

All4, Inc.

2393 Kimberton Road
Kimberton, PA 19442

Coke Oven ICR Sampling Event #09

US Steel Corp - Clairton Works ICR

Project: 00701-0002.00

Analytical Report (2023EE104)

EPA Method 325B

1,3-Butadiene

Benzene

Ethylbenzene

m/p-Xylene

o-Xylene

Toluene



Enthalpy Analytical, LLC

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800-1 Capitola Drive, Durham, NC 27713

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

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A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke, positioned above the date.

Report Issued: 03/01/2023



Summary of Results

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Summary

| Sample Code | Tube ID | 1,3-Butadiene (ug/m ³) | Flag | Benzene (ug/m ³) | Flag | Ethylbenzene (ug/m ³) | Flag | m-/p-Xylenes (ug/m ³) | Flag | o-Xylene (ug/m ³) | Flag | Toluene (ug/m ³) | Flag |
|-----------------------|---------|---------------------------------------|------|---------------------------------|------|--------------------------------------|------|--------------------------------------|------|----------------------------------|------|---------------------------------|------|
| USSCL-PT01-S-20230131 | B50722 | | ND | 18.6 | | | ND | 0.635 | | | ND | 3.09 | |
| USSCL-PT02-S-20230131 | B35998 | | ND | 4.89 | | | ND | | ND | | ND | 1.81 | |
| USSCL-PT03-S-20230131 | B46944 | | ND | 9.99 | | | ND | | ND | | ND | 2.36 | |
| USSCL-PT04-S-20230131 | B14613 | | ND | 7.63 | | | ND | 0.789 | | | ND | 6.55 | |
| USSCL-PT05-S-20230131 | B50934 | | ND | 3.12 | | | ND | | ND | | ND | 5.62 | |
| USSCL-PT06-S-20230131 | B38523 | | ND | 4.64 | | | ND | | ND | | ND | 4.17 | |
| USSCL-PT07-S-20230131 | B46275 | | ND | 2.56 | | | ND | | ND | | ND | 4.45 | |
| USSCL-PT08-S-20230131 | B14227 | | ND | 4.32 | | | ND | | ND | | ND | 4.42 | |
| USSCL-PT09-S-20230131 | B43826 | | ND | 9.51 | | | ND | 1.05 | | | ND | 9.59 | |
| USSCL-PT10-D-20230131 | C01525 | | ND | 19.6 | | | ND | 1.14 | | | ND | 8.18 | |
| USSCL-PT10-B-20230131 | B49616 | | ND | | ND | | ND | | ND | | ND | | ND |
| USSCL-PT10-S-20230131 | B27187 | | ND | 20.0 | | | ND | 1.11 | | | ND | 6.87 | |
| USSCL-PT11-S-20230131 | B17556 | | ND | 29.8 | | | ND | 1.60 | | | ND | 8.02 | |
| USSCL-PT12-S-20230131 | B18417 | | ND | 8.87 | | | ND | 0.836 | | | ND | 5.28 | |

ND: The analyte was not present above the Method Detection Limit

Results

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

1,3-Butadiene

| Sample Code | Tube ID | Conc (ug/m³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m³) | LOQ (ug/m³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|-----------------|----------------|---------------------|--------------|----------------------------|-------------------------|----------------|----------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | | | | 34.7 | 0.432 | 20,154 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT02-S-20230131 | B35998 | | | | 34.7 | 0.432 | 20,153 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT03-S-20230131 | B46944 | | | | 34.7 | 0.432 | 20,152 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT04-S-20230131 | B14613 | | | | 34.7 | 0.432 | 20,152 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT05-S-20230131 | B50934 | | | | 34.7 | 0.432 | 20,152 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT06-S-20230131 | B38523 | | | | 34.7 | 0.432 | 20,151 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT07-S-20230131 | B46275 | | | | 34.7 | 0.432 | 20,151 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT08-S-20230131 | B14227 | | | | 34.7 | 0.432 | 20,151 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT09-S-20230131 | B43826 | | | | 34.7 | 0.432 | 20,167 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT10-D-20230131 | C01525 | | | | 34.7 | 0.432 | 20,149 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.432 | 20,145 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT10-S-20230131 | B27187 | | | | 34.7 | 0.432 | 20,147 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT11-S-20230131 | B17556 | | | | 34.7 | 0.432 | 20,147 | 0.612 | 0.612 | 0.277 | 0.277 | ND |
| USSCL-PT12-S-20230131 | B18417 | | | | 34.7 | 0.432 | 20,147 | 0.612 | 0.612 | 0.277 | 0.277 | ND |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Benzene

| Sample Code | Tube ID | Conc (ug/m ³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m ³) | LOQ (ug/m ³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|------------------------------|----------------|---------------------|--------------|----------------------------|-------------------------|-----------------------------|-----------------------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | 18.6 | 5.83 | 241 | 34.7 | 0.643 | 20,154 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT02-S-20230131 | B35998 | 4.89 | 1.53 | 63.4 | 34.7 | 0.643 | 20,153 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT03-S-20230131 | B46944 | 9.99 | 3.13 | 129 | 34.7 | 0.643 | 20,152 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT04-S-20230131 | B14613 | 7.63 | 2.39 | 98.8 | 34.7 | 0.643 | 20,152 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT05-S-20230131 | B50934 | 3.12 | 0.979 | 40.5 | 34.7 | 0.643 | 20,152 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT06-S-20230131 | B38523 | 4.64 | 1.45 | 60.2 | 34.7 | 0.643 | 20,151 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT07-S-20230131 | B46275 | 2.56 | 0.800 | 33.1 | 34.7 | 0.643 | 20,151 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT08-S-20230131 | B14227 | 4.32 | 1.35 | 56.0 | 34.7 | 0.643 | 20,151 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT09-S-20230131 | B43826 | 9.51 | 2.98 | 123 | 34.7 | 0.643 | 20,167 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT10-D-20230131 | C01525 | 19.6 | 6.13 | 253 | 34.7 | 0.643 | 20,149 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.643 | 20,145 | 0.193 | 0.412 | 0.0604 | 0.129 | ND |
| USSCL-PT10-S-20230131 | B27187 | 20.0 | 6.27 | 259 | 34.7 | 0.643 | 20,147 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT11-S-20230131 | B17556 | 29.8 | 9.33 | 386 | 34.7 | 0.643 | 20,147 | 0.193 | 0.412 | 0.0604 | 0.129 | |
| USSCL-PT12-S-20230131 | B18417 | 8.87 | 2.78 | 115 | 34.7 | 0.643 | 20,147 | 0.193 | 0.412 | 0.0604 | 0.129 | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Ethylbenzene

| Sample Code | Tube ID | Conc (ug/m ³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m ³) | LOQ (ug/m ³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|------------------------------|----------------|---------------------|--------------|----------------------------|-------------------------|-----------------------------|-----------------------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | | | | 34.7 | 0.441 | 20,154 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT02-S-20230131 | B35998 | | | | 34.7 | 0.441 | 20,153 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT03-S-20230131 | B46944 | | | | 34.7 | 0.441 | 20,152 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT04-S-20230131 | B14613 | | | | 34.7 | 0.441 | 20,152 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT05-S-20230131 | B50934 | | | | 34.7 | 0.441 | 20,152 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT06-S-20230131 | B38523 | | | | 34.7 | 0.441 | 20,151 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT07-S-20230131 | B46275 | | | | 34.7 | 0.441 | 20,151 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT08-S-20230131 | B14227 | | | | 34.7 | 0.441 | 20,151 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT09-S-20230131 | B43826 | | | | 34.7 | 0.441 | 20,167 | 0.616 | 0.616 | 0.142 | 0.142 | ND |
| USSCL-PT10-D-20230131 | C01525 | | | | 34.7 | 0.441 | 20,149 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.441 | 20,145 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT10-S-20230131 | B27187 | | | | 34.7 | 0.441 | 20,147 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT11-S-20230131 | B17556 | | | | 34.7 | 0.441 | 20,147 | 0.617 | 0.617 | 0.142 | 0.142 | ND |
| USSCL-PT12-S-20230131 | B18417 | | | | 34.7 | 0.441 | 20,147 | 0.617 | 0.617 | 0.142 | 0.142 | ND |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

m-/p-Xylenes

| Sample Code | Tube ID | Conc (ug/m ³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m ³) | LOQ (ug/m ³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|------------------------------|----------------|---------------------|--------------|----------------------------|-------------------------|-----------------------------|-----------------------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | 0.635 | 0.146 | 5.65 | 34.7 | 0.441 | 20,154 | 0.620 | 0.620 | 0.143 | 0.143 | |
| USSCL-PT02-S-20230131 | B35998 | | | | 34.7 | 0.441 | 20,153 | 0.620 | 0.620 | 0.143 | 0.143 | ND |
| USSCL-PT03-S-20230131 | B46944 | | | | 34.7 | 0.441 | 20,152 | 0.620 | 0.620 | 0.143 | 0.143 | ND |
| USSCL-PT04-S-20230131 | B14613 | 0.789 | 0.182 | 7.02 | 34.7 | 0.441 | 20,152 | 0.620 | 0.620 | 0.143 | 0.143 | |
| USSCL-PT05-S-20230131 | B50934 | | | | 34.7 | 0.441 | 20,152 | 0.620 | 0.620 | 0.143 | 0.143 | ND |
| USSCL-PT06-S-20230131 | B38523 | | | | 34.7 | 0.441 | 20,151 | 0.621 | 0.621 | 0.143 | 0.143 | ND |
| USSCL-PT07-S-20230131 | B46275 | | | | 34.7 | 0.441 | 20,151 | 0.621 | 0.621 | 0.143 | 0.143 | ND |
| USSCL-PT08-S-20230131 | B14227 | | | | 34.7 | 0.441 | 20,151 | 0.621 | 0.621 | 0.143 | 0.143 | ND |
| USSCL-PT09-S-20230131 | B43826 | 1.05 | 0.242 | 9.37 | 34.7 | 0.441 | 20,167 | 0.620 | 0.620 | 0.143 | 0.143 | |
| USSCL-PT10-D-20230131 | C01525 | 1.14 | 0.262 | 10.1 | 34.7 | 0.441 | 20,149 | 0.621 | 0.621 | 0.143 | 0.143 | |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.441 | 20,145 | 0.621 | 0.621 | 0.143 | 0.143 | ND |
| USSCL-PT10-S-20230131 | B27187 | 1.11 | 0.255 | 9.85 | 34.7 | 0.441 | 20,147 | 0.621 | 0.621 | 0.143 | 0.143 | |
| USSCL-PT11-S-20230131 | B17556 | 1.60 | 0.370 | 14.3 | 34.7 | 0.441 | 20,147 | 0.621 | 0.621 | 0.143 | 0.143 | |
| USSCL-PT12-S-20230131 | B18417 | 0.836 | 0.193 | 7.43 | 34.7 | 0.441 | 20,147 | 0.621 | 0.621 | 0.143 | 0.143 | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

o-Xylene

| Sample Code | Tube ID | Conc (ug/m ³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m ³) | LOQ (ug/m ³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|------------------------------|----------------|---------------------|--------------|----------------------------|-------------------------|-----------------------------|-----------------------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | | | | 34.7 | 0.441 | 20,154 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT02-S-20230131 | B35998 | | | | 34.7 | 0.441 | 20,153 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT03-S-20230131 | B46944 | | | | 34.7 | 0.441 | 20,152 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT04-S-20230131 | B14613 | | | | 34.7 | 0.441 | 20,152 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT05-S-20230131 | B50934 | | | | 34.7 | 0.441 | 20,152 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT06-S-20230131 | B38523 | | | | 34.7 | 0.441 | 20,151 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT07-S-20230131 | B46275 | | | | 34.7 | 0.441 | 20,151 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT08-S-20230131 | B14227 | | | | 34.7 | 0.441 | 20,151 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT09-S-20230131 | B43826 | | | | 34.7 | 0.441 | 20,167 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT10-D-20230131 | C01525 | | | | 34.7 | 0.441 | 20,149 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.441 | 20,145 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT10-S-20230131 | B27187 | | | | 34.7 | 0.441 | 20,147 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT11-S-20230131 | B17556 | | | | 34.7 | 0.441 | 20,147 | 0.624 | 0.624 | 0.144 | 0.144 | ND |
| USSCL-PT12-S-20230131 | B18417 | | | | 34.7 | 0.441 | 20,147 | 0.624 | 0.624 | 0.144 | 0.144 | ND |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Toluene

| Sample Code | Tube ID | Conc (ug/m³) | Conc (ppbv) | Calc Amt (ng) | Temp (°F) | Uptake Rate (mL/min) | Sample Time (min) | LOD (ug/m³) | LOQ (ug/m³) | LOD (ppbv) | LOQ (ppbv) | Flags |
|-----------------------|---------|-----------------|----------------|---------------------|--------------|----------------------------|-------------------------|----------------|----------------|---------------|---------------|-------|
| USSCL-PT01-S-20230131 | B50722 | 3.09 | 0.821 | 31.1 | 34.7 | 0.499 | 20,154 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT02-S-20230131 | B35998 | 1.81 | 0.481 | 18.2 | 34.7 | 0.499 | 20,153 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT03-S-20230131 | B46944 | 2.36 | 0.627 | 23.7 | 34.7 | 0.499 | 20,152 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT04-S-20230131 | B14613 | 6.55 | 1.74 | 65.9 | 34.7 | 0.499 | 20,152 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT05-S-20230131 | B50934 | 5.62 | 1.49 | 56.5 | 34.7 | 0.499 | 20,152 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT06-S-20230131 | B38523 | 4.17 | 1.11 | 41.9 | 34.7 | 0.499 | 20,151 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT07-S-20230131 | B46275 | 4.45 | 1.18 | 44.7 | 34.7 | 0.499 | 20,151 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT08-S-20230131 | B14227 | 4.42 | 1.17 | 44.4 | 34.7 | 0.499 | 20,151 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT09-S-20230131 | B43826 | 9.59 | 2.55 | 96.5 | 34.7 | 0.499 | 20,167 | 0.248 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT10-D-20230131 | C01525 | 8.18 | 2.17 | 82.3 | 34.7 | 0.499 | 20,149 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT10-B-20230131 | B49616 | | | | 34.7 | 0.499 | 20,145 | 0.249 | 0.551 | 0.0660 | 0.146 | ND |
| USSCL-PT10-S-20230131 | B27187 | 6.87 | 1.82 | 69.1 | 34.7 | 0.499 | 20,147 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT11-S-20230131 | B17556 | 8.02 | 2.13 | 80.6 | 34.7 | 0.499 | 20,147 | 0.249 | 0.551 | 0.0660 | 0.146 | |
| USSCL-PT12-S-20230131 | B18417 | 5.28 | 1.40 | 53.1 | 34.7 | 0.499 | 20,147 | 0.249 | 0.551 | 0.0660 | 0.146 | |

ND: The analyte was not present above the Method Detection Limit

QC

Enthalpy Analytical

Company: All4, Inc.
Job No.: 2023EE104-1 EPA Method 325B Analysis
Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

QC Samples

| Field Sample Type | Sample Code | 1,3-Butadiene | | Benzene | | Ethylbenzene | | m-/p-Xylenes | | o-Xylene | | Toluene | |
|-------------------------|-----------------------|---------------|------|---------|------|--------------|------|--------------|------|----------|------|---------|------|
| Blanks (ug/m³) | USSCL-PT10-B-20230131 | ND | Pass | ND | Pass | ND | Pass | ND | Pass | ND | Pass | ND | Pass |
| Duplicates (difference) | USSCL-PT10-D-20230131 | | Pass | 2.3% | Pass | | Pass | 2.6% | Pass | | Pass | 17% | Pass |

Narrative Summary

Enthalpy Analytical Narrative Summary

| | |
|-----------------|------------------------------------|
| Company | All4, Inc. |
| Site | US Steel Corp - Clairton Works ICR |
| Project | 00701-0002.00 |
| Report # | 2023EE104 |

| | |
|-----------------------------------|--|
| Custody | <p>Wilson Matthews of Enthalpy Analytical, LLC received the thermal desorption sample tubes on 02/15/2023. The tubes were received in good condition at a temperature of 16.7 °C.</p> <p>Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.</p> |
| Analysis | <p>The thermal desorption tube samples were analyzed for benzene, 1,3-butadiene, toluene, ethylbenzene, m/p-xylene, and o-xylene using EPA Method 325B, Volatile Organic Compounds from Fugitive and Area Sources by Thermal Desorption and GC/MS.</p> <p>The Agilent Technologies Model 8890, Gas Chromatograph "Voldemort" (S/N US2215A022) was equipped with a 5977 Mass Selective Detector (S/N US2210M022) for these analyses.</p> <p>The Perkin-Elmer ATD-650 Thermal Desorber introduced the samples and standards to the analyzer.</p> |
| Chromatographic Conditions | A copy of the acquisition method (M325B-TD-CRYO9.M) is not included in this report but may be available upon request. |
| Calibration | <p>The BFB tune associated with the initial calibration failed to meet method criteria for ion 174. However, because the 174 ion is not near the tuning region of the quant ion for the analytes in this report and the continuing calibration checks met the 30% difference criteria, the lab believes that the analyses were unaffected by the deviation. All other BFB criteria have been met for this analysis.</p> <p>The initial calibration (V010423A_BUT_BTEX) met 30% RSD criteria. The initial calibration verification met 30% recovery criteria. The continuing calibration verifications met 30% difference criteria. The initial and continuing calibration raw data are not included in this report but are available upon request.</p> |
| QC Notes | <p>All internal standard response and retention time criteria were met for these analyses.</p> <p>The field blank and the lab (method) blank met the requirements of the method.</p> |



Enthalpy Analytical Narrative Summary (continued)

Reporting Notes

Due to a log-in error, the field blank USSCL-PT10-B-20230131 (Tube ID B49616) was mislabeled as a sample, and was analyzed out of order according to the standard operating procedure. This oversight, while a deviation from Method QC criteria, has no impact on data quality.

A portion of each sample (or calibration standard) was recollected onto the original sample tube after internal standard was added in the initial analysis to allow for reanalysis if necessary. An "Rc" flag indicates that a reanalysis has been performed and the resulting data have been included in the report.

As specified in EPA Method 325B, the response factor of the daily continuing calibration standard was used to quantitate all field samples and blanks.

All samples were reported as amount in ng catch, and concentration in $\mu\text{g}/\text{m}^3$ and ppbv.

The results presented in this report are representative of the samples as provided to the laboratory.

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.



Sample Custody



EPA Method 325 A/B
Field Test Data Sheet and
Chain of Custody Record

Page (x of y) 1 of 2

- ☒ Standard Turn Around Time (7 business days)
☐ Rush Turn Around Time
• All TATs Subject to Approval by Enthalpy Analytical, LLC
• Unless otherwise specified, sample tubes will be conditioned for re-use 3 business days after submission of results

| | | |
|---|-----------------------------------|--|
| Site Name: US Steel Corp-Clairton Works | Client Name: ALL4 LLC | Field Sampling Conditions: <input type="checkbox"/> Rain During Deployment / Retrieval <input type="checkbox"/> Sample Period w/ Continuous Rain <input type="checkbox"/> Sample Period w/ Snow or Melt <input type="checkbox"/> Other (Please explain in Notes) |
| Site Address: 400 State Street | Project Number: 00701-0002.00 | |
| City: Clairton | Project Manager: Dustin Snare | |
| State: PA | Email Address: dsnare@all4inc.com | |
| Zip: 15025 | Telephone #: (410) 422-1126 | |

| Location | Sample ID (Tube ID) | Sample, Blank, or Duplicate | Start Date | Start Time | Stop Date | Stop Time | Sampler Initials | Avg. Ambient Temp. (°F) |
|---------------|---------------------|-----------------------------|------------|------------|-----------|-----------|------------------|-------------------------|
| PT01-230131-S | B50722 | S | 23/01/31 | 9:09 AM | 23/02/14 | 9:03 AM | SRQ | |
| PT02-230131-S | B35988 | S | 23/01/31 | 9:14 AM | 23/02/14 | 9:07 AM | SRQ | |
| PT03-230131-S | B46944 | S | 23/01/31 | 9:19 AM | 23/02/14 | 9:11 AM | SRQ | |
| PT04-230131-S | B14613 | S | 23/01/31 | 9:22 AM | 23/02/14 | 9:14 AM | SRQ | |
| PT05-230131-S | B50934 | S | 23/01/31 | 9:27 AM | 23/02/14 | 9:19 AM | SRQ | |
| PT06-230131-S | B38523 | S | 23/01/31 | 9:37 AM | 23/02/14 | 9:28 AM | SRQ | |
| PT07-230131-S | B46275 | S | 23/01/31 | 9:33 AM | 23/02/14 | 9:24 AM | SRQ | |
| PT08-230131-S | B14227 | S | 23/01/31 | 9:43 AM | 23/02/14 | 9:34 AM | SRQ | |

Collected By: Print Name and Signature

Stacy Arner / Stacy Arner

Relinquished to Shipper: Print Name and Signature

Relinquished Date

Relinquished Time

Stacy Arner / Stacy Arner

23/02/14

11:15 AM

Received by: Print Name and Signature

Receipt Date

Custody Seal Intact (Yes or No)

Wilson Matthews / m

2/15/23 10:00

yes

Sample Condition Upon Receipt:

Good

Custody Seal # →

22 M02033

Analysis Required:

Comments:

IP: -0.2 > Fluke 3
TB: 16.7



EPA Method 325 A/B Field Test Data Sheet and Chain of Custody Record

Page (x of y) 2 of 2

- ☒ Standard Turn Around Time (7 business days)
- ☐ Rush Turn Around Time
- All TATs Subject to Approval by Enthalpy Analytical, LLC
- Unless otherwise specified, sample tubes will be conditioned for re-use 3 business days after submission of results

| | | |
|--|--|---|
| Site Name: <u>US Steel Corp-Clairton Works</u> | Client Name: <u>ALL4 LLC</u> | Field Sampling Conditions: |
| Site Address: <u>400 State Street</u> | Project Number: <u>00701-0002.00</u> | <input type="checkbox"/> Rain During Deployment / Retrieval |
| City: <u>Clairton</u> | Project Manager: <u>Dustin Spare</u> | <input type="checkbox"/> Sample Period w/ Continuous Rain |
| State: <u>PA</u> | Email Address: <u>dspare@all4inc.com</u> | <input type="checkbox"/> Sample Period w/ Snow or Melt |
| Zip: <u>15025</u> | Telephone #: <u>(412) 422-1126</u> | <input type="checkbox"/> Other (Please explain in Notes) |

| Location | Sample ID (Tube ID) | Sample, Blank, or Duplicate | Start Date | Start Time | Stop Date | Stop Time | Sampler Initials | Avg. Ambient Temp. (°F) |
|---------------|---------------------|-----------------------------|------------|------------|-----------|-----------|------------------|-------------------------|
| PT09-230131-S | B43826 | S | 23/01/31 | 9:47 AM | 23/02/14 | 9:54 AM | SPR | |
| PT10-230131-D | C01525 | D | 23/01/31 | 9:55 AM | 23/02/14 | 9:42 AM | SPR | |
| PT10-230131-B | B49616 | B | 23/01/31 | 9:56 AM | 23/02/14 | 9:40 AM | SPR | |
| PT10-230131-S | B27187 | S | 23/01/31 | 9:53 AM | 23/02/14 | 9:43 AM | SPR | |
| PT11-230131-S | B17556 | S | 23/01/31 | 9:59 AM | 23/02/14 | 9:46 AM | SPR | |
| PT12-230131-S | B18417 | S | 23/01/31 | 10:02 AM | 23/02/14 | 9:49 AM | SPR | |
| | | | | | | | | |
| | | | | | | | | |

Collected By: Print Name and Signature

Stacy Arner

Stacy R Arner

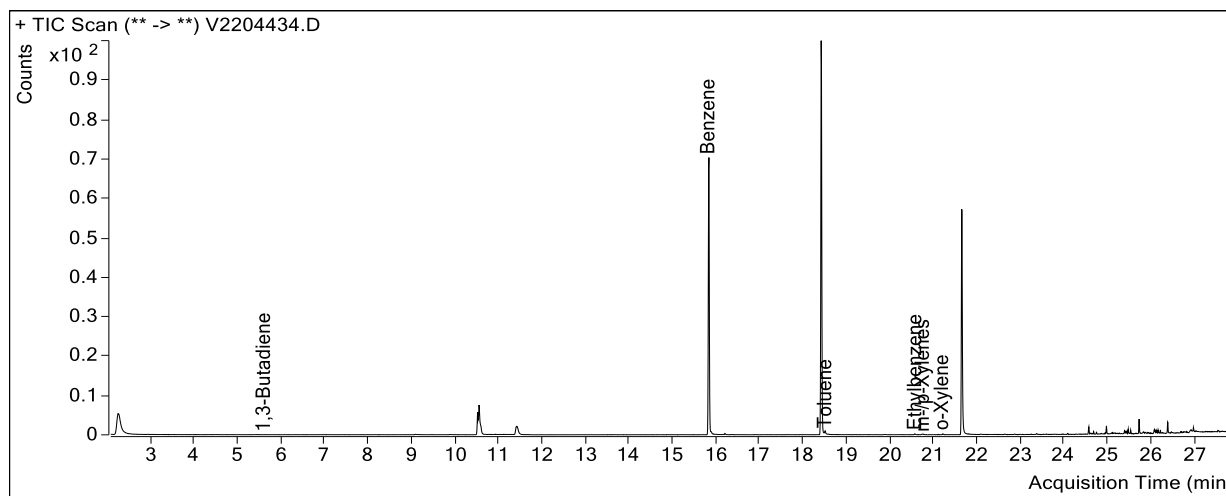
| | | |
|---|----------------------|---------------------------------|
| Relinquished to Shipper: Print Name and Signature | Relinquished Date | Relinquished Time |
| <u>Stacy Arner</u> <u>Stacy R Arner</u> | <u>23/02/14</u> | <u>11:15 AM</u> |
| Received by: Print Name and Signature | Receipt Date | Custody Seal Intact (Yes or No) |
| <u>Wilson Matthews</u> <u>IM</u> | <u>2/15/23 10:00</u> | <u>YES</u> |
| Sample Condition Upon Receipt: <u>Good</u> | Custody Seal # → | <u>22M02033</u> |

Analysis Required:

Comments: IP: -0.2
TB: 16.7 > Fluke 3

Sample Chromatograms

Sample Name : 2023EE104 Method Blank-1
Sample Info : B44198
Data File : V2204434.D
Acquisition Date : 2023-02-16 15:22:41
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

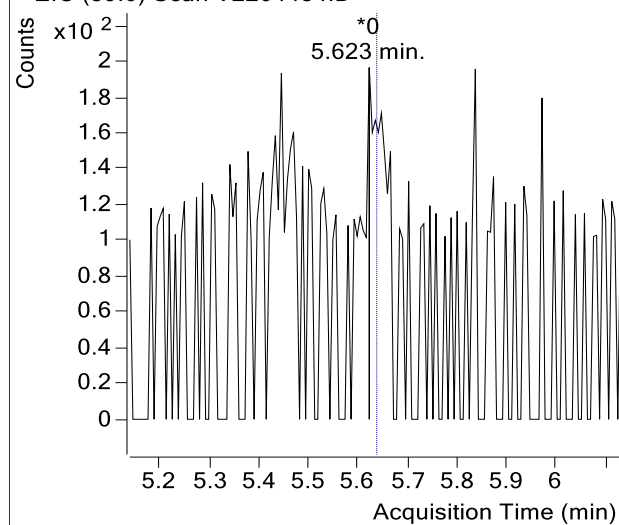


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 878,737 | |
| Benzene | 15.92 | 10,261 | m |
| Toluene-d8 (IS) | 18.45 | 892,821 | |
| Toluene | 18.53 | 7,680 | |
| Ethylbenzene | 20.59 | 2,892 | m |
| m-/p-Xylenes | 20.78 | 2,782 | m |
| o-Xylene | 21.24 | 2,033 | |

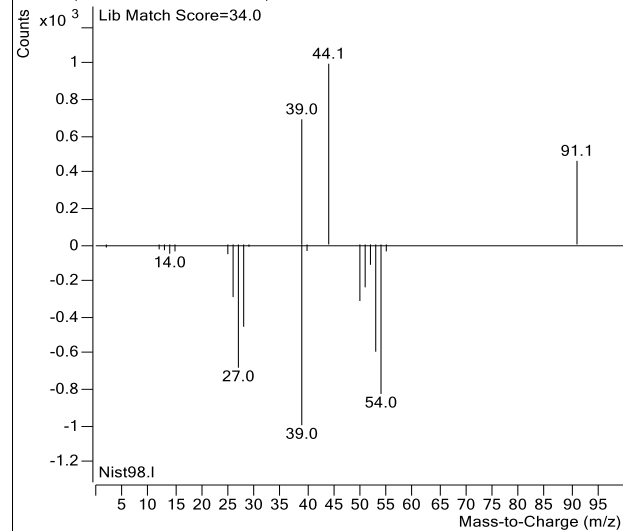
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204434.D

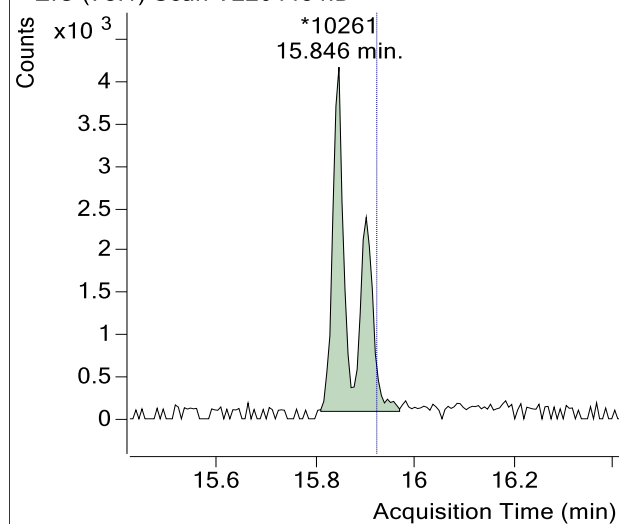


+ Scan (5.623-5.623 min, 1 scans) V2204434.D

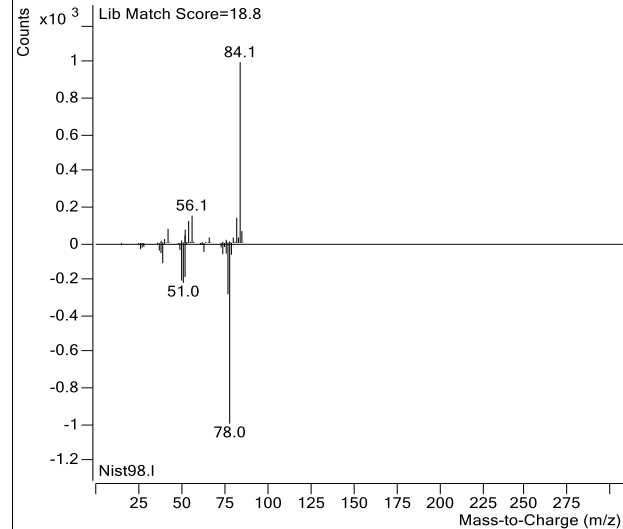


Benzene

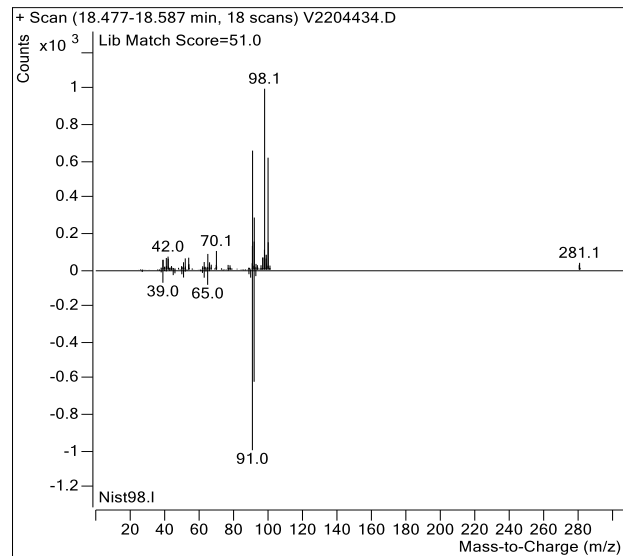
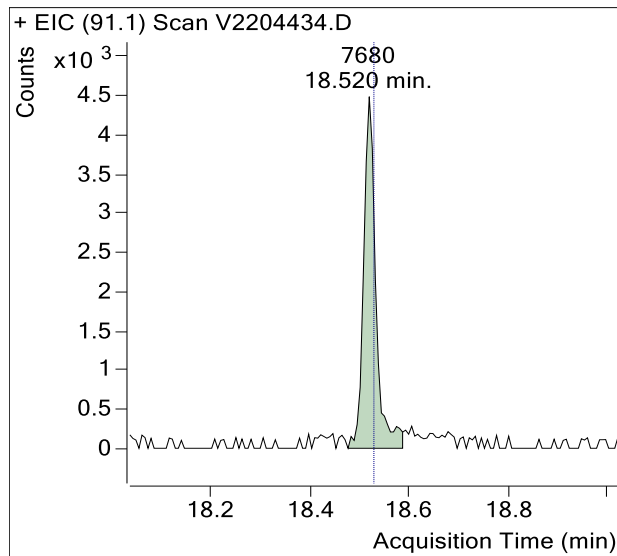
+ EIC (78.1) Scan V2204434.D



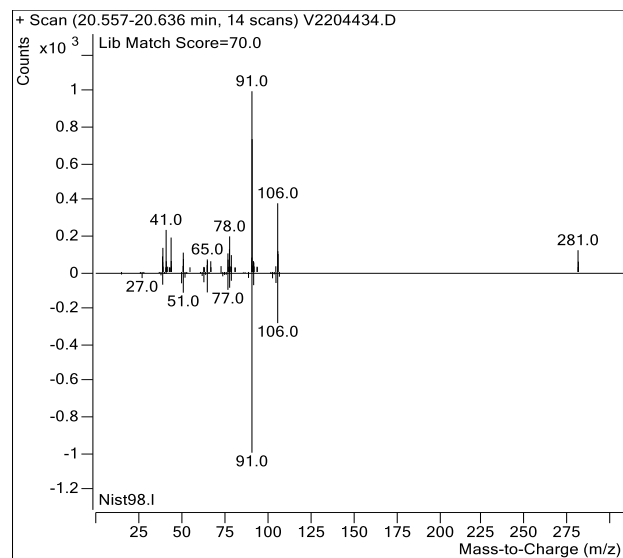
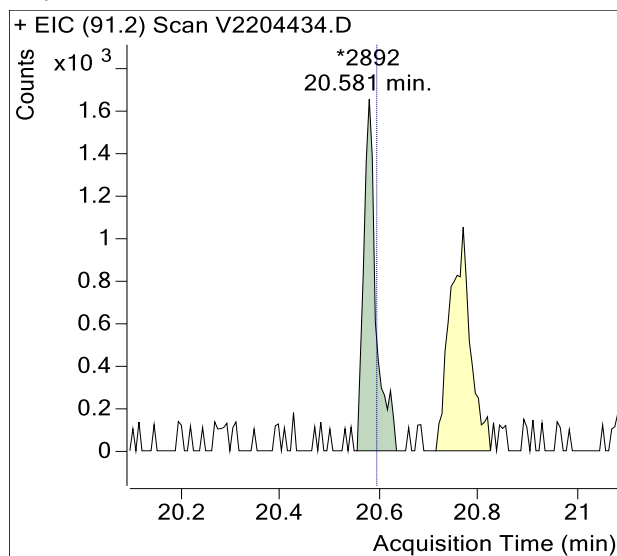
+ Scan (15.809-15.969 min, 27 scans) V2204434.D



Toluene

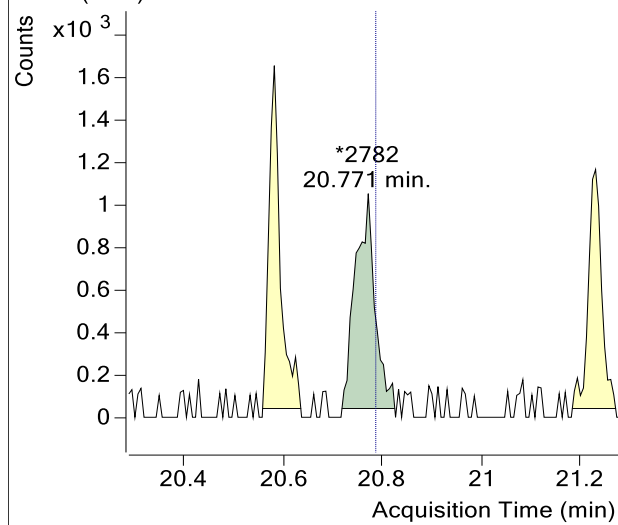


Ethylbenzene

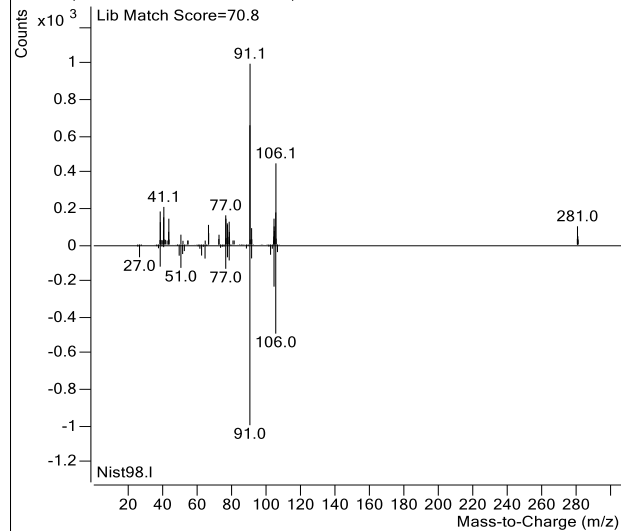


m-/p-Xylenes

+ EIC (91.1) Scan V2204434.D

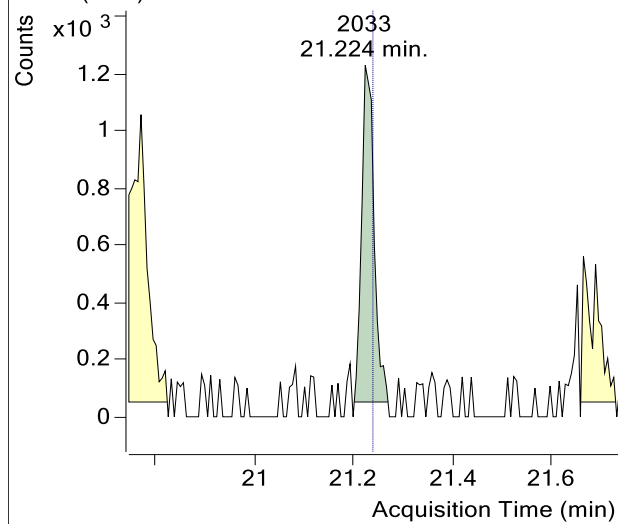


+ Scan (20.718-20.824 min, 18 scans) V2204434.D

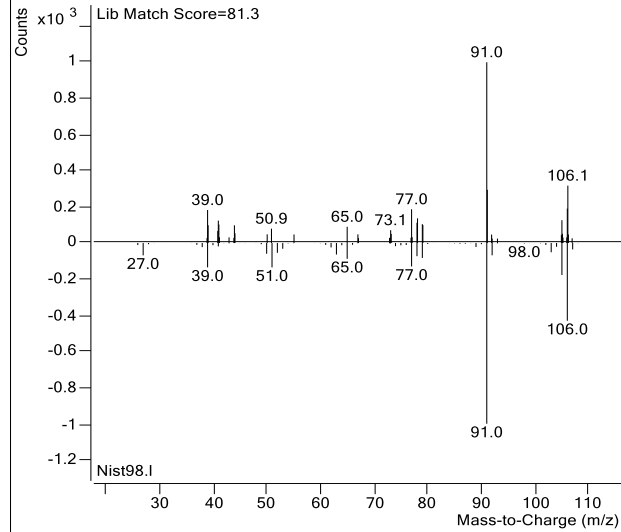


o-Xylene

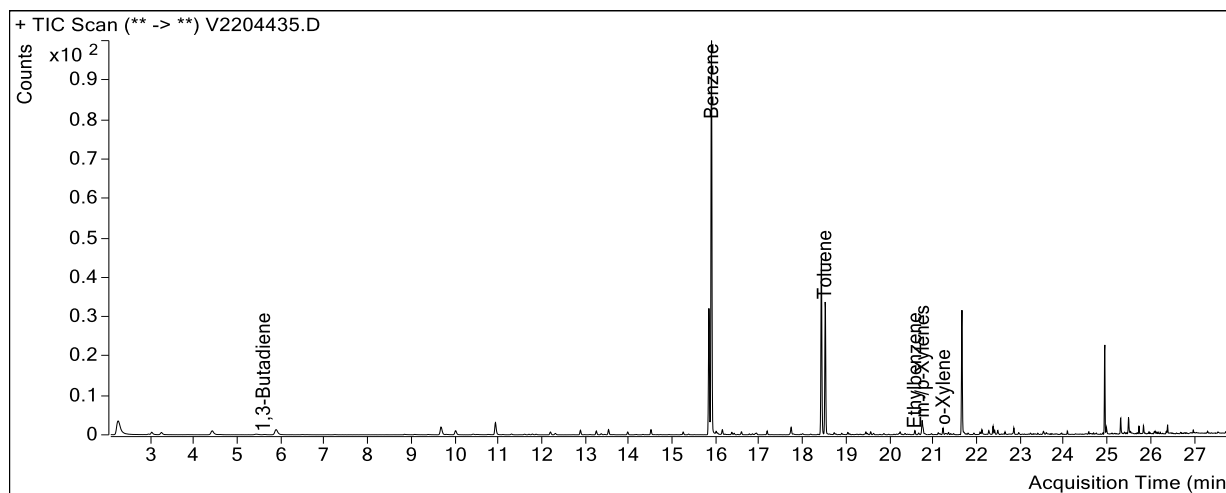
+ EIC (91.2) Scan V2204434.D



+ Scan (21.202-21.270 min, 12 scans) V2204434.D



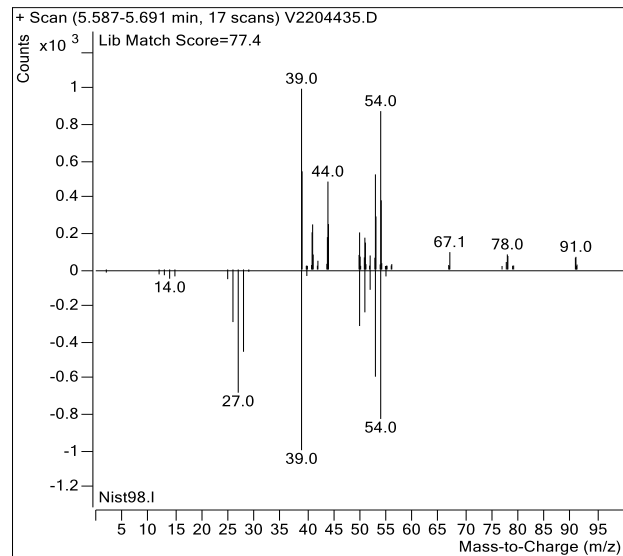
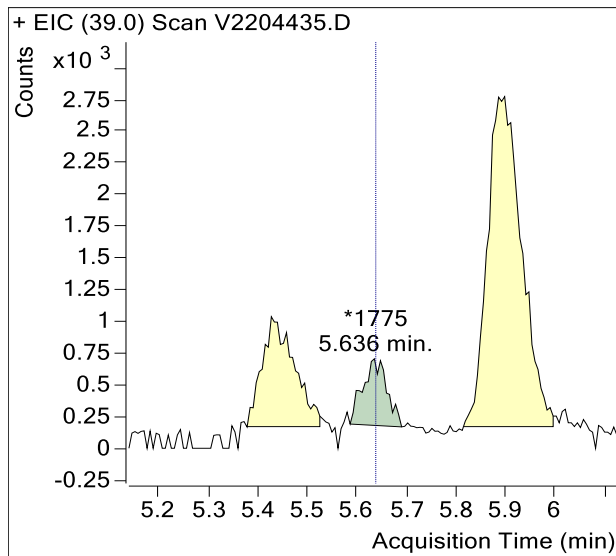
Sample Name : USSCL-PT10-S-20230131
Sample Info : B27187
Data File : V2204435.D
Acquisition Date : 2023-02-16 16:09:39
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



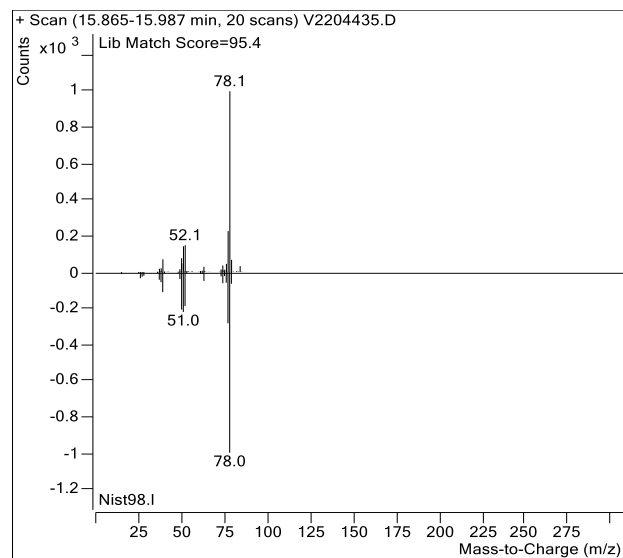
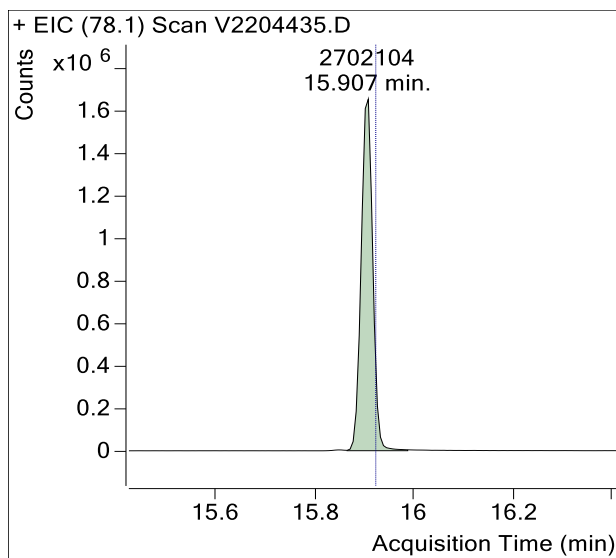
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 1,775 | m |
| Benzene-d6 (IS) | 15.86 | 886,669 | |
| Benzene | 15.92 | 2,702,104 | |
| Toluene-d8 (IS) | 18.45 | 895,727 | |
| Toluene | 18.53 | 737,014 | |
| Ethylbenzene | 20.59 | 21,975 | |
| m-/p-Xylenes | 20.78 | 89,009 | |
| o-Xylene | 21.24 | 28,008 | |

(m)=Manual Integration

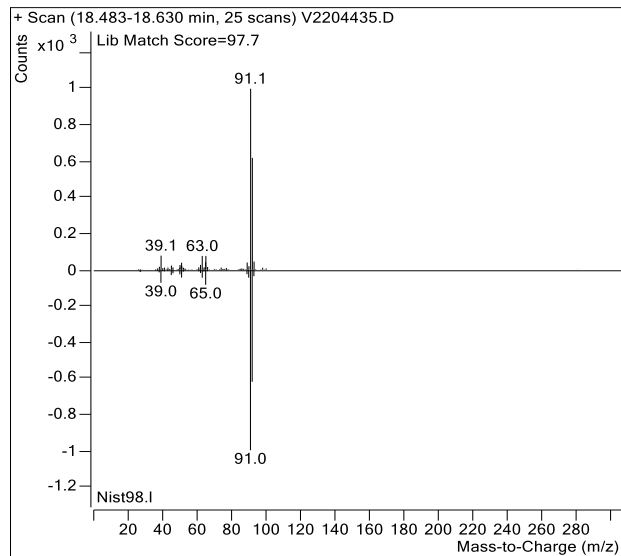
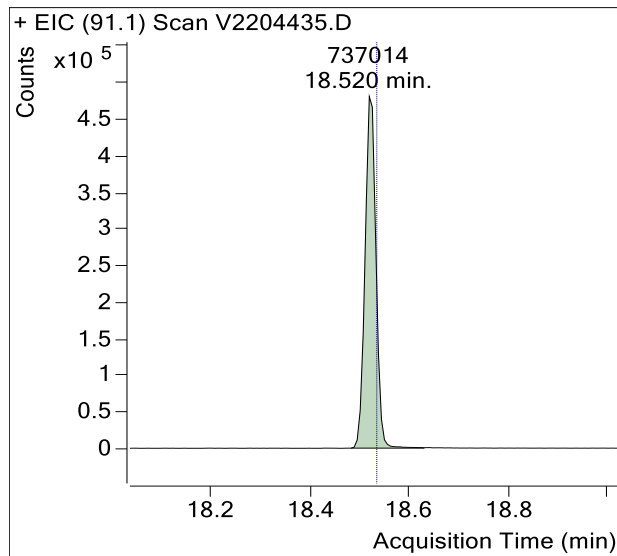
1,3-Butadiene



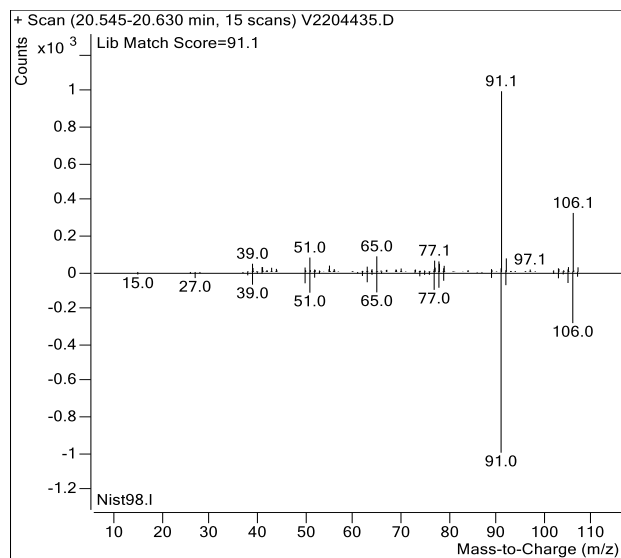
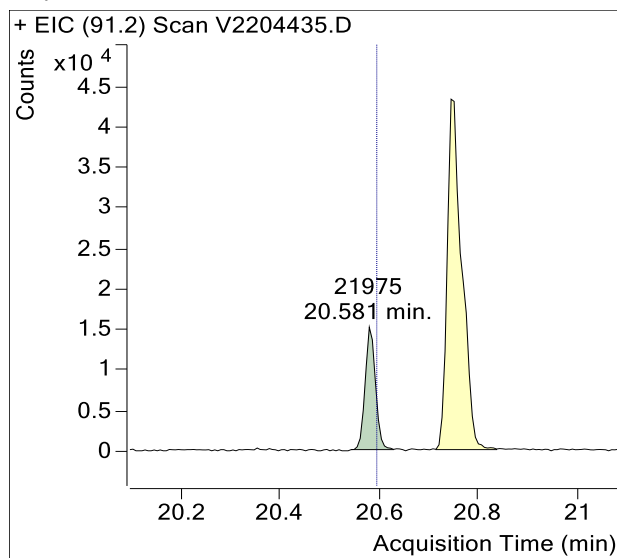
Benzene



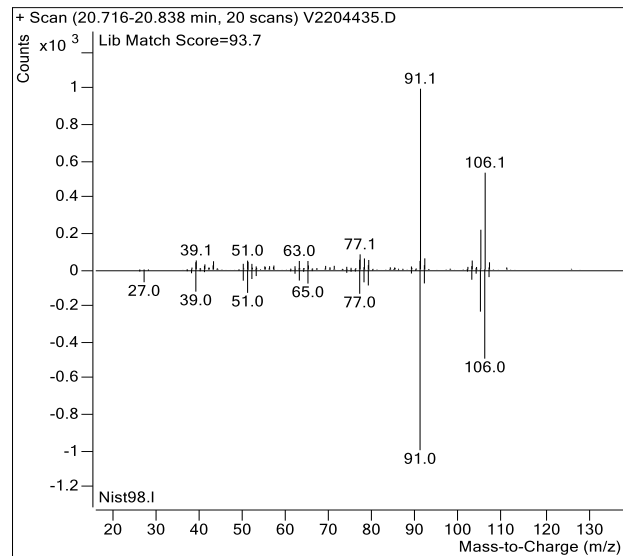
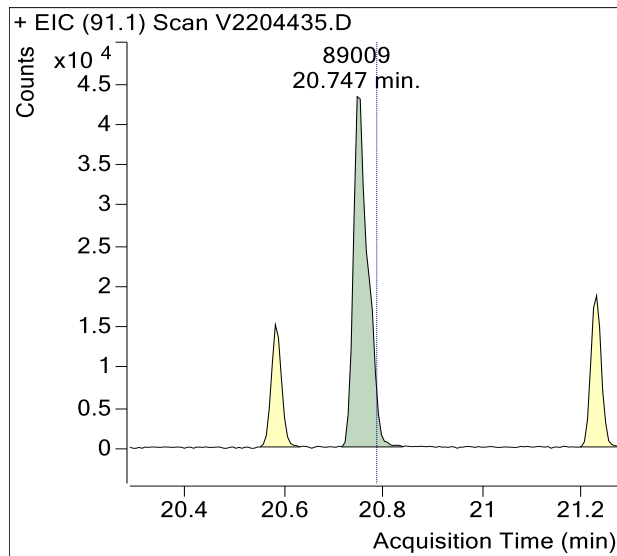
Toluene



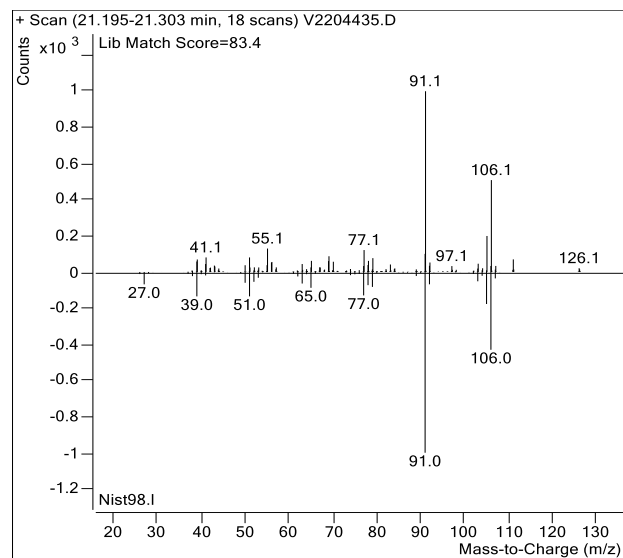
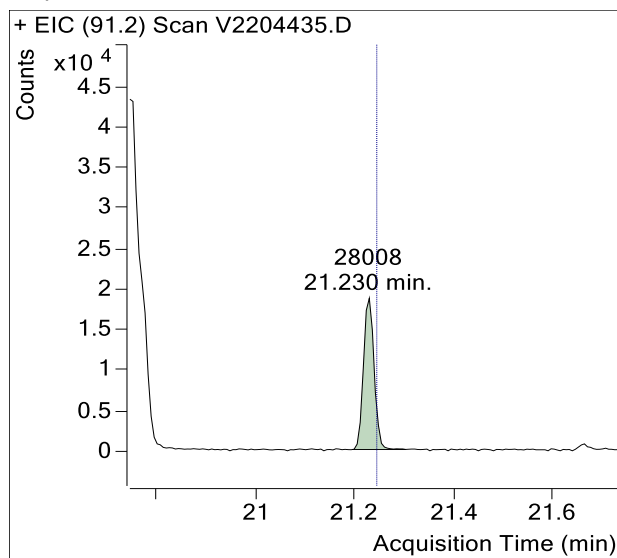
Ethylbenzene



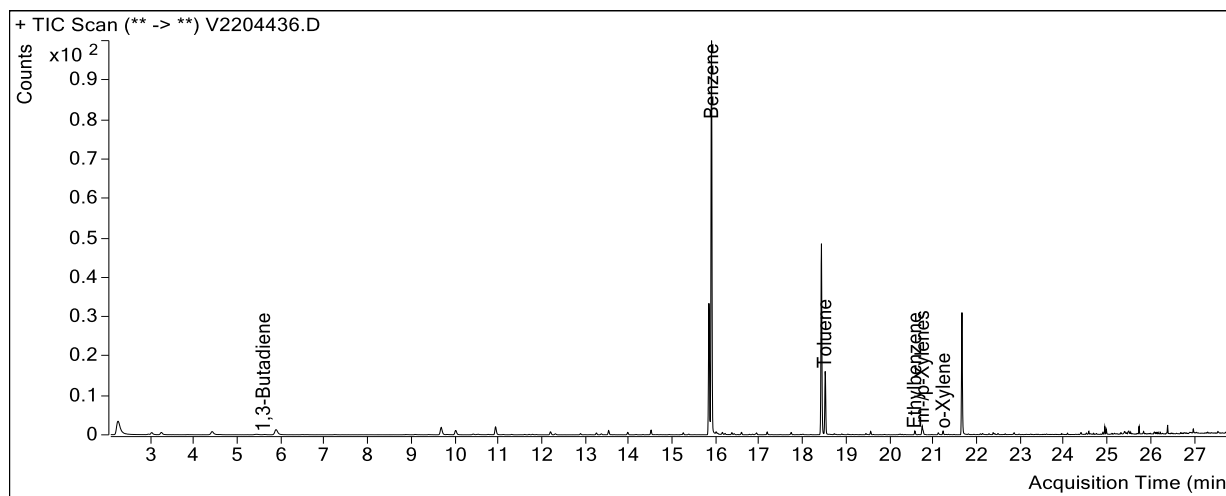
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT01-S-20230131
Sample Info : B50722
Data File : V2204436.D
Acquisition Date : 2023-02-16 16:56:04
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

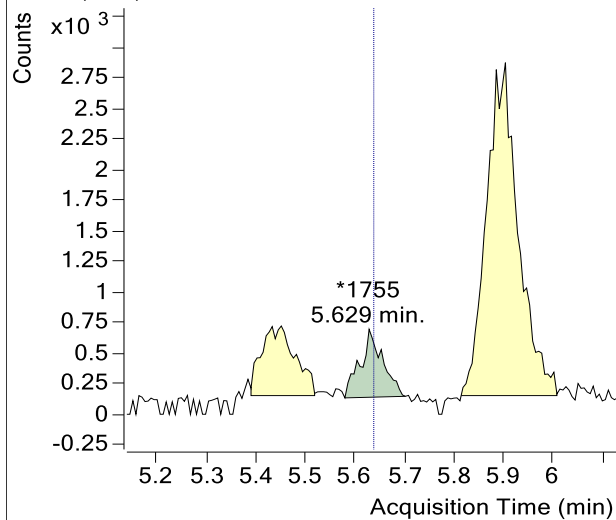


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 1,755 | m |
| Benzene-d6 (IS) | 15.86 | 888,662 | |
| Benzene | 15.92 | 2,519,193 | |
| Toluene-d8 (IS) | 18.45 | 894,647 | |
| Toluene | 18.53 | 331,358 | |
| Ethylbenzene | 20.59 | 20,231 | |
| m-/p-Xylenes | 20.78 | 51,030 | |
| o-Xylene | 21.24 | 14,632 | |

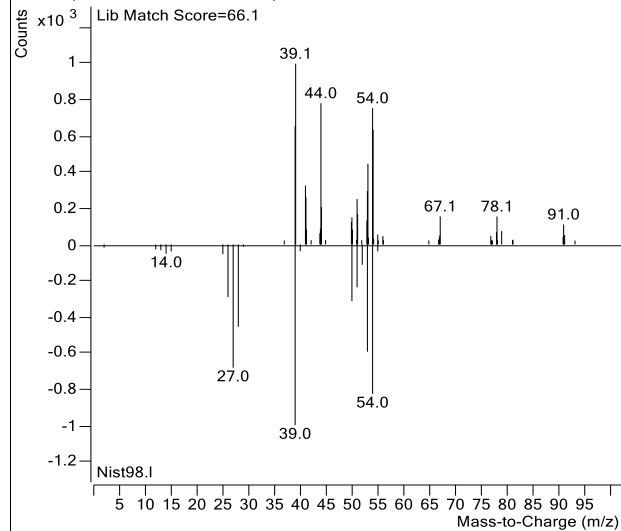
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204436.D

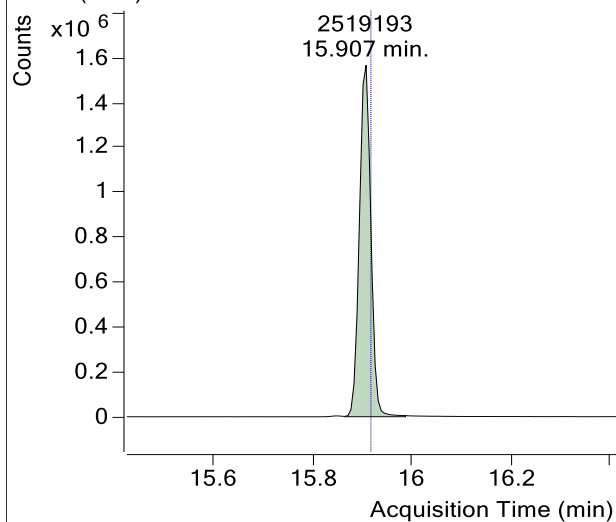


+ Scan (5.580-5.702 min, 20 scans) V2204436.D

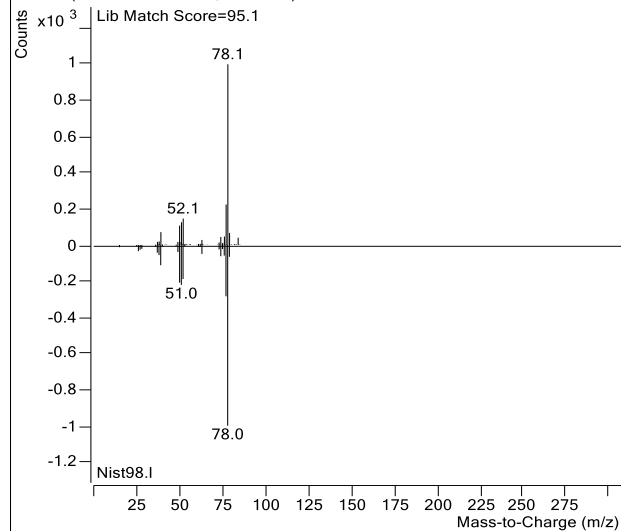


Benzene

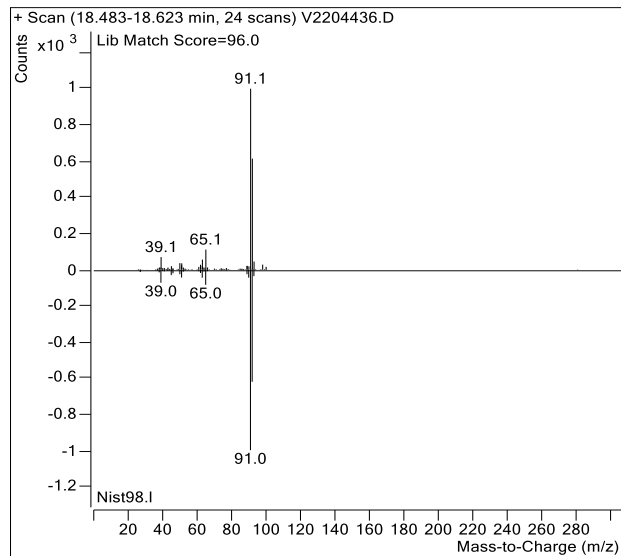
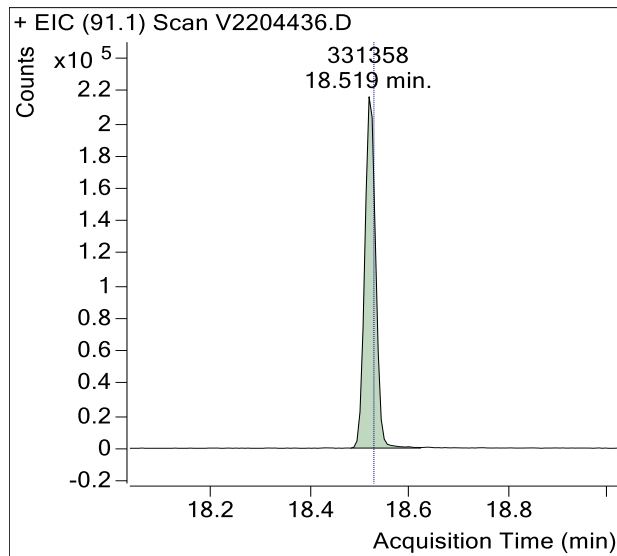
+ EIC (78.1) Scan V2204436.D



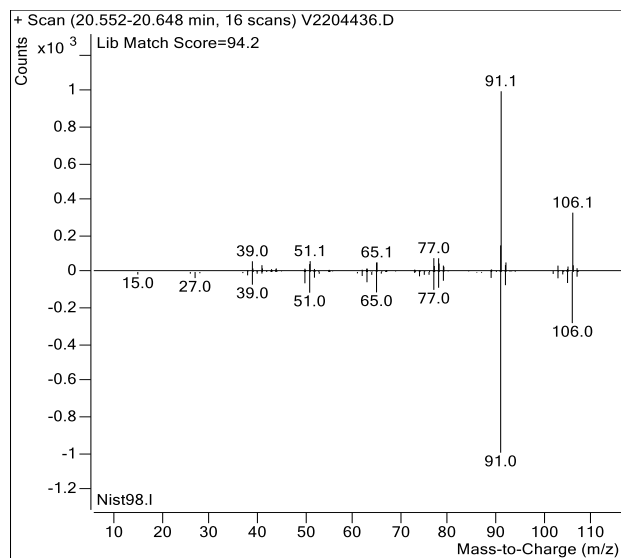
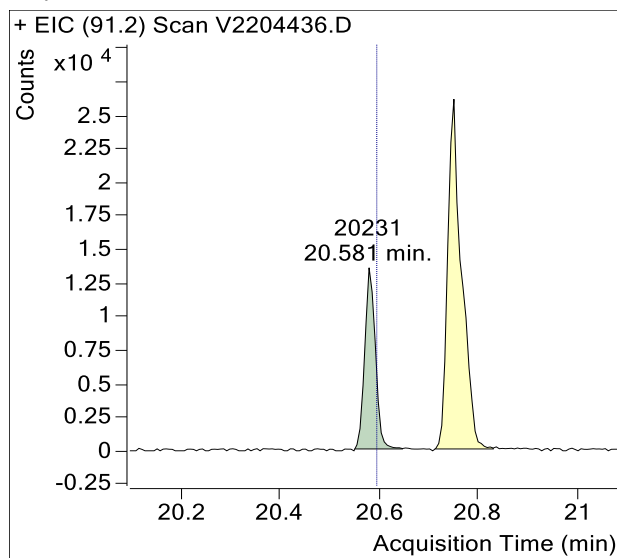
+ Scan (15.864-15.987 min, 20 scans) V2204436.D



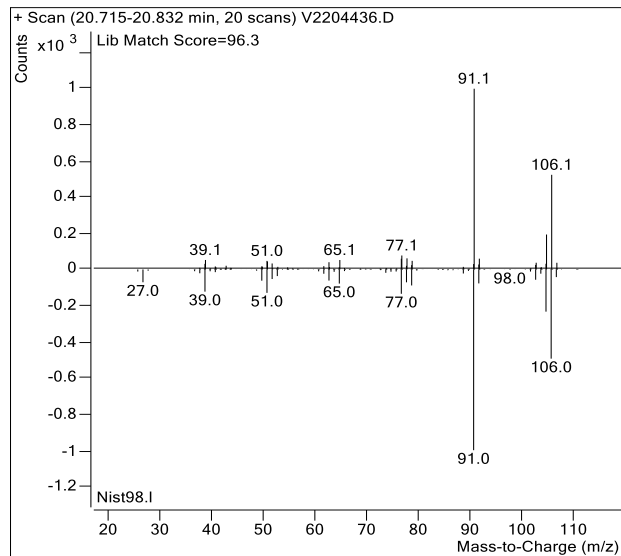
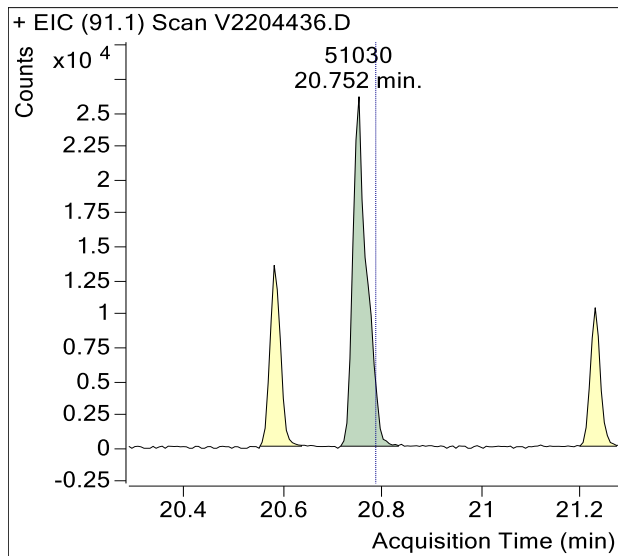
Toluene



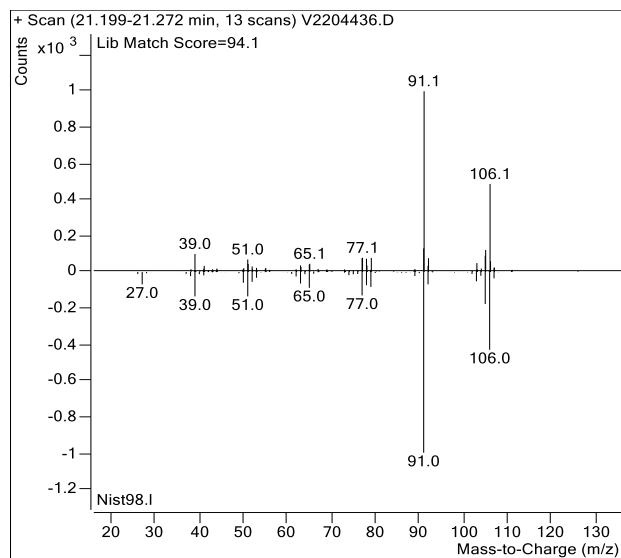
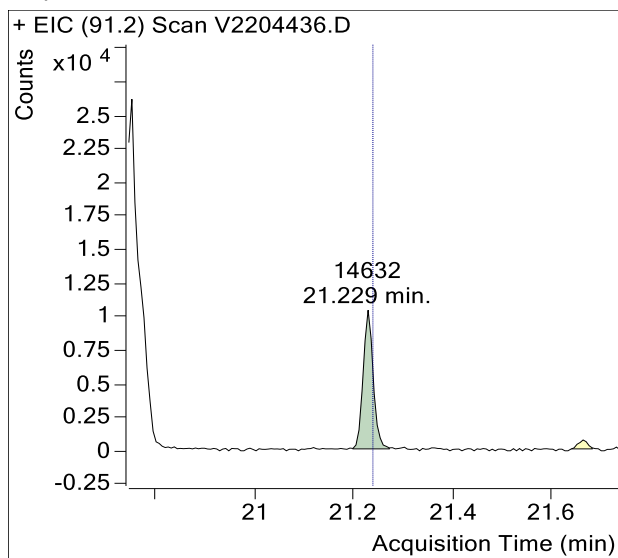
Ethylbenzene



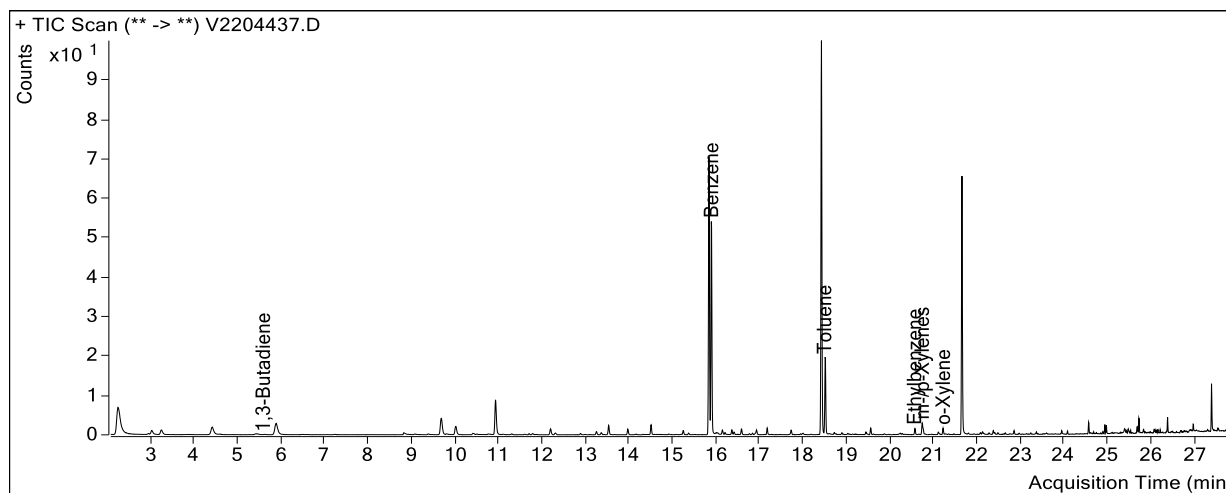
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT02-S-20230131
Sample Info : B35998
Data File : V2204437.D
Acquisition Date : 2023-02-16 17:42:19
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

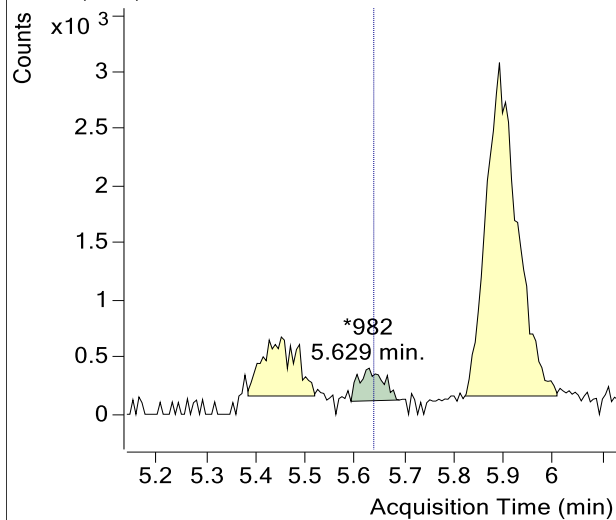


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 982 | m |
| Benzene-d6 (IS) | 15.86 | 884,113 | |
| Benzene | 15.92 | 658,611 | |
| Toluene-d8 (IS) | 18.45 | 891,405 | |
| Toluene | 18.53 | 193,265 | |
| Ethylbenzene | 20.59 | 16,917 | |
| m-/p-Xylenes | 20.78 | 34,566 | |
| o-Xylene | 21.24 | 13,054 | |

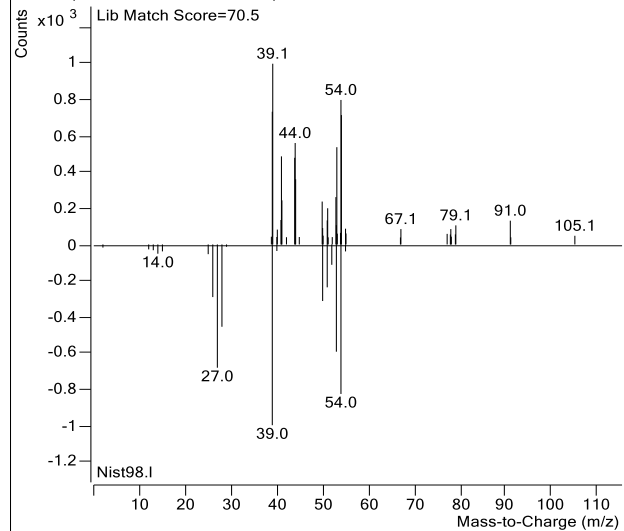
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204437.D

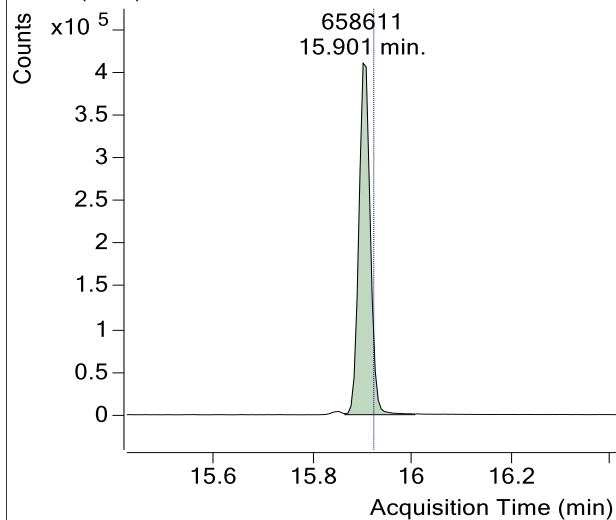


+ Scan (5.593-5.690 min, 16 scans) V2204437.D

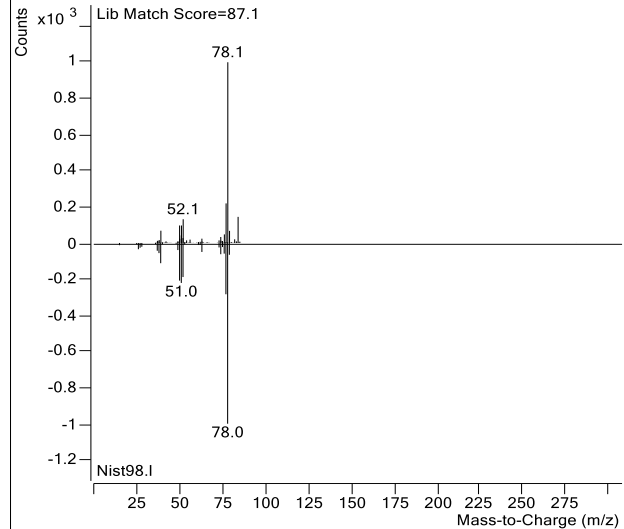


Benzene

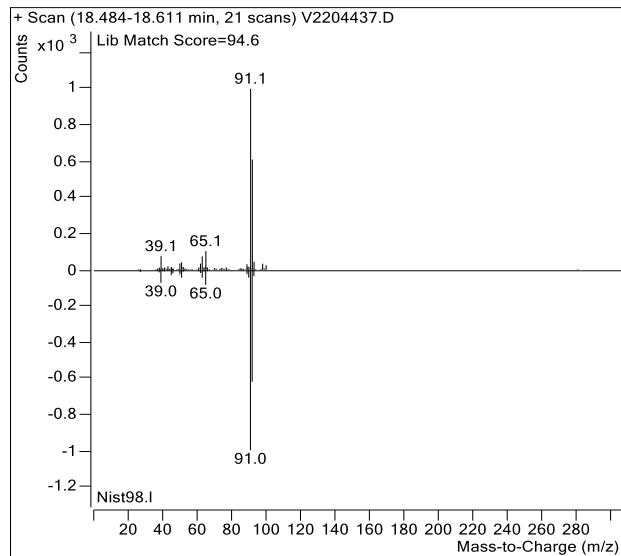
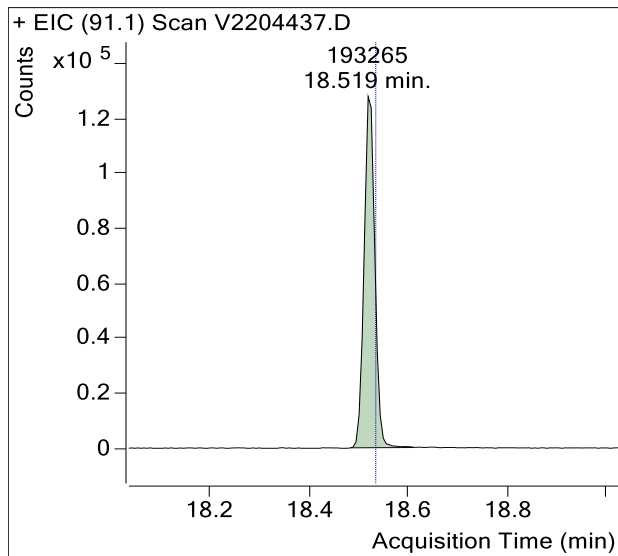
+ EIC (78.1) Scan V2204437.D



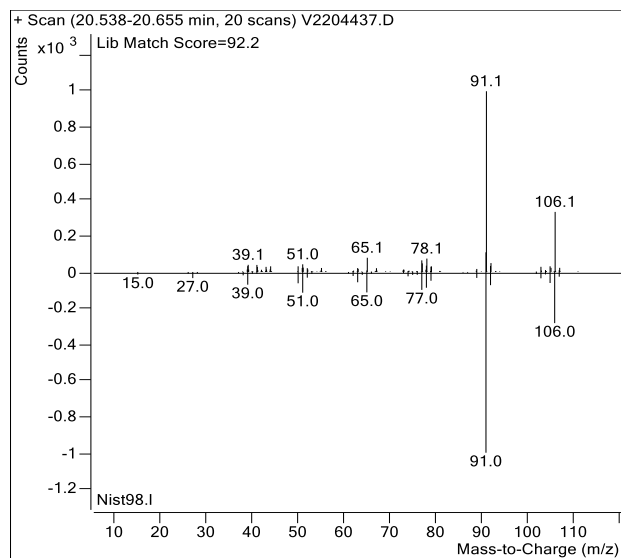
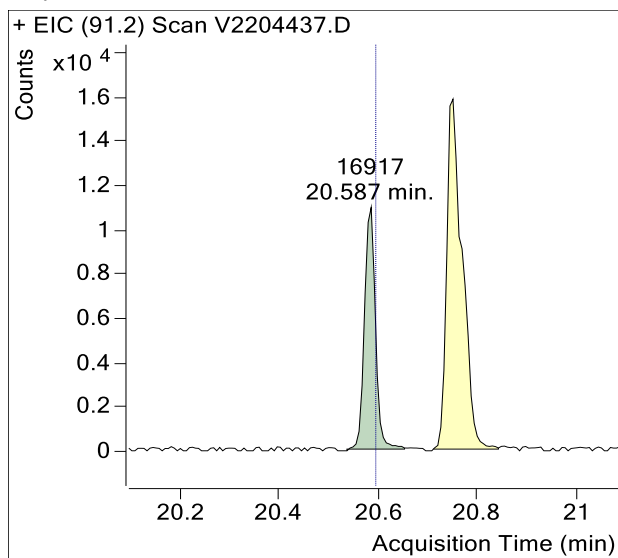
+ Scan (15.864-16.005 min, 23 scans) V2204437.D



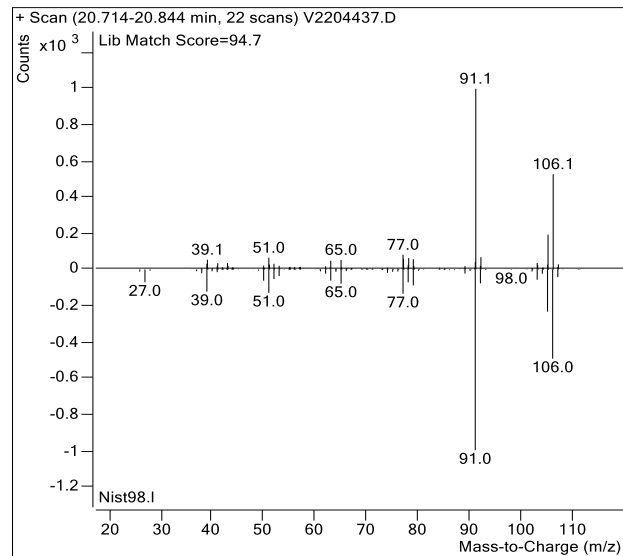
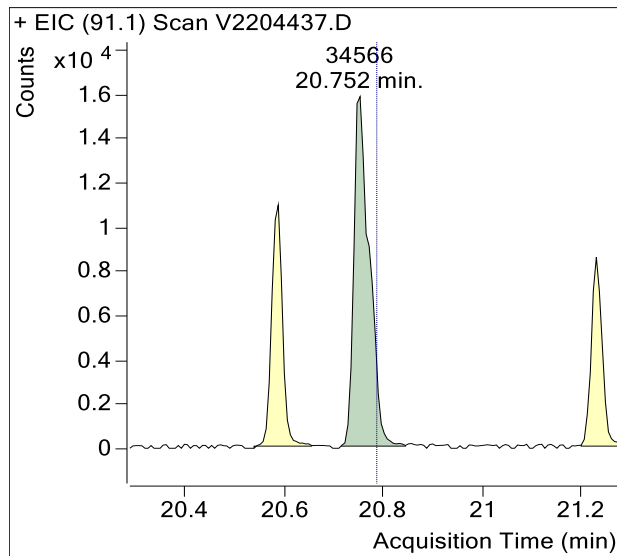
Toluene



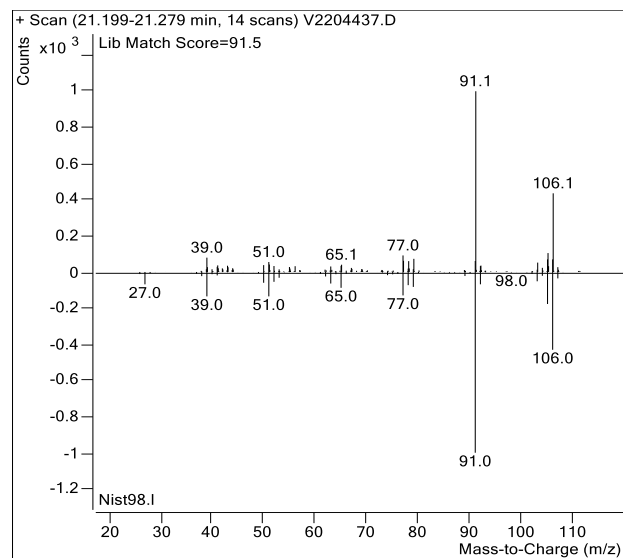
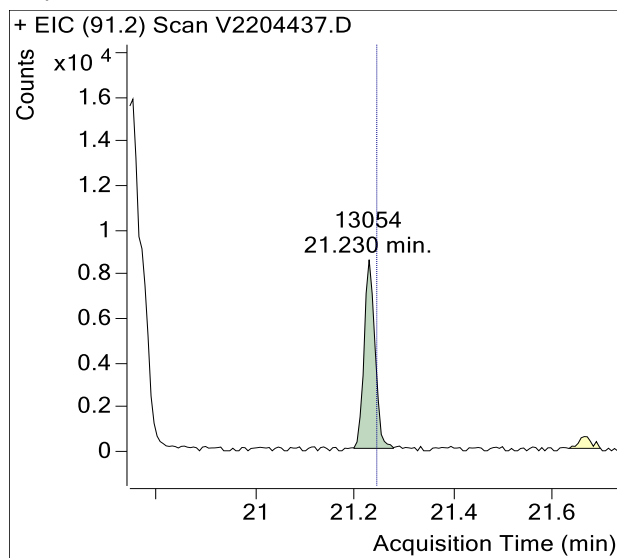
Ethylbenzene



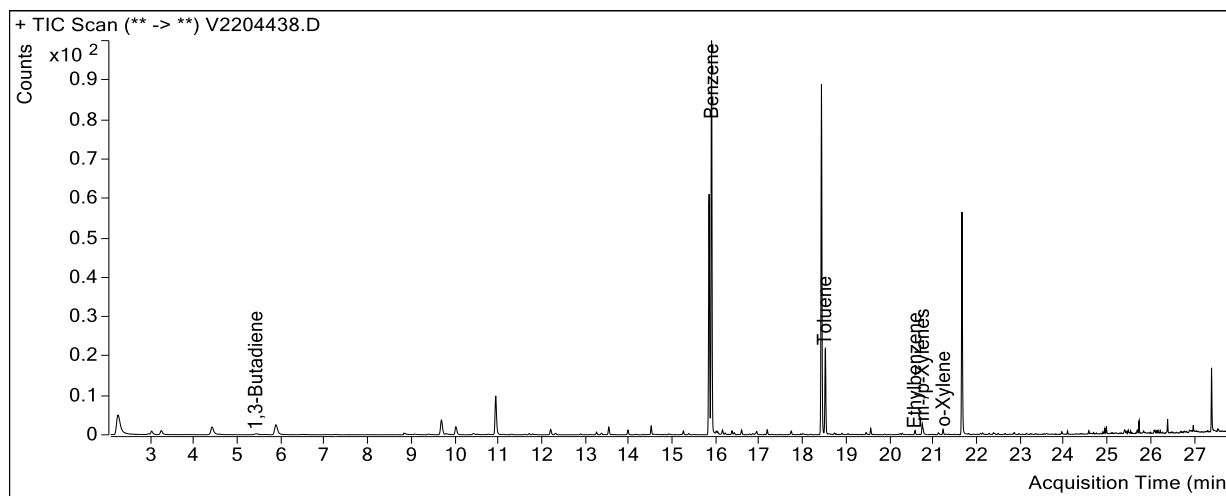
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT03-S-20230131
Sample Info : B46944
Data File : V2204438.D
Acquisition Date : 2023-02-16 18:28:29
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

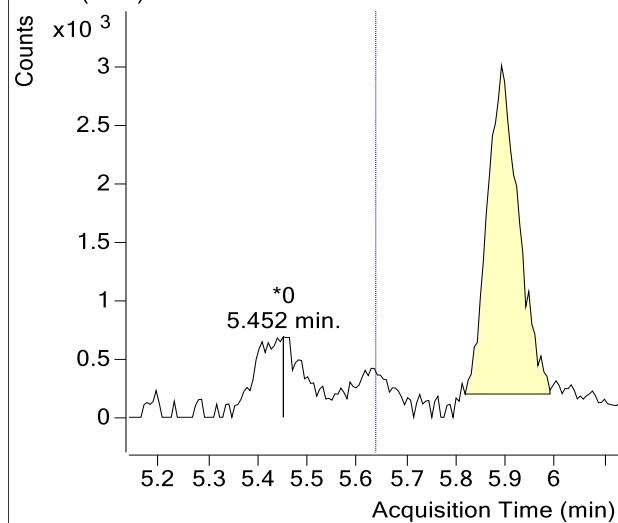


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 891,523 | |
| Benzene | 15.92 | 1,355,677 | |
| Toluene-d8 (IS) | 18.45 | 891,490 | |
| Toluene | 18.53 | 252,057 | |
| Ethylbenzene | 20.59 | 12,099 | |
| m-/p-Xylenes | 20.78 | 35,889 | |
| o-Xylene | 21.24 | 11,814 | |

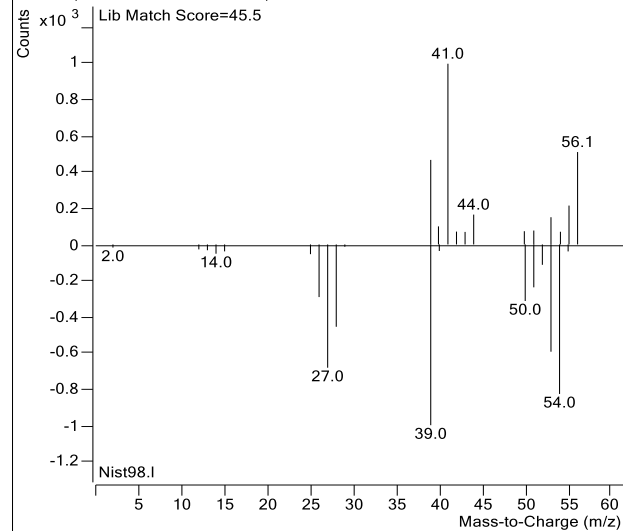
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204438.D

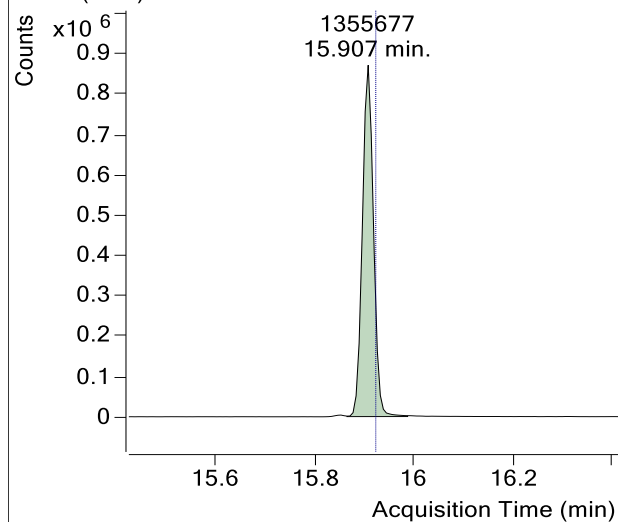


+ Scan (5.452-5.452 min, 1 scans) V2204438.D

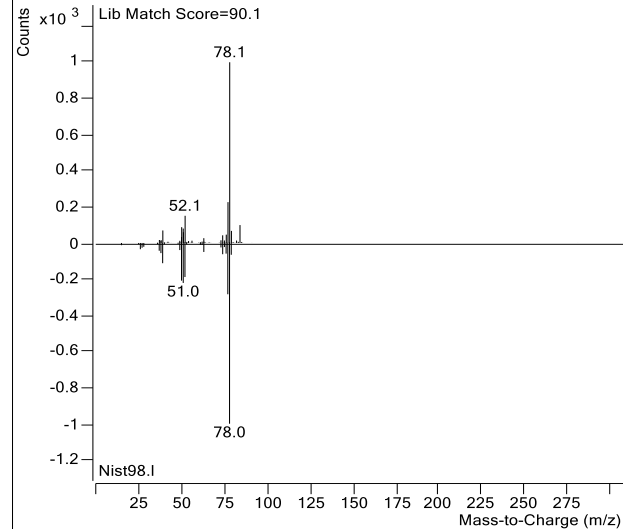


Benzene

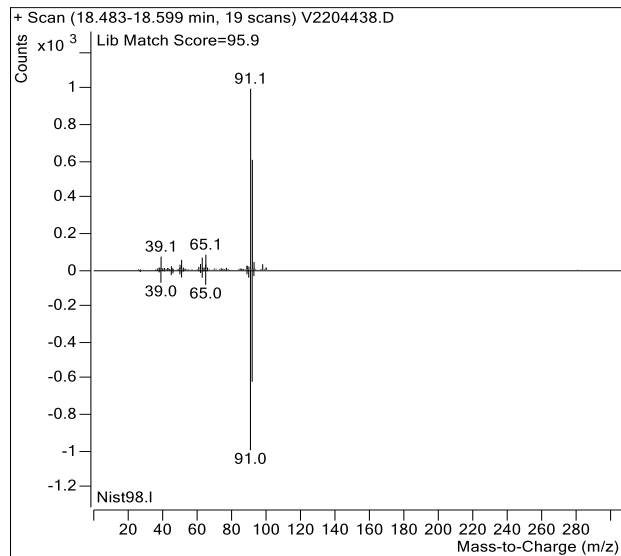
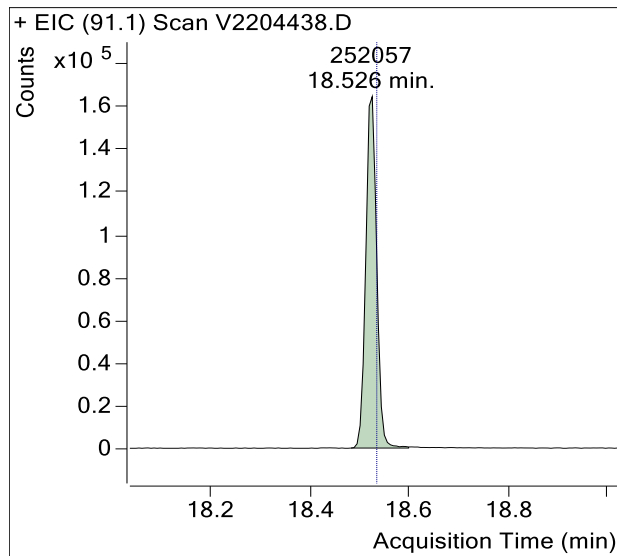
+ EIC (78.1) Scan V2204438.D



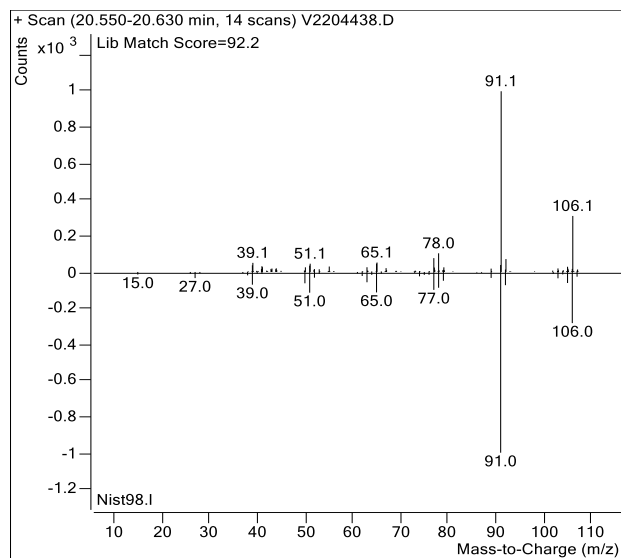
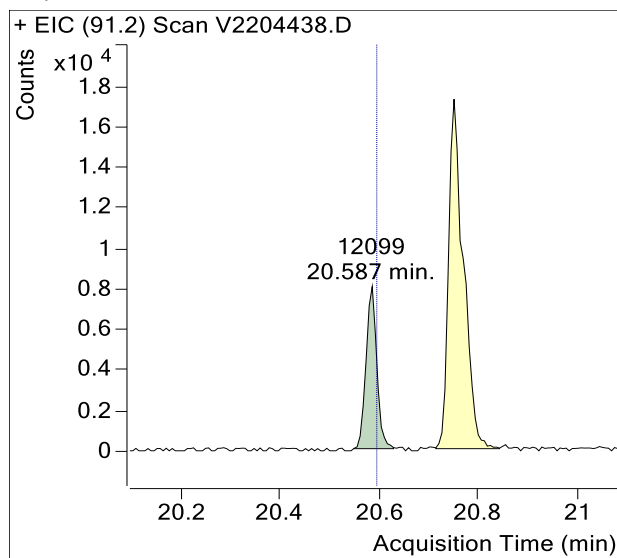
+ Scan (15.864-15.987 min, 20 scans) V2204438.D



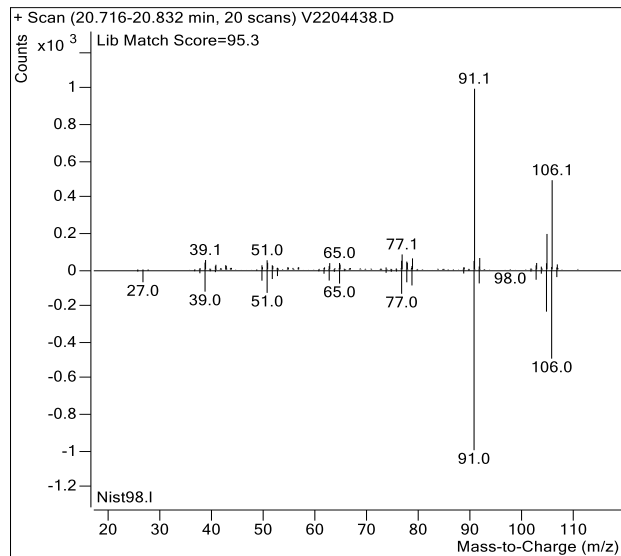
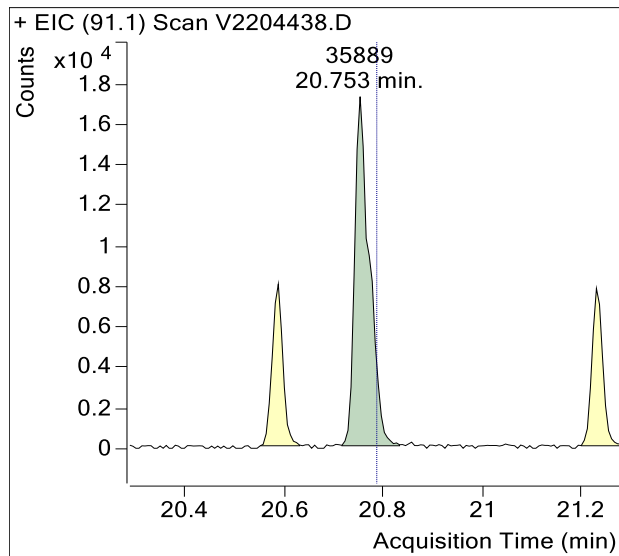
Toluene



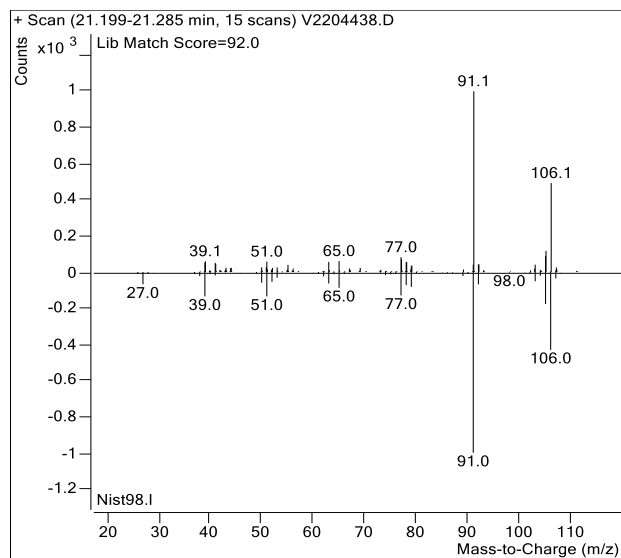
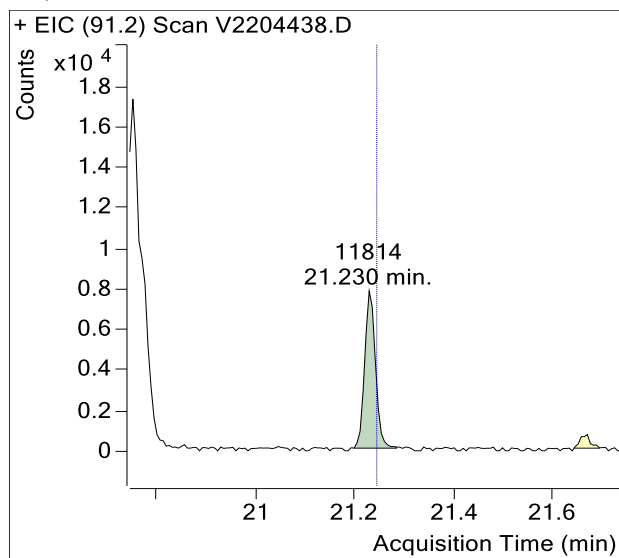
Ethylbenzene



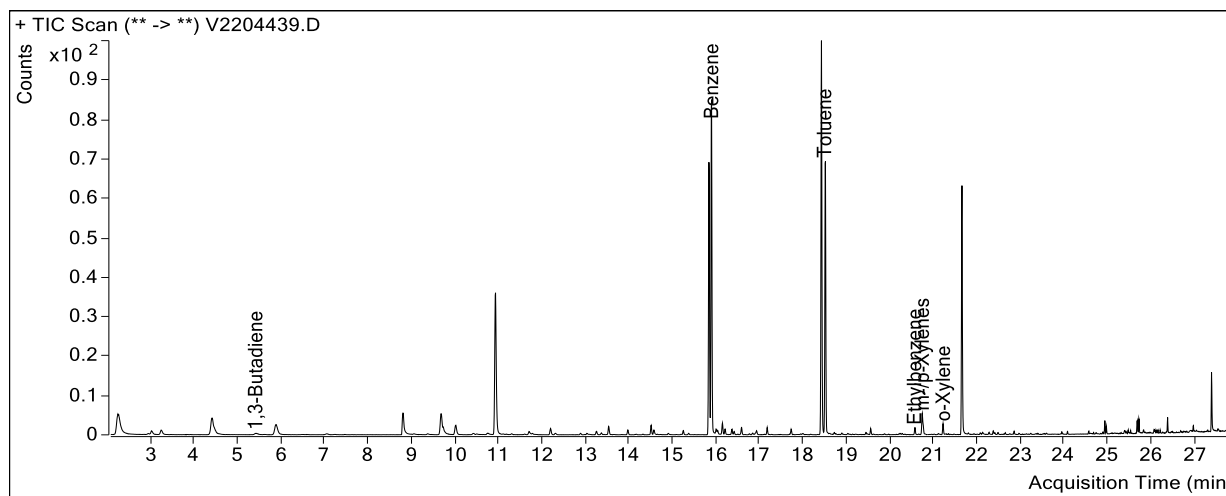
m-/p-Xylenes



o-Xylene



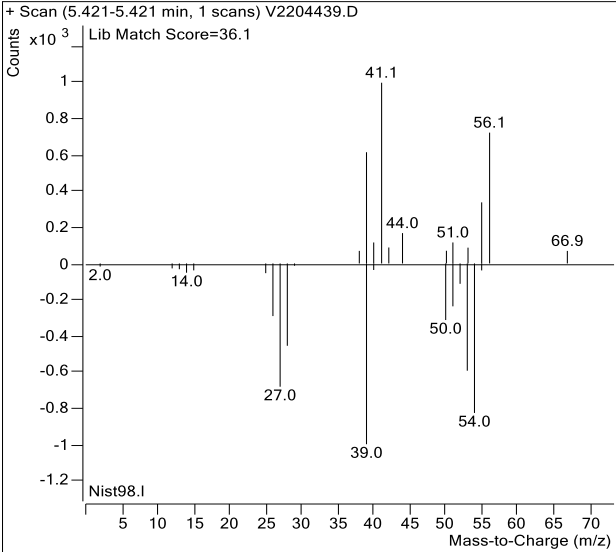
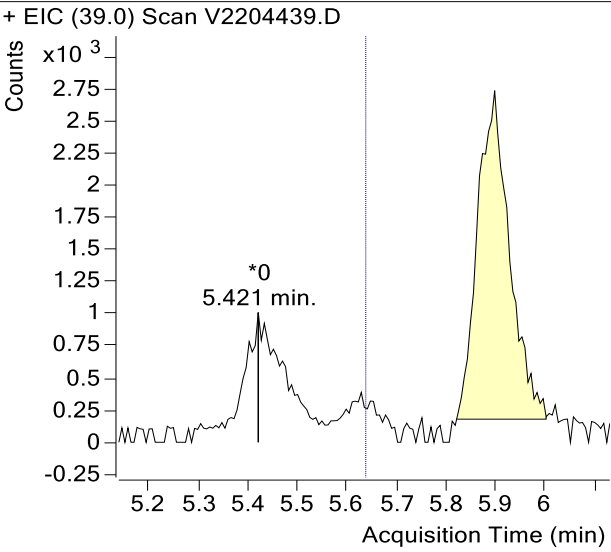
Sample Name : USSCL-PT04-S-20230131
Sample Info : B14613
Data File : V2204439.D
Acquisition Date : 2023-02-16 19:14:13
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



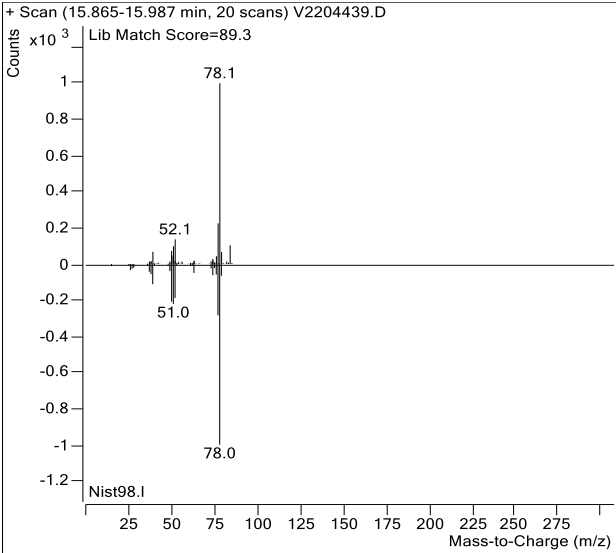
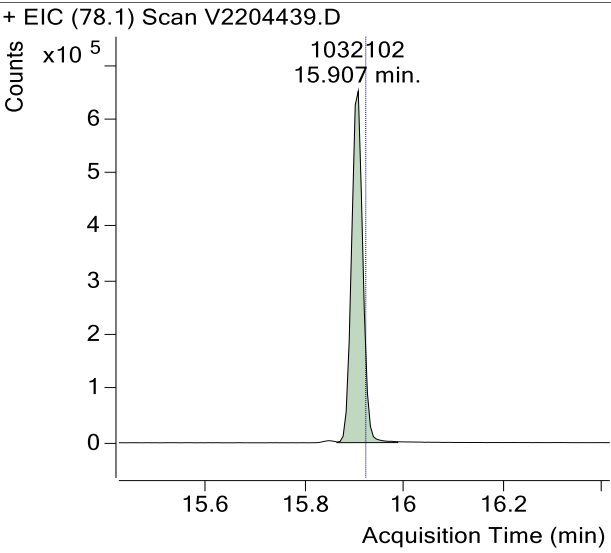
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 888,751 | |
| Benzene | 15.92 | 1,032,102 | |
| Toluene-d8 (IS) | 18.45 | 891,425 | |
| Toluene | 18.53 | 699,328 | |
| Ethylbenzene | 20.59 | 18,667 | |
| m-/p-Xylenes | 20.78 | 63,166 | |
| o-Xylene | 21.24 | 22,744 | |

(m)=Manual Integration

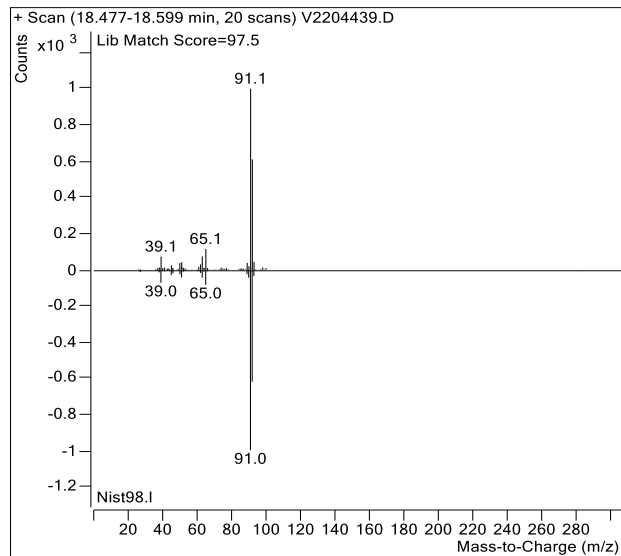
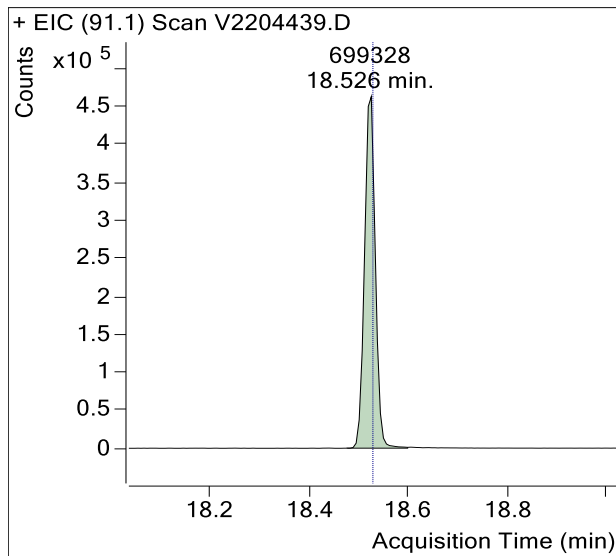
1,3-Butadiene



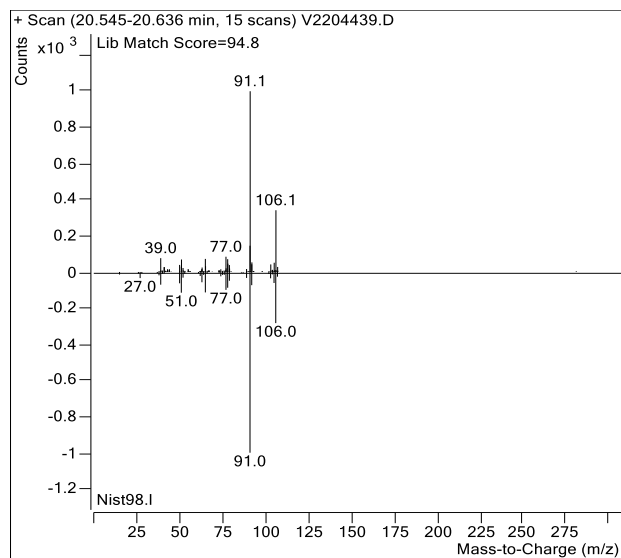
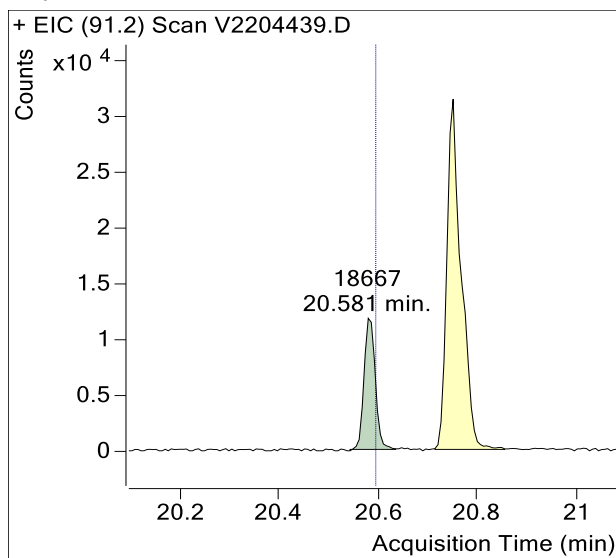
Benzene



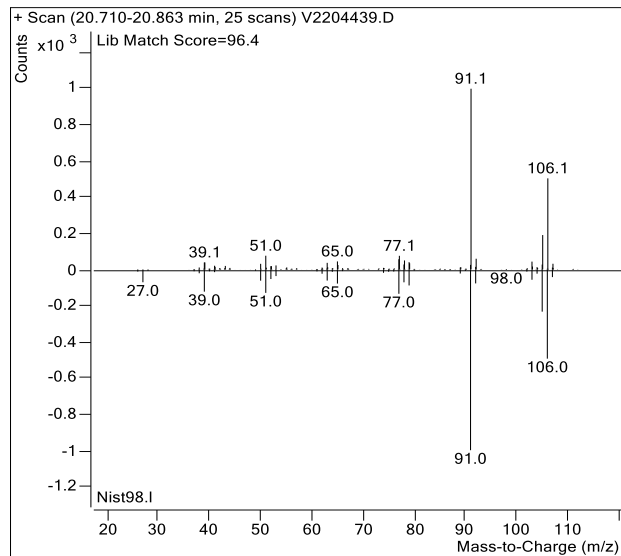
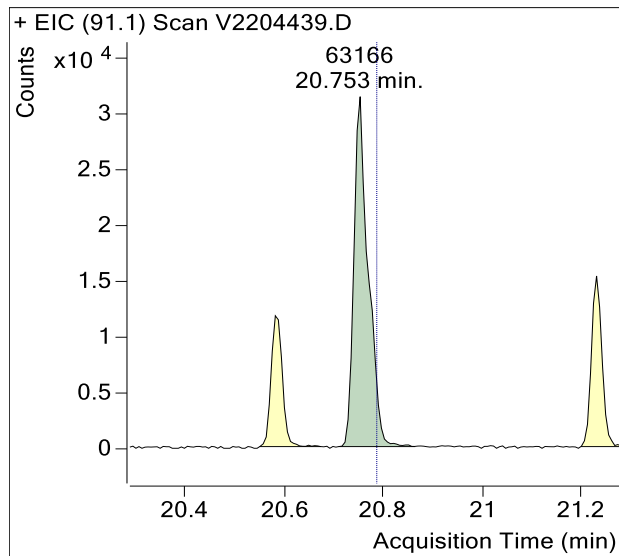
Toluene



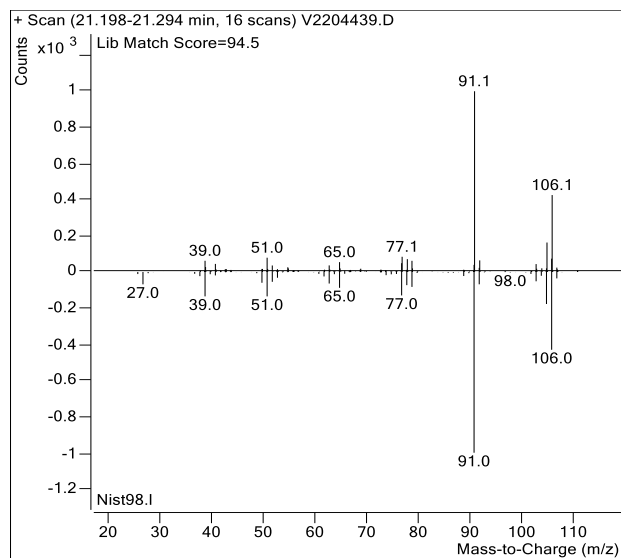
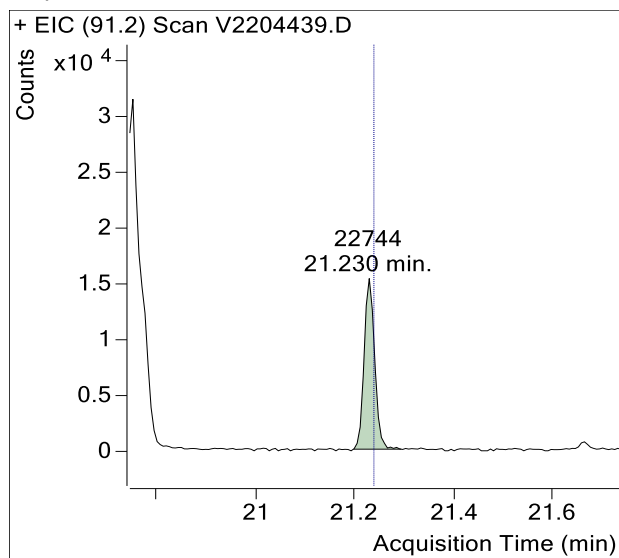
Ethylbenzene



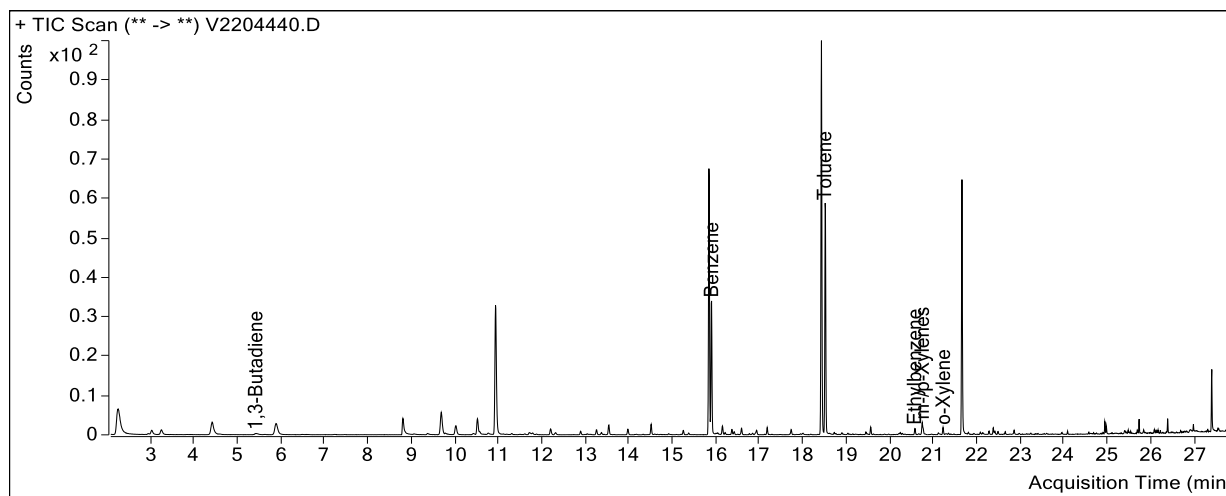
m-/p-Xylenes



o-Xylene



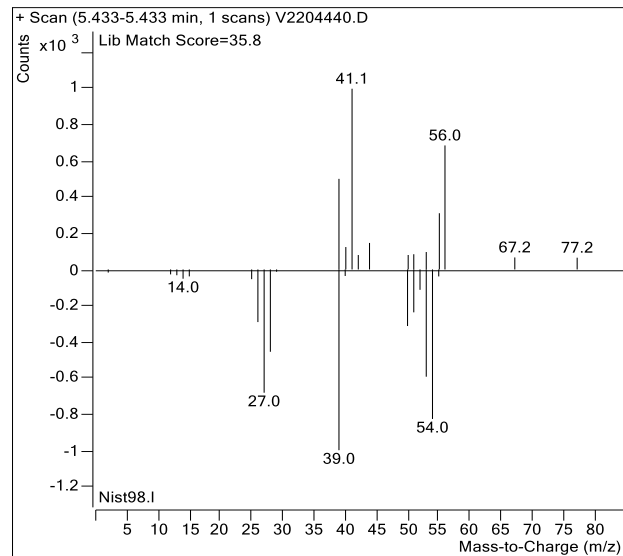
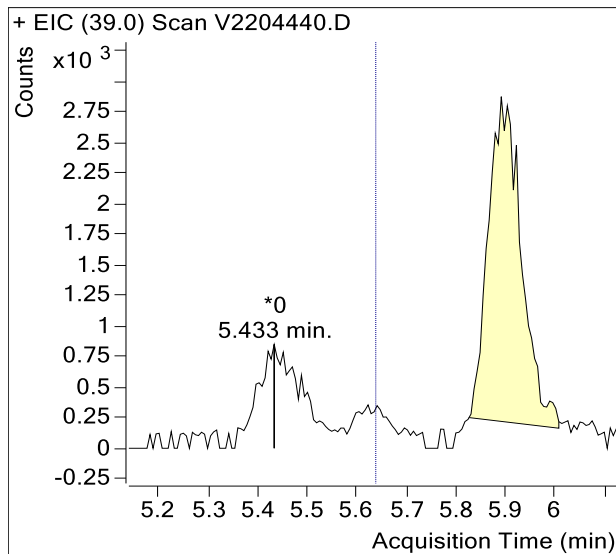
Sample Name : USSCL-PT05-S-20230131
Sample Info : B50934
Data File : V2204440.D
Acquisition Date : 2023-02-16 19:59:38
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



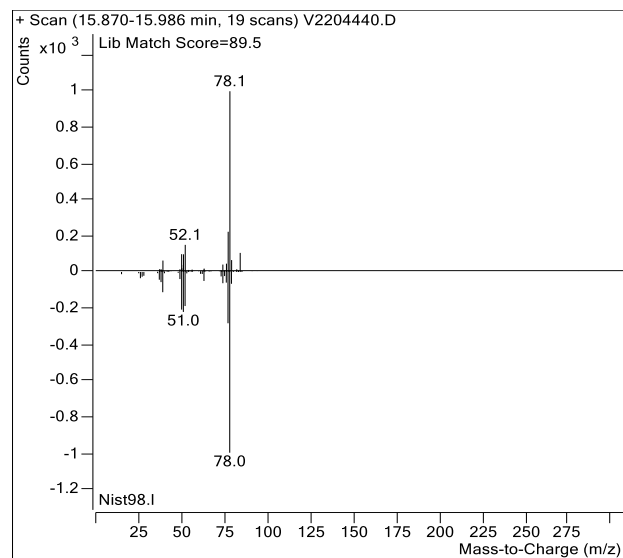
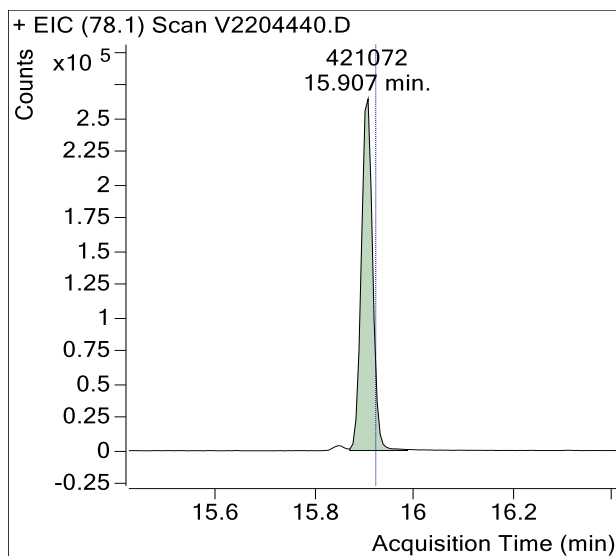
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 885,109 | |
| Benzene | 15.92 | 421,072 | |
| Toluene-d8 (IS) | 18.45 | 892,066 | |
| Toluene | 18.53 | 600,445 | |
| Ethylbenzene | 20.59 | 16,662 | |
| m-/p-Xylenes | 20.78 | 36,052 | |
| o-Xylene | 21.24 | 14,099 | |

(m)=Manual Integration

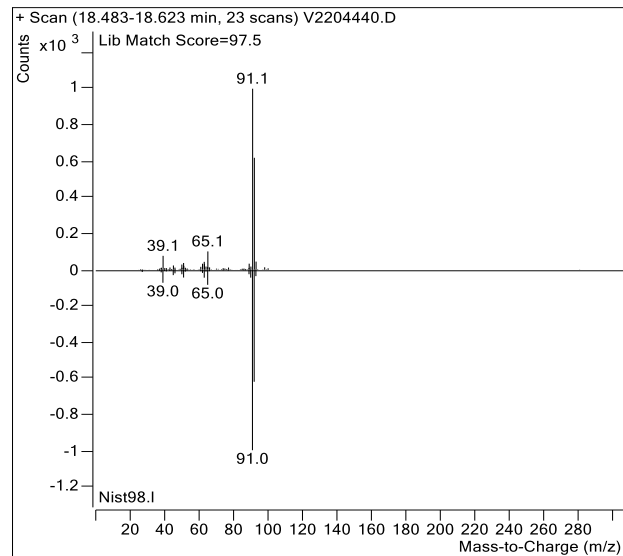
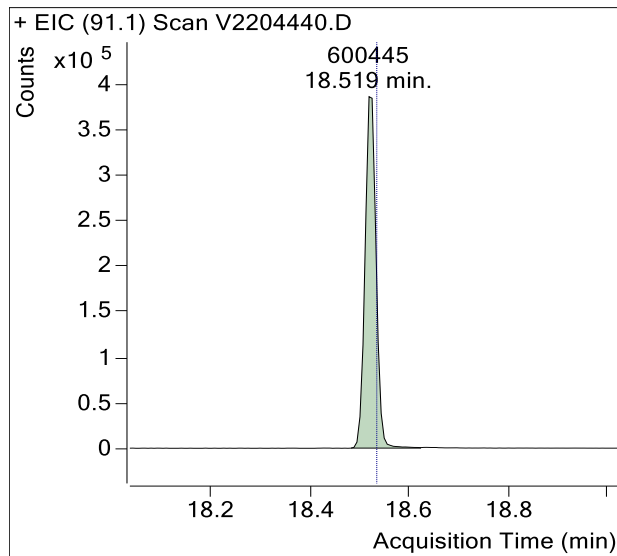
1,3-Butadiene



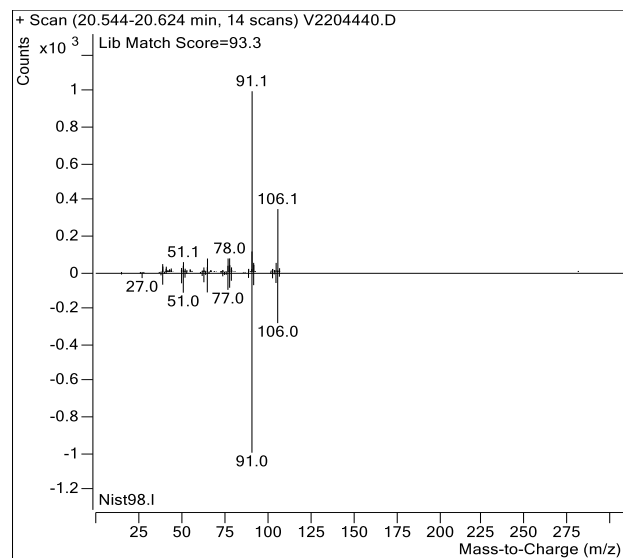
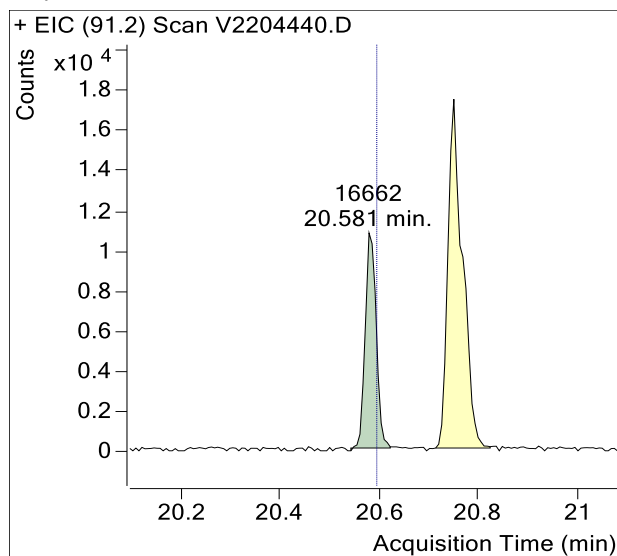
Benzene



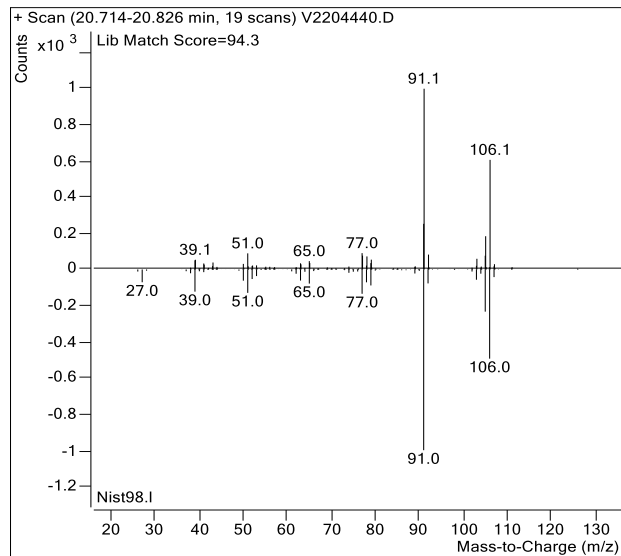
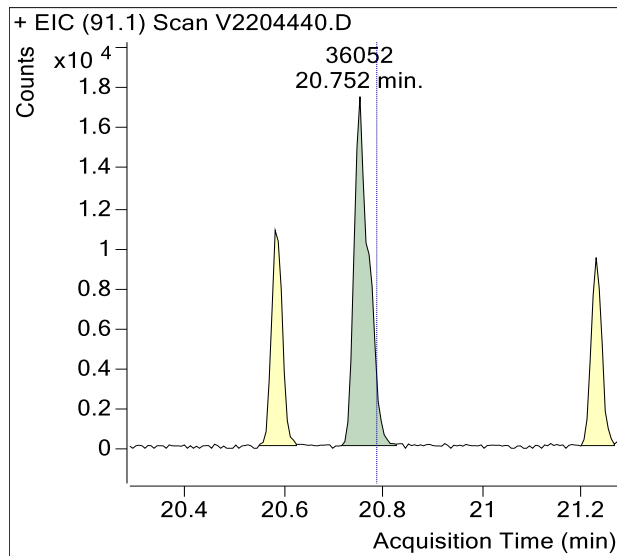
Toluene



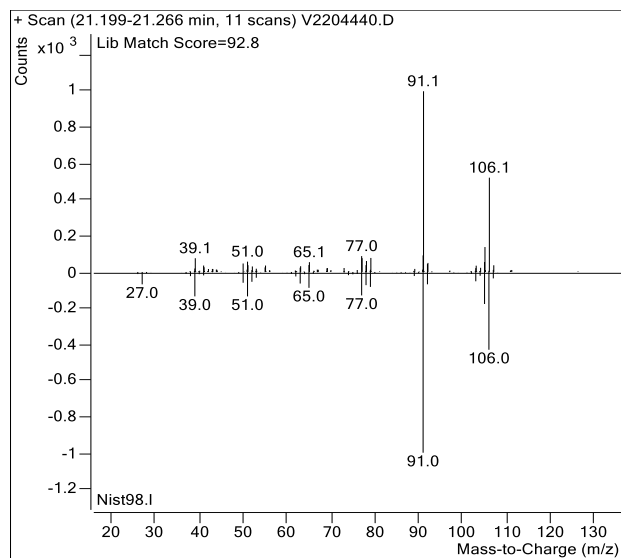
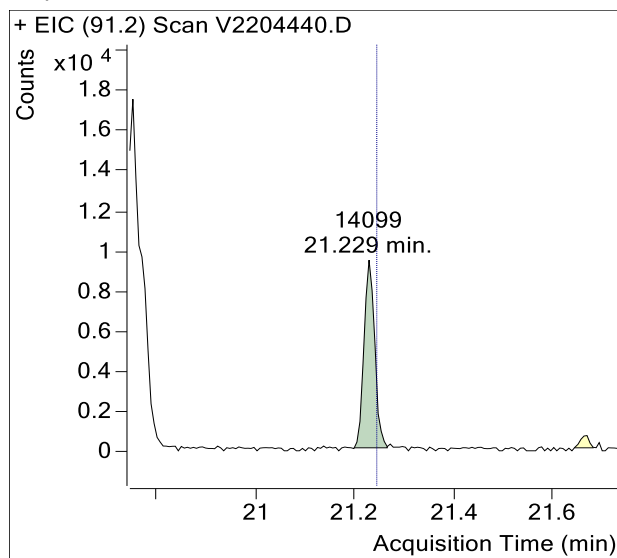
Ethylbenzene



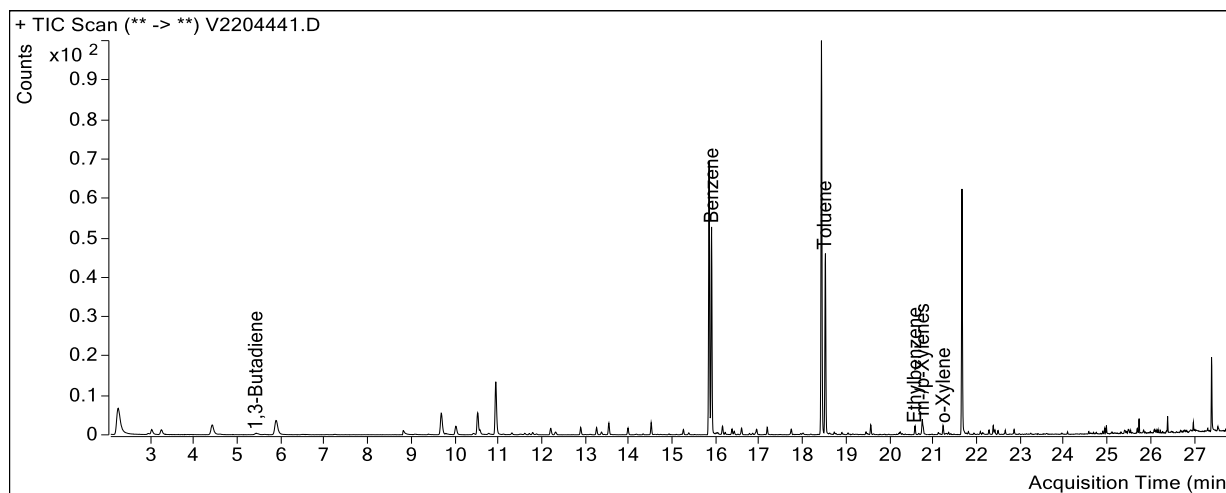
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT06-S-20230131
Sample Info : B38523
Data File : V2204441.D
Acquisition Date : 2023-02-16 20:44:29
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

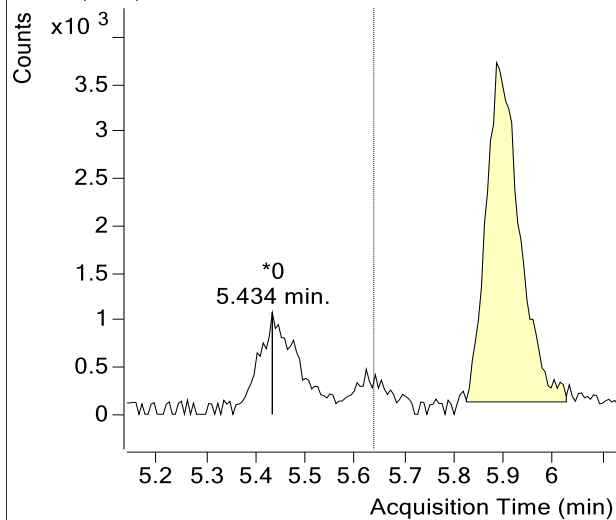


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 882,596 | |
| Benzene | 15.92 | 623,964 | |
| Toluene-d8 (IS) | 18.45 | 897,444 | |
| Toluene | 18.53 | 448,227 | |
| Ethylbenzene | 20.59 | 22,356 | |
| m-/p-Xylenes | 20.78 | 44,298 | |
| o-Xylene | 21.24 | 17,860 | |

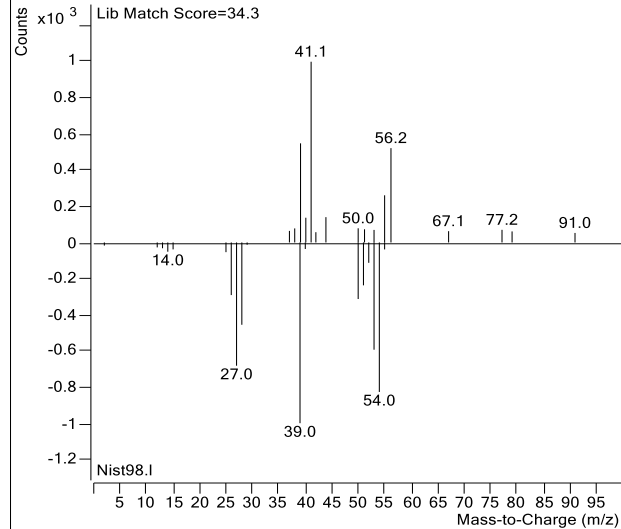
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204441.D

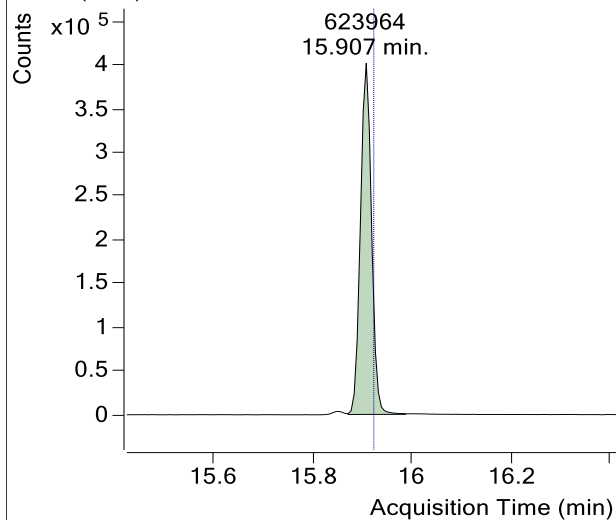


+ Scan (5.434-5.434 min, 1 scans) V2204441.D

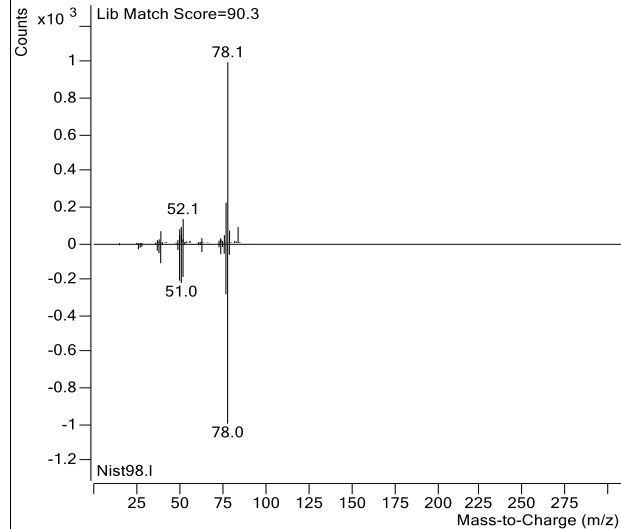


Benzene

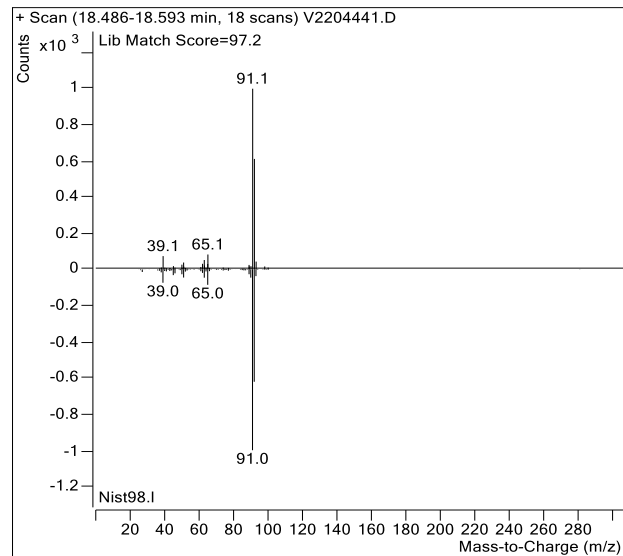
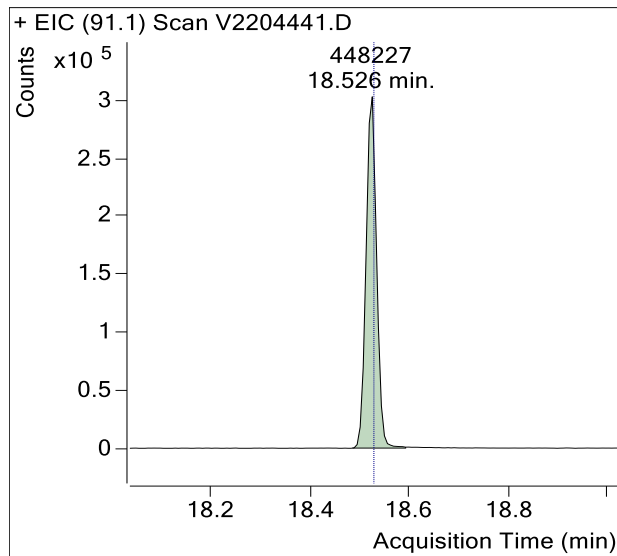
+ EIC (78.1) Scan V2204441.D



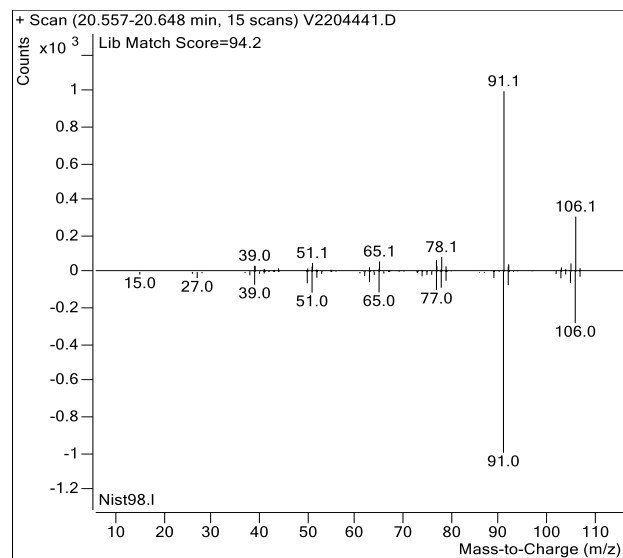
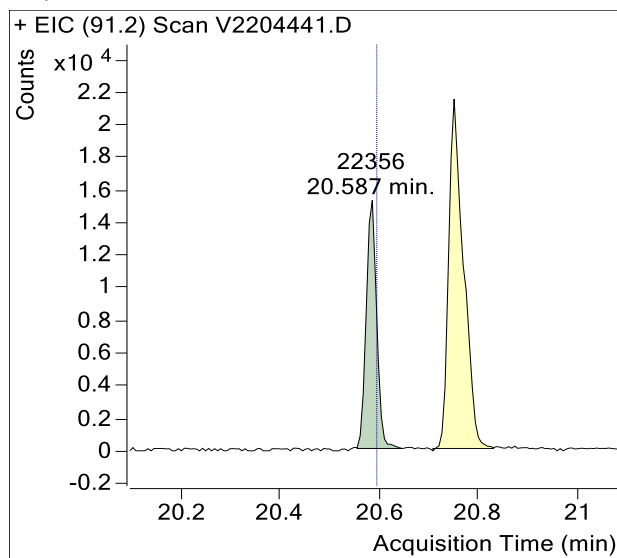
+ Scan (15.871-15.987 min, 19 scans) V2204441.D



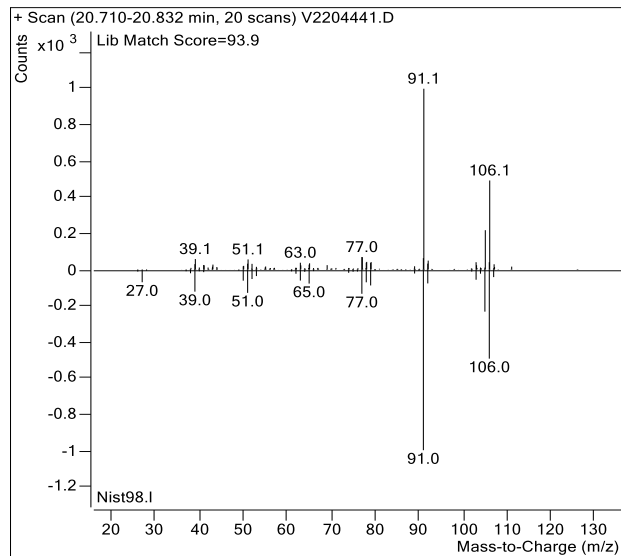
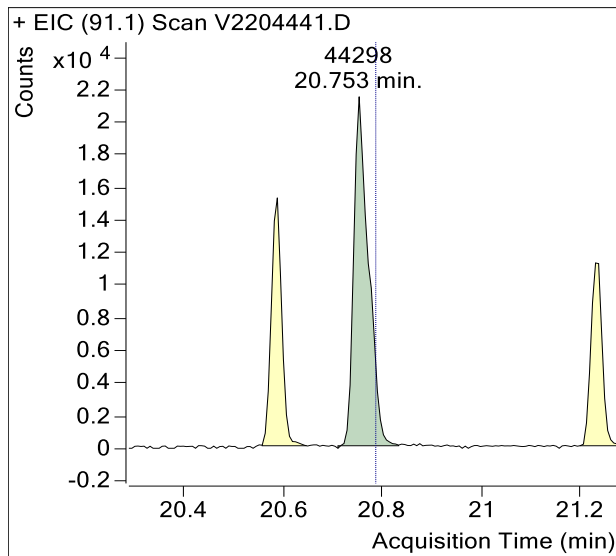
Toluene



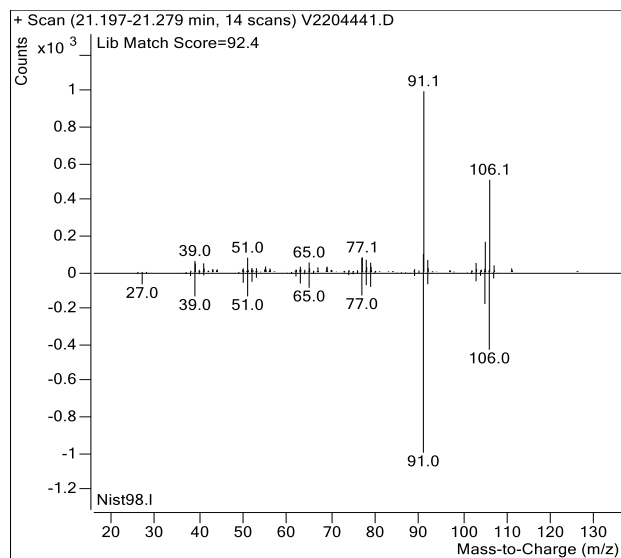
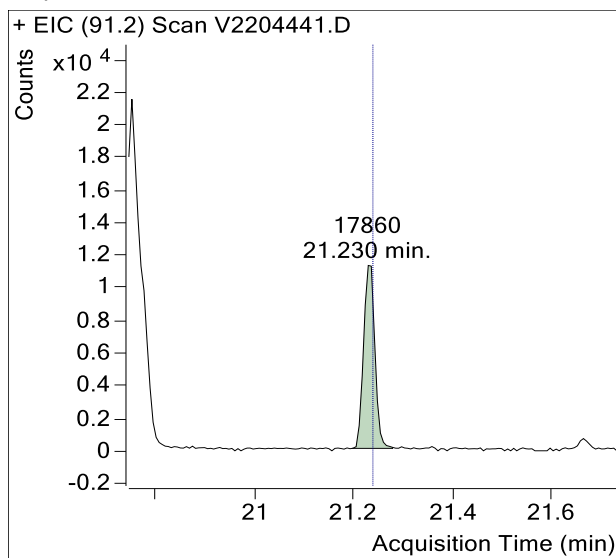
Ethylbenzene



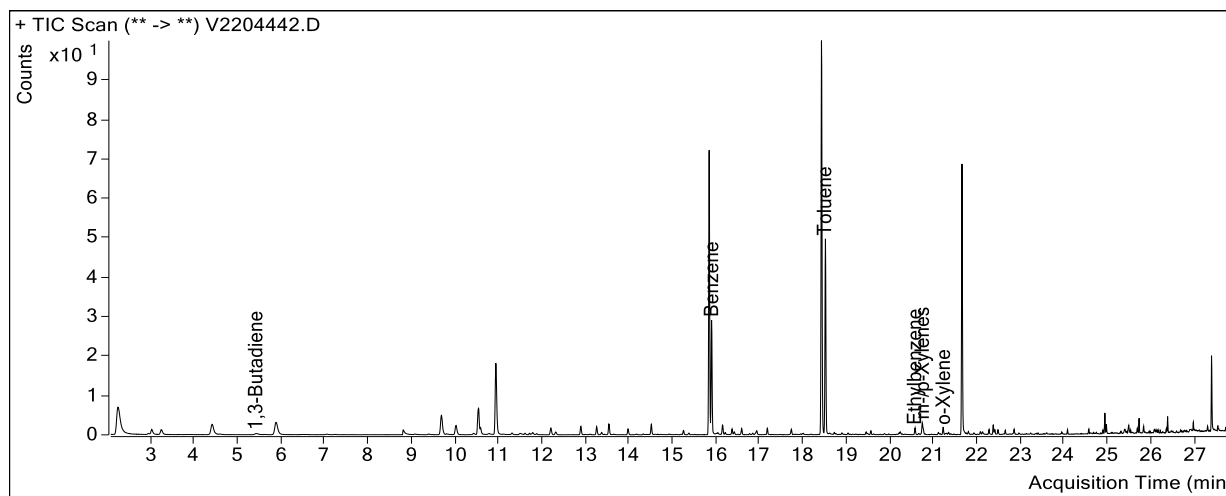
m-/p-Xylenes



o-Xylene



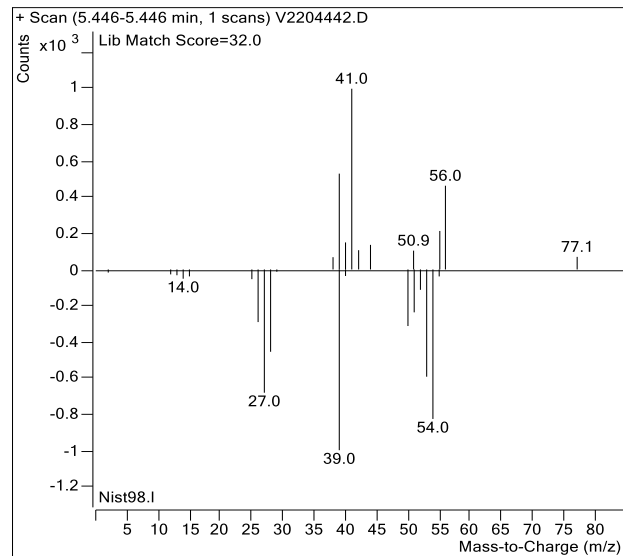
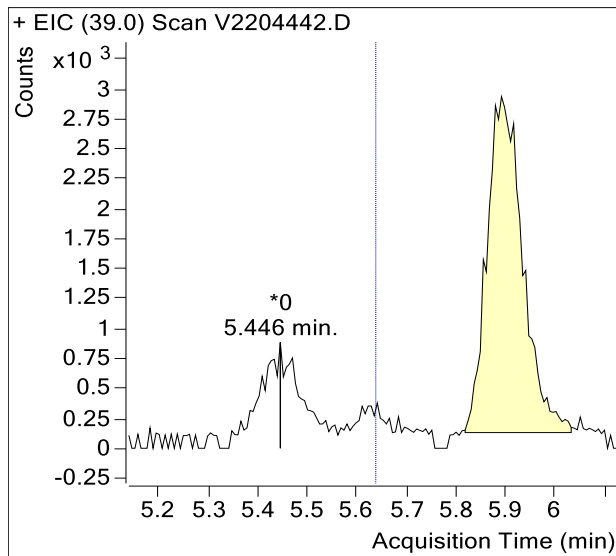
Sample Name : USSCL-PT07-S-20230131
Sample Info : B46275
Data File : V2204442.D
Acquisition Date : 2023-02-16 21:29:32
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



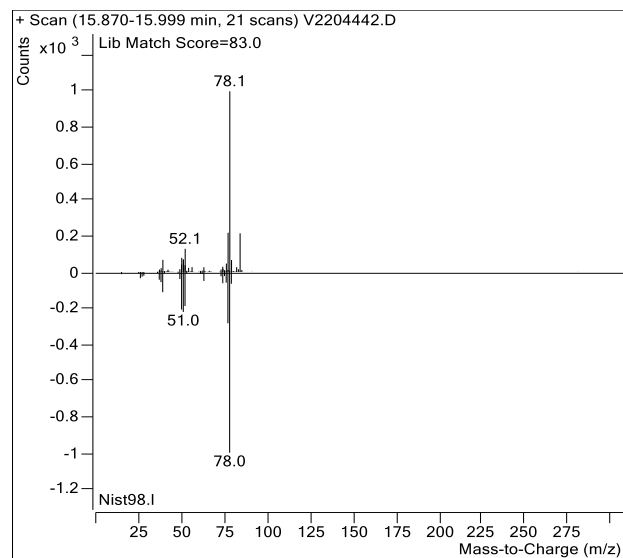
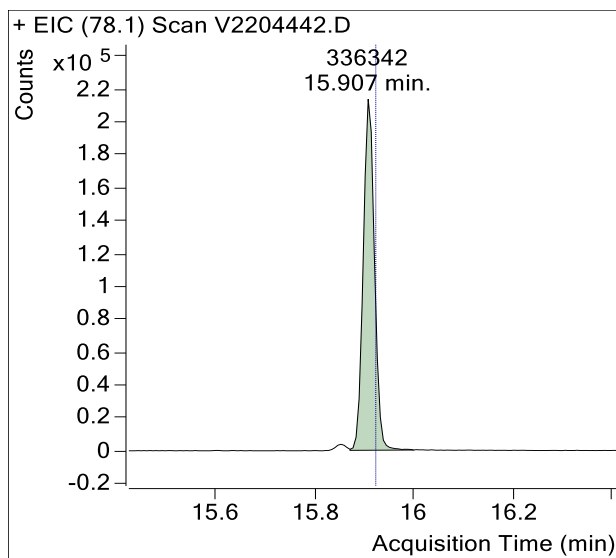
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 864,692 | |
| Benzene | 15.92 | 336,342 | |
| Toluene-d8 (IS) | 18.45 | 885,824 | |
| Toluene | 18.53 | 471,737 | |
| Ethylbenzene | 20.59 | 17,050 | |
| m-/p-Xylenes | 20.78 | 33,417 | |
| o-Xylene | 21.24 | 13,426 | |

(m)=Manual Integration

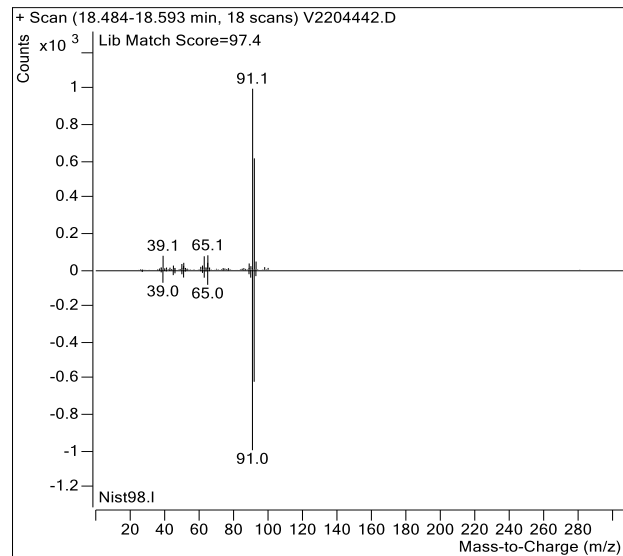
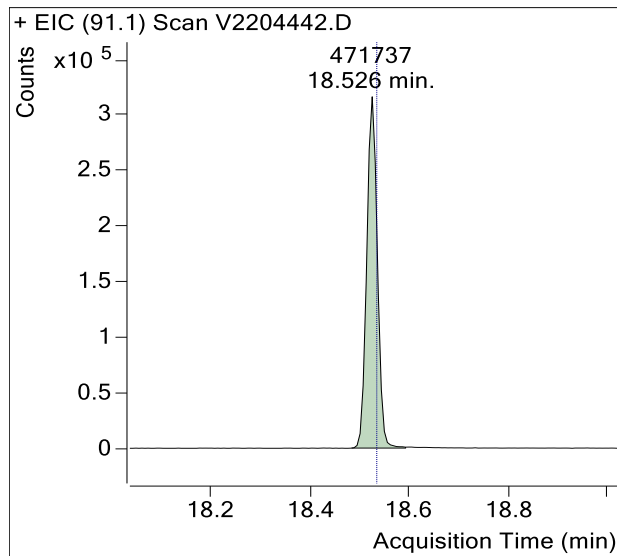
1,3-Butadiene



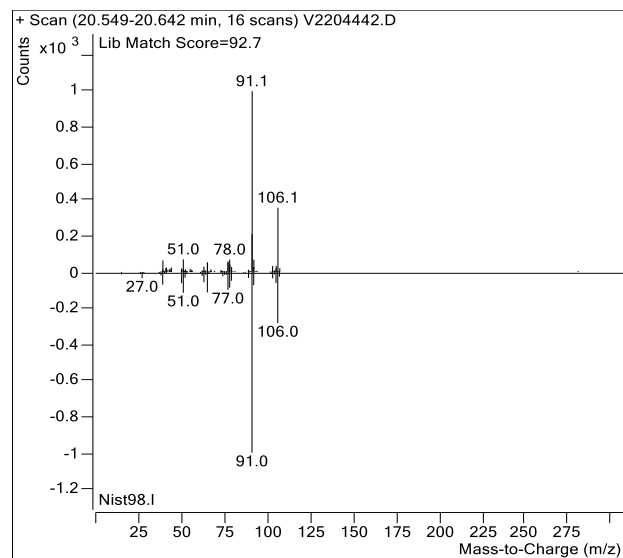
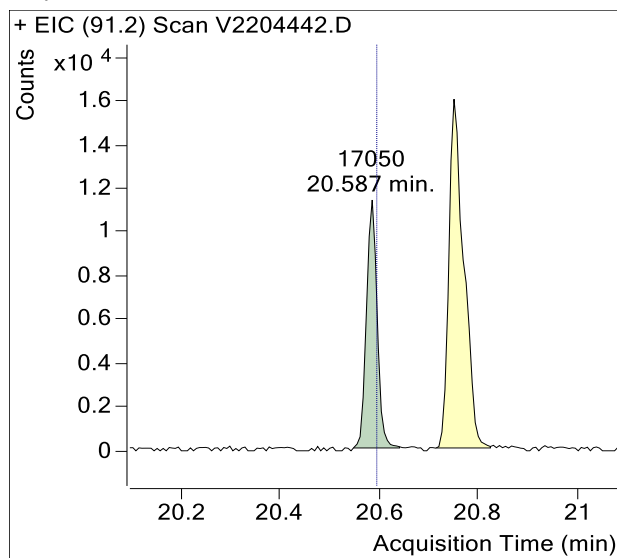
Benzene



Toluene

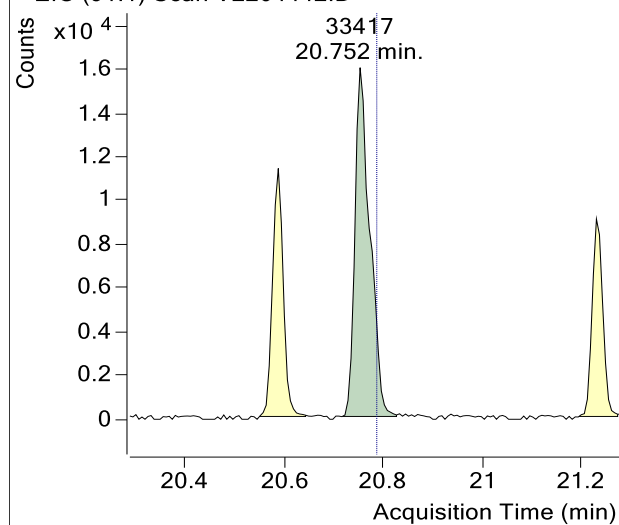


Ethylbenzene

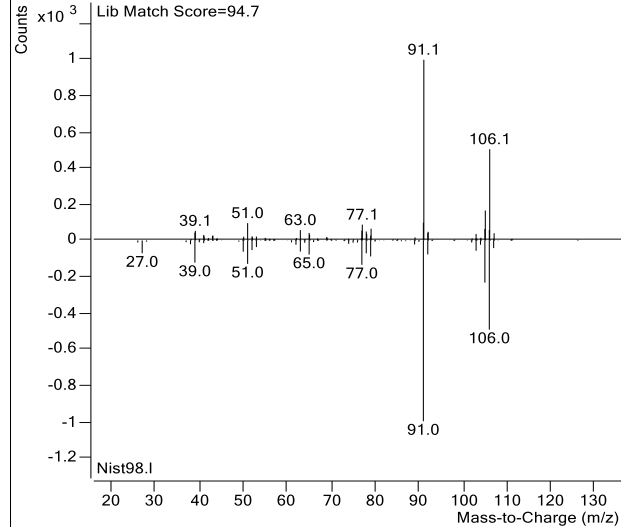


m-/p-Xylenes

+ EIC (91.1) Scan V2204442.D

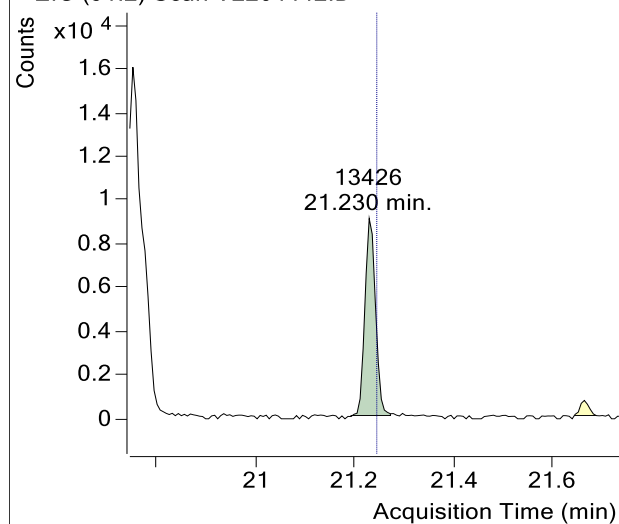


+ Scan (20.717-20.826 min, 18 scans) V2204442.D

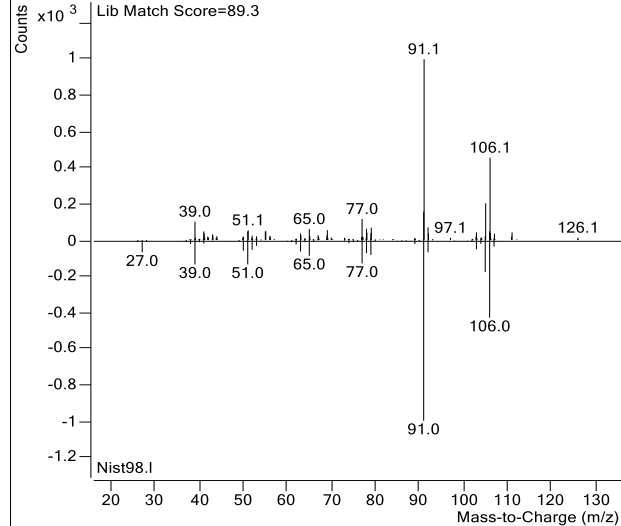


o-Xylene

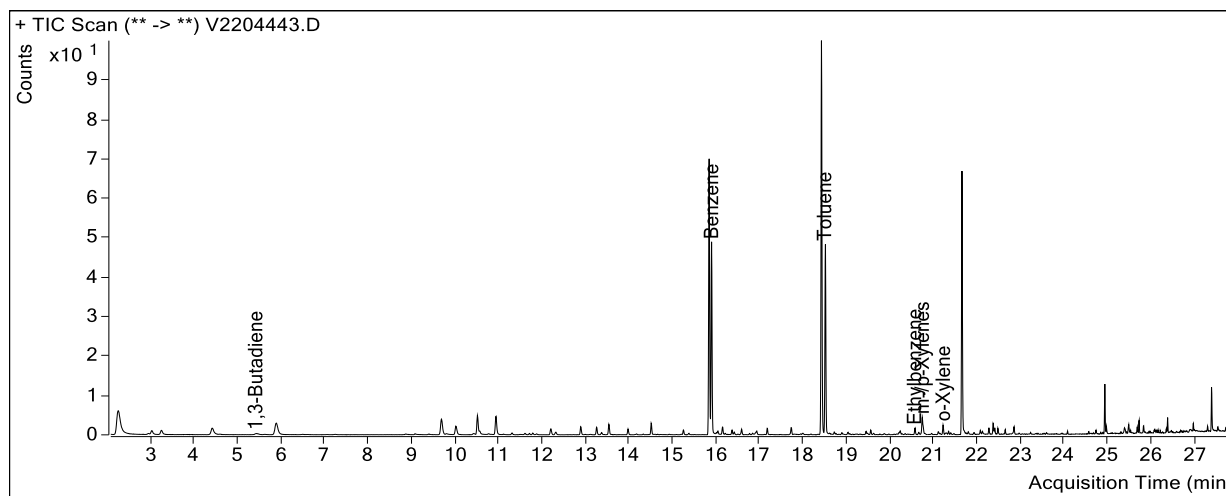
+ EIC (91.2) Scan V2204442.D



+ Scan (21.193-21.273 min, 14 scans) V2204442.D



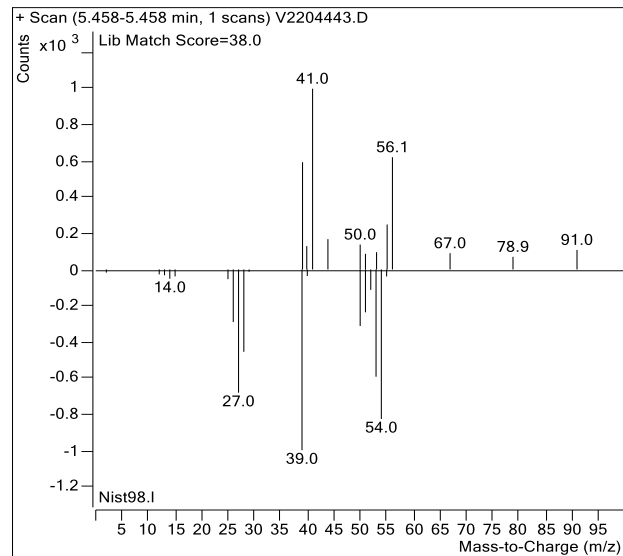
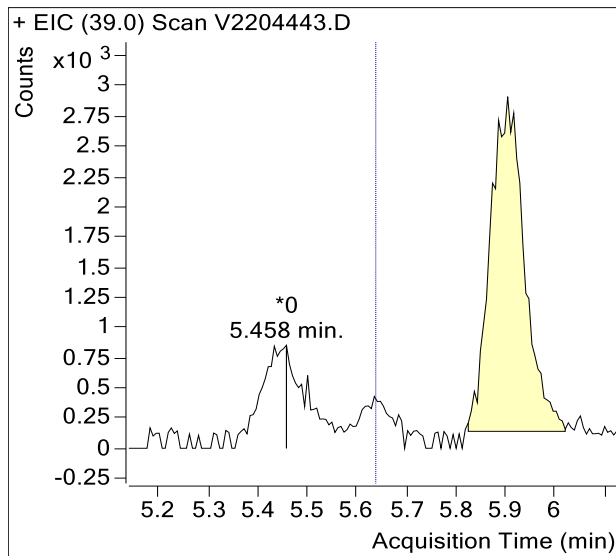
Sample Name : USSCL-PT08-S-20230131
Sample Info : B14227
Data File : V2204443.D
Acquisition Date : 2023-02-16 22:13:50
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



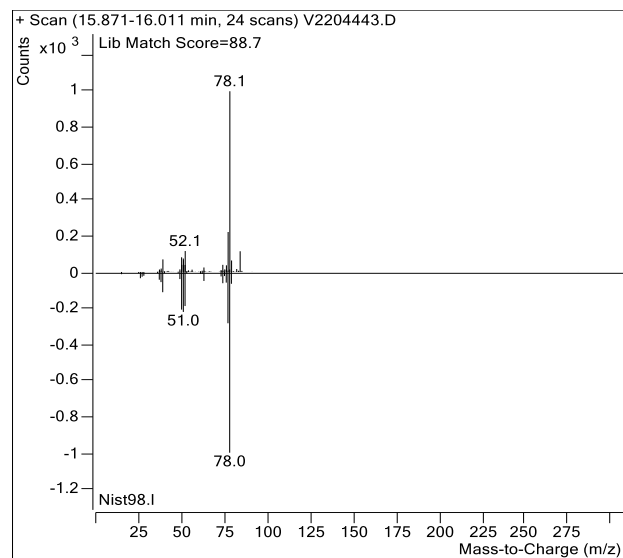
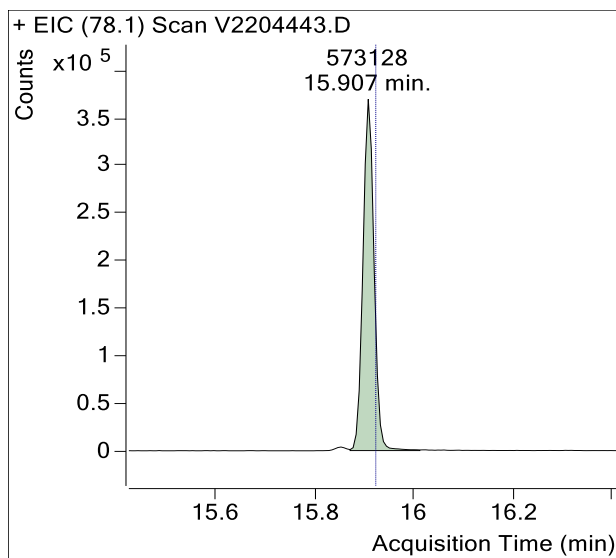
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 871,121 | |
| Benzene | 15.92 | 573,128 | |
| Toluene-d8 (IS) | 18.45 | 890,626 | |
| Toluene | 18.53 | 471,186 | |
| Ethylbenzene | 20.59 | 16,604 | |
| m-/p-Xylenes | 20.78 | 47,956 | |
| o-Xylene | 21.24 | 17,868 | |

(m)=Manual Integration

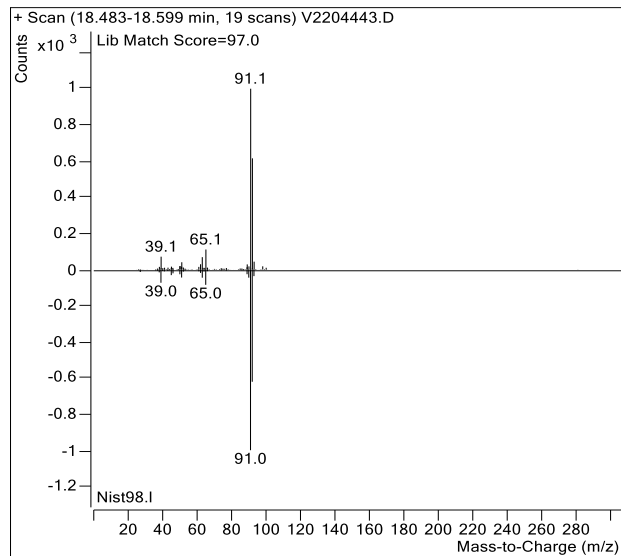
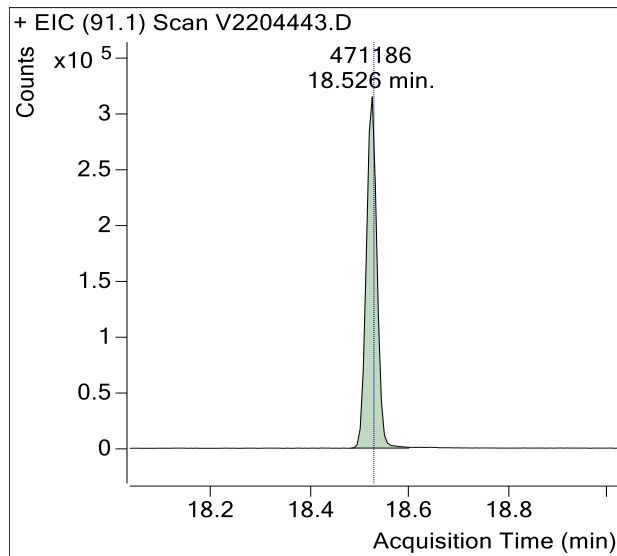
1,3-Butadiene



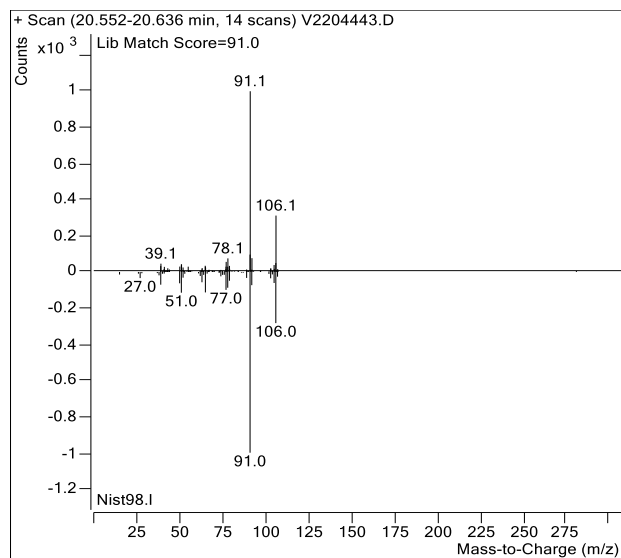
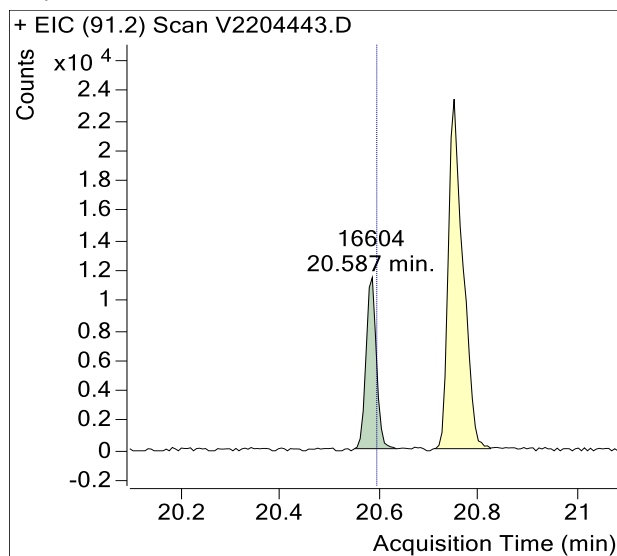
Benzene



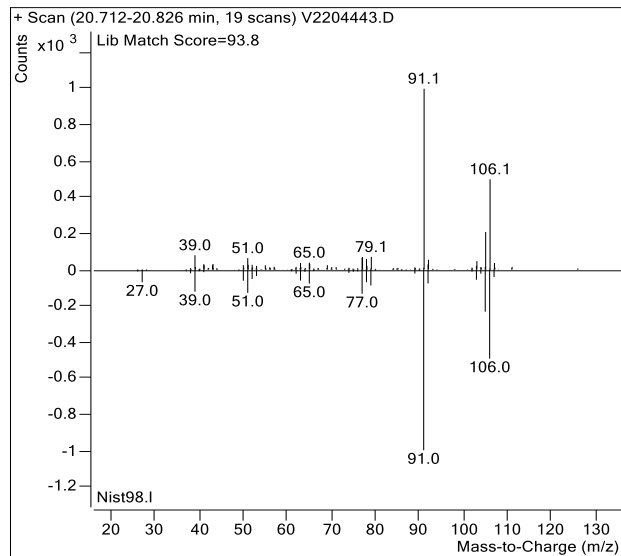
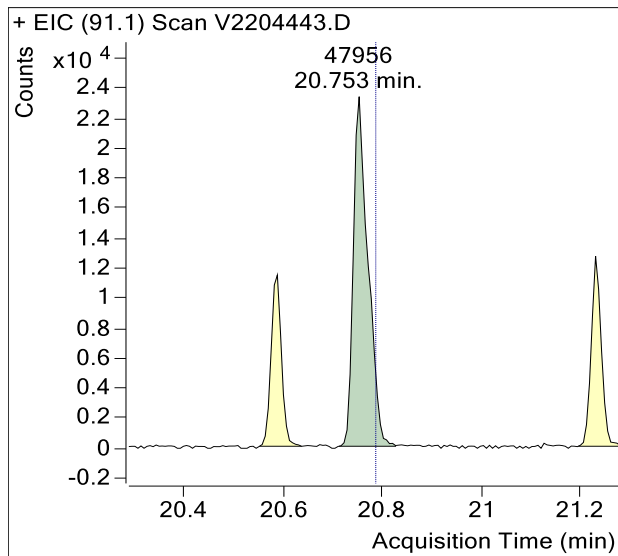
Toluene



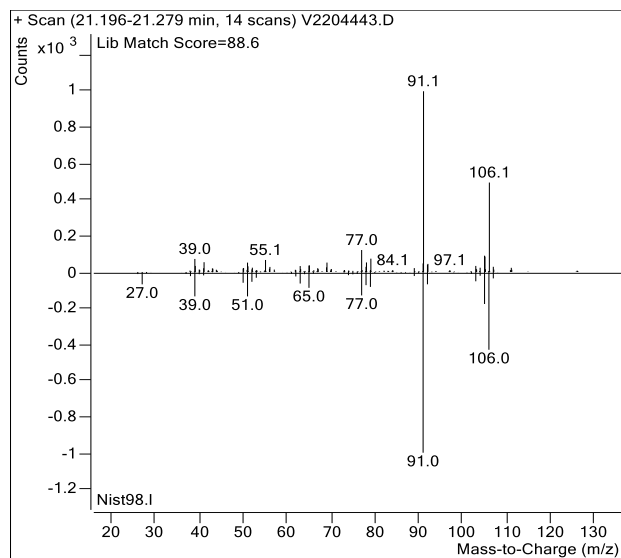
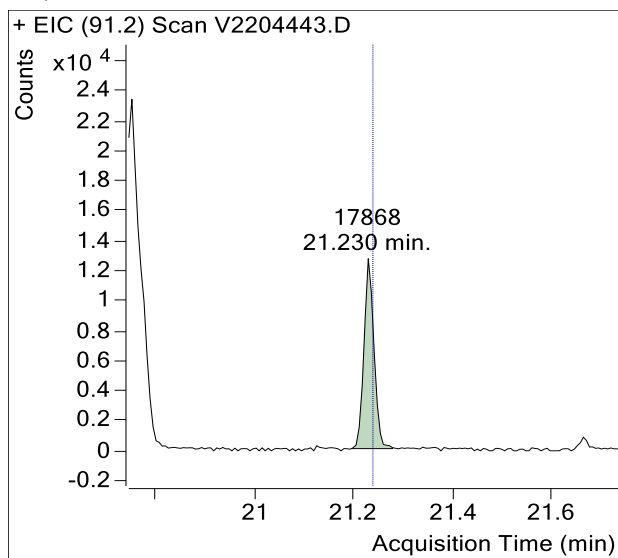
Ethylbenzene



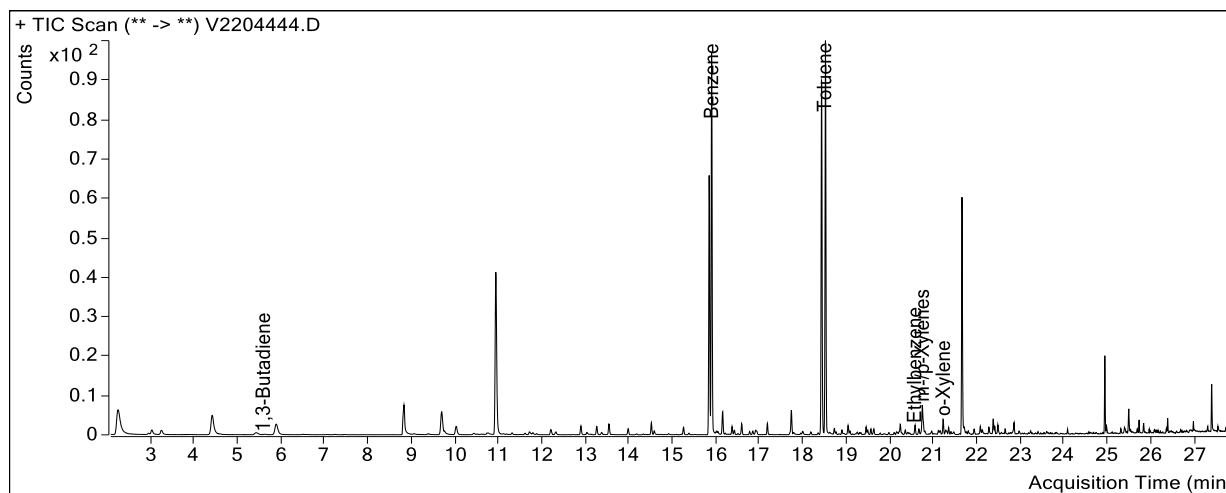
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT09-S-20230131
Sample Info : B43826
Data File : V2204444.D
Acquisition Date : 2023-02-16 22:57:52
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

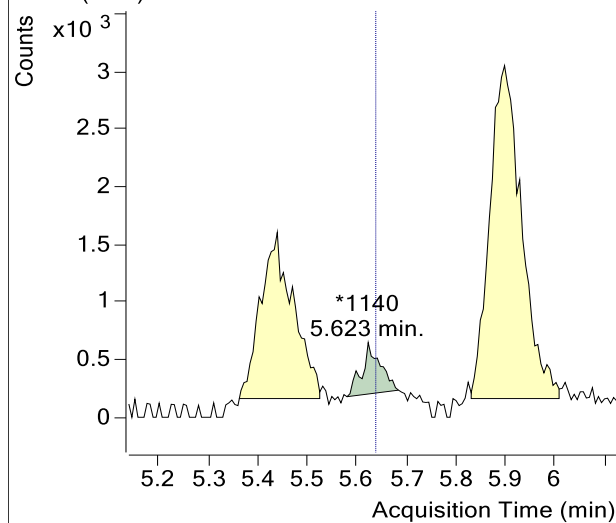


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 1,140 | m |
| Benzene-d6 (IS) | 15.86 | 883,036 | |
| Benzene | 15.92 | 1,278,992 | |
| Toluene-d8 (IS) | 18.45 | 897,376 | |
| Toluene | 18.53 | 1,031,018 | |
| Ethylbenzene | 20.59 | 23,403 | |
| m-/p-Xylenes | 20.78 | 84,828 | |
| o-Xylene | 21.24 | 29,735 | |

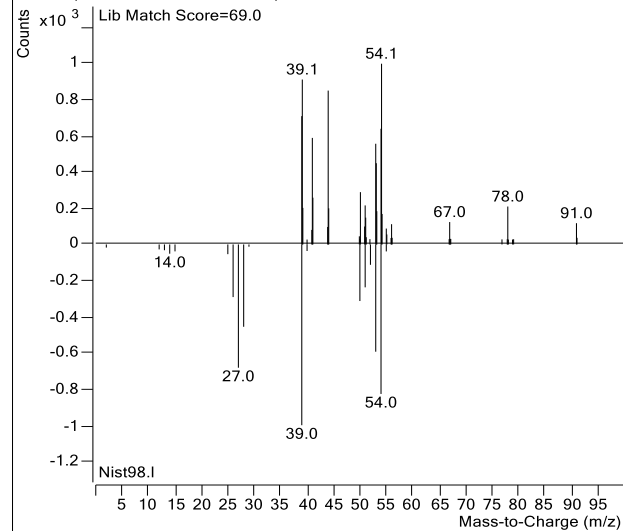
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204444.D

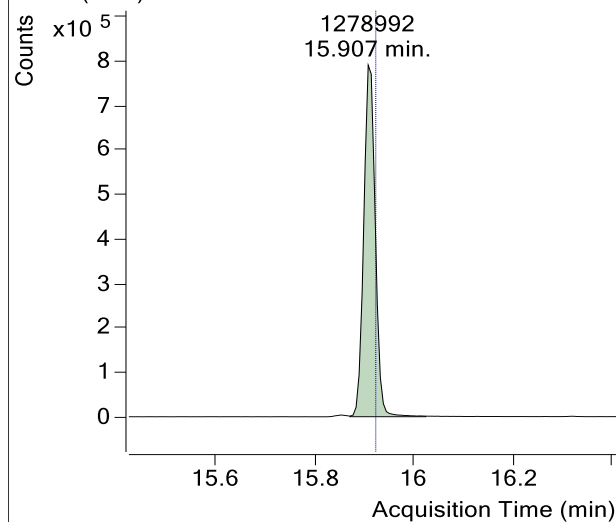


+ Scan (5.580-5.684 min, 17 scans) V2204444.D

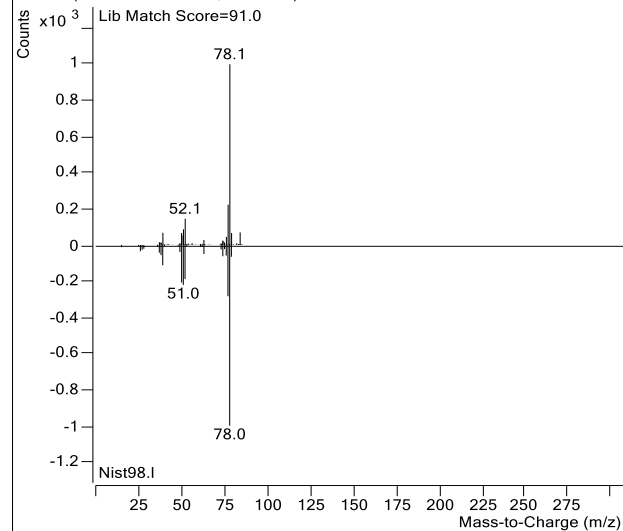


Benzene

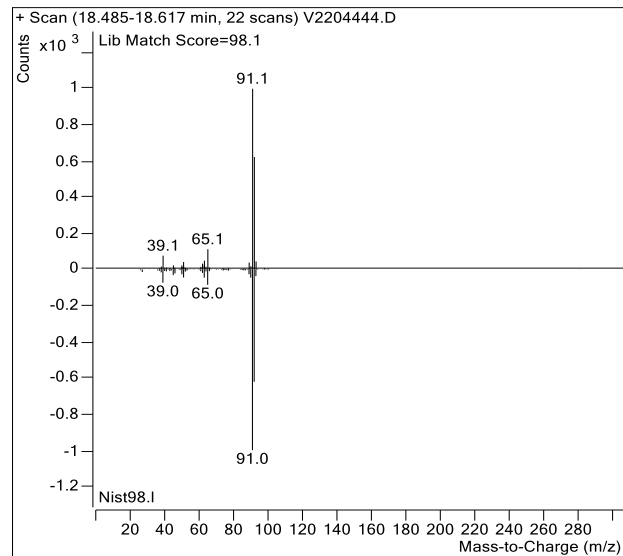
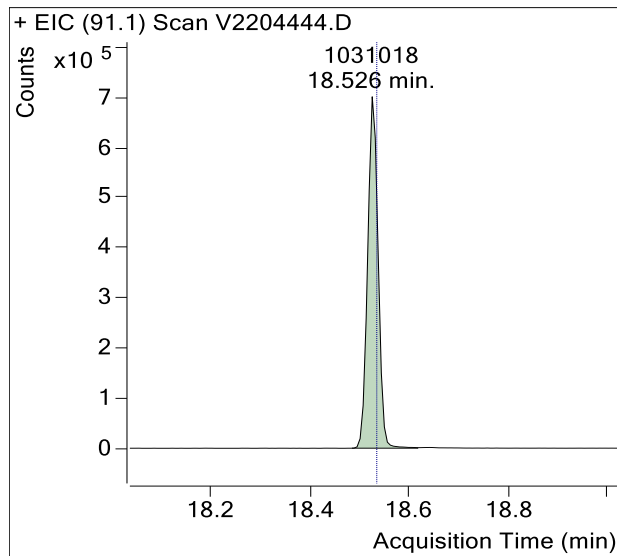
+ EIC (78.1) Scan V2204444.D



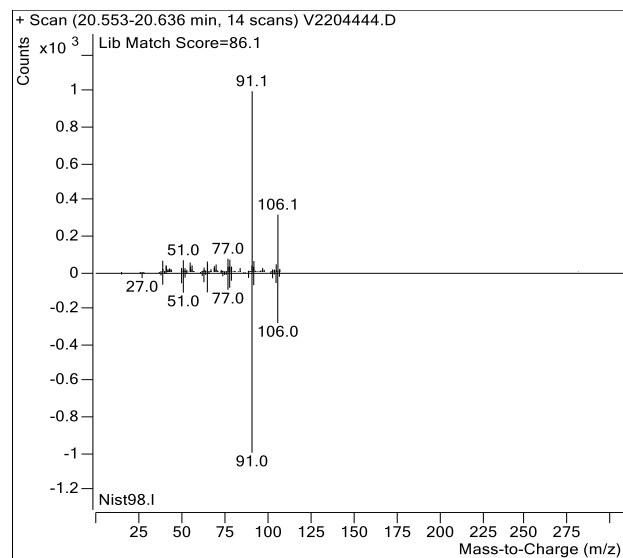
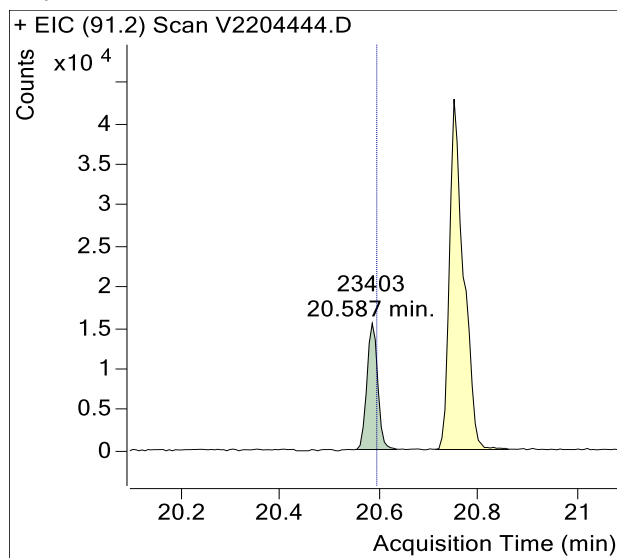
+ Scan (15.870-16.023 min, 26 scans) V2204444.D



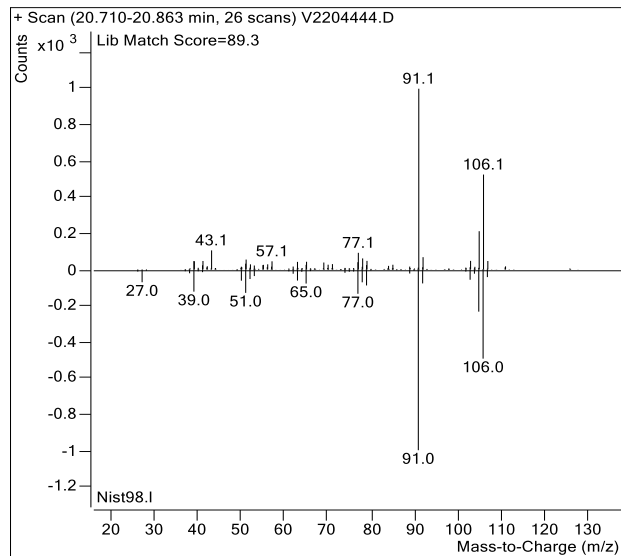
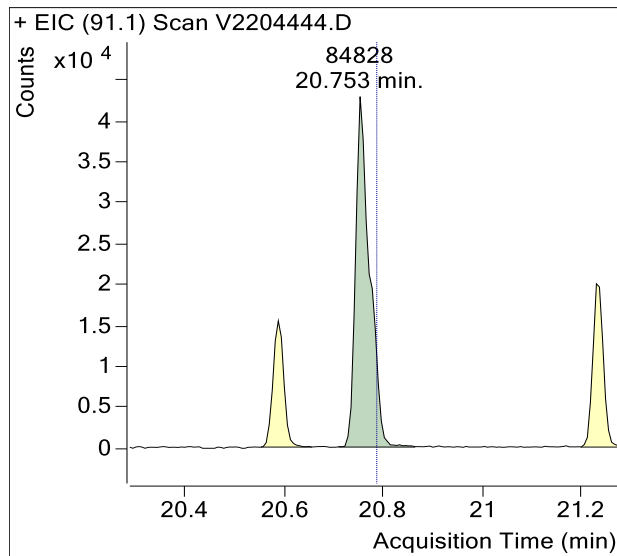
Toluene



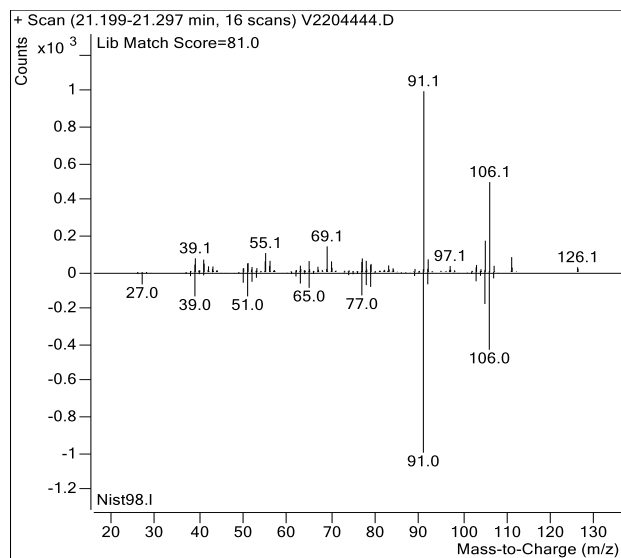
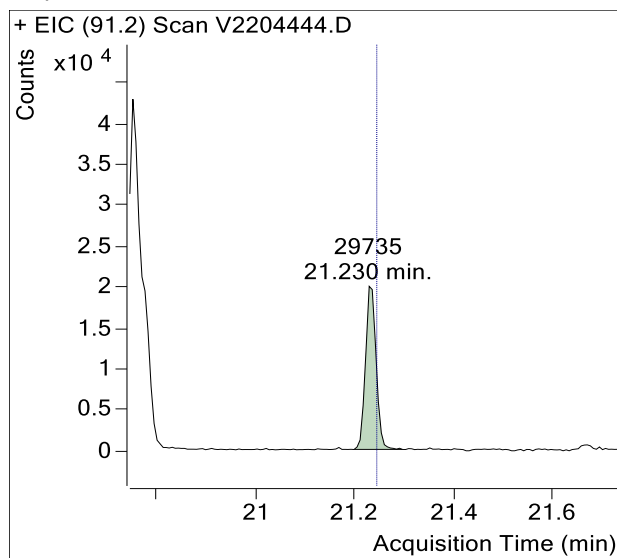
Ethylbenzene



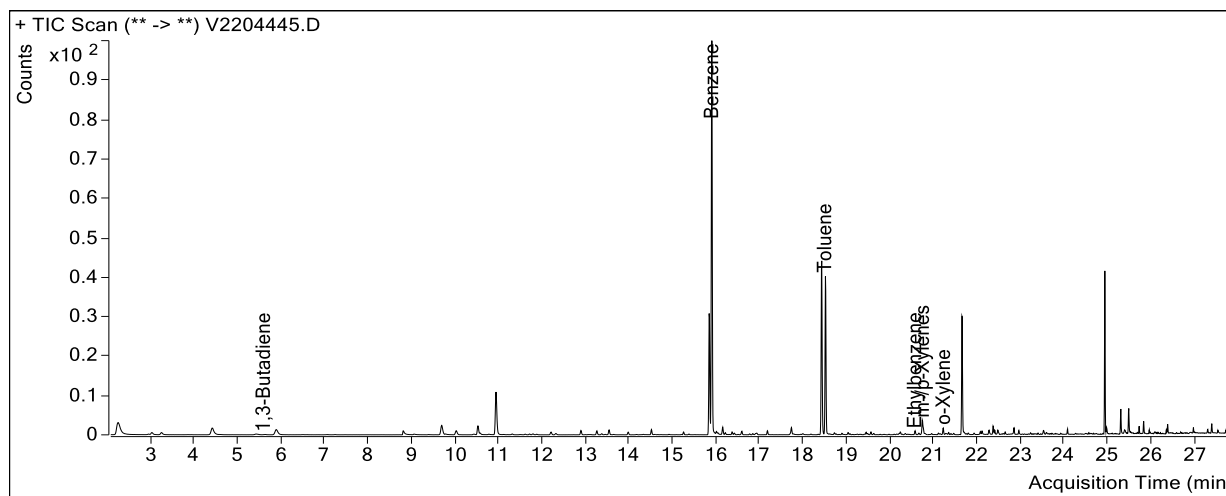
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT10-D-20230131
Sample Info : C01525
Data File : V2204445.D
Acquisition Date : 2023-02-16 23:41:27
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

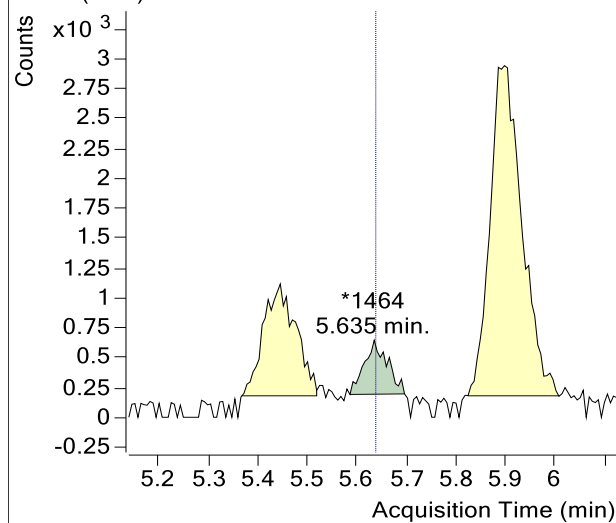


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 1,464 | m |
| Benzene-d6 (IS) | 15.86 | 873,445 | |
| Benzene | 15.92 | 2,600,743 | |
| Toluene-d8 (IS) | 18.45 | 879,806 | |
| Toluene | 18.53 | 861,920 | |
| Ethylbenzene | 20.59 | 20,388 | |
| m-/p-Xylenes | 20.78 | 89,747 | |
| o-Xylene | 21.24 | 28,434 | |

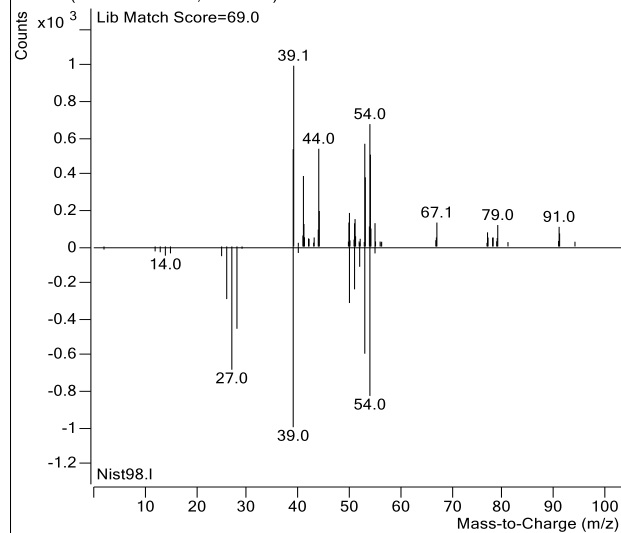
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204445.D

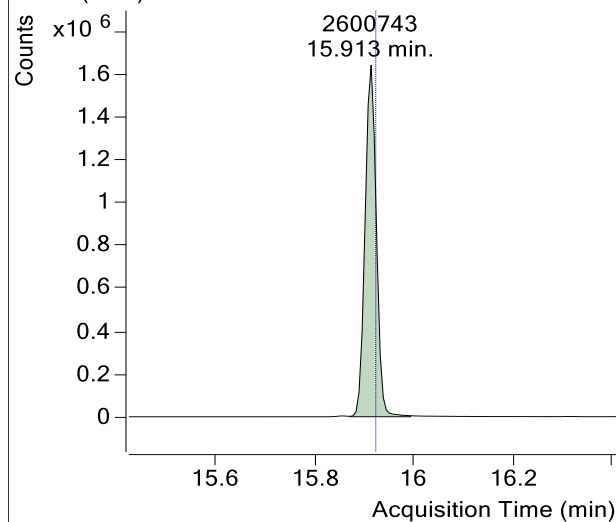


+ Scan (5.586-5.696 min, 19 scans) V2204445.D

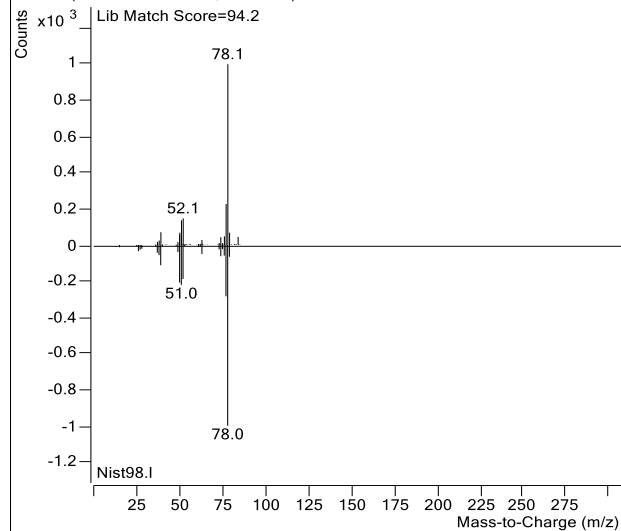


Benzene

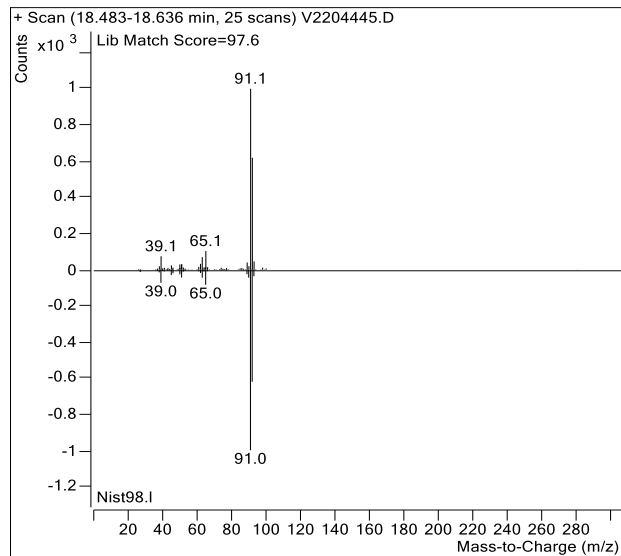
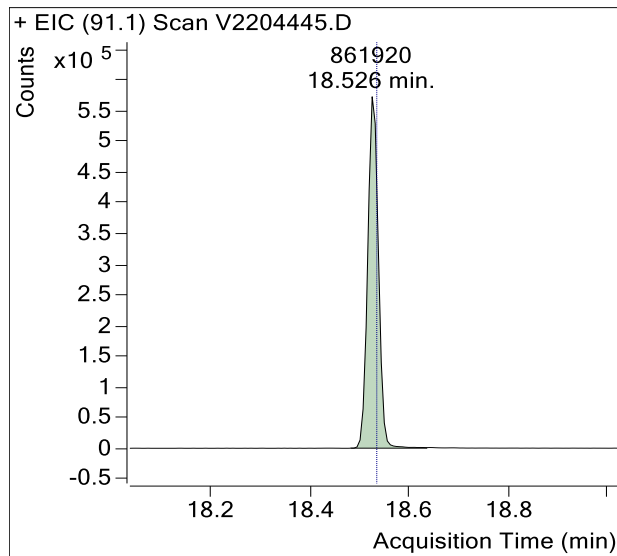
+ EIC (78.1) Scan V2204445.D



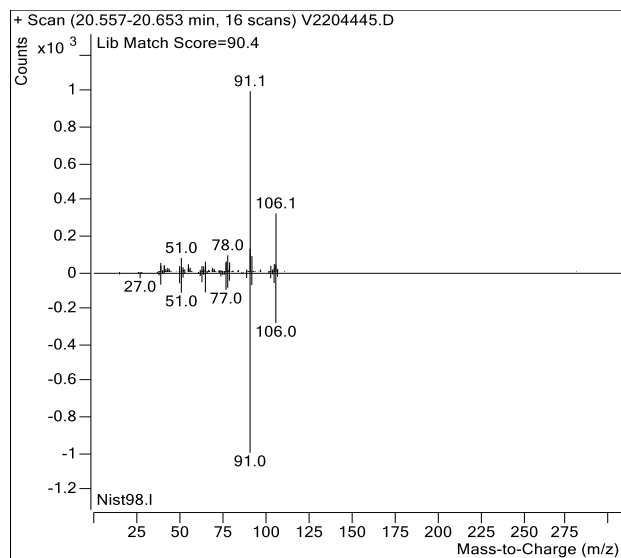
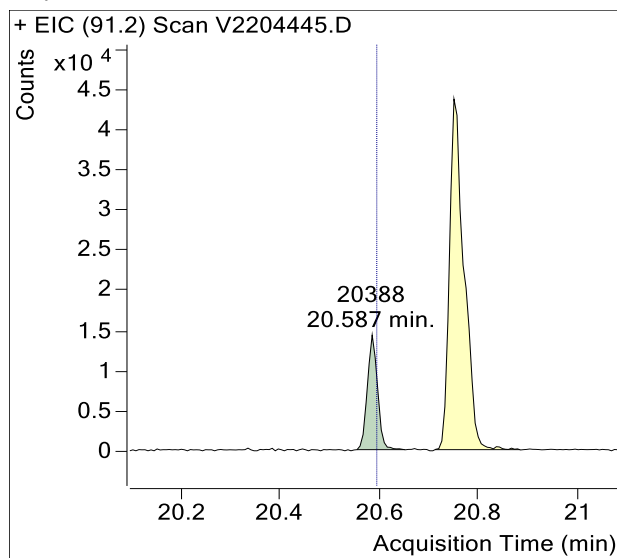
+ Scan (15.870-15.993 min, 20 scans) V2204445.D



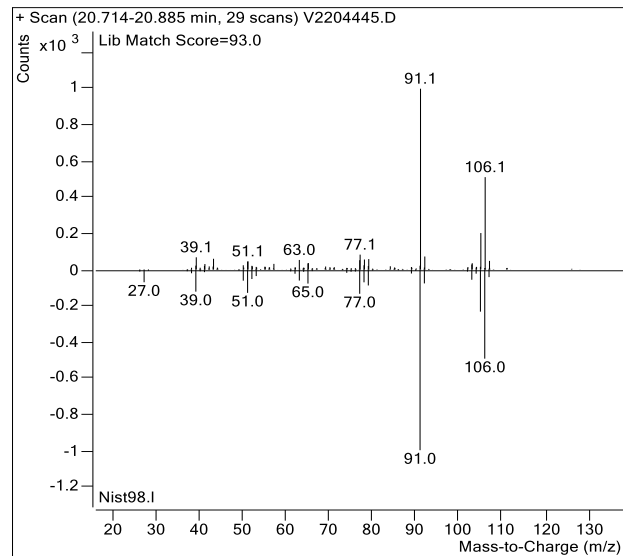
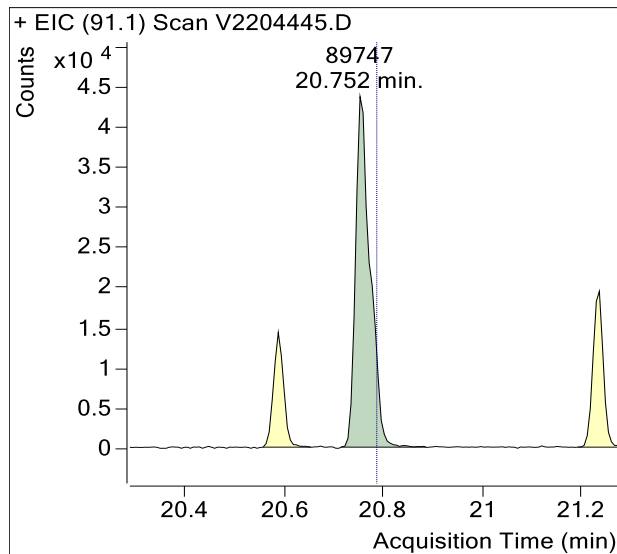
Toluene



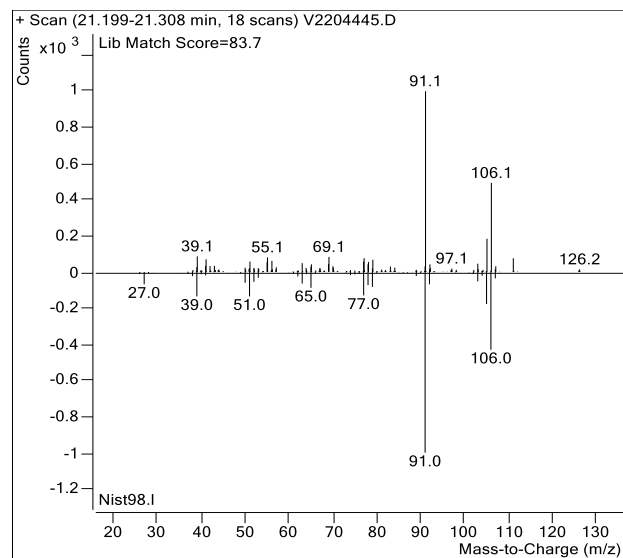
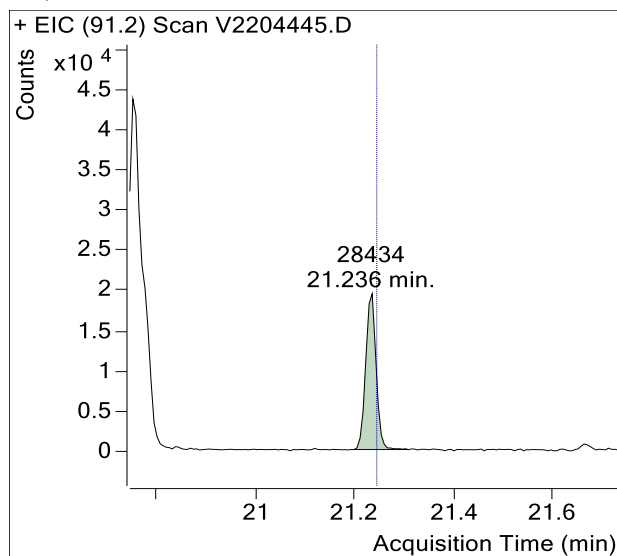
Ethylbenzene



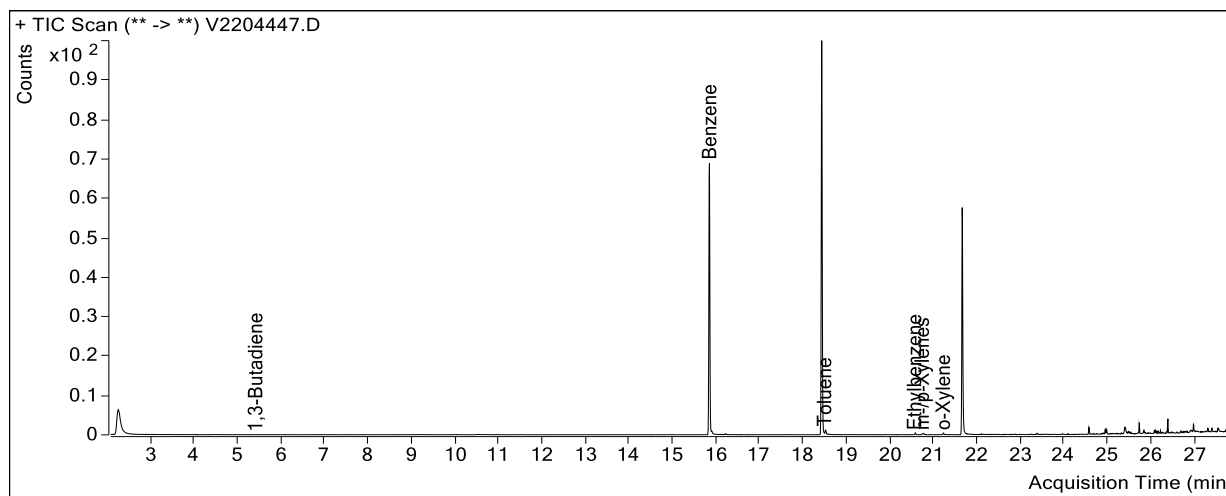
m-/p-Xylenes



o-Xylene



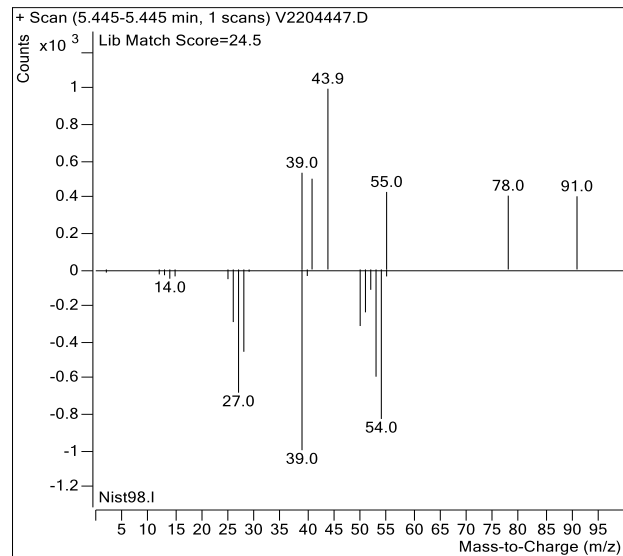
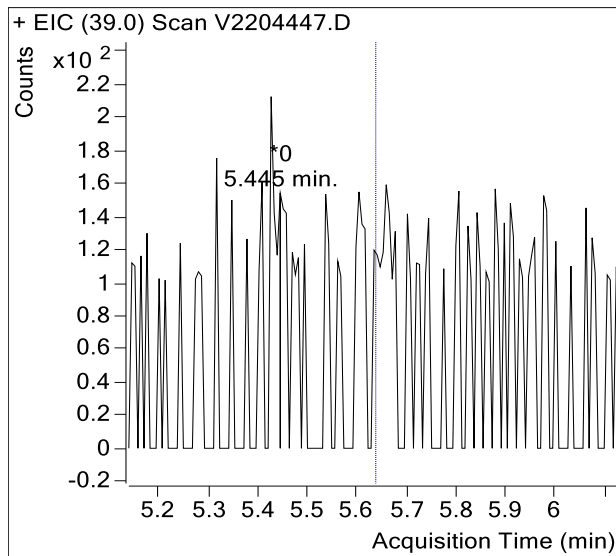
Sample Name : USSCL-PT10-B-20230131
Sample Info : B49616
Data File : V2204447.D
Acquisition Date : 2023-02-17 01:08:12
Instrument Method : M325B-TD-CRYO9
Matrix : AIR



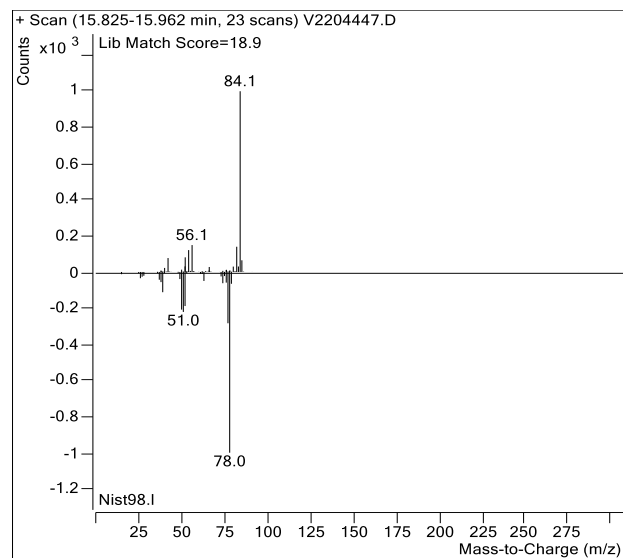
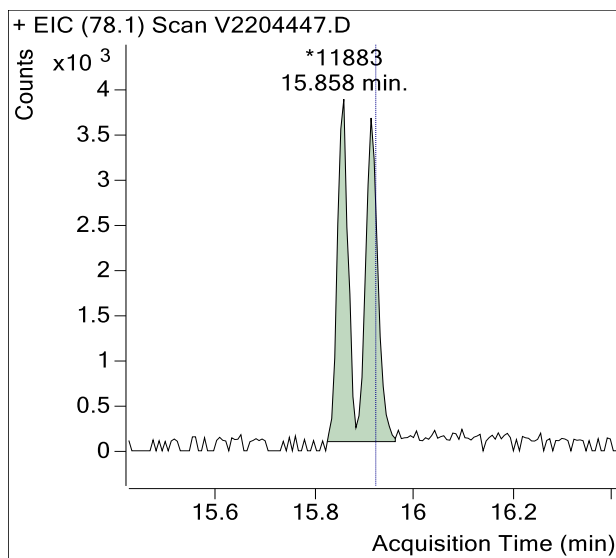
| Compound | Retention Time | Response | Flags |
|-----------------|----------------|----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 884,152 | |
| Benzene | 15.92 | 11,883 | m |
| Toluene-d8 (IS) | 18.45 | 892,527 | |
| Toluene | 18.53 | 10,031 | |
| Ethylbenzene | 20.59 | 5,872 | m |
| m-/p-Xylenes | 20.78 | 5,174 | |
| o-Xylene | 21.24 | 4,182 | |

(m)=Manual Integration

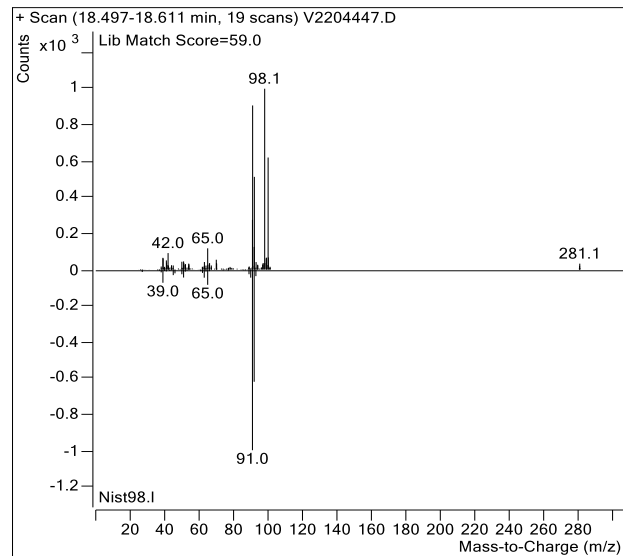
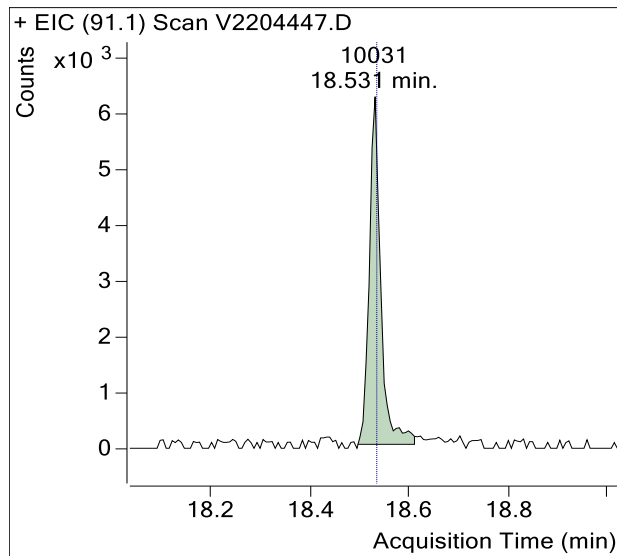
1,3-Butadiene



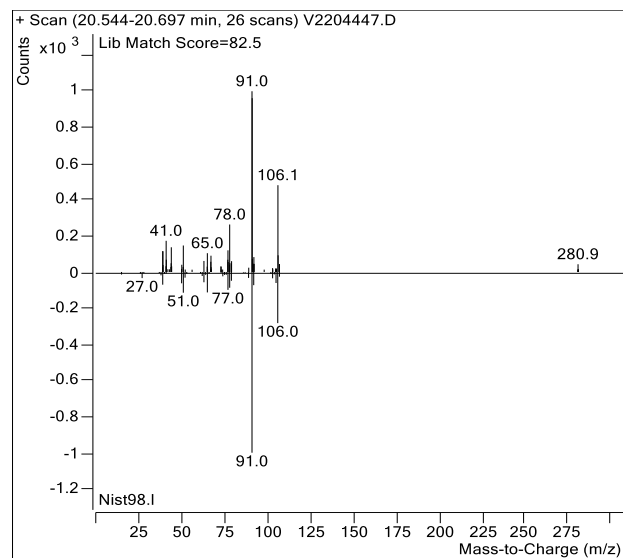
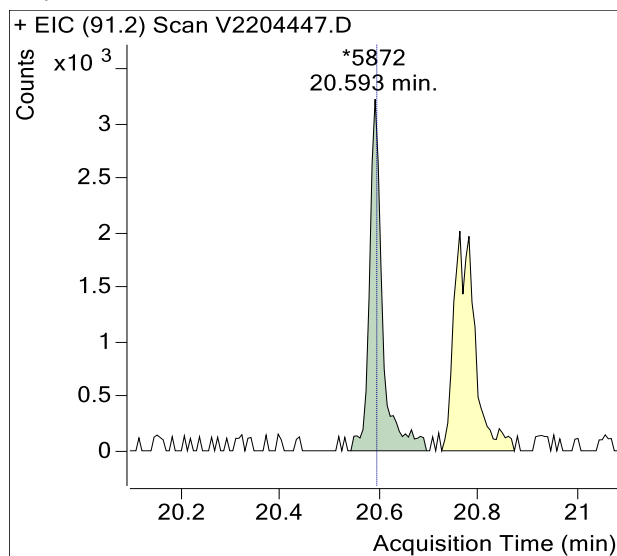
Benzene



Toluene

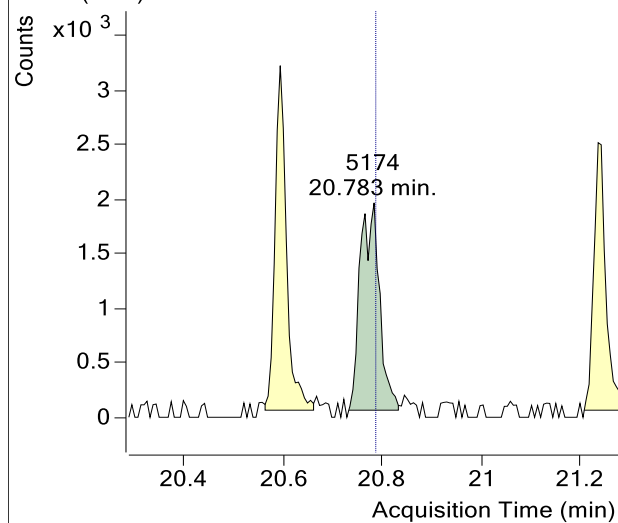


Ethylbenzene

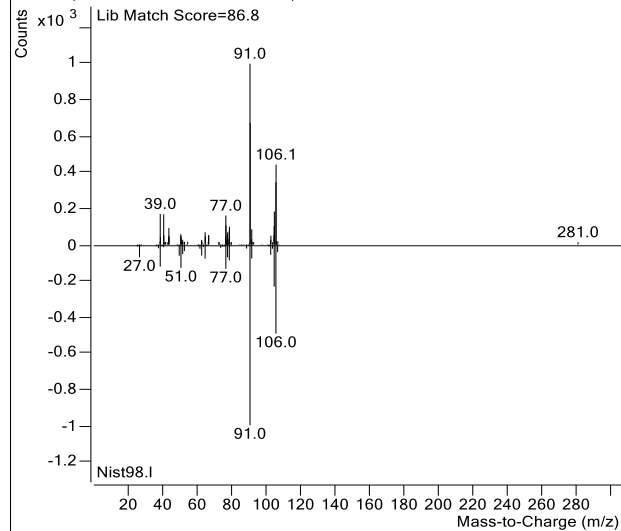


m-/p-Xylenes

+ EIC (91.1) Scan V2204447.D

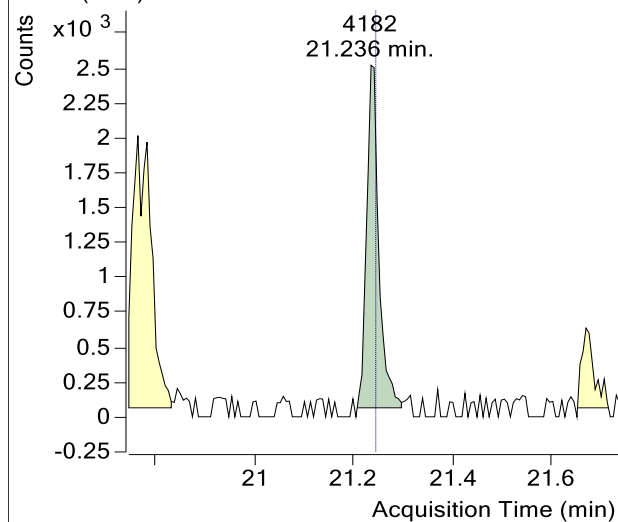


+ Scan (20.732-20.832 min, 17 scans) V2204447.D

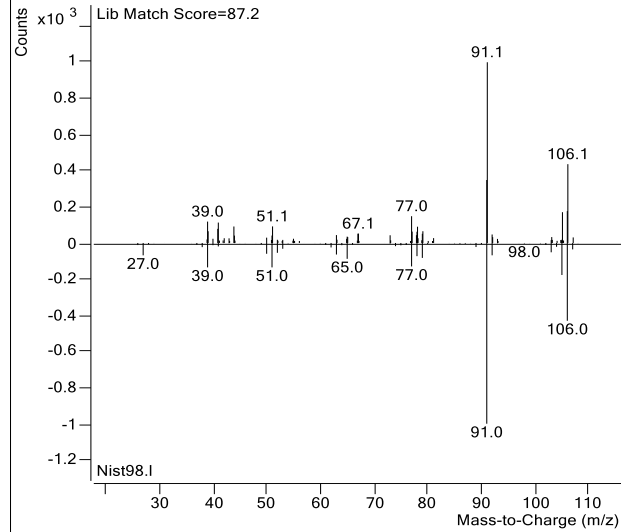


o-Xylene

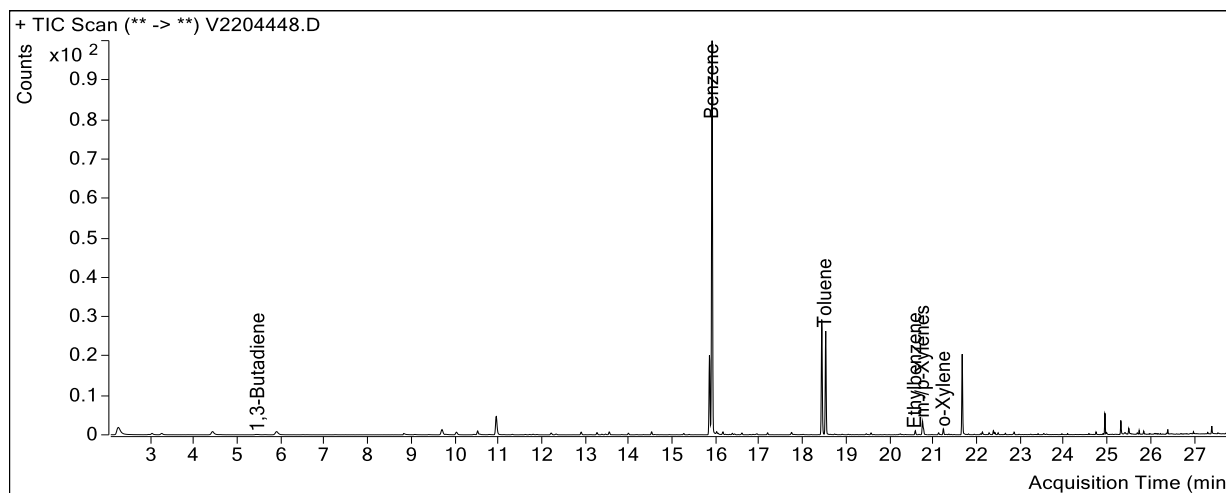
+ EIC (91.2) Scan V2204447.D



+ Scan (21.207-21.297 min, 15 scans) V2204447.D



Sample Name : USSCL-PT11-S-20230131
Sample Info : B17556
Data File : V2204448.D
Acquisition Date : 2023-02-17 01:50:52
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

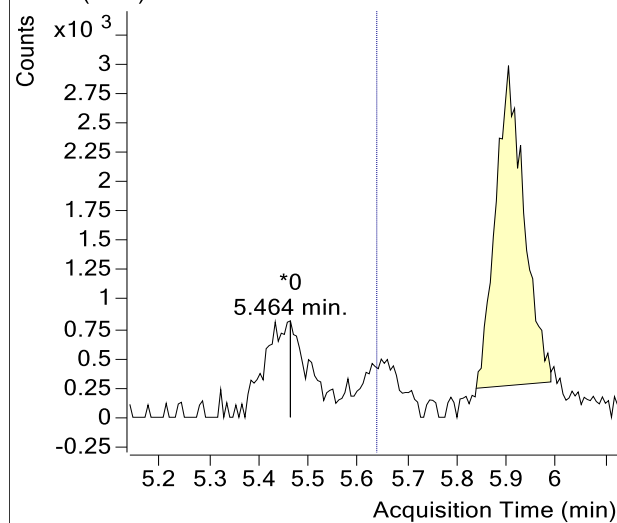


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 884,535 | |
| Benzene | 15.92 | 4,011,927 | |
| Toluene-d8 (IS) | 18.45 | 892,526 | |
| Toluene | 18.53 | 857,011 | |
| Ethylbenzene | 20.59 | 34,783 | |
| m-/p-Xylenes | 20.78 | 128,545 | |
| o-Xylene | 21.24 | 41,588 | |

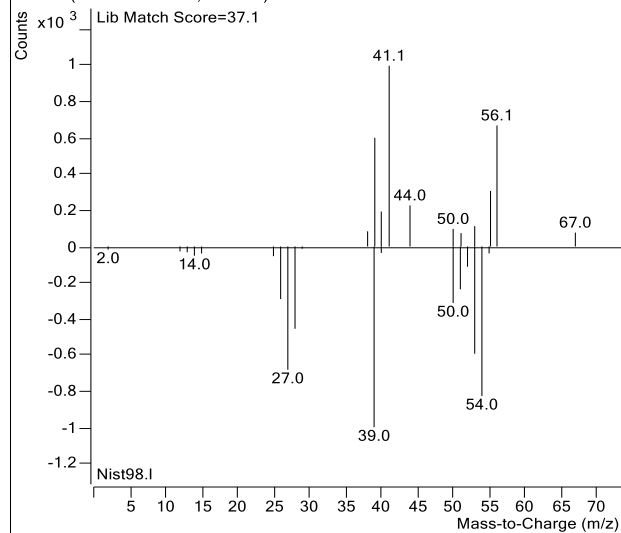
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204448.D

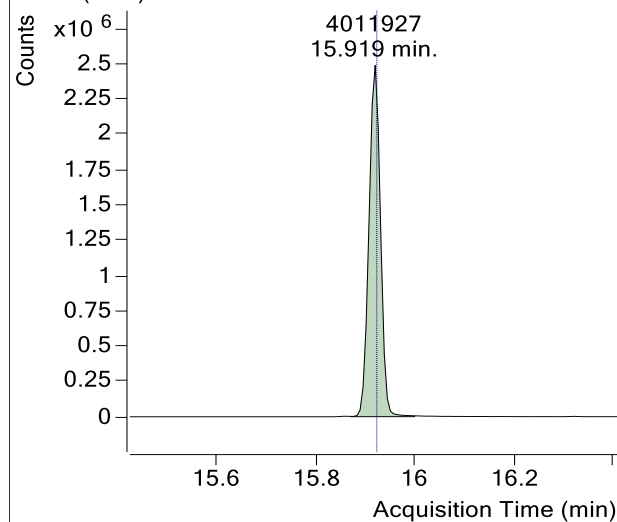


+ Scan (5.464-5.464 min, 1 scans) V2204448.D

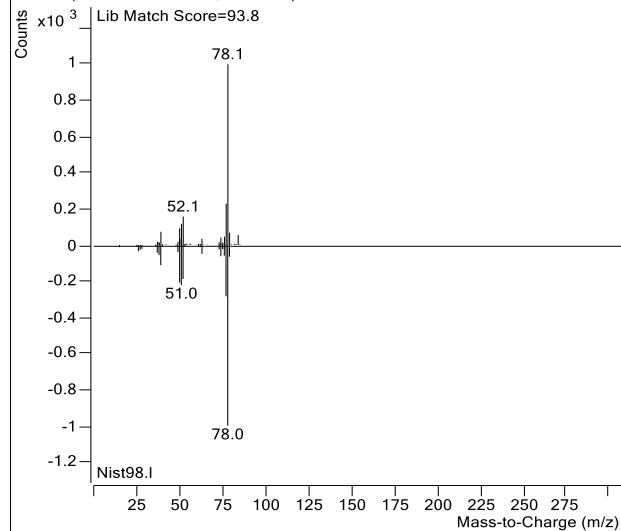


Benzene

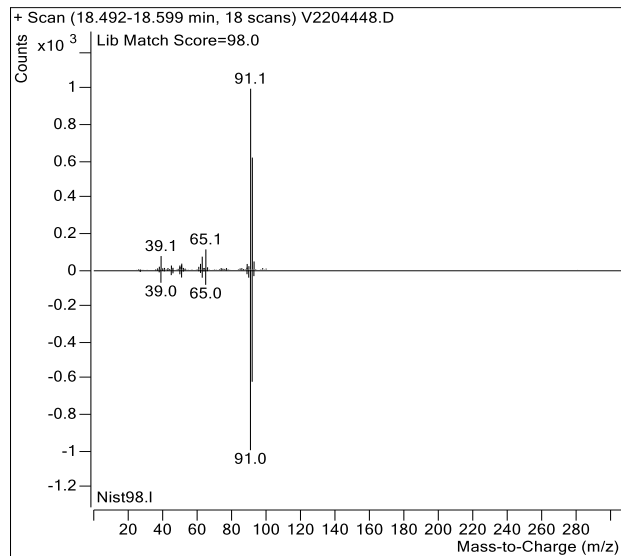
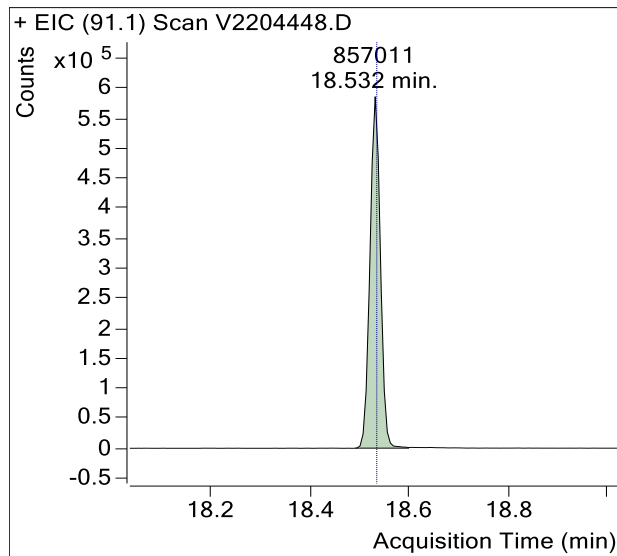
+ EIC (78.1) Scan V2204448.D



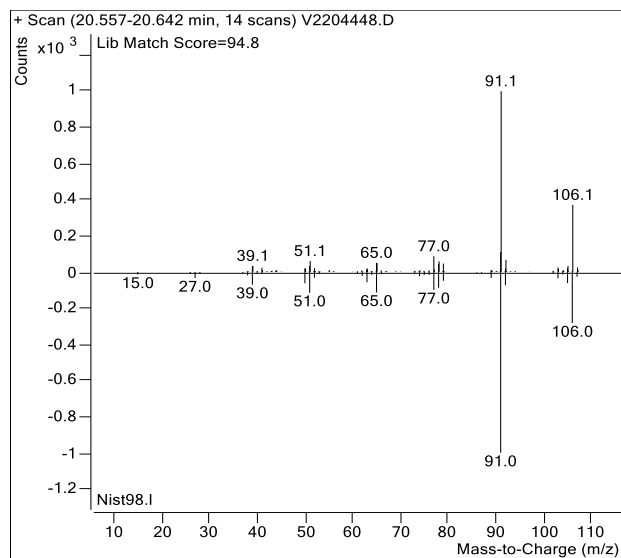
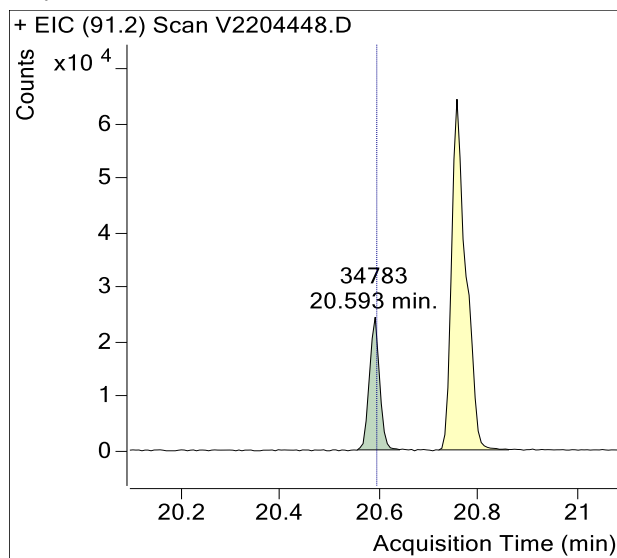
+ Scan (15.870-15.999 min, 22 scans) V2204448.D



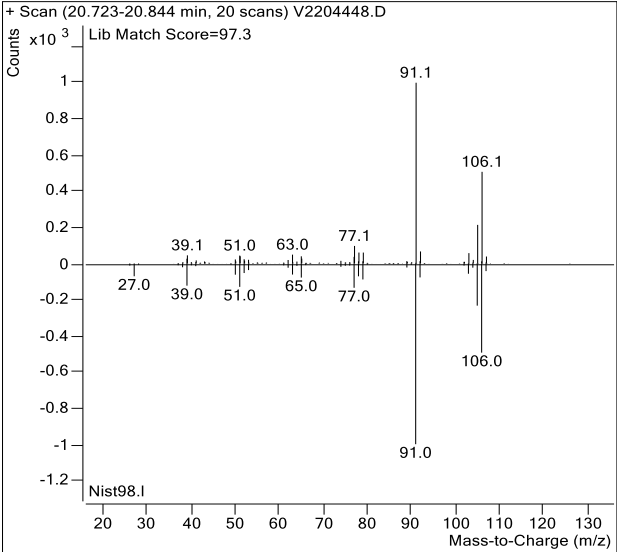
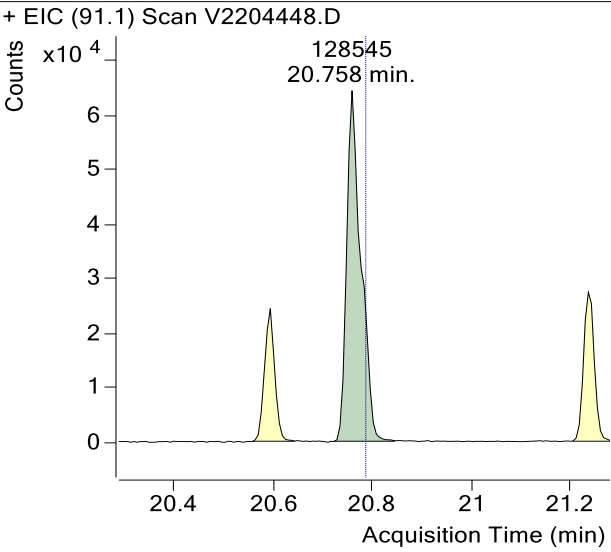
Toluene



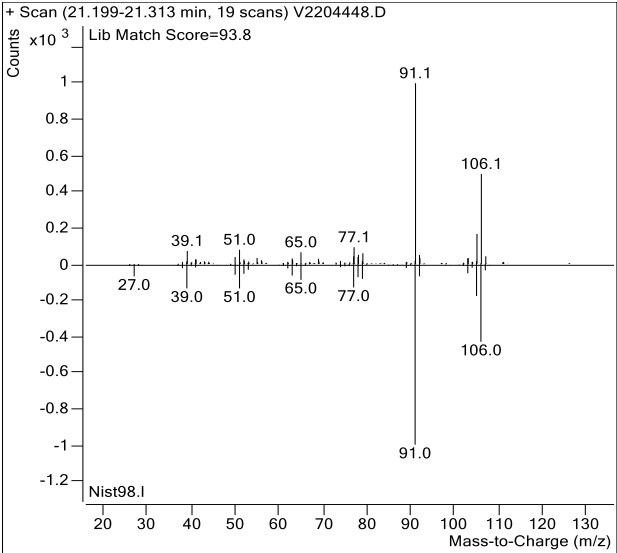
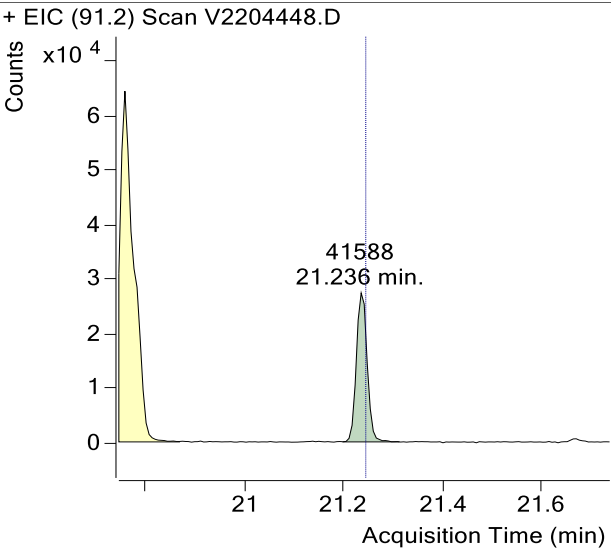
Ethylbenzene



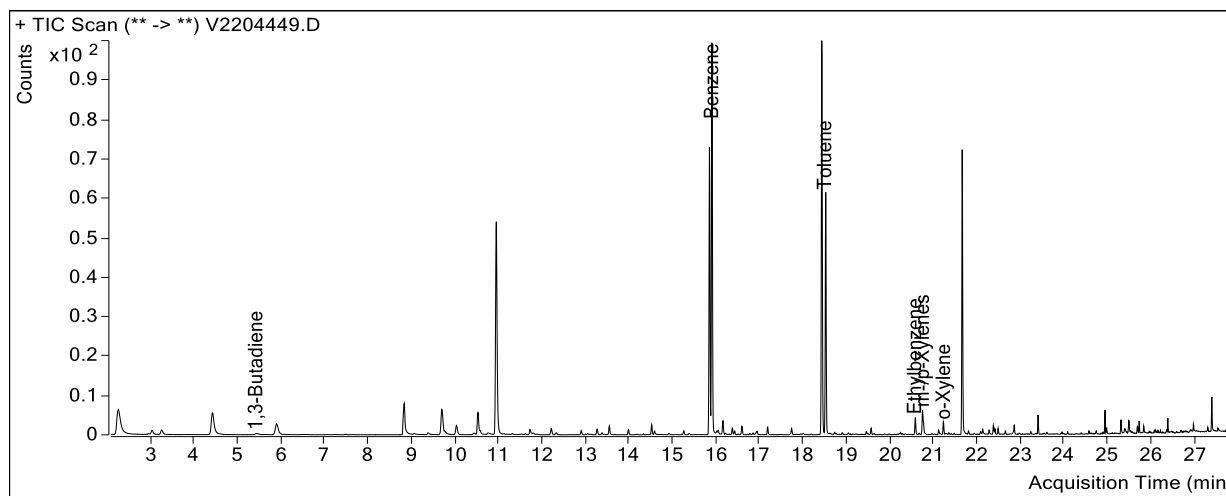
m-/p-Xylenes



o-Xylene



Sample Name : USSCL-PT12-S-20230131
Sample Info : B18417
Data File : V2204449.D
Acquisition Date : 2023-02-17 02:33:17
Instrument Method : M325B-TD-CRYO9
Matrix : AIR

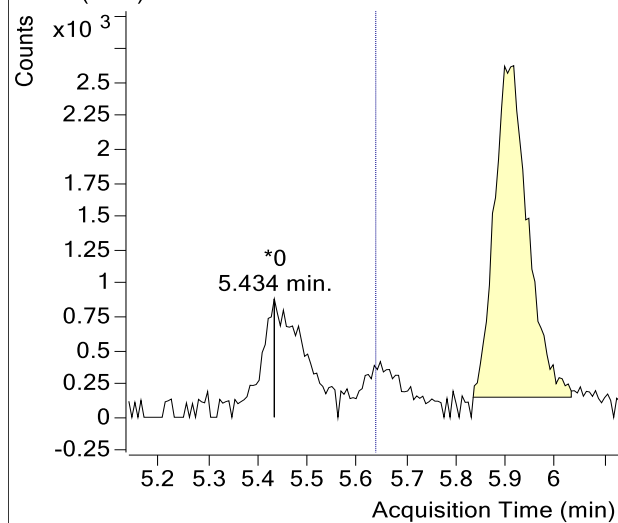


| Compound | Retention Time | Response | Flags |
|-----------------|----------------|-----------|-------|
| 1,3-Butadiene | 5.64 | 0 | m |
| Benzene-d6 (IS) | 15.86 | 876,933 | |
| Benzene | 15.92 | 1,184,513 | |
| Toluene-d8 (IS) | 18.45 | 889,755 | |
| Toluene | 18.53 | 562,652 | |
| Ethylbenzene | 20.59 | 41,862 | |
| m-/p-Xylenes | 20.78 | 66,754 | |
| o-Xylene | 21.24 | 25,158 | |

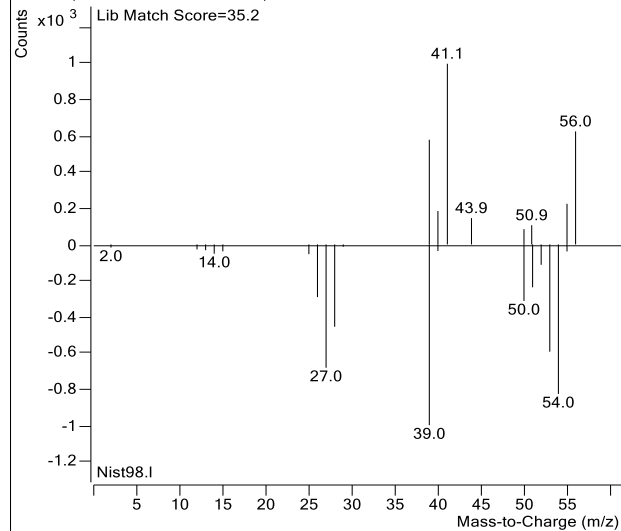
(m)=Manual Integration

1,3-Butadiene

+ EIC (39.0) Scan V2204449.D

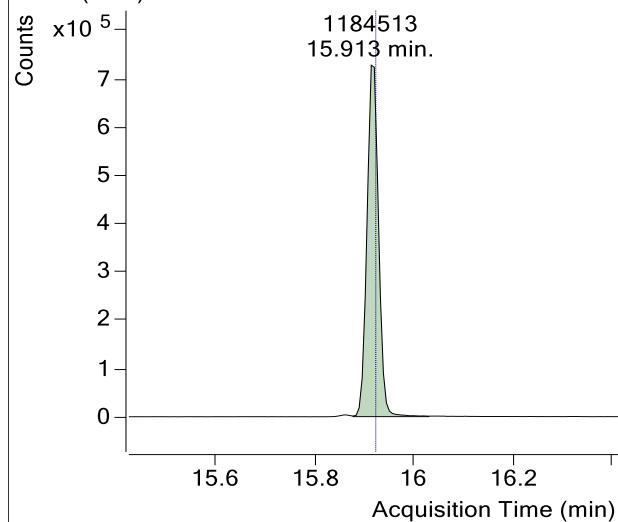


+ Scan (5.434-5.434 min, 1 scans) V2204449.D

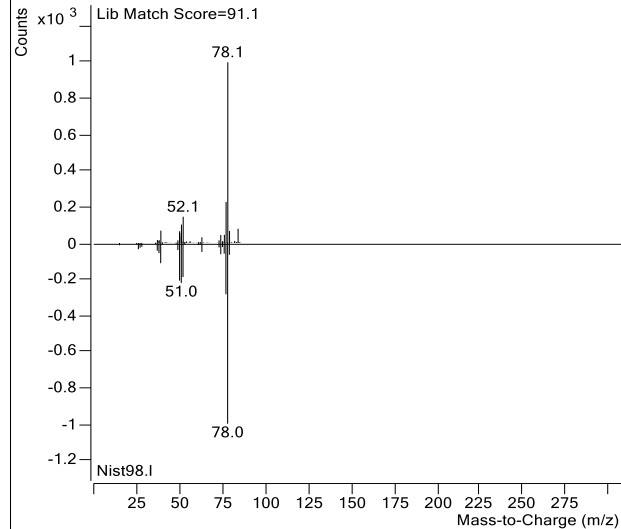


Benzene

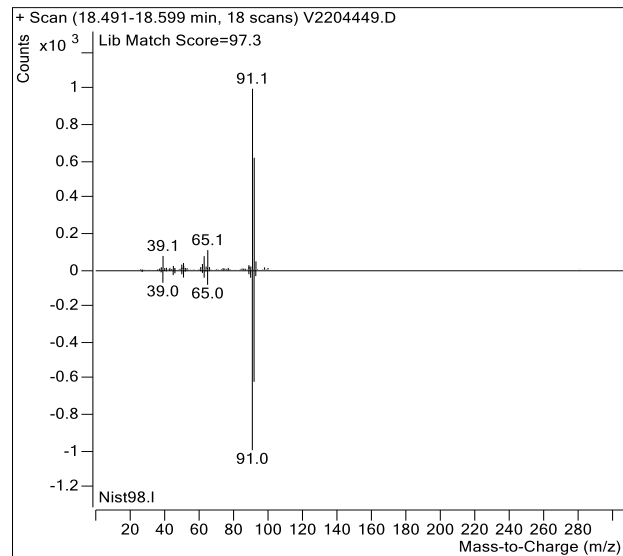
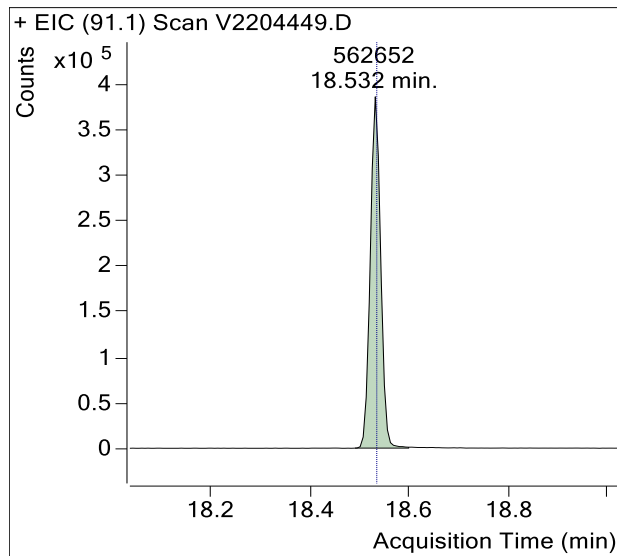
+ EIC (78.1) Scan V2204449.D



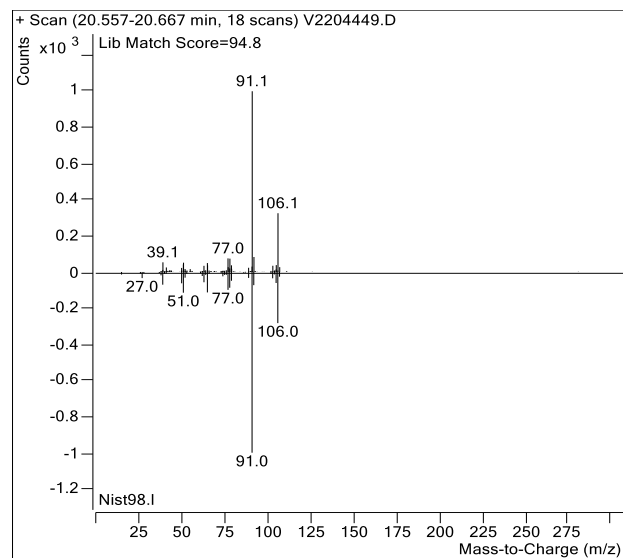
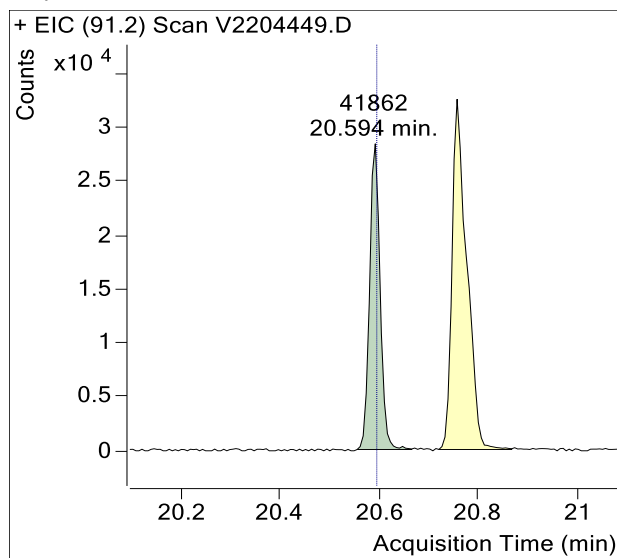
+ Scan (15.877-16.030 min, 25 scans) V2204449.D



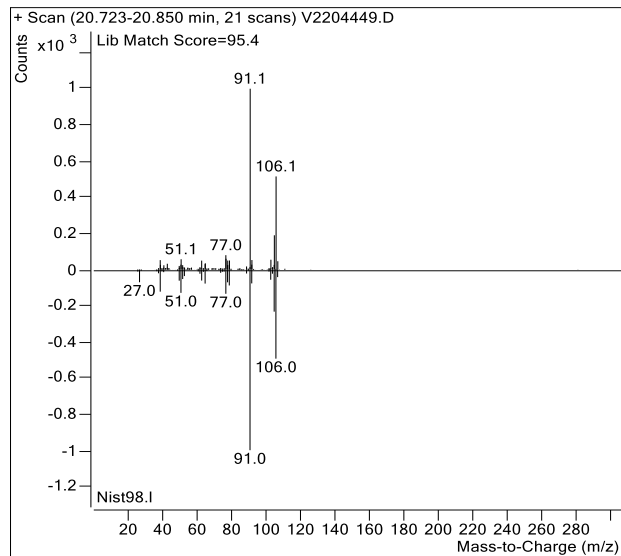
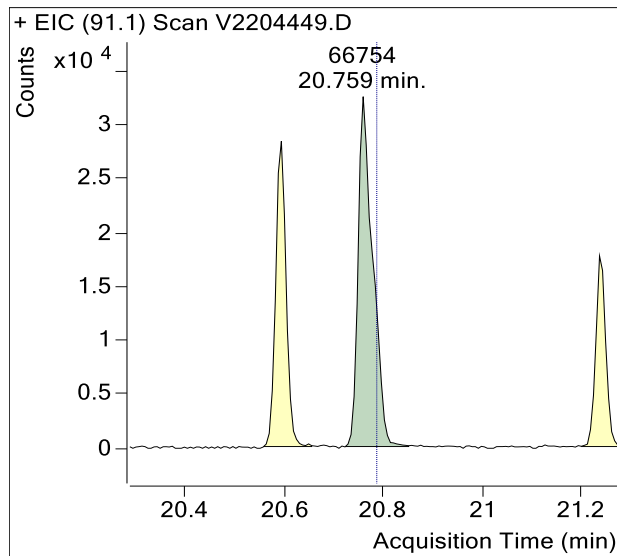
Toluene



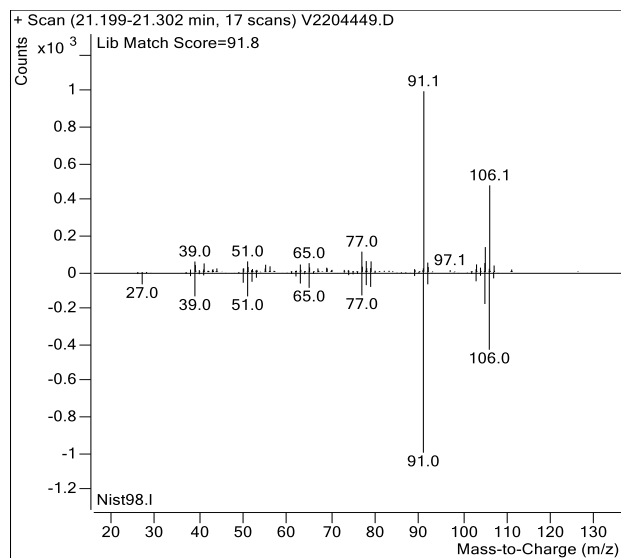
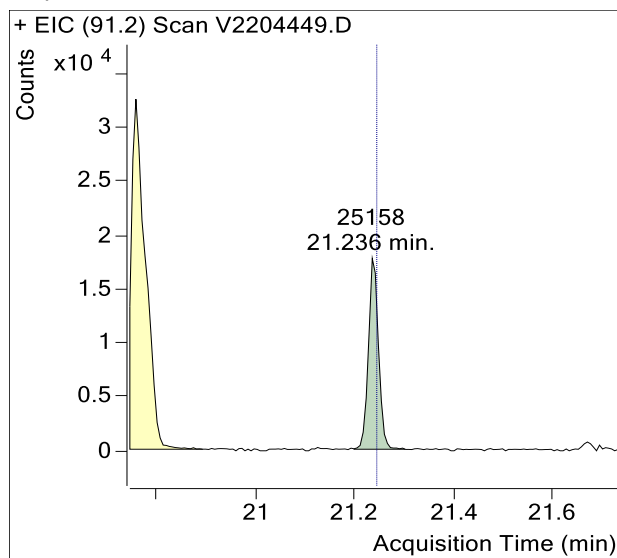
Ethylbenzene



m-/p-Xylenes



o-Xylene



Calibration Summary Reports



Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

1,3-Butadiene Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 0.194 | 0.187 | 0.194 | 3.8% | 25% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 0.187 | 0.194 | | | -2.0% | Pass | ND |
| M325B CCV 5 | Check | 0.184 | 0.187 | 0.194 | -1.3% | | -1.9% | Pass | |
| M325B CCV 5 | Check | 0.184 | 0.187 | 0.194 | -1.4% | | -1.6% | Pass | |

Benzene Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 1.086 | 1.054 | 1.086 | 3.0% | 25% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 1.054 | 1.086 | | | -2.0% | Pass | ND |
| M325B CCV 5 | Check | 1.088 | 1.054 | 1.086 | 3.2% | | -1.9% | Pass | |
| M325B CCV 5 | Check | 1.086 | 1.054 | 1.086 | 3.0% | | -1.6% | Pass | |

Ethylbenzene Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 1.457 | 1.731 | 1.457 | -16% | 15% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 1.731 | 1.457 | | | -1.2% | Pass | ND |
| M325B CCV 5 | Check | 1.484 | 1.731 | 1.457 | -14% | | -1.1% | Pass | |
| M325B CCV 5 | Check | 1.446 | 1.731 | 1.457 | -16% | | -0.24% | Pass | |

m-/p-Xylenes Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 1.103 | 1.310 | 1.103 | -16% | 15% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 1.310 | 1.103 | | | -1.2% | Pass | ND |
| M325B CCV 5 | Check | 1.134 | 1.310 | 1.103 | -13% | | -1.1% | Pass | |
| M325B CCV 5 | Check | 1.068 | 1.310 | 1.103 | -18% | | -0.24% | Pass | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

o-Xylene Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 1.131 | 1.476 | 1.131 | -23% | 15% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 1.476 | 1.131 | | | -1.2% | Pass | ND |
| M325B CCV 5 | Check | 1.152 | 1.476 | 1.131 | -22% | | -1.1% | Pass | |
| M325B CCV 5 | Check | 1.089 | 1.476 | 1.131 | -26% | | -0.24% | Pass | |

Toluene Calibration and Blanks

| Sample Code | Type | RRF | ICAL RRF | Last CCV RRF | RRF Change | ISTD Change vs ICal | ISTD Change vs Concal | Pass/ Fail | Flags |
|--------------------------|-------|-------|-------------|--------------------|---------------|---------------------------|-----------------------------|---------------|-------|
| M325B CCV 5 | Cal | 1.302 | 1.341 | 1.302 | -2.9% | 15% | | Pass | |
| 2023EE104 Method Blank-1 | Blank | | 1.341 | 1.302 | | | -1.2% | Pass | ND |
| M325B CCV 5 | Check | 1.311 | 1.341 | 1.302 | -2.3% | | -1.1% | Pass | |
| M325B CCV 5 | Check | 1.292 | 1.341 | 1.302 | -3.7% | | -0.24% | Pass | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Calibration Curves

| Method | Compound | Level | Cal File | Amount (ng) | Area | ISTD Amt (ng) | ISTD Area | RRF | Dev |
|-----------------------------------|---------------|-------|------------|----------------|---------|------------------|-----------|-------|-------|
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 1 | V2203582.D | 5.33 | 7764 | 92.4 | 731618 | 0.183 | -1.8% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 2 | V2203583.D | 10.66 | 15585 | 92.4 | 719073 | 0.187 | 0.24% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 3 | V2203584.D | 21.31 | 30705 | 92.4 | 709285 | 0.187 | 0.11% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 4 | V2203585.D | 42.62 | 53143 | 92.4 | 718633 | 0.160 | -14% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 5 | V2203586.D | 106.56 | 149214 | 92.4 | 718750 | 0.179 | -4.0% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 6 | V2203587.D | 213.12 | 343542 | 92.4 | 712897 | 0.208 | 11% |
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | 7 | V2203588.D | 639.36 | 1002403 | 92.4 | 711892 | 0.202 | 8.5% |
| | | | | | | Avg: | 717450 | 0.187 | |
| | | | | | | %RSD: | 1.0% | 8.5% | |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 1 | V2203582.D | 5.34 | 47399 | 92.4 | 731618 | 1.116 | 5.9% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 2 | V2203583.D | 10.67 | 86487 | 92.4 | 719073 | 1.036 | -1.7% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 3 | V2203584.D | 21.35 | 168828 | 92.4 | 709285 | 1.025 | -2.8% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 4 | V2203585.D | 42.69 | 331745 | 92.4 | 718633 | 0.994 | -5.7% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 5 | V2203586.D | 106.73 | 838826 | 92.4 | 718750 | 1.005 | -4.7% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 6 | V2203587.D | 213.47 | 1831707 | 92.4 | 712897 | 1.107 | 5.0% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | 7 | V2203588.D | 640.40 | 5442105 | 92.4 | 711892 | 1.098 | 4.1% |
| | | | | | | Avg: | 717450 | 1.054 | |
| | | | | | | %RSD: | 1.0% | 4.8% | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Calibration Curves

| Method | Compound | Level | Cal File | Amount (ng) | Area | ISTD Amt (ng) | ISTD Area | RRF | Dev |
|-----------------------------------|--------------|-------|------------|----------------|---------|------------------|-----------|-------|--------|
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 1 | V2203582.D | 5.49 | 67871 | 109.3 | 794465 | 1.664 | -3.9% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 2 | V2203583.D | 10.97 | 162425 | 109.3 | 789377 | 2.004 | 16% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 3 | V2203584.D | 21.94 | 316603 | 109.3 | 785741 | 1.962 | 13% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 4 | V2203585.D | 43.89 | 626456 | 109.3 | 787694 | 1.937 | 12% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 5 | V2203586.D | 109.71 | 1150358 | 109.3 | 795718 | 1.408 | -19% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 6 | V2203587.D | 219.43 | 2366859 | 109.3 | 779253 | 1.479 | -15% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | 7 | V2203588.D | 658.29 | 7979722 | 109.3 | 778959 | 1.663 | -3.9% |
| | | | | | | Avg: | 787315 | 1.731 | |
| | | | | | | %RSD: | 0.84% | 14% | |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 1 | V2203582.D | 5.52 | 53479 | 109.3 | 794465 | 1.303 | -0.50% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 2 | V2203583.D | 11.04 | 123690 | 109.3 | 789377 | 1.517 | 16% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 3 | V2203584.D | 22.08 | 243950 | 109.3 | 785741 | 1.503 | 15% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 4 | V2203585.D | 44.16 | 488742 | 109.3 | 787694 | 1.501 | 15% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 5 | V2203586.D | 110.41 | 887701 | 109.3 | 795718 | 1.080 | -18% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 6 | V2203587.D | 220.81 | 1808104 | 109.3 | 779253 | 1.123 | -14% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | 7 | V2203588.D | 662.44 | 5509118 | 109.3 | 778959 | 1.141 | -13% |
| | | | | | | Avg: | 787315 | 1.310 | |
| | | | | | | %RSD: | 0.84% | 15% | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Calibration Curves

| Method | Compound | Level | Cal File | Amount (ng) | Area | ISTD Amt (ng) | ISTD Area | RRF | Dev |
|-----------------------------------|----------|-------|------------|----------------|---------|------------------|-----------|-------|--------|
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 1 | V2203582.D | 5.55 | 58616 | 109.3 | 794465 | 1.420 | -3.8% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 2 | V2203583.D | 11.10 | 145370 | 109.3 | 789377 | 1.772 | 20% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 3 | V2203584.D | 22.21 | 280767 | 109.3 | 785741 | 1.719 | 16% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 4 | V2203585.D | 44.42 | 565063 | 109.3 | 787694 | 1.726 | 17% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 5 | V2203586.D | 111.04 | 940928 | 109.3 | 795718 | 1.138 | -23% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 6 | V2203587.D | 222.09 | 1874162 | 109.3 | 779253 | 1.157 | -22% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | 7 | V2203588.D | 666.27 | 6804008 | 109.3 | 778959 | 1.401 | -5.1% |
| | | | | | | Avg: | 787315 | 1.476 | |
| | | | | | | %RSD: | 0.84% | 18% | |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 1 | V2203582.D | 5.54 | 63301 | 109.3 | 794465 | 1.536 | 15% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 2 | V2203583.D | 11.08 | 113600 | 109.3 | 789377 | 1.387 | 3.5% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 3 | V2203584.D | 22.17 | 217038 | 109.3 | 785741 | 1.332 | -0.70% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 4 | V2203585.D | 44.34 | 429512 | 109.3 | 787694 | 1.314 | -2.0% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 5 | V2203586.D | 110.84 | 961554 | 109.3 | 795718 | 1.165 | -13% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 6 | V2203587.D | 221.68 | 2032113 | 109.3 | 779253 | 1.257 | -6.3% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | 7 | V2203588.D | 665.05 | 6760423 | 109.3 | 778959 | 1.395 | 4.0% |
| | | | | | | Avg: | 787315 | 1.341 | |
| | | | | | | %RSD: | 0.84% | 8.7% | |

Enthalpy Analytical

Company: All4, Inc.

Job No.: 2023EE104-1 EPA Method 325B Analysis

Client No.: 00701-0002.00 Site: US Steel Corp - Clairton Works ICR

Calibration Curves

| Method | Compound | Level | Cal File | Amount (ng) | Area | ISTD Amt (ng) | ISTD Area | RRF | Dev |
|-----------------------------------|---------------|-------|------------|----------------|--------|------------------|-----------|-------|-------|
| V010423A_BUT_BTEX.quantmethod.xml | 1,3-Butadiene | ICV | V2203611.D | 106.10 | 158480 | 92.4 | 727760 | 0.189 | 1.2% |
| V010423A_BUT_BTEX.quantmethod.xml | Benzene | ICV | V2203611.D | 100.79 | 815037 | 92.4 | 727760 | 1.022 | -3.1% |
| V010423A_BUT_BTEX.quantmethod.xml | Ethylbenzene | ICV | V2203611.D | 97.47 | 998208 | 109.3 | 788911 | 1.387 | -20% |
| V010423A_BUT_BTEX.quantmethod.xml | m-/p-Xylenes | ICV | V2203611.D | 97.63 | 766279 | 109.3 | 788911 | 1.063 | -19% |
| V010423A_BUT_BTEX.quantmethod.xml | o-Xylene | ICV | V2203611.D | 98.53 | 803597 | 109.3 | 788911 | 1.105 | -25% |
| V010423A_BUT_BTEX.quantmethod.xml | Toluene | ICV | V2203611.D | 100.66 | 882829 | 109.3 | 788911 | 1.188 | -11% |

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