ok	70-130	ok	69-123	ok
75-27-4	Bromodichloromethane	26.766	27.250	98	70-125	ok	70-130	ok	72-128	ok
79-01-6	Trichloroethene	25.377	26.750	95	68-124	ok	70-130	ok	71-123	ok
123-91-1	1,4-Dioxane	23.971	26.750	90	76-127	ok	70-130	ok	71-122	ok
540-84-1	Isooctane	24.630	26.750	92	62-124	ok	70-130	ok	68-121	ok
80-62-6	Methyl Methacrylate	58.563	53.500	109	77-118	ok	70-130	ok	70-128	ok
142-82-5	n-Heptane	25.297	26.750	95	72-121	ok	70-130	ok	69-123	ok
10061-01-5	cis-1,3-Dichloropropene	27.040	26.500	102	87-137	ok	70-130	ok	70-128	ok
108-10-1	4-Methyl-2-pentanone	53.241	53.250	100	67-137	ok	70-130	ok	67-130	ok

ALS Environmental

LCS Acceptance Criteria

ICV R13012025 25ng

	RT
Bromochloromethane (IS1)	7.33
1,4-Difluorobenzene (IS2)	9.37
Chlorobenzene-d5 (IS3)	14.87

Datafile: 01202528.D
Instrument: MS-13
Date: 1/21/25

		Amount	Spike	%	ALS		70-130		DOD	
CAS No	Analyte	Found	Amount	REC	LCS Limits	Pass/Fail	LCS Limits	Pass/Fail	LCS Limits	Pass/Fail
10061-02-6	trans-1,3-Dichloropropene	27.474	24.500	112	73-127	ok	70-130	ok	75-133	ok
79-00-5	1,1,2-Trichloroethane	26.619	27.000	99	71-119	ok	70-130	ok	73-119	ok
108-88-3	Toluene	25.999	27.000	96	64-121	ok	70-130	ok	66-119	ok
591-78-6	2-Hexanone	54.660	53.000	103	70-136	ok	70-130	ok	62-128	ok
124-48-1	Dibromochloromethane	28.086	27.000	104	67-128	ok	70-130	ok	70-130	ok
106-93-4	1,2-Dibromoethane	26.237	25.500	103	69-129	ok	70-130	ok	74-122	ok
123-86-4	Butyl Acetate	56.666	52.750	107	70-135	ok	70-130	ok	65-134	ok
111-65-9	n-Octane	26.059	26.750	97	66-124	ok	70-130	ok	69-121	ok
127-18-4	Tetrachloroethene	25.909	26.750	97	55-132	ok	70-130	ok	66-124	ok
108-90-7	Chlorobenzene	25.580	27.000	95	63-124	ok	70-130	ok	70-119	ok
100-41-4	Ethylbenzene	26.418	27.250	97	64-119	ok	70-130	ok	70-124	ok
179601-23-1	m- & p-Xylene	52.222	54.000	97	64-121	ok	70-130	ok	61-134	ok
75-25-2	Bromoform	30.549	27.250	112	63-132	ok	70-130	ok	66-139	ok
100-42-5	Styrene	28.835	26.750	108	71-125	ok	70-130	ok	73-127	ok
95-47-6	o-Xylene	26.149	27.000	97	66-122	ok	70-130	ok	67-125	ok
111-84-2	n-Nonane	26.301	26.750	98	65-129	ok	70-130	ok	63-128	ok
79-34-5	1,1,2,2-Tetrachloroethane	26.305	27.000	97	71-128	ok	70-130	ok	65-127	ok
98-82-8	Cumene	26.498	26.750	99	66-126	ok	70-130	ok	68-124	ok
80-56-8	alpha-Pinene	29.252	27.000	108	65-129	ok	70-130	ok	62-136	ok
103-65-1	n-Propylbenzene	26.669	26.750	100	67-126	ok	70-130	ok	69-123	ok
620-14-4	3-Ethyltoluene	0.000	-	-	-	-	70-130	-	62-123	-
622-96-8	4-Ethyltoluene	27.899	27.250	102	67-128	ok	70-130	ok	67-129	ok
108-67-8	1,3,5-Trimethylbenzene	26.669	27.000	99	66-125	ok	70-130	ok	67-130	ok
98-83-9	alpha-Methylstyrene	0.000	-	-	-	-	70-130	-	67-128	-
611-14-3	2-Ethyltoluene	0.000	-	-	-	-	70-130	-	66-121	-
95-63-6	1,2,4-Trimethylbenzene	26.963	26.500	102	67-130	ok	70-130	ok	66-132	ok
124-18-5	n-Decane	0.000	-	-	-	-	70-130	-	70-118	-
100-44-7	Benzyl Chloride	66.195	53.250	124	58-151	ok	70-130	ok	50-147	ok
541-73-1	1,3-Dichlorobenzene	27.110	26.500	102	57-135	ok	70-130	ok	65-130	ok
106-46-7	1,4-Dichlorobenzene	25.873	26.500	98	56-129	ok	70-130	ok	60-131	ok
135-98-8	sec-Butylbenzene	27.094	26.500	102	64-132	ok	70-130	ok	68-125	ok
99-87-6	p-Isopropyltoluene	27.867	26.500	105	65-125	ok	70-130	ok	67-130	ok
526-73-8	1,2,3-Trimethylbenzene	0.000	-	-	-	-	70-130	-	60-134	-
95-50-1	1,2-Dichlorobenzene	25.902	26.500	98	57-138	ok	70-130	ok	63-129	ok
5989-27-5	d-Limonene	30.200	26.000	116	70-129	ok	70-130	ok	65-136	ok
96-12-8	1,2-Dibromo-3-Chloropropane	61.294	53.500	115	63-138	ok	70-130	ok	73-133	ok
1120-21-4	n-Undecane	0.000	-	-	-	-	70-130	-	69-123	-
120-82-1	1,2,4-Trichlorobenzene	57.863	54.500	106	50-137	ok	70-130	ok	55-142	ok
91-20-3	Naphthalene	34.477	27.250	127	50-157	ok	70-130	ok	57-138	ok
112-40-3	n-Dodecane	0.000	-	-	-	-	70-130	-	62-147	-
87-68-3	Hexachloro-1,3-butadiene	26.145	26.500	99	50-133	ok	70-130	ok	56-138	ok
108-94-1	Cyclohexanone	0.000	-	-	-	-	70-130	-	61-132	-
98-06-6	tert-Butylbenzene	27.396	26.750	102	63-130	ok	70-130	ok	65-124	ok
104-51-8	n-Butylbenzene	29.511	26.250	112	69-133	ok	70-130	ok	66-130	ok

Response Factor Report MS13

Method Path : I:\MS13\METHODS\
Method File : C13121424.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Last Update : Mon Dec 16 11:07:03 2024
Response Via : Initial Calibration

MC 12/16/24

Calibration Files
0.40=12142402.D 1.0 =12142403.D 2.5 =12142404.D 5.0 =12142405.D 25 =12142406.D 50 =12142407.D 100 =12142408.D

	Compound	0.40	1.0	2.5	5.0	25	50	100	Avg	%RSD
1) IR	Bromochloromethane...	----------ISTD----------								
2) T	Chloropentaflu...	1.938	1.731	1.528	1.320	1.537	1.454	1.181	1.527	16.45
3) T	1,1,1,2-Tetraf...	1.912	1.639	1.535	1.542	1.502	1.408	1.169	1.530	14.72
4) T	1,1-Difluoroet...	1.886	1.638	1.494	1.549	1.500	1.356	1.035	1.494	17.44
5) T	Chlorodifluoro...	0.603	0.527	0.530	0.580	0.543	0.521	0.457	0.537	8.67
6) T	1-Chloro-1,1-D...	4.006	3.661	3.600	3.852	3.468	3.361	3.128	3.582	8.27
7) T	Dichlorofluoro...	4.472	4.064	3.977	4.219	3.848	3.761	3.507	3.978	7.92
8) T	Vinylbromide	1.332	1.202	1.221	1.342	1.241	1.218	1.159	1.245	5.43
9) T	2,2-Dichloro-1...	2.546	2.402	2.322	2.440	2.228	2.179	2.054	2.310	7.31
10) T	2-Methylbutane	2.216	2.026	1.970	2.085	1.823	1.727	1.551	1.914	11.89
11) T	Methyl Acetate	6.006	5.722	5.622	5.867	5.379	5.237	4.915	5.535	6.89
12) T	2-Methylpentane	1.755	1.660	1.588	1.728	1.553	1.490	1.374	1.593	8.47
13) T	2,2-Dichloropr...	2.195	2.082	2.040	2.185	2.213	2.188	2.047	2.136	3.55
14) T	1,1-Dichloropr...	2.668	2.501	2.433	2.609	2.413	2.361	2.223	2.458	6.12
15) T	Thiophene	3.731	3.524	3.490	3.734	3.424	3.349	3.152	3.486	5.94
16) IR	1,4-Difluorobenzen...	----------ISTD----------								
17) T	2,3-Dimethylpe...	0.856	0.795	0.761	0.829	0.742	0.719	0.663	0.766	8.62
18) T	Dibromomethane	0.236	0.215	0.203	0.222	0.205	0.207	0.206	0.213	5.56
19) IR	Chlorobenzene-d5 (...	----------ISTD----------								
20) T	Methyl Cyclohe...	2.917	2.680	2.595	2.864	2.558	2.461	2.265	2.620	8.63
21) T	1,3-Dichloropr...	2.494	2.309	2.237	2.429	2.216	2.176	2.036	2.271	6.83
22) T	1,1,1,2-Tetrac...	1.236	1.112	1.098	1.244	1.133	1.142	1.087	1.150	5.59
23) T	1-Chlorohexane	1.933	1.924	1.882	2.095	1.938	1.900	1.756	1.918	5.22
24) T	1,2,3-Trichlor...	2.414	2.332	2.303	2.473	2.277	2.244	2.094	2.305	5.32
25) T	Bromobenzene	2.799	2.635	2.538	2.783	2.561	2.537	2.399	2.607	5.50
26) T	2-Chlorotoluene	4.537	4.223	4.169	4.643	4.248	4.191	3.921	4.276	5.66
27) T	4-Chlorotoluene	4.199	4.242	4.180	4.725	4.432	4.387	4.132	4.328	4.77
28) T	Indane	4.442	4.403	4.390	4.939	4.673	4.606	4.241	4.528	5.10
29) T	Indene	3.080	3.221	3.405	4.014	4.072	4.062	3.863	3.674	11.61
30) T	1,2,4,5-Tetram...	3.269	3.805	4.140	4.773	4.824	4.781	4.460	4.293	13.74
31) T	1,2,3,4-Tetram...	4.410	4.598	4.490	5.042	4.741	4.655	4.389	4.618	4.92
32) T	1,2,3,5-Tetram...	3.656	3.971	4.127	4.678	4.559	4.543	4.300	4.262	8.63
33) T	1,2,3-Trichlor...	0.921	1.054	1.043	1.246	1.408	1.457	1.503	1.233	18.73

(#) = Out of Range

Std#: **Working Standards**

(1)	200 ng/L Working Std. ID:	S37-12132402
(2)	20 ng/L Working Std. ID:	S37-12132403

Injection Amts.(L):	0.020	0.050	0.125	0.250	0.125	0.250	0.500
Standards Used:	(2)	(2)	(2)	(1)	(1)	(1)	(1)
Compounds/ Concentrations (ng):	0.4ng	1.0ng	2.5ng	1.0ng	25ng	50ng	100ng
Vinyl bromide	0.400	1.000	2.500	5.00	25.00	50.0	100
2-Methylbutane (Isopentane)	0.408	1.020	2.550	5.10	25.50	51.0	102
2-Methylpentane	0.400	1.000	2.500	5.00	25.00	50.0	100
2,2-Dichloropropane	0.396	0.990	2.475	4.95	24.75	49.5	99
1,1-Dichloropropene	0.416	1.040	2.600	5.20	26.00	52.0	104
Thiophene	0.404	1.010	2.525	5.05	25.25	50.5	101
2,3-Dimethylpentane	0.416	1.040	2.600	5.20	26.00	52.0	104
Dibromomethane	0.428	1.070	2.675	5.35	26.75	53.5	107
1,3-Dichloropropane	0.416	1.040	2.600	5.20	26.00	52.0	104
1,1,1,2-Tetrachloroethane	0.348	0.870	2.175	4.35	21.75	43.5	87
1-Chlorohexane	0.412	1.030	2.575	5.15	25.75	51.5	103
1,2,3-Trichloropropane	0.420	1.050	2.625	5.25	26.25	52.5	105
Bromobenzene	0.420	1.050	2.625	5.25	26.25	52.5	105
2-Chlorotoluene	0.424	1.060	2.650	5.30	26.50	53.0	106
4-Chlorotoluene	0.404	1.010	2.525	5.05	25.25	50.5	101
Indane	0.396	0.990	2.475	4.95	24.75	49.5	99
Indene	0.376	0.940	2.350	4.70	23.50	47.0	94
1,2,4,5-Tetramethylbenzene	0.404	1.010	2.525	5.05	25.25	50.5	101
1,2,3,4-Tetramethylbenzene	0.412	1.030	2.575	5.15	25.75	51.5	103
1,2,3,5-Tetramethylbenzene	0.404	1.010	2.525	5.05	25.25	50.5	101
1,2,3-Trichlorobenzene	0.420	1.050	2.625	5.25	26.25	52.5	105
Chloropentafluoroethane (R115)	0.396	0.990	2.475	4.95	24.75	49.5	99
2,2-Dichloro-1,1,1-trifluoroethane (R123)	0.416	1.040	2.600	5.20	26.00	52.0	104
1,1-Difluoroethane (R152a)	0.424	1.060	2.650	5.30	26.50	53.0	106
Chlorodifluoromethane (R22)	0.416	1.040	2.600	5.20	26.00	52.0	104
Dichlorofluoromethane (R21)	0.396	0.990	2.475	4.95	24.75	49.5	99
1,1,1,2-Tetrafluoroethane (R134a)	0.400	1.000	2.500	5.00	25.00	50.0	100
1-Chloro-1,1-Difluoroethane	0.416	1.040	2.600	5.20	26.00	52.0	104
Methyl Acetate	0.384	0.960	2.400	4.80	24.00	48.0	96
Methylcyclohexane	0.428	1.070	2.675	5.35	26.75	53.5	107
Chlorotrifluoroethene	0.408	1.020	2.550	5.10	25.50	51.0	102

Calibration Status Report MS13

Method : I:\MS13\METHODS\C13121424.M (RTE Integrator)
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Last Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

MC 12/16/24

#	ID	Conc	ISTD Conc	Path\File
1	0.40	0	13	I:\MS13\DATA\2024_12\14\12142402.D
2	1.0	1	13	I:\MS13\DATA\2024_12\14\12142403.D
3	2.5	2	13	I:\MS13\DATA\2024_12\14\12142404.D
4	5.0	5	13	I:\MS13\DATA\2024_12\14\12142405.D
5	25	25	13	I:\MS13\DATA\2024_12\14\12142406.D
6	50	50	13	I:\MS13\DATA\2024_12\14\12142407.D
7	100	99	13	I:\MS13\DATA\2024_12\14\12142408.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.40	Dec 16 11:05 2024	Dec 16 10:57 2024	14 Dec 2024 5:04
2	1.0	Dec 16 11:05 2024	Dec 16 10:59 2024	14 Dec 2024 5:39
3	2.5	Dec 16 11:05 2024	Dec 16 10:59 2024	14 Dec 2024 6:14
4	5.0	Dec 16 11:06 2024	Dec 16 11:02 2024	14 Dec 2024 6:50
5	25	Dec 16 11:06 2024	Dec 16 11:03 2024	14 Dec 2024 7:25
6	50	Dec 16 11:06 2024	Dec 16 11:03 2024	14 Dec 2024 8:00
7	100	Dec 16 11:06 2024	Dec 16 11:04 2024	14 Dec 2024 8:36

C13121424.M Mon Dec 16 11:34:38 2024

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142402.D
Sample : 0.4ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:04 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

MC 12/16/24

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:57:30 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

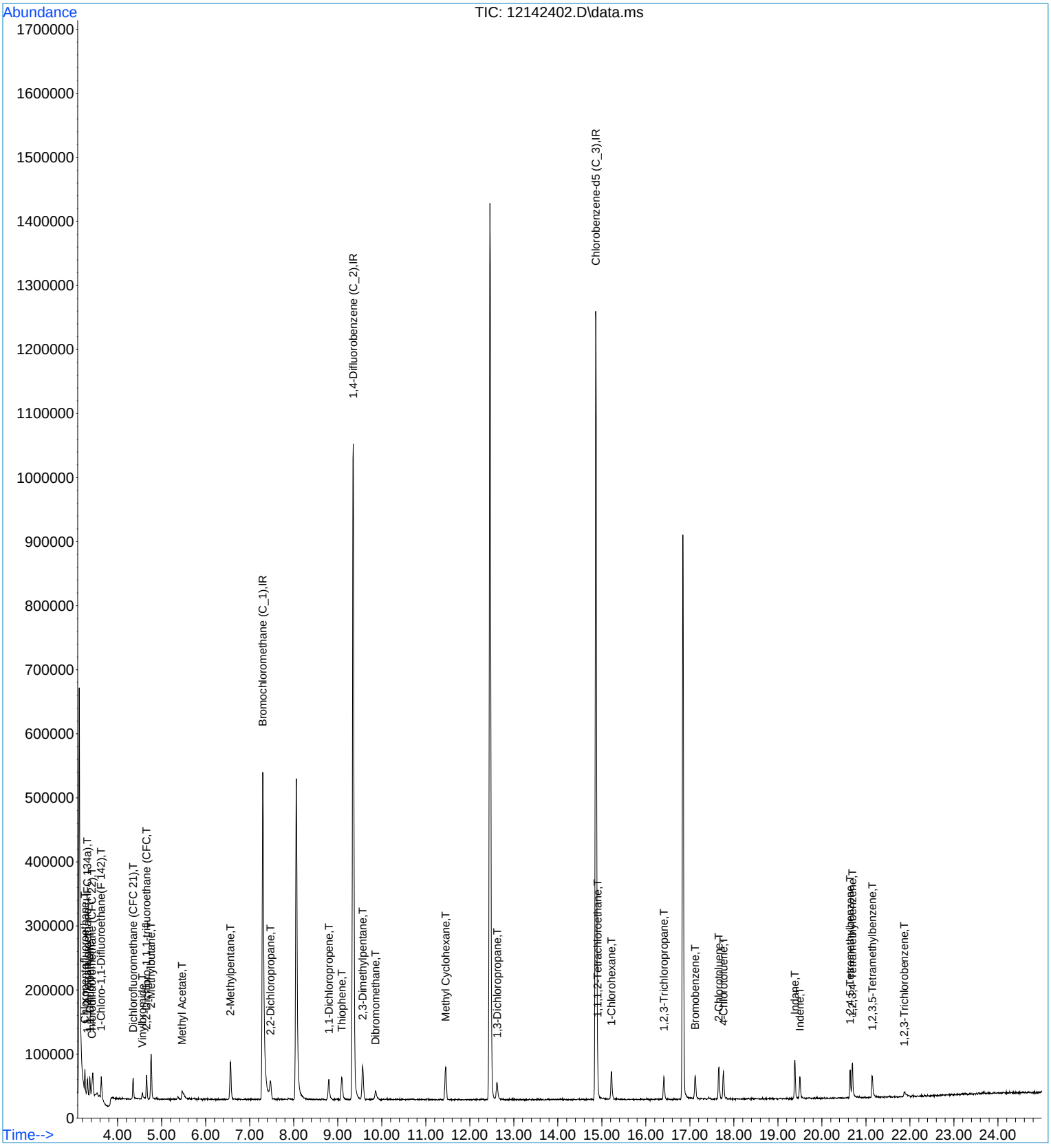
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	203808	12.500	ng		0.00
16) 1,4-Difluorobenzene (C 2)	9.35	114	934694	12.500	ng		0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	231535	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.26	85	12512	0.635	ng		96
3) 1,1,1,2-Tetrafluoroeth...	3.31	83	12472	0.696	ng		96
4) 1,1-Difluoroethane	3.37	65	13041	0.721	ng		88
5) Chlorodifluoromethane ...	3.42	67	4091m	0.658	ng		
6) 1-Chloro-1,1-Difluoroe...	3.63	65	27169	0.667	ng		100
7) Dichlorofluoromethane ...	4.35	67	28871	0.589	ng		98
8) Vinylbromide	4.56	108	8686	0.443	ng		98
9) 2,2-Dichloro-1,1,1-tri...	4.66	83	17270	0.542	ng		100
10) 2-Methylbutane	4.76	57	14742	0.657	ng		96
11) Methyl Acetate	5.47	43	37604	0.681	ng		96
12) 2-Methylpentane	6.56	71	11444	0.556	ng		95
13) 2,2-Dichloropropane	7.47	77	14175	0.573	ng	#	83
14) 1,1-Dichloropropene	8.80	75	18093	0.573	ng		95
15) Thiophene	9.09	84	24576	0.506	ng		99
17) 2,3-Dimethylpentane	9.57	56	26613	0.613	ng		98
18) Dibromomethane	9.86	174	7549	0.413	ng		97
20) Methyl Cyclohexane	11.45	55	23128	0.456	ng		99
21) 1,3-Dichloropropane	12.62	76	19216	0.377	ng		99
22) 1,1,1,2-Tetrachloroethane	14.91	131	7970	0.263	ng		96
23) 1-Chlorohexane	15.22	91	14752	0.316	ng		97
24) 1,2,3-Trichloropropane	16.41	75	18781	0.382	ng		97
25) Bromobenzene	17.12	77	21773	0.414	ng		96
26) 2-Chlorotoluene	17.66	91	35636	0.363	ng		98
27) 4-Chlorotoluene	17.76	91	31425	0.337	ng		100
28) Indane	19.39	117	32585	0.283	ng		97
29) Indene	19.50	115	21452	0.273	ng		100
30) 1,2,4,5-Tetramethylben...	20.64	119	24465	0.245	ng		97
31) 1,2,3,4-Tetramethylben...	20.69	119	33653	0.308	ng		99
32) 1,2,3,5-Tetramethylben...	21.14	119	27361	0.280	ng		100
33) 1,2,3-Trichlorobenzene	21.87	180	7164	0.234	ng	#	86

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142402.D
Sample : 0.4ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:04 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

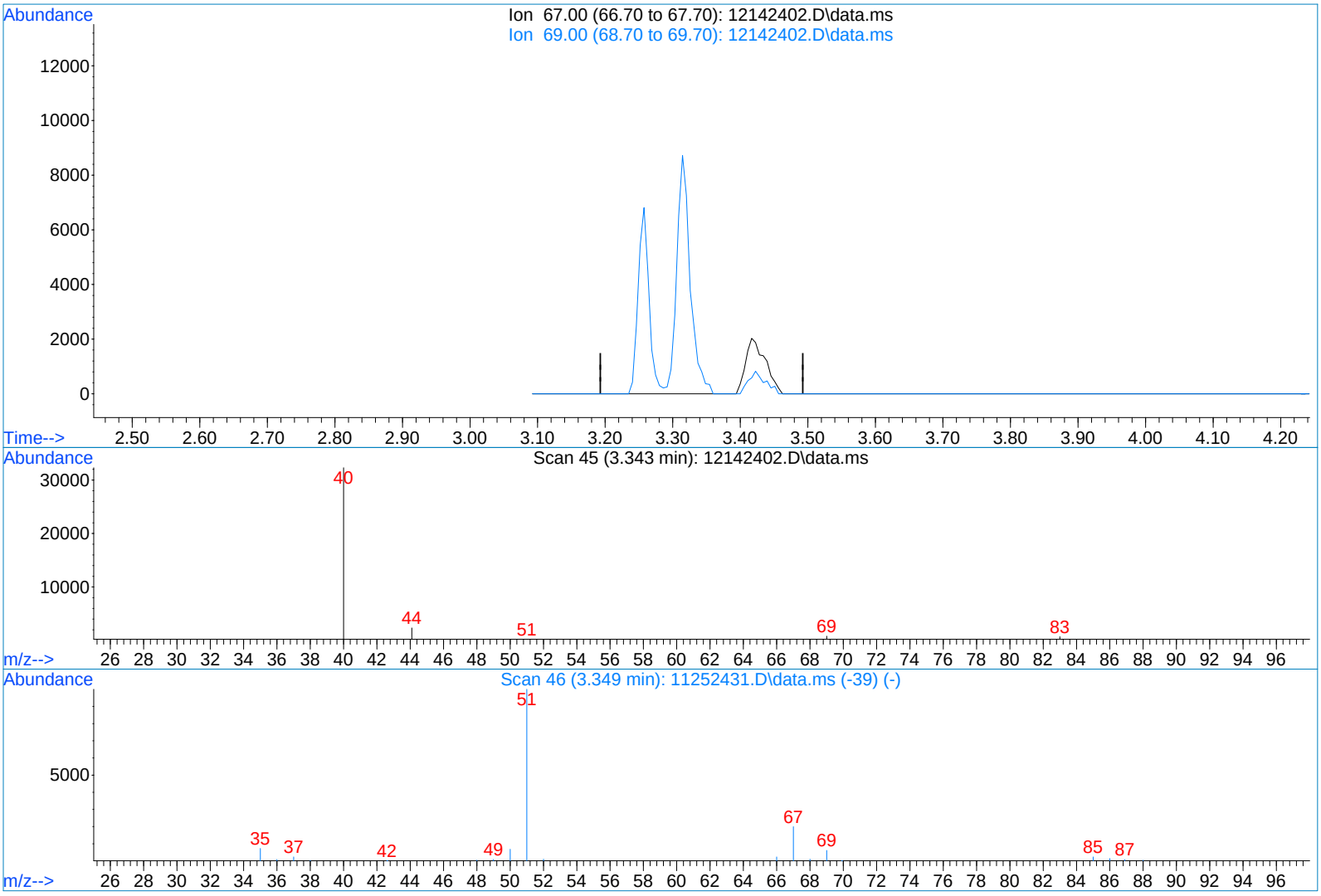
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:57:30 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2024 12\14\12142402.D
Sample : 0.4ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:04 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:56:49 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



TIC: 12142402.D\data.ms

(5) Chlorodifluoromethane (CFC 22) (T)

3.343min (-3.343) 0.00ng

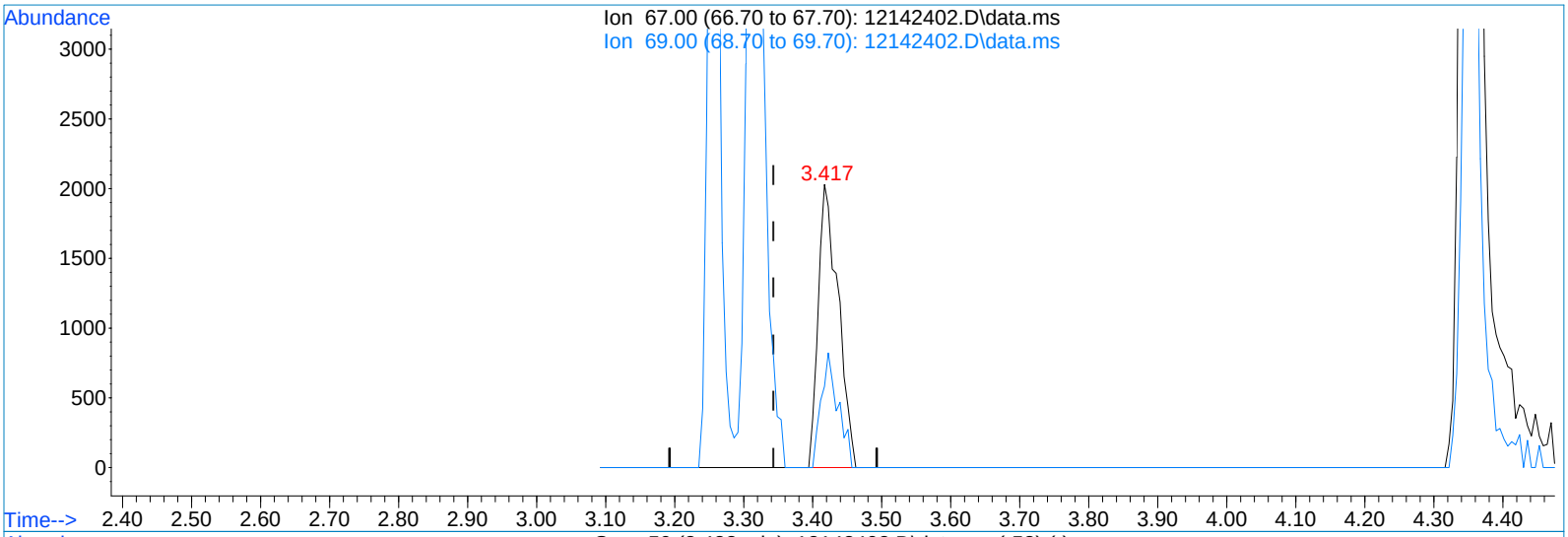
response 0

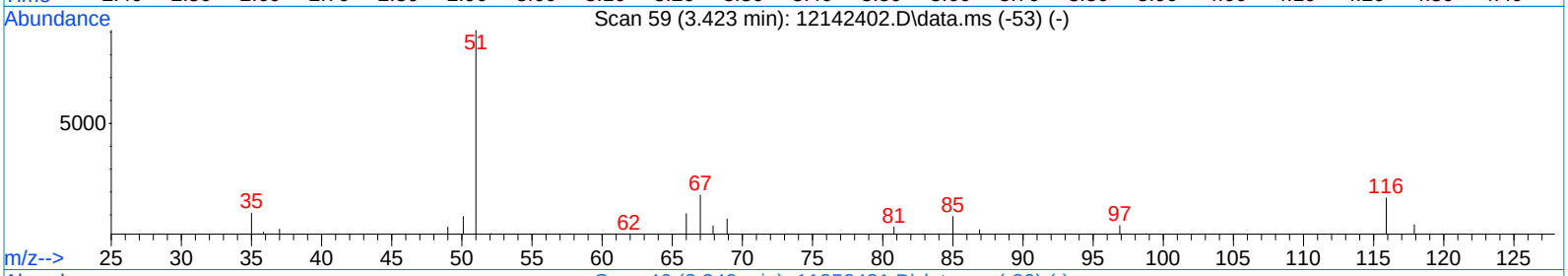
Ion	Exp%	Act%
67.00	100	0.00
69.00	34.40	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

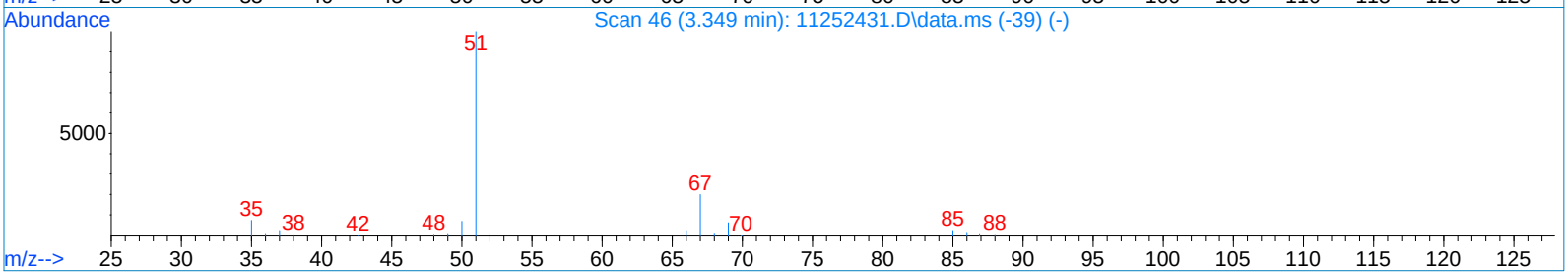
Quantitation Report (Qedit)

Data File: I:\MS13\DATA\2024 12\14\12142402.D
Sample : 0.4ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:04 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:56:49 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration







TIC: 12142402.D\data.ms

(5) Chlorodifluoromethane (CFC 22) (T)

3.417min (+0.074) 0.66ng m

response 4091

Ion	Exp%	Act%
67.00	100	100
69.00	34.40	34.49
0.00	0.00	0.00
0.00	0.00	0.00

MC 12/16/24

MP

TZ 12/17/24

Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142403.D
Sample : 1.0ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:39 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:59:10 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

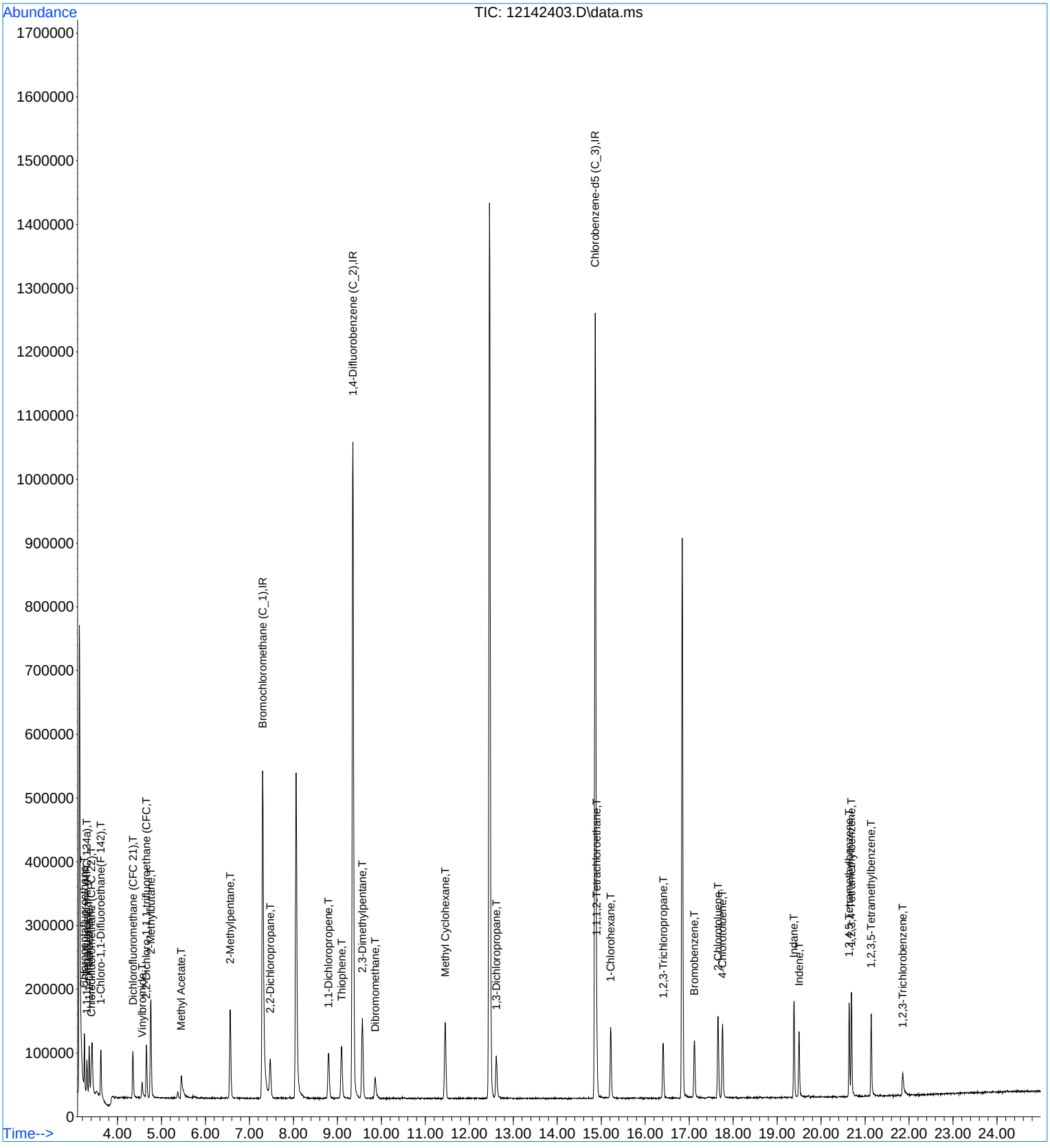
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	203247	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.35	114	929579	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	230281	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.25	85	27858	1.417	ng	97
3) 1,1,1,2-Tetrafluoroeth...	3.30	83	26657	1.492	ng	96
4) 1,1-Difluoroethane	3.35	65	28236	1.566	ng	90
5) Chlorodifluoromethane ...	3.41	67	8904	1.436	ng	91
6) 1-Chloro-1,1-Difluoroe...	3.62	65	61910	1.525	ng	99
7) Dichlorofluoromethane ...	4.35	67	65412	1.338	ng	99
8) Vinylbromide	4.56	108	19544	1.000	ng	90
9) 2,2-Dichloro-1,1,1-tri...	4.66	83	40626	1.278	ng	99
10) 2-Methylbutane	4.76	57	33599	1.501	ng	98
11) Methyl Acetate	5.45	43	89314	1.623	ng	98
12) 2-Methylpentane	6.56	71	26993	1.316	ng	98
13) 2,2-Dichloropropane	7.47	77	33515	1.358	ng	96
14) 1,1-Dichloropropene	8.80	75	42299	1.344	ng	99
15) Thiophene	9.10	84	57873	1.195	ng	99
17) 2,3-Dimethylpentane	9.57	56	61486	1.424	ng	98
18) Dibromomethane	9.86	174	17098	0.941	ng	98
20) Methyl Cyclohexane	11.45	55	52835	1.047	ng	99
21) 1,3-Dichloropropane	12.61	76	44241	0.873	ng	100
22) 1,1,1,2-Tetrachloroethane	14.90	131	17828	0.592	ng	99
23) 1-Chlorohexane	15.21	91	36499	0.786	ng	98
24) 1,2,3-Trichloropropane	16.41	75	45115	0.924	ng	98
25) Bromobenzene	17.12	77	50973	0.975	ng	97
26) 2-Chlorotoluene	17.66	91	82473	0.844	ng	99
27) 4-Chlorotoluene	17.76	91	78938	0.852	ng	99
28) Indane	19.38	117	80305	0.701	ng	97
29) Indene	19.50	115	55770	0.713	ng	98
30) 1,2,4,5-Tetramethylben...	20.64	119	70804	0.714	ng	99
31) 1,2,3,4-Tetramethylben...	20.69	119	87248	0.802	ng	99
32) 1,2,3,5-Tetramethylben...	21.14	119	73891	0.760	ng	100
33) 1,2,3-Trichlorobenzene	21.86	180	20384	0.669	ng	97

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142403.D
Sample : 1.0ng C13121424 ICAL Std. Inst : MS13
Acq On : 14 Dec 2024 5:39 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:59:10 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142404.D
Sample : 2.5ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 6:14 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:59:50 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

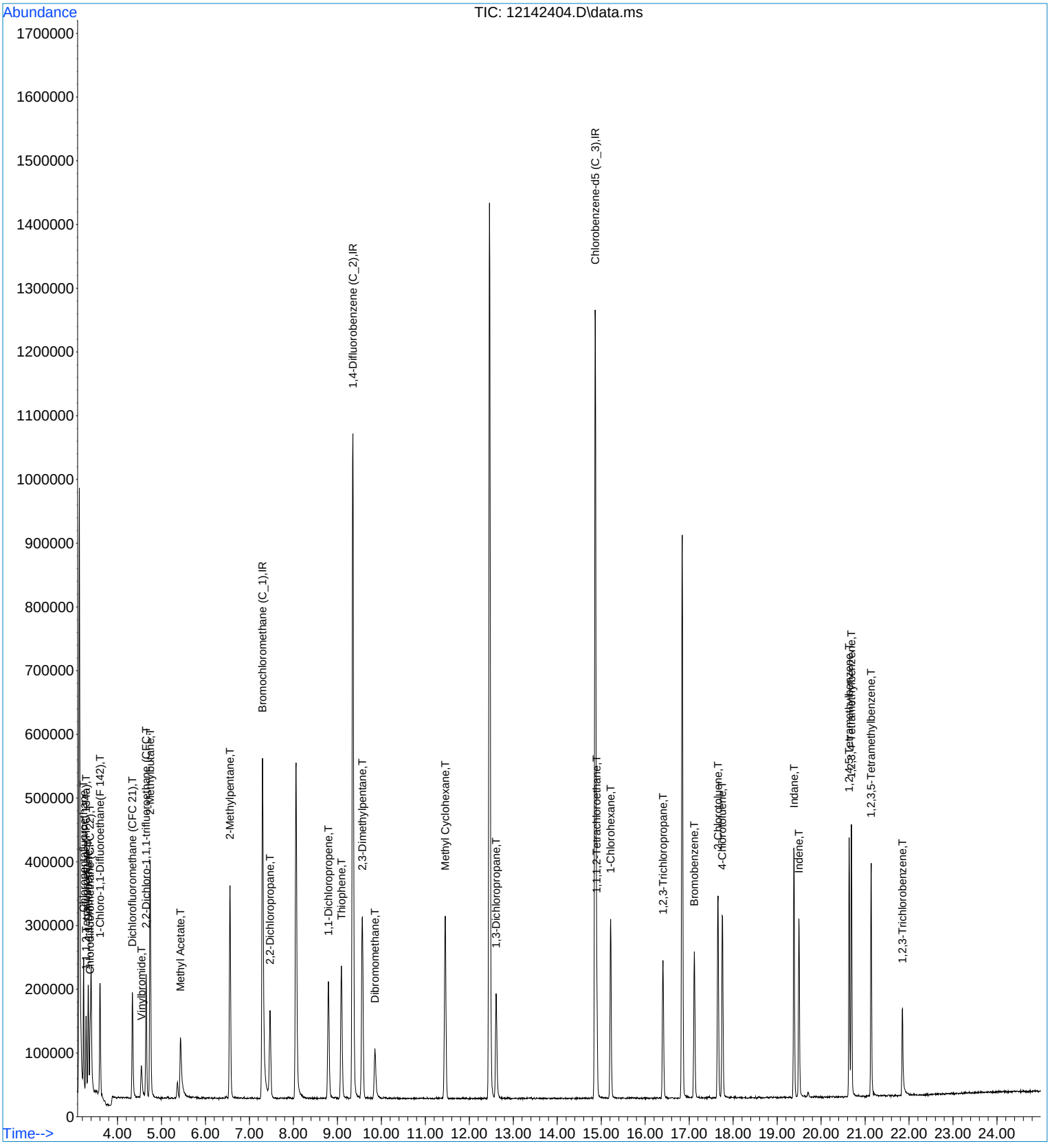
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	199660	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.35	114	931966	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	229692	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.23	85	60405	3.127	ng	100
3) 1,1,1,2-Tetrafluoroeth...	3.29	83	61305	3.494	ng	98
4) 1,1-Difluoroethane	3.34	65	63248	3.572	ng	90
5) Chlorodifluoromethane ...	3.38	67	22009	3.614	ng	96
6) 1-Chloro-1,1-Difluoroe...	3.60	65	149505	3.748	ng	100
7) Dichlorofluoromethane ...	4.34	67	157238	3.275	ng	99
8) Vinylbromide	4.54	108	48771	2.540	ng	97
9) 2,2-Dichloro-1,1,1-tri...	4.65	83	96449	3.088	ng	100
10) 2-Methylbutane	4.74	57	80234	3.650	ng	97
11) Methyl Acetate	5.43	43	215502	3.986	ng	99
12) 2-Methylpentane	6.56	71	63425	3.147	ng	96
13) 2,2-Dichloropropane	7.47	77	80657	3.328	ng	97
14) 1,1-Dichloropropene	8.80	75	101021	3.268	ng	99
15) Thiophene	9.09	84	140760	2.960	ng	99
17) 2,3-Dimethylpentane	9.57	56	147532	3.407	ng	98
18) Dibromomethane	9.85	174	40530	2.226	ng	100
20) Methyl Cyclohexane	11.45	55	127532	2.535	ng	100
21) 1,3-Dichloropropane	12.61	76	106864	2.113	ng	99
22) 1,1,1,2-Tetrachloroethane	14.90	131	43889	1.461	ng	99
23) 1-Chlorohexane	15.21	91	89062	1.923	ng	97
24) 1,2,3-Trichloropropane	16.40	75	111099	2.281	ng	100
25) Bromobenzene	17.12	77	122438	2.349	ng	97
26) 2-Chlorotoluene	17.66	91	203008	2.083	ng	99
27) 4-Chlorotoluene	17.75	91	193950	2.100	ng	99
28) Indane	19.39	117	199674	1.747	ng	98
29) Indene	19.49	115	147054	1.886	ng	99
30) 1,2,4,5-Tetramethylben...	20.64	119	192076	1.942	ng	100
31) 1,2,3,4-Tetramethylben...	20.69	119	212455	1.959	ng	99
32) 1,2,3,5-Tetramethylben...	21.14	119	191481	1.975	ng	98
33) 1,2,3-Trichlorobenzene	21.85	180	50298	1.655	ng	97

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142404.D
Sample : 2.5ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 6:14 Operator: MC
Misc : S37-11222401/S37-12132403 (1/12)
ALS Vial : 15 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 10:59:50 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142405.D
Sample : 5.0ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 6:50 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:02:15 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

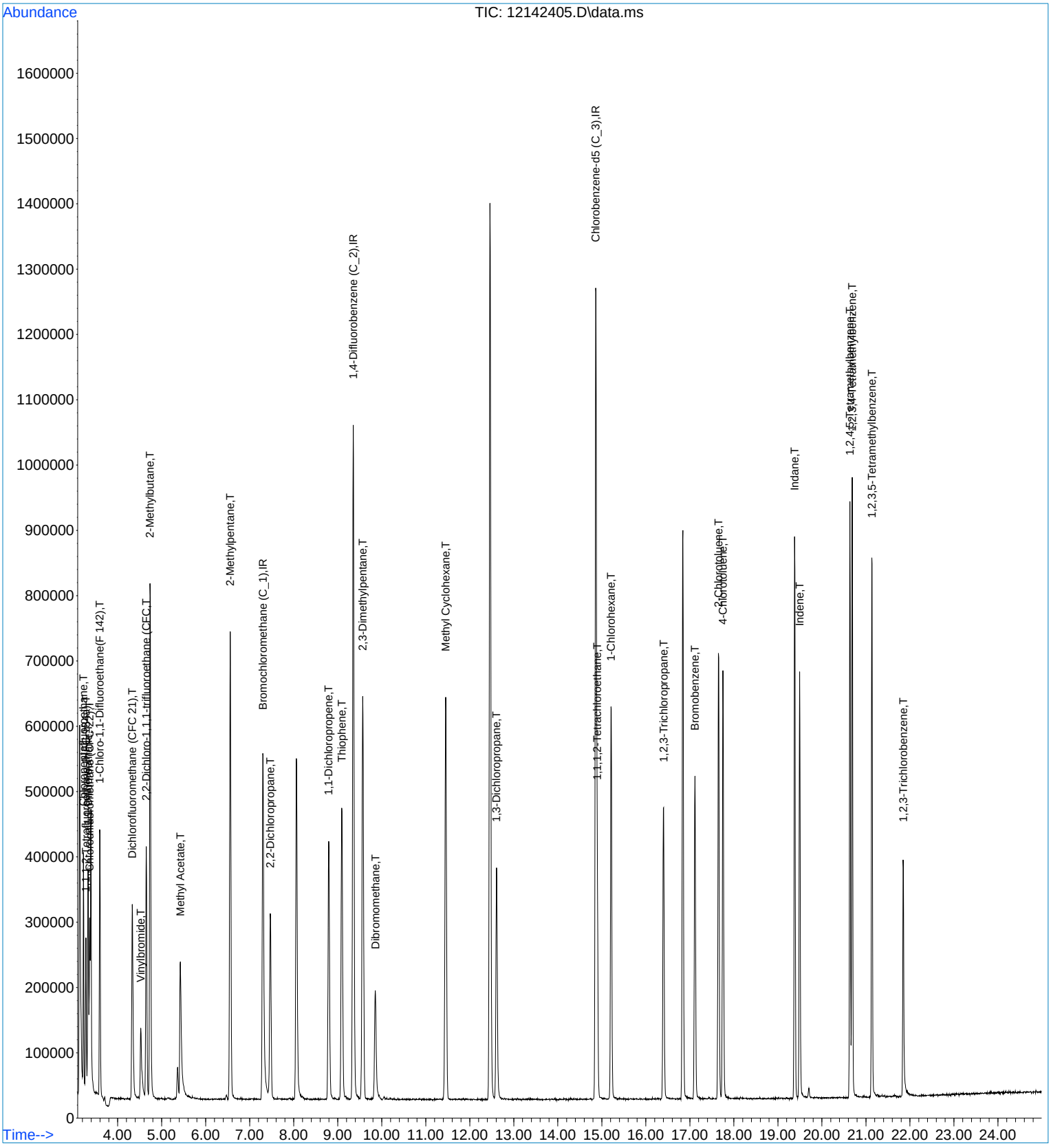
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	199655	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.35	114	906934	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	223507	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.22	85	104396	5.404	ng	99
3) 1,1,1,2-Tetrafluoroeth...	3.28	83	123122	7.017	ng	98
4) 1,1-Difluoroethane	3.33	65	131101	7.404	ng	97
5) Chlorodifluoromethane ...	3.37	67	48178	7.912	ng	98
6) 1-Chloro-1,1-Difluoroe...	3.59	65	319966	8.022	ng	100
7) Dichlorofluoromethane ...	4.33	67	333579	6.948	ng	99
8) Vinylbromide	4.53	108	107153	5.581	ng	100
9) 2,2-Dichloro-1,1,1-tri...	4.65	83	202674	6.489	ng	100
10) 2-Methylbutane	4.74	57	169872	7.728	ng	97
11) Methyl Acetate	5.43	43	449809	8.320	ng	99
12) 2-Methylpentane	6.56	71	137971	6.846	ng	99
13) 2,2-Dichloropropane	7.47	77	172723	7.126	ng	99
14) 1,1-Dichloropropene	8.79	75	216676	7.009	ng	99
15) Thiophene	9.09	84	301220	6.334	ng	100
17) 2,3-Dimethylpentane	9.57	56	312672	7.420	ng	99
18) Dibromomethane	9.86	174	86028	4.854	ng	99
20) Methyl Cyclohexane	11.45	55	273927	5.595	ng	100
21) 1,3-Dichloropropane	12.61	76	225807	4.589	ng	99
22) 1,1,1,2-Tetrachloroethane	14.90	131	96761	3.310	ng	99
23) 1-Chlorohexane	15.21	91	192946	4.282	ng	98
24) 1,2,3-Trichloropropane	16.40	75	232163	4.898	ng	99
25) Bromobenzene	17.12	77	261207	5.149	ng	99
26) 2-Chlorotoluene	17.65	91	439998	4.640	ng	100
27) 4-Chlorotoluene	17.75	91	426630	4.746	ng	100
28) Indane	19.38	117	437188	3.930	ng	100
29) Indene	19.49	115	337355	4.446	ng	99
30) 1,2,4,5-Tetramethylben...	20.64	119	431020	4.478	ng	99
31) 1,2,3,4-Tetramethylben...	20.69	119	464336	4.399	ng	100
32) 1,2,3,5-Tetramethylben...	21.14	119	422430	4.477	ng	99
33) 1,2,3-Trichlorobenzene	21.85	180	116920	3.953	ng	99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142405.D
Sample : 5.0ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 6:50 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:02:15 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142406.D
Sample : 25ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 7:25 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

MC 12/16/24

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:03:11 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

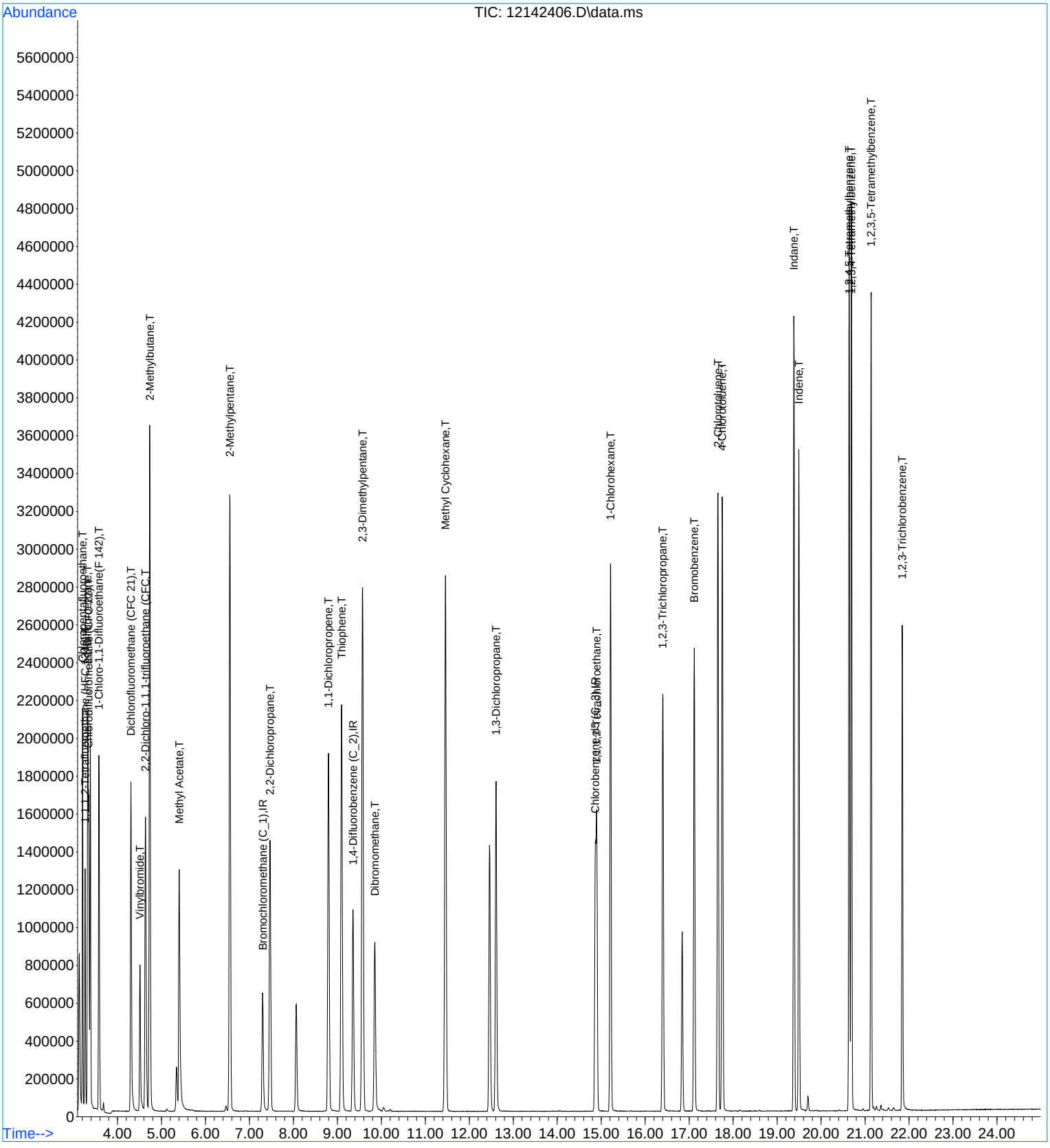
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	203557	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.36	114	937150	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	233305	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.21	85	619341	31.447	ng	100
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	611440	34.180	ng	100
4) 1,1-Difluoroethane	3.32	65	647515	35.866	ng	100
5) Chlorodifluoromethane ...	3.34	67	229700	36.999	ng	100
6) 1-Chloro-1,1-Difluoroe...	3.58	65	1468497	36.110	ng	100
7) Dichlorofluoromethane ...	4.30	67	1550837	31.681	ng	100
8) Vinylbromide	4.51	108	505097	25.804	ng	100
9) 2,2-Dichloro-1,1,1-tri...	4.63	83	943536	29.631	ng	100
10) 2-Methylbutane	4.74	57	757071	33.779	ng	100
11) Methyl Acetate	5.40	43	2102459	38.143	ng	100
12) 2-Methylpentane	6.56	71	632358	30.775	ng	100
13) 2,2-Dichloropropane	7.47	77	892026	36.098	ng	100
14) 1,1-Dichloropropene	8.79	75	1021834	32.421	ng	100
15) Thiophene	9.10	84	1408082	29.043	ng	100
17) 2,3-Dimethylpentane	9.57	56	1446669	33.225	ng	100
18) Dibromomethane	9.85	174	410488	22.416	ng	100
20) Methyl Cyclohexane	11.46	55	1277093	24.990	ng	100
21) 1,3-Dichloropropane	12.61	76	1075416	20.939	ng	100
22) 1,1,1,2-Tetrachloroethane	14.90	131	459858	15.072	ng	100
23) 1-Chlorohexane	15.21	91	931286	19.799	ng	100
24) 1,2,3-Trichloropropane	16.40	75	1115497	22.545	ng	100
25) Bromobenzene	17.12	77	1254944	23.700	ng	100
26) 2-Chlorotoluene	17.66	91	2101035	21.227	ng	100
27) 4-Chlorotoluene	17.75	91	2088487	22.259	ng	100
28) Indane	19.38	117	2158535	18.591	ng	100
29) Indene	19.49	115	1786006	22.549	ng	100
30) 1,2,4,5-Tetramethylben...	20.64	119	2273434	22.626	ng	100
31) 1,2,3,4-Tetramethylben...	20.69	119	2278667	20.681	ng	100
32) 1,2,3,5-Tetramethylben...	21.14	119	2148486	21.813	ng	100
33) 1,2,3-Trichlorobenzene	21.84	180	690030	22.349	ng	100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142406.D
Sample : 25ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 7:25 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:03:11 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142407.D
Sample : 50ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 8:00 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:03:57 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

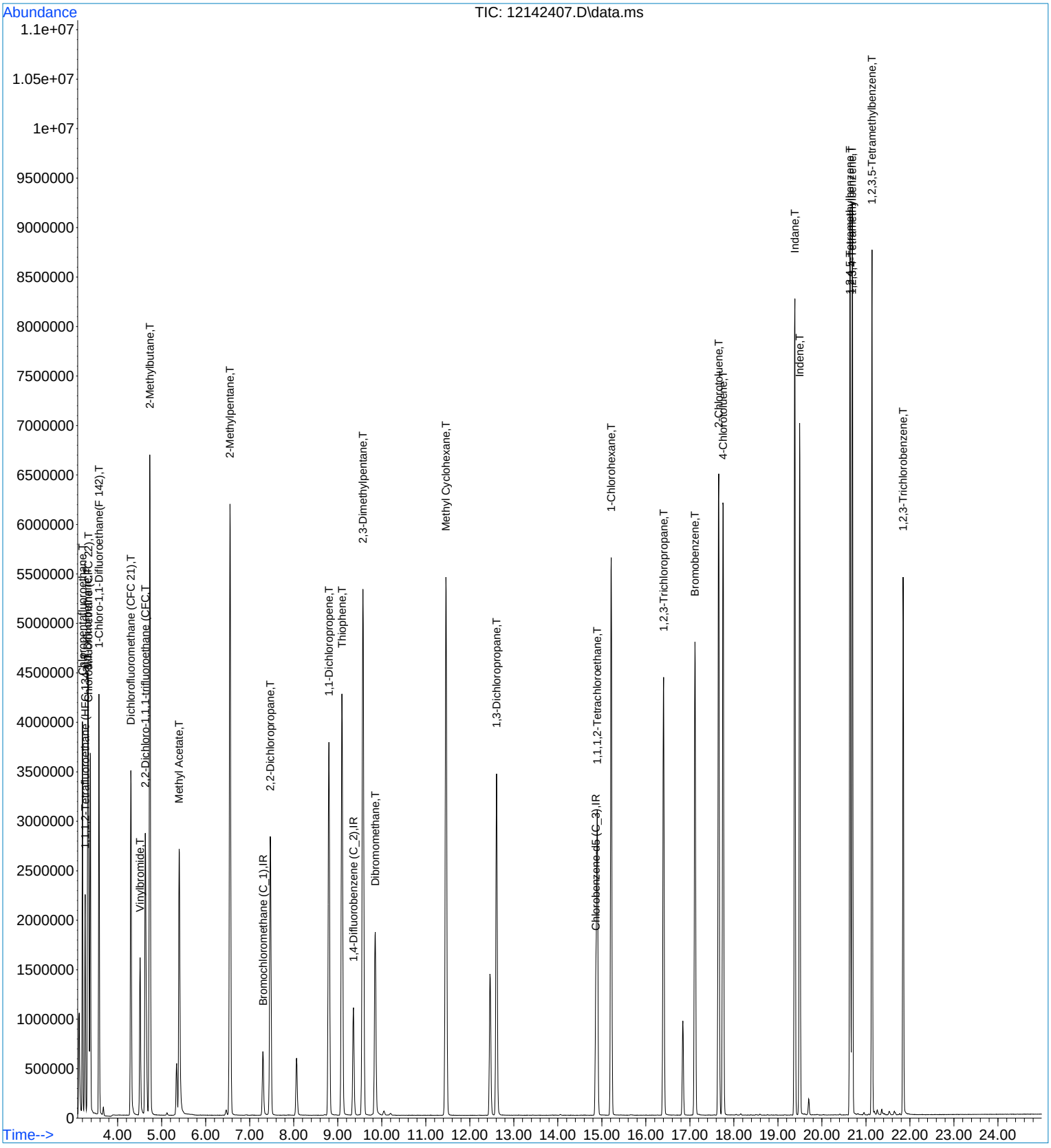
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	205471	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.36	114	935035	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.86	54	234692	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.20	85	1182729	59.494	ng	100
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	1156929	64.072	ng	99
4) 1,1-Difluoroethane	3.32	65	1181078	64.811	ng	99
5) Chlorodifluoromethane ...	3.34	67	445378	71.071	ng	99
6) 1-Chloro-1,1-Difluoroe...	3.58	65	2872881	69.985	ng	100
7) Dichlorofluoromethane ...	4.30	67	3060101	61.930	ng	100
8) Vinylbromide	4.51	108	1001095	50.668	ng	100
9) 2,2-Dichloro-1,1,1-tri...	4.63	83	1862622	57.949	ng	100
10) 2-Methylbutane	4.73	57	1448127	64.011	ng	99
11) Methyl Acetate	5.40	43	4132039	74.265	ng	100
12) 2-Methylpentane	6.55	71	1224353	59.031	ng	98
13) 2,2-Dichloropropane	7.47	77	1780505	71.381	ng	100
14) 1,1-Dichloropropene	8.80	75	2018256	63.438	ng	100
15) Thiophene	9.10	84	2779654	56.799	ng	100
17) 2,3-Dimethylpentane	9.57	56	2795965	64.358	ng	100
18) Dibromomethane	9.85	174	829776	45.416	ng	99
20) Methyl Cyclohexane	11.46	55	2472128	48.089	ng	99
21) 1,3-Dichloropropane	12.61	76	2124166	41.114	ng	100
22) 1,1,1,2-Tetrachloroethane	14.90	131	932970	30.398	ng	99
23) 1-Chlorohexane	15.21	91	1836913	38.822	ng	99
24) 1,2,3-Trichloropropane	16.40	75	2211449	44.430	ng	100
25) Bromobenzene	17.12	77	2500541	46.944	ng	99
26) 2-Chlorotoluene	17.66	91	4169948	41.881	ng	100
27) 4-Chlorotoluene	17.76	91	4159182	44.067	ng	100
28) Indane	19.39	117	4280312	36.647	ng	100
29) Indene	19.49	115	3584671	44.991	ng	99
30) 1,2,4,5-Tetramethylben...	20.64	119	4533578	44.854	ng	100
31) 1,2,3,4-Tetramethylben...	20.69	119	4501327	40.613	ng	100
32) 1,2,3,5-Tetramethylben...	21.14	119	4307305	43.472	ng	100
33) 1,2,3-Trichlorobenzene	21.84	180	1436588	46.253	ng	100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142407.D
Sample : 50ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 8:00 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:03:57 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142408.D
Sample : 100ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 8:36 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:04:18 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration

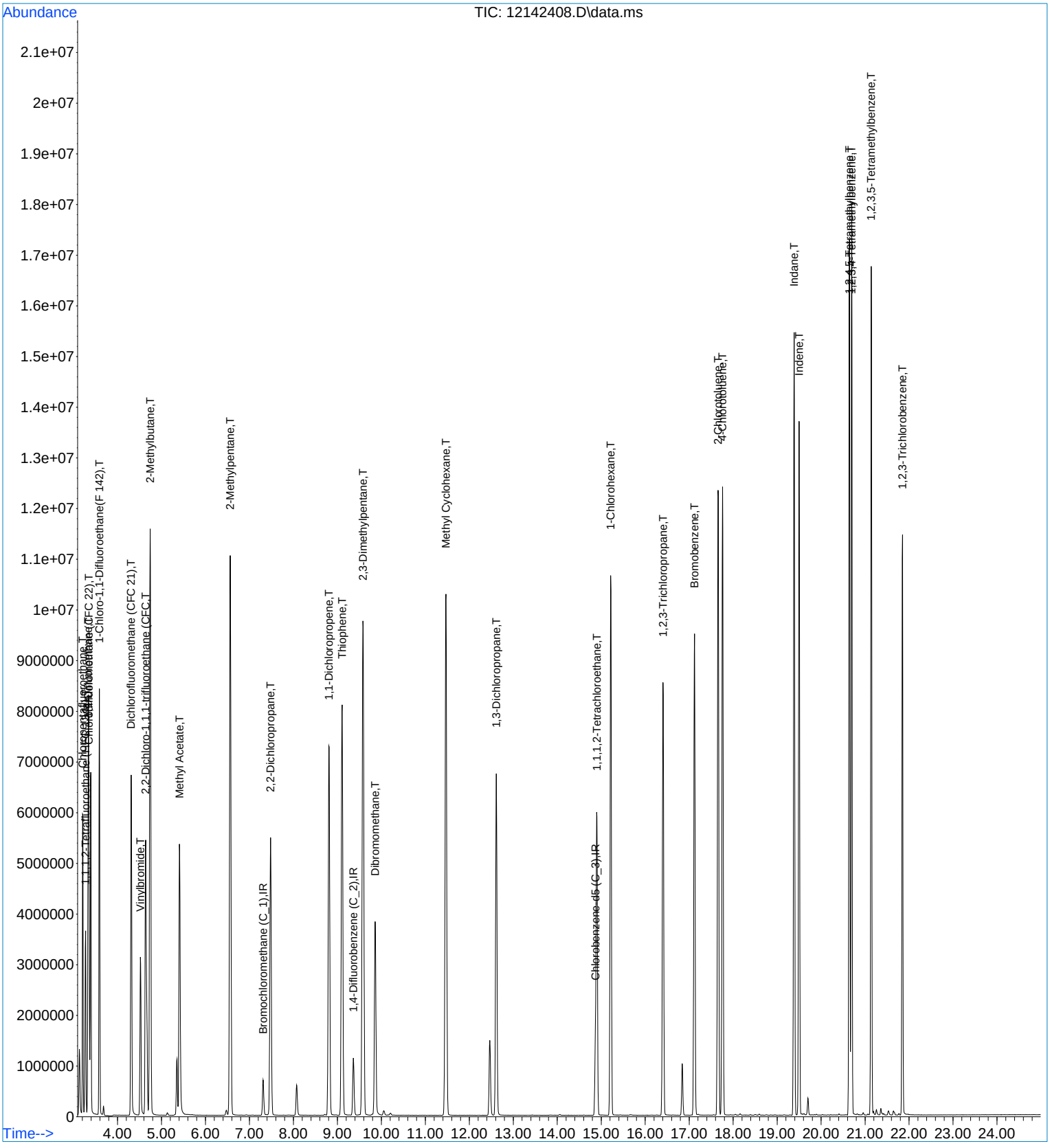
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.31	130	214284	12.500	ng	0.00
16) 1,4-Difluorobenzene (C 2)	9.36	114	966707	12.500	ng	0.00
19) Chlorobenzene-d5 (C_3)	14.87	54	245839	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.21	85	2003479	96.635	ng	99
3) 1,1,1,2-Tetrafluoroeth...	3.27	83	2004686	106.455	ng	99
4) 1,1-Difluoroethane	3.33	65	1880830	98.964	ng	96
5) Chlorodifluoromethane ...	3.35	67	815283	124.747	ng	100
6) 1-Chloro-1,1-Difluoroe...	3.59	65	5577381	130.280	ng	100
7) Dichlorofluoromethane ...	4.31	67	5951877	115.499	ng	100
8) Vinylbromide	4.52	108	1987034	96.432	ng	100
9) 2,2-Dichloro-1,1,1-tri...	4.64	83	3661335	109.225	ng	100
10) 2-Methylbutane	4.74	57	2712501	114.969	ng	97
11) Methyl Acetate	5.41	43	8087972	139.387	ng	100
12) 2-Methylpentane	6.56	71	2355159	108.881	ng	94
13) 2,2-Dichloropropane	7.48	77	3474689	133.572	ng	100
14) 1,1-Dichloropropene	8.81	75	3962926	119.441	ng	99
15) Thiophene	9.11	84	5456724	106.915	ng	99
17) 2,3-Dimethylpentane	9.59	56	5334377	118.766	ng	99
18) Dibromomethane	9.86	174	1705028	90.264	ng	96
20) Methyl Cyclohexane	11.47	55	4766693	88.520	ng	98
21) 1,3-Dichloropropane	12.61	76	4164575	76.952	ng	100
22) 1,1,1,2-Tetrachloroethane	14.90	131	1859505	57.839	ng	99
23) 1-Chlorohexane	15.21	91	3556438	71.755	ng	98
24) 1,2,3-Trichloropropane	16.40	75	4323653	82.928	ng	99
25) Bromobenzene	17.12	77	4954647	88.798	ng	98
26) 2-Chlorotoluene	17.66	91	8173476	78.369	ng	99
27) 4-Chlorotoluene	17.76	91	8206814	83.010	ng	100
28) Indane	19.39	117	8257408	67.493	ng	99
29) Indene	19.50	115	7141729	85.570	ng	99
30) 1,2,4,5-Tetramethylben...	20.64	119	8858391	83.668	ng	100
31) 1,2,3,4-Tetramethylben...	20.69	119	8891284	76.583	ng	99
32) 1,2,3,5-Tetramethylben...	21.14	119	8540821	82.290	ng	100
33) 1,2,3-Trichlorobenzene	21.85	180	3103870	95.403	ng	100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142408.D
Sample : 100ng C13121424 ICAL Inst : MS13
Acq On : 14 Dec 2024 8:36 Operator: MC
Misc : S37-11222401/S37-12132402 (1/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:04:18 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 10:56:16 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 12/16/24

Data File: I:\MS13\DATA\2024 12\14\12142410.D
Sample : ICV C13121424 25ng Inst : MS13
Acq On : 14 Dec 2024 9:47 Operator: MC
Misc : S37-11222401/S37-12132404 (1/12)
ALS Vial : 14 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:13:43 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

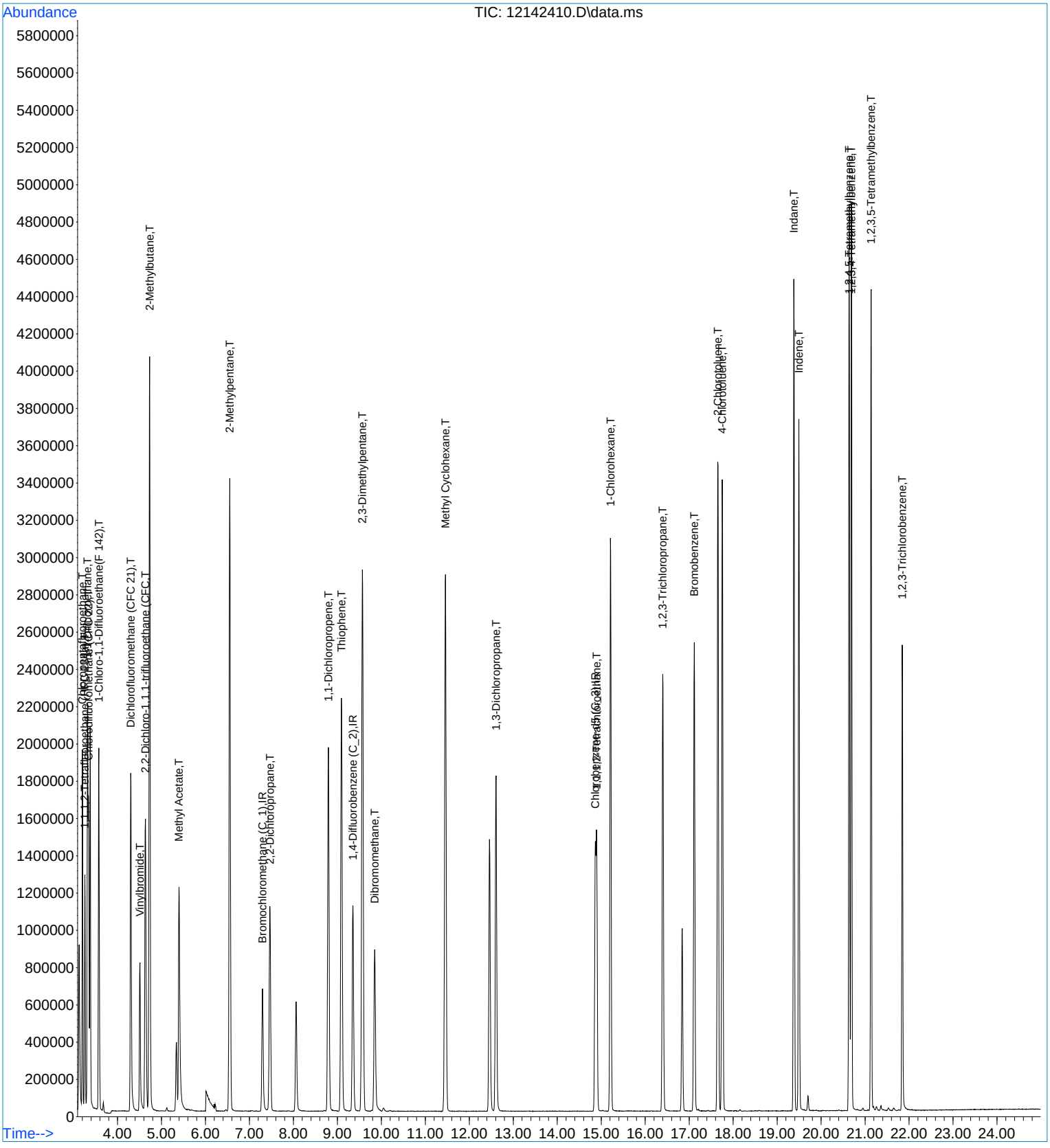
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	212417	12.500	ng	-0.01
16) 1,4-Difluorobenzene (C 2)	9.35	114	950804	12.500	ng	-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	243600	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.20	85	589203	22.709	ng	100
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	614232	23.630	ng	100
4) 1,1-Difluoroethane	3.32	65	646115	25.448	ng	99
5) Chlorodifluoromethane ...	3.34	67	239796	26.267	ng	100
6) 1-Chloro-1,1-Difluoroe...	3.58	65	1543671	25.357	ng	100
7) Dichlorofluoromethane ...	4.30	67	1631560	24.134	ng	100
8) Vinylbromide	4.51	108	508784	24.049	ng	99
9) 2,2-Dichloro-1,1,1-tri...	4.63	83	957878	24.398	ng	100
10) 2-Methylbutane	4.73	57	808284	24.849	ng	92
11) Methyl Acetate	5.40	43	2006650	21.333	ng	100
12) 2-Methylpentane	6.55	71	646836	23.902	ng	99
13) 2,2-Dichloropropane	7.47	77	690132	19.014	ng	99
14) 1,1-Dichloropropene	8.79	75	1046524	25.052	ng	100
15) Thiophene	9.09	84	1455376	24.566	ng	100
17) 2,3-Dimethylpentane	9.57	56	1508245	25.874	ng	99
18) Dibromomethane	9.85	174	394830	24.326	ng	100
20) Methyl Cyclohexane	11.46	55	1312127	25.699	ng	100
21) 1,3-Dichloropropane	12.61	76	1118570	25.276	ng	100
22) 1,1,1,2-Tetrachloroethane	14.90	131	424676	18.943	ng	98
23) 1-Chlorohexane	15.21	91	973550	26.044	ng	100
24) 1,2,3-Trichloropropane	16.40	75	1168008	25.999	ng	100
25) Bromobenzene	17.12	77	1302280	25.628	ng	100
26) 2-Chlorotoluene	17.65	91	2262185	27.147	ng	100
27) 4-Chlorotoluene	17.75	91	2210162	26.204	ng	99
28) Indane	19.38	117	2260580	25.619	ng	100
29) Indene	19.49	115	1853773	25.891	ng	100
30) 1,2,4,5-Tetramethylben...	20.64	119	2338003	27.944	ng	100
31) 1,2,3,4-Tetramethylben...	20.69	119	2345056	26.057	ng	100
32) 1,2,3,5-Tetramethylben...	21.14	119	2187907	26.342	ng	100
33) 1,2,3-Trichlorobenzene	21.84	180	677523	28.194	ng	100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\14\12142410.D
Sample : ICV C13121424 25ng Inst : MS13
Acq On : 14 Dec 2024 9:47 Operator: MC
Misc : S37-11222401/S37-12132404 (1/12)
ALS Vial : 14 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Dec 16 11:13:43 2024
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS Environmental

MC 12/16/24

ICV / LCS Custom Report Acceptance Criteria

ICV C13121424 25ng

	RT
Bromochloromethane (IS1)	7.30
1,4-Difluorobenzene (IS2)	9.35
Chlorobenzene-d5 (IS3)	14.86

Datafile: 12142410.D
Instrument: MS-13
Date: 12/14/24

CAS No	Analyte	Amount Found	Spike Amount	% REC	ALS LCS Limits	ALS Pass/Fail
76-15-3	Chloropentafluoroethane	22.709	25.8	88	70-130	ok
811-97-2	1,1,1,2-Tetrafluoroethane (HFC 134a)	23.630	25.5	93	70-130	ok
75-37-6	1,1-Difluoroethane	25.448	26.8	95	70-130	ok
75-45-6	Chlorodifluoromethane (CFC 22)	26.267	26.5	99	70-130	ok
75-68-3	1-Chloro-1,1-Difluoroethane(F 142)	25.357	26.0	98	70-130	ok
75-43-4	Dichlorofluoromethane (CFC 21)	24.134	25.3	95	70-130	ok
593-60-2	Vinylbromide	24.049	24.5	98	70-130	ok
306-83-2	2,2-Dichloro-1,1,1-trifluoroethane (CFC	24.398	27.0	90	70-130	ok
78-78-4	2-Methylbutane	24.849	27.8	89	70-130	ok
79-20-9	Methyl Acetate	21.333	22.0	97	70-130	ok
107-83-5	2-Methylpentane	23.902	24.5	98	70-130	ok
594-20-7	2,2-Dichloropropane	19.014	18.8	101	70-130	ok
563-58-6	1,1-Dichloropropene	25.052	25.8	97	70-130	ok
110-02-1	Thiophene	24.566	25.3	97	70-130	ok
565-59-3	2,3-Dimethylpentane	25.874	26.0	100	70-130	ok
74-95-3	Dibromomethane	24.326	25.5	95	70-130	ok
108-87-2	Methyl Cyclohexane	25.699	26.5	97	70-130	ok
142-28-9	1,3-Dichloropropane	25.276	26.3	96	70-130	ok
630-20-6	1,1,1,2-Tetrachloroethane	18.943	19.0	100	70-130	ok
544-10-5	1-Chlorohexane	26.044	25.8	101	70-130	ok
96-18-4	1,2,3-Trichloropropane	25.999	26.3	99	70-130	ok
108-86-1	Bromobenzene	25.628	26.5	97	70-130	ok
95-49-8	2-Chlorotoluene	27.147	27.3	99	70-130	ok
106-43-4	4-Chlorotoluene	26.204	25.8	102	70-130	ok
496-11-7	Indan	25.619	25.0	102	70-130	ok
95-13-6	Indene	25.891	24.0	108	70-130	ok
95-93-2	1,2,4,5-Tetramethylbenzene	27.944	25.8	108	70-130	ok
488-23-3	1,2,3,4-Tetramethylbenzene	26.057	26.3	99	70-130	ok
527-53-7	1,2,3,5-Tetramethylbenzene	26.342	25.8	102	70-130	ok
87-61-6	1,2,3-Trichlorobenzene	28.194	26.0	108	70-130	ok

Evaluate Continuing Calibration Report

Data File: I:\MS13\DATA\2025 01\27\01272502.D
Sample : CCV R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:21 Operator: MC
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

MC 1/27/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 10:35:43 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	72	0.03
2	T	Propene	2.979	3.075	-3.2	76	-0.06
3	T	Dichlorodifluoromethane (CF	3.111	3.137	-0.8	74	-0.05
4	T	Chloromethane	2.918	3.100	-6.2	70	-0.03
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.022	1.009	1.3	69	-0.03
6	T	Vinyl Chloride	2.357	2.213	6.1	77	-0.05
7	T	1,3-Butadiene	2.221	1.754	21.0	51	-0.05
8	T	Bromomethane	1.247	1.174	5.9	67	-0.05
9	T	Chloroethane	1.253	1.230	1.8	70	-0.05
10	T	Ethanol	1.937	1.837	5.2	76	0.03
11	T	Acetonitrile	4.910	5.262	-7.2	78	-0.02
12	T	Acrolein	1.446	1.390	3.9	71	-0.01
13	T	Acetone	1.393	1.359	2.4	73	0.00
14	T	Trichlorofluoromethane	2.514	2.563	-1.9	74	-0.03
15	T	2-Propanol (Isopropanol)	6.259	6.424	-2.6	77	0.03
16	T	Acrylonitrile	2.765	2.830	-2.4	74	0.01
17	T	1,1-Dichloroethene	1.294	1.241	4.1	68	-0.03
18	T	2-Methyl-2-Propanol (tert-B	4.205	4.198	0.2	72	-0.02
19	T	Methylene Chloride	1.633	1.528	6.4	70	0.02
20	T	3-Chloro-1-propene (Allyl C	3.411	4.013	-17.6	80	-0.01
21	T	Trichlorotrifluoroethane	0.994	0.901	9.4	66	-0.01
22	T	Carbon Disulfide	6.370	5.968	6.3	71	-0.02
23	T	trans-1,2-Dichloroethene	2.723	2.843	-4.4	74	0.00
24	T	1,1-Dichloroethane	3.277	3.327	-1.5	73	0.02
25	T	Methyl tert-Butyl Ether	4.292	4.291	0.0	72	-0.01
26	T	Vinyl Acetate	0.290	0.285	1.7	64	0.02
27	T	2-Butanone (MEK)	1.050	1.085	-3.3	70	0.01
28	T	cis-1,2-Dichloroethene	2.645	2.706	-2.3	73	0.02
29	T	Diisopropyl Ether	1.136	1.096	3.5	69	0.00
30	T	Ethyl Acetate	0.672	0.727	-8.2	73	0.00
31	T	n-Hexane	3.181	3.244	-2.0	74	0.00
32	T	Chloroform	2.677	2.696	-0.7	72	0.03
33	S	1,2-Dichloroethane-d4(SS1)	2.250	2.692	-19.6	87	0.03
34	T	Tetrahydrofuran (THF)	1.068	1.028	3.7	69	-0.01
35	T	Ethyl tert-Butyl Ether	1.685	1.680	0.3	70	0.00
36	T	1,2-Dichloroethane	2.524	2.788	-10.5	79	0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	73	0.02
38	T	1,1,1-Trichloroethane	0.501	0.518	-3.4	73	0.02
39	T	Isopropyl Acetate	0.000	0.000	0.0	0#	-0.02
40	T	1-Butanol	0.000	0.000	0.0	0#	-0.02
41	T	Benzene	1.475	1.390	5.8	69	0.02
42	T	Carbon Tetrachloride	0.433	0.445	-2.8	72	0.02
43	T	Cyclohexane	0.486	0.464	4.5	69	0.01
44	T	tert-Amyl Methyl Ether	0.992	1.033	-4.1	72	0.00
45	T	1,2-Dichloropropane	0.418	0.412	1.4	71	0.02
46	T	Bromodichloromethane	0.455	0.476	-4.6	73	0.02
47	T	Trichloroethene	0.295	0.273	7.5	66	0.02
48	T	1,4-Dioxane	0.260	0.239	8.1	67	-0.01
49	T	2,2,4-Trimethylpentane (Iso	1.817	1.813	0.2	73	0.00
50	T	Methyl Methacrylate	0.104	0.108	-3.8	66	0.00
51	T	n-Heptane	0.363	0.352	3.0	70	0.02
52	T	cis-1,3-Dichloropropene	0.604	0.653	-8.1	72	0.00
53	T	4-Methyl-2-pentanone	0.358	0.362	-1.1	70	-0.01
54	T	trans-1,3-Dichloropropene	0.465	0.547	-17.6	72	0.00
55	T	1,1,2-Trichloroethane	0.298	0.288	3.4	68	0.02

Evaluate Continuing Calibration Report

Data File: I:\MS13\DATA\2025 01\27\01272502.D
Sample : CCV R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:21 Operator: MC
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 10:35:43 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	88	0.00	
57	S	Toluene-d8 (SS2)	4.538	3.863	14.9	75	0.01	
58	T	Toluene	4.802	3.767	21.6	70	0.00	
59	T	2-Hexanone	3.729	3.233	13.3	74	-0.02	
60	T	Dibromochloromethane	1.181	0.993	15.9	70	0.00	
61	T	1,2-Dibromoethane	1.236	0.990	19.9	69	0.00	
62	T	n-Butyl Acetate	4.173	3.546	15.0	71	-0.01	
63	T	n-Octane	1.343	1.133	15.6	73	0.00	
64	T	Tetrachloroethene	1.094	0.814	25.6	66	0.00	
65	T	Chlorobenzene	2.944	2.260	23.2	68	0.00	
66	T	Ethylbenzene	5.434	4.406	18.9	70	0.00	
67	T	m- & p-Xylenes	4.315	3.551	17.7	71	0.00	
68	T	Bromoform	0.858	0.729	15.0	67	0.00	
69	T	Styrene	2.883	2.423	16.0	67	0.00	
70	T	o-Xylene	4.290	3.488	18.7	71	0.00	
71	T	n-Nonane	3.817	3.479	8.9	77	0.00	
72	T	1,1,2,2-Tetrachloroethane	2.199	1.765	19.7	70	0.00	
73	S	Bromofluorobenzene (SS3)	1.160	0.961	17.2	74	0.00	
74	T	Cumene	4.932	3.935	20.2	69	0.00	
75	T	alpha-Pinene	2.447	2.146	12.3	70	0.00	
76	T	n-Propylbenzene	6.452	5.252	18.6	70	0.00	
77	T	3-Ethyltoluene	0.000	0.000	0.0	69	0.00	
78	T	4-Ethyltoluene	4.654	3.839	17.5	69	0.00	
79	T	1,3,5-Trimethylbenzene	4.090	3.276	19.9	70	0.00	
80	T	alpha-Methylstyrene	0.000	0.000	0.0	70	0.00	
81	T	2-Ethyltoluene	0.000	0.000	0.0	69	0.00	
82	T	1,2,4-Trimethylbenzene	4.075	3.387	16.9	70	0.00	
83	T	n-Decane	0.000	0.000	0.0	73	0.00	
84	T	Benzyl Chloride	2.955	2.573	12.9	64	0.00	
85	T	1,3-Dichlorobenzene	2.136	1.649	22.8	66	0.00	
86	T	1,4-Dichlorobenzene	2.251	1.625	27.8	66	0.00	
87	T	sec-Butylbenzene	5.435	4.272	21.4	69	0.00	
88	T	4-Isopropyltoluene (p-Cymen	4.271	3.345	21.7	67	0.00	
89	T	1,2,3-Trimethylbenzene	0.000	0.000	0.0	69	0.00	
90	T	1,2-Dichlorobenzene	2.154	1.622	24.7	66	0.00	
91	T	d-Limonene	1.748	1.544	11.7	69	0.00	
92	T	1,2-Dibromo-3-Chloropropane	0.659	0.506	23.2	64	0.00	
93	T	n-Undecane	0.000	0.000	0.0	70	0.00	
94	T	1,2,4-Trichlorobenzene	1.319	0.889	32.6#	61	0.00	54.6%
95	T	Naphthalene	3.460	2.310	33.2#	58	-0.03	48.1%
96	T	n-Dodecane	0.000	0.000	0.0	70	0.00	
97	T	Hexachlorobutadiene	0.958	0.583	39.1#	60	0.00	74.9%
98	T	Cyclohexanone	0.000	0.000	0.0	52	-0.03	
99	T	tert-Butylbenzene	3.632	2.871	21.0	68	0.00	
100	T	n-Butylbenzene	4.292	3.535	17.6	68	0.00	
101	T	1,1,1,2-Tetrachloroethane	0.964	0.793	17.7	69	0.01	

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272502.D
Sample : CCV R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:21 Operator: MC
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

MC 1/27/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 10:35:43 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	109078	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.37	114	500391	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	165560	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	293587	14.955	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 119.60%				
57) Toluene-d8 (SS2)	12.47	98	639495	10.639	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.12%				
73) Bromofluorobenzene (SS3)	16.84	174	159077	10.351	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 82.80%				
Target Compounds							Qvalue
2) Propene	3.36	42	704268	27.095	ng		97
3) Dichlorodifluoromethan...	3.44	85	691202	25.465	ng		100
4) Chloromethane	3.58	50	716869	28.153	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	237720	26.661	ng		100
6) Vinyl Chloride	3.77	62	511765	24.885	ng		100
7) 1,3-Butadiene	3.89	54	405687	20.933	ng		93
8) Bromomethane	4.11	94	261304	24.017	ng		100
9) Chloroethane	4.24	64	295078	26.993	ng		100
10) Ethanol	4.41	45	2104065	124.462	ng		100
11) Acetonitrile	4.56	41	1182460	27.596	ng		99
12) Acrolein	4.63	56	660832	52.360	ng		99
13) Acetone	4.73	58	1518180	124.891	ng	#	80
14) Trichlorofluoromethane	4.84	101	564820	25.745	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	2886774	52.856	ng		99
16) Acrylonitrile	5.11	53	1284122	53.228	ng		99
17) 1,1-Dichloroethene	5.34	96	246376	21.814	ng	#	85
18) 2-Methyl-2-Propanol (t...	5.43	59	1914281	52.175	ng		97
19) Methylene Chloride	5.46	84	303279	21.277	ng		86
20) 3-Chloro-1-propene (Al...	5.54	41	954363	32.064	ng		95
21) Trichlorotrifluoroethane	5.66	151	180811	20.842	ng		95
22) Carbon Disulfide	5.69	76	2695202	48.488	ng		100
23) trans-1,2-Dichloroethene	6.23	61	651311	27.413	ng		94
24) 1,1-Dichloroethane	6.42	63	747470	26.136	ng		99
25) Methyl tert-Butyl Ether	6.44	73	992341	26.497	ng		100
26) Vinyl Acetate	6.54	86	328874	129.928	ng	#	59
27) 2-Butanone (MEK)	6.75	72	482658	52.657	ng	#	78
28) cis-1,2-Dichloroethene	7.17	61	608084	26.346	ng		93
29) Diisopropyl Ether	7.36	87	499827	50.441	ng	#	72
30) Ethyl Acetate	7.37	61	309314	52.728	ng		96
31) n-Hexane	7.37	57	736102	26.522	ng		99
32) Chloroform	7.46	83	623384	26.684	ng		100
34) Tetrahydrofuran (THF)	7.82	72	426217	45.738	ng	#	87
35) Ethyl tert-Butyl Ether	7.89	87	766089	52.108	ng	#	90
36) 1,2-Dichloroethane	8.20	62	614192	27.886	ng		99
38) 1,1,1-Trichloroethane	8.47	97	534029	26.627	ng		97
39) Isopropyl Acetate	9.65	61	1063	No Calib	#		
40) 1-Butanol	8.88	56	8242	No Calib	#		
41) Benzene	8.97	78	1418677	24.032	ng		99
42) Carbon Tetrachloride	9.14	117	454381	26.190	ng		100
43) Cyclohexane	9.28	84	965994	49.684	ng		93
44) tert-Amyl Methyl Ether	9.65	73	2171595	54.660	ng		95
45) 1,2-Dichloropropane	9.92	63	441369	26.400	ng		100
46) Bromodichloromethane	10.14	83	509611	27.974	ng		100
47) Trichloroethene	10.21	130	286407	24.218	ng		99
48) 1,4-Dioxane	10.17	88	253806	24.357	ng		93
49) 2,2,4-Trimethylpentane...	10.29	57	1923767	26.446	ng		93
50) Methyl Methacrylate	10.46	100	229859	55.106	ng	#	89

Data File: I:\MS13\DATA\2025 01\27\01272502.D
Sample : CCV R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:21 Operator: MC
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 10:35:43 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

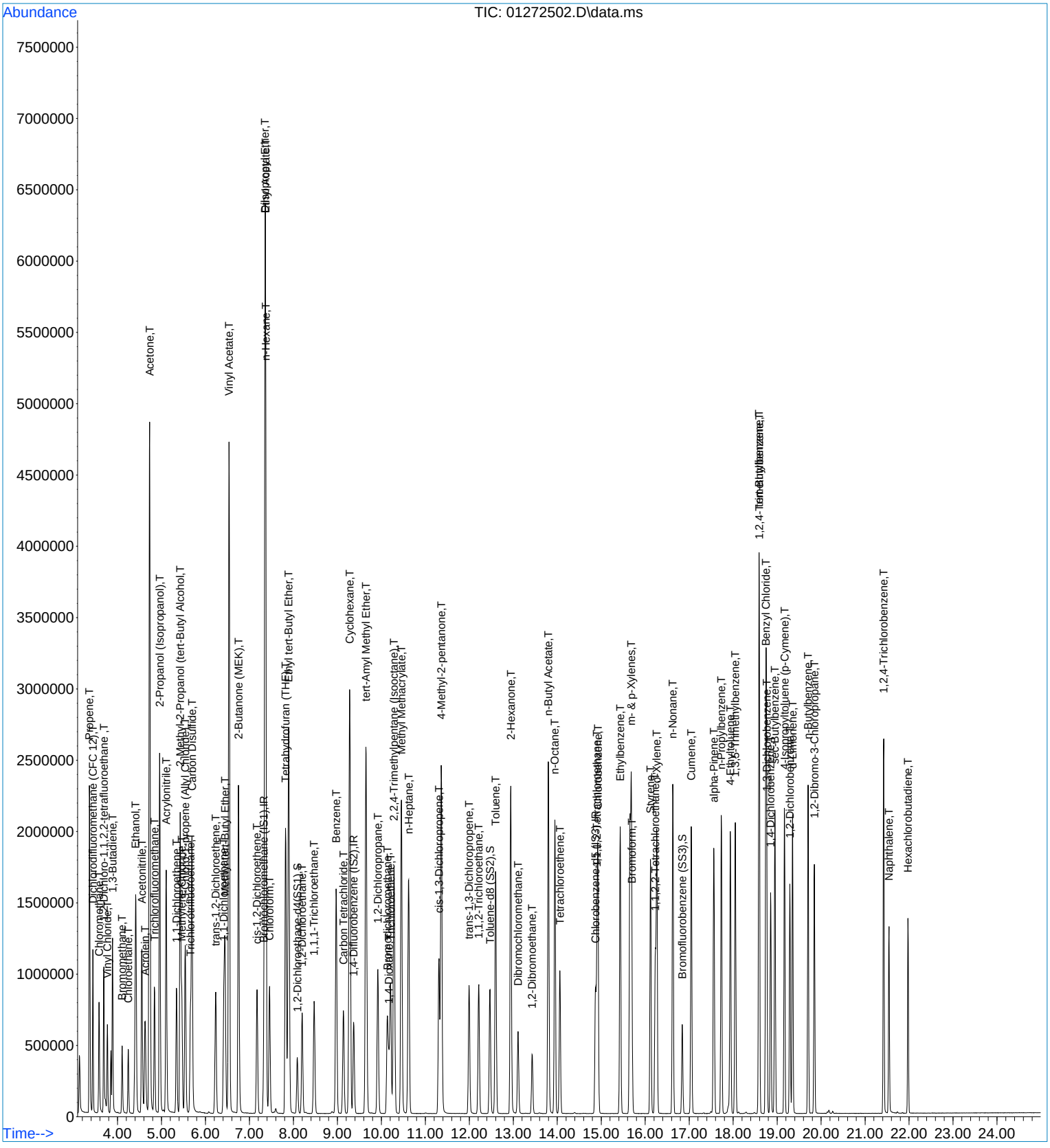
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	365974	25.180 ng		97
52) cis-1,3-Dichloropropene	11.31	75	686370	28.381 ng		99
53) 4-Methyl-2-pentanone	11.36	58	760461	53.009 ng		89
54) trans-1,3-Dichloropropene	11.99	75	542370	29.166 ng		99
55) 1,1,2-Trichloroethane	12.22	97	317583	26.636 ng		98
58) Toluene	12.60	91	1359467	21.376 ng		99
59) 2-Hexanone	12.94	43	2226840	45.087 ng		95
60) Dibromochloromethane	13.11	129	338567	21.636 ng		99
61) 1,2-Dibromoethane	13.43	107	344096	21.021 ng		100
62) n-Butyl Acetate	13.80	43	2465496	44.611 ng		96
63) n-Octane	13.95	57	397697	22.350 ng		96
64) Tetrachloroethene	14.06	166	288520	19.905 ng		99
65) Chlorobenzene	14.92	112	800764	20.534 ng		99
66) Ethylbenzene	15.43	91	1590375	22.097 ng		99
67) m- & p-Xylenes	15.68	91	2516156	44.022 ng		98
68) Bromoform	15.70	173	263235	23.171 ng		100
69) Styrene	16.12	104	850455	22.276 ng		97
70) o-Xylene	16.26	91	1247287	21.949 ng		98
71) n-Nonane	16.63	43	1209630	23.926 ng		95
72) 1,1,2,2-Tetrachloroethane	16.23	83	631316	21.675 ng		100
74) Cumene	17.05	105	1368173	20.944 ng		99
75) alpha-Pinene	17.56	93	760223	23.454 ng		96
76) n-Propylbenzene	17.73	91	1808675	21.166 ng		98
77) 3-Ethyltoluene	17.05	105	1368173	No Calib		
78) 4-Ethyltoluene	17.93	105	1321892	21.443 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1171537	21.626 ng		98
80) alpha-Methylstyrene	17.05	118	2376	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1368173	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1177724	21.820 ng		99
83) n-Decane	17.05	58	17602	No Calib		
84) Benzyl Chloride	18.74	91	1831489	46.792 ng		98
85) 1,3-Dichlorobenzene	18.77	146	578681	20.452 ng		100
86) 1,4-Dichlorobenzene	18.85	146	564856	18.948 ng		99
87) sec-Butylbenzene	18.95	105	1471137	20.437 ng		98
88) 4-Isopropyltoluene (p-...	19.17	119	1151920	20.365 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	1368173	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	558650	19.583 ng		100
91) d-Limonene	19.35	68	526735	22.751 ng		98
92) 1,2-Dibromo-3-Chloropr...	19.85	157	353713	40.503 ng	#	78
93) n-Undecane	18.05	58	38814	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	639098	36.584 ng		100
95) Naphthalene	21.54	128	833644	18.193 ng		100
96) n-Dodecane	18.95	58	14247	No Calib	#	
97) Hexachlorobutadiene	21.98	225	202610	15.972 ng		99
98) Cyclohexanone	15.43	55	409	No Calib	#	
99) tert-Butylbenzene	18.59	119	998212	20.748 ng		99
100) n-Butylbenzene	19.70	91	1205666	21.209 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	280878	21.996 ng		99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272502.D
Sample : CCV R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:21 Operator: MC
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 10:35:43 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Evaluate Continuing Calibration Report

Data File: I:\MS13\DATA\2025 01\27\01272503.D
Sample : CCV C13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:56 Operator: MC
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

MC 1/27/25

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 27 11:02:28 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (C 1)	1.000	1.000	0.0	52	-0.01
2	T	Chloropentafluoroethane	1.527	1.274	16.6	43#	0.00
3	T	1,1,1,2-Tetrafluoroethane (	1.530	1.393	9.0	48#	-0.01
4	T	1,1-Difluoroethane	1.494	1.452	2.8	50	-0.01
5	T	Chlorodifluoromethane (CFC	0.537	0.557	-3.7	53	0.00
6	T	1-Chloro-1,1-Difluoroethane	3.582	3.583	-0.0	54	-0.01
7	T	Dichlorofluoromethane (CFC	3.978	4.001	-0.6	54	0.00
8	T	Vinylbromide	1.245	1.147	7.9	48#	-0.01
9	T	2,2-Dichloro-1,1,1-trifluor	2.310	2.197	4.9	51	0.00
10	T	2-Methylbutane	1.914	1.985	-3.7	56	-0.01
11	T	Methyl Acetate	5.535	6.278	-13.4	60	0.00
12	T	2-Methylpentane	1.593	1.594	-0.1	53	-0.01
13	T	2,2-Dichloropropane	2.136	2.279	-6.7	53	-0.01
14	T	1,1-Dichloropropene	2.458	2.416	1.7	52	-0.01
15	T	Thiophene	3.486	3.355	3.8	51	-0.01
16	IR	1,4-Difluorobenzene (C 2)	1.000	1.000	0.0	52	-0.01
17	T	2,3-Dimethylpentane	0.766	0.801	-4.6	57	-0.01
18	T	Dibromomethane	0.213	0.168	21.1	43#	0.00
19	IR	Chlorobenzene-d5 (C 3)	1.000	1.000	0.0	67	0.00
20	T	Methyl Cyclohexane	2.620	2.131	18.7	56	-0.01
21	T	1,3-Dichloropropane	2.271	1.683	25.9	51	0.00
22	T	1,1,1,2-Tetrachloroethane	1.150	0.780	32.2#	46#	0.00
23	T	1-Chlorohexane	1.918	1.427	25.6	50#	0.00
24	T	1,2,3-Trichloropropane	2.305	1.735	24.7	51	0.00
25	T	Bromobenzene	2.607	1.872	28.2	49#	0.00
26	T	2-Chlorotoluene	4.276	3.164	26.0	50	0.00
27	T	4-Chlorotoluene	4.328	3.123	27.8	47#	0.00
28	T	Indane	4.528	3.330	26.5	48#	0.00
29	T	Indene	3.674	2.716	26.1	45#	0.00
30	T	1,2,4,5-Tetramethylbenzene	4.293	3.422	20.3	48#	0.00
31	T	1,2,3,4-Tetramethylbenzene	4.618	3.380	26.8	48#	0.00
32	T	1,2,3,5-Tetramethylbenzene	4.262	3.244	23.9	48#	0.00
33	T	1,2,3-Trichlorobenzene	1.233	0.871	29.4	42#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272503.D
Sample : CCV C13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:56 Operator: MC
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

MC 1/27/25

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 27 11:02:28 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

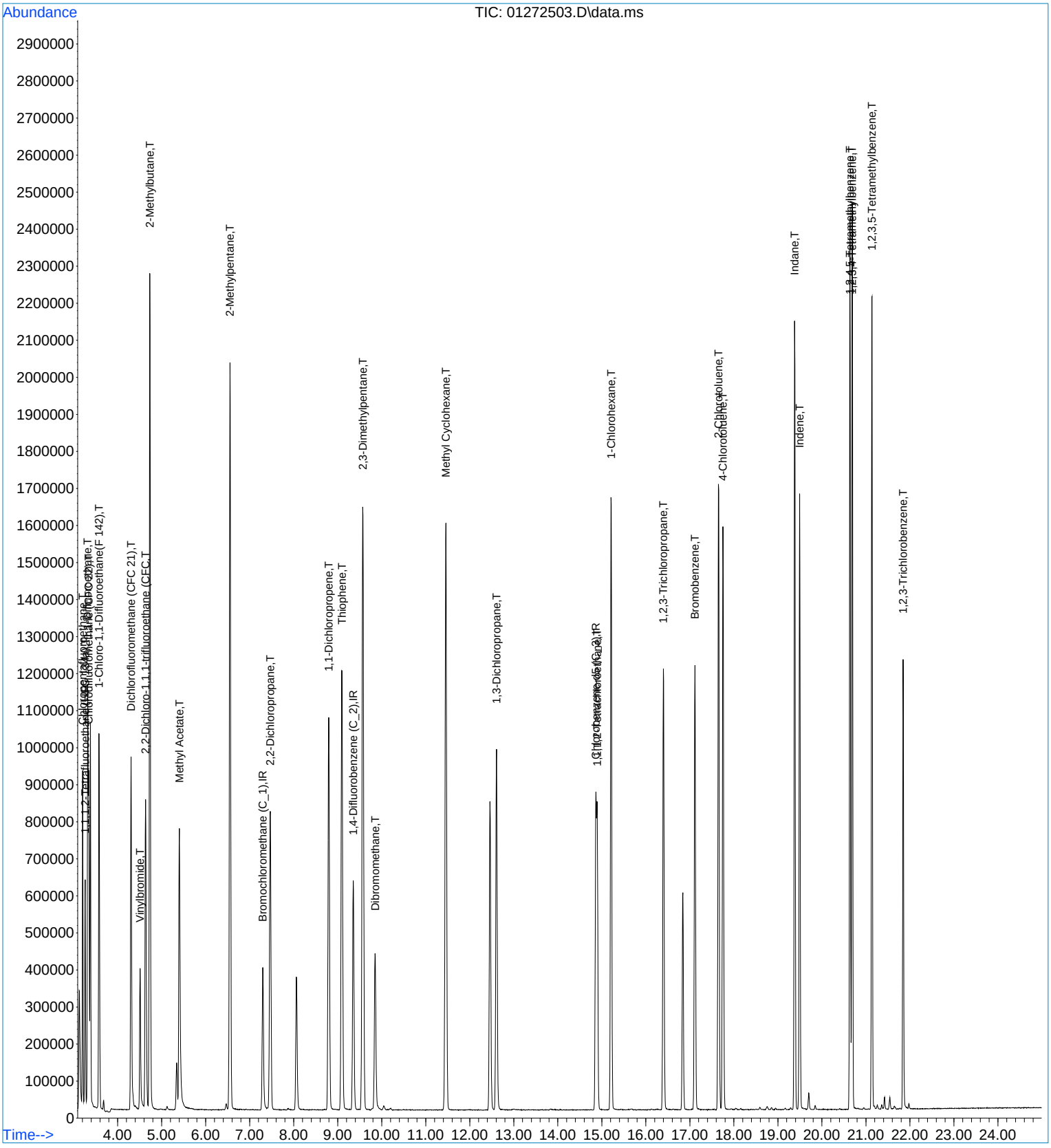
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	105515	12.500	ng	-0.01
16) 1,4-Difluorobenzene (C 2)	9.35	114	491319	12.500	ng	-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	157165	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	3.21	85	266178	20.653	ng	96
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	294016	22.770	ng	98
4) 1,1-Difluoroethane	3.32	65	324875	25.759	ng	92
5) Chlorodifluoromethane ...	3.34	67	122173	26.941	ng	99
6) 1-Chloro-1,1-Difluoroe...	3.58	65	786269	26.001	ng	98
7) Dichlorofluoromethane ...	4.30	67	835888	24.892	ng	100
8) Vinylbromide	4.51	108	242079	23.035	ng	100
9) 2,2-Dichloro-1,1,1-tri...	4.63	83	482110	24.721	ng	99
10) 2-Methylbutane	4.73	57	427370	26.450	ng	87
11) Methyl Acetate	5.40	43	1271921	27.221	ng	96
12) 2-Methylpentane	6.55	71	336404	25.025	ng	74
13) 2,2-Dichloropropane	7.47	77	476043	26.404	ng	99
14) 1,1-Dichloropropene	8.79	75	530209	25.552	ng	86
15) Thiophene	9.10	84	715017	24.297	ng	90
17) 2,3-Dimethylpentane	9.57	56	819016	27.190	ng	92
18) Dibromomethane	9.85	174	176924	21.095	ng	87
20) Methyl Cyclohexane	11.46	55	716749	21.758	ng	91
21) 1,3-Dichloropropane	12.61	76	550302	19.274	ng	86
22) 1,1,1,2-Tetrachloroethane	14.90	131	213212	14.741	ng	100
23) 1-Chlorohexane	15.21	91	461959	19.154	ng	89
24) 1,2,3-Trichloropropane	16.40	75	572492	19.752	ng	97
25) Bromobenzene	17.12	77	617729	18.842	ng	90
26) 2-Chlorotoluene	17.65	91	1054354	19.611	ng	96
27) 4-Chlorotoluene	17.75	91	991329	18.217	ng	96
28) Indane	19.38	117	1036157	18.201	ng	100
29) Indene	19.49	115	802488	17.372	ng	100
30) 1,2,4,5-Tetramethylben...	20.64	119	1086424	20.126	ng	99
31) 1,2,3,4-Tetramethylben...	20.69	119	1094274	18.846	ng	99
32) 1,2,3,5-Tetramethylben...	21.14	119	1030037	19.222	ng	99
33) 1,2,3-Trichlorobenzene	21.84	180	287491	18.543	ng	100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272503.D
Sample : CCV C13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 9:56 Operator: MC
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 27 11:02:28 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



Evaluate Continuing Calibration Report

MC 1/28/25

Data File: I:\MS13\DATA\2025 01\28\01282501.D
Sample : CCV R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 3:28 Operator: MC
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:25 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	78	0.03
2	T	Propene	2.979	3.412	-14.5	92	-0.06
3	T	Dichlorodifluoromethane (CF	3.111	3.508	-12.8	89	-0.05
4	T	Chloromethane	2.918	3.425	-17.4	84	-0.03
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.022	1.104	-8.0	83	-0.03
6	T	Vinyl Chloride	2.357	2.394	-1.6	91	-0.05
7	T	1,3-Butadiene	2.221	2.068	6.9	66	-0.05
8	T	Bromomethane	1.247	1.293	-3.7	81	-0.05
9	T	Chloroethane	1.253	1.358	-8.4	85	-0.04
10	T	Ethanol	1.937	2.083	-7.5	94	0.03
11	T	Acetonitrile	4.910	5.852	-19.2	94	-0.02
12	T	Acrolein	1.446	1.600	-10.7	88	-0.01
13	T	Acetone	1.393	1.511	-8.5	89	0.00
14	T	Trichlorofluoromethane	2.514	2.852	-13.4	90	-0.03
15	T	2-Propanol (Isopropanol)	6.259	7.598	-21.4	99	0.03
16	T	Acrylonitrile	2.765	3.154	-14.1	89	0.01
17	T	1,1-Dichloroethene	1.294	1.373	-6.1	82	-0.03
18	T	2-Methyl-2-Propanol (tert-B	4.205	5.283	-25.6	98	-0.02
19	T	Methylene Chloride	1.633	1.678	-2.8	83	0.02
20	T	3-Chloro-1-propene (Allyl C	3.411	4.427	-29.8	95	-0.01
21	T	Trichlorotrifluoroethane	0.994	0.999	-0.5	80	-0.01
22	T	Carbon Disulfide	6.370	6.622	-4.0	85	-0.02
23	T	trans-1,2-Dichloroethene	2.723	3.147	-15.6	89	0.00
24	T	1,1-Dichloroethane	3.277	3.688	-12.5	88	0.02
25	T	Methyl tert-Butyl Ether	4.292	4.745	-10.6	87	-0.01
26	T	Vinyl Acetate	0.290	0.352	-21.4	86	0.02
27	T	2-Butanone (MEK)	1.050	1.228	-17.0	86	0.01
28	T	cis-1,2-Dichloroethene	2.645	3.018	-14.1	89	0.02
29	T	Diisopropyl Ether	1.136	1.234	-8.6	85	0.00
30	T	Ethyl Acetate	0.672	0.825	-22.8	90	0.00
31	T	n-Hexane	3.181	3.615	-13.6	90	0.00
32	T	Chloroform	2.677	3.006	-12.3	87	0.03
33	S	1,2-Dichloroethane-d4(SS1)	2.250	2.740	-21.8	96	0.03
34	T	Tetrahydrofuran (THF)	1.068	1.147	-7.4	84	-0.01
35	T	Ethyl tert-Butyl Ether	1.685	1.903	-12.9	86	0.01
36	T	1,2-Dichloroethane	2.524	3.126	-23.9	96	0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	81	0.02
38	T	1,1,1-Trichloroethane	0.501	0.575	-14.8	89	0.02
39	T	Isopropyl Acetate	0.000	0.000	0.0	0#	-0.02
40	T	1-Butanol	0.000	0.000	0.0	0#	0.02
41	T	Benzene	1.475	1.518	-2.9	83	0.02
42	T	Carbon Tetrachloride	0.433	0.497	-14.8	89	0.02
43	T	Cyclohexane	0.486	0.508	-4.5	83	0.01
44	T	tert-Amyl Methyl Ether	0.992	1.161	-17.0	89	0.00
45	T	1,2-Dichloropropane	0.418	0.455	-8.9	86	0.02
46	T	Bromodichloromethane	0.455	0.527	-15.8	89	0.02
47	T	Trichloroethene	0.295	0.298	-1.0	80	0.02
48	T	1,4-Dioxane	0.260	0.278	-6.9	85	-0.01
49	T	2,2,4-Trimethylpentane (Iso	1.817	1.997	-9.9	88	0.00
50	T	Methyl Methacrylate	0.104	0.123	-18.3	83	0.00
51	T	n-Heptane	0.363	0.386	-6.3	84	0.02
52	T	cis-1,3-Dichloropropene	0.604	0.725	-20.0	87	0.00
53	T	4-Methyl-2-pentanone	0.358	0.450	-25.7	96	-0.01
54	T	trans-1,3-Dichloropropene	0.465	0.622	-33.8#	91	0.00
55	T	1,1,2-Trichloroethane	0.298	0.322	-8.1	84	0.02

Evaluate Continuing Calibration Report

Data File: I:\MS13\DATA\2025 01\28\01282501.D
Sample : CCV R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 3:28 Operator: MC
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:25 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	98	0.00
57	S	Toluene-d8 (SS2)	4.538	3.831	15.6	83	0.00
58	T	Toluene	4.802	4.089	14.8	84	0.00
59	T	2-Hexanone	3.729	4.283	-14.9	109	-0.02
60	T	Dibromochloromethane	1.181	1.092	7.5	85	0.00
61	T	1,2-Dibromoethane	1.236	1.088	12.0	84	0.00
62	T	n-Butyl Acetate	4.173	4.898	-17.4	110	-0.01
63	T	n-Octane	1.343	1.236	8.0	88	0.00
64	T	Tetrachloroethene	1.094	0.889	18.7	80	0.00
65	T	Chlorobenzene	2.944	2.506	14.9	84	0.00
66	T	Ethylbenzene	5.434	4.862	10.5	86	0.00
67	T	m- & p-Xylenes	4.315	3.951	8.4	87	0.00
68	T	Bromoform	0.858	0.821	4.3	84	0.00
69	T	Styrene	2.883	2.784	3.4	85	0.00
70	T	o-Xylene	4.290	3.882	9.5	87	0.00
71	T	n-Nonane	3.817	3.885	-1.8	95	0.00
72	T	1,1,2,2-Tetrachloroethane	2.199	2.002	9.0	88	0.00
73	S	Bromofluorobenzene (SS3)	1.160	0.939	19.1	81	0.00
74	T	Cumene	4.932	4.414	10.5	87	0.00
75	T	alpha-Pinene	2.447	2.412	1.4	88	0.00
76	T	n-Propylbenzene	6.452	5.950	7.8	88	0.00
77	T	3-Ethyltoluene	0.000	0.000	0.0	87	0.00
78	T	4-Ethyltoluene	4.654	4.350	6.5	87	0.00
79	T	1,3,5-Trimethylbenzene	4.090	3.715	9.2	88	0.00
80	T	alpha-Methylstyrene	0.000	0.000	0.0	96	-0.01
81	T	2-Ethyltoluene	0.000	0.000	0.0	87	0.00
82	T	1,2,4-Trimethylbenzene	4.075	3.909	4.1	89	0.00
83	T	n-Decane	0.000	0.000	0.0	88	0.00
84	T	Benzyl Chloride	2.955	3.489	-18.1	97	0.00
85	T	1,3-Dichlorobenzene	2.136	1.914	10.4	85	0.00
86	T	1,4-Dichlorobenzene	2.251	1.895	15.8	85	0.00
87	T	sec-Butylbenzene	5.435	5.027	7.5	90	0.00
88	T	4-Isopropyltoluene (p-Cymen	4.271	4.035	5.5	90	0.00
89	T	1,2,3-Trimethylbenzene	0.000	0.000	0.0	87	0.00
90	T	1,2-Dichlorobenzene	2.154	1.894	12.1	86	0.00
91	T	d-Limonene	1.748	1.896	-8.5	94	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.659	0.656	0.5	92	0.00
93	T	n-Undecane	0.000	0.000	0.0	88	0.00
94	T	1,2,4-Trichlorobenzene	1.319	1.247	5.5	94	0.00
95	T	Naphthalene	3.460	3.903	-12.8	108	-0.03
96	T	n-Dodecane	0.000	0.000	0.0	89	0.00
97	T	Hexachlorobutadiene	0.958	0.811	15.3	92	0.00
98	T	Cyclohexanone	0.000	0.000	0.0	958#	0.00
99	T	tert-Butylbenzene	3.632	3.340	8.0	88	0.00
100	T	n-Butylbenzene	4.292	4.443	-3.5	95	0.00
101	T	1,1,1,2-Tetrachloroethane	0.964	0.872	9.5	85	0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282501.D
Sample : CCV R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 3:28 Operator: MC
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:25 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	118491	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.38	114	550113	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	184118	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	324669	15.224	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 121.76%				
57) Toluene-d8 (SS2)	12.47	98	705419	10.553	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 84.40%				
73) Bromofluorobenzene (SS3)	16.84	174	172899	10.117	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 80.96%				
Target Compounds							Qvalue
2) Propene	3.36	42	848918	30.066	ng		97
3) Dichlorodifluoromethan...	3.44	85	839604	28.475	ng		99
4) Chloromethane	3.58	50	860381	31.104	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	282571	29.173	ng		100
6) Vinyl Chloride	3.77	62	601407	26.921	ng		100
7) 1,3-Butadiene	3.89	54	519402	24.671	ng		93
8) Bromomethane	4.11	94	312560	26.445	ng		99
9) Chloroethane	4.25	64	353977	29.809	ng		100
10) Ethanol	4.42	45	2591030	141.092	ng		99
11) Acetonitrile	4.56	41	1428376	30.687	ng		98
12) Acrolein	4.63	56	826820	60.307	ng		99
13) Acetone	4.73	58	1833029	138.813	ng	#	80
14) Trichlorofluoromethane	4.84	101	682691	28.646	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	3709444	62.523	ng		99
16) Acrylonitrile	5.11	53	1554727	59.325	ng		99
17) 1,1-Dichloroethene	5.34	96	296180	24.140	ng	#	85
18) 2-Methyl-2-Propanol (t...	5.43	59	2616754	65.655	ng		97
19) Methylene Chloride	5.46	84	361969	23.377	ng		86
20) 3-Chloro-1-propene (Al...	5.54	41	1143421	35.364	ng		95
21) Trichlorotrifluoroethane	5.66	151	217726	23.104	ng		95
22) Carbon Disulfide	5.69	76	3248284	53.796	ng		100
23) trans-1,2-Dichloroethene	6.23	61	783092	30.341	ng		94
24) 1,1-Dichloroethane	6.42	63	900242	28.977	ng		99
25) Methyl tert-Butyl Ether	6.44	73	1191874	29.296	ng		99
26) Vinyl Acetate	6.54	86	441211	160.462	ng	#	61
27) 2-Butanone (MEK)	6.75	72	593798	59.636	ng	#	76
28) cis-1,2-Dichloroethene	7.17	61	736735	29.384	ng		93
29) Diisopropyl Ether	7.36	87	610992	56.761	ng	#	71
30) Ethyl Acetate	7.37	61	381182	59.817	ng		97
31) n-Hexane	7.37	57	890936	29.551	ng		99
32) Chloroform	7.46	83	755093	29.754	ng		100
34) Tetrahydrofuran (THF)	7.82	72	516275	51.001	ng	#	86
35) Ethyl tert-Butyl Ether	7.90	87	942436	59.011	ng	#	91
36) 1,2-Dichloroethane	8.20	62	748157	31.270	ng		100
38) 1,1,1-Trichloroethane	8.47	97	651366	29.542	ng		97
39) Isopropyl Acetate	9.65	61	1566	No Calib		#	
40) 1-Butanol	8.93	56	412	No Calib		#	
41) Benzene	8.97	78	1703815	26.254	ng		99
42) Carbon Tetrachloride	9.14	117	557874	29.249	ng		100
43) Cyclohexane	9.28	84	1162579	54.390	ng		93
44) tert-Amyl Methyl Ether	9.65	73	2683582	61.442	ng		95
45) 1,2-Dichloropropane	9.92	63	535502	29.136	ng		100
46) Bromodichloromethane	10.14	83	620607	30.988	ng		99
47) Trichloroethene	10.21	130	344051	26.462	ng		100
48) 1,4-Dioxane	10.17	88	323822	28.268	ng		94
49) 2,2,4-Trimethylpentane...	10.29	57	2328648	29.119	ng		93
50) Methyl Methacrylate	10.46	100	287873	62.776	ng	#	90

Data File: I:\MS13\DATA\2025 01\28\01282501.D
Sample : CCV R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 3:28 Operator: MC
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:25 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

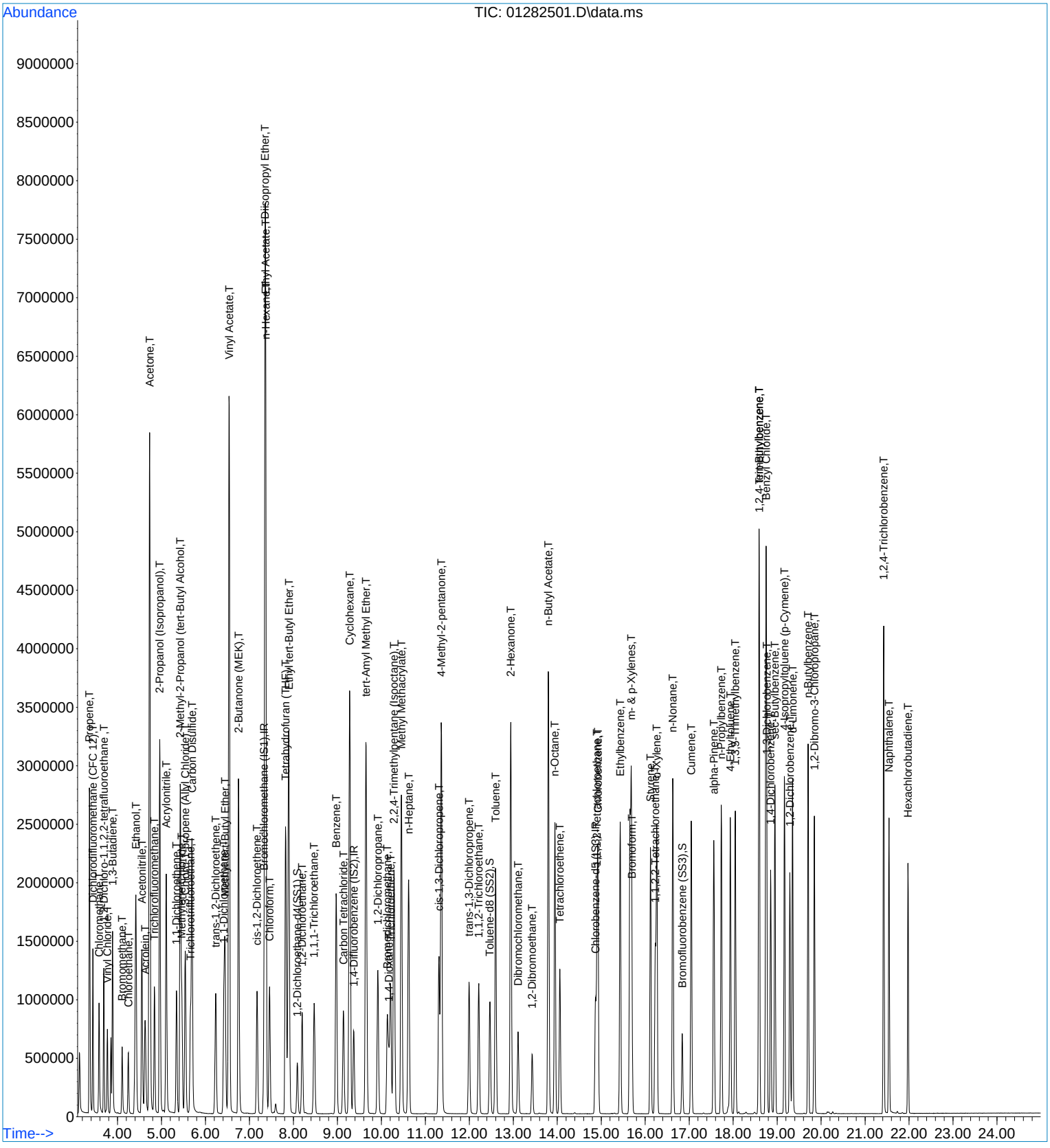
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	442068	27.666 ng		96
52) cis-1,3-Dichloropropene	11.31	75	837550	31.502 ng		99
53) 4-Methyl-2-pentanone	11.36	58	1040375	65.966 ng		89
54) trans-1,3-Dichloropropene	11.99	75	677983	33.163 ng		99
55) 1,1,2-Trichloroethane	12.22	97	389642	29.726 ng		99
58) Toluene	12.60	91	1641382	23.207 ng		100
59) 2-Hexanone	12.94	43	3280703	59.729 ng		95
60) Dibromochloromethane	13.11	129	414298	23.807 ng		100
61) 1,2-Dibromoethane	13.43	107	420638	23.106 ng		100
62) n-Butyl Acetate	13.80	43	3787477	61.623 ng		96
63) n-Octane	13.95	57	482537	24.385 ng		96
64) Tetrachloroethene	14.06	166	350418	21.738 ng		100
65) Chlorobenzene	14.92	112	987402	22.768 ng		99
66) Ethylbenzene	15.43	91	1951689	24.384 ng		98
67) m- & p-Xylenes	15.68	91	3113137	48.976 ng		98
68) Bromoform	15.70	173	329608	26.089 ng		99
69) Styrene	16.12	104	1086800	25.597 ng		97
70) o-Xylene	16.26	91	1543751	24.428 ng		98
71) n-Nonane	16.63	43	1501999	26.714 ng		95
72) 1,1,2,2-Tetrachloroethane	16.23	83	796187	24.581 ng		100
74) Cumene	17.05	105	1706553	23.491 ng		99
75) alpha-Pinene	17.56	93	950522	26.369 ng		96
76) n-Propylbenzene	17.73	91	2278608	23.978 ng		98
77) 3-Ethyltoluene	17.05	105	1706553	No Calib		
78) 4-Ethyltoluene	17.93	105	1665993	24.301 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1477606	24.527 ng		98
80) alpha-Methylstyrene	17.04	118	3286	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1706553	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1511319	25.178 ng		98
83) n-Decane	17.04	58	21196	No Calib		
84) Benzyl Chloride	18.75	91	2761987	63.452 ng		98
85) 1,3-Dichlorobenzene	18.77	146	747149	23.745 ng		100
86) 1,4-Dichlorobenzene	18.85	146	732630	22.099 ng		100
87) sec-Butylbenzene	18.95	105	1925341	24.051 ng		98
88) 4-Isopropyltoluene (p-...	19.16	119	1545273	24.565 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	1706553	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	725172	22.858 ng		100
91) d-Limonene	19.35	68	719005	27.926 ng		98
92) 1,2-Dibromo-3-Chloropr...	19.85	157	509385	52.449 ng	#	79
93) n-Undecane	18.05	58	48557	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	996797	51.308 ng		100
95) Naphthalene	21.54	128	1566646	30.743 ng		100
96) n-Dodecane	18.95	58	18318	No Calib	#	
97) Hexachlorobutadiene	21.98	225	313501	22.222 ng		99
98) Cyclohexanone	15.46	55	7524	No Calib	#	
99) tert-Butylbenzene	18.59	119	1291519	24.139 ng		99
100) n-Butylbenzene	19.70	91	1685194	26.656 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	343636	24.198 ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282501.D
Sample : CCV R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 3:28 Operator: MC
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:25 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Evaluate Continuing Calibration Report

MC 1/28/25

Data File: I:\MS13\DATA\2025 01\28\01282502.D
Sample : CCV C13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 4:03 Operator: MC
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 28 09:07:26 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (C 1)	1.000	1.000	0.0	57	-0.01
2	T	Chloropentafluoroethane	1.527	1.367	10.5	50	0.00
3	T	1,1,1,2-Tetrafluoroethane (	1.530	1.482	3.1	56	-0.02
4	T	1,1-Difluoroethane	1.494	1.548	-3.6	58	-0.01
5	T	Chlorodifluoromethane (CFC	0.537	0.588	-9.5	61	0.00
6	T	1-Chloro-1,1-Difluoroethane	3.582	3.778	-5.5	62	-0.01
7	T	Dichlorofluoromethane (CFC	3.978	4.143	-4.1	61	-0.01
8	T	Vinylbromide	1.245	1.168	6.2	53	-0.01
9	T	2,2-Dichloro-1,1,1-trifluor	2.310	2.264	2.0	57	0.00
10	T	2-Methylbutane	1.914	2.072	-8.3	64	-0.01
11	T	Methyl Acetate	5.535	6.501	-17.5	68	-0.01
12	T	2-Methylpentane	1.593	1.645	-3.3	60	-0.01
13	T	2,2-Dichloropropane	2.136	2.356	-10.3	60	-0.02
14	T	1,1-Dichloropropene	2.458	2.493	-1.4	58	-0.01
15	T	Thiophene	3.486	3.442	1.3	57	-0.02
16	IR	1,4-Difluorobenzene (C 2)	1.000	1.000	0.0	58	-0.01
17	T	2,3-Dimethylpentane	0.766	0.818	-6.8	64	-0.02
18	T	Dibromomethane	0.213	0.168	21.1	48#	-0.01
19	IR	Chlorobenzene-d5 (C 3)	1.000	1.000	0.0	74	0.00
20	T	Methyl Cyclohexane	2.620	2.181	16.8	63	-0.02
21	T	1,3-Dichloropropane	2.271	1.728	23.9	58	0.00
22	T	1,1,1,2-Tetrachloroethane	1.150	0.795	30.9#	52	0.00
23	T	1-Chlorohexane	1.918	1.444	24.7	56	0.00
24	T	1,2,3-Trichloropropane	2.305	1.766	23.4	58	0.00
25	T	Bromobenzene	2.607	1.887	27.6	55	0.00
26	T	2-Chlorotoluene	4.276	3.220	24.7	56	0.00
27	T	4-Chlorotoluene	4.328	3.156	27.1	53	0.00
28	T	Indane	4.528	3.368	25.6	54	0.00
29	T	Indene	3.674	2.687	26.9	49#	0.00
30	T	1,2,4,5-Tetramethylbenzene	4.293	3.397	20.9	52	0.00
31	T	1,2,3,4-Tetramethylbenzene	4.618	3.377	26.9	53	0.00
32	T	1,2,3,5-Tetramethylbenzene	4.262	3.180	25.4	52	0.00
33	T	1,2,3-Trichlorobenzene	1.233	0.775	37.1#	41#	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282502.D
Sample : CCV C13012825 25ng
Acq On : 28 Jan 2025 4:03
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

MC 1/28/25

Inst : MS13
Operator: MC

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 28 09:07:26 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

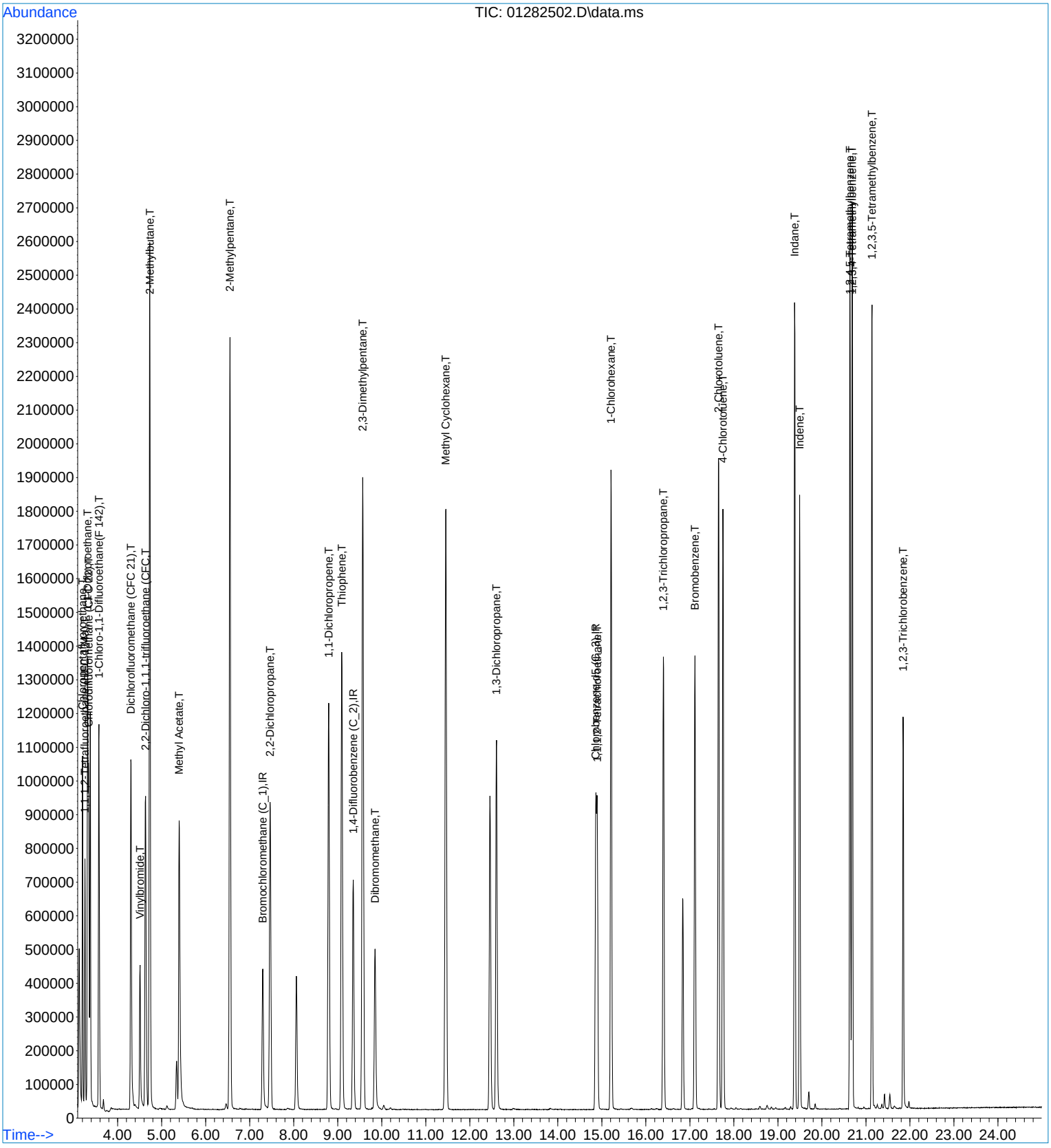
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	115172	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C 2)	9.35	114	543386	12.500	ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	173766	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.20	85	311656	22.154	ng		96
3) 1,1,1,2-Tetrafluoroeth...	3.26	83	341281	24.215	ng		97
4) 1,1-Difluoroethane	3.32	65	378013	27.459	ng		93
5) Chlorodifluoromethane ...	3.34	67	140971	28.480	ng		99
6) 1-Chloro-1,1-Difluoroe...	3.58	65	905167	27.423	ng		98
7) Dichlorofluoromethane ...	4.30	67	944808	25.776	ng		100
8) Vinylbromide	4.51	108	268999	23.451	ng		98
9) 2,2-Dichloro-1,1,1-tri...	4.63	83	542400	25.480	ng		100
10) 2-Methylbutane	4.73	57	486838	27.604	ng		87
11) Methyl Acetate	5.40	43	1437552	28.186	ng		96
12) 2-Methylpentane	6.55	71	379020	25.831	ng		72
13) 2,2-Dichloropropane	7.46	77	537182	27.296	ng		99
14) 1,1-Dichloropropene	8.79	75	597272	26.370	ng		86
15) Thiophene	9.09	84	800886	24.933	ng	#	89
17) 2,3-Dimethylpentane	9.57	56	924873	27.762	ng		92
18) Dibromomethane	9.85	174	195756	21.104	ng		85
20) Methyl Cyclohexane	11.45	55	810939	22.266	ng		91
21) 1,3-Dichloropropane	12.61	76	624699	19.789	ng		86
22) 1,1,1,2-Tetrachloroethane	14.90	131	240249	15.023	ng		99
23) 1-Chlorohexane	15.21	91	516986	19.388	ng		87
24) 1,2,3-Trichloropropane	16.40	75	644433	20.109	ng		97
25) Bromobenzene	17.12	77	688532	18.995	ng		90
26) 2-Chlorotoluene	17.65	91	1186215	19.956	ng		96
27) 4-Chlorotoluene	17.75	91	1107812	18.413	ng		96
28) Indane	19.38	117	1158948	18.413	ng		100
29) Indene	19.49	115	877834	17.188	ng		100
30) 1,2,4,5-Tetramethylben...	20.64	119	1192472	19.981	ng		99
31) 1,2,3,4-Tetramethylben...	20.69	119	1208969	18.832	ng		99
32) 1,2,3,5-Tetramethylben...	21.14	119	1116079	18.838	ng		99
33) 1,2,3-Trichlorobenzene	21.84	180	282932	16.505	ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282502.D
Sample : CCV C13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 4:03 Operator: MC
Misc : S37-11222401/S37-01132502 (2/12)
ALS Vial : 16 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 28 09:07:26 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01272502.D

Analyst: Marlow Cobian Date Analyzed: 1/27/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 09:21

Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	109078	7.33	500391	9.37	165560	14.87
	Upper Limit	152709	7.66	700547	9.70	231784	15.20
	Lower Limit	65447	7.00	300235	9.04	99336	14.54
	Client Sample ID						
01	Method Blank	102897	7.30	478328	9.35	155249	14.86
02	Lab Control Sample	115562	7.33	525692	9.38	173543	14.87
03	Duplicate Lab Control Sample	114438	7.33	514930	9.37	169871	14.87
04	BLDG5-SS	101785	7.30	486029	9.35	160677	14.86
05	BLDG5-IA	103048	7.30	481988	9.35	158273	14.86
06	BLDG6A-SS	102115	7.30	485271	9.35	158764	14.86
07	BLDG6A-IA	101700	7.29	481674	9.35	156013	14.86
08	BLDGX-SS	95919	7.29	472853	9.35	153838	14.86
09	BLDG1-IA	99451	7.30	478411	9.36	156510	14.86
10	BLDG1-SS	97694	7.29	459130	9.35	149009	14.86
11	OA1	99131	7.30	463756	9.35	149303	14.86
12	OA1 (Lab Duplicate)	94792	7.30	451980	9.35	147719	14.86
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

Client: **WSP USA Inc.** ALS Project ID: P2500076

Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01**

Internal Standard Area and RT Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Lab File ID: 01282501.D

Analyst: Marlow Cobian Date Analyzed: 1/28/25

Sample Type: 6.0 L Silonite Canister(s) Time Analyzed: 03:28

Test Notes:

		IS1 (BCM)		IS2 (DFB)		IS3 (CBZ)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	24 Hour Standard	118491	7.33	550113	9.38	184118	14.87
	Upper Limit	165887	7.66	770158	9.71	257765	15.20
	Lower Limit	71095	7.00	330068	9.05	110471	14.54
	Client Sample ID						
01	Method Blank	112154	7.30	523978	9.35	166530	14.86
02	Lab Control Sample	120147	7.33	561103	9.38	183572	14.87
03	Duplicate Lab Control Sample	125883	7.33	574936	9.38	184796	14.87
04	BLDG5-SS (Dilution)	124269	7.29	580664	9.35	187787	14.86
05	BLDG6-SS	115012	7.30	542928	9.35	183218	14.86
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = 140% of internal standard area
AREA LOWER LIMIT = 60% of internal standard area
RT UPPER LIMIT = 0.33 minutes of internal standard RT
RT LOWER LIMIT = 0.33 minutes of internal standard RT

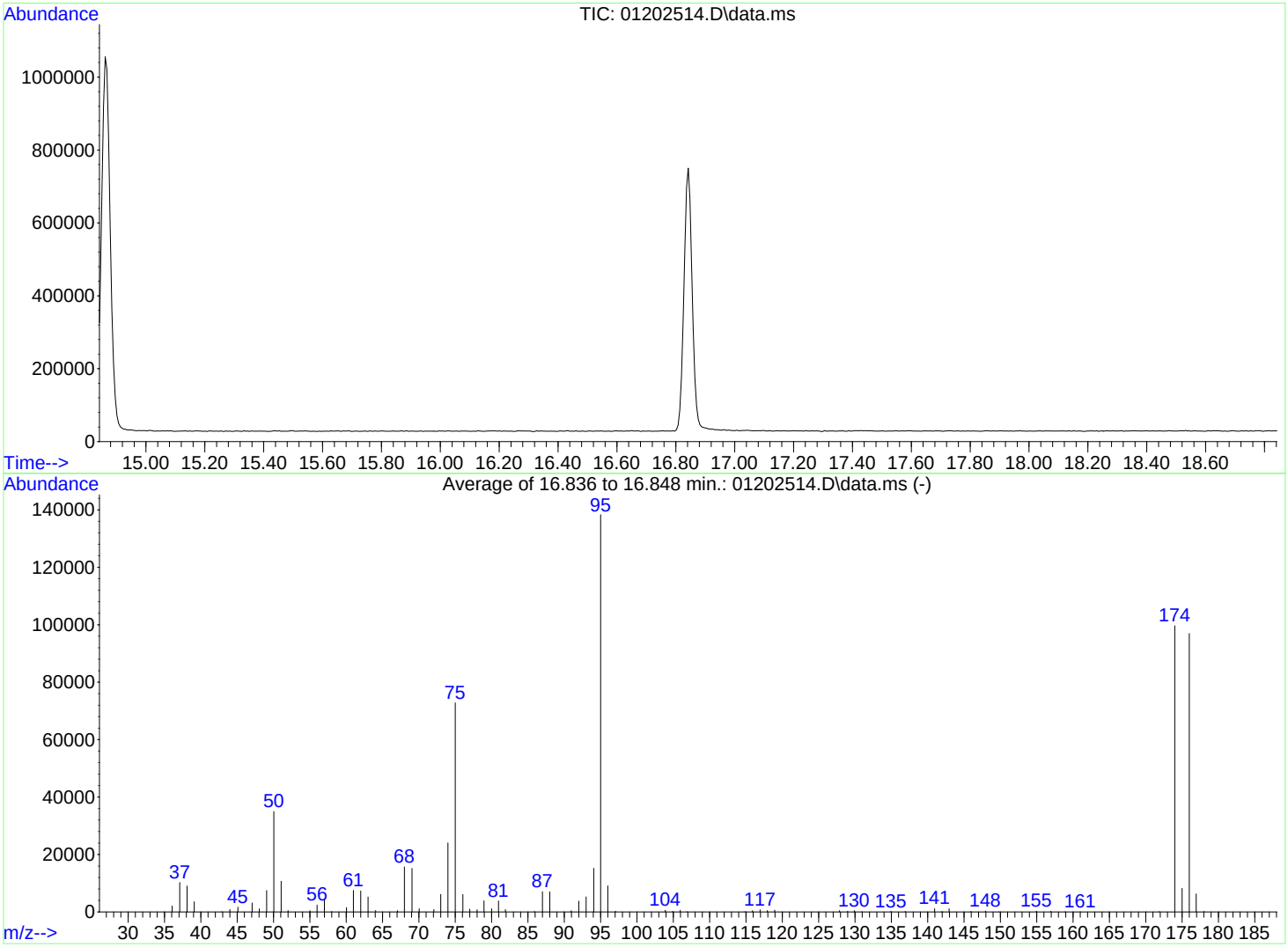
Column used to flag values outside QC limits with an I.
I = Internal standard not within the speicified limits.

BFB

Data Path : I:\MS13\DATA\2025 01\20\
Data File : 01202514.D
Acq On : 20 Jan 2025 18:35
Operator : LS
Sample : TO-15 BFB
Misc : S37-11222401
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:00:01 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	25.3	34960	PASS
75	95	30	66	52.6	72811	PASS
95	95	100	100	100.0	138317	PASS
96	95	5	9	6.6	9100	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	72.1	99659	PASS
175	174	4	9	8.2	8168	PASS
176	174	93	101	97.3	96963	PASS
177	176	5	9	6.5	6289	PASS

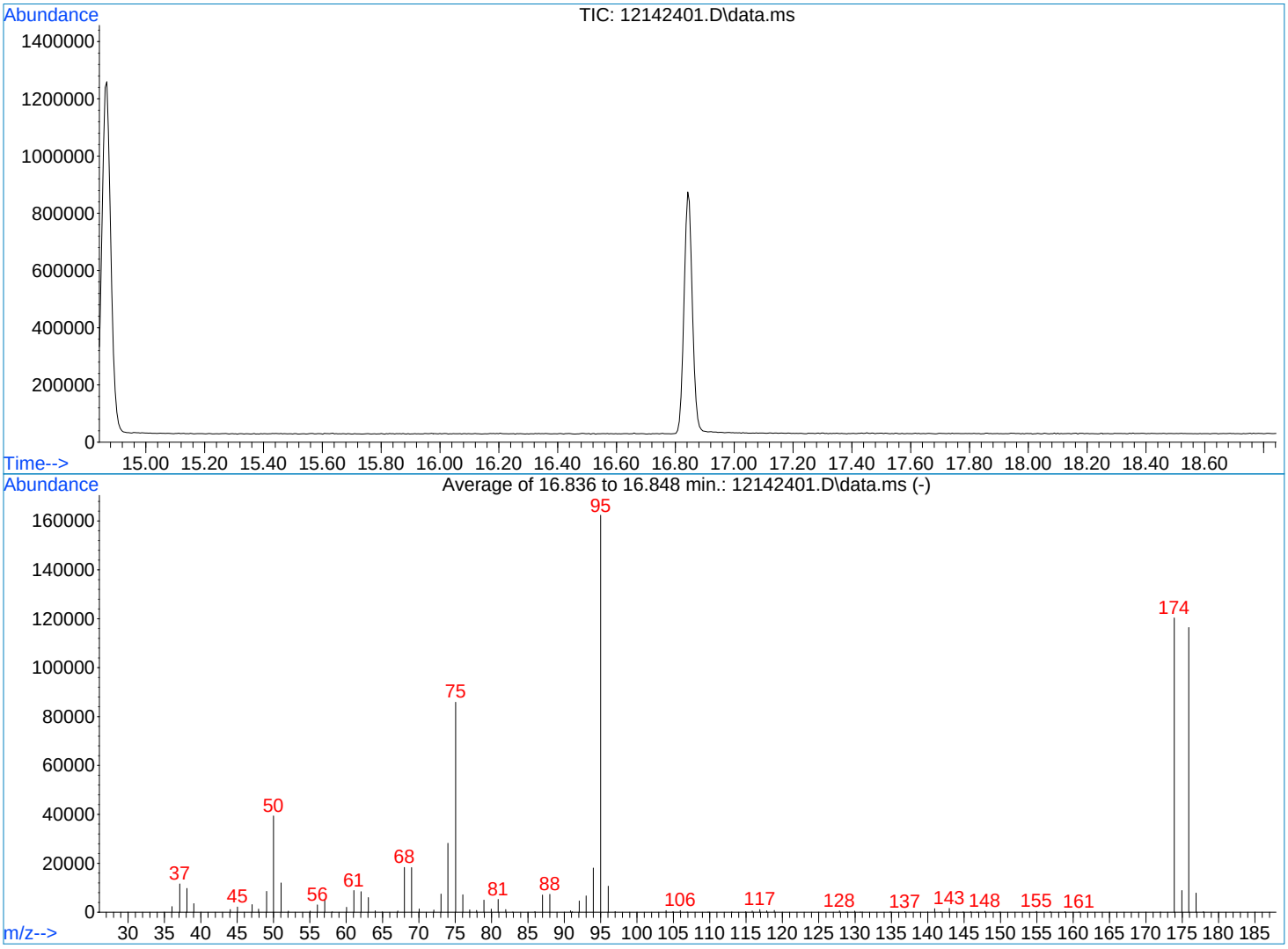
CG 1/21/25

BFB

Data Path : I:\MS13\DATA\2024 12\14\
Data File : 12142401.D
Acq On : 14 Dec 2024 4:28
Operator : MC
Sample : TO-15 BFB Std.
Misc : S37-11222401
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINTVB.P

Method : I:\MS13\METHODS\C13121424.M
Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Last Update : Mon Dec 16 11:07:03 2024



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2407

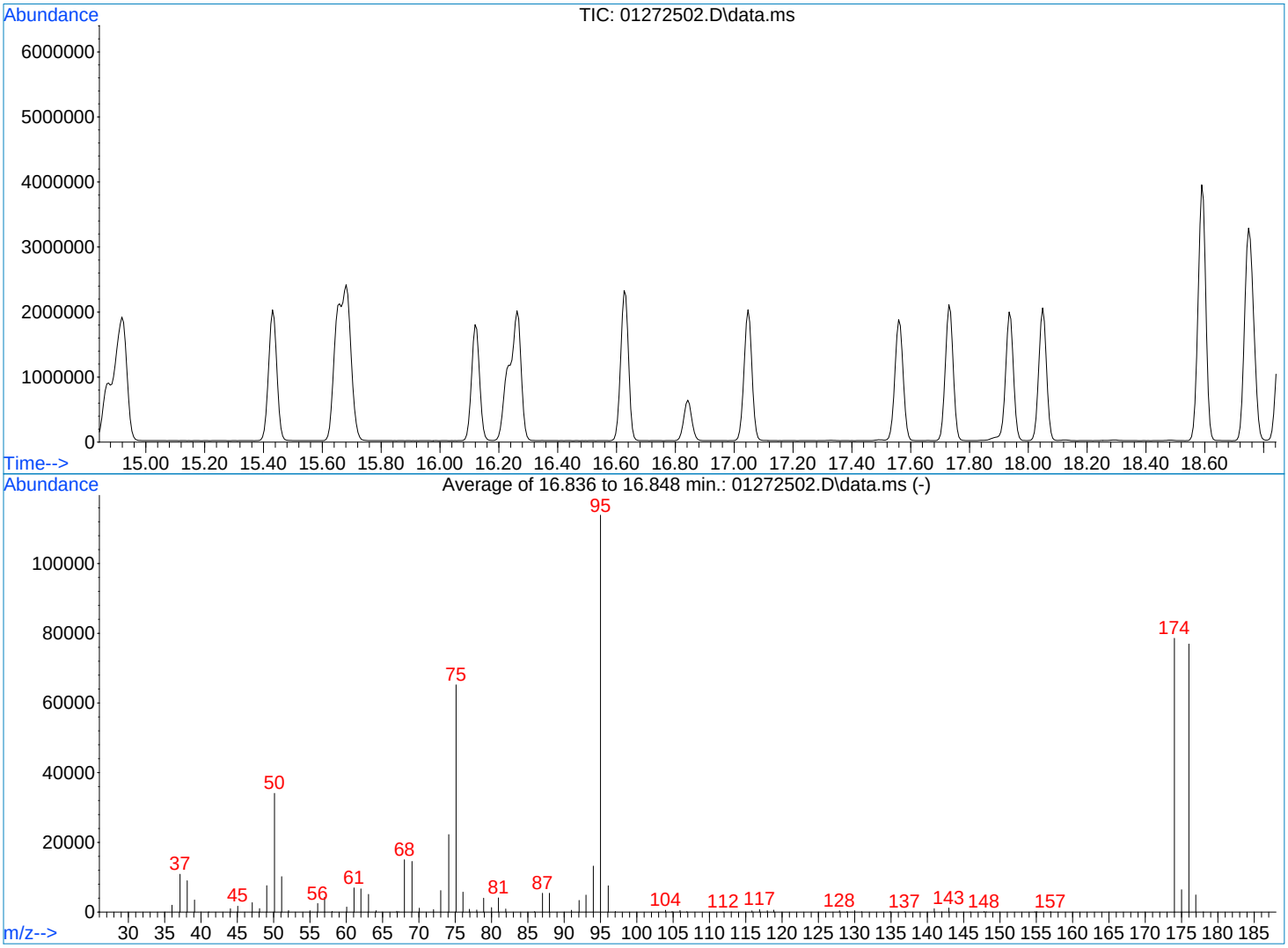
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.2	39368	PASS
75	95	30	66	52.9	85872	PASS
95	95	100	100	100.0	162347	PASS
96	95	5	9	6.6	10672	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	74.1	120365	PASS
175	174	4	9	7.4	8880	PASS
176	174	93	101	96.7	116421	PASS
177	176	5	9	6.7	7846	PASS

MC 12/16/24

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272502.D
Acq On : 27 Jan 2025 9:21
Operator : MC
Sample : CCV R13012725 25ng
Misc : S37-11222401/S37-01202503 (2/19)
ALS Vial : 1 Sample Multiplier: 1

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.9	34064	PASS
75	95	30	66	57.2	65195	PASS
95	95	100	100	100.0	113893	PASS
96	95	5	9	6.6	7533	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	69.0	78560	PASS
175	174	4	9	8.2	6435	PASS
176	174	93	101	97.9	76901	PASS
177	176	5	9	6.4	4946	PASS

MC 1/27/25

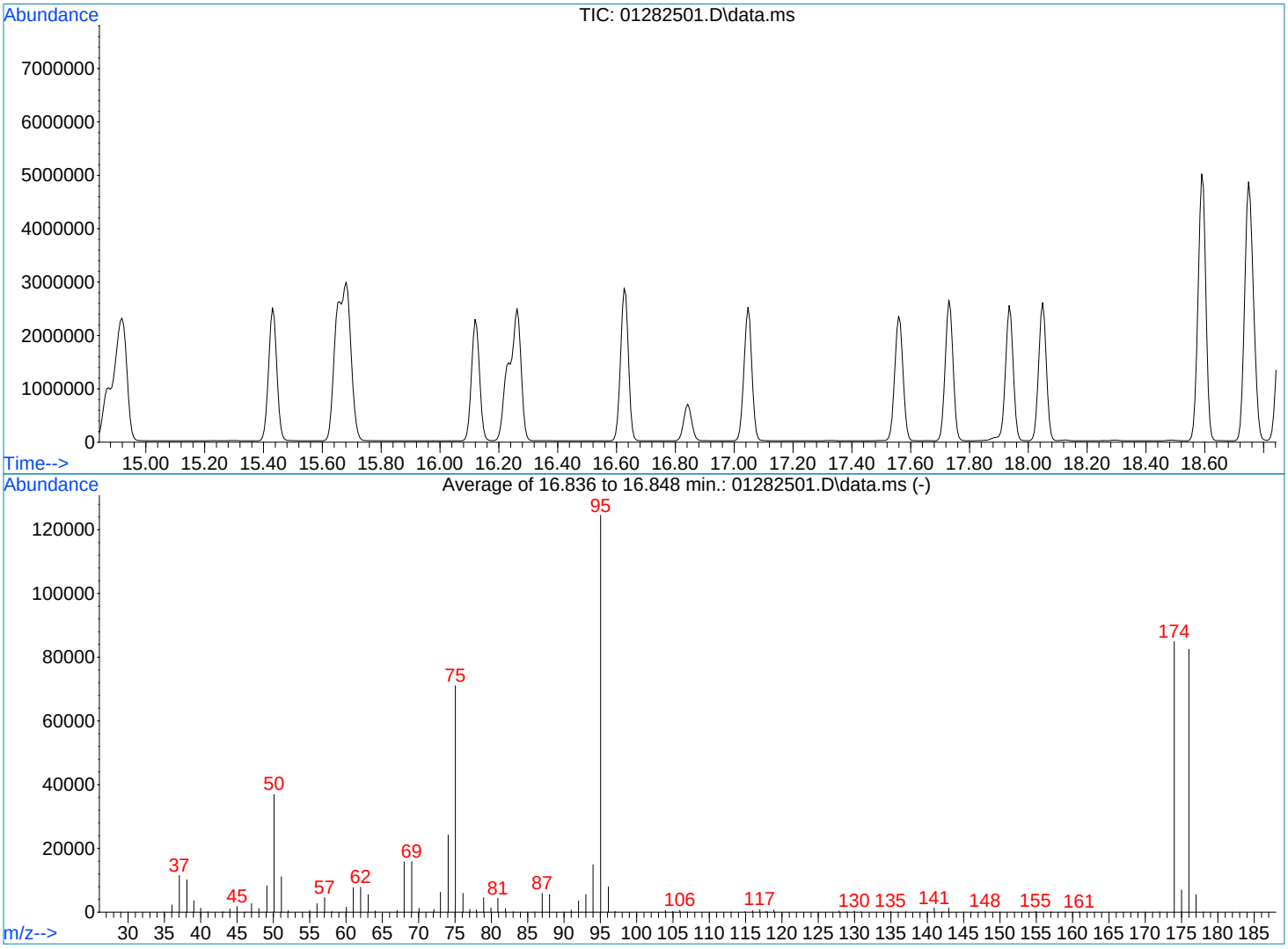
BFB

Data Path : I:\MS13\DATA\2025 01\28\
Data File : 01282501.D
Acq On : 28 Jan 2025 3:28
Operator : MC
Sample : CCV R13012825 25ng
Misc : S37-11222401/S37-01272505 (2/26)
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Integration File: LSCINT.P

Method : I:\MS13\METHODS\R13012025.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Tue Jan 21 08:29:11 2025



AutoFind: Scans 2416, 2417, 2418; Background Corrected with Scan 2408

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	29.6	36912	PASS
75	95	30	66	57.1	71093	PASS
95	95	100	100	100.0	124541	PASS
96	95	5	9	6.4	7960	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	68.2	84901	PASS
175	174	4	9	8.2	6963	PASS
176	174	93	101	97.1	82480	PASS
177	176	5	9	6.6	5473	PASS

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250127-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.21	0.057	ND	0.082	0.022	
75-35-4	1,1-Dichloroethene	ND	0.090	0.074	ND	0.023	0.019	
75-09-2	Methylene Chloride	ND	0.46	0.15	ND	0.13	0.043	
156-60-5	trans-1,2-Dichloroethene	ND	0.21	0.074	ND	0.053	0.019	
75-34-3	1,1-Dichloroethane	ND	0.21	0.078	ND	0.052	0.019	
156-59-2	cis-1,2-Dichloroethene	ND	0.10	0.075	ND	0.025	0.019	
107-06-2	1,2-Dichloroethane	ND	0.10	0.059	ND	0.025	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.10	0.066	ND	0.019	0.012	
56-23-5	Carbon Tetrachloride	ND	0.10	0.074	ND	0.016	0.012	
79-01-6	Trichloroethene	ND	0.11	0.072	ND	0.020	0.013	
127-18-4	Tetrachloroethene	ND	0.11	0.069	ND	0.016	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272504.D
Sample : MB R13012725 1000mL Inst : MS13 MC 1/27/25
Acq On : 27 Jan 2025 10:32 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:01:45 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	102897	12.500	ng	0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	478328	12.500	ng	0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	155249	12.500	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	8.06	65	278145	15.019	ng	0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 120.16%			
57) Toluene-d8 (SS2)	12.46	98	606588	10.762	ng	0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.08%			
73) Bromofluorobenzene (SS3)	16.84	174	141917	9.848	ng	0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 78.80%			
Target Compounds						Qvalue
2) Propene	3.47	42	239	N.D.		
3) Dichlorodifluoromethan...	0.00	85	0	N.D.		
4) Chloromethane	3.53	50	180	N.D.		
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	0.00	54	0	N.D.		
8) Bromomethane	0.00	94	0	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	4.43	45	5437	0.341	ng	77
11) Acetonitrile	0.00	41	0	N.D. d		
12) Acrolein	0.00	56	0	N.D.		
13) Acetone	4.79	58	2762	0.241	ng	91
14) Trichlorofluoromethane	0.00	101	0	N.D.		
15) 2-Propanol (Isopropanol)	5.00	45	2154	N.D.		
16) Acrylonitrile	5.18	53	774	N.D.		
17) 1,1-Dichloroethene	0.00	96	0	N.D.		
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.		
19) Methylene Chloride	0.00	84	0	N.D.		
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.		
21) Trichlorotrifluoroethane	0.00	151	0	N.D.		
22) Carbon Disulfide	5.73	76	1905	N.D.		
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	0.00	86	0	N.D.		
27) 2-Butanone (MEK)	0.00	72	0	N.D.		
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	0.00	61	0	N.D.		
31) n-Hexane	0.00	57	0	N.D.		
32) Chloroform	0.00	83	0	N.D.		
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.		
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	0.00	62	0	N.D.		
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	0.00	61	0	N.D.		
40) 1-Butanol	0.00	56	0	N.D.		
41) Benzene	0.00	78	0	N.D.		
42) Carbon Tetrachloride	0.00	117	0	N.D.		
43) Cyclohexane	9.34	84	461	N.D.		
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.		
45) 1,2-Dichloropropane	0.00	63	0	N.D.		
46) Bromodichloromethane	0.00	83	0	N.D.		
47) Trichloroethene	0.00	130	0	N.D.		
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D.		
50) Methyl Methacrylate	0.00	100	0	N.D.		

Data File: I:\MS13\DATA\2025 01\27\01272504.D
Sample : MB R13012725 1000mL Inst : MS13
Acq On : 27 Jan 2025 10:32 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:01:45 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

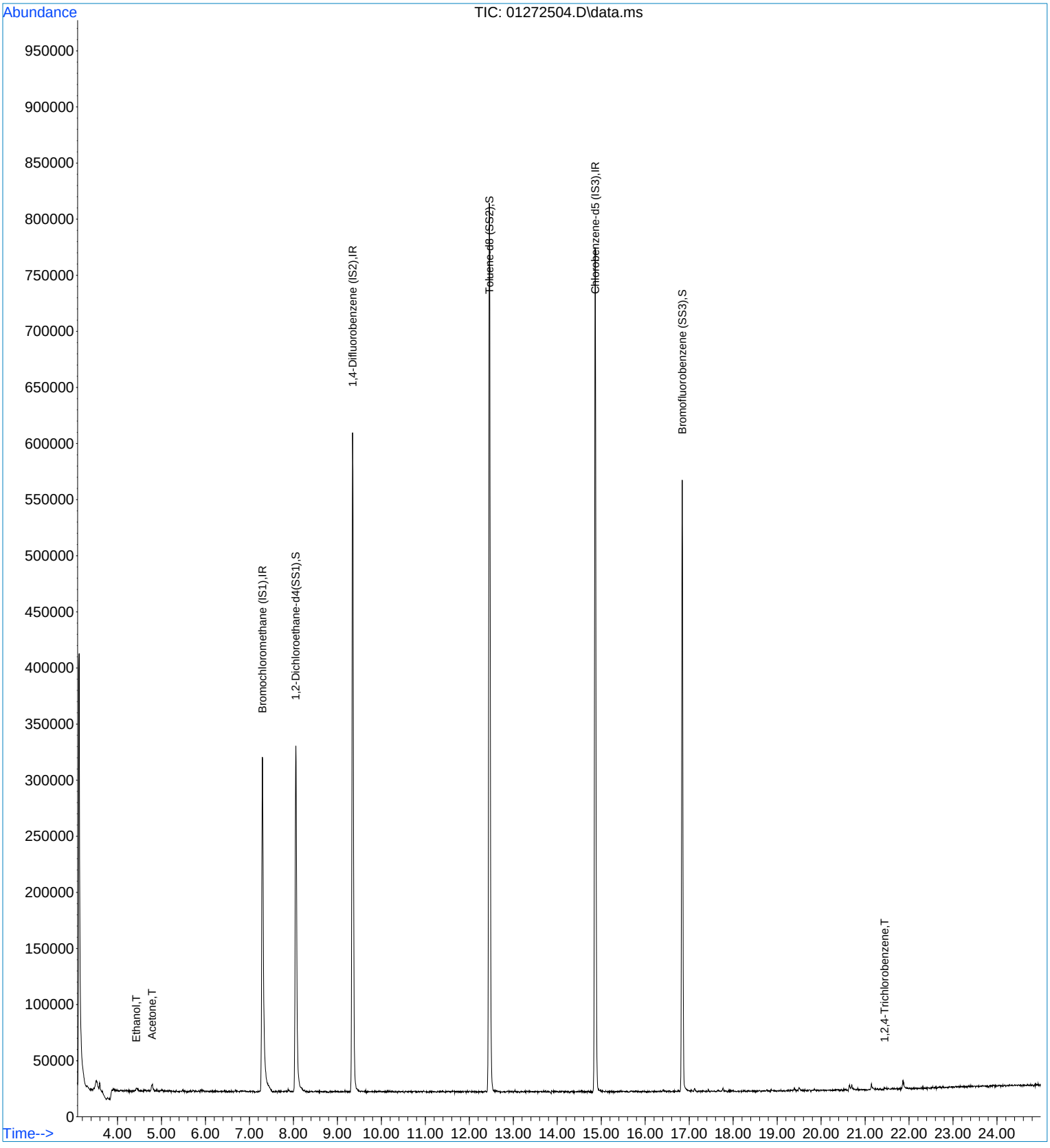
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	129	N.D.	
59) 2-Hexanone	13.05	43	529	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.87	43	568	N.D.	
63) n-Octane	0.00	57	0	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	15.44	91	131	N.D.	
67) m- & p-Xylenes	15.65	91	282	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	16.26	91	138	N.D.	
71) n-Nonane	0.00	43	0	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	0.00	105	0	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	17.76	91	2920	N.D.	
77) 3-Ethyltoluene	0.00	105	0	N.D.	
78) 4-Ethyltoluene	17.95	105	186	N.D.	
79) 1,3,5-Trimethylbenzene	17.95	105	186	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	0.00	105	0	N.D.	
82) 1,2,4-Trimethylbenzene	18.61	105	270	N.D.	
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	18.75	91	777	N.D.	
85) 1,3-Dichlorobenzene	18.77	146	402	N.D.	
86) 1,4-Dichlorobenzene	18.86	146	610	N.D.	
87) sec-Butylbenzene	18.95	105	122	N.D.	
88) 4-Isopropyltoluene (p-...	19.18	119	128	N.D.	
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.	
90) 1,2-Dichlorobenzene	19.29	146	332	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	19.85	157	111	N.D.	
93) n-Undecane	0.00	58	0	N.D.	
94) 1,2,4-Trichlorobenzene	21.45	180	1108	0.068 ng	# 71
95) Naphthalene	21.59	128	312	N.D.	
96) n-Dodecane	0.00	58	0	N.D.	
97) Hexachlorobutadiene	21.99	225	183	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	0.00	119	0	N.D.	
100) n-Butylbenzene	19.72	91	359	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272504.D
Sample : MB R13012725 1000mL Inst : MS13
Acq On : 27 Jan 2025 10:32 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:01:45 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272504.D Vial: 1
Acq On : 27 Jan 2025 10:32 Operator: MC
Sample : MB R13012725 1000mL Inst : MS13
Misc : S37-11222401/AC01837

LS 1/31/25

Quant Time: Jan 31 16:30:34 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M

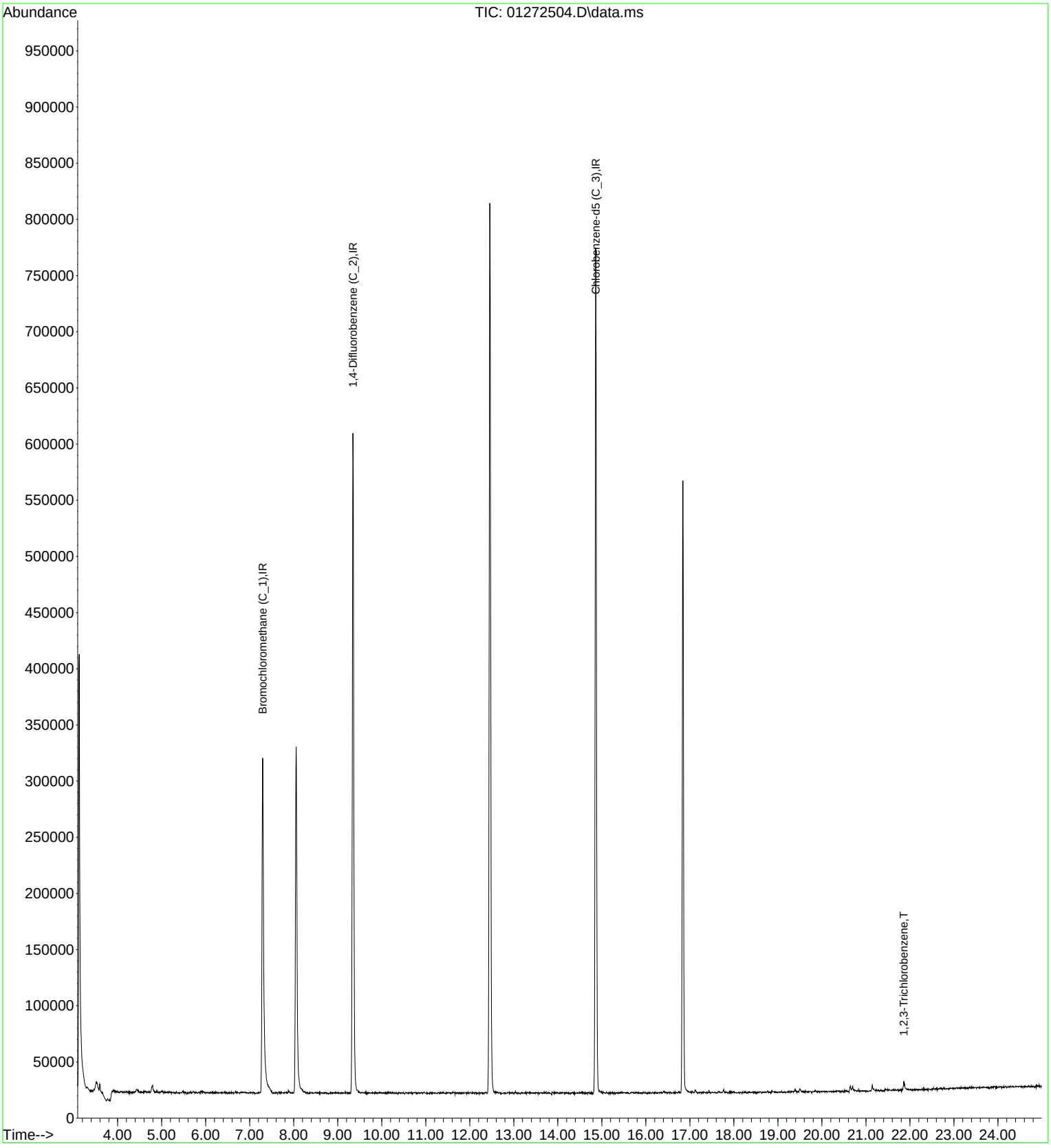
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	102894	12.500	ng	-0.01
16) 1,4-Difluorobenzene (C 2)	9.35	114	478328	12.500	ng	-0.02
19) Chlorobenzene-d5 (C_3)	14.86	54	155249	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	0.00	85	0	N.D.		
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D.		
4) 1,1-Difluoroethane	0.00	65	0	N.D.		
5) Chlorodifluoromethane ...	0.00	67	0	N.D.		
6) 1-Chloro-1,1-Difluoroe...	0.00	65	0	N.D.		
7) Dichlorofluoromethane ...	0.00	67	0	N.D.		
8) Vinylbromide	0.00	108	0	N.D.		
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.		
10) 2-Methylbutane	4.77	57	56	N.D.		
11) Methyl Acetate	5.48	43	2209	N.D.		
12) 2-Methylpentane	0.00	71	0	N.D.		
13) 2,2-Dichloropropane	0.00	77	0	N.D.		
14) 1,1-Dichloropropene	0.00	75	0	N.D.		
15) Thiophene	0.00	84	0	N.D.		
17) 2,3-Dimethylpentane	0.00	56	0	N.D.		
18) Dibromomethane	0.00	174	0	N.D.		
20) Methyl Cyclohexane	0.00	55	0	N.D.		
21) 1,3-Dichloropropane	12.62	76	147	N.D.		
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		
23) 1-Chlorohexane	0.00	91	0	N.D.		
24) 1,2,3-Trichloropropane	16.40	75	704	N.D.		
25) Bromobenzene	17.12	77	1414	N.D.		
26) 2-Chlorotoluene	17.66	91	1316	N.D.		
27) 4-Chlorotoluene	17.66	91	1316	N.D.		
28) Indane	19.39	117	1540	N.D.		
29) Indene	19.50	115	2084	N.D.		
30) 1,2,4,5-Tetramethylben...	20.65	119	3310	N.D.		
31) 1,2,3,4-Tetramethylben...	20.69	119	4431	N.D.		
32) 1,2,3,5-Tetramethylben...	21.14	119	4390	N.D.		
33) 1,2,3-Trichlorobenzene	21.86	180	4226	0.276	ng	98

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2025 01\27\01272504.D Vial: 1
Acq On : 27 Jan 2025 10:32 Operator: MC
Sample : MB R13012725 1000mL Inst : MS13
Misc : S37-11222401/AC01837

Quant Time: Jan 31 16:30:34 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M



ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Client: **WSP USA Inc.**
Client Sample ID: **Method Blank** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250128-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Container Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	MDL µg/m³	Result ppbV	MRL ppbV	MDL ppbV	Data Qualifier
75-01-4	Vinyl Chloride	ND	0.21	0.057	ND	0.082	0.022	
75-35-4	1,1-Dichloroethene	ND	0.090	0.074	ND	0.023	0.019	
75-09-2	Methylene Chloride	ND	0.46	0.15	ND	0.13	0.043	
156-60-5	trans-1,2-Dichloroethene	ND	0.21	0.074	ND	0.053	0.019	
75-34-3	1,1-Dichloroethane	ND	0.21	0.078	ND	0.052	0.019	
156-59-2	cis-1,2-Dichloroethene	ND	0.10	0.075	ND	0.025	0.019	
107-06-2	1,2-Dichloroethane	ND	0.10	0.059	ND	0.025	0.015	
71-55-6	1,1,1-Trichloroethane	ND	0.10	0.066	ND	0.019	0.012	
56-23-5	Carbon Tetrachloride	ND	0.10	0.074	ND	0.016	0.012	
79-01-6	Trichloroethene	ND	0.11	0.072	ND	0.020	0.013	
127-18-4	Tetrachloroethene	ND	0.11	0.069	ND	0.016	0.010	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282503.D
Sample : MB R13012825 1000mL Inst : MS13
Acq On : 28 Jan 2025 4:38 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:49:33 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	112154	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	523978	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	166530	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	304891	15.104	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 120.80%				
57) Toluene-d8 (SS2)	12.46	98	660010	10.917	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 87.36%				
73) Bromofluorobenzene (SS3)	16.84	174	149129	9.648	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 77.20%				
Target Compounds							Qvalue
2) Propene	3.46	42	425	N.D.			
3) Dichlorodifluoromethan...	0.00	85	0	N.D.			
4) Chloromethane	3.53	50	207	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.43	45	7205	0.415	ng		86
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.69	56	109	N.D.			
13) Acetone	4.79	58	1635	0.131	ng	#	72
14) Trichlorofluoromethane	0.00	101	0	N.D.			
15) 2-Propanol (Isopropanol)	5.02	45	2162	N.D.			
16) Acrylonitrile	5.20	53	1230	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.			
19) Methylene Chloride	0.00	84	0	N.D.			
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	5.73	76	2233	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	0.00	72	0	N.D.			
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	0.00	57	0	N.D.			
32) Chloroform	0.00	83	0	N.D.			
34) Tetrahydrofuran (THF)	7.89	72	121	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	0.00	78	0	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	9.35	84	465	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	0.00	88	0	N.D.			
49) 2,2,4-Trimethylpentane...	0.00	57	0	N.D.			
50) Methyl Methacrylate	0.00	100	0	N.D.			

Data File: I:\MS13\DATA\2025 01\28\01282503.D
Sample : MB R13012825 1000mL Inst : MS13
Acq On : 28 Jan 2025 4:38 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:49:33 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

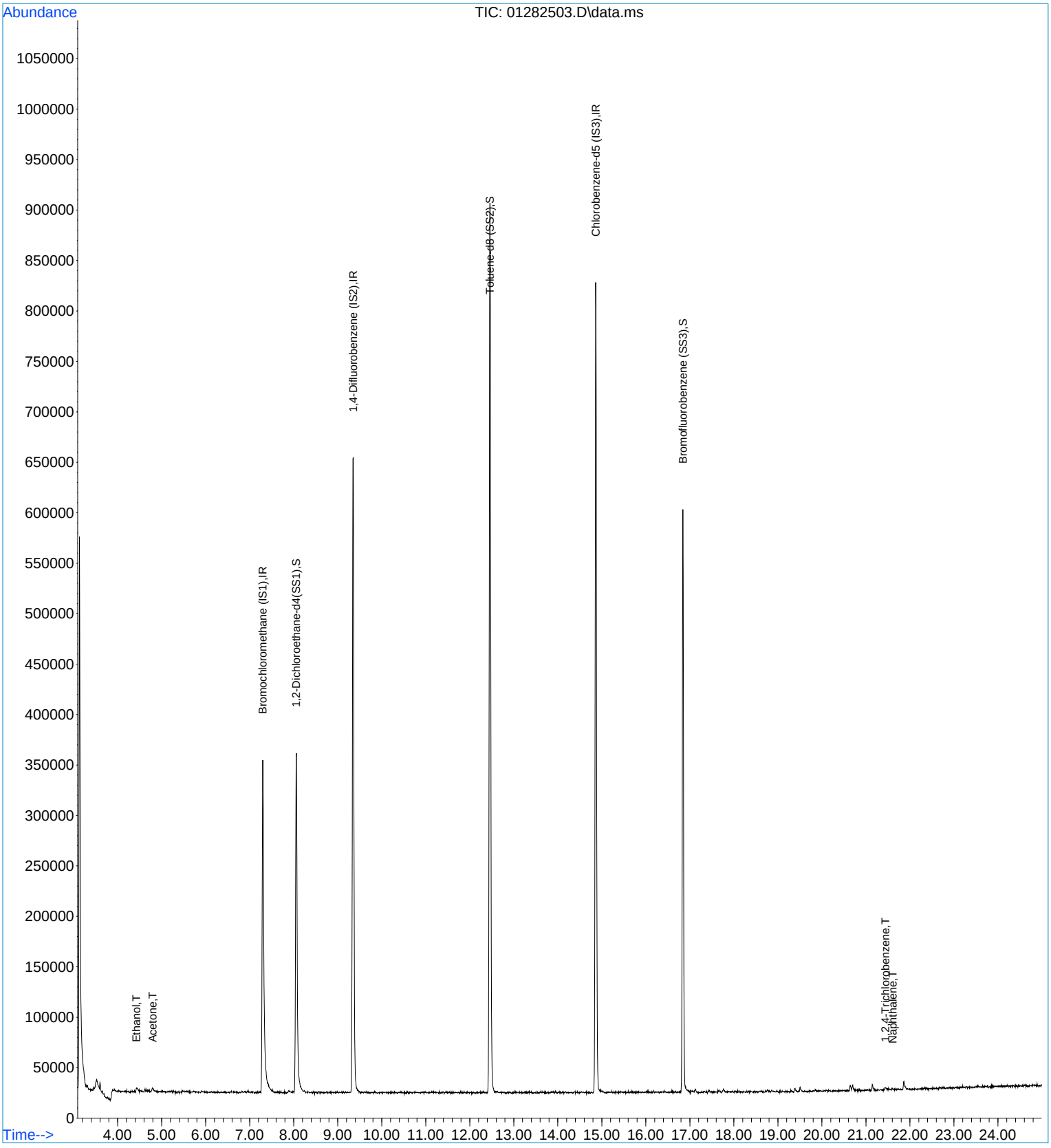
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	148	N.D.	
59) 2-Hexanone	13.03	43	702	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.88	43	1293	N.D.	
63) n-Octane	0.00	57	0	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	15.44	91	503	N.D.	
67) m- & p-Xylenes	15.66	91	689	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	16.27	91	399	N.D.	
71) n-Nonane	0.00	43	0	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	17.06	105	265	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	17.77	91	3647	N.D.	
77) 3-Ethyltoluene	17.06	105	265	No Calib	#
78) 4-Ethyltoluene	17.96	105	505	N.D.	
79) 1,3,5-Trimethylbenzene	18.05	105	347	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	17.06	105	265	No Calib	#
82) 1,2,4-Trimethylbenzene	18.61	105	493	N.D.	
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	18.75	91	1320	N.D.	
85) 1,3-Dichlorobenzene	18.77	146	587	N.D.	
86) 1,4-Dichlorobenzene	18.87	146	747	N.D.	
87) sec-Butylbenzene	18.95	105	223	N.D.	
88) 4-Isopropyltoluene (p-...	19.16	119	105	N.D.	
89) 1,2,3-Trimethylbenzene	17.06	105	265	No Calib	#
90) 1,2-Dichlorobenzene	19.30	146	477	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	19.86	157	150	N.D.	
93) n-Undecane	0.00	58	0	N.D.	
94) 1,2,4-Trichlorobenzene	21.45	180	2408	0.137 ng	# 65
95) Naphthalene	21.61	128	2361	0.051 ng	# 71
96) n-Dodecane	0.00	58	0	N.D.	
97) Hexachlorobutadiene	21.99	225	264	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	18.60	119	219	N.D.	
100) n-Butylbenzene	19.72	91	518	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282503.D
Sample : MB R13012825 1000mL Inst : MS13
Acq On : 28 Jan 2025 4:38 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:49:33 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

MC 1/28/25

Data File: I:\MS13\DATA\2025 01\28\01282503.D
Sample : MB R13012825 1000mL Inst : MS13
Acq On : 28 Jan 2025 4:38 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 28 09:08:19 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

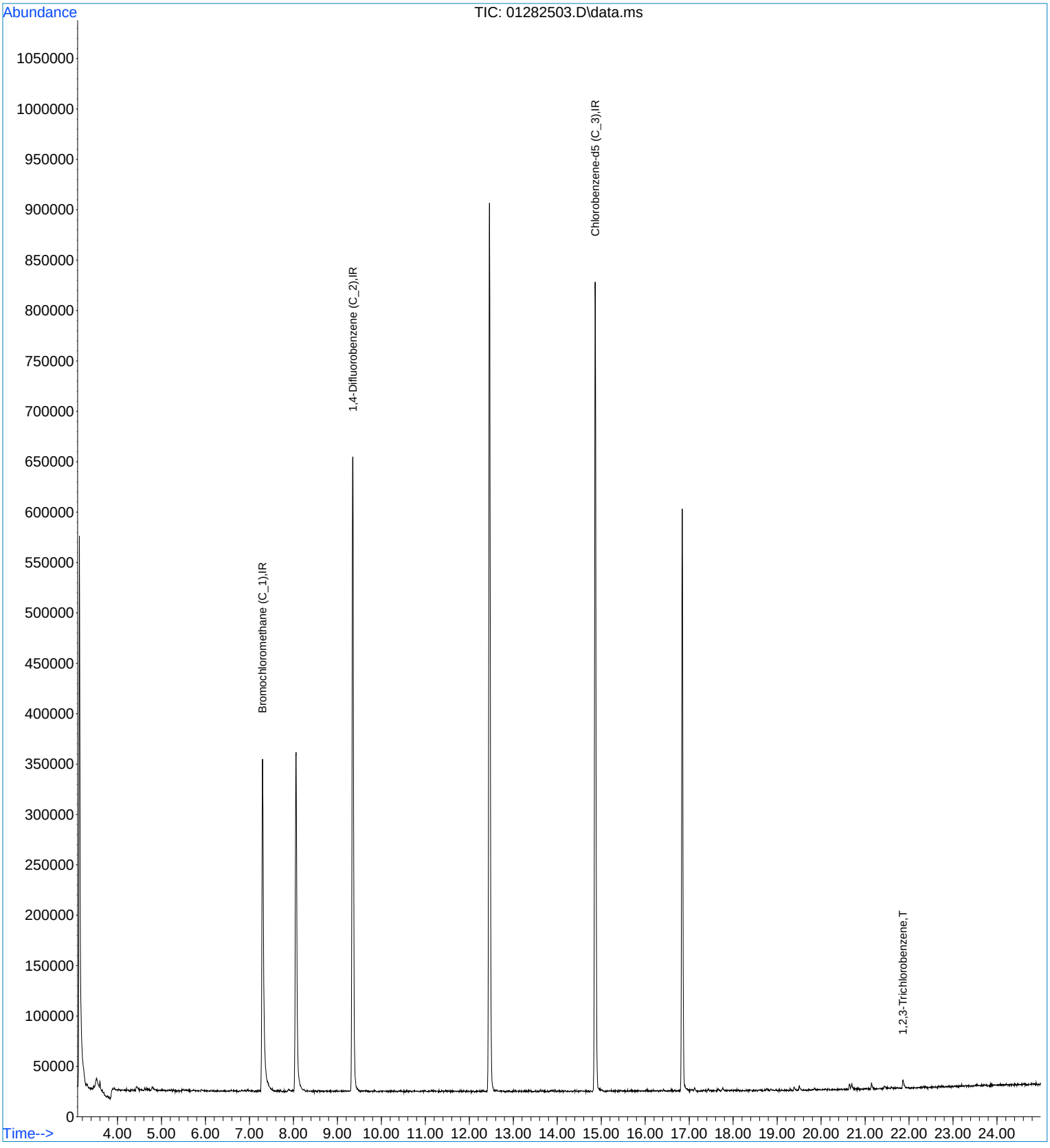
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (C 1)	7.30	130	112205	12.500	ng	-0.01
16) 1,4-Difluorobenzene (C 2)	9.35	114	523978	12.500	ng	-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	167124	12.500	ng	0.00
Target Compounds						Qvalue
2) Chloropentafluoroethane	0.00	85	0	N.D.		
3) 1,1,1,2-Tetrafluoroeth...	0.00	83	0	N.D.		
4) 1,1-Difluoroethane	0.00	65	0	N.D.		
5) Chlorodifluoromethane ...	0.00	67	0	N.D.		
6) 1-Chloro-1,1-Difluoroe...	0.00	65	0	N.D.		
7) Dichlorofluoromethane ...	0.00	67	0	N.D.		
8) Vinylbromide	0.00	108	0	N.D.		
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.		
10) 2-Methylbutane	0.00	57	0	N.D.		
11) Methyl Acetate	5.48	43	2946	N.D.		
12) 2-Methylpentane	0.00	71	0	N.D.		
13) 2,2-Dichloropropane	0.00	77	0	N.D.		
14) 1,1-Dichloropropene	0.00	75	0	N.D.		
15) Thiophene	0.00	84	0	N.D.		
17) 2,3-Dimethylpentane	0.00	56	0	N.D.		
18) Dibromomethane	0.00	174	0	N.D.		
20) Methyl Cyclohexane	0.00	55	0	N.D.		
21) 1,3-Dichloropropane	12.62	76	123	N.D.		
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.		
23) 1-Chlorohexane	15.23	91	122	N.D.		
24) 1,2,3-Trichloropropane	16.42	75	850	N.D.		
25) Bromobenzene	17.13	77	1581	N.D.		
26) 2-Chlorotoluene	17.67	91	1473	N.D.		
27) 4-Chlorotoluene	17.77	91	3647	N.D.		
28) Indane	19.39	117	2054	N.D.		
29) Indene	19.51	115	2628	N.D.		
30) 1,2,4,5-Tetramethylben...	20.65	119	3909	N.D.		
31) 1,2,3,4-Tetramethylben...	20.70	119	5314	N.D.		
32) 1,2,3,5-Tetramethylben...	21.14	119	4798	N.D.		
33) 1,2,3-Trichlorobenzene	21.86	180	4601	0.279	ng #	93

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282503.D
Sample : MB R13012825 1000mL Inst : MS13
Acq On : 28 Jan 2025 4:38 Operator: MC
Misc : S37-11222401/AC01837
ALS Vial : 1 Sample Multiplier: 1

Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
Quant Time: Jan 28 09:08:19 2025
Quant Method : I:\MS13\METHODS\C13121424.M
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **WSP USA Inc.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250127-DLCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/27/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	210	197	191	**94**	**91**	57-129	3	25	
75-35-4	1,1-Dichloroethene	208	207	214	**100**	**103**	75-120	3	25	
75-09-2	Methylene Chloride	204	190	195	**93**	**96**	71-123	3	25	
156-60-5	trans-1,2-Dichloroethene	218	222	227	**102**	**104**	67-123	2	25	
75-34-3	1,1-Dichloroethane	218	216	221	**99**	**101**	66-120	2	25	
156-59-2	cis-1,2-Dichloroethene	214	218	222	**102**	**104**	64-120	2	25	
107-06-2	1,2-Dichloroethane	204	223	224	**109**	**110**	64-138	0.9	25	
71-55-6	1,1,1-Trichloroethane	210	214	223	**102**	**106**	67-125	4	25	
56-23-5	Carbon Tetrachloride	210	213	221	**101**	**105**	71-134	4	25	
79-01-6	Trichloroethene	214	195	204	**91**	**95**	68-124	4	25	
127-18-4	Tetrachloroethene	214	161	168	**75**	**79**	55-132	5	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272505.D
Sample : LCS R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:17 Operator: MC MC 1/27/25
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	115562	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.38	114	525692	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	173543	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	306355	14.729	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 117.84%				
57) Toluene-d8 (SS2)	12.47	98	685340	10.878	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 87.04%				
73) Bromofluorobenzene (SS3)	16.84	174	170020	10.555	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 84.40%				
Target Compounds							Qvalue
2) Propene	3.37	42	738741	26.827	ng		97
3) Dichlorodifluoromethan...	3.45	85	736274	25.603	ng		100
4) Chloromethane	3.58	50	765359	28.370	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	255062	27.000	ng		99
6) Vinyl Chloride	3.77	62	536738	24.635	ng		100
7) 1,3-Butadiene	3.89	54	595660	29.011	ng		93
8) Bromomethane	4.11	94	284997	24.725	ng		99
9) Chloroethane	4.25	64	292526	25.258	ng		100
10) Ethanol	4.42	45	2326576	129.903	ng		99
11) Acetonitrile	4.56	41	1253821	27.619	ng		99
12) Acrolein	4.63	56	705077	52.731	ng		99
13) Acetone	4.74	58	1622320	125.970	ng	#	81
14) Trichlorofluoromethane	4.85	101	598977	25.770	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	3301025	57.049	ng		98
16) Acrylonitrile	5.11	53	1366239	53.454	ng		99
17) 1,1-Dichloroethene	5.35	96	309411	25.857	ng	#	86
18) 2-Methyl-2-Propanol (t...	5.43	59	2345484	60.341	ng		97
19) Methylene Chloride	5.47	84	358918	23.767	ng		87
20) 3-Chloro-1-propene (Al...	5.55	41	915912	29.046	ng		95
21) Trichlorotrifluoroethane	5.66	151	224908	24.471	ng		96
22) Carbon Disulfide	5.70	76	2896764	49.190	ng		100
23) trans-1,2-Dichloroethene	6.23	61	699580	27.793	ng		94
24) 1,1-Dichloroethane	6.42	63	818931	27.028	ng		99
25) Methyl tert-Butyl Ether	6.45	73	1136837	28.652	ng		99
26) Vinyl Acetate	6.54	86	390794	145.728	ng	#	66
27) 2-Butanone (MEK)	6.76	72	511905	52.714	ng	#	78
28) cis-1,2-Dichloroethene	7.18	61	666777	27.268	ng		94
29) Diisopropyl Ether	7.36	87	528986	50.388	ng	#	73
30) Ethyl Acetate	7.37	61	329846	53.073	ng		98
31) n-Hexane	7.37	57	784283	26.672	ng		99
32) Chloroform	7.46	83	671059	27.113	ng		100
34) Tetrahydrofuran (THF)	7.83	72	472883	47.899	ng	#	87
35) Ethyl tert-Butyl Ether	7.90	87	819354	52.604	ng	#	91
36) 1,2-Dichloroethane	8.20	62	649329	27.827	ng		99
38) 1,1,1-Trichloroethane	8.48	97	564824	26.807	ng		97
39) Isopropyl Acetate	9.65	61	1232	No Calib		#	
40) 1-Butanol	8.94	56	386	No Calib		#	
41) Benzene	8.98	78	1503202	24.238	ng		99
42) Carbon Tetrachloride	9.14	117	484605	26.588	ng		100
43) Cyclohexane	9.28	84	1041257	50.977	ng		94
44) tert-Amyl Methyl Ether	9.65	73	2300329	55.114	ng		95
45) 1,2-Dichloropropane	9.92	63	462958	26.359	ng		100
46) Bromodichloromethane	10.14	83	553512	28.922	ng		100
47) Trichloroethene	10.21	130	302192	24.323	ng		100
48) 1,4-Dioxane	10.17	88	264664	24.177	ng		94
49) 2,2,4-Trimethylpentane...	10.29	57	2027947	26.537	ng		94
50) Methyl Methacrylate	10.46	100	251818	57.465	ng		92

Data File: I:\MS13\DATA\2025 01\27\01272505.D
Sample : LCS R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:17 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

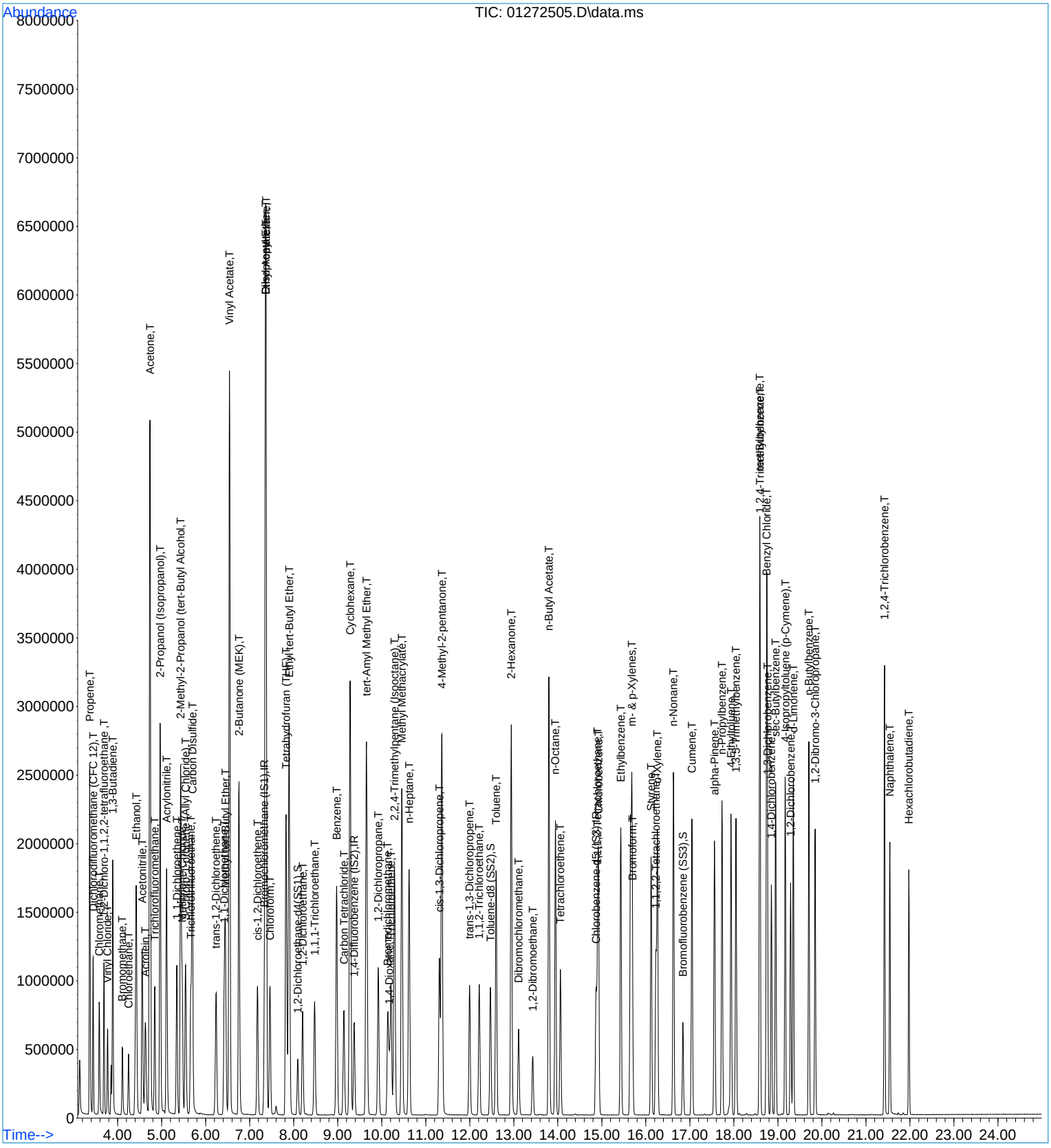
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	395449	25.899 ng		97
52) cis-1,3-Dichloropropene	11.31	75	714945	28.140 ng		99
53) 4-Methyl-2-pentanone	11.37	58	878098	58.263 ng		91
54) trans-1,3-Dichloropropene	11.99	75	569026	29.126 ng		99
55) 1,1,2-Trichloroethane	12.22	97	335933	26.819 ng		99
58) Toluene	12.60	91	1428996	21.435 ng		100
59) 2-Hexanone	12.94	43	2711002	52.365 ng		96
60) Dibromochloromethane	13.11	129	372861	22.731 ng		99
61) 1,2-Dibromoethane	13.43	107	359685	20.962 ng		100
62) n-Butyl Acetate	13.80	43	3138438	54.175 ng		97
63) n-Octane	13.95	57	423354	22.697 ng		96
64) Tetrachloroethene	14.06	166	305764	20.124 ng		99
65) Chlorobenzene	14.92	112	831702	20.346 ng		99
66) Ethylbenzene	15.43	91	1649139	21.859 ng		99
67) m- & p-Xylenes	15.68	91	2622763	43.776 ng		98
68) Bromoform	15.70	173	285929	24.010 ng		100
69) Styrene	16.12	104	907217	22.669 ng		97
70) o-Xylene	16.26	91	1309103	21.978 ng		98
71) n-Nonane	16.63	43	1305018	24.625 ng		96
72) 1,1,2,2-Tetrachloroethane	16.23	83	669534	21.930 ng		100
74) Cumene	17.05	105	1485922	21.700 ng		99
75) alpha-Pinene	17.56	93	816400	24.028 ng		97
76) n-Propylbenzene	17.73	91	1983374	22.143 ng		98
77) 3-Ethyltoluene	17.05	105	1485922	No Calib		
78) 4-Ethyltoluene	17.93	105	1471656	22.774 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1253626	22.077 ng		98
80) alpha-Methylstyrene	17.05	118	2624	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1485922	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1275864	22.551 ng		99
83) n-Decane	17.05	58	18814	No Calib		
84) Benzyl Chloride	18.74	91	2283270	55.651 ng		98
85) 1,3-Dichlorobenzene	18.77	146	617293	20.813 ng		99
86) 1,4-Dichlorobenzene	18.85	146	602884	19.293 ng		100
87) sec-Butylbenzene	18.95	105	1660394	22.005 ng		99
88) 4-Isopropyltoluene (p-...	19.17	119	1326911	22.379 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	1485922	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	589866	19.726 ng		99
91) d-Limonene	19.35	68	621181	25.596 ng		98
92) 1,2-Dibromo-3-Chloropr...	19.85	157	431064	47.089 ng	#	81
93) n-Undecane	18.05	58	41127	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	782405	42.727 ng		100
95) Naphthalene	21.54	128	1240360	25.824 ng		100
96) n-Dodecane	18.95	58	15621	No Calib	#	
97) Hexachlorobutadiene	21.98	225	260163	19.565 ng		100
98) Cyclohexanone	15.46	55	5779	No Calib	#	
99) tert-Butylbenzene	18.59	119	1138473	22.575 ng		99
100) n-Butylbenzene	19.70	91	1458130	24.470 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	299529	22.377 ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272505.D
Sample : LCS R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:17 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 11:45:13 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272506.D
Sample : LCSD R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:53 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

MC 1/27/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 13:13:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	114438	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.37	114	514930	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	169871	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	296012	14.372	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 114.96%				
57) Toluene-d8 (SS2)	12.47	98	669424	10.855	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.80%				
73) Bromofluorobenzene (SS3)	16.84	174	174869	11.090	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 88.72%				
Target Compounds							Qvalue
2) Propene	3.36	42	735074	26.956	ng		98
3) Dichlorodifluoromethan...	3.44	85	740164	25.991	ng		99
4) Chloromethane	3.58	50	720976	26.988	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	258949	27.681	ng		99
6) Vinyl Chloride	3.77	62	516429	23.936	ng		100
7) 1,3-Butadiene	3.89	54	599619	29.490	ng		95
8) Bromomethane	4.11	94	288965	25.315	ng		100
9) Chloroethane	4.25	64	295279	25.747	ng		99
10) Ethanol	4.41	45	2322543	130.951	ng		99
11) Acetonitrile	4.55	41	1248775	27.779	ng		98
12) Acrolein	4.62	56	709415	53.576	ng		99
13) Acetone	4.73	58	1627523	127.615	ng	#	83
14) Trichlorofluoromethane	4.84	101	599902	26.063	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	3263698	56.958	ng		99
16) Acrylonitrile	5.11	53	1366830	54.002	ng		99
17) 1,1-Dichloroethene	5.34	96	316583	26.717	ng		89
18) 2-Methyl-2-Propanol (t...	5.43	59	2244372	58.306	ng		98
19) Methylene Chloride	5.46	84	363802	24.327	ng		89
20) 3-Chloro-1-propene (Al...	5.54	41	902567	28.904	ng		96
21) Trichlorotrifluoroethane	5.66	151	233018	25.602	ng		98
22) Carbon Disulfide	5.69	76	2943015	50.466	ng		99
23) trans-1,2-Dichloroethene	6.23	61	706414	28.340	ng		96
24) 1,1-Dichloroethane	6.42	63	827034	27.563	ng		99
25) Methyl tert-Butyl Ether	6.44	73	1038359	26.427	ng		99
26) Vinyl Acetate	6.54	86	396889	149.455	ng	#	71
27) 2-Butanone (MEK)	6.75	72	522002	54.282	ng	#	82
28) cis-1,2-Dichloroethene	7.17	61	671946	27.749	ng		95
29) Diisopropyl Ether	7.36	87	544421	52.368	ng	#	79
30) Ethyl Acetate	7.37	61	338470	54.995	ng		97
31) n-Hexane	7.37	57	791904	27.196	ng		99
32) Chloroform	7.46	83	681137	27.790	ng		100
34) Tetrahydrofuran (THF)	7.82	72	481406	49.241	ng	#	90
35) Ethyl tert-Butyl Ether	7.89	87	830816	53.864	ng		92
36) 1,2-Dichloroethane	8.20	62	647995	28.043	ng		100
38) 1,1,1-Trichloroethane	8.47	97	575861	27.902	ng		98
39) Isopropyl Acetate	9.64	61	1250	No Calib		#	
40) 1-Butanol	8.94	56	281	No Calib		#	
41) Benzene	8.97	78	1531454	25.210	ng		99
42) Carbon Tetrachloride	9.14	117	493168	27.623	ng		100
43) Cyclohexane	9.28	84	1052962	52.628	ng		95
44) tert-Amyl Methyl Ether	9.65	73	2342060	57.286	ng		96
45) 1,2-Dichloropropane	9.92	63	469135	27.269	ng		99
46) Bromodichloromethane	10.14	83	560643	29.907	ng		100
47) Trichloroethene	10.21	130	310607	25.522	ng		99
48) 1,4-Dioxane	10.17	88	270989	25.272	ng		95
49) 2,2,4-Trimethylpentane...	10.29	57	2056030	27.467	ng		95
50) Methyl Methacrylate	10.46	100	258353	60.188	ng		94

Data File: I:\MS13\DATA\2025 01\27\01272506.D
Sample : LCSD R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:53 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 13:13:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

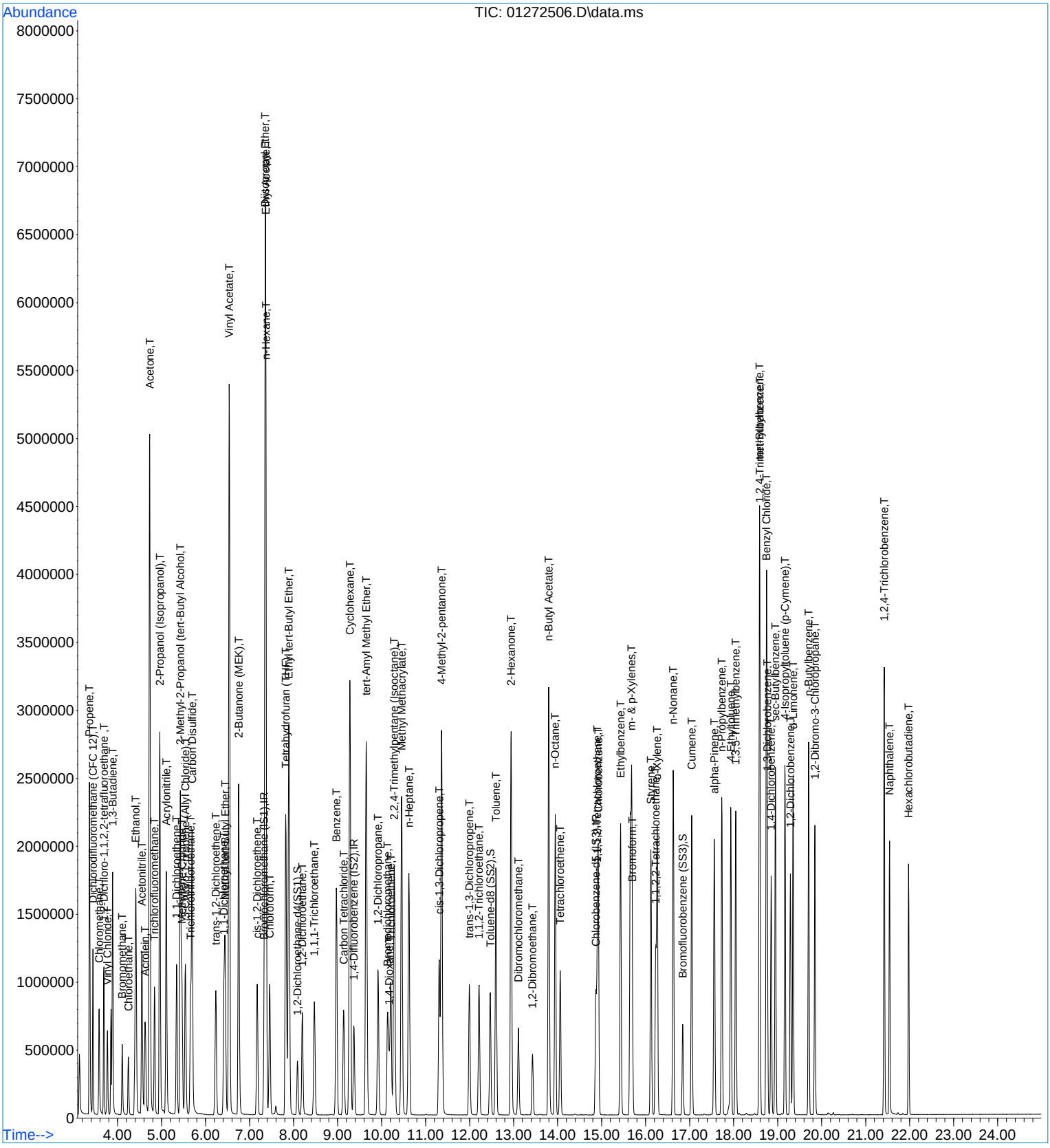
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	404029	27.014 ng		98
52) cis-1,3-Dichloropropene	11.31	75	729984	29.332 ng		99
53) 4-Methyl-2-pentanone	11.36	58	885104	59.955 ng		91
54) trans-1,3-Dichloropropene	11.99	75	583907	30.513 ng		99
55) 1,1,2-Trichloroethane	12.22	97	343443	27.992 ng		99
58) Toluene	12.60	91	1454727	22.293 ng		100
59) 2-Hexanone	12.94	43	2716188	53.599 ng		96
60) Dibromochloromethane	13.11	129	377433	23.508 ng		100
61) 1,2-Dibromoethane	13.43	107	369939	22.026 ng		100
62) n-Butyl Acetate	13.80	43	3147557	55.506 ng		97
63) n-Octane	13.95	57	430297	23.568 ng		98
64) Tetrachloroethene	14.06	166	312810	21.033 ng		100
65) Chlorobenzene	14.92	112	854302	21.351 ng		100
66) Ethylbenzene	15.43	91	1693415	22.931 ng		99
67) m- & p-Xylenes	15.68	91	2691613	45.896 ng		98
68) Bromoform	15.70	173	295495	25.350 ng		100
69) Styrene	16.12	104	944703	24.116 ng		98
70) o-Xylene	16.26	91	1338247	22.952 ng		99
71) n-Nonane	16.63	43	1309538	25.245 ng		97
72) 1,1,2,2-Tetrachloroethane	16.23	83	687907	23.019 ng		100
74) Cumene	17.05	105	1526770	22.779 ng		99
75) alpha-Pinene	17.56	93	833032	25.048 ng		97
76) n-Propylbenzene	17.73	91	2029707	23.150 ng		99
77) 3-Ethyltoluene	17.05	105	1526770	No Calib		
78) 4-Ethyltoluene	17.93	105	1531982	24.220 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1297721	23.348 ng		99
80) alpha-Methylstyrene	17.05	118	2635	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1526770	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1330928	24.032 ng		100
83) n-Decane	17.05	58	18708	No Calib		
84) Benzyl Chloride	18.74	91	2352988	58.590 ng		98
85) 1,3-Dichlorobenzene	18.77	146	639945	22.043 ng		100
86) 1,4-Dichlorobenzene	18.85	146	642613	21.009 ng		100
87) sec-Butylbenzene	18.95	105	1763241	23.873 ng		99
88) 4-Isopropyltoluene (p-...	19.16	119	1403897	24.189 ng		99
89) 1,2,3-Trimethylbenzene	17.05	105	1526770	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	629819	21.517 ng		100
91) d-Limonene	19.35	68	642328	27.040 ng		99
92) 1,2-Dibromo-3-Chloropr...	19.85	157	444897	49.651 ng	#	84
93) n-Undecane	18.05	58	41395	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	810268	45.205 ng		99
95) Naphthalene	21.54	128	1284052	27.311 ng		100
96) n-Dodecane	18.95	58	16690	No Calib	#	
97) Hexachlorobutadiene	21.98	225	269865	20.734 ng		99
98) Cyclohexanone	15.46	55	5485	No Calib	#	
99) tert-Butylbenzene	18.59	119	1193307	24.174 ng		100
100) n-Butylbenzene	19.70	91	1477511	25.331 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	307540	23.472 ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\27\01272506.D
Sample : LCSD R13012725 25ng Inst : MS13
Acq On : 27 Jan 2025 11:53 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 27 13:13:56 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



ALS ENVIRONMENTAL

LABORATORY CONTROL SAMPLE / DUPLICATE LABORATORY CONTROL SAMPLE SUMMARY

Client: **WSP USA Inc.**
Client Sample ID: **Duplicate Lab Control Sample** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P250128-DLCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Silonite Canister Volume(s) Analyzed: 0.125 Liter(s)
Test Notes:

CAS #	Compound	Spike Amount LCS / DLCS µg/m³	Result LCS µg/m³	Result DLCS µg/m³	% Recovery LCS	% Recovery DLCS	ALS Acceptance Limits	RPD	RPD Limit	Data Qualifier
75-01-4	Vinyl Chloride	210	203	200	**97**	**95**	57-129	2	25	
75-35-4	1,1-Dichloroethene	208	219	219	**105**	**105**	75-120	0	25	
75-09-2	Methylene Chloride	204	203	200	**100**	**98**	71-123	2	25	
156-60-5	trans-1,2-Dichloroethene	218	237	235	**109**	**108**	67-123	0.9	25	
75-34-3	1,1-Dichloroethane	218	231	228	**106**	**105**	66-120	0.9	25	
156-59-2	cis-1,2-Dichloroethene	214	233	229	**109**	**107**	64-120	2	25	
107-06-2	1,2-Dichloroethane	204	239	232	**117**	**114**	64-138	3	25	
71-55-6	1,1,1-Trichloroethane	210	224	226	**107**	**108**	67-125	0.9	25	
56-23-5	Carbon Tetrachloride	210	222	223	**106**	**106**	71-134	0	25	
79-01-6	Trichloroethene	214	201	204	**94**	**95**	68-124	1	25	
127-18-4	Tetrachloroethene	214	166	170	**78**	**79**	55-132	1	25	

Laboratory Control Sample percent recovery is verified and accepted based on the on-column result.
Reported results are shown in concentration units and as a result of the calculation, may vary slightly.

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282504.D
Sample : LCS R13012825 25ng
Acq On : 28 Jan 2025 5:13
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Inst : MS13
Operator: MC

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:30 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	120147	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.38	114	561103	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	183572	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	323329	14.952	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 119.60%				
57) Toluene-d8 (SS2)	12.47	98	717233	10.762	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 86.08%				
73) Bromofluorobenzene (SS3)	16.84	174	174329	10.231	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 81.84%				
Target Compounds							Qvalue
2) Propene	3.36	42	826689	28.875	ng		97
3) Dichlorodifluoromethan...	3.44	85	816646	27.314	ng		100
4) Chloromethane	3.58	50	829174	29.563	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	276855	28.189	ng		99
6) Vinyl Chloride	3.77	62	574392	25.357	ng		99
7) 1,3-Butadiene	3.89	54	664486	31.128	ng		94
8) Bromomethane	4.11	94	312205	26.051	ng		99
9) Chloroethane	4.25	64	323745	26.887	ng		99
10) Ethanol	4.42	45	2573069	138.183	ng		99
11) Acetonitrile	4.55	41	1399423	29.650	ng		98
12) Acrolein	4.63	56	782754	56.306	ng		99
13) Acetone	4.73	58	1808883	135.096	ng	#	80
14) Trichlorofluoromethane	4.84	101	661351	27.368	ng		100
15) 2-Propanol (Isopropanol)	4.96	45	3685739	61.267	ng		99
16) Acrylonitrile	5.11	53	1522679	57.301	ng		99
17) 1,1-Dichloroethene	5.35	96	340778	27.392	ng	#	85
18) 2-Methyl-2-Propanol (t...	5.43	59	2565943	63.493	ng		97
19) Methylene Chloride	5.46	84	397865	25.341	ng		87
20) 3-Chloro-1-propene (Al...	5.54	41	1008194	30.752	ng		95
21) Trichlorotrifluoroethane	5.66	151	246290	25.774	ng		94
22) Carbon Disulfide	5.69	76	3231077	52.773	ng		100
23) trans-1,2-Dichloroethene	6.23	61	774608	29.599	ng		94
24) 1,1-Dichloroethane	6.42	63	908119	28.828	ng		99
25) Methyl tert-Butyl Ether	6.44	73	1160834	28.140	ng		99
26) Vinyl Acetate	6.54	86	431380	154.724	ng	#	59
27) 2-Butanone (MEK)	6.75	72	567851	56.244	ng	#	76
28) cis-1,2-Dichloroethene	7.17	61	739934	29.105	ng		93
29) Diisopropyl Ether	7.35	87	587246	53.803	ng	#	70
30) Ethyl Acetate	7.37	61	365939	56.633	ng		98
31) n-Hexane	7.37	57	876721	28.678	ng		99
32) Chloroform	7.46	83	744010	28.913	ng		100
34) Tetrahydrofuran (THF)	7.82	72	525484	51.196	ng	#	87
35) Ethyl tert-Butyl Ether	7.90	87	906093	55.953	ng	#	91
36) 1,2-Dichloroethane	8.20	62	725563	29.907	ng		99
38) 1,1,1-Trichloroethane	8.48	97	630733	28.046	ng		97
39) Isopropyl Acetate	9.66	61	1453	No Calib		#	
40) 1-Butanol	8.94	56	467	No Calib		#	
41) Benzene	8.97	78	1671697	25.254	ng		99
42) Carbon Tetrachloride	9.14	117	539938	27.754	ng		100
43) Cyclohexane	9.28	84	1150945	52.791	ng		93
44) tert-Amyl Methyl Ether	9.65	73	2568988	57.666	ng		95
45) 1,2-Dichloropropane	9.92	63	515048	27.474	ng		100
46) Bromodichloromethane	10.14	83	617847	30.246	ng		99
47) Trichloroethene	10.21	130	332973	25.109	ng		100
48) 1,4-Dioxane	10.17	88	293687	25.135	ng		95
49) 2,2,4-Trimethylpentane...	10.29	57	2258235	27.685	ng		93
50) Methyl Methacrylate	10.46	100	276551	59.126	ng	#	90

Data File: I:\MS13\DATA\2025 01\28\01282504.D
Sample : LCS R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 5:13 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:30 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

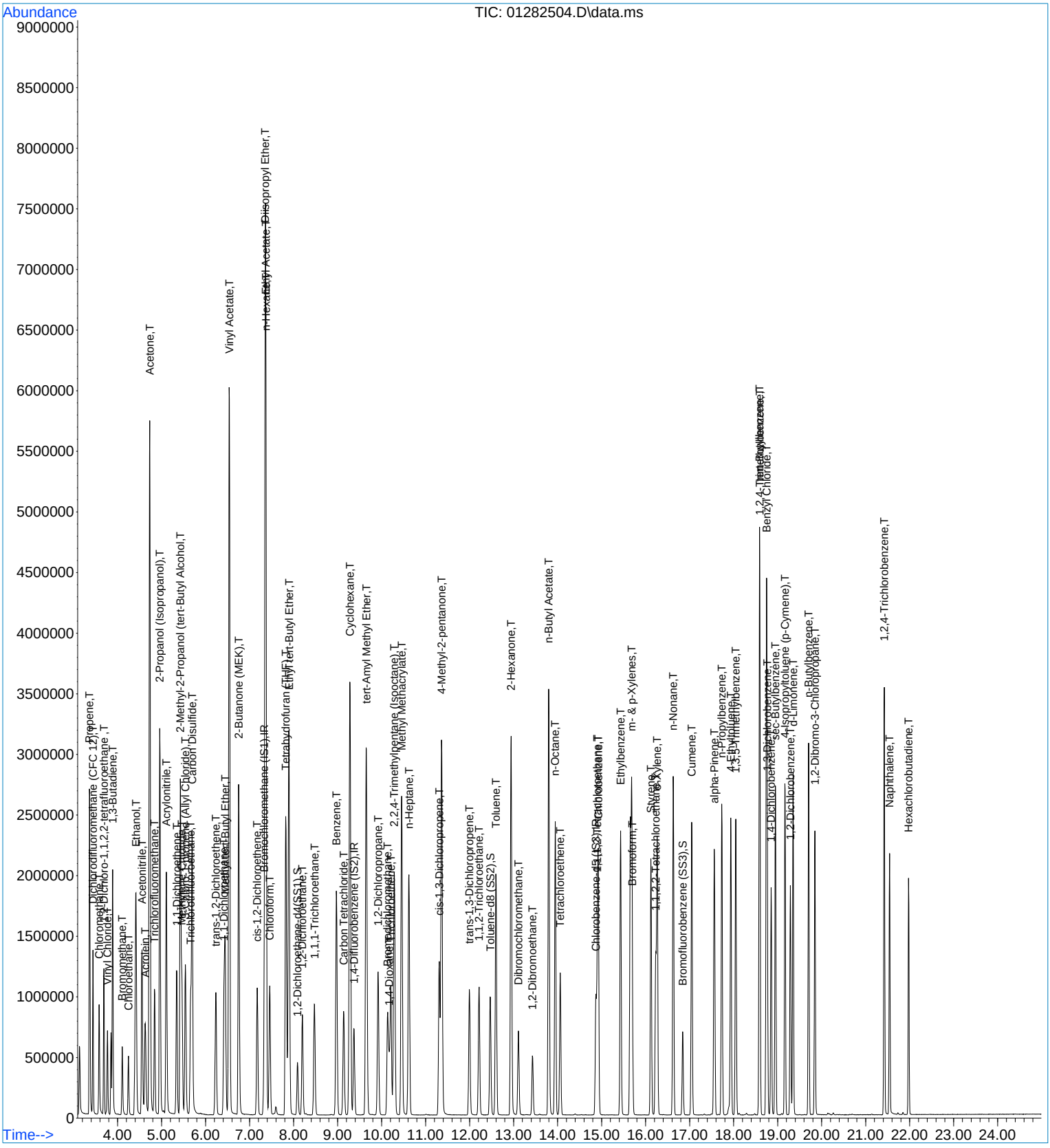
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	438392	26.899 ng		96
52) cis-1,3-Dichloropropene	11.31	75	797102	29.393 ng		99
53) 4-Methyl-2-pentanone	11.36	58	977449	60.762 ng		90
54) trans-1,3-Dichloropropene	11.99	75	624715	29.959 ng		99
55) 1,1,2-Trichloroethane	12.22	97	369782	27.658 ng		98
58) Toluene	12.60	91	1568414	22.241 ng		99
59) 2-Hexanone	12.94	43	3011654	54.994 ng		95
60) Dibromochloromethane	13.11	129	410805	23.676 ng		99
61) 1,2-Dibromoethane	13.43	107	399582	22.015 ng		100
62) n-Butyl Acetate	13.80	43	3496469	57.057 ng		97
63) n-Octane	13.95	57	473004	23.974 ng		96
64) Tetrachloroethene	14.06	166	332855	20.710 ng		100
65) Chlorobenzene	14.92	112	921313	21.307 ng		100
66) Ethylbenzene	15.43	91	1837575	23.026 ng		98
67) m- & p-Xylenes	15.68	91	2912354	45.954 ng		98
68) Bromoform	15.70	173	317536	25.208 ng		99
69) Styrene	16.12	104	1004901	23.738 ng		98
70) o-Xylene	16.26	91	1447289	22.970 ng		98
71) n-Nonane	16.63	43	1458411	26.016 ng		95
72) 1,1,2,2-Tetrachloroethane	16.23	83	741569	22.963 ng		100
74) Cumene	17.05	105	1653090	22.823 ng		99
75) alpha-Pinene	17.56	93	905076	25.183 ng		96
76) n-Propylbenzene	17.73	91	2213795	23.365 ng		98
77) 3-Ethyltoluene	17.05	105	1653090	No Calib		
78) 4-Ethyltoluene	17.93	105	1641936	24.021 ng		99
79) 1,3,5-Trimethylbenzene	18.05	105	1387211	23.095 ng		98
80) alpha-Methylstyrene	17.05	118	3160	No Calib	#	
81) 2-Ethyltoluene	17.05	105	1653090	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1416236	23.664 ng		99
83) n-Decane	17.05	58	19665	No Calib		
84) Benzyl Chloride	18.75	91	2533487	58.376 ng		98
85) 1,3-Dichlorobenzene	18.77	146	687773	21.923 ng		100
86) 1,4-Dichlorobenzene	18.85	146	673332	20.370 ng		100
87) sec-Butylbenzene	18.95	105	1848753	23.163 ng		99
88) 4-Isopropyltoluene (p-...	19.16	119	1473824	23.499 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	1653090	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	663015	20.961 ng		100
91) d-Limonene	19.35	68	693233	27.005 ng		99
92) 1,2-Dibromo-3-Chloropr...	19.85	157	479545	49.523 ng	#	81
93) n-Undecane	18.05	58	45750	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	857908	44.291 ng		100
95) Naphthalene	21.54	128	1359662	26.761 ng		100
96) n-Dodecane	18.95	58	18257	No Calib	#	
97) Hexachlorobutadiene	21.98	225	292992	20.830 ng		99
98) Cyclohexanone	15.46	55	5482	No Calib	#	
99) tert-Butylbenzene	18.59	119	1266485	23.741 ng		99
100) n-Butylbenzene	19.70	91	1631636	25.886 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	332184	23.461 ng		100

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282504.D
Sample : LCS R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 5:13 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:30 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282505.D
Sample : LCSD R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 5:48 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

MC 1/28/25

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.33	130	125883	12.500	ng		0.03
37) 1,4-Difluorobenzene (IS2)	9.38	114	574936	12.500	ng		0.02
56) Chlorobenzene-d5 (IS3)	14.87	54	184796	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.09	65	329236	14.532	ng		0.03
Spiked Amount 12.500	Range 70 - 130		Recovery = 116.24%				
57) Toluene-d8 (SS2)	12.47	98	735934	10.969	ng		0.01
Spiked Amount 12.500	Range 70 - 130		Recovery = 87.76%				
73) Bromofluorobenzene (SS3)	16.84	174	182060	10.614	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 84.88%				
Target Compounds							Qvalue
2) Propene	3.36	42	846956	28.235	ng		98
3) Dichlorodifluoromethan...	3.44	85	844027	26.944	ng		100
4) Chloromethane	3.58	50	869692	29.595	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	3.69	135	287380	27.927	ng		100
6) Vinyl Chloride	3.77	62	591863	24.938	ng		100
7) 1,3-Butadiene	3.89	54	679661	30.388	ng		95
8) Bromomethane	4.11	94	323523	25.766	ng		99
9) Chloroethane	4.25	64	334323	26.501	ng		100
10) Ethanol	4.42	45	2641217	135.379	ng		99
11) Acetonitrile	4.55	41	1418758	28.690	ng		98
12) Acrolein	4.63	56	802881	55.122	ng		99
13) Acetone	4.73	58	1850490	131.906	ng	#	82
14) Trichlorofluoromethane	4.84	101	688091	27.177	ng		99
15) 2-Propanol (Isopropanol)	4.96	45	3788497	60.106	ng		99
16) Acrylonitrile	5.11	53	1550701	55.697	ng		99
17) 1,1-Dichloroethene	5.34	96	356796	27.373	ng		88
18) 2-Methyl-2-Propanol (t...	5.43	59	2699430	63.752	ng		97
19) Methylene Chloride	5.46	84	412152	25.055	ng		88
20) 3-Chloro-1-propene (Al...	5.54	41	1035622	30.149	ng		96
21) Trichlorotrifluoroethane	5.66	151	261662	26.135	ng		96
22) Carbon Disulfide	5.69	76	3349857	52.220	ng		99
23) trans-1,2-Dichloroethene	6.23	61	804128	29.327	ng		94
24) 1,1-Dichloroethane	6.42	63	938720	28.441	ng		99
25) Methyl tert-Butyl Ether	6.44	73	1237633	28.635	ng		99
26) Vinyl Acetate	6.54	86	447896	153.328	ng	#	66
27) 2-Butanone (MEK)	6.75	72	586658	55.459	ng	#	79
28) cis-1,2-Dichloroethene	7.17	61	762746	28.635	ng		94
29) Diisopropyl Ether	7.35	87	607887	53.156	ng	#	74
30) Ethyl Acetate	7.37	61	378707	55.939	ng		98
31) n-Hexane	7.37	57	899702	28.089	ng		99
32) Chloroform	7.46	83	770555	28.580	ng		100
34) Tetrahydrofuran (THF)	7.82	72	542380	50.434	ng	#	88
35) Ethyl tert-Butyl Ether	7.90	87	938668	55.323	ng	#	91
36) 1,2-Dichloroethane	8.20	62	737586	29.018	ng		100
38) 1,1,1-Trichloroethane	8.48	97	649758	28.197	ng		97
39) Isopropyl Acetate	9.64	61	1444	No Calib		#	
40) 1-Butanol	8.94	56	696	No Calib		#	
41) Benzene	8.97	78	1727630	25.471	ng		100
42) Carbon Tetrachloride	9.14	117	556443	27.914	ng		100
43) Cyclohexane	9.28	84	1187410	53.153	ng		94
44) tert-Amyl Methyl Ether	9.65	73	2641873	57.875	ng		96
45) 1,2-Dichloropropane	9.92	63	525112	27.337	ng		99
46) Bromodichloromethane	10.14	83	631637	30.177	ng		100
47) Trichloroethene	10.21	130	346777	25.521	ng		100
48) 1,4-Dioxane	10.17	88	302805	25.292	ng		95
49) 2,2,4-Trimethylpentane...	10.29	57	2320546	27.765	ng		94
50) Methyl Methacrylate	10.46	100	288445	60.185	ng		93

Data File: I:\MS13\DATA\2025 01\28\01282505.D
Sample : LCSD R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 5:48 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

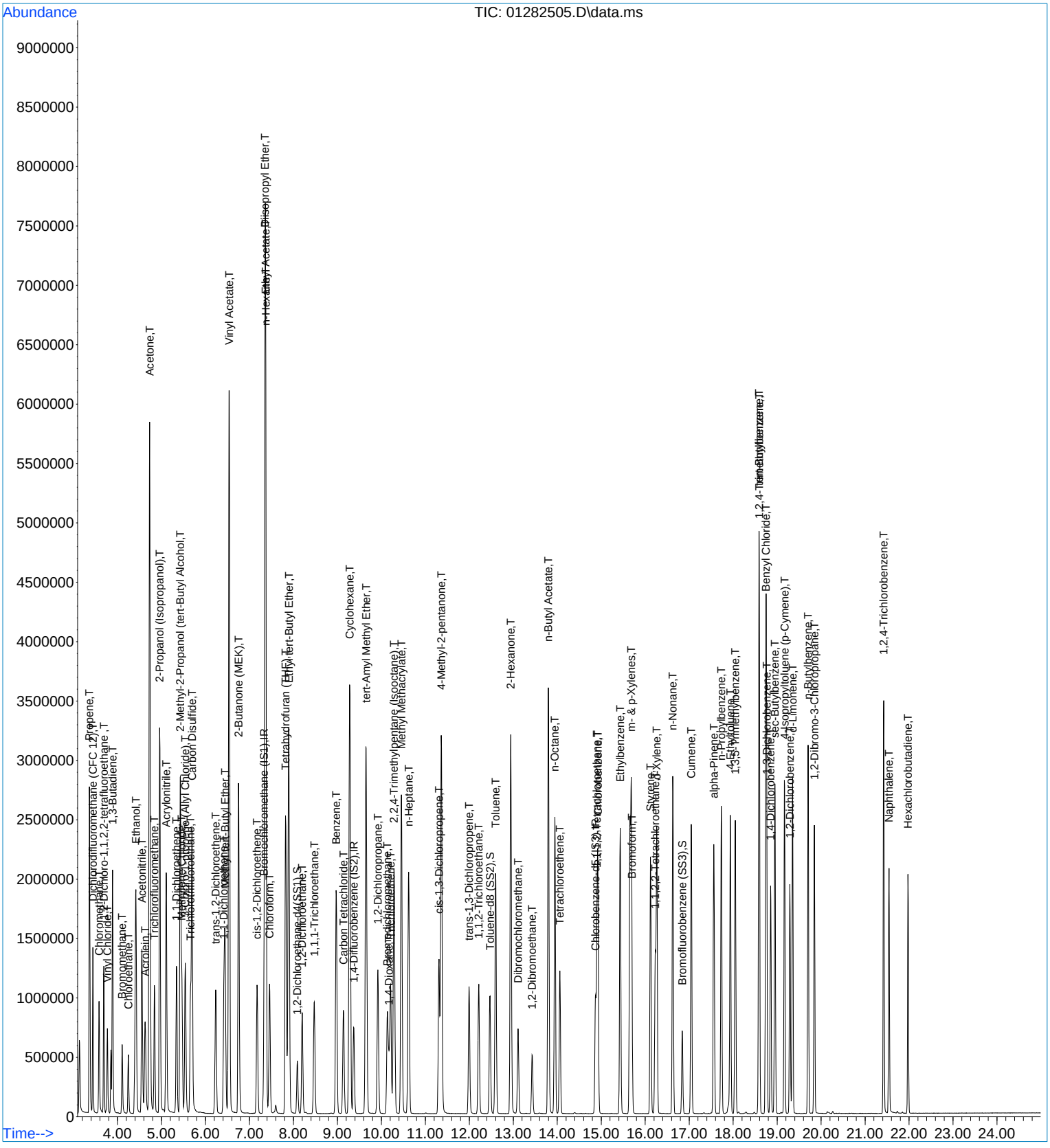
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
51) n-Heptane	10.62	71	453382	27.149 ng		97
52) cis-1,3-Dichloropropene	11.31	75	822494	29.600 ng		99
53) 4-Methyl-2-pentanone	11.36	58	1001690	60.771 ng		91
54) trans-1,3-Dichloropropene	11.99	75	645844	30.227 ng		99
55) 1,1,2-Trichloroethane	12.22	97	383646	28.005 ng		99
58) Toluene	12.60	91	1619353	22.811 ng		99
59) 2-Hexanone	12.94	43	3066481	55.624 ng		95
60) Dibromochloromethane	13.11	129	423493	24.246 ng		99
61) 1,2-Dibromoethane	13.43	107	410921	22.490 ng		99
62) n-Butyl Acetate	13.80	43	3548001	57.515 ng		97
63) n-Octane	13.95	57	486096	24.474 ng		96
64) Tetrachloroethene	14.06	166	344152	21.271 ng		99
65) Chlorobenzene	14.92	112	947988	21.778 ng		100
66) Ethylbenzene	15.43	91	1894238	23.579 ng		99
67) m- & p-Xylenes	15.68	91	3001809	47.051 ng		98
68) Bromoform	15.70	173	326792	25.771 ng		99
69) Styrene	16.12	104	1040931	24.427 ng		98
70) o-Xylene	16.26	91	1490195	23.494 ng		98
71) n-Nonane	16.63	43	1492572	26.449 ng		95
72) 1,1,2,2-Tetrachloroethane	16.23	83	758465	23.330 ng		100
74) Cumene	17.05	105	1694002	23.233 ng		99
75) alpha-Pinene	17.56	93	931273	25.740 ng		97
76) n-Propylbenzene	17.73	91	2260421	23.699 ng		98
77) 3-Ethyltoluene	17.05	105	1694002	No Calib		
78) 4-Ethyltoluene	17.93	105	1672022	24.299 ng		98
79) 1,3,5-Trimethylbenzene	18.05	105	1423063	23.535 ng		98
80) alpha-Methylstyrene	17.05	118	2999	No Calib		
81) 2-Ethyltoluene	17.05	105	1694002	No Calib		
82) 1,2,4-Trimethylbenzene	18.59	105	1448736	24.047 ng		99
83) n-Decane	17.05	58	20669	No Calib		
84) Benzyl Chloride	18.74	91	2550740	58.384 ng		98
85) 1,3-Dichlorobenzene	18.77	146	700352	22.176 ng		99
86) 1,4-Dichlorobenzene	18.85	146	692283	20.805 ng		99
87) sec-Butylbenzene	18.95	105	1911801	23.794 ng		99
88) 4-Isopropyltoluene (p-...	19.17	119	1522932	24.121 ng		98
89) 1,2,3-Trimethylbenzene	17.05	105	1694002	No Calib		
90) 1,2-Dichlorobenzene	19.29	146	677543	21.278 ng		99
91) d-Limonene	19.35	68	708846	27.430 ng		98
92) 1,2-Dibromo-3-Chloropr...	19.85	157	490037	50.272 ng	#	82
93) n-Undecane	18.05	58	47637	No Calib		
94) 1,2,4-Trichlorobenzene	21.42	180	845615	43.367 ng		99
95) Naphthalene	21.54	128	1301903	25.454 ng		100
96) n-Dodecane	18.95	58	18674	No Calib	#	
97) Hexachlorobutadiene	21.98	225	297594	21.017 ng		99
98) Cyclohexanone	15.46	55	6213	No Calib	#	
99) tert-Butylbenzene	18.59	119	1294733	24.110 ng		99
100) n-Butylbenzene	19.70	91	1654582	26.076 ng		99
101) 1,1,1,2-Tetrachloroethane	14.90	131	342222	24.010 ng		99

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2025 01\28\01282505.D
Sample : LCSD R13012825 25ng Inst : MS13
Acq On : 28 Jan 2025 5:48 Operator: MC
Misc : S37-11222401/S37-01212501 (2/20)
ALS Vial : 1 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Jan 28 08:47:32 2025
Quant Method : I:\MS13\METHODS\R13012025.M
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration



ALS ENVIRONMENTAL

LABORATORY DUPLICATE SUMMARY RESULTS

Client: **WSP USA Inc.**
Client Sample ID: **OA1** ALS Project ID: P2500076
Client Project ID: **Former EPT, Ithaca NY / US-WSP-31405608.001 Task 01** ALS Sample ID: P2500076-009DUP

Test Code: EPA TO-15 Date Collected: 1/6/25
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: 1/9/25
Analyst: Marlow Cobian Date Analyzed: 1/28/25
Sample Type: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC02359

Initial Pressure (psig): -0.90 Final Pressure (psig): 3.74

Container Dilution Factor: 1.34

Compound	Sample Result µg/m³	Sample Result ppbV	Duplicate Sample Result µg/m³	Duplicate Sample Result ppbV	Average µg/m³	% RPD	RPD Limit	Data Qualifier
Vinyl Chloride	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethene	ND	ND	ND	ND	-	-	25	
Methylene Chloride	0.331	0.0953	0.336	0.0969	0.3335	**1**	25	**J**
trans-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,1-Dichloroethane	ND	ND	ND	ND	-	-	25	
cis-1,2-Dichloroethene	ND	ND	ND	ND	-	-	25	
1,2-Dichloroethane	ND	ND	ND	ND	-	-	25	
1,1,1-Trichloroethane	ND	ND	ND	ND	-	-	25	
Carbon Tetrachloride	0.448	0.0712	0.448	0.0712	0.448	**0**	25	
Trichloroethene	ND	ND	ND	ND	-	-	25	
Tetrachloroethene	ND	ND	ND	ND	-	-	25	

ND = Compound was analyzed for, but not detected above the laboratory detection limit.
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL.

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272526.D
Acq On : 28 Jan 2025 1:02
Operator : MC
Sample : P2500076-009dup (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 11:49:38 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	94792	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	451980	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	147719	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	263825	15.464	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 123.68%				
57) Toluene-d8 (SS2)	12.46	98	572377	10.673	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.36%				
73) Bromofluorobenzene (SS3)	16.84	174	130847	9.543	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 76.32%				
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D. d			
3) Dichlorodifluoromethan...	3.47	85	45634	1.935	ng		99
4) Chloromethane	3.65	50	6676	0.302	ng		93
5) 1,2-Dichloro-1,1,2,2-t...	3.73	135	671	0.087	ng		91
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.40	45	22496	1.531	ng		97
11) Acetonitrile	0.00	41	0	N.D. d			
12) Acrolein	4.65	56	104	N.D.			
13) Acetone	4.73	58	26464	2.505	ng	#	78
14) Trichlorofluoromethane	4.86	101	19996	1.049	ng		98
15) 2-Propanol (Isopropanol)	4.98	45	9132	0.192	ng	#	58
16) Acrylonitrile	5.15	53	124	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	5.47	59	343	N.D.			
19) Methylene Chloride	5.44	84	3110	0.251	ng	#	60
20) 3-Chloro-1-propene (Al...	5.49	41	197	N.D.			
21) Trichlorotrifluoroethane	5.66	151	2899	0.385	ng		90
22) Carbon Disulfide	5.72	76	4458	0.092	ng	#	75
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	6.77	72	1563	0.196	ng	#	28
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	7.36	61	5192	1.018	ng		87
31) n-Hexane	7.38	57	2968	0.123	ng	#	94
32) Chloroform	7.42	83	1099	0.054	ng		99
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D. d			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.94	56	1211	No Calib		#	
41) Benzene	8.95	78	14358	0.269	ng		99
42) Carbon Tetrachloride	9.12	117	5241	0.334	ng		91
43) Cyclohexane	9.26	84	449	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	0.00	88	0	N.D.			

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272526.D
Acq On : 28 Jan 2025 1:02
Operator : MC
Sample : P2500076-009dup (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 11:49:38 2025
Quant Method : I:\MS13\METHODS\R13012025.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Tue Jan 21 08:29:11 2025
Response via : Initial Calibration

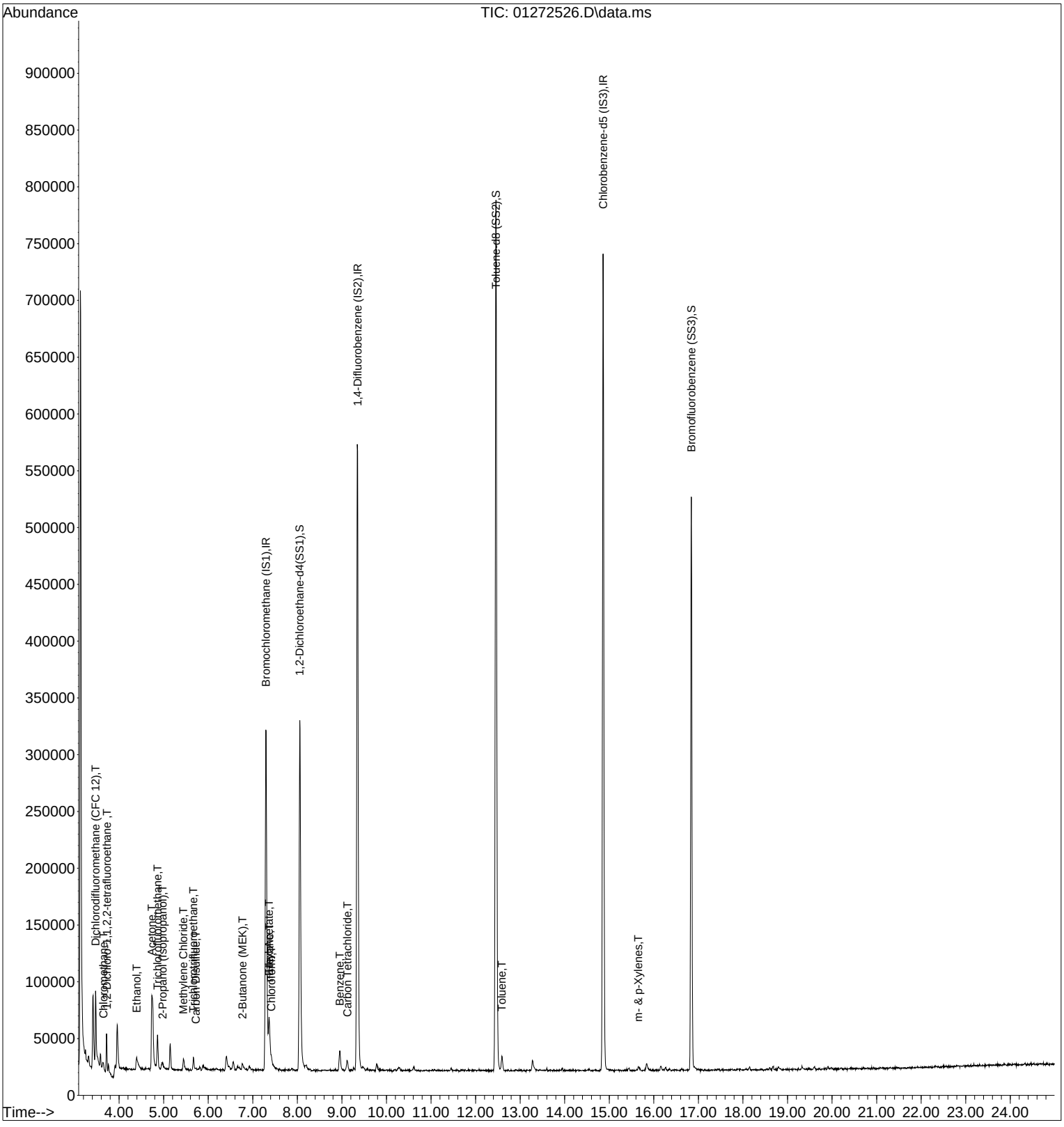
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) 2,2,4-Trimethylpentane...	10.29	57	3189	N.D.	
50) Methyl Methacrylate	0.00	100	0	N.D.	
51) n-Heptane	10.61	71	560	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	9839	0.173 ng	97
59) 2-Hexanone	12.96	43	136	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.88	43	127	N.D.	
63) n-Octane	13.94	57	204	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	0.00	112	0	N.D.	
66) Ethylbenzene	15.43	91	1753	N.D.	
67) m- & p-Xylenes	15.65	91	3889	0.076 ng	93
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	16.27	91	2301	N.D.	
71) n-Nonane	16.63	43	944	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	0.00	105	0	N.D.	
75) alpha-Pinene	17.56	93	110	N.D.	
76) n-Propylbenzene	17.74	91	349	N.D.	
77) 3-Ethyltoluene	0.00	105	0	N.D.	
78) 4-Ethyltoluene	17.95	105	650	N.D.	
79) 1,3,5-Trimethylbenzene	18.05	105	630	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	0.00	105	0	N.D.	
82) 1,2,4-Trimethylbenzene	18.60	105	1497	N.D.	
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	0.00	91	0	N.D.	
85) 1,3-Dichlorobenzene	0.00	146	0	N.D.	
86) 1,4-Dichlorobenzene	0.00	146	0	N.D.	
87) sec-Butylbenzene	0.00	105	0	N.D.	
88) 4-Isopropyltoluene (p-...	19.18	119	423	N.D.	
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.	
90) 1,2-Dichlorobenzene	0.00	146	0	N.D.	
91) d-Limonene	19.35	68	129	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	0.00	58	0	N.D.	
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.	
95) Naphthalene	0.00	128	0	N.D.	
96) n-Dodecane	0.00	58	0	N.D.	
97) Hexachlorobutadiene	0.00	225	0	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	0.00	119	0	N.D.	
100) n-Butylbenzene	0.00	91	0	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

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BCB 1/31/25

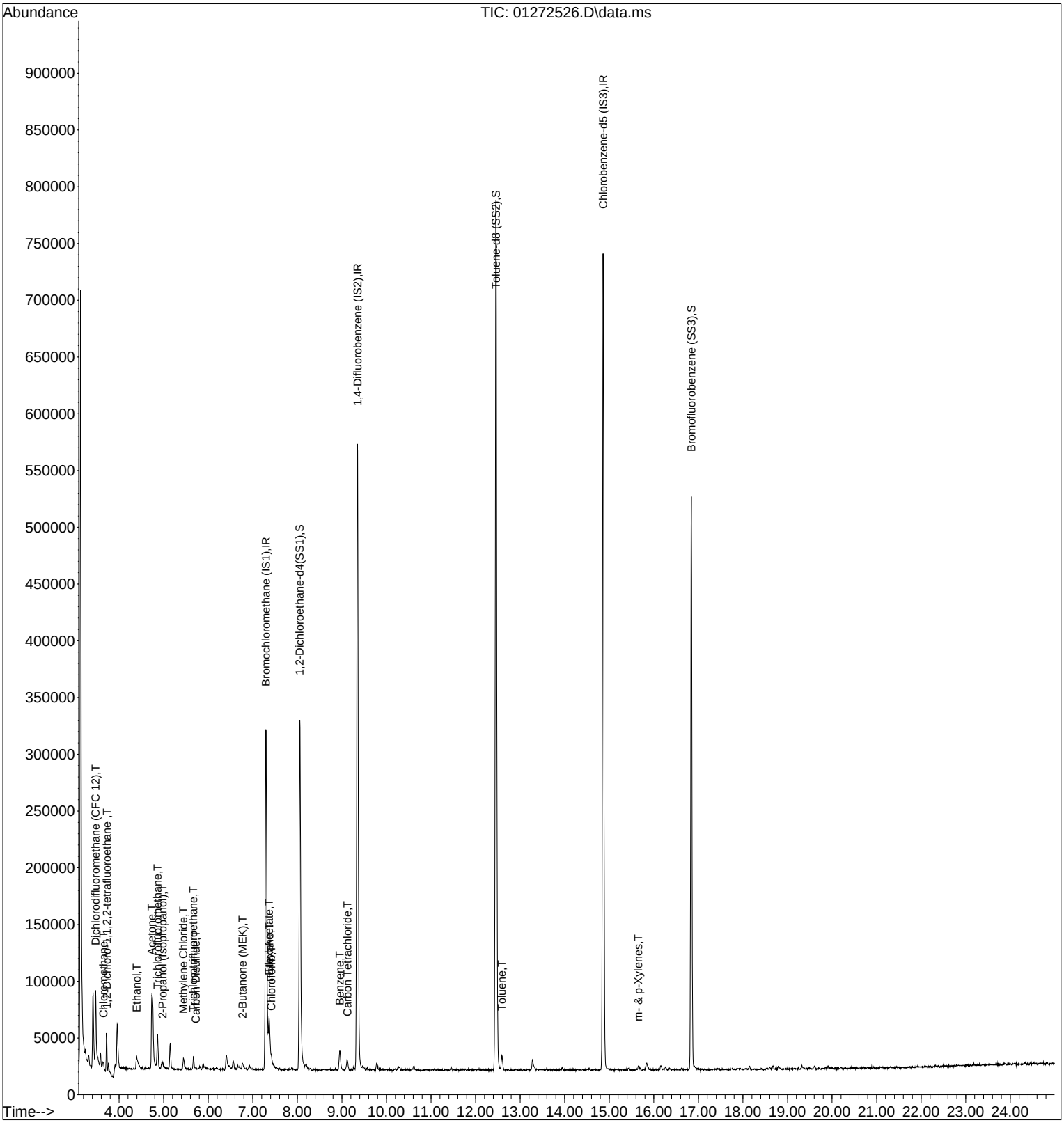
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	94792	12.500	ng		0.00
37) 1,4-Difluorobenzene (IS2)	9.35	114	451980	12.500	ng		0.00
56) Chlorobenzene-d5 (IS3)	14.86	54	147719	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	263825	15.464	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 123.68%				
57) Toluene-d8 (SS2)	12.46	98	572377	10.673	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 85.36%				
73) Bromofluorobenzene (SS3)	16.84	174	130847	9.543	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 76.32%				
Target Compounds							Qvalue
3) Dichlorodifluoromethan...	3.47	85	45634	1.935	ng		99
4) Chloromethane	3.65	50	6676	0.302	ng		93
5) 1,2-Dichloro-1,1,2,2-t...	3.73	135	671	0.087	ng		91
10) Ethanol	4.40	45	22496	1.531	ng		97
13) Acetone	4.73	58	26464	2.505	ng	#	78
14) Trichlorofluoromethane	4.86	101	19996	1.049	ng		98
15) 2-Propanol (Isopropanol)	4.98	45	9132	0.192	ng	#	58
19) Methylene Chloride	5.44	84	3110	0.251	ng	#	60
21) Trichlorotrifluoroethane	5.66	151	2899	0.385	ng		90
22) Carbon Disulfide	5.72	76	4458	0.092	ng	#	75
27) 2-Butanone (MEK)	6.77	72	1563	0.196	ng	#	28
30) Ethyl Acetate	7.36	61	5192	1.018	ng		87
31) n-Hexane	7.38	57	2968	0.123	ng	#	94
32) Chloroform	7.42	83	1099	0.054	ng		99
41) Benzene	8.95	78	14358	0.269	ng		99
42) Carbon Tetrachloride	9.12	117	5241	0.334	ng		91
58) Toluene	12.59	91	9839	0.173	ng		97
67) m- & p-Xylenes	15.65	91	3889	0.076	ng		93

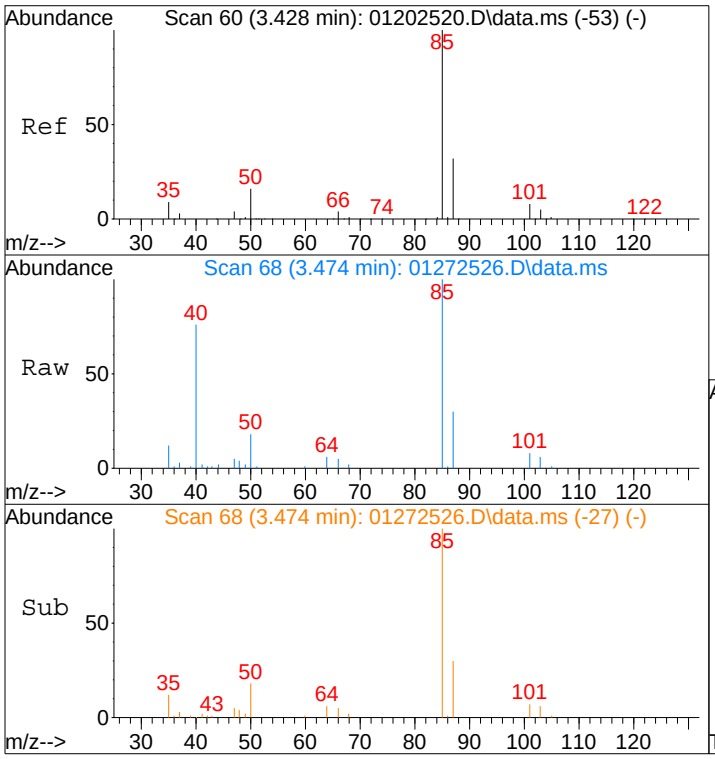
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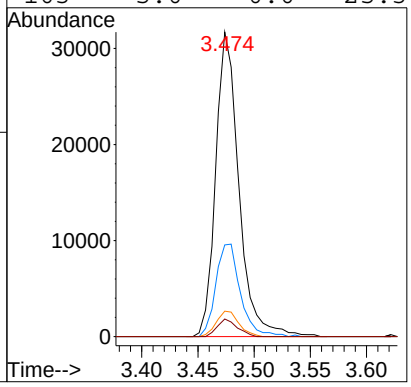


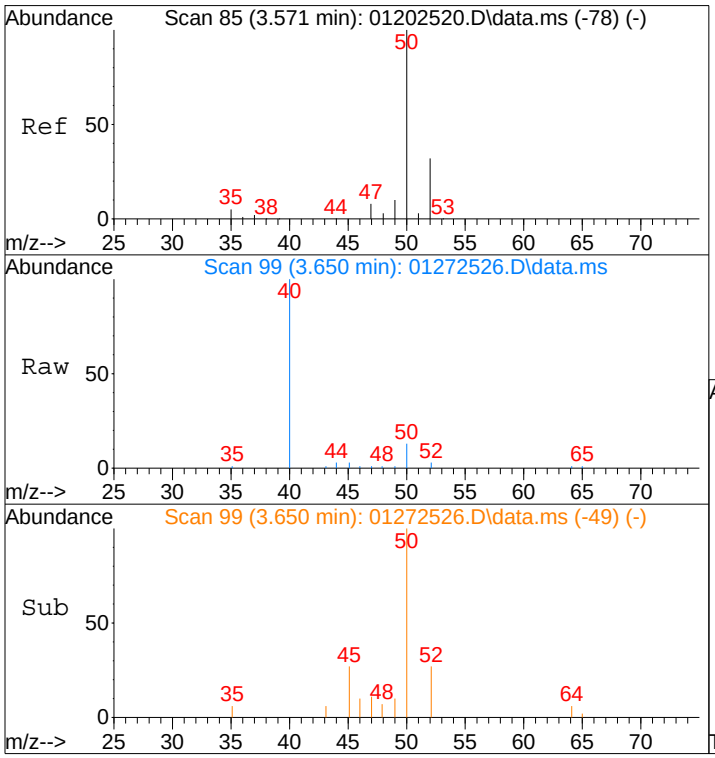


#3
Dichlorodifluoromethane (CFC 12)
Concen: 1.93 ng
RT: 3.47 min Scan# 68
Delta R.T. -0.017 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 85 Resp: 45634

Ion	Ratio	Lower	Upper
85	100		
87	32.0	12.2	52.2
101	8.1	0.0	28.4
103	5.0	0.0	25.3

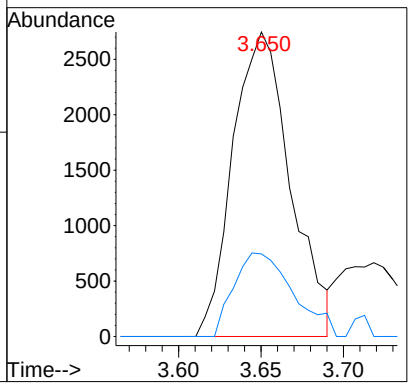


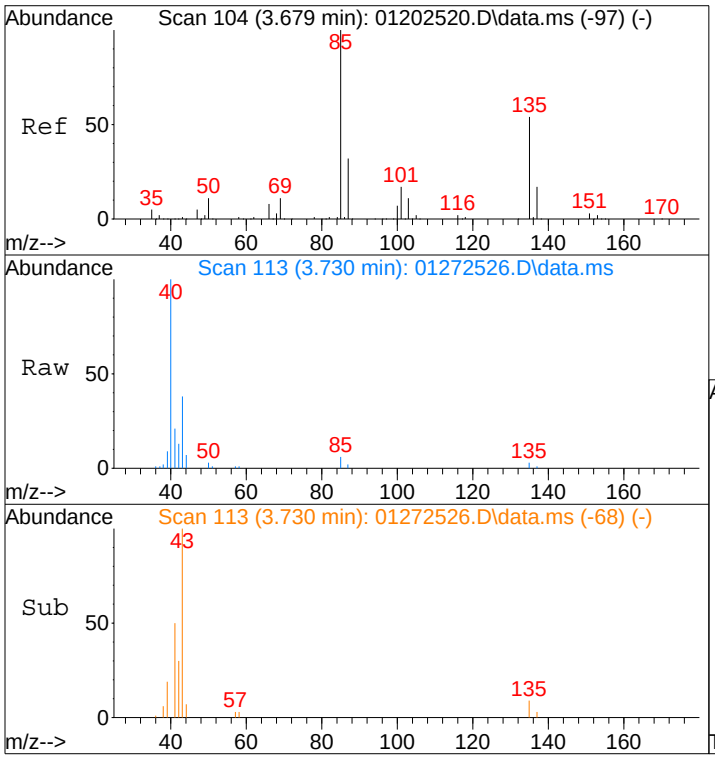


#4
Chloromethane
Concen: 0.30 ng
RT: 3.65 min Scan# 99
Delta R.T. 0.034 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 50 Resp: 6676

Ion	Ratio	Lower	Upper
50	100		
52	28.2	12.2	52.2

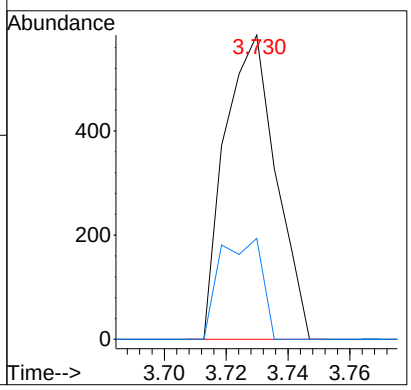


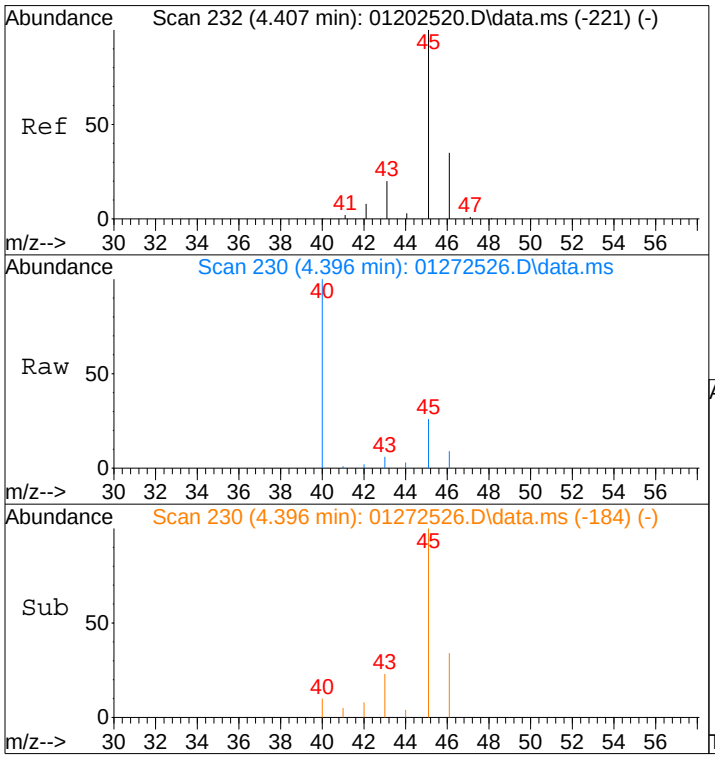


#5
1,2-Dichloro-1,1,2,2-tetrafluoroethane
Concen: 0.09 ng
RT: 3.73 min Scan# 113
Delta R.T. 0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion:135 Resp: 671

Ion	Ratio	Lower	Upper
135	100		
137	27.4	12.2	52.2

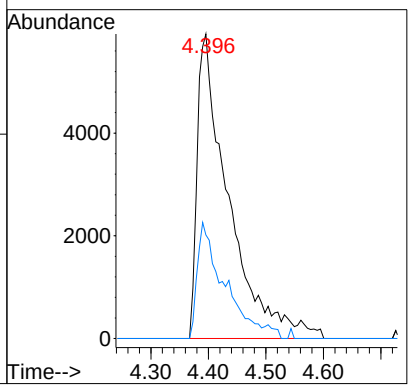


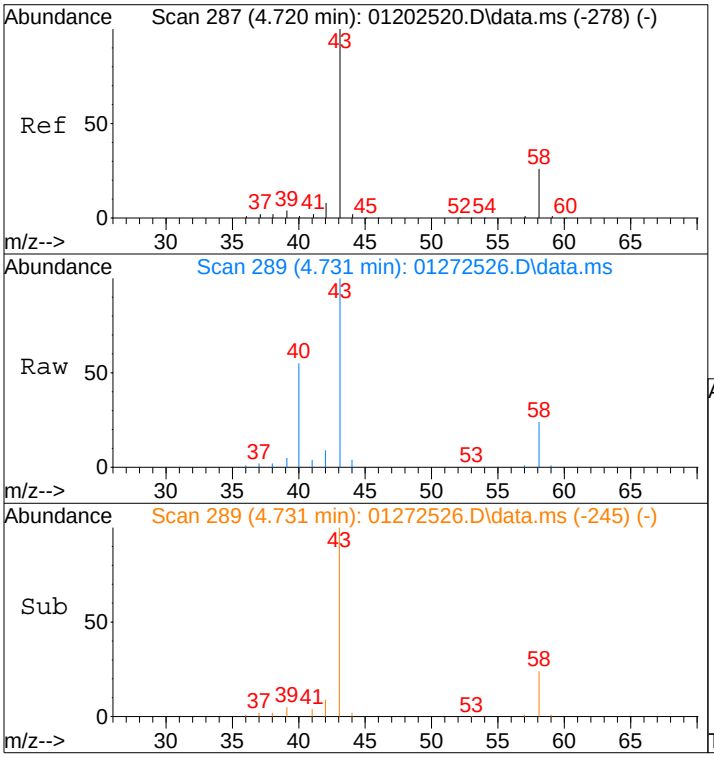


#10
Ethanol
Concen: 1.53 ng
RT: 4.40 min Scan# 230
Delta R.T. 0.011 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 45 Resp: 22496

Ion	Ratio	Lower	Upper
45	100		
46	33.5	15.0	55.0

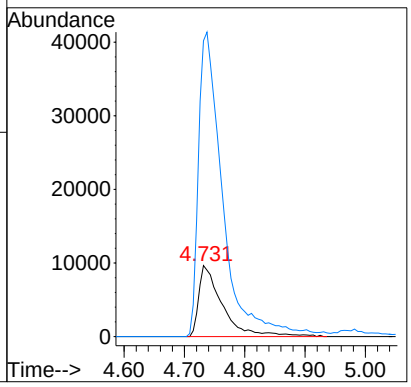


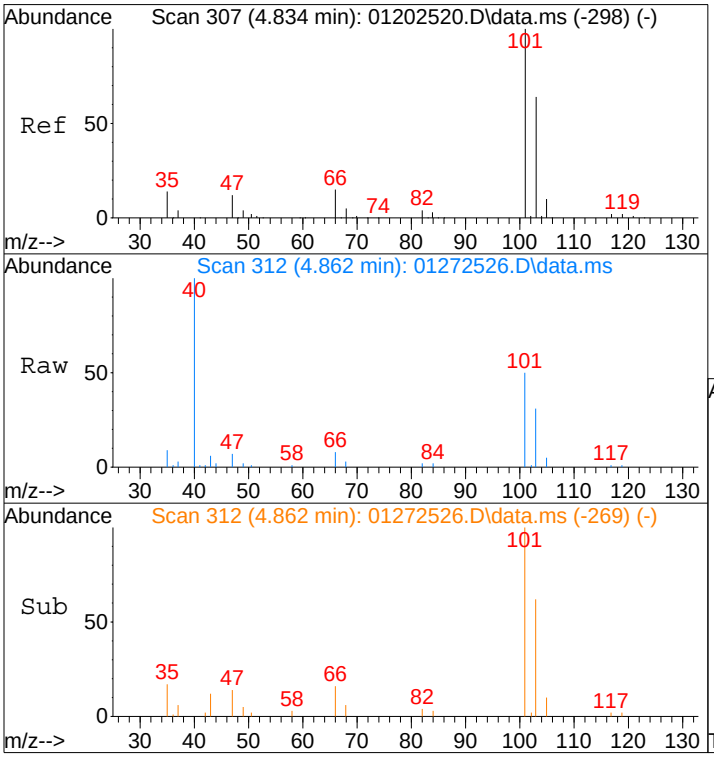


#13
Acetone
Concen: 2.51 ng
RT: 4.73 min Scan# 289
Delta R.T. -0.000 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 58 Resp: 26464

Ion	Ratio	Lower	Upper
58	100		
43	440.0	359.4	419.4#

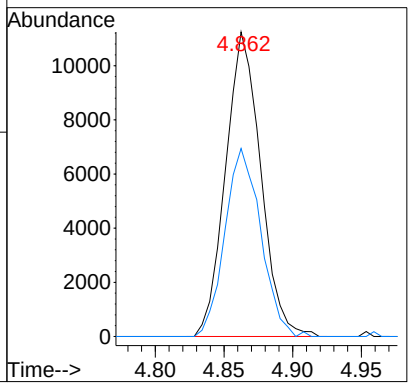


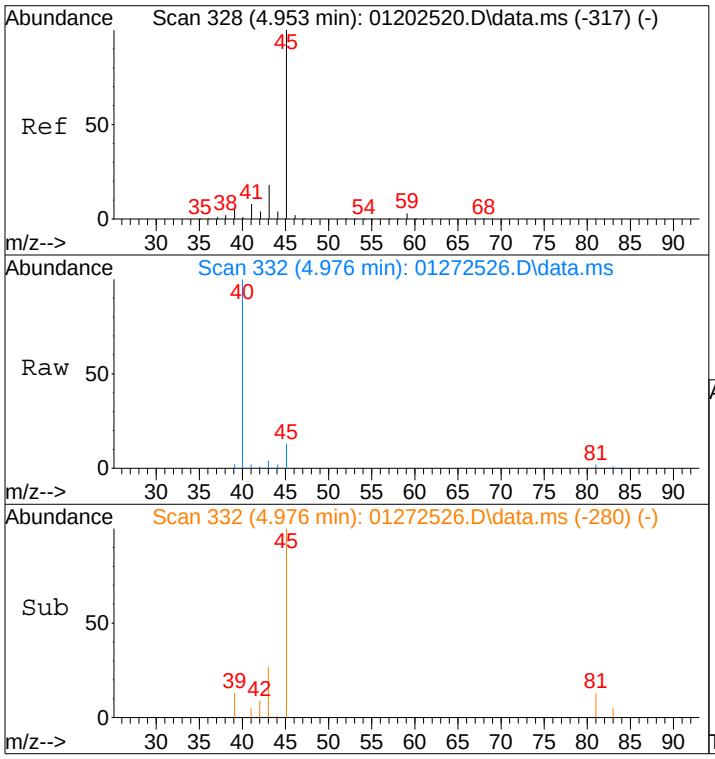


#14
Trichlorofluoromethane
Concen: 1.05 ng
RT: 4.86 min Scan# 312
Delta R.T. -0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion:101 Resp: 19996

Ion	Ratio	Lower	Upper
101	100		
103	62.9	44.2	84.2

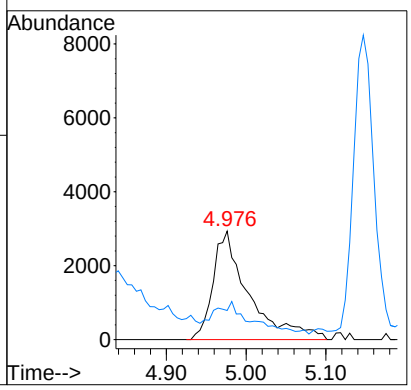


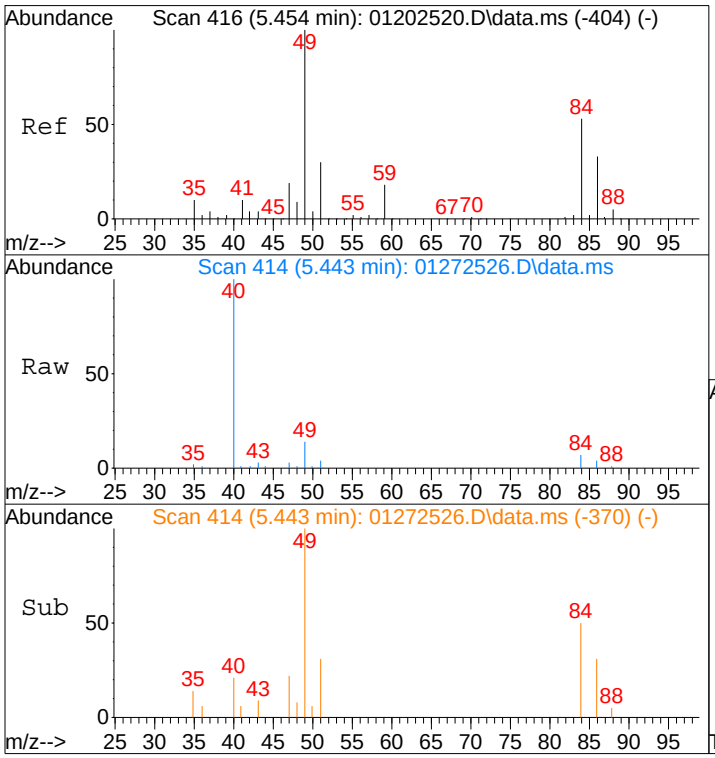


#15
2-Propanol (Isopropanol)
Concen: 0.19 ng
RT: 4.98 min Scan# 332
Delta R.T. 0.045 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 45 Resp: 9132

Ion	Ratio	Lower	Upper
45	100		
43	0.0	0.0	38.9

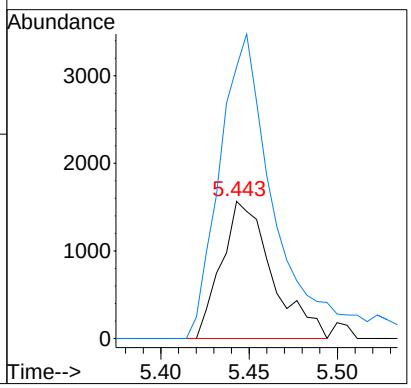


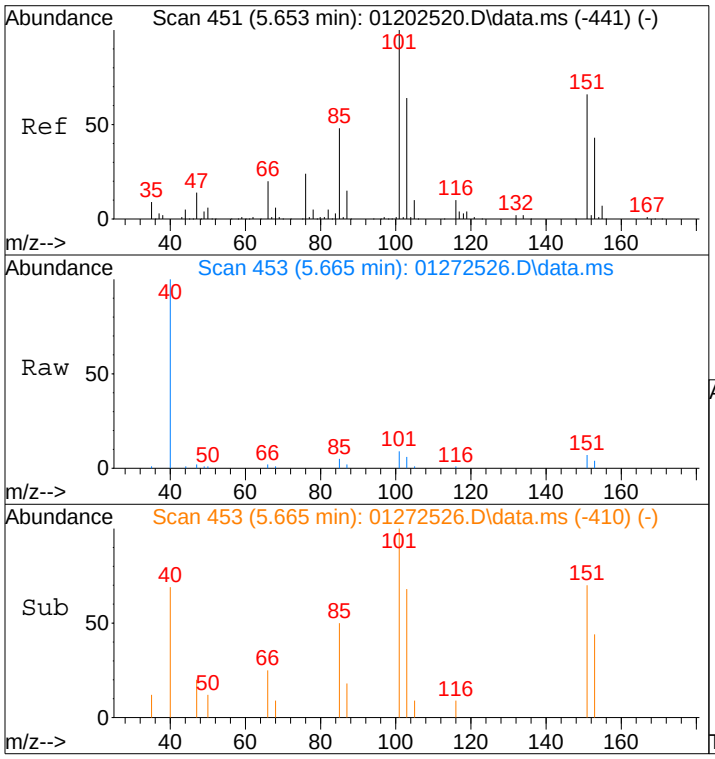


#19
Methylene Chloride
Concen: 0.25 ng
RT: 5.44 min Scan# 414
Delta R.T. -0.000 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 84 Resp: 3110

Ion	Ratio	Lower	Upper
84	100		
49	247.1	163.7	213.7#

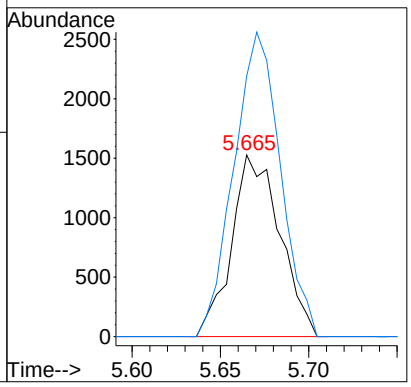


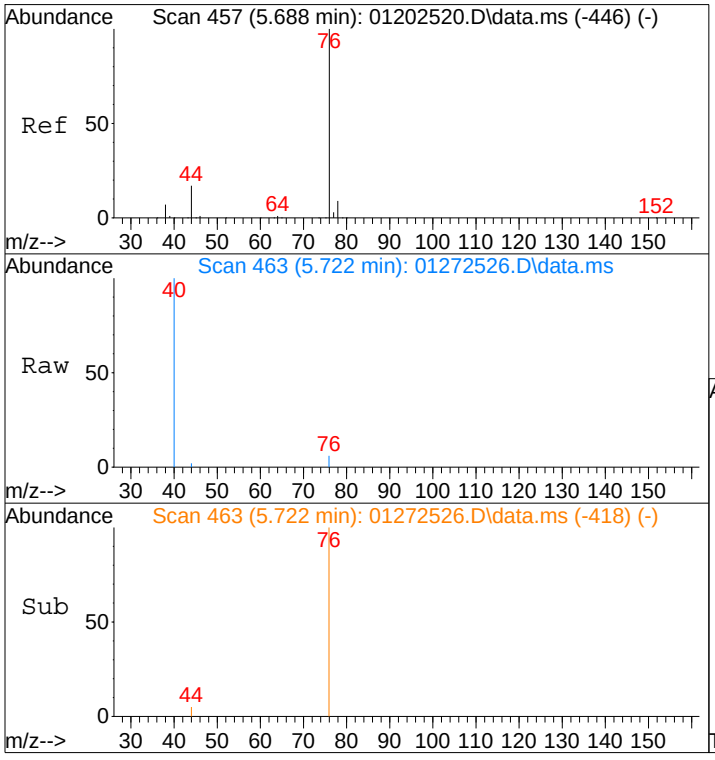


#21
Trichlorotrifluoroethane
Concen: 0.38 ng
RT: 5.66 min Scan# 453
Delta R.T. -0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion:151 Resp: 2899

Ion	Ratio	Lower	Upper
151	100		
101	162.3	129.9	169.9

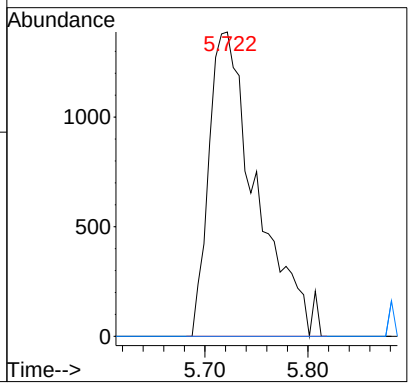


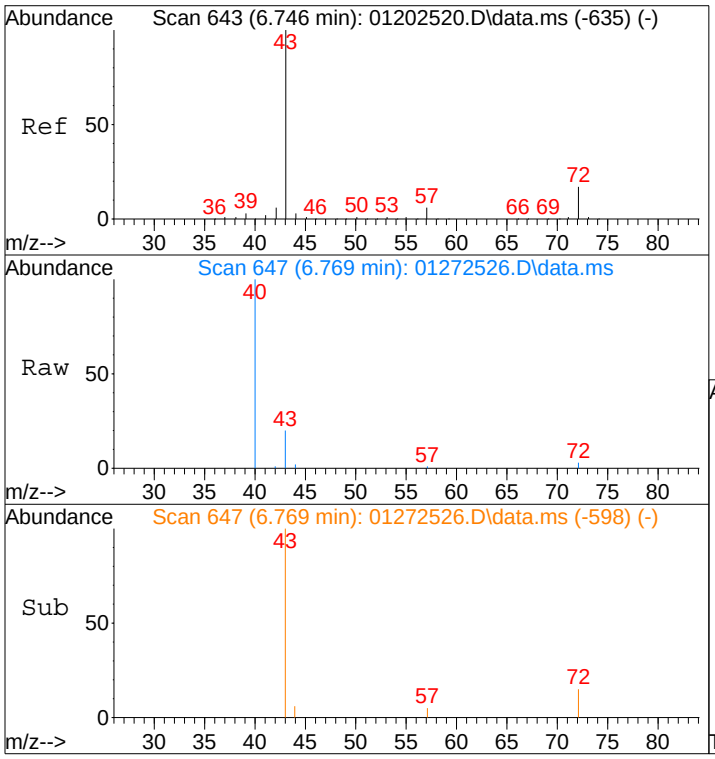


#22
Carbon Disulfide
Concen: 0.09 ng
RT: 5.72 min Scan# 463
Delta R.T. 0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 76 Resp: 4458

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	29.1

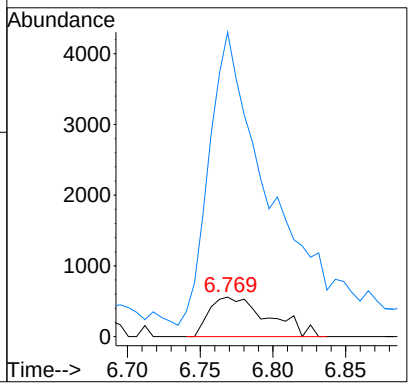


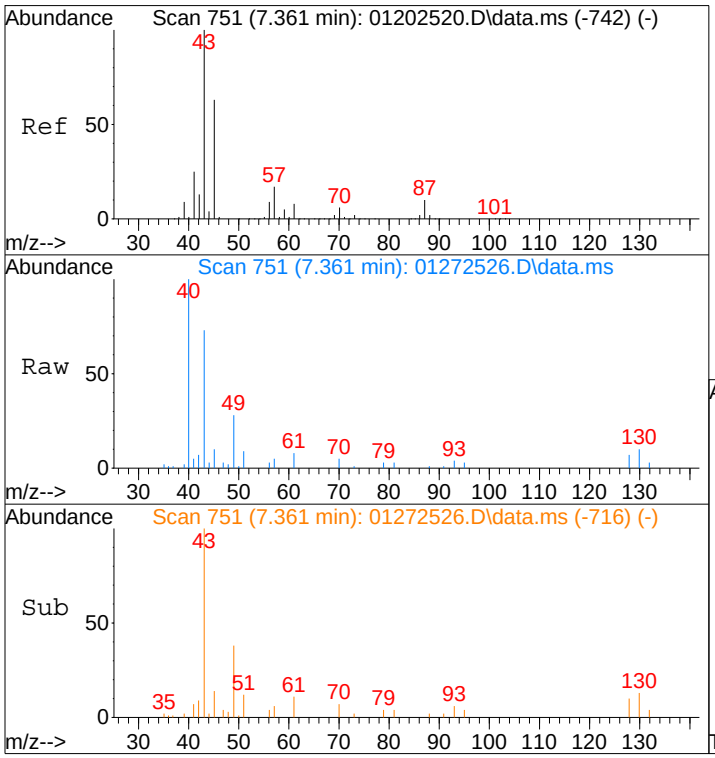


#27
2-Butanone (MEK)
Concen: 0.20 ng
RT: 6.77 min Scan# 647
Delta R.T. 0.028 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 72 Resp: 1563

Ion	Ratio	Lower	Upper
72	100		
43	822.3	579.1	619.1#

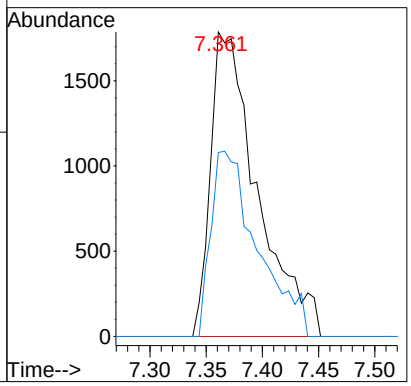


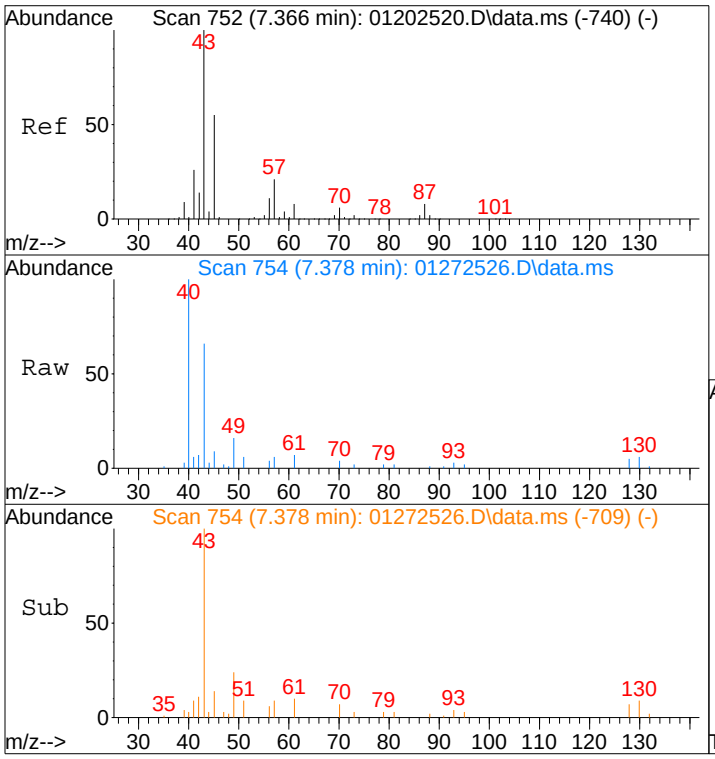


#30
Ethyl Acetate
Concen: 1.02 ng
RT: 7.36 min Scan# 751
Delta R.T. -0.000 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 61 Resp: 5192

Ion	Ratio	Lower	Upper
61	100		
70	60.3	51.2	91.2

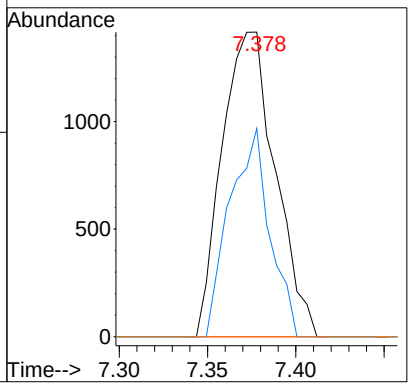


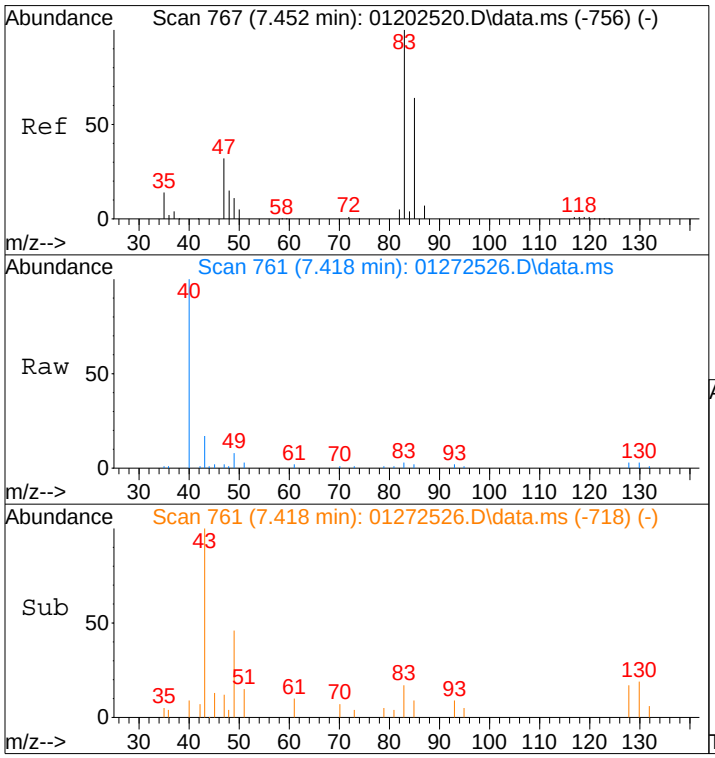


#31
n-Hexane
Concen: 0.12 ng
RT: 7.38 min Scan# 754
Delta R.T. 0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 57 Resp: 2968

Ion	Ratio	Lower	Upper
57	100		
56	51.3	41.8	62.6
86	0.0	8.3	12.5#

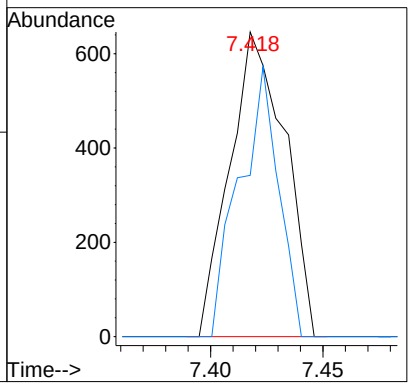


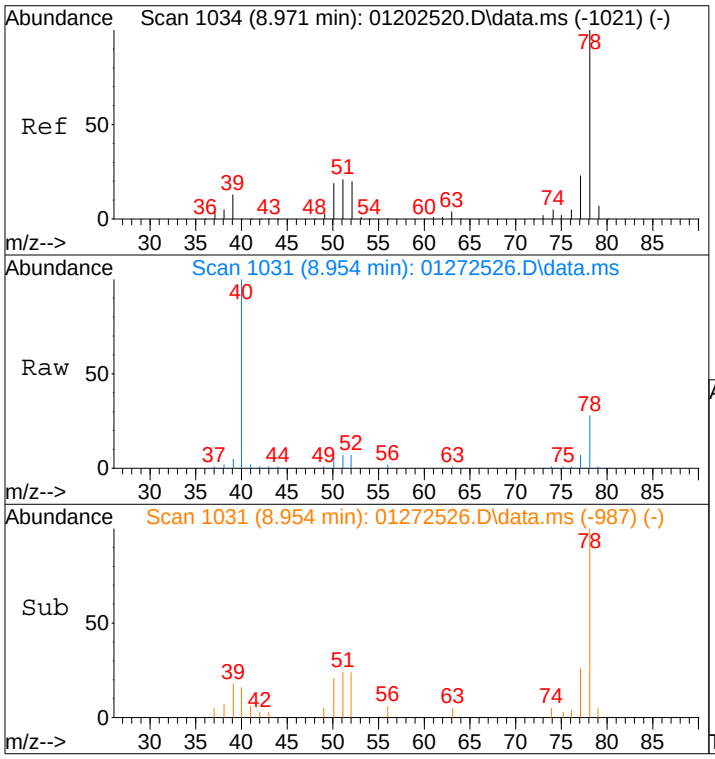


#32
Chloroform
Concen: 0.05 ng
RT: 7.42 min Scan# 761
Delta R.T. -0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 83 Resp: 1099

Ion	Ratio	Lower	Upper
83	100		
85	63.1	44.0	84.0

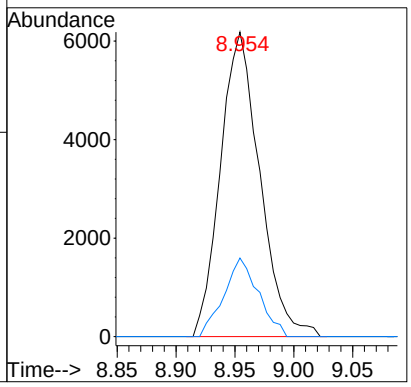


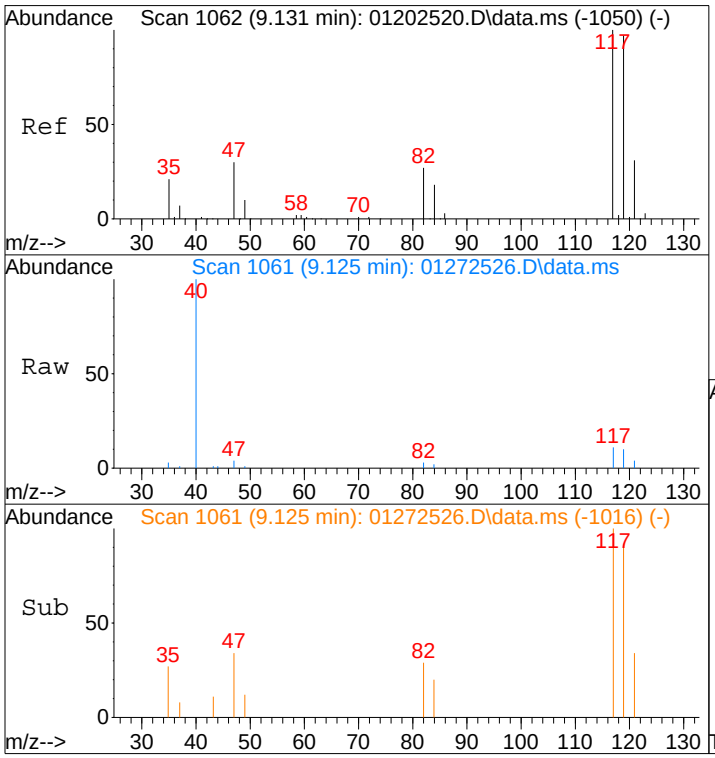


#41
Benzene
Concen: 0.27 ng
RT: 8.95 min Scan# 1031
Delta R.T. -0.000 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 78 Resp: 14358

Ion	Ratio	Lower	Upper
78	100		
77	22.7	3.4	43.4

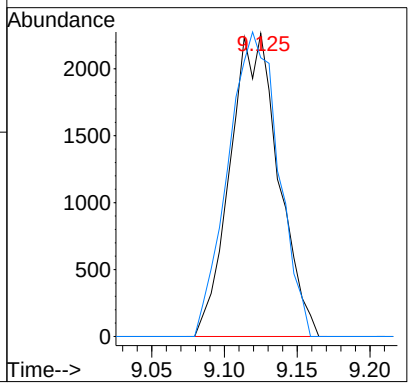


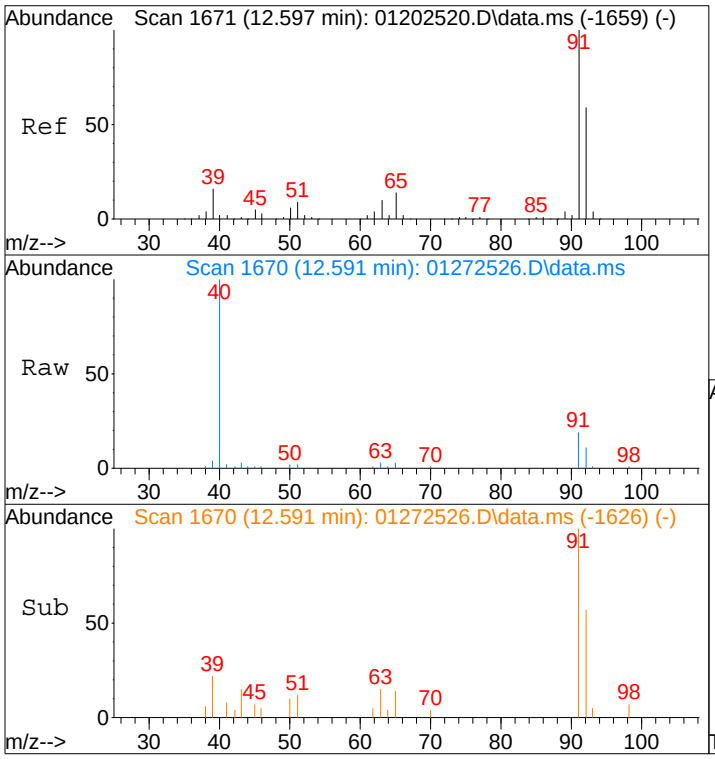


#42
Carbon Tetrachloride
Concen: 0.33 ng
RT: 9.12 min Scan# 1061
Delta R.T. 0.006 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion:117 Resp: 5241

Ion	Ratio	Lower	Upper
117	100		
119	104.6	75.4	115.4

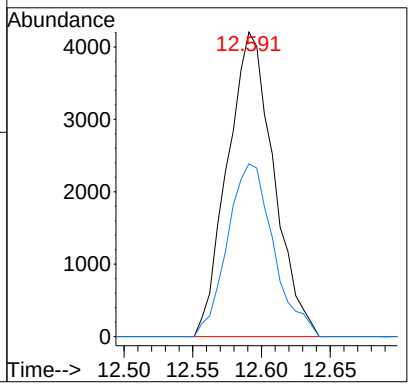


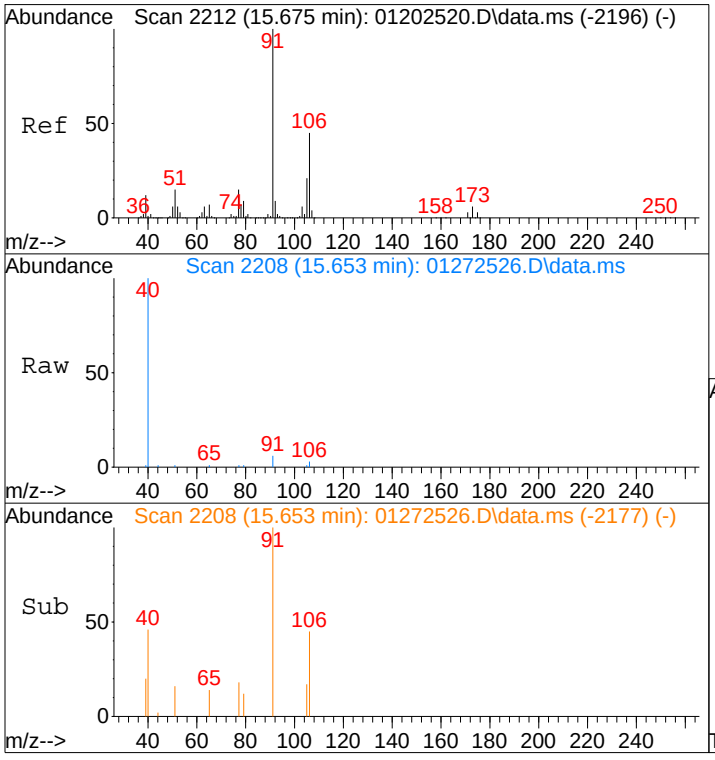


#58
Toluene
Concen: 0.17 ng
RT: 12.59 min Scan# 1670
Delta R.T. -0.000 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 91 Resp: 9839

Ion	Ratio	Lower	Upper
91	100		
92	56.4	38.4	78.4

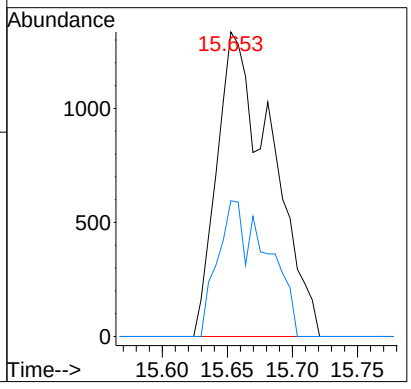




#67
m- & p-Xylenes
Concen: 0.08 ng
RT: 15.65 min Scan# 2208
Delta R.T. -0.023 min
Lab File: 01272526.D
Acq: 28 Jan 2025 1:02

Tgt Ion: 91 Resp: 3889

Ion	Ratio	Lower	Upper
91	100		
106	40.2	24.7	64.7



Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272526.D
Acq On : 28 Jan 2025 1:02
Operator : MC
Sample : P2500076-009dup (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

BCB 1/31/25

Quant Time: Jan 31 07:32:10 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration

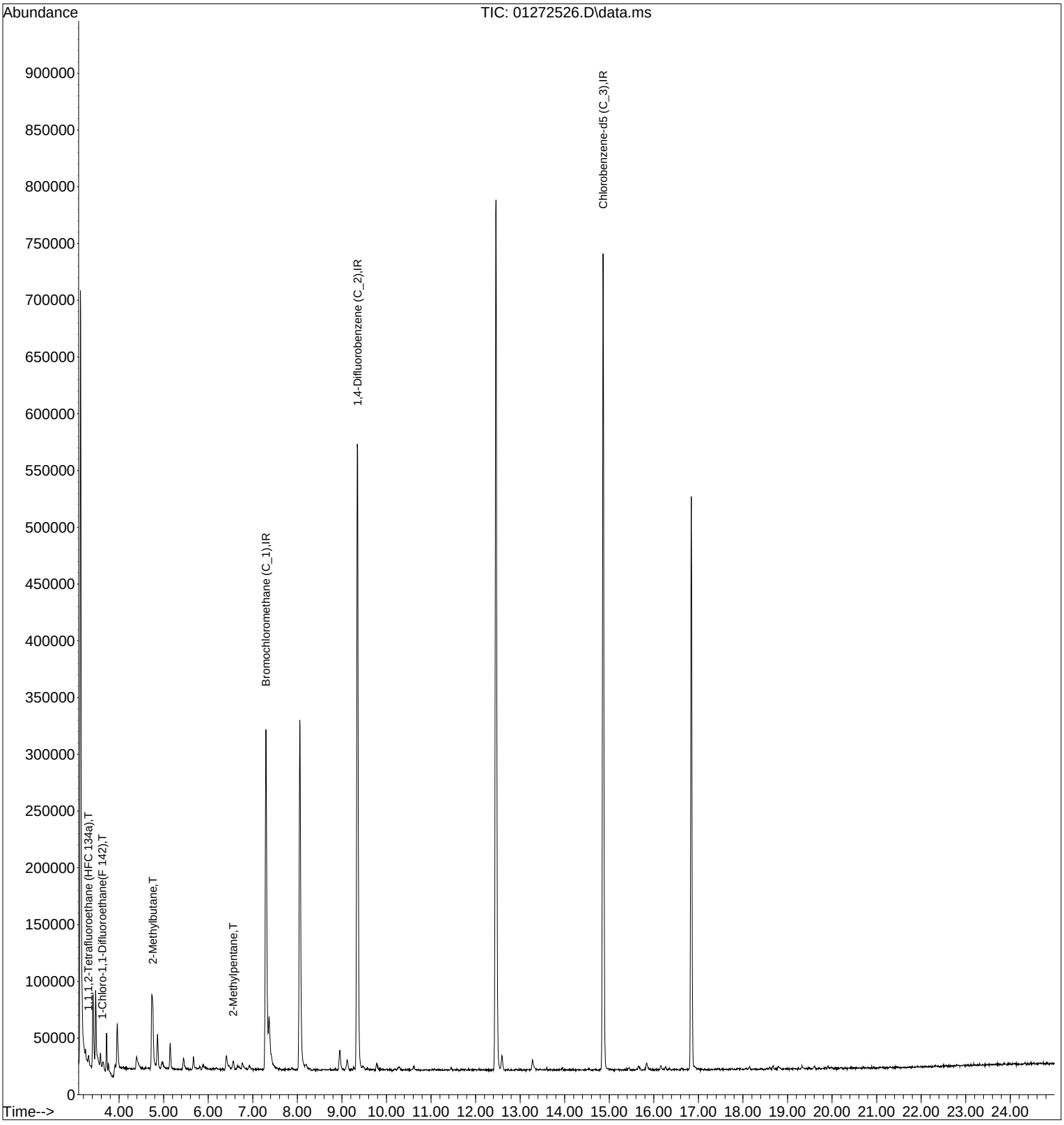
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (C_1)	7.30	130	94937	12.500	ng		-0.01
16) 1,4-Difluorobenzene (C_2)	9.35	114	451980	12.500	ng		-0.01
19) Chlorobenzene-d5 (C_3)	14.86	54	147719	12.500	ng		0.00
Target Compounds							Qvalue
2) Chloropentafluoroethane	3.25	85	166	N.D.			
3) 1,1,1,2-Tetrafluoroeth...	3.31	83	3139	0.270	ng	#	60
4) 1,1-Difluoroethane	3.37	65	199	N.D.			
5) Chlorodifluoromethane ...	0.00	67	0	N.D.			
6) 1-Chloro-1,1-Difluoroe...	3.63	65	2062	0.076	ng	#	83
7) Dichlorofluoromethane ...	0.00	67	0	N.D.			
8) Vinylbromide	0.00	108	0	N.D.			
9) 2,2-Dichloro-1,1,1-tri...	0.00	83	0	N.D.			
10) 2-Methylbutane	4.76	57	7040	0.484	ng	#	63
11) Methyl Acetate	0.00	43	0	N.D.	d		
12) 2-Methylpentane	6.56	71	1035	0.086	ng	#	1
13) 2,2-Dichloropropane	0.00	77	0	N.D.			
14) 1,1-Dichloropropene	0.00	75	0	N.D.			
15) Thiophene	9.12	84	917	N.D.			
17) 2,3-Dimethylpentane	9.56	56	387	N.D.			
18) Dibromomethane	0.00	174	0	N.D.			
20) Methyl Cyclohexane	11.45	55	716	N.D.			
21) 1,3-Dichloropropane	0.00	76	0	N.D.			
22) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.			
23) 1-Chlorohexane	0.00	91	0	N.D.			
24) 1,2,3-Trichloropropane	0.00	75	0	N.D.			
25) Bromobenzene	0.00	77	0	N.D.			
26) 2-Chlorotoluene	17.75	91	622	N.D.			
27) 4-Chlorotoluene	17.75	91	622	N.D.			
28) Indane	0.00	117	0	N.D.			
29) Indene	0.00	115	0	N.D.			
30) 1,2,4,5-Tetramethylben...	0.00	119	0	N.D.			
31) 1,2,3,4-Tetramethylben...	0.00	119	0	N.D.			
32) 1,2,3,5-Tetramethylben...	0.00	119	0	N.D.			
33) 1,2,3-Trichlorobenzene	0.00	180	0	N.D.			

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS13\DATA\2025 01\27\
Data File : 01272526.D
Acq On : 28 Jan 2025 1:02
Operator : MC
Sample : P2500076-009dup (1000mL)
Misc : S37-11222401
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 31 07:32:10 2025
Quant Method : I:\MS13\METHODS\C13121424.M
Quant Title : TO-15 Tekmar AutoCan/HP 6890/HP 5975 MSD
QLast Update : Mon Dec 16 11:07:03 2024
Response via : Initial Calibration



CG 1/21/25

14	1/20/25 18:35	01202514.D	TO-15 BFB	S37-11222401	LS	1	Pass
15	1/20/25 19:11	01202515.D	0.1ng R13012025 ICAL Std.	S37-11222401/S37-01202505 (2/19)	LS	6	R13012025.M
16	1/20/25 19:47	01202516.D	0.2ng R13012025 ICAL Std.	S37-11222401/S37-01202505 (2/19)	LS	6	
17	1/20/25 20:23	01202517.D	0.5ng R13012025 ICAL Std.	S37-11222401/S37-01202504 (2/19)	LS	7	
18	1/20/25 20:58	01202518.D	1.0ng R13012025 ICAL Std.	S37-11222401/S37-01202504 (2/19)	LS	7	
19	1/20/25 21:34	01202519.D	5.0ng R13012025 ICAL Std.	S37-11222401/S37-01202504 (2/19)	LS	7	
20	1/20/25 22:10	01202520.D	25ng R13012025 ICAL Std.	S37-11222401/S37-01202503 (2/19)	LS	8	
21	1/20/25 22:46	01202521.D	50ng R13012025 ICAL Std.	S37-11222401/S37-01202503 (2/19)	LS	8	
22	1/20/25 23:21	01202522.D	100ng R13012025 ICAL Std.	S37-11222401/S37-01202503 (2/19)	LS	8	
23	1/20/25 23:57	01202523.D	Blank	S37-11222401	LS	1	
24	1/21/25 0:32	01202524.D	ICV R13012025 5ng	S37-11222401/S37-01062504 (2/5)	LS	1	Not Used
25	1/21/25 1:08	01202525.D	ICV R13012025 25ng	S37-11222401/S37-01062504 (2/5)	LS	1	Not Used
26	1/21/25 9:13	01202526.D	Blank	S37-11222401	LS	1	
27	1/21/25 9:49	01202527.D	ICV R13012025 25ng	S37-11222401/S37-01212501 (2/20)	LS	1	Not Used
28	1/21/25 10:43	01202528.D	ICV R13012025 25ng	S37-11222401/S37-01212501 (2/20)	MC	1	R13012025.M
	R13012025.M ranges from 0.1ng - 100ng except; Acetonitrile, Benzyl Chloride: 0.5ng - 100ng.						
	All compounds %RSD > 30%, good for DoD.						
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MC 12/16/24

Injection Log

Directory: J:\MS13\DATA\2024_12\14\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	12/14/24 4:28	12142401.D	TO-15 BFB Std.	S37-11222401	MC	1	Pass
2	12/14/24 5:04	12142402.D	0.4ng C13121424 ICAL Std.	S37-11222401/S37-12132403 (1/12)	MC	15	
3	12/14/24 5:39	12142403.D	1.0ng C13121424 ICAL Std.	S37-11222401/S37-12132403 (1/12)	MC	15	
4	12/14/24 6:14	12142404.D	2.5ng C13121424 ICAL	S37-11222401/S37-12132403 (1/12)	MC	15	
5	12/14/24 6:50	12142405.D	5.0ng C13121424 ICAL	S37-11222401/S37-12132402 (1/12)	MC	16	C13121424.M
6	12/14/24 7:25	12142406.D	25ng C13121424 ICAL	S37-11222401/S37-12132402 (1/12)	MC	16	
7	12/14/24 8:00	12142407.D	50ng C13121424 ICAL	S37-11222401/S37-12132402 (1/12)	MC	16	
8	12/14/24 8:36	12142408.D	100ng C13121424 ICAL	S37-11222401/S37-12132402 (1/12)	MC	16	
9	12/14/24 9:11	12142409.D	Blank	S37-11222401	MC	1	
10	12/14/24 9:47	12142410.D	ICV C13121424 25ng	S37-11222401/S37-12132404 (1/12)	MC	14	C13121424.M
11	12/14/24 10:22	12142411.D	ICV C13121424 5ng	S37-11222401/S37-12132404 (1/12)	MC	14	Not Used
	C13121424.M good for all compounds.						
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Injection Log

MC 1/28/25

Directory: J:\MS13\DATA\2025_01\27\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	1/27/25 8:45	01272501.D	System	S37-11222401/S37-01202503 (2/19)	MC	1	
2	1/27/25 9:21	01272502.D	CCV R13012725_25ng	S37-11222401/S37-01202503 (2/19)	MC	1	PASS
3	1/27/25 9:56	01272503.D	CCV C13012725_25ng	S37-11222401/S37-01132502 (2/12)	MC	16	PASS
4	1/27/25 10:32	01272504.D	MB R13012725_1000mL	S37-11222401/AC01837	MC	1	PASS
5	1/27/25 11:17	01272505.D	LCS R13012725_25ng	S37-11222401/S37-01212501 (2/20)	MC	1	PASS
6	1/27/25 11:53	01272506.D	LCSD R13012725_25ng	S37-11222401/S37-01212501 (2/20)	MC	1	PASS
7	1/27/25 12:29	01272507.D	xRL R13012725_0.5ng	S37-11222401/S37-01202504 (2/19)	MC	15	
8	1/27/25 13:05	01272508.D	P2500168-002dil (15mL)	S37-11222401	MC	2	
9	1/27/25 13:41	01272509.D	xRL R13012725_0.5ng	S37-11222401/S37-01202504 (2/19)	MC	15	
10	1/27/25 14:17	01272510.D	P2500200-002 (15mL)	S37-11222401	MC	3	
11	1/27/25 14:53	01272511.D	P2500200-002dil (5.0mL)	S37-11222401	MC	8	
12	1/27/25 15:30	01272512.D	RL R13012725_0.5ng	S37-11222401/s37-01222507 (2/21)	MC	3	
13	1/27/25 17:07	01272513.D	P2500085-001 (3.0mL)	S37-11222401	MC	4	
14	1/27/25 17:43	01272514.D	P2500065-005dil (40mL)	S37-11222401	MC	2	
15	1/27/25 18:19	01272515.D	P2500065-007dil (40mL) Pf2	S37-11222401	MC	3	
16	1/27/25 18:55	01272516.D	STD Check	S37-11222401/S37-01272505 (2/26)	MC	1	
17	1/27/25 19:35	01272517.D	P2500076-001 (1000mL)	S37-11222401	MC	5	Dilution Needed
18	1/27/25 20:10	01272518.D	P2500076-002 (1000mL)	S37-11222401	MC	6	
19	1/27/25 20:46	01272519.D	P2500076-003 (100mL)	S37-11222401	MC	7	
20	1/27/25 21:24	01272520.D	P2500076-004 (1000mL)	S37-11222401	MC	8	
21	1/27/25 22:00	01272521.D	P2500076-005 (1000mL)	S37-11222401	MC	9	
22	1/27/25 22:35	01272522.D	P2500076-006 (1000mL)	S37-11222401	MC	10	
23	1/27/25 23:11	01272523.D	P2500076-007 (1000mL)	S37-11222401	MC	11	
24	1/27/25 23:47	01272524.D	P2500076-008 (1000mL)	S37-11222401	MC	12	
25	1/28/25 0:23	01272525.D	P2500076-009 (1000mL)	S37-11222401	MC	13	
26	1/28/25 1:02	01272526.D	P2500076-009dup (1000mL)	S37-11222401	MC	13	
27	1/28/25 1:38	01272527.D	P2500204-001 (1000mL)	S37-11222401	MC	14	
28	1/28/25 2:17	01272528.D	P2500204-002 (1000mL)	S37-11222401	MC	15	
29	1/28/25 2:53	01272529.D	System	S37-11222401/S37-01272505 (2/26)	MC	1	
CCV: 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene out low (NT).							

Injection Log

MC 1/29/25

Directory: J:\MS13\DATA\2025_01\28\

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	1/28/25 3:28	01282501.D	CCV R13012825_25ng	S37-11222401/S37-01272505 (2/26)	MC	1	Pass
2	1/28/25 4:03	01282502.D	CCV C13012825_25ng	S37-11222401/S37-01132502 (2/12)	MC	16	Pass
3	1/28/25 4:38	01282503.D	MB R13012825_1000mL	S37-11222401/AC01837	MC	1	Pass
4	1/28/25 5:13	01282504.D	LCS R13012825_25ng	S37-11222401/S37-01212501 (2/20)	MC	1	Pass
5	1/28/25 5:48	01282505.D	LCSD R13012825_25ng	S37-11222401/S37-01212501 (2/20)	MC	1	Pass
6	1/28/25 9:16	01282506.D	P2500076-001dil (100mL)	S37-11222401	MC	5	
7	1/28/25 9:52	01282507.D	xP2500085-002 (2.5mL)	S37-11222401	MC	4	missinject
8	1/28/25 11:41	01282508.D	Blank	S37-11222401	MC	1	
9	1/28/25 12:17	01282509.D	P2500085-002 (2.5mL)	S37-11222401	MC	4	
10	1/28/25 12:53	01282510.D	P2500076-003 (700mL)	S37-11222401	MC	7	
11	1/28/25 13:29	01282511.D	P2500085-003 (2.5mL)	S37-11222401	MC	4	
12	1/28/25 14:05	01282512.D	P2500204-003 (1000mL)	S37-11222401	MC	3	
13	1/28/25 14:47	01282513.D	P2500085-004 (2.5mL)	S37-11222401	MC	4	
14	1/28/25 15:23	01282514.D	P2500088-004 (50mL)	S37-11222401	MC	2	
15	1/28/25 16:57	01282515.D	P2500088-001 (400mL)	S37-11222401	MC	2	
16	1/28/25 17:33	01282516.D	P2500088-002 (400mL)	S37-11222401	MC	3	needs dilution
17	1/28/25 18:10	01282517.D	P2500088-003 (400mL)	S37-11222401	MC	4	needs dilution
18	1/28/25 18:46	01282518.D	P2500088-004 (200mL)	S37-11222401	MC	5	needs dilution
19	1/28/25 19:22	01282519.D	CCVend R13012825_25ng	S37-11222401/S37-01272505 (2/26)	MC	1	Pass
20	1/28/25 19:58	01282520.D	P2500194-001 (1000mL)	S37-11222401	MC	6	
21	1/28/25 20:33	01282521.D	P2500194-002 (1000mL)	S37-11222401	MC	7	
22	1/28/25 21:09	01282522.D	P2500194-003 (1000mL)	S37-11222401	MC	8	
23	1/28/25 21:45	01282523.D	P2500194-004 (1000mL)	S37-11222401	MC	9	
24	1/28/25 22:21	01282524.D	P2500194-005 (1000mL)	S37-11222401	MC	10	
25	1/28/25 22:56	01282525.D	P2500194-006 (1000mL)	S37-11222401	MC	11	
26	1/28/25 23:34	01282526.D	P2500194-006dup (1000mL)	S37-11222401	MC	11	Pass
27	1/29/25 0:09	01282527.D	P2500112-001 (1000mL)	S37-11222401	MC	12	
28	1/29/25 0:44	01282528.D	P2500112-002 (1000mL)	S37-11222401	MC	13	
29	1/29/25 1:20	01282529.D	P2500112-003 (1000mL)	S37-11222401	MC	14	
30	1/29/25 1:56	01282530.D	P2500112-004 (1000mL)	S37-11222401	MC	15	
31	1/29/25 2:32	01282531.D	System	S37-11222401/S37-01272505 (2/26)	MC	1	

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Instructions for Data Validation-Method TO-15 (SCAN)

1. Determination of Pressure Dilution Factor

Upon receipt at the laboratory the pressure or vacuum of the sample canisters is measured using a digital pressure gauge. The canisters are then pressurized with humidified zero air to approximately +3.5 psig (pounds per square inch gauge).

Pressure Dilution factor is calculated as:

$$\text{PDF} = \frac{P_f + 14.7}{P_i + 14.7}$$

P_f final pressure in psig

P_i initial pressure in psig

2. Validating Initial and Continuing Calibration Results

GC/MS target compound analysis is performed using internal standard quantitation. Three internal standard compounds (Bromochloromethane, 1,4-Difluorobenzene and Chlorobenzene-d5) are added to each aliquot of sample, blank, standard and duplicate at an amount of 25 nanograms(ng). Internal standard responses are used to calculate RRFs (relative response factors) as follows:

$$\text{RRF} = \frac{A_x C_{is}}{A_{is} C_x}$$

A_x area response of the analyte quantitation ion

A_{is} area response of the corresponding internal standard quantitation ion

C_{is} internal standard concentration, ng

C_x analyte concentration, ng

The percent relative standard deviation (%RSD) for the five or six initial calibration points should be less than 30% (with a maximum of two analytes ≤40%) for the calibration to be considered valid and linear.

$$\%\text{RSD} = \frac{SD}{\overline{RRF}}(100)$$

SD standard deviation

$\overline{RRF}$ average or mean RRF (ICAL)

The initial calibration is verified once per twenty-four hour analytical sequence with the analysis of a continuing calibration standard at one of the initial calibration levels (actual analyte concentrations of the CCV are the same as the corresponding concentrations in the initial calibration). The relative response factor of each target analyte from the daily continuing calibration standard is compared to the average relative response factor from the initial multipoint calibration. The percent difference (%D) of the initial and continuing calibration relative response factors is calculated as follows:

$$\%D = \left(\frac{\overline{RRF} - RRF\ cont}{\overline{RRF}} \right) (100)$$

$\overline{RRF}$	average relative response factor from the initial calibration
$RRF\ cont$	relative response factor from the daily continuing calibration standard

Note: the percent difference (%D) should be less than 30% for an acceptable continuing calibration standard.

3. Validating GC/MS Target Analyte Quantitation Results

Target analytes are measured in nanograms using internal standard quantitation as follows:

$$ng_x = \frac{A_x ng_{is}}{A_{is}\ \overline{RRF}}$$

ng_x	nanogram concentration of analyte *x*
A_x	area response of the analyte's quantitation ion
A_{is}	area response of the corresponding internal standard's quantitation ion
ng_{is}	internal standard amount, in nanograms
$\overline{RRF}$	average or mean RRFs (ICAL)

4. Calculation of μg/m³ (microgram per cubic meter) Results

Target compound results reported on the "Results of Analysis" form in units of μg/m³ are calculated as follows:

$$\mu g/m^3 = \frac{(ng)(PDF)}{L}$$

ng nanograms of analyte (measured on the GC/MS quantitation report)

PDF pressure dilution factor (see equation 1)

L sample aliquot in Liters

5. Conversion to ppb (parts per billion) Volume

$$C_{ppbv} = C_x\left(\frac{24.46}{FW}\right)$$

FW formula weight of the target analytes (i.e. formula weight of Dichloromethane is 84.94; 1,2-Dichloropropane is 113)

24.46 molar volume of ideal gas at 25°C and 1 atmosphere

C_x final analyte concentration calculated in equation 4 (μg/m³)

Quantitation Report (QT Reviewed)

MC 12/27/24

Data File: I:\MS13\DATA\2024 12\27\12272407.D
Sample : AS01383 Inst : MS13
Acq On : 27 Dec 2024 6:43 Operator: MC
Misc : LL
ALS Vial : 15 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Dec 27 08:38:29 2024
Quant Method : I:\MS13\METHODS\R13121024.M
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	165467	12.500	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	9.35	114	747860	12.500	ng		-0.03
56) Chlorobenzene-d5 (IS3)	14.86	54	158826	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	305725	11.158	ng		-0.05
Spiked Amount 12.500	Range 70 - 130		Recovery = 89.28%				
57) Toluene-d8 (SS2)	12.46	98	883655	13.717	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 109.76%				
73) Bromofluorobenzene (SS3)	16.84	174	224592	12.562	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 100.48%				
Target Compounds							Qvalue
2) Propene	3.43	42	2650	N.D.			
3) Dichlorodifluoromethan...	3.50	85	824	N.D.			
4) Chloromethane	3.49	50	2100	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	4.15	94	380	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	4.40	45	17318	0.883	ng		97
11) Acetonitrile	4.62	41	3390	N.D.			
12) Acrolein	4.66	56	1350	N.D.			
13) Acetone	4.75	58	20460	1.356	ng		98
14) Trichlorofluoromethane	4.88	101	417	N.D.			
15) 2-Propanol (Isopropanol)	4.95	45	6827	0.104	ng	#	57
16) Acrylonitrile	5.15	53	790	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	5.47	59	54	N.D.			
19) Methylene Chloride	5.45	84	1150	N.D.			
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	5.73	76	5010	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	6.38	73	446	N.D.			
26) Vinyl Acetate	6.52	86	779	0.218	ng	#	70
27) 2-Butanone (MEK)	6.77	72	2170	0.184	ng		98
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	7.38	57	217	N.D.			
32) Chloroform	0.00	83	0	N.D.			
34) Tetrahydrofuran (THF)	7.87	72	582	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	8.94	56	1490	No Calib		#	
41) Benzene	8.95	78	1732	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	9.35	84	498	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	10.19	88	3014	0.210	ng		97
49) 2,2,4-Trimethylpentane...	10.30	57	783	N.D.			
50) Methyl Methacrylate	0.00	100	0	N.D.			

Data File: I:\MS13\DATA\2024 12\27\12272407.D
Sample : AS01383 Inst : MS13
Acq On : 27 Dec 2024 6:43 Operator: MC
Misc : LL
ALS Vial : 15 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Dec 27 08:38:29 2024
Quant Method : I:\MS13\METHODS\R13121024.M
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration

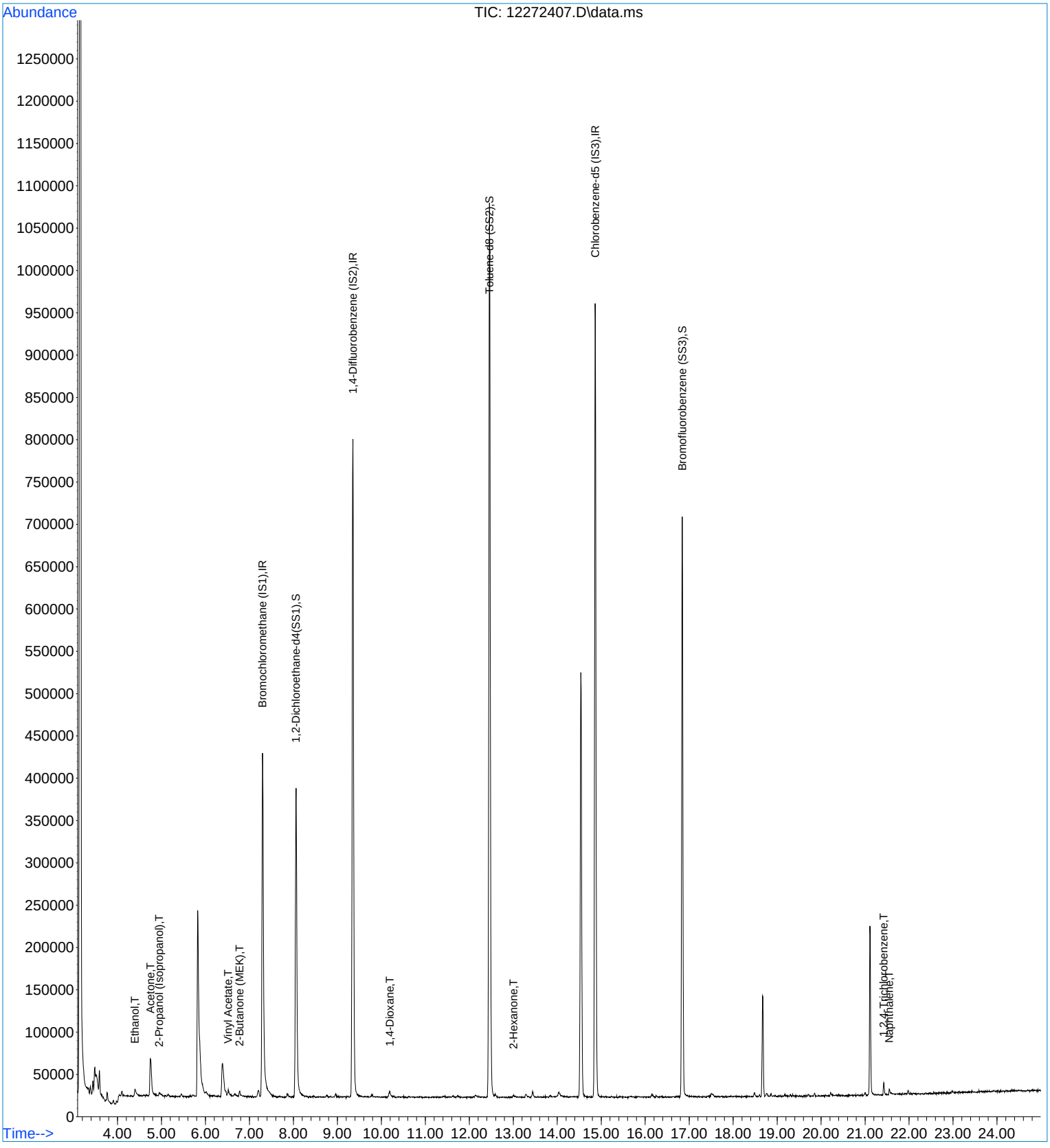
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) n-Heptane	0.00	71	0	N.D.	
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.	
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.	
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.	
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	
58) Toluene	12.59	91	2551	N.D.	
59) 2-Hexanone	13.01	43	4255	0.094 ng	73
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	13.84	43	3510	N.D.	
63) n-Octane	0.00	57	0	N.D.	
64) Tetrachloroethene	0.00	166	0	N.D.	
65) Chlorobenzene	14.92	112	462	N.D.	
66) Ethylbenzene	15.44	91	948	N.D.	
67) m- & p-Xylenes	15.66	91	864	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	16.13	104	811	N.D.	
70) o-Xylene	16.27	91	720	N.D.	
71) n-Nonane	16.63	43	338	N.D.	
72) 1,1,2,2-Tetrachloroethane	16.23	83	120	N.D.	
74) Cumene	17.05	105	204	N.D.	
75) alpha-Pinene	17.56	93	337	N.D.	
76) n-Propylbenzene	17.74	91	1389	N.D.	
77) 3-Ethyltoluene	17.05	105	204	No Calib	#
78) 4-Ethyltoluene	17.95	105	1069	N.D.	
79) 1,3,5-Trimethylbenzene	18.05	105	527	N.D.	
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	17.05	105	204	No Calib	#
82) 1,2,4-Trimethylbenzene	18.61	105	1094	N.D.	
83) n-Decane	0.00	58	0	N.D.	
84) Benzyl Chloride	18.75	91	2886	N.D.	
85) 1,3-Dichlorobenzene	18.77	146	1135	N.D.	
86) 1,4-Dichlorobenzene	18.86	146	1643	N.D.	
87) sec-Butylbenzene	18.95	105	505	N.D.	
88) 4-Isopropyltoluene (p-...	19.18	119	1211	N.D.	
89) 1,2,3-Trimethylbenzene	17.05	105	204	No Calib	#
90) 1,2-Dichlorobenzene	19.30	146	1088	N.D.	
91) d-Limonene	19.35	68	388	N.D.	
92) 1,2-Dibromo-3-Chloropr...	19.85	157	920	N.D.	
93) n-Undecane	0.00	58	0	N.D.	
94) 1,2,4-Trichlorobenzene	21.42	180	5472	0.245 ng	99
95) Naphthalene	21.55	128	12334	0.215 ng	87
96) n-Dodecane	0.00	58	0	N.D.	
97) Hexachlorobutadiene	21.98	225	831	N.D.	
98) Cyclohexanone	0.00	55	0	N.D.	
99) tert-Butylbenzene	18.59	119	426	N.D.	
100) n-Butylbenzene	19.72	91	1664	N.D.	
101) 1,1,1,2-Tetrachloroethane	0.00	131	0	N.D.	

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

Quantitation Report (QT Reviewed)

Data File: I:\MS13\DATA\2024 12\27\12272407.D
Sample : AS01383 Inst : MS13
Acq On : 27 Dec 2024 6:43 Operator: MC
Misc : LL
ALS Vial : 15 Sample Multiplier: 1

Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Quant Time: Dec 27 08:38:29 2024
Quant Method : I:\MS13\METHODS\R13121024.M
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262418.D
Acq On : 26 Dec 2024 22:10
Operator : LC / CS
Sample : AC02443 OA01023, 1504, 1251, 0539, 0108, 2262 (Sig #1); AC02443 OA01023, 1504, 1251, 0539, 0108, 2262, 0608, 0270, 1148, 0281, 0140, 1201, 0638, 1041, 2048 (1L5m) (Sig #2)
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 212 Sample Multiplier: 1

Quant Time: Dec 27 08:01:50 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

APL 12/27/24

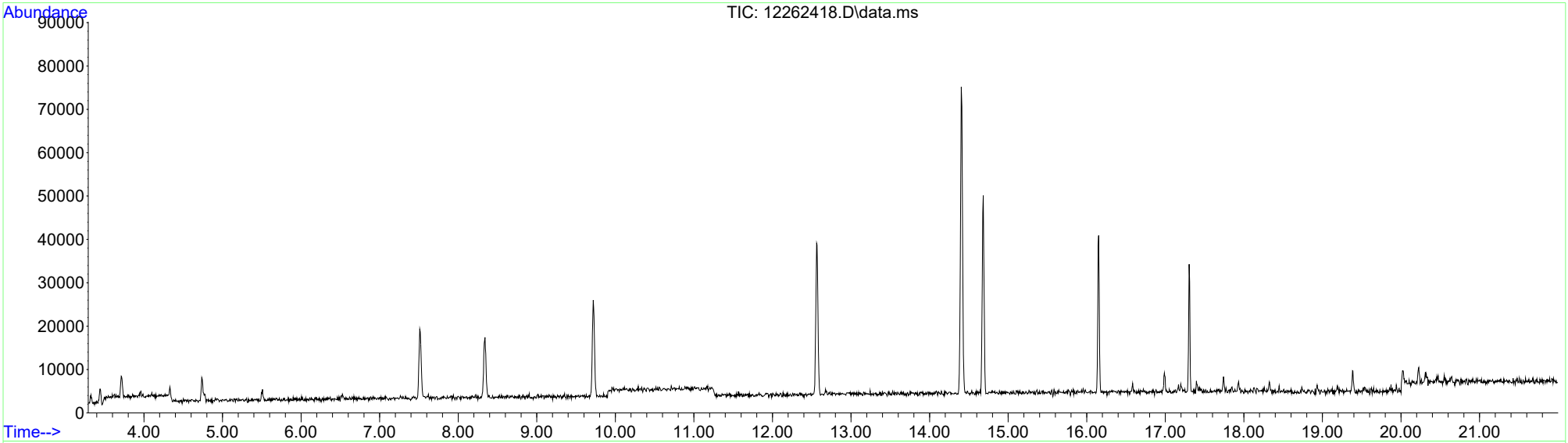
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	7667	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.721	114	26983	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.679	54	6675	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.339	65	13414	1032.39	pg		0.00
Spiked Amount 1000.000			Recovery = 103.24%				
57) Toluene-d8 (SS2)	12.564	98	30977	813.32	pg		0.00
Spiked Amount 1000.000			Recovery = 81.33%				
74) Bromofluorobenzene (SS3)	16.148	174	11956	844.55	pg		0.00
Spiked Amount 1000.000			Recovery = 84.45%				
Target Compounds							Qvalue
3] Dichlorodifluoromethane	3.488	85	800	17.893	pg		97
4] Chloromethane	3.618	50	502	33.456	pg		97
7] 1,3-Butadiene	3.915	54	9	0.740	pg	#	1
8] Bromomethane	4.130	94	255	14.254	pg		95
10] Ethanol	4.333	45	2523	533.276	pg		98
11] Acetonitrile	4.520	41	183	15.396	pg		96
12] Acrolein	4.632	56	113	25.710	pg		91
13] Acetone	4.744	58	2443	371.802	pg		97
14] Trichlorofluoromethane	4.893	101	199	11.434	pg		98
15] 2-Propanol (Isopropanol)	4.937	45	658	61.584	pg		91
18] * tert-Butanol	5.464	59	80	7.991	pg	#	42
19] Methylene Chloride	5.507	84	1390	143.113	pg		99
22] Carbon Disulfide	5.785	76	728	21.340	pg		98
26] Vinyl Acetate	6.654	86	83	54.714	pg		65
27] 2-Butanone (MEK)	6.931	72	236	42.932	pg		96
29] * DIPE	7.604	45	137	7.148	pg	#	46
30] Ethyl Acetate	7.604	61	156	60.280	pg		92
31] n-Hexane	7.611	57	83	7.667	pg	#	56
39] Benzene	9.294	78	467	13.864	pg		95
48] 1,4-Dioxane	10.533	88	541	69.569	pg		92
51] n-Heptane	10.925	71	74	8.230	pg	#	44
58] Toluene	12.683	91	921	21.356	pg		99
66] Ethylbenzene	15.126	91	244	5.469	pg		100
67] m- & p-Xylenes	15.295	91	521	15.055	pg		100
70] Styrene	15.640	104	280	10.455	pg		93
71] o-Xylene	15.741	91	222	6.323	pg		99
72] n-Nonane	15.991	57	116	9.198	pg	#	31
76] alpha-Pinene	16.627	93	198	9.238	pg		94
77] n-Propylbenzene	16.738	91	125	2.188	pg	#	61
78] * 3-Ethyltoluene	16.831	105	172	4.792	pg		98
79] 4-Ethyltoluene	16.831	105	172	4.197	pg		98
80] 1,3,5-Trimethylbenzene	16.937	105	122	3.542	pg		93
84] 1,2,4-Trimethylbenzene	17.285	105	673	18.573	pg		86
86] 1,3-Dichlorobenzene	17.404	146	291	9.984	pg		100
87] 1,4-Dichlorobenzene	17.404	146	291	10.189	pg		98
91] * p-Isopropyltoluene	17.652	119	319	8.292	pg	#	90
93] D-Limonene	17.771	68	373	33.105	pg		93
94] * n-Butylbenzene	17.996	134	57	5.795	pg	#	45
98] Naphthalene	19.367	128	213	4.553	pg	#	68

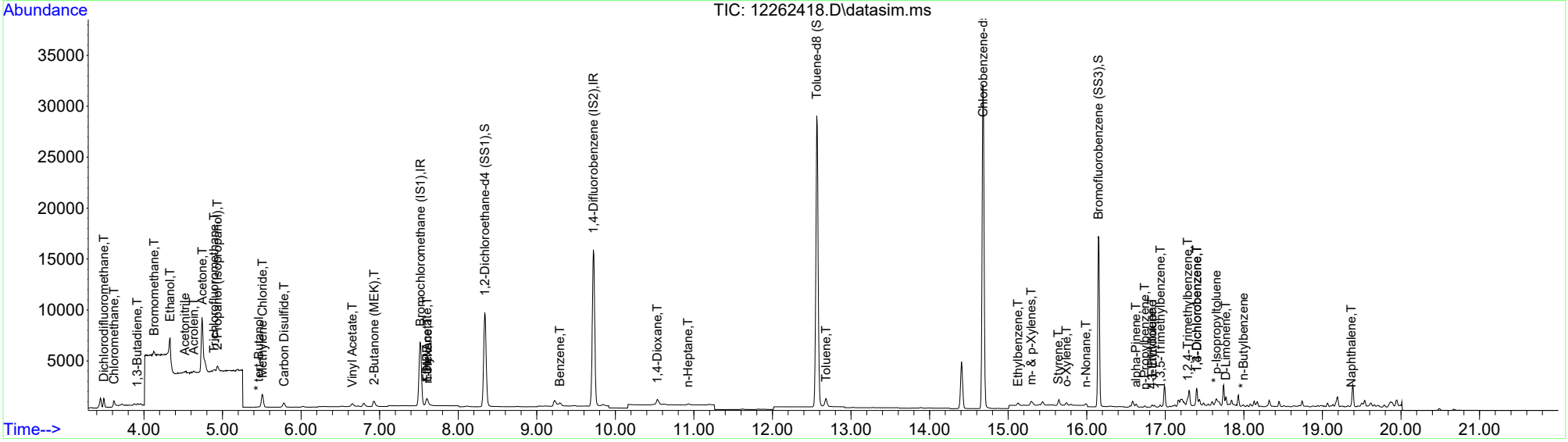
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262418.D
Acq On : 26 Dec 2024 22:10
Operator : LC / CS
Sample : AC02443 OA01023, 1504, 1251, 0539, 0108, 2262 (Sig #1); AC02443 OA01023, 1504, 1251, 0539, 0108, 2262, 0608, 0270, 11
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 212 Sample Multiplier: 1

Quant Time: Dec 27 08:01:50 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262428.D
Acq On : 27 Dec 2024 05:37
Operator : LC / CS
Sample : AC02348
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

12/27/24

Quant Time: Dec 27 08:23:56 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

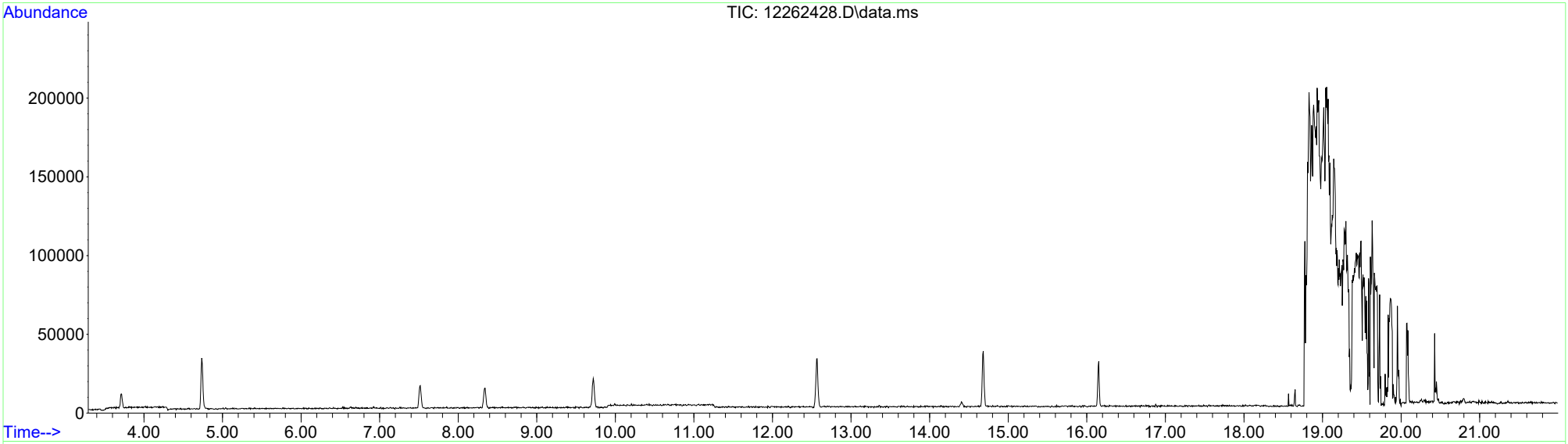
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	6951	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.721	114	23897	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.679	54	5349	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.339	65	12360	1049.26	pg		0.00
Spiked Amount 1000.000			Recovery = 104.93%				
57) Toluene-d8 (SS2)	12.564	98	27361	896.46	pg		0.00
Spiked Amount 1000.000			Recovery = 89.65%				
74) Bromofluorobenzene (SS3)	16.148	174	9449	832.92	pg		0.00
Spiked Amount 1000.000			Recovery = 83.29%				
Target Compounds							Qvalue
2] Propene	3.428	42	94	21.195	pg	#	57
4] Chloromethane	3.618	50	243	17.863	pg		95
7] 1,3-Butadiene	3.909	54	12	1.088	pg	#	1
9] Chloroethane	4.270	64	95	9.219	pg	#	44
10] Ethanol	4.343	45	224	52.223	pg		99
11] Acetonitrile	4.520	41	97	9.001	pg	#	1
12] Acrolein	4.632	56	165	41.408	pg		98
13] Acetone	4.738	58	13394	2248.415	pg		95
15] 2-Propanol (Isopropanol)	4.943	45	270	27.873	pg	#	69
18] * tert-Butanol	5.468	59	55	6.060	pg	#	42
22] Carbon Disulfide	5.779	76	375	12.125	pg	#	73
26] Vinyl Acetate	6.644	86	111	80.709	pg		85
27] 2-Butanone (MEK)	6.931	72	370	74.243	pg		92
39] Benzene	9.293	78	225	7.542	pg		95
48] 1,4-Dioxane	10.540	88	322	46.754	pg		94
58] Toluene	12.677	91	407	11.777	pg		97
59] 2-Hexanone	13.018	58	245	27.337	pg	#	53
67] m- & p-Xylenes	15.295	91	128	4.616	pg		95
70] Styrene	15.639	104	50	2.330	pg	#	30
71] o-Xylene	15.741	91	58	2.061	pg	#	29
97] 1,2,4-Trichlorobenzene	19.273	180	237	15.947	pg		95
98] Naphthalene	19.376	128	74	1.974	pg	#	68
100] Hexachlorobutadiene	19.687	225	107	11.112	pg	#	1

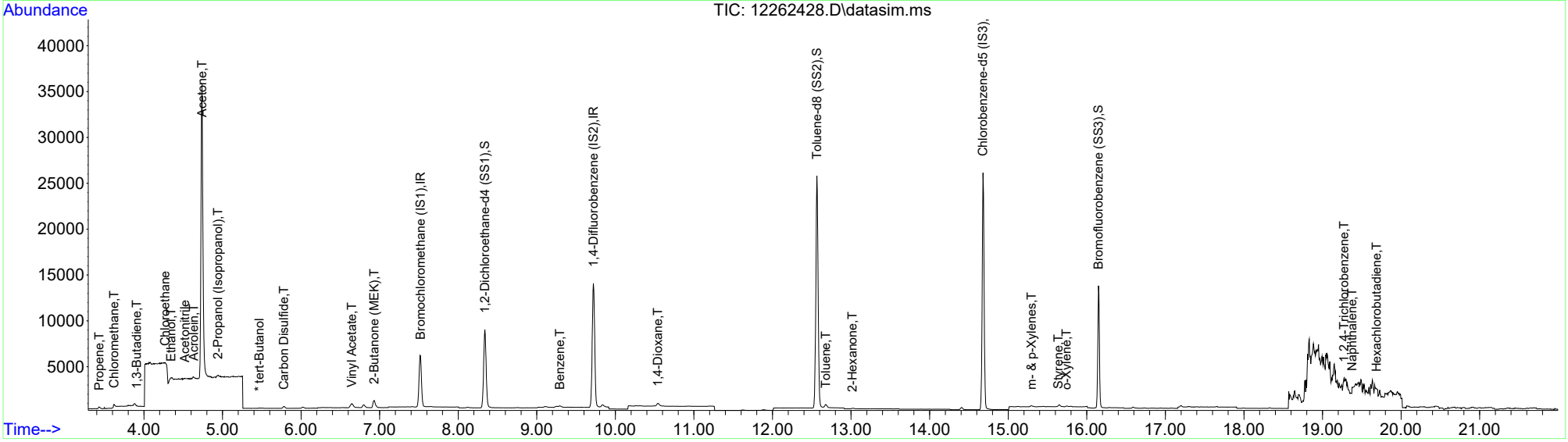
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262428.D
Acq On : 27 Dec 2024 05:37
Operator : LC / CS
Sample : AC02348
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 27 08:23:56 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024_12\23\
Data File : 12232417.D
Acq On : 23 Dec 2024 22:58
Operator : LC / CS
Sample : AC01777
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 211 Sample Multiplier: 1

2nd dC 12/26/24

Quant Time: Dec 26 09:10:02 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	5817	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.726	114	20417	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.679	54	5080	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.344	65	10369	1051.84	pg		0.00
Spiked Amount 1000.000			Recovery = 105.18%				
57) Toluene-d8 (SS2)	12.570	98	23331	804.90	pg		0.00
Spiked Amount 1000.000			Recovery = 80.49%				
74) Bromofluorobenzene (SS3)	16.154	174	9068	841.66	pg		0.00
Spiked Amount 1000.000			Recovery = 84.17%				
Target Compounds							Qvalue
2] Propene	3.450	42	535	144.147	pg	#	1
3] Dichlorodifluoromethane	3.493	85	2985	87.998	pg		99
4] Chloromethane	3.618	50	1073	94.254	pg		96
5] 1,2-Dichloro-1,1,2,2-t...	3.704	85	169	8.191	pg	#	41
7] 1,3-Butadiene	3.910	54	16	1.733	pg	#	1
8] Bromomethane	4.130	94	233	17.166	pg		99
10] Ethanol	4.343	45	7227	2013.351	pg		100
11] Acetonitrile	4.520	41	162	17.963	pg	#	70
12] Acrolein	4.633	56	122	36.586	pg		96
13] Acetone	4.744	58	2849	571.488	pg	#	66
14] Trichlorofluoromethane	4.893	101	1020	77.248	pg		99
15] 2-Propanol (Isopropanol)	4.937	45	2670	329.368	pg		100
18] * tert-Butanol	5.469	59	123	16.193	pg	#	42
19] Methylene Chloride	5.507	84	1277	173.293	pg		99
21] Trichlorotrifluoroethane	5.765	151	172	29.715	pg		99
22] Carbon Disulfide	5.785	76	554	21.404	pg		99
26] Vinyl Acetate	6.649	86	92	79.935	pg		82
27] 2-Butanone (MEK)	6.931	72	232	55.627	pg		96
29] * DIPE	7.604	45	390	26.819	pg	#	46
30] Ethyl Acetate	7.604	61	380	193.533	pg		98
31] n-Hexane	7.611	57	199	24.228	pg	#	56
32] Chloroform	7.656	83	97	7.466	pg		97
39] Benzene	9.299	78	817	32.054	pg		98
42] Carbon Tetrachloride	9.481	117	277	33.539	pg		94
43] Cyclohexane	9.632	84	50	6.869	pg	#	68
49] * Isooctane	10.628	56	244	27.823	pg		77
51] n-Heptane	10.932	71	106	15.581	pg	#	44
58] Toluene	12.683	91	2533	77.174	pg		99
66] Ethylbenzene	15.126	91	636	18.732	pg		98
67] m- & p-Xylenes	15.295	91	1476	56.043	pg		97
70] Styrene	15.640	104	505	24.777	pg		99
71] o-Xylene	15.741	91	469	17.552	pg		99
72] n-Nonane	15.991	57	95	9.898	pg	#	31
76] alpha-Pinene	16.632	93	469	28.754	pg		96
77] n-Propylbenzene	16.738	91	191	4.393	pg	#	54
79] 4-Ethyltoluene	16.865	105	176	5.643	pg		99
80] 1,3,5-Trimethylbenzene	16.933	105	96	3.662	pg	#	27
83] * tert-Butylbenzene	17.306	134	1164	190.505	pg	#	1
84] 1,2,4-Trimethylbenzene	17.285	105	906	32.853	pg	#	65
86] 1,3-Dichlorobenzene	17.457	146	80	3.606	pg		94
87] 1,4-Dichlorobenzene	17.457	146	81	3.727	pg		85
91] * p-Isopropyltoluene	17.652	119	250	8.539	pg		93
93] D-Limonene	17.776	68	158	18.426	pg	#	62
98] Naphthalene	19.367	128	555	15.588	pg		97

Data Path : I:\MS31\DATA\2024_12\23\
Data File : 12232417.D
Acq On : 23 Dec 2024 22:58
Operator : LC / CS
Sample : AC01777
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 211 Sample Multiplier: 1

2nd JC 12/26/24

Quant Time: Dec 26 09:10:02 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

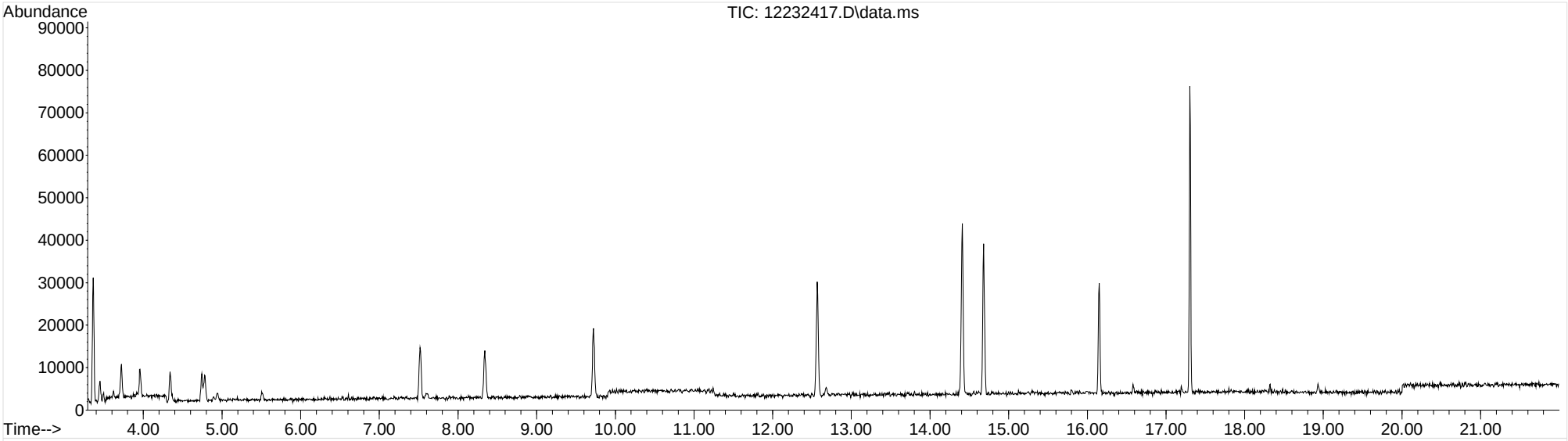
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

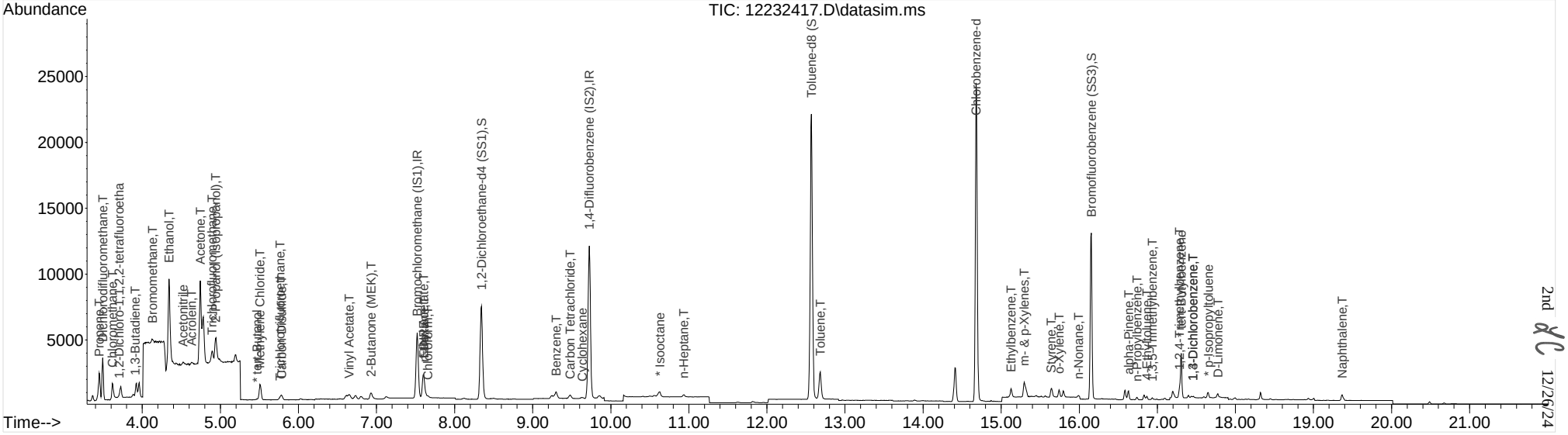
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024_12\23\
Data File : 12232417.D
Acq On : 23 Dec 2024 22:58
Operator : LC / CS
Sample : AC01777
Misc : LL (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 211 Sample Multiplier: 1

Quant Time: Dec 26 09:10:02 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration





2nd 12/26/24

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2024 12\23\12232421.D Vial: 14
Acq On : 24 Dec 2024 00:08 Operator: TZ/HA
Sample : AS01460 SFC00586,269,264,436,823 Inst : MS13
Misc : S37-11222401/Pass 75,LL,DoD,Custom

TZ 12/24/24

Quant Time: Dec 24 08:27:30 2024
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M

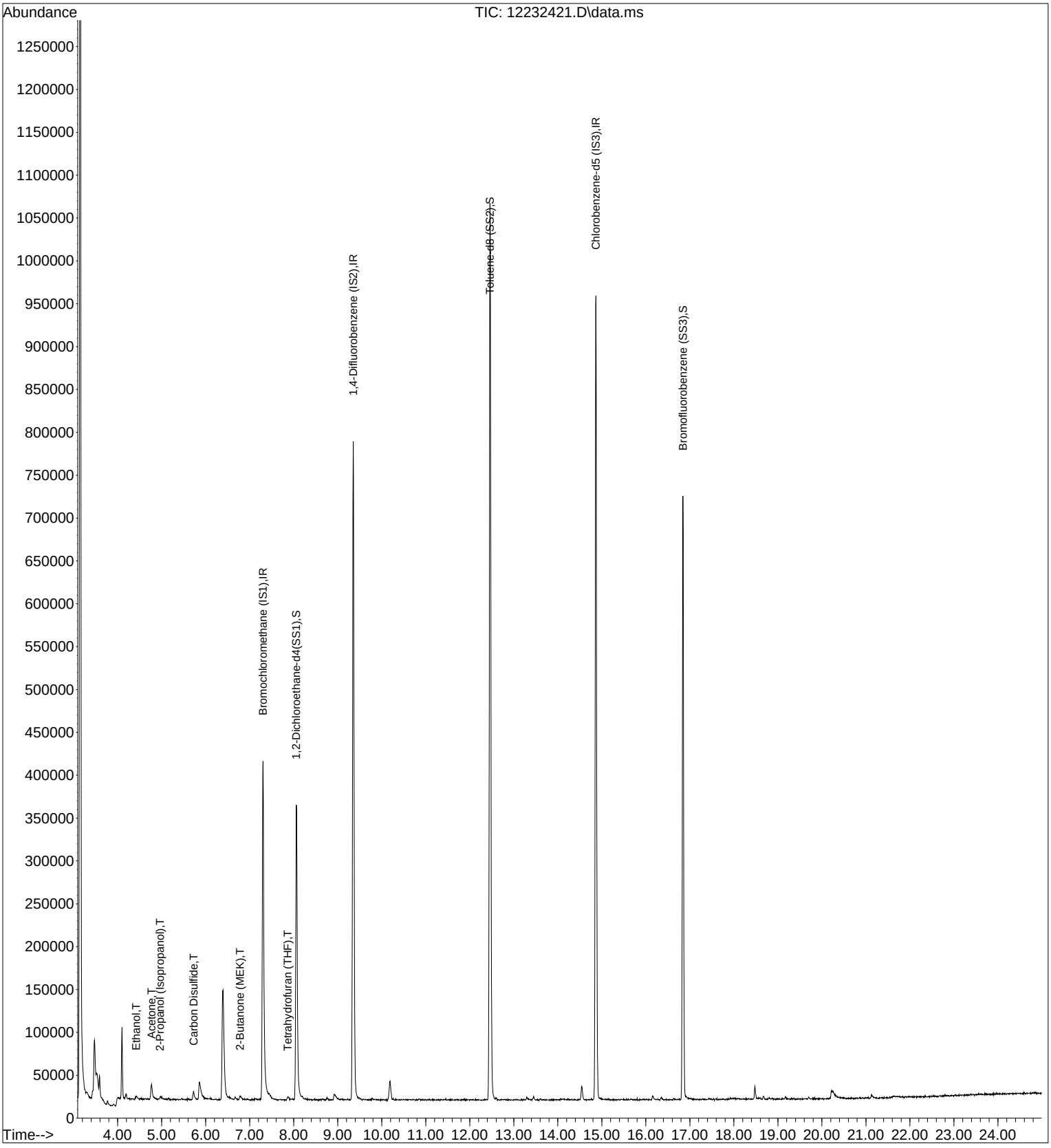
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	171288	12.500	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	9.35	114	765452	12.500	ng		-0.03
56) Chlorobenzene-d5 (IS3)	14.87	54	153938	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	293518	10.349	ng		-0.05
Spiked Amount 12.500	Range 70 - 130		Recovery = 82.80%				
57) Toluene-d8 (SS2)	12.46	98	896066	14.351	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 114.80%				
73) Bromofluorobenzene (SS3)	16.84	174	245954	14.193	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 113.52%				
Target Compounds							Qvalue
10) Ethanol	4.42	45	7832	0.386	ng		92
13) Acetone	4.77	58	9125	0.584	ng	#	79
15) 2-Propanol (Isopropanol)	4.96	45	5863	0.087	ng	#	57
22) Carbon Disulfide	5.73	76	21022	0.256	ng		96
27) 2-Butanone (MEK)	6.78	72	2035	0.166	ng	#	85
34) Tetrahydrofuran (THF)	7.87	72	864	0.067	ng	#	66

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2024 12\23\12232421.D Vial: 14
Acq On : 24 Dec 2024 00:08 Operator: TZ/HA
Sample : AS01460 SFC00586,269,264,436,823 Inst : MS13
Misc : S37-11222401/Pass 75,LL,DoD,Custom

Quant Time: Dec 24 08:27:30 2024
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

TZ 12/24/24

Data File : I:\MS13\DATA\2024 12\23\12232422.D Vial: 15
Acq On : 24 Dec 2024 00:44 Operator: TZ/HA
Sample : AS01325 SFC00750,631,733,200 Inst : MS13
Misc : S37-11222401/Pass 75,LL,DoD,Custom

Quant Time: Dec 24 10:48:46 2024
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M

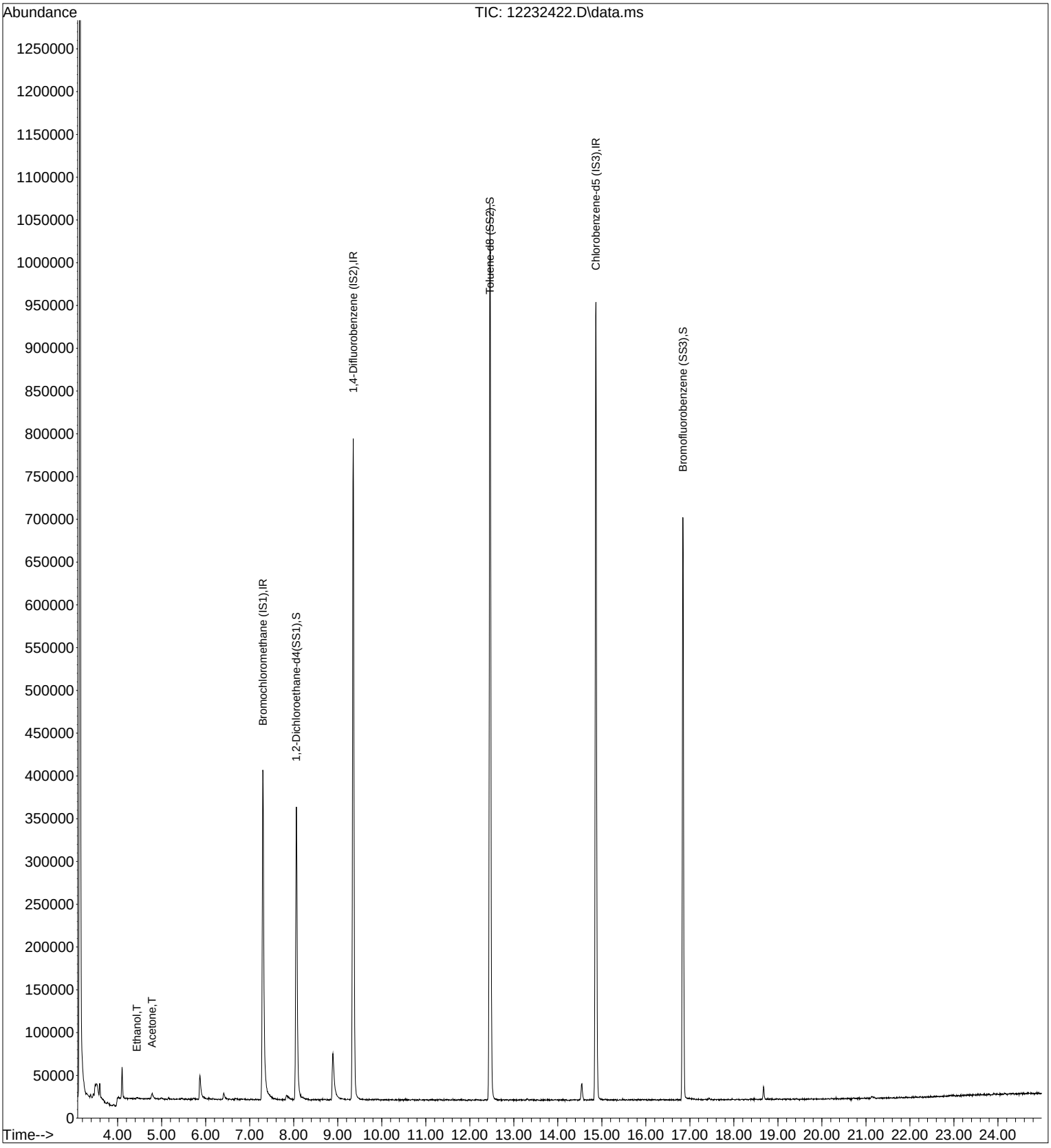
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	7.30	130	170697	12.500	ng		-0.05
37) 1,4-Difluorobenzene (IS2)	9.35	114	763816	12.500	ng		-0.03
56) Chlorobenzene-d5 (IS3)	14.86	54	151607	12.500	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	8.06	65	296253	10.481	ng		-0.05
Spiked Amount 12.500	Range 70 - 130		Recovery = 83.84%				
57) Toluene-d8 (SS2)	12.46	98	894196	14.541	ng		-0.02
Spiked Amount 12.500	Range 70 - 130		Recovery = 116.32%				
73) Bromofluorobenzene (SS3)	16.84	174	239349	14.025	ng		0.00
Spiked Amount 12.500	Range 70 - 130		Recovery = 112.16%				
Target Compounds							Qvalue
10) Ethanol	4.44	45	3073	0.152	ng		91
13) Acetone	4.78	58	3412	0.219	ng	#	86

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

Quantitation Report (QT Reviewed)

Data File : I:\MS13\DATA\2024 12\23\12232422.D Vial: 15
Acq On : 24 Dec 2024 00:44 Operator: TZ/HA
Sample : AS01325 SFC00750,631,733,200 Inst : MS13
Misc : S37-11222401/Pass 75,LL,DoD,Custom

Quant Time: Dec 24 10:48:46 2024
Quant Method : I:\MS13\METHODS\R13121024.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Wed Dec 11 09:07:15 2024
Response via : Initial Calibration
DataAcq Meth:TO15.M



Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262411.D
Acq On : 26 Dec 2024 16:57
Operator : LC / CS
Sample : 122624 SC00685 33819
Misc : LL + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 204 Sample Multiplier: 1

12/27/24

Quant Time: Dec 27 07:52:15 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

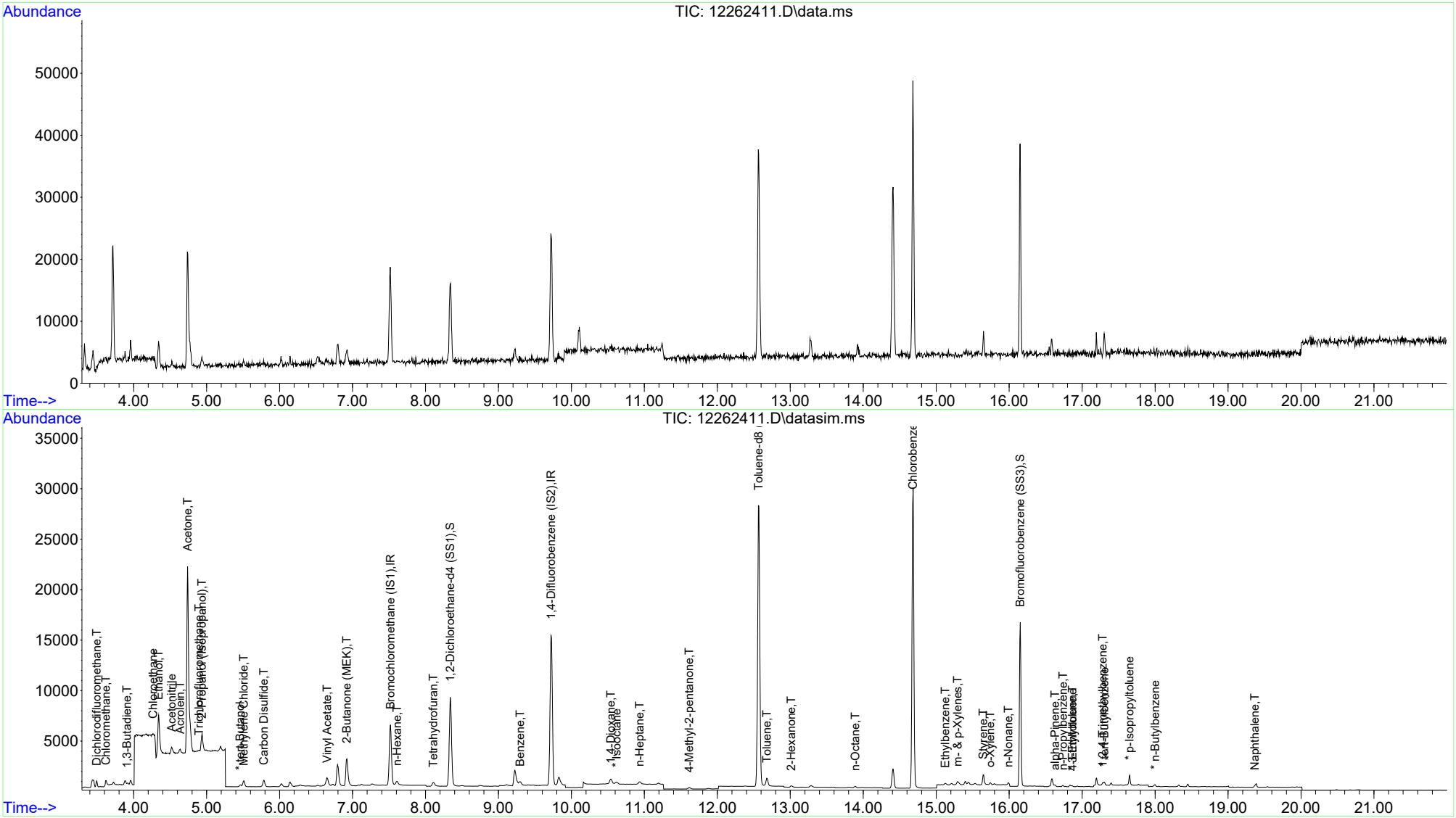
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	7237	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.721	114	26491	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.677	54	6153	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.339	65	12636	1030.30	pg		0.00
Spiked Amount 1000.000			Recovery = 103.03%				
57) Toluene-d8 (SS2)	12.564	98	30475	868.02	pg		0.00
Spiked Amount 1000.000			Recovery = 86.80%				
74) Bromofluorobenzene (SS3)	16.152	174	11462	878.34	pg		0.00
Spiked Amount 1000.000			Recovery = 87.83%				
Target Compounds							Qvalue
3] Dichlorodifluoromethane	3.493	85	604	14.312	pg		99
4] Chloromethane	3.618	50	466	32.902	pg		96
7] 1,3-Butadiene	3.910	54	48	4.179	pg	#	1
9] Chloroethane	4.265	64	158	14.727	pg	#	89
10] Ethanol	4.343	45	4344	972.729	pg		99
11] Acetonitrile	4.520	41	743	66.222	pg	#	73
12] Acrolein	4.639	56	354	85.328	pg		92
13] Acetone	4.738	58	9640	1554.290	pg		75
14] Trichlorofluoromethane	4.893	101	175	10.653	pg		93
15] 2-Propanol (Isopropanol)	4.937	45	2154	213.578	pg		99
18] * tert-Butanol	5.459	59	304	32.169	pg		95
19] Methylene Chloride	5.507	84	633	69.045	pg		99
22] Carbon Disulfide	5.785	76	1091	33.881	pg		98
26] Vinyl Acetate	6.654	86	251	175.293	pg	#	47
27] 2-Butanone (MEK)	6.921	72	1156	222.791	pg		98
31] n-Hexane	7.611	57	233	22.801	pg	#	56
34] Tetrahydrofuran	8.108	71	220	57.199	pg		95
39] Benzene	9.299	78	529	15.996	pg		94
48] 1,4-Dioxane	10.541	88	560	73.350	pg		99
49] * Isooctane	10.620	56	133	11.688	pg	#	66
51] n-Heptane	10.932	71	161	18.239	pg	#	44
53] 4-Methyl-2-pentanone	11.614	58	80	14.535	pg	#	35
58] Toluene	12.677	91	929	23.368	pg		98
59] 2-Hexanone	13.012	58	402	38.994	pg	#	53
63] n-Octane	13.893	85	90	12.066	pg		85
66] Ethylbenzene	15.124	91	165	4.012	pg	#	43
67] m- & p-Xylenes	15.293	91	364	11.411	pg		98
70] Styrene	15.645	104	137	5.549	pg		100
71] o-Xylene	15.739	91	154	4.758	pg		100
72] n-Nonane	15.989	57	119	10.237	pg		89
76] alpha-Pinene	16.631	93	103	5.214	pg		86
77] n-Propylbenzene	16.738	91	100	1.899	pg	#	54
78] * 3-Ethyltoluene	16.869	105	51	1.541	pg	#	46
79] 4-Ethyltoluene	16.869	105	51	1.350	pg	#	46
83] * tert-Butylbenzene	17.305	134	107	14.458	pg	#	1
84] 1,2,4-Trimethylbenzene	17.284	105	199	5.958	pg		94
91] * p-Isopropyltoluene	17.651	119	641	18.076	pg		96
94] * n-Butylbenzene	18.001	134	55	6.066	pg		86
98] Naphthalene	19.366	128	190	4.406	pg	#	68

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

Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024 12\26\
Data File : 12262411.D
Acq On : 26 Dec 2024 16:57
Operator : LC / CS
Sample : 122624 SC00685 33819
Misc : LL + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 204 Sample Multiplier: 1

Quant Time: Dec 27 07:52:15 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024_12\17\
Data File : 12172426.D
Acq On : 18 Dec 2024 08:01
Operator : LC / CS
Sample : AC02136
Misc : LL + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

2nd dC 12/18/24

Quant Time: Dec 18 11:55:58 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

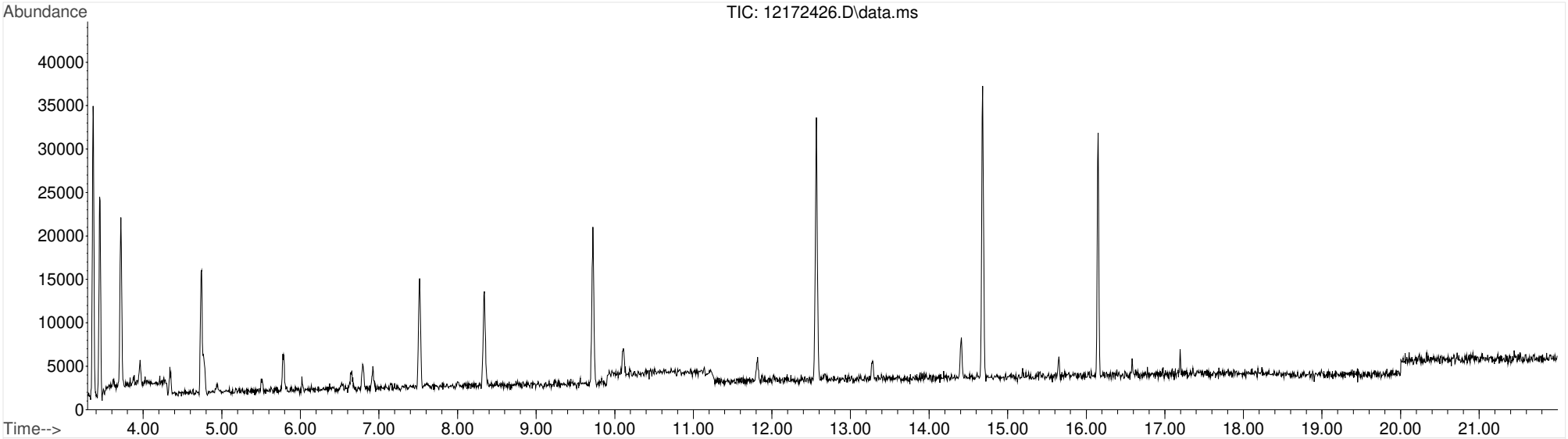
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	5648	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.721	114	20889	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.679	54	4847	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.339	65	9891	1033.37	pg		0.00
Spiked Amount 1000.000			Recovery = 103.34%				
57) Toluene-d8 (SS2)	12.564	98	24689	892.69	pg		0.00
Spiked Amount 1000.000			Recovery = 89.27%				
74) Bromofluorobenzene (SS3)	16.154	174	9377	912.18	pg		0.00
Spiked Amount 1000.000			Recovery = 91.22%				
Target Compounds							Qvalue
3] Dichlorodifluoromethane	3.493	85	1381	41.930	pg		100
4] Chloromethane	3.618	50	1021	92.370	pg		100
5] 1,2-Dichloro-1,1,2,2-t...	3.704	85	77	3.844	pg	#	41
7] 1,3-Butadiene	3.915	54	25	2.789	pg	#	1
8] Bromomethane	4.125	94	162	12.292	pg		88
9] Chloroethane	4.270	64	139	16.601	pg	#	44
10] Ethanol	4.343	45	3125	896.635	pg		100
11] Acetonitrile	4.525	41	208	23.754	pg		91
12] Acrolein	4.632	56	454	140.220	pg		98
13] Acetone	4.738	58	7958	1644.079	pg		71
14] Trichlorofluoromethane	4.893	101	445	34.710	pg		96
15] 2-Propanol (Isopropanol)	4.937	45	1395	177.235	pg		99
18] * tert-Butanol	5.468	59	338	45.830	pg		94
19] Methylene Chloride	5.507	84	1064	148.708	pg		98
21] Trichlorotrifluoroethane	5.755	151	83	14.768	pg	#	19
22] Carbon Disulfide	5.784	76	7816	311.010	pg		99
26] Vinyl Acetate	6.654	86	773	691.725	pg	#	31
27] 2-Butanone (MEK)	6.921	72	973	240.279	pg		96
29] * DIPE	7.598	45	132	9.349	pg	#	46
30] Ethyl Acetate	7.598	61	134	70.288	pg		96
31] n-Hexane	7.611	57	106	13.291	pg	#	56
32] Chloroform	7.656	83	214	16.964	pg		98
39] Benzene	9.294	78	577	22.126	pg		96
48] 1,4-Dioxane	10.548	88	84	13.953	pg	#	66
49] * Isooctane	10.620	56	164	18.278	pg	#	55
51] n-Heptane	10.932	71	58	8.333	pg	#	44
53] 4-Methyl-2-pentanone	11.619	58	54	12.443	pg	#	35
58] Toluene	12.677	91	1033	32.986	pg		100
59] 2-Hexanone	13.018	58	196m	24.135	pg		
66] Ethylbenzene	15.126	91	253	7.810	pg		92
67] m- & p-Xylenes	15.295	91	446	17.748	pg		94
70] Styrene	15.640	104	211	10.850	pg		96
71] o-Xylene	15.741	91	180	7.060	pg		96
76] alpha-Pinene	16.627	93	129	8.289	pg	#	77
77] n-Propylbenzene	16.738	91	75	1.808	pg	#	54
78] * 3-Ethyltoluene	16.831	105	81	3.108	pg	#	46
79] 4-Ethyltoluene	16.831	105	81	2.722	pg	#	46
80] 1,3,5-Trimethylbenzene	16.937	105	50	1.999	pg	#	27
84] 1,2,4-Trimethylbenzene	17.285	105	130	4.941	pg		94
91] * p-Isopropyltoluene	17.652	119	109	3.902	pg	#	51
93] D-Limonene	17.770	68	103	12.589	pg		88

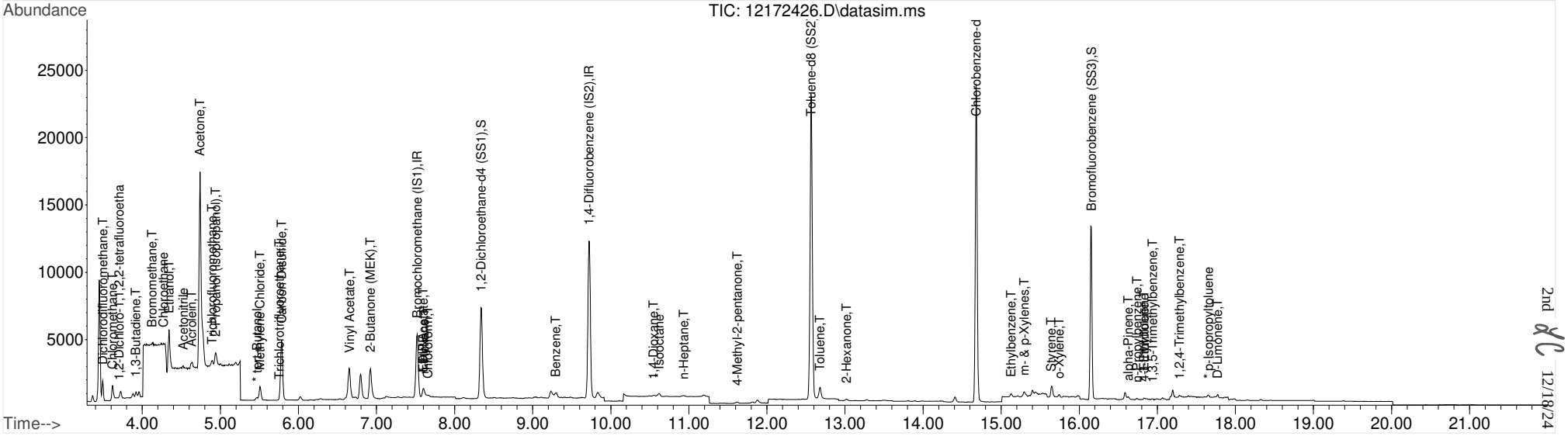
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\MS31\DATA\2024_12\17\
Data File : 12172426.D
Acq On : 18 Dec 2024 08:01
Operator : LC / CS
Sample : AC02136
Misc : LL + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 18 11:55:58 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration





12/18/24 2nd

Data Path : I:\MS31\DATA\2024_12\10\
Data File : 12102423.D
Acq On : 11 Dec 2024 09:29
Operator : LC / CS
Sample : AC02359
Misc : SIM + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

2nd JC 12/11/24

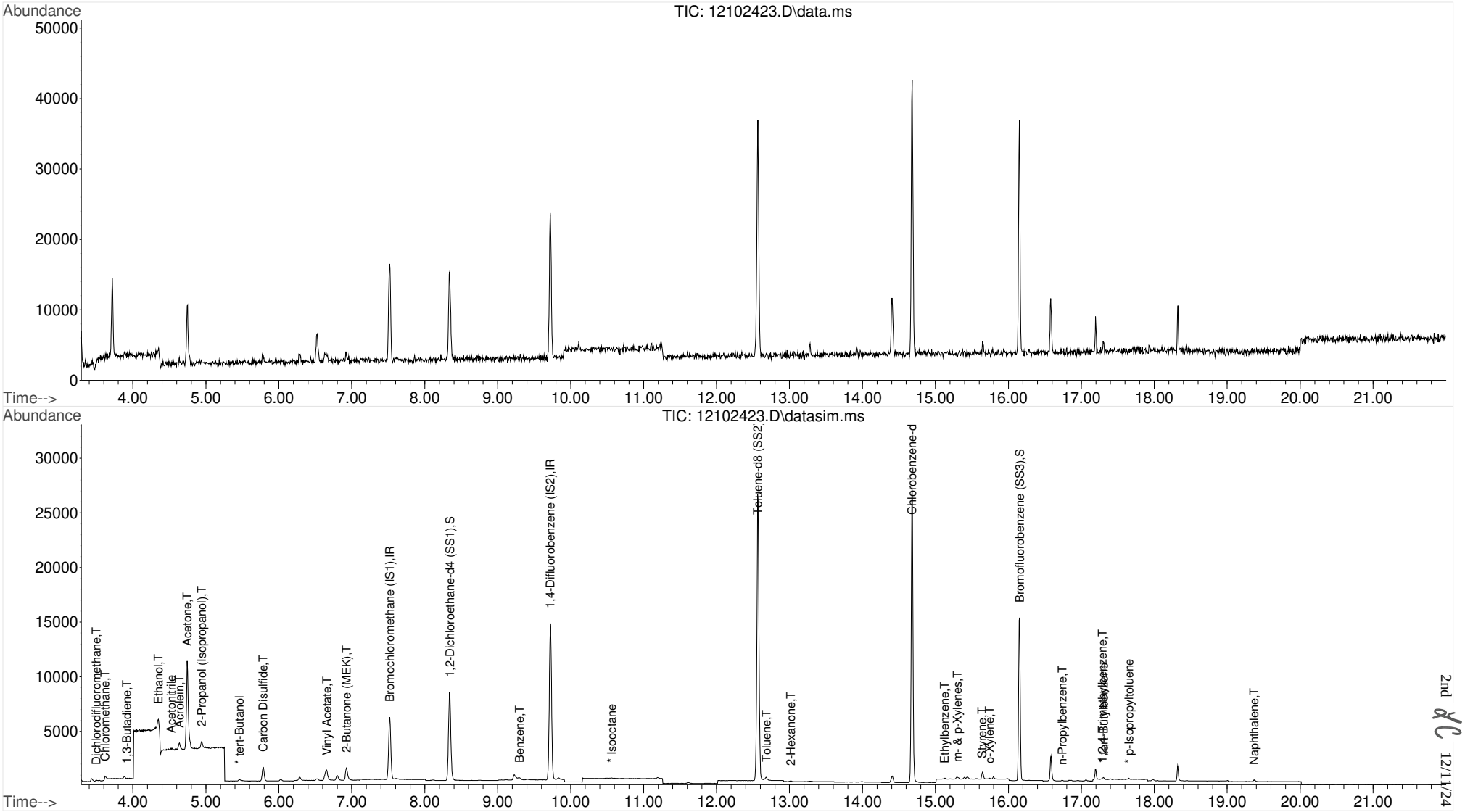
Quant Time: Dec 11 11:36:53 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane (IS1)	7.520	130	6897	1000.00	pg		0.00
37) 1,4-Difluorobenzene (IS2)	9.721	114	25229	1000.00	pg		0.00
56) Chlorobenzene-d5 (IS3)	14.679	54	5566	1000.00	pg		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4 ...	8.344	65	11832	1012.30	pg		0.00
Spiked Amount 1000.000			Recovery = 101.23%				
57) Toluene-d8 (SS2)	12.564	98	28342	892.40	pg		0.00
Spiked Amount 1000.000			Recovery = 89.24%				
74) Bromofluorobenzene (SS3)	16.154	174	10675	904.30	pg		0.00
Spiked Amount 1000.000			Recovery = 90.43%				
Target Compounds							Qvalue
3] Dichlorodifluoromethane	3.497	85	91	2.263	pg	#	41
4] Chloromethane	3.618	50	263	19.485	pg		96
7] 1,3-Butadiene	3.915	54	5	0.457	pg	#	1
10] Ethanol	4.348	45	893	209.822	pg		95
11] Acetonitrile	4.525	41	99	9.259	pg	#	1
12] Acrolein	4.639	56	572	144.672	pg		97
13] Acetone	4.744	58	3697	625.465	pg		90
15] 2-Propanol (Isopropanol)	4.943	45	759	78.968	pg		97
18] * tert-Butanol	5.459	59	237	26.316	pg		99
22] Carbon Disulfide	5.784	76	2331	75.957	pg		97
26] Vinyl Acetate	6.659	86	302	221.307	pg		78
27] 2-Butanone (MEK)	6.926	72	493	99.698	pg		97
39] Benzene	9.299	78	245	7.779	pg	#	53
49] * Isooctane	10.562	56	51	4.706	pg	#	1
58] Toluene	12.683	91	321	8.926	pg		99
59] 2-Hexanone	13.018	58	96m	10.294	pg		
66] Ethylbenzene	15.126	91	104	2.796	pg	#	43
67] m- & p-Xylenes	15.302	91	243	8.421	pg		99
70] Styrene	15.640	104	177	7.926	pg		95
71] o-Xylene	15.741	91	65	2.220	pg	#	29
77] n-Propylbenzene	16.738	91	59	1.239	pg	#	54
83] * tert-Butylbenzene	17.306	134	73	10.904	pg	#	1
84] 1,2,4-Trimethylbenzene	17.290	105	98	3.243	pg	#	23
91] * p-Isopropyltoluene	17.652	119	57	1.777	pg	#	51
98] Naphthalene	19.367	128	196	5.024	pg	#	68

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

Data Path : I:\MS31\DATA\2024_12\10\
Data File : 12102423.D
Acq On : 11 Dec 2024 09:29
Operator : LC / CS
Sample : AC02359
Misc : SIM + TICS (Sig #1); S37-12022421 (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 11 11:36:53 2024
Quant Method : I:\MS31\Methods\F31120224.M
Quant Title : EPA TO-15
QLast Update : Tue Dec 03 11:14:05 2024
Response via : Initial Calibration



2nd 12/11/24

Data Usability Summary Report	Project: Former EPT, Ithaca NY
Date Completed: February 17, 2025	Prepared by: Sarah Gilles Reviewed by: Michael Shadle

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation
    - SOP NO. HW-31, Revision 6, Volatile Organic Compounds in Air Contained in Canisters by Method TO-15

This validation was performed under Category B guidelines. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Project ID	Lab Work Order	Laboratory Report
US-WSP-31405608.001	P2500076	ALS Environmental – Simi Valley, CA

Table 1 Sample Listing Summary

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Field QC	ID Corrections
P2500076	AS	BLDG5-SS	P2500076-001	1/6/2025	-	-
P2500076	AI	BLDG5-IA	P2500076-002	1/6/2025	-	-
P2500076	AS	BLDG6-SS	P2500076-003	1/6/2025	-	-
P2500076	AS	BLDG6A-SS	P2500076-004	1/6/2025	-	-
P2500076	AI	BLDG6A-IA	P2500076-005	1/6/2025	-	-
P2500076	AS	BLDGX-SS	P2500076-006	1/6/2025	FD	-
P2500076	AI	BLDG1-IA	P2500076-007	1/6/2025	-	-
P2500076	AS	BLDG1-SS	P2500076-008	1/6/2025	-	-
P2500076	AO	OA1	P2500076-009	1/6/2025	-	-

Table 1A Sample Test Summary

Work Orders	Matrix	Test Method	Method Name	Number of Samples	Sample Type
P2500076	AS	TO-15	Volatile Organic Compounds by GC/MS	4	N
P2500076	AS	TO-15	Volatile Organic Compounds by GC/MS	1	FD
P2500076	AI	TO-15	Volatile Organic Compounds by GC/MS	3	N
P2500076	AO	TO-15	Volatile Organic Compounds by GC/MS	1	N

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Receipt Form?	Thermal preservation is not required.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples	Yes There is 1 field duplicate associated with 8 collected samples.
Case narrative present and complete?	Yes. Prior to sampling, the air canisters were individually cleaned down to the project method reporting limit.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2)
- LCS Outside Limits (Table 3)
- CCV/ICV Outside Limits (Table 4)
- Internal Standard Outside Limits (Table 5)
- Reanalysis/Dilution Results (Table 6)
- Duplicate Results (Table 7)

Go to List

Volatile Organic Compounds by Method TO-15	
Description	**Notes and Qualifiers**
Any compounds present in method, trip, or field blanks (see Table 2)?	No.
For samples, if results are < 2 times the blank or < 4 times the blank for common laboratory contaminants [MC, 2-Butanone, acetone], then "U" flag data. Qualification also applies to TICs.	Not applicable.
Is Laboratory QC frequency at least one blank and LCS with each batch?	Yes.
Is LCS within QC criteria (see Table 3)? If out, and the recovery is high with no positive values, then no data qualification is required.	Yes.
Do internal standards areas and retention time meet criteria? If not was sample re-analyzed to establish matrix (see Table 5)?	Yes.
Is initial calibration for target compounds <30 %RSD or curve fit? (see Table 4)	Yes.
Is the initial calibration verification for target compounds between laboratory limits or 70-130%? (see Table 4)	Yes.
Is continuing calibration for target compounds <30 %D? (see Table 4)	Yes.

Volatile Organic Compounds by Method TO-15	
Description	**Notes and Qualifiers**
Were any samples reanalyzed or diluted (see Table 6)? For any sample reanalysis or dilutions, is only one reportable result flagged?	All samples were diluted to bring concentrations within the calibration range. The reporting limits have been adjusted accordingly. 1,1,1-Trichloroethane was diluted 10x more than the other target compounds for sample BLDG5-SS. The laboratory qualified this as D for diluted. No qualification was made based on dilutions. No data usability issues were observed.
For TICs are there any system related compounds that should not be reported?	No.
Do duplicate results show good precision for all compounds except TICs (see Table 7)?	Yes.

Quantitation Limits and Data Assessment: Results were reported which were below the reporting limit (RL) and above the method detection limit (MDL) in the TO-15 analysis. These results were qualified as estimated (J) by the laboratory.

Data Validation Qualifiers Definitions:

J – The analyte QC analysis fails outside the primary acceptance limits. The qualified "J" data are not excluded from further review or consideration. The 'J' qualified data may be biased high (+) or low (-) or the direction of the bias may be indeterminable.

U – The analyte was analyzed for, but due to blank contamination was flagged as non-detect (U). The result is usable as a non-detect.

Summary of Findings
• No data usability issues were observed.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 3 – List of LCS Recoveries outside Control Limits
None.

Table 3A – List of LCS RPD outside Control Limits
None.

Table 4 – List of ICAL/ICV/CCV recoveries outside Control Limits
None.

Table 5 – Internal Standard Outside Control Limits
None.

Data Usability Summary Report	Project: Former EPT, Ithaca NY
Date Completed: February 17, 2025	Prepared by: Sarah Gilles Reviewed by: Michael Shadle

Table 6 – Samples that were Re-analyzed/Diluted

Method	Batch	Sample	Laboratory ID	Analyte	Reason
TO-15	MS13012825	BLDG5-SS	P-2500076-001	1,1,1-Trichloroethane	14.6x Dilution

Table 7 – Summary of Duplicate Results

Method	Analyte	Unit	Matrix	RL	BLDG6A-SS	BLDGX-SS	RPD	RPD Rating	Qualifier
TO-15	Vinyl chloride	ug/m^3	AS	0.3	ND	ND	NC	Good	None
TO-15	1,1-dichloroethylene	ug/m^3	AS	0.13	ND	ND	NC	Good	None
TO-15	Methylene chloride	ug/m^3	AS	0.66	ND	ND	NC	Good	None
TO-15	trans-1,2-Dichloroethene	ug/m^3	AS	0.3	ND	ND	NC	Good	None
TO-15	1,1-dichloroethane	ug/m^3	AS	0.3	ND	ND	NC	Good	None
TO-15	Cis-1,2-Dichloroethylene	ug/m^3	AS	0.14	ND	ND	NC	Good	None
TO-15	1,2-Dichloroethane	ug/m^3	AS	0.15	ND	ND	NC	Good	None
TO-15	1,1,1-Trichloroethane	ug/m^3	AS	0.15	4.2	4.2	0.0%	Good	None
TO-15	Carbon tetrachloride	ug/m^3	AS	0.15	0.52	0.51	1.9%	Good	None
TO-15	Trichloroethylene	ug/m^3	AS	0.15	1.4	1.3	7.4%	Good	None
TO-15	Tetrachloroethene	ug/m^3	AS	0.16	10	10	0.0%	Good	None

Acronym List and Table Key:

AI	=	indoor ambient air
AO	=	outdoor ambient air
AS	=	sub slab soil vapor
Abs Diff	=	absolute difference
CCV	=	continuing calibration verification
COC	=	chain of custody
DUSR	=	data usability summary report
EPA	=	Environmental Protection Agency
FD	=	field duplicate
GC/MS	=	gas chromatography / mass spectrometry
ICAL	=	initial calibration
ICV	=	initial calibration verification
LCS	=	laboratory control sample
MB	=	method blank
MDL	=	method detection limit
N	=	normal (field) sample
NC	=	not calculated
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
QC	=	quality control
RPD	=	relative percent difference
RRF	=	relative response factor
RSD	=	relative standard deviation
SDG	=	sample delivery group
TRG	=	target compound
%D	=	percent difference
%RSD	=	percent relative standard deviation
ug/m^3	=	microgram per cubic meter