



## Source Test Report

US Steel Clairton Works  
400 State Street  
Clairton City, Allegheny County PA 15025

Source Tested: Cooling Tower  
Test Date: October 25-26, 2022  
Report Submittal Date: November 15, 2022

Project No. AST-2022-3353

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Prepared By  
Alliance Technical Group, LLC  
1201 Parkway View Drive  
Pittsburgh, PA 15205

## Regulatory Information

*PFID* 737439  
*Regulatory Citation* U.S. EPA Risk & Technology Review (RTR)

## Source Information

<i>Source Name</i>	<i>Target Parameters</i>
East Side Cooling Tower	Hydrogen Sulfide / Carbonyl Sulfide / Carbon Disulfide / BTEX
West Side Cooling Tower	Hydrogen Sulfide / Carbonyl Sulfide / Carbon Disulfide / BTEX

## Contact Information

<i>Test Location</i>	<i>Test Company</i>	<i>Analytical Laboratory</i>
US Steel Clairton Works 400 State Street Allegheny County Clairton City, PA 15025	Alliance Technical Group, LLC 1201 Parkway View Drive Pittsburgh, PA 15205 PADEP Registration No. 02-05674	Enthalpy Analytical 800-1 Capitola Dr. Durham, NC 27713 Bryan Tyler bryan.tyler@enthalpy.com (919) 850-4392 ext. 12203 PADEP Registration No. 68-01498
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Alliance Technical Group, LLC (Alliance) has completed the source testing as described in this report. Results apply only to the source(s) tested and operating condition(s) for the specific test date(s) and time(s) identified within this report. All results are intended to be considered in their entirety, and Alliance is not responsible for use of less than the complete test report without written consent. This report shall not be reproduced in full or in part without written approval from the customer.

To the best of my knowledge and abilities, all information, facts and test data are correct. Data presented in this report has been checked for completeness and is accurate, error-free and legible. Onsite testing was conducted in accordance with approved internal Standard Operating Procedures. Any deviations or problems are detailed in the relevant sections on the test report.

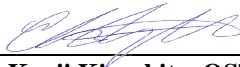
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**Adam Robinson, QSTI**  
**Technical Director/Project Manager**  
**Alliance Technical Group, LLC**

12/2/2022

Date



**Kenji Kinoshita, QSTI**  
**Field Team Leader**  
**Alliance Technical Group, LLC**

12/2/2022

Date

#### **SOURCE OWNER/OPERATOR REPRESENTATIVE CERTIFICATION**

The below certification is for the compliance stack test performed on the East and West Side Cooling Towers located at the US Steel Clairton Works facility in Clairton City, Allegheny County, Pennsylvania on October 25-26, 2022.

I certify that “to the best of my knowledge” this source test report has been checked for completeness, and that the results presented herein are accurate, error-free, legible, and representative of the actual emissions measured during testing.

**Michael Dzurinko**  
**US Steel Clairton Works**

Date

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## Introduction

## 1.0 Introduction

Alliance Technical Group, LLC (Alliance) was retained by US Steel Clairton Works (US Steel) to conduct ICR testing at the Clairton City, Pennsylvania facility. Portions of the facility are required to satisfy the EPA's Coke Ovens Section 114 Request Risk and Technology Review: 40 CFR 63, Subpart CCCCC & L ICR. Testing was conducted to determine the concentrations of carbon disulfide (CS<sub>2</sub>), hydrogen sulfide (H<sub>2</sub>S), Carbonyl Sulfide (COS), benzene, toluene, ethylbenzene and xylenes (BTEX) from the East and West Side Cooling Towers.

## 1.1 Project Team

Personnel involved in this project are identified in the following table.

**Table 1-1: Project Team**

<b>Facility Personnel</b>	Mike Dzurinko William Bowers
<b>Alliance Personnel</b>	Kenji Kinoshita

## 1.2 Quality Assurance Summary

Sampling and analytical procedures during this test program were performed in accordance with the Coke Ovens Section 114 Request Risk and Technology Review (RTR): 40 CFR 63, Subpart CCCCC & L letter.

All calibrations, QA/QC checks, and leak checks conducted during this test program were within the acceptable limits established by the U.S. EPA test methods. All data supporting these findings can be found in the appendices of the report.

## 1.3 Technical Discussion

No technical difficulties or protocol deviations were encountered during this test program.

## Summary of Results

## 2.0 Summary of Results

Alliance conducted RTR testing at the US Steel facility in Clairton City, Pennsylvania on October 25-26, 2022. Testing consisted of determining the emission rates of CS<sub>2</sub>, H<sub>2</sub>S, COS, and BTEX from the East and West Side Cooling Towers.

Tables 2-1 and 2-2 provide summaries of the emission testing results. This table also provides a summary of the process operating and control system data collected during testing. Any difference between the summary results listed in the following tables and the detailed results contained in appendices is due to rounding for presentation.

Table 2-1: Summary of Results – East Side Cooling Tower Inlet

Emissions Data							
Run Number	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7
Date	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22
Process Water Flow, gpm	17,201	17,201	17,201	17,201	17,201	17,201	17,201
CWT Water Temperature, °C	16.11	16.51	16.98	17.22	17.22	17.22	17.06
Ambient Air Temp, °F	60	65	70	71	71	71	70
Barometric Pressure, in. Hg	29.30	29.30	29.20	29.20	29.20	29.20	29.23
Carbon disulfide Concentration, ppmv	< 0.0607	< 0.0607	< 0.0607	--	--	--	< 0.0607
Hydrogen Sulfide Concentration, ppmv	< 0.115	< 0.115	< 0.115	--	--	--	< 0.115
Carbonyl Sulfide Concentration, ppmv	< 0.125	< 0.125	< 0.125	--	--	--	< 0.125
<b>BTEX Data</b>							
Benzene Concentration, ppmv	< 0.416	< 0.416	< 0.416	< 0.416	< 0.416	< 0.416	< 0.416
Toluene Concentration, ppmv	< 0.431	< 0.431	< 0.431	< 0.431	< 0.431	< 0.431	< 0.431
Ethylbenzene Concentration, ppmv	< 0.445	< 0.445	< 0.445	< 0.445	< 0.445	< 0.445	< 0.445
m/p-Xylene Concentration, ppmv	< 0.464	< 0.464	< 0.464	< 0.464	< 0.464	< 0.464	< 0.464
o-Xylene Concentration, ppmv	< 0.473	< 0.473	< 0.473	< 0.473	< 0.473	< 0.473	< 0.473

\* All laboratory results were reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

Table 2-2: Summary of Results – West Side Cooling Tower Inlet

Emissions Data							
Run Number	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7
Date	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22
Process Water Flow, gpm	38,013	38,013	38,013	38,013	38,013	38,013	38,013
CWT Water Temperature, °C	16.67	16.67	16.67	16.67	16.67	16.67	16.67
Ambient Air Temp, °F	55	55	56	57	58	58	58
Barometric Pressure, in. Hg	29.20	29.20	29.20	29.20	29.10	29.10	29.10
Carbon disulfide Concentration, ppmv	< 0.0607	< 0.0607	< 0.0607	--	--	--	--
Hydrogen Sulfide Concentration, ppmv	< 0.115	< 0.115	< 0.115	--	--	--	--
Carbonyl Sulfide Concentration, ppmv	< 0.125	< 0.125	< 0.125	--	--	--	--
<b>BTEX Data</b>							
Benzene Concentration, ppmv	< 0.430	< 0.430	< 0.430	< 0.430	< 0.430	< 0.430	< 0.430
Toluene Concentration, ppmv	< 0.438	< 0.438	< 0.438	< 0.438	< 0.438	< 0.438	< 0.438
Ethylbenzene Concentration, ppmv	< 0.447	< 0.447	< 0.447	< 0.447	< 0.447	< 0.447	< 0.447
m/p-Xylene Concentration, ppmv	< 0.454	< 0.454	< 0.454	< 0.454	< 0.454	< 0.454	< 0.454
o-Xylene Concentration, ppmv	< 0.465	< 0.465	< 0.465	< 0.465	< 0.465	< 0.465	< 0.465
Average							

\* All laboratory results were reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

## Testing Methodology

### 3.0 Testing Methodology

The emission testing program was conducted in accordance with the test methods listed in Table 3-1. Method descriptions are provided below.

**Table 3-1: Source Testing Methodology**

Parameter	U.S. EPA Reference Test Methods	Notes/Remarks
BTEX	18	Integrated Bag / GC/FID Analysis
CS <sub>2</sub> , H <sub>2</sub> S & COS	15	Integrated Bag / GC/FPD Analysis

The test was conducted in accordance with all appropriate United States Environmental Protection Agency (U.S. EPA) Methodologies as well as all applicable Texas Commission on Environmental Quality (TCEQ) mandates as outlined in TCEQ Appendix P.

Sampling was performed in accordance with Appendix P of the TCEQ Sampling Procedures Manual, Revision 1, January 2003. A ten (10) minute stabilization time was completed prior to sampling in accordance with Section 6.1.3 of Appendix P. Samples were collected in leak-free Tedlar bags.

#### 3.1 U.S. EPA Reference Test Method 18 – BTEX

The BTEX analysis was conducted in accordance with U.S. EPA Reference Test Method 18. The analytical lab once receiving the samples analyzed them using gas chromatography / flame ionization detector (GC/FID) following the analytical procedures outlined in U.S. EPA Reference Test Method 18.

#### 3.2 U.S. EPA Reference Test Method 15 – Carbon Disulfide, Hydrogen Sulfide and Carbonyl Sulfide

The carbon disulfide (CS<sub>2</sub>), hydrogen sulfide (H<sub>2</sub>S) and carbonyl sulfide (COS) analysis was conducted in accordance with U.S. EPA Reference Test Method 15. The bag samples were analyzed with a gas chromatograph (GC) equipped with a flame photometric detector (FPD).



## Appendix A

**Location:** US Steel - Clairton Mill Works

**Source:** East Side Cooling Tower Inlet

**Project No.:** AST-2022-3353

Run No.	1	2	3	4	5	6	7
Date	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22	10/25/22
Start Time	10:00	11:00	12:00	13:00	14:00	15:00	16:00
Stop Time	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Input Data							
Process Water Flow, gpm	F	17,201	17,201	17,201	17,201	17,201	17,201
CWT Water Temperature, °C	T <sub>w</sub>	16.11	16.51	16.98	17.22	17.22	17.06
Ambient Air Temp, °F	T <sub>A</sub>	60	65	70	71	71	70
Barometric Pressure, in. Hg	P	29.30	29.30	29.20	29.20	29.20	29.20
Calculated Data							
Benzene Concentration, ppmvd	C <sub>C6H6</sub>	0.416	0.416	0.416	0.416	0.416	0.416
Toluene Concentration, ppmvd	C <sub>C7H8</sub>	0.431	0.431	0.431	0.431	0.431	0.431
Ethylbenzene Concentration, ppmvd	C <sub>C8H10</sub>	0.445	0.445	0.445	0.445	0.445	0.445
m/p-Xylene Concentration, ppmvd	C <sub>C8H10</sub>	0.464	0.464	0.464	0.464	0.464	0.464
o-Xylene Concentration, ppmvd	C <sub>C8H10</sub>	0.473	0.473	0.473	0.473	0.473	0.473

Laboratory data was reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

Location US Steel - Clairton Mill Works  
Source East Side Cooling Tower Inlet  
Project No. 2022-3353  
Parameter(s) VOHAPS, H2S, COS, CS2

Run Number	Run 1	Run 2	Run 3	Average
Date	10/25/2022	10/25/2022	10/25/2022	--
Start Time	10:00	11:00	12:00	--
Stop Time	11:00	12:00	13:00	--
Emissions Calculations				
Carbon disulfide Concentration, ppmvd	C <sub>CS2</sub>	<u>0.0607</u>	<u>0.0607</u>	0.0607
Hydrogen Sulfide Concentration, ppmvd	C <sub>H2S</sub>	<u>0.115</u>	<u>0.115</u>	0.115
Carbonyl Sulfide Concentration, ppmvd	C <sub>COS</sub>	<u>0.125</u>	<u>0.125</u>	0.125

Laboratory data was reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 1  
 Barometric Pressure: 29.3  
 Ambient Temperature: 60  
 Stabilization Time: 10 min.  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
10:00	125	2500	61	150	NA	NA	Tedlar Bag + Flexfoil Bag
10:10	125	2500	61	150			
10:20	125	2500	61	150			
10:30	125	2500	61	150			
10:40	125	2500	61	150			
10:50	125	2500	61	150			
11:00	125	2500	61	150			
Average	125	2500	61.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 2  
 Barometric Pressure: 29.3  
 Ambient Temperature: 65  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
11:00	125	2500	61	150	NA	NA	Tedlar Bag + Flexfoil Bag
11:10	125	2500	61	150			
11:20	125	2500	62	150			
11:30	125	2500	62	150			
11:40	125	2500	62	150			
11:50	125	2500	62	150			
12:00	125	2500	62	150			
Average	125	2500	61.7	150			

# Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 3  
 Barometric Pressure: 29.2  
 Ambient Temperature: 70  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
12:00	125	2500	62	150	NA	NA	Tedlar Bag + Flexfoil Bag
12:10	125	2500	62	150			
12:20	125	2500	62	150			
12:30	125	2500	63	150			
12:40	125	2500	63	150			
12:50	125	2500	63	150			
13:00	125	2500	63	150			
Average	125	2500	62.6	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 4  
 Barometric Pressure: 29.2  
 Ambient Temperature: 71  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
13:00	125	2500	63	150	NA	NA	Tedlar Bag
13:10	125	2500	63	150			
13:20	125	2500	63	150			
13:30	125	2500	63	150			
13:40	125	2500	63	150			
13:50	125	2500	63	150			
14:00	125	2500	63	150			
Average	125	2500	63.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 5  
 Barometric Pressure: 29.2  
 Ambient Temperature: 71  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
14:00	125	2500	63	150	NA	NA	Tedlar Bag
14:10	125	2500	63	150			
14:20	125	2500	63	150			
14:30	125	2500	63	150			
14:40	125	2500	63	150			
14:50	125	2500	63	150			
15:00	125	2500	63	150			
Average	125	2500	63.0	150			



## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 6  
 Barometric Pressure: 29.2  
 Ambient Temperature: 71  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
15:00	125	2500	63	150	NA	NA	Tedlar Bag
15:10	125	2500	63	150			
15:20	125	2500	63	150			
15:30	125	2500	63	150			
15:40	125	2500	63	150			
15:50	125	2500	63	150			
16:00	125	2500	63	150			
Average	125	2500	63.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: East Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/25/2022  
 Canister ID: NA  
 Sample ID: Run 7  
 Barometric Pressure: 29.2  
 Ambient Temperature: 70  
 Process Water Flow: 17201.3

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
16:00	125	2500	63	150	NA	NA	Tedlar Bag
16:10	125	2500	63	150			
16:20	125	2500	63	150			
16:30	125	2500	63	150			
16:40	125	2500	63	150			
16:50	125	2500	62	150			
17:00	125	2500	62	150			
Average	125	2500	62.7	150			

**Location:** US Steel - Clairton Mill Works

**Source:** West Side Cooling Tower Inlet

**Project No.:** AST-2022-3353

Run No.	1	2	3	4	5	6	7
Date	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22	10/26/22
Start Time	9:05	10:05	11:05	12:05	13:05	14:05	15:05
Stop Time	10:05	11:05	12:05	13:05	14:05	15:05	16:05
Input Data							
Process Water Flow, gpm	F	38,013	38,013	38,013	38,013	38,013	38,013
CWT Water Temperature, °C	T <sub>w</sub>	16.67	16.67	16.67	16.67	16.67	16.67
Ambient Air Temp, °F	T <sub>A</sub>	55	55	57	58	58	58
Barometric Pressure, in. Hg	P	29.20	29.20	29.20	29.10	29.10	29.10
Calculated Data							
Benzene Concentration, ppmvd	C <sub>C6H6</sub>	0.430	0.430	0.430	0.430	0.430	0.430
Toluene Concentration, ppmvd	C <sub>C7H8</sub>	0.438	0.438	0.438	0.438	0.438	0.438
Ethylbenzene Concentration, ppmvd	C <sub>C8H10</sub>	0.447	0.447	0.447	0.447	0.447	0.447
m/p-Xylene Concentration, ppmvd	C <sub>C8H10</sub>	0.454	0.454	0.454	0.454	0.454	0.454
o-Xylene Concentration, ppmvd	C <sub>C8H10</sub>	0.465	0.465	0.465	0.465	0.465	0.465

Laboratory data was reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

Location US Steel - Clairton Mill Works  
Source West Side Cooling Tower Inlet  
Project No. 2022-3353  
Parameter(s) H<sub>2</sub>S, COS, CS<sub>2</sub>

Run Number	Run 1	Run 2	Run 3	Average
Date	10/26/2022	10/26/2022	10/26/2022	--
Start Time	9:05	10:05	11:05	--
Stop Time	10:05	11:05	12:05	--
Emissions Calculations				
Carbon disulfide Concentration, ppmvd	C <sub>CS<sub>2</sub></sub>	0.0607	0.0607	0.0607
Hydrogen Sulfide Concentration, ppmvd	C <sub>H<sub>2</sub>S</sub>	0.115	0.115	0.115
Carbonyl Sulfide Concentration, ppmvd	C <sub>COS</sub>	0.125	0.125	0.125

Laboratory data was reported as below detection limit; therefore, the reportable detection limit was used in emission calculations.

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 1  
 Barometric Pressure: 29.2  
 Ambient Temperature: 55  
 Stabilization Time: 10 min.  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
9:05	125	2500	62	150	NA	NA	Tedlar Bag + Flexfoil Bag
9:15	125	2500	62	150			
9:25	125	2500	62	150			
9:35	125	2500	62	150			
9:45	125	2500	62	150			
9:55	125	2500	62	150			
10:05	125	2500	62	150			
Average	125	2500	62.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 2  
 Barometric Pressure: 29.2  
 Ambient Temperature: 55  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
10:05	125	2500	62	150	NA	NA	Tedlar Bag + Flexfoil Bag
10:15	125	2500	62	150			
10:25	125	2500	62	150			
10:35	125	2500	62	150			
10:45	125	2500	62	150			
10:55	125	2500	62	150			
11:05	125	2500	62	150			
Average	125	2500	62.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 3  
 Barometric Pressure: 29.2  
 Ambient Temperature: 56  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
11:05	125	2500	62	150	NA	NA	Tedlar Bag + Flexfoil Bag
11:15	125	2500	62	150			
11:25	125	2500	62	150			
11:35	125	2500	62	150			
11:45	125	2500	62	150			
11:55	125	2500	62	150			
12:05	125	2500	62	150			
Average	125	2500	62.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 4  
 Barometric Pressure: 29.2  
 Ambient Temperature: 57  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
12:05	125	2500	62	150	NA	NA	Tedlar Bag
12:15	125	2500	62	150			
12:25	125	2500	62	150			
12:35	125	2500	62	150			
12:45	125	2500	62	150			
12:55	125	2500	62	150			
13:05	125	2500	62	150			
Average	125	2500	62.0	150			



## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 5  
 Barometric Pressure: 29.1  
 Ambient Temperature: 58  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
13:05	125	2500	62	150	NA	NA	Tedlar Bag
13:15	125	2500	62	150			
13:25	125	2500	62	150			
13:35	125	2500	62	150			
13:45	125	2500	62	150			
13:55	125	2500	62	150			
14:05	125	2500	62	150			
Average	125	2500	62.0	150			

# Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 6  
 Barometric Pressure: 29.1  
 Ambient Temperature: 58  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
14:05	125	2500	62	150	NA	NA	Tedlar Bag
14:15	125	2500	62	150			
14:25	125	2500	62	150			
14:35	125	2500	62	150			
14:45	125	2500	62	150			
14:55	125	2500	62	150			
15:05	125	2500	62	150			
Average	125	2500	62.0	150			

## Air Strippable VOCs in Water Canister Sampling Data Sheet

Regulated Entity: US Steel - Clairton Mill Works  
 Project No: AST-2022-3353  
 Unit Name: West Side Cooling Tower Inlet  
 Process Description: Cooling Water  
 Date/Time: 10/26/2022  
 Canister ID: NA  
 Sample ID: Run 7  
 Barometric Pressure: 29.1  
 Ambient Temperature: 58  
 Process Water Flow: 38012.5

Time	Air Stripping Apparatus Data			Canister Flow Rate, if applicable (cc/min)	Canister Vacuum (mm Hg)	FID Reading, (ppmv, wet)	Comments
	Water (ml/min)	Air (ml/min)	Temp. (°F)				
15:05	125	2500	62	150	NA	NA	Tedlar Bag
15:15	125	2500	62	150			
15:25	125	2500	62	150			
15:35	125	2500	62	150			
15:45	125	2500	62	150			
15:55	125	2500	62	150			
16:05	125	2500	62	150			
Average	125	2500	62.0	150			

## Appendix B

# Alliance Source Testing, LLC Pittsburgh

1201 Parkway View Drive Pittsburgh, PA 15205

U.S. Steel-Clariton, PA – ICR  
Client Project # 22-3353

## Analytical Report (1022-165R)

### *EPA Method 18*

Benzene, Toluene, Ethylbenzene, o-Xylene, m/p-Xylene

### *EPA Method 15-Type*

Hydrogen sulfide, carbonyl sulfide, carbon disulfide



### Enthalpy Analytical, LLC

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / [www.enthalpy.com](http://www.enthalpy.com)  
800-1 Capitola Drive Durham, NC 27713-4385

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

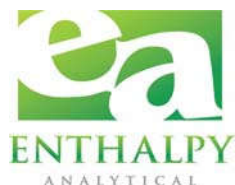
- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 305 pages.



QA Review Performed by – Jennifer Bowker

Report Issued: 11/23/2022



# Summary of Results



## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Summary

Sample ID / Adjusted Concentration (ppmv)

Compound	East M18 Blank	East M18 Run 1	East M18 Run 2	East M18 Run 3	East M18 Run 4	East M18 Run 5	East M18 Run 6	East M18 Run 7
Benzene	0.416 ND	0.416 ND	0.416 ND	0.416 ND	0.416 ND	0.416 ND	0.416 ND	0.416 ND
Toluene	0.431 ND	0.431 ND	0.431 ND	0.431 ND	0.431 ND	0.431 ND	0.431 ND	0.431 ND
Ethylbenzene	0.445 ND	0.445 ND	0.445 ND	0.445 ND	0.445 ND	0.445 ND	0.445 ND	0.445 ND
m/p-Xylenes	0.464 ND	0.464 ND	0.464 ND	0.464 ND	0.464 ND	0.464 ND	0.464 ND	0.464 ND
o-Xylene	0.473 ND	0.473 ND	0.473 ND	0.473 ND	0.473 ND	0.473 ND	0.473 ND	0.473 ND



## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Summary

Sample ID / Adjusted Concentration (ppmv)

Compound	West Backup R3	West Backup R6	West Primary Blank	West Primary R1	West Primary R2	West Primary R4	West Primary R5	West Primary R7
Benzene	0.430 ND	0.430 ND	0.430 ND	0.430 ND	0.430 ND	0.430 ND	0.430 ND	0.430 ND
Toluene	0.438 ND	0.438 ND	0.438 ND	0.438 ND	0.438 ND	0.438 ND	0.438 ND	0.438 ND
Ethylbenzene	0.447 ND	0.447 ND	0.447 ND	0.447 ND	0.447 ND	0.447 ND	0.447 ND	0.447 ND
m/p-Xylenes	0.454 ND	0.454 ND	0.454 ND	0.454 ND	0.454 ND	0.454 ND	0.454 ND	0.454 ND
o-Xylene	0.465 ND	0.465 ND	0.465 ND	0.465 ND	0.465 ND	0.465 ND	0.465 ND	0.465 ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-16 EPA Method 15 (East) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Summary

Compound	Sample Conc (ppmv)					
	East Side Cooling M15 Primary R1		East Side Cooling M15 Primary R2		East Side Cooling M15 Primary R3	
Hydrogen sulfide	0.115	ND	0.115	ND	0.115	ND
Carbonyl sulfide	0.125	ND	0.125	ND	0.125	ND
Carbon disulfide	0.0607	ND	0.0607	ND	0.0607	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-16 EPA Method 15 (West) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Summary

Compound	Sample Conc (ppmv)					
	West Side Cooling M15 Primary R1		West Side Cooling M15 Primary R2		West Side Cooling M15 Primary R3	
Hydrogen sulfide	0.115	ND	0.115	ND	0.115	ND
Carbonyl sulfide	0.125	ND	0.125	ND	0.125	ND
Carbon disulfide	0.0607	ND	0.0607	ND	0.0607	ND

# Results

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Benzene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%diff. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%diff. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
East Side Cooling M18 Primary R1	_004_005F0201.D	_005_005F0202.D	_006_005F0203.D	0.379	3.70	101	6.76	6.76	0.0	0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R2	_007_006F0301.D	_008_006F0302.D	_009_006F0303.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R3	_010_007F0401.D	_011_007F0402.D	_012_007F0403.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R4	_013_008F0501.D	_014_008F0502.D	_015_008F0503.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R5	_016_009F0601.D	_017_009F0602.D	_018_009F0603.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R5 SP	_004F0801.D	_004F0802.D	_004F0803.D	0.379	3.70	101	6.76	6.76	0.0	8.13	8.04	7.92	1.4	1	8.03	91.2		
East Side Cooling M18 Primary R6	_019_010F0701.D	_020_010F0702.D	_021_010F0703.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary R7	_022_004F0801.D	_023_004F0802.D	_024_004F0803.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND
East Side Cooling M18 Primary Blank	_001_004F0101.D	_002_004F0102.D	_003_004F0103.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	91.2	0.416	ND

## Toluene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%diff. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%diff. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
East Side Cooling M18 Primary R1	_004_005F0201.D	_005_005F0202.D	_006_005F0203.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R2	_007_006F0301.D	_008_006F0302.D	_009_006F0303.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R3	_010_007F0401.D	_011_007F0402.D	_012_007F0403.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R4	_013_008F0501.D	_014_008F0502.D	_015_008F0503.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R5	_016_009F0601.D	_017_009F0602.D	_018_009F0603.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R5 SP	_004F0801.D	_004F0802.D	_004F0803.D	0.372	3.65	99.9	7.84	7.83	0.0	7.08	7.00	6.90	1.3	1	6.99	86.3		
East Side Cooling M18 Primary R6	_019_010F0701.D	_020_010F0702.D	_021_010F0703.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary R7	_022_004F0801.D	_023_004F0802.D	_024_004F0803.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND
East Side Cooling M18 Primary Blank	_001_004F0101.D	_002_004F0102.D	_003_004F0103.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	86.3	0.431	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Ethylbenzene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%diff. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%diff. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
East Side Cooling M18 Primary R1	_004_005F0201.D	_005_005F0202.D	_006_005F0203.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R2	_007_006F0301.D	_008_006F0302.D	_009_006F0303.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R3	_010_007F0401.D	_011_007F0402.D	_012_007F0403.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R4	_013_008F0501.D	_014_008F0502.D	_015_008F0503.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R5	_016_009F0601.D	_017_009F0602.D	_018_009F0603.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R5 SP	004F0801.D	004F0802.D	004F0803.D	0.372	3.60	98.4	8.64	8.64	0.0	6.98	6.90	6.76	1.7	1	6.88	83.7		
East Side Cooling M18 Primary R6	_019_010F0701.D	_020_010F0702.D	_021_010F0703.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary R7	_022_004F0801.D	_023_004F0802.D	_024_004F0803.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND
East Side Cooling M18 Primary Blank	_001_004F0101.D	_002_004F0102.D	_003_004F0103.D	0.372	3.60	98.4				0.372	0.372	0.372		1	0.372	83.7	0.445	ND

## m-p-Xylenes

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%diff. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%diff. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
East Side Cooling M18 Primary R1	_004_005F0201.D	_005_005F0202.D	_006_005F0203.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R2	_007_006F0301.D	_008_006F0302.D	_009_006F0303.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R3	_010_007F0401.D	_011_007F0402.D	_012_007F0403.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R4	_013_008F0501.D	_014_008F0502.D	_015_008F0503.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R5	_016_009F0601.D	_017_009F0602.D	_018_009F0603.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R5 SP	004F0801.D	004F0802.D	004F0803.D	0.380	3.69	101	8.70	8.70	0.0	6.81	6.80	6.68	1.3	1	6.76	81.9		
East Side Cooling M18 Primary R6	_019_010F0701.D	_020_010F0702.D	_021_010F0703.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary R7	_022_004F0801.D	_023_004F0802.D	_024_004F0803.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND
East Side Cooling M18 Primary Blank	_001_004F0101.D	_002_004F0102.D	_003_004F0103.D	0.380	3.69	101				0.380	0.380	0.380		1	0.380	81.9	0.464	ND

# Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
 Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis  
 Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## o-Xylene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%diff. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%diff. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
East Side Cooling M18 Primary R1	_004_005F0201.D	_005_005F0202.D	_006_005F0203.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R2	_007_006F0301.D	_008_006F0302.D	_009_006F0303.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R3	_010_007F0401.D	_011_007F0402.D	_012_007F0403.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R4	_013_008F0501.D	_014_008F0502.D	_015_008F0503.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R5	_016_009F0601.D	_017_009F0602.D	_018_009F0603.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R5 SP	004F0801.D	004F0802.D	004F0803.D	0.374	3.69	101	8.93	8.93	0.0	6.75	6.77	6.62	1.4	1	6.71	79.1		
East Side Cooling M18 Primary R6	_019_010F0701.D	_020_010F0702.D	_021_010F0703.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary R7	_022_004F0801.D	_023_004F0802.D	_024_004F0803.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND
East Side Cooling M18 Primary Blank	_001_004F0101.D	_002_004F0102.D	_003_004F0103.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	79.1	0.473	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Spike Hold Times

Spiked Bag	Bag Spiked (Date/Time)	Spike Analyzed (Date/Time)	Hold Time (Hours)	Related Bag	Related Bag Sampled Date (Date/Time)	Bag Analyzed (Date/Time)	Hold Time (Hours)
M18 Run 5 SP	2022-10-31 13:38	2022-11-01 14:23	24.8	M18 Blank	2022-10-25 10:30	2022-10-26 10:42	24.2
				M18 Run 1	2022-10-25 11:00	2022-10-26 11:24	24.4
				M18 Run 2	2022-10-25 12:00	2022-10-26 12:06	24.1
				M18 Run 3	2022-10-25 13:00	2022-10-26 12:48	23.8
				M18 Run 4	2022-10-25 14:00	2022-10-26 13:31	23.5
				M18 Run 5	2022-10-25 15:00	2022-10-26 14:13	23.2
				M18 Run 6	2022-10-25 16:00	2022-10-26 14:55	22.9
				M18 Run 7	2022-10-25 17:00	2022-10-26 15:37	22.6



## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-165-1 EPA Method 18 Tedlar Bag (East) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Spiked Bag

East Side Cooling M18 Primary R5 SP			Benzene	Toluene	Ethylbenzene	m-p-Xylenes	o-Xylene
Before Spiking	Inj.1 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Inj.2 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Inj.3 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Avg. ppmv		0.00	0.00	0.00	0.00	0.00
	Bag Vol. (L) NTP	0.929					
Gas Spike	Cylinder	ALM031541					
	Expires	4/8/23					
	Press./Temp.	757.7 / 68.5					
	Vol. (mL)	90.0					
	Cyl. Dil. Factor	1					
	Cyl. Conc. (ppmv)		100	92.1	93.4	93.8	96.4
	Vol. (mL NTP)	89.6	0.00896	0.00826	0.00837	0.00841	0.00864
Totals	Sp. Bag Vol. L NTP	1.02					
	Corrected Initial (ppmv)		0.00	0.00	0.00	0.00	0.00
	Spike Amount (mL NTP)		0.00896	0.00826	0.00837	0.00841	0.00864
	Spike Amount (ppmv)		8.80	8.11	8.22	8.26	8.49
	Expected (ppmv)		8.80	8.11	8.22	8.26	8.49
Result	Inj.1 (ppmv)		8.13	7.08	6.98	6.81	6.75
	Inj.2 (ppmv)		8.04	7.00	6.90	6.80	6.77
	Inj.3 (ppmv)		7.92	6.90	6.76	6.68	6.62
	Avg. (ppmv)		8.03	6.99	6.88	6.76	6.71
	<b>Recovery (%)</b>		<b>91.2</b>	<b>86.3</b>	<b>83.7</b>	<b>81.9</b>	<b>79.1</b>

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Benzene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%dif. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
West Side Cooling M18 Primary R1	006F0601.D	006F0602.D	006F0603.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Primary R2	007F0701.D	007F0702.D	007F0703.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Primary R2 SP	005F1001.D	005F1002.D	005F1003.D	0.379	3.70	101	6.76	6.76	0.0	7.97	7.90	7.73	1.7	1	7.87	88.0		
West Side Cooling M18 Primary R4	009F0901.D	009F0902.D	009F0903.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Primary R5	010F1001.D	010F1002.D	010F1003.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Primary R7	012F1201.D	012F1202.D	012F1203.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Primary Blank	004F0501.D	004F0502.D	004F0503.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Backup R3	008F0801.D	008F0802.D	008F0803.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND
West Side Cooling M18 Backup R6	011F1101.D	011F1102.D	011F1103.D	0.379	3.70	101				0.379	0.379	0.379		1	0.379	88.0	0.430	ND

### Toluene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%dif. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
West Side Cooling M18 Primary R1	006F0601.D	006F0602.D	006F0603.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Primary R2	007F0701.D	007F0702.D	007F0703.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Primary R2 SP	005F1001.D	005F1002.D	005F1003.D	0.372	3.65	99.9	7.83	7.84	0.0	7.10	7.00	6.89	1.5	1	7.00	85.0		
West Side Cooling M18 Primary R4	009F0901.D	009F0902.D	009F0903.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Primary R5	010F1001.D	010F1002.D	010F1003.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Primary R7	012F1201.D	012F1202.D	012F1203.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Primary Blank	004F0501.D	004F0502.D	004F0503.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Backup R3	008F0801.D	008F0802.D	008F0803.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND
West Side Cooling M18 Backup R6	011F1101.D	011F1102.D	011F1103.D	0.372	3.65	99.9				0.372	0.372	0.372		1	0.372	85.0	0.438	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Ethylbenzene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%dif. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
West Side Cooling M18 Primary R1	006F0601.D	006F0602.D	006F0603.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Primary R2	007F0701.D	007F0702.D	007F0703.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Primary R2 SP	005F1001.D	005F1002.D	005F1003.D	0.372	3.60	98.4	8.64	8.64	0.0	7.03	6.94	6.85	1.3	1	6.94	83.2		ND
West Side Cooling M18 Primary R4	009F0901.D	009F0902.D	009F0903.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Primary R5	010F1001.D	010F1002.D	010F1003.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Primary R7	012F1201.D	012F1202.D	012F1203.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Primary Blank	004F0501.D	004F0502.D	004F0503.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Backup R3	008F0801.D	008F0802.D	008F0803.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND
West Side Cooling M18 Backup R6	011F1101.D	011F1102.D	011F1103.D	0.372	3.60	98.4				0.372	0.372	0.372	1	1	0.372	83.2	0.447	ND

### m-p-Xylenes

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%dif. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
West Side Cooling M18 Primary R1	006F0601.D	006F0602.D	006F0603.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Primary R2	007F0701.D	007F0702.D	007F0703.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Primary R2 SP	005F1001.D	005F1002.D	005F1003.D	0.380	3.69	101	8.70	8.70	0.0	7.11	7.02	6.90	1.6	1	7.01	83.6		ND
West Side Cooling M18 Primary R4	009F0901.D	009F0902.D	009F0903.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Primary R5	010F1001.D	010F1002.D	010F1003.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Primary R7	012F1201.D	012F1202.D	012F1203.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Primary Blank	004F0501.D	004F0502.D	004F0503.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Backup R3	008F0801.D	008F0802.D	008F0803.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND
West Side Cooling M18 Backup R6	011F1101.D	011F1102.D	011F1103.D	0.380	3.69	101				0.380	0.380	0.380	1	1	0.380	83.6	0.454	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### o-Xylene

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Curve Min (ppmv)	Curve Max (ppmv)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmv)	Conc 2 (ppmv)	Conc 3 (ppmv)	%dif. conc.	DF	Avg Conc (ppmv)	Spike Recov. (%)	Adj. Conc (ppmv)	Flag
West Side Cooling M18 Primary R1	006F0601.D	006F0602.D	006F0603.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Primary R2	007F0701.D	007F0702.D	007F0703.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Primary R2 SP	005F1001.D	005F1002.D	005F1003.D	0.374	3.69	101	8.93	8.93	0.0	7.00	6.93	6.84	1.2	1	6.92	80.4		
West Side Cooling M18 Primary R4	009F0901.D	009F0902.D	009F0903.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Primary R5	010F1001.D	010F1002.D	010F1003.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Primary R7	012F1201.D	012F1202.D	012F1203.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Primary Blank	004F0501.D	004F0502.D	004F0503.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Backup R3	008F0801.D	008F0802.D	008F0803.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND
West Side Cooling M18 Backup R6	011F1101.D	011F1102.D	011F1103.D	0.374	3.69	101				0.374	0.374	0.374		1	0.374	80.4	0.465	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Spike Hold Times

Spiked Bag	Bag Spiked (Date/Time)	Spike Analyzed (Date/Time)	Hold Time (Hours)	Related Bag	Related Bag Sampled Date (Date/Time)	Bag Analyzed (Date/Time)	Hold Time (Hours)
West Primary R2 SP	2022-10-31 13:40	2022-11-01 20:01	30.4	West Backup R3	2022-10-26 12:05	2022-10-27 17:27	29.4
				West Backup R6	2022-10-26 15:05	2022-10-27 19:40	28.6
				West Primary Blank	2022-10-26 09:45	2022-10-27 15:21	29.6
				West Primary R1	2022-10-26 10:05	2022-10-27 16:03	30.0
				West Primary R2	2022-10-26 11:05	2022-10-27 16:45	29.7
				West Primary R4	2022-10-26 13:05	2022-10-27 18:09	29.1
				West Primary R5	2022-10-26 14:05	2022-10-27 18:52	28.8
				West Primary R7	2022-10-26 16:05	2022-10-27 20:22	28.3

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh

Job No.: 1022-165-5 EPA Method 18 Tedlar Bag (West) Analysis

Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

### Spiked Bag

West Side Cooling M18 Primary R2 SP			Benzene	Toluene	Ethylbenzene	m-p-Xylenes	o-Xylene
Before Spiking	Inj.1 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Inj.2 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Inj.3 (ppmv)		0.00	0.00	0.00	0.00	0.00
	Avg. ppmv		0.00	0.00	0.00	0.00	0.00
	Bag Vol. (L) NTP	2.13					
Gas Spike	Cylinder	ALM031541					
	Expires	4/8/23					
	Press./Temp.	757.7 / 68.7					
	Vol. (mL)	210					
	Cyl. Dil. Factor	1					
	Cyl. Conc. (ppmv)		100	92.1	93.4	93.8	96.4
	Vol. (mL NTP)	209	0.0209	0.0193	0.0195	0.0196	0.0202
Totals	Sp. Bag Vol. L NTP	2.34					
	Corrected Initial (ppmv)		0.00	0.00	0.00	0.00	0.00
	Spike Amount (mL NTP)		0.0209	0.0193	0.0195	0.0196	0.0202
	Spike Amount (ppmv)		8.94	8.23	8.35	8.38	8.61
	Expected (ppmv)		8.94	8.23	8.35	8.38	8.61
Result	Inj.1 (ppmv)		7.97	7.10	7.03	7.11	7.00
	Inj.2 (ppmv)		7.90	7.00	6.94	7.02	6.93
	Inj.3 (ppmv)		7.73	6.89	6.85	6.90	6.84
	Avg. (ppmv)		7.87	7.00	6.94	7.01	6.92
	Recovery (%)		88.0	85.0	83.2	83.6	80.4

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-16 EPA Method 15 (East) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Hydrogen sulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmw)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
East Side Cooling M15 Primary R1	005B1601.D	005B1602.D	005B1603.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
East Side Cooling M15 Primary R2	005B1701.D	005B1702.D	005B1703.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
East Side Cooling M15 Primary R3	005B1801.D	005B1802.D	005B1803.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
zeppoP0675 #LCS	005B1301.D	005B1302.D	005B1401.D	0.115	1.27	11.7	1.89	1.89	1.89	0.1	5.77	5.85	5.78	0.9	5.80	1	5.80	
																		7.14
																	81.3%	

## Carbonyl sulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmvv)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
East Side Cooling M15 Primary R1	005B1601.D	005B1602.D	005B1603.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND
East Side Cooling M15 Primary R2	005B1701.D	005B1702.D	005B1703.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND
East Side Cooling M15 Primary R3	005B1801.D	005B1802.D	005B1803.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND

## Carbon disulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmvv)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
East Side Cooling M15 Primary R1	005B1601.D	005B1602.D	005B1603.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND
East Side Cooling M15 Primary R2	005B1701.D	005B1702.D	005B1703.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND
East Side Cooling M15 Primary R3	005B1801.D	005B1802.D	005B1803.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND

## Enthalpy Analytical

Company: Alliance Source Testing, LLC- Pittsburgh  
Job No.: 1022-16 EPA Method 15 (West) Analysis  
Client No.: 22-3353 Site: U.S. Steel-Clariton, PA - ICR

## Hydrogen sulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmvv)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
West Side Cooling M15 Primary R1	005B0301.D	005B0302.D	005B0303.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
West Side Cooling M15 Primary R2	005B0401.D	005B0402.D	005B0403.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
West Side Cooling M15 Primary R3	005B0501.D	005B0502.D	005B0503.D	0.115	1.27	11.7	NA	NA	NA	NA	0.115	0.115	0.115	0.0	0.115	1	0.115	ND
zeppoP0675 #LCS	005B1301.D	005B1302.D	005B1401.D	0.115	1.27	11.7	1.89	1.89	1.89	0.1	5.77	5.85	5.78	0.9	5.80	1	5.80	
																	7.14	
																	81.3%	

## Carbonyl sulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmvv)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
West Side Cooling M15 Primary R1	005B0301.D	005B0302.D	005B0303.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND
West Side Cooling M15 Primary R2	005B0401.D	005B0402.D	005B0403.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND
West Side Cooling M15 Primary R3	005B0501.D	005B0502.D	005B0503.D	0.125	0.741	6.85	NA	NA	NA	NA	0.125	0.125	0.125	0.0	0.125	1	0.125	ND

## Carbon disulfide

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmvv)	Curve Min (ppmvv)	Curve Max (ppmvv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc 1 (ppmvv)	Conc 2 (ppmvv)	Conc 3 (ppmvv)	%dif. conc.	Avg Conc (ppmvv)	DF	Adj Conc (ppmvv)	Flag
West Side Cooling M15 Primary R1	005B0301.D	005B0302.D	005B0303.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND
West Side Cooling M15 Primary R2	005B0401.D	005B0402.D	005B0403.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND
West Side Cooling M15 Primary R3	005B0501.D	005B0502.D	005B0503.D	0.0607	0.931	8.61	NA	NA	NA	NA	0.0607	0.0607	0.0607	0.0	0.0607	1	0.0607	ND



# Narrative Summary



## Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	Alliance Source Testing, LLC- Pittsburgh 1022-165 EPA Method 18 Tedlar Bag (East) Analysis 22-3353 Site: U.S. Steel-Clariton, PA - ICR
Custody	<p>Alyssa Miller received the samples on October 26, 2022 at ambient temperature after being relinquished by Alliance Source Testing, LLC- Pittsburgh. The samples were received in good condition.</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 samples were analyzed for benzene, toluene, ethylbenzene, o-xylene, and m/p-xylene using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).</p> <p>All samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless steel loop. The analytes of interest were referenced to certified gas phase standards.</p> <p>The Agilent Technologies Model 7890A, Gas Chromatograph Edith was used for these analyses. It was equipped with a Flame Ionization Detector.</p>
Calibration	The calibration curves and the data analysis method are included in the Raw Data section of this report. The calibration curves met all method-specified precision criteria.
Chrom. Conditions	The acquisition method AQ_EDITHP503_HRVOC.M may be made available upon request.
QC Notes	<p>The analytes of interest were not identified at concentrations greater than the detection limit in the analyses of the laboratory zero air blanks.</p> <p>A spike and recovery study was performed on the sample M18 Run 5 with the bag spiked at 01:38 PM on 10-31-2022. The recovery efficiency values met the method-required limits of 70 to 130% for sample M18 Run 5 for all target compounds. The recovery efficiency values were used to adjust the results for sample M18 Run 5 and the other samples from its accompanying source following equation 18-7 of Method 18 for all target compounds.</p>
Reporting Notes	<p>The MDL was determined by performing an IDL study and performing calculations as described in Title 40 of the Code of Federal Regulations, Part 136, Appendix B, Revision 1.1.</p> <p>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.</p> <p>The results presented in this report are representative of the samples as provided to the laboratory.</p>

## Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	Alliance Source Testing, LLC- Pittsburgh 1022-165 EPA Method 18 Tedlar Bag (West) Analysis 22-3353 Site: U.S. Steel-Clariton, PA - ICR
Custody	<p>David Myers received the samples on October 27, 2022 at ambient temperature after being relinquished by Alliance Source Testing, LLC- Pittsburgh. The samples were received in good condition with the exception that sample West Side Cooling M18 Inlet Primary R3 and R6 bags received flat.</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 samples were analyzed for benzene, toluene, ethylbenzene, o-xylene, and m/p-xylene using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography (40 CFR Part 60, Appendix A).</p> <p>All samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless steel loop. The analytes of interest were referenced to certified gas phase standards.</p> <p>The Agilent Technologies Model 7890A, Gas Chromatograph Edith was used for these analyses. It was equipped with a Flame Ionization Detector.</p>
Calibration	The calibration curves and the data analysis method are included in the Raw Data section of this report. The calibration curves met all method-specified precision criteria.
Chrom. Conditions	The acquisition method AQ_EDITHP503_HRVOC.M may be made available upon request.
QC Notes	<p>The analytes of interest were not identified at concentrations greater than the detection limit in the analyses of the laboratory zero air blanks.</p> <p>A spike and recovery study was performed on the sample West Primary R2 with the bag spiked at 01:40 PM on 10-31-2022. The recovery efficiency values met the method-required limits of 70 to 130% for sample West Primary R2 for all target compounds. The recovery efficiency values were used to adjust the results for sample West Primary R2 and the other samples from its accompanying source following equation 18-7 of Method 18 for all target compounds.</p>

## Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	Alliance Source Testing, LLC- Pittsburgh 1022-165 EPA Method 18 Tedlar Bag (West) Analysis 22-3353 Site: U.S. Steel-Clariton, PA - ICR
Reporting Notes	<p>The MDL was determined by performing an IDL study and performing calculations as described in Title 40 of the Code of Federal Regulations, Part 136, Appendix B, Revision 1.1.</p> <p>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.</p> <p>The results presented in this report are representative of the samples as provided to the laboratory.</p>

## Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	Alliance Source Testing, LLC- Pittsburgh 1022-165 EPA Method 15-Type (East) Analysis 22-3353 Site: U.S. Steel-Clariton, PA - ICR
Custody	<p>Alyssa Miller received the samples on October 26, 2022 at ambient temperature after being relinquished by Alliance Source Testing, LLC-Pittsburgh. The samples were received in good condition.</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 samples were analyzed for hydrogen sulfide, carbonyl sulfide, and carbon disulfide using the general analytical procedures in EPA Method 15, Determination of Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide Emissions from Stationary Sources (40 CFR Part 60, Appendix A).</p> <p>The samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless-steel loop. All target analytes were referenced to certified gas phase standards.</p> <p>The Gas Chromatograph "Zeppo" was equipped with a Flame Photometric Detector for these analyses.</p>
Calibration	<p>The calibration curve is included in the Raw Data section of this report. The first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.</p>
Chrom. Conditions	<p>Copies of the acquisition methods (DUALFPD8.M and DUALFPD8_SHORT.M) may be made available upon request.</p>
QC Notes	<p>None of the compounds of interest were identified at a level greater than their detection limit in the analyses of the laboratory method blanks.</p> <p>A Laboratory Control Sample (LCS) bag was spiked with hydrogen sulfide and analyzed with the sample, yielding a spike recovery value of 81.3%.</p>

## Enthalpy Analytical Narrative Summary

Company	Alliance Source Testing, LLC- Pittsburgh
Job No.	1022-165 EPA Method 15-Type (East) Analysis
Client ID.	22-3353 Site: U.S. Steel-Clariton, PA - ICR

Reporting Notes	<p>The MDL was determined by performing an IDL study and performing calculations as described in Title 40 of the Code of Federal Regulations, Part 136, Appendix B, Revision 1.1.</p> <p>The results presented in this report are representative of the sample as provided to the laboratory.</p>
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## Enthalpy Analytical Narrative Summary

Company Job No. Client ID.	Alliance Source Testing, LLC- Pittsburgh 1022-165 EPA Method 15-Type (West) Analysis 22-3353 Site: U.S. Steel-Clariton, PA - ICR
Custody	<p>David Myers received the samples on October 27, 2022 at ambient temperature after being relinquished by Alliance Source Testing, LLC-Pittsburgh. The samples were received in good condition.</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 samples were analyzed for hydrogen sulfide, carbonyl sulfide, and carbon disulfide using the general analytical procedures in EPA Method 15, Determination of Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide Emissions from Stationary Sources (40 CFR Part 60, Appendix A).</p> <p>The samples and standards were introduced directly to the column using an automated multi-port Valco gas sampling valve equipped with a stainless-steel loop. All target analytes were referenced to certified gas phase standards.</p> <p>The Gas Chromatograph "Zeppo" was equipped with a Flame Photometric Detector for these analyses.</p>
Calibration	<p>The calibration curve is included in the Raw Data section of this report. The first page of the curve contains all method specific parameters (i.e., curve type, origin, weight, etc.) used to quantify the samples. The calibration curve section also includes a table with the Retention Time (RetTime), Level (Lvl), Amount (corresponding units), Area, Response Factor (Amt/Area) and the analyte Name. The calibration table is used to identify (by retention time) and quantify each target compound.</p>
Chrom. Conditions	<p>Copies of the acquisition methods (DUALFPD8.M and DUALFPD8_SHORT.M) may be made available upon request.</p>
QC Notes	<p>None of the compounds of interest were identified at a level greater than their detection limit in the analyses of the laboratory method blanks.</p> <p>A Laboratory Control Sample (LCS) bag was spiked with hydrogen sulfide and analyzed with the sample, yielding a spike recovery value of 81.3%.</p>

## Enthalpy Analytical Narrative Summary

Company	Alliance Source Testing, LLC- Pittsburgh
Job No.	1022-165 EPA Method 15-Type (West) Analysis
Client ID.	22-3353 Site: U.S. Steel-Clariton, PA - ICR

Reporting Notes	<p>The MDL was determined by performing an IDL study and performing calculations as described in Title 40 of the Code of Federal Regulations, Part 136, Appendix B, Revision 1.1.</p> <p>The results presented in this report are representative of the sample as provided to the laboratory.</p>
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## General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as “**Type**” represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as “EPA Method 16-Type” because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.
- The acronym **MDL** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.
- The acronym **LOQ** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.
- The acronym **ND** following a value indicates a non-detect or analytical result below the MDL.
- The letter **J** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.
- The letter **E** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.
- Sample results are presented ‘as measured’ for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.
- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).
- The acronym **DF** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.
- The addition of **MS** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).



## General Reporting Notes

(continued)

- The addition of **MSD** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.
- The addition of **LD** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).
- The addition of **AD** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.
- The Sample ID **LCS** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.
- **Significant Figures:** Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.
- **Manual Integration:** The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was *not integrated* by the software "**NI**", the peak was *integrated incorrectly* by the software "**II**" or the *wrong peak* was integrated by the software "**WP**". These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.



# Sample Custody





# Chain of Custody Record

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## Special Handling:

- ☒ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_
- ☐ All TATs Subject to Approval by Enthalpy Analytical, Inc.
- ☐ All Bag/Can Samples Disposed of 1 Month from Receipt
- ☐ All Other Samples Disposed of 4 Months from Receipt

Client Name: Alliance Source Testing (PIT) Project Number: 22-3353 PO#: \_\_\_\_\_  
Project Manager: Adam Robinson Site Name: U.S. Steel Telephone#: 256-351-0121  
Report To: [pitreports@stacktest.com](mailto:pitreports@stacktest.com) Location: Clariton, PA Email: \_\_\_\_\_

For spiked or duplicate samples: please provide sample volumes for recovery calculations.  
For Particulates: please provide tare weights and/or condensed water volumes.

## Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other  
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	M18	Hold	Notes:
East Side Cooling Tower Inlet - Primary Bag Run 1	10/25/22	11:00 AM	NA	C	A				1						Benzene, Toluene, Ethylbenzene, o/m/p-xylenes
East Side Cooling Tower Inlet - Primary Bag Run 2	10/25/22	12:00 PM	NA	C	A				1						"
East Side Cooling Tower Inlet - Primary Bag Run 3	10/25/22	1:00 PM	NA	C	A				1						"
East Side Cooling Tower Inlet - Primary Bag Run 4	10/25/22	2:00 PM	NA	C	A				1						"
East Side Cooling Tower Inlet - Primary Bag Run 5	10/25/22	3:00 PM	NA	C	A				1						"
East Side Cooling Tower Inlet - Primary Bag Run 6	10/25/22	4:00 PM	NA	C	A				1						"
East Side Cooling Tower Inlet - Primary Bag Run 7	10/25/22	5:00 PM	NA	C	A				1						"
EAST SIDE COOLING TOWER PRIMARY BAG BLANK	10/25/22	10:30	NA	C	A				1				✓		"
Ambient temp, good condensation	10/25/22	10:30	NA	C	A				1						"

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Condition Upon Receipt:
	10/25/22 10:30	<i>Allyssa M. Nuccio</i>	10-26-22	0945	<input type="checkbox"/> Iced <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C
					<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C
					<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C

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FORM

Chain of Custody

EAH-DR1001-001, Revision 2019-01, Effective 03/18/19

EA Job # 1022-165R 32 of 305






# Chain of Custody Record

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## Special Handling:

- ☒ Standard Turn Around Time (10 business days)  
☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_  
• All TATs Subject to Approval by Enthalpy Analytical, Inc.  
• All Bag/Can Samples Disposed of 1 Month from Receipt  
• All Other Samples Disposed of 4 Months from Receipt

Client Name: Alliance Source Testing (PIT)	Project Number: 22-3353	PO#: _____	For spiked or duplicate samples: please provide sample volumes for recovery calculations. For Particulates: please provide tare weights and/or condensed water volumes.
Project Manager: Adam Robinson	Site Name: U.S. Steel	Telephone#: 256-351-0121	
Report To: <a href="mailto:pitreports@stacktest.com">pitreports@stacktest.com</a>	Location: Clariton, PA	Email: _____	

Sample Containers				Analyses:											
Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	M15	Hold	Notes:
A=Air 1=H2SO4 2=NaOH W=Water O=Other X=XAD C=Charcoal SG=Silica Gel G=Grab C=Composite Q=Quality Control O=Other															
East Side Cooling Tower Inlet - Primary Bag Run 1	10/25/22	11:00 AM	NA	C	A				1				<		Hydrogen Sulfide, Carbonyl Sulfide, Carbon Disulfide
East Side Cooling Tower Inlet - Primary Bag Run 2	10/25/22	12:00 PM	NA	C	A				1				>		"
East Side Cooling Tower Inlet - Primary Bag Run 3	10/25/22	1:00 PM	NA	C	A				1				>		"
Ambient temp good condition 10-26-22															
Relinquished By:  Date: 10/25/22 17:00															
Received By: <i>Debra M. M. M.</i> Date: 10-26-22 0945															
Sample Condition Upon Receipt: <input type="checkbox"/> Iced <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C _____															
<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C _____															
<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C _____															

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# Chain of Custody Record

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## Special Handling:

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- ☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_
- ☐ All TATs Subject to Approval by Enthalpy Analytical, Inc.
- ☐ All Bag/Can Samples Disposed of 1 Month from Receipt
- ☐ All Other Samples Disposed of 4 Months from Receipt

Client Name: Alliance Source Testing (PIT) Project Number: 22-3353 PO#: \_\_\_\_\_  
Project Manager: Adam Robinson Site Name: U.S. Steel Telephone#: 256-351-0121  
Report To: [pitreports@stacktest.com](mailto:pitreports@stacktest.com) Location: Clariton, PA Email: \_\_\_\_\_

Special Instructions: Hold - Analyze if Primary Bag is received flat

For spiked or duplicate samples: please provide sample volumes for recovery calculations.  
For Particulates: please provide tare weights and/or condensed water volumes.

A=Air 1=H2SO4 2=NaOH W=Water O=Other X=XAD C=Charcoal SG=Silica Gel G=Grab C=Composite Q=Quality Control O=Other									
Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags
East Side Cooling Tower Inlet - Backup Bag Run 1	10/25/22	11:00 AM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 2	10/25/22	12:00 PM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 3	10/25/22	1:00 PM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 4	10/25/22	2:00 PM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 5	10/25/22	3:00 PM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 6	10/25/22	4:00 PM	NA	C	A				1
East Side Cooling Tower Inlet - Backup Bag Run 7	10/25/22	5:00 PM	NA	C	A				1
EAST SIDE COOLING BACKUP BAG BLANK	10/25/22	10:30	NA	C	A				1
Ambient temp, good condition									
Amm 3 10.26.22									
Relinquished By: 						Date: 10/25/22		Time: 14:00	
Received By: <i>Allyson Mullen</i>						Date: 10/26/22		Time: 0945	
						<input type="checkbox"/> Iced <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C			
						<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C			
						<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C			

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# Chain of Custody Record

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## Special Handling:

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- ☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_
- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt
- All Other Samples Disposed of 4 Months from Receipt

Client Name: Alliance Source Testing (PIT)		Project Number: 22-3353		PO#: _____	
Project Manager: Adam Robinson		Site Name: U.S. Steel		Telephone#: 256-351-0121	
Report To: <a href="mailto:pitreports@stacktest.com">pitreports@stacktest.com</a>		Location: Clariton, PA		Email: _____	
Special Instructions: Hold - Analyze if Primary Bag is received flat					
A=Air I=H2SO4 2=NaOH W=Water O=Other X=XAD C=Charcoal SG=Silica Gel					
G=Grab C=Composite Q=Quality Control O=Other					
Sample ID	Date	Time	Sample Volume	Type	Matrix
East Side Cooling Tower Inlet - Backup Bag Run 1	10/25/22	11:00 AM	NA	C	A
East Side Cooling Tower Inlet - Backup Bag Run 2	10/25/22	12:00 PM	NA	C	A
East Side Cooling Tower Inlet - Backup Bag Run 3	10/25/22	1:00 PM	NA	C	A
Ambient temp					
good condition					
Ann 3 10-26-22					
Relinquished By:		Date: 10/25/22		Time: 19:00	
Received By:		Date: 10/25/22		Time: 0945	
Sample Condition Upon Receipt:		<input type="checkbox"/> Iced <input checked="" type="checkbox"/> Ambient <input type="checkbox"/> °C _____			
Sample Condition Upon Receipt:		<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C _____			
Sample Condition Upon Receipt:		<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C _____			

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# Chain of Custody Record

Page 1 of 2

## Special Handling:

☒ Standard Turn Around Time (10 business days)

☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_

• All TATs Subject to Approval by Enthalpy Analytical, Inc.

• All Bag/Can Samples Disposed of 1 Month from Receipt.

• All Other Samples Disposed of 4 Months from Receipt.

Client Name:

Alliance Source Testing (PIT)

Project Number:

22-3353

PO#:

\_\_\_\_\_

Project Manager:

Adam Robinson

Site Name:

U.S. Steel

Telephone#:

256-351-0121

Report To:

pitreports@stacktest.com

Location:

Clarion, PA

Email:

\_\_\_\_\_

For spiked or duplicate samples: please provide sample volumes for recovery calculations.  
For Particulates: please provide tare weights and/or condensed water volumes.

## Special Instructions:

A=Air 1=H2SO4 2=NaOH W=Water O=Other  
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID

West Side Cooling Tower Inlet - Primary Bag Run 1

West Side Cooling Tower Inlet - Primary Bag Run 2

West Side Cooling Tower Inlet - Primary Bag Run 3

West Side Cooling Tower Inlet - Primary Bag Run 4

West Side Cooling Tower Inlet - Primary Bag Run 5

West Side Cooling Tower Inlet - Primary Bag Run 6

West Side Cooling Tower Inlet - Primary Bag Run 7

WEST SIDE COOLING TOWER PRIMARY BAG RUN 8

Type

C

C

C

C

C

C

C

C

Matrix

A

A

A

A

A

A

A

A

# of VOA Vials

# of Glass

# of Plastic

# of Bags

1

# of Canisters

# of Tubes

# Other

Mt8

>

## Analyses:

Hold







# Chain of Custody Record

Page 1 of 2

## Special Handling:

- ☒ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time -- Date Needed: \_\_\_\_\_
- All TATs Subject to Approval by Enthalpy Analytical, Inc.
- All Bag/Can Samples Disposed of 1 Month from Receipt.
- All Other Samples Disposed of 4 Months from Receipt.

Client Name: Alliance Source Testing (PIT) Project Number: 22-3353 PO#: \_\_\_\_\_  
Project Manager: Adam Robinson Site Name: U.S. Steel Telephone#: 256-351-0121  
Report To: pitreports@stacktest.com Location: Clarion, PA Email: \_\_\_\_\_

For spiked or duplicate samples, please provide sample volumes for recovery calculations.  
For Particulates, please provide tare weights and/or condensed water volumes.

Special Instructions: Hold - Analyze if Primary Bag is received flat

A=Air 1=H2SO4 2=NaOH W=Water O=Other  
X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type	Matrix	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters	# of Tubes	# Other	M18	Hold	Notes:
West Side Cooling Tower Inlet - Backup Bag Run 1	10/26/22	10:05	NA	C	A				1						Benzene, Toluene, Ethylbenzene, o/m/p-xylenes
West Side Cooling Tower Inlet - Backup Bag Run 2	10/26/22	11:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 3	10/26/22	12:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 4	10/26/22	13:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 5	10/26/22	14:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 6	10/26/22	15:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 7	10/26/22	16:05	NA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 8	10/26/22	17:45	WA	C	A				1						"
West Side Cooling Tower Inlet - Backup Bag Run 9															
West Side Cooling Tower Inlet - Backup Bag Run 10															
West Side Cooling Tower Inlet - Backup Bag Run 11															
West Side Cooling Tower Inlet - Backup Bag Run 12															
West Side Cooling Tower Inlet - Backup Bag Run 13															
West Side Cooling Tower Inlet - Backup Bag Run 14															
West Side Cooling Tower Inlet - Backup Bag Run 15															
West Side Cooling Tower Inlet - Backup Bag Run 16															
West Side Cooling Tower Inlet - Backup Bag Run 17															
West Side Cooling Tower Inlet - Backup Bag Run 18															
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West Side Cooling Tower Inlet - Backup Bag Run 98															
West Side Cooling Tower Inlet - Backup Bag Run 99															
West Side Cooling Tower Inlet - Backup Bag Run 100															

Relinquished By:	Date: 10/26/22	Received By:	Date: 10/27/22 1:30 PM	Sample Condition Upon Receipt: <input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C
				<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C
				<input type="checkbox"/> Iced <input type="checkbox"/> Ambient <input type="checkbox"/> °C

800-1 Capitola Drive • Durham, NC 27713 • (919) 850-4392 • FAX (919) 850-9012 • www.enthalpy.com

Good Condition 10/27/22

EA Job # 1022-165R 38 of 305

# Chain of Custody Record

Page 2 of 2

**Special Handling:**

- ☐ Standard Turn Around Time (10 business days)
- ☐ Rush Turn Around Time -- Date Needed:
  - All TATs Subject to Approval by Enthalpy Analytical, Inc.
  - All Bag/Can Samples Disposed of 1 Month from Receipt.
  - All Other Samples Disposed of 4 Months from Receipt.

Client Name: Alliance Source Testing (PIT)

**Project Manager:** Adam Robinson

Report To: [pitreports@stacktest.com](mailto:pitreports@stacktest.com)

**Special Instructions:** Hold - Analyze if Primary Bag is received flat

Clariton, PA

Site Name: U.S. Steel

Project Number:

22-3353

PO#:

Telephone#: 256-351-0121

256-351-0121

For spiked or duplicate samples; please provide sample volumes for recovery calculations.  
For Particulates; please provide tare weights and/or condensed water volumes.

Special Instructions: Hold - Analyze if Primary Bag is received flat

A=Air 1=H2SO4 2=NaOH W=Water O=Other  
 X=XAD C=Charcoal SG=Silica Gel

G=Grab C=Composite Q=Quality Control O=Other

Sample ID	Date	Time	Sample Volume	Type
West Side Cooling Tower Inlet - Backup Bag Run 1	10/26/22	10:05	NA	C
West Side Cooling Tower Inlet - Backup Bag Run 2	10/26/22	11:05	NA	C
West Side Cooling Tower Inlet - Backup Bag Run 3	10/26/22	12:05	NA	C

Sample Containers	# of VOA Vials	# of Glass	# of Plastic	# of Bags	# of Canisters
-------------------	----------------	------------	--------------	-----------	----------------

[illegible]

**Notes:**  
Hydrogen Sulfide, Carbon Disulfide, Carbon Disulfide

[illegible]

Relinquished By:

Date:

Received By:

Time:

Sample Condition / Invoic Receipt

*[Handwritten signature]*

10/26/2008:00

*John Doe*

10/27/22	1:30
----------	------

☐ Iced    ☐ Ambient    ☐ °C \_\_\_\_\_

**Abstract**

☐ Iced    ☐ Ambient    ☐ °C \_\_\_\_\_

800-1 Capitola Drive • Durham, NC 27713 • (919) 850-4392 • FAX (919) 850-9012 • [www.enthalpy.com](http://www.enthalpy.com)

Good Condition DSH 10/27/2020

EA Job # ~~MO202-165R~~ 39 of 305

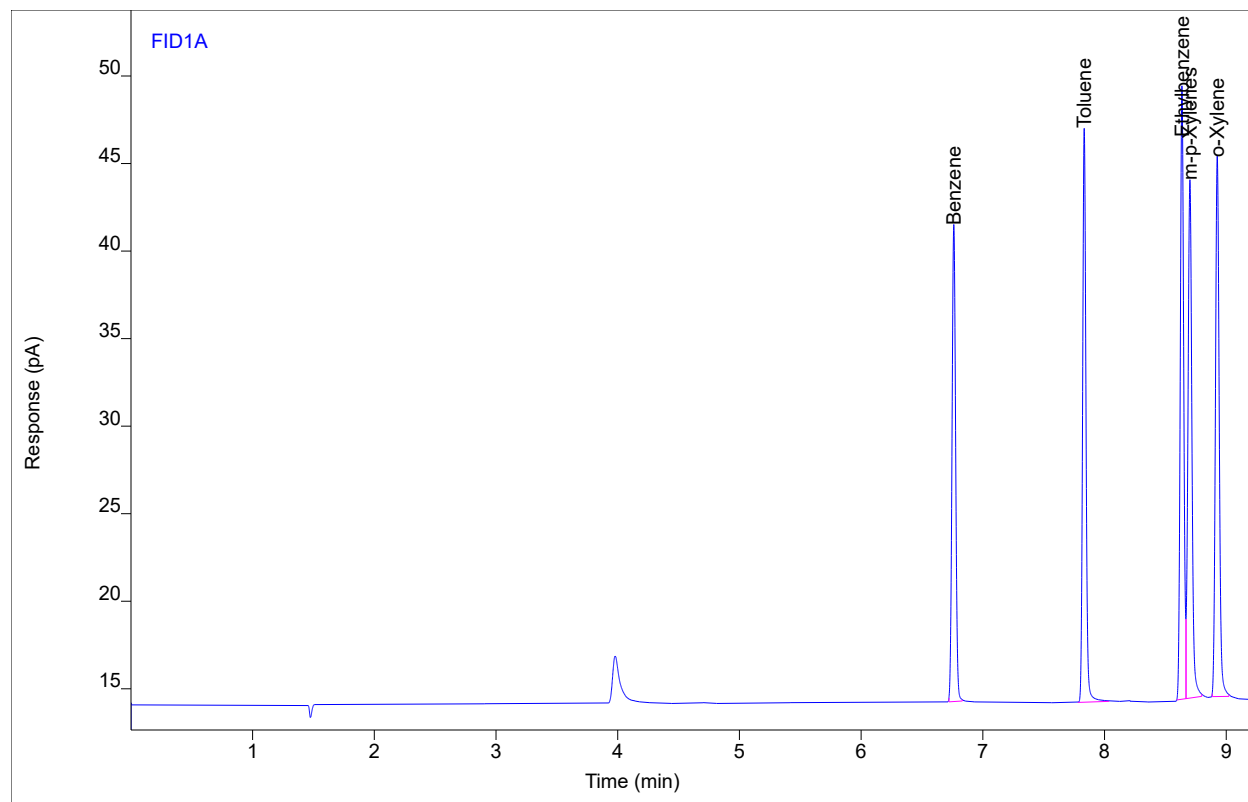
# Raw Data

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3013 ver.4  
Inj Data File 003F2902.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 4:46 AM  
File Modified 10/26/2022 4:00 PM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



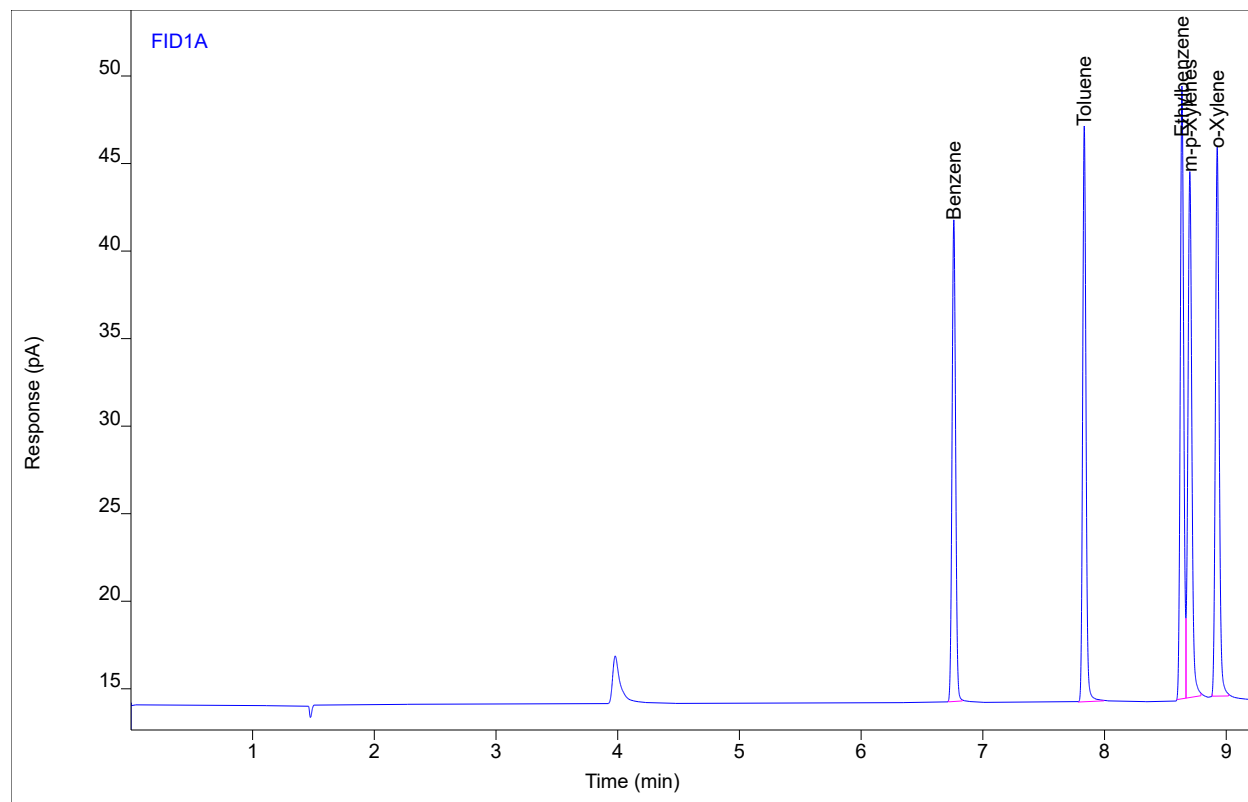
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.0299	27.1897	39.2901	1	39.2901	ppm
Toluene	MM	7.83	62.6945	32.8842	37.7150	1	37.7150	ppm
Ethylbenzene	BV	8.64	68.3954	34.9548	36.7687	1	36.7687	ppm
m-p-Xylenes	VB	8.70	66.9254	29.5417	38.7774	1	38.7774	ppm
o-Xylene	BB	8.93	66.8837	30.7892	38.4181	1	38.4181	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3013 ver.4  
Inj Data File 003F2903.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 5:05 AM  
File Modified 10/26/2022 4:00 PM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



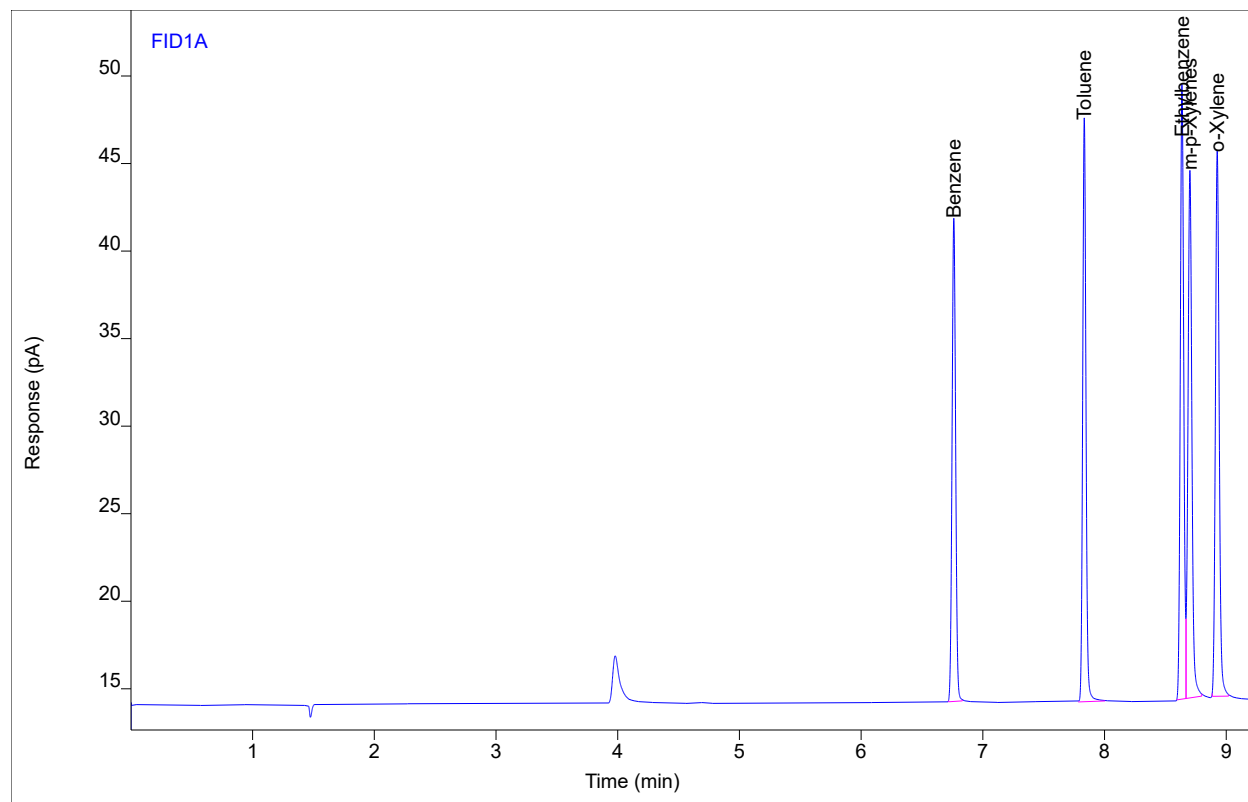
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.0359	27.4502	39.2944	1	39.2944	ppm
Toluene	MM	7.83	62.3647	32.9800	37.5184	1	37.5184	ppm
Ethylbenzene	BV	8.64	68.4351	34.9167	36.7897	1	36.7897	ppm
m-p-Xylenes	VB	8.70	67.0131	29.9685	38.8275	1	38.8275	ppm
o-Xylene	BB	8.93	67.0723	31.2644	38.5249	1	38.5249	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3013 ver.4  
Inj Data File 003F2904.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 5:24 AM  
File Modified 10/26/2022 4:00 PM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



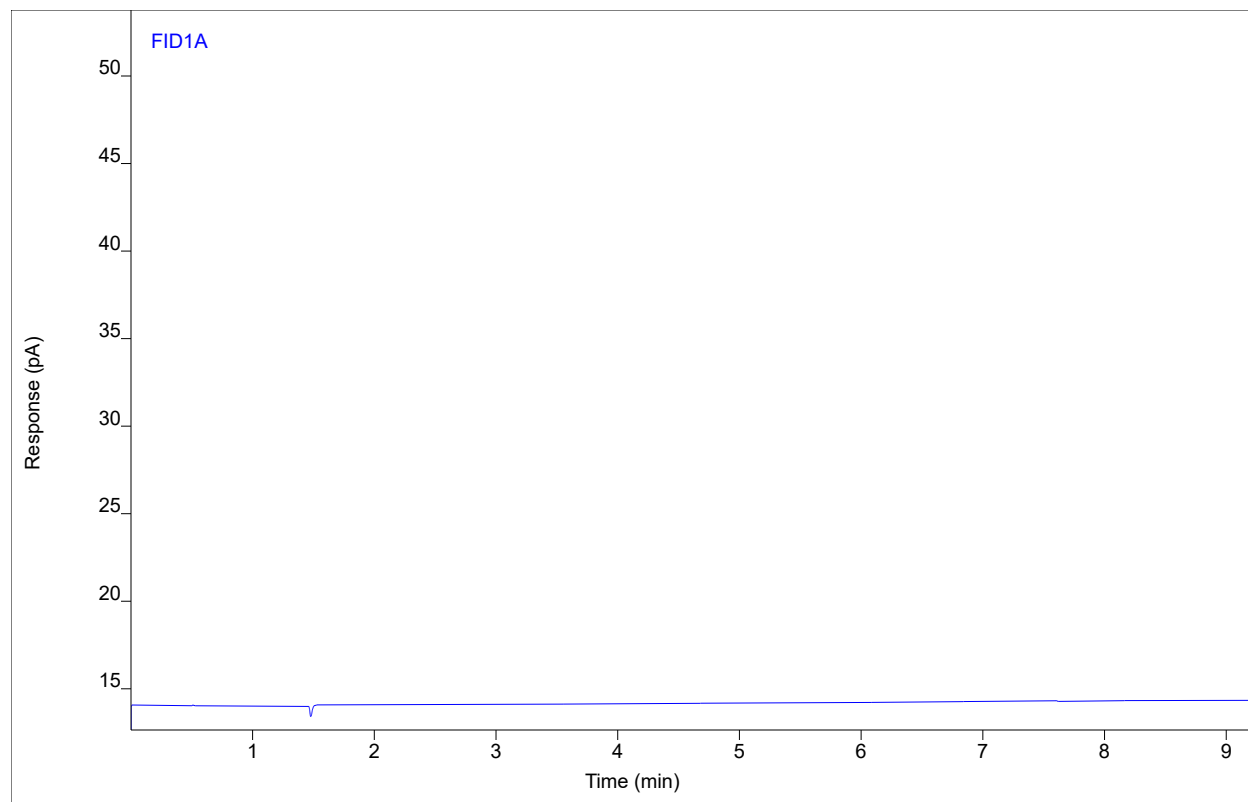
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.1455	27.5487	39.3708	1	39.3708	ppm
Toluene	MM	7.83	62.5062	33.4418	37.6027	1	37.6027	ppm
Ethylbenzene	BV	8.64	68.7677	34.9874	36.9662	1	36.9662	ppm
m-p-Xylenes	VB	8.70	67.3849	30.0603	39.0399	1	39.0399	ppm
o-Xylene	BB	8.93	67.2720	31.1013	38.6379	1	38.6379	ppm

# Chromatogram Report

Sample Name 1022-165.M18 Blank.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_001\_004F0101.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 10:42 AM  
File Modified 10/27/2022 8:47 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

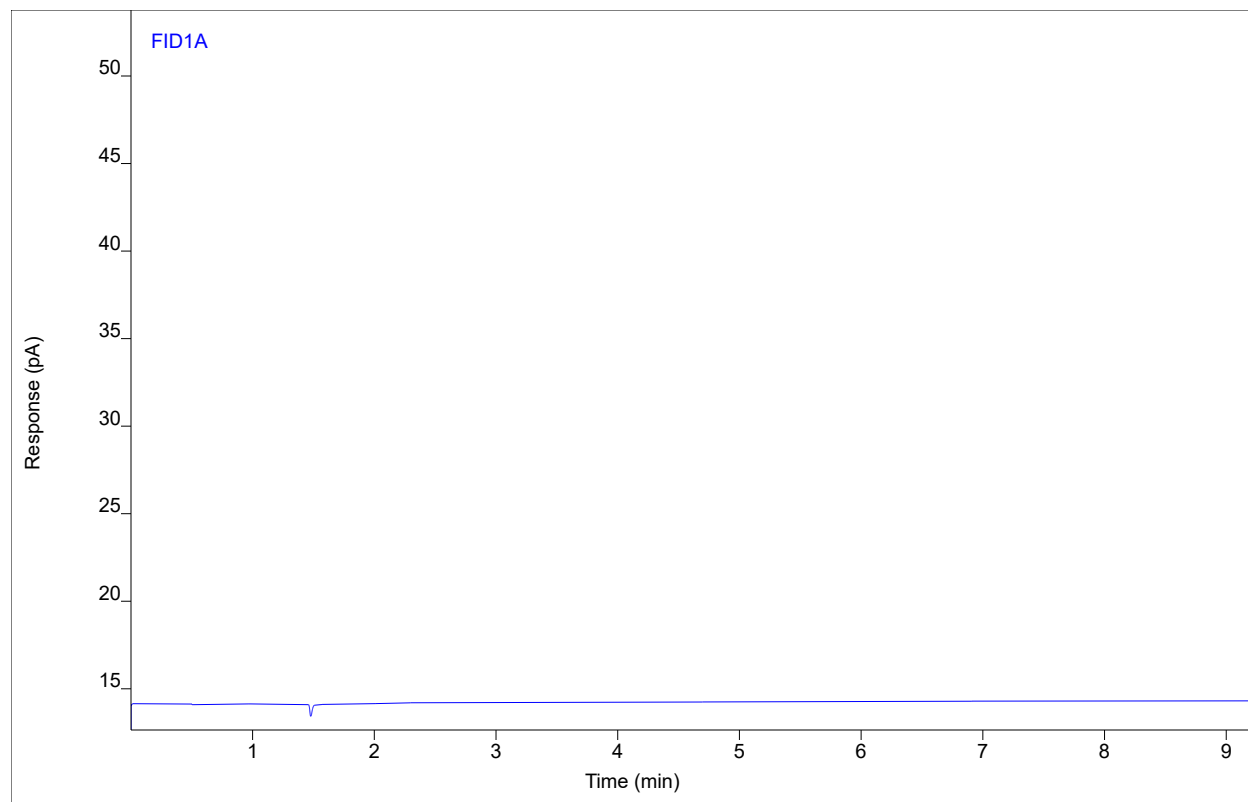


# Chromatogram Report

Sample Name 1022-165.M18 Blank.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_002\_004F0102.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 10:56 AM  
File Modified 10/27/2022 8:47 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



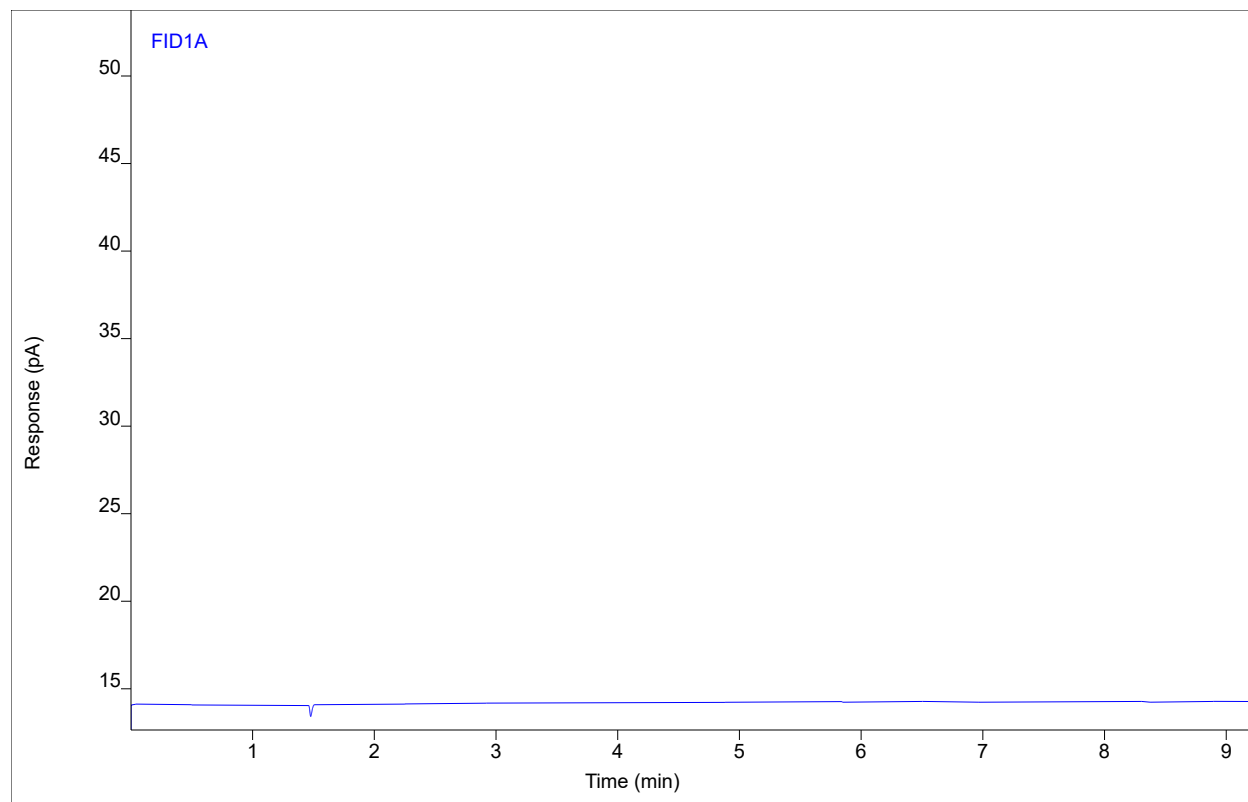
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Blank.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_003\_004F0103.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 11:10 AM  
File Modified 10/27/2022 8:47 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



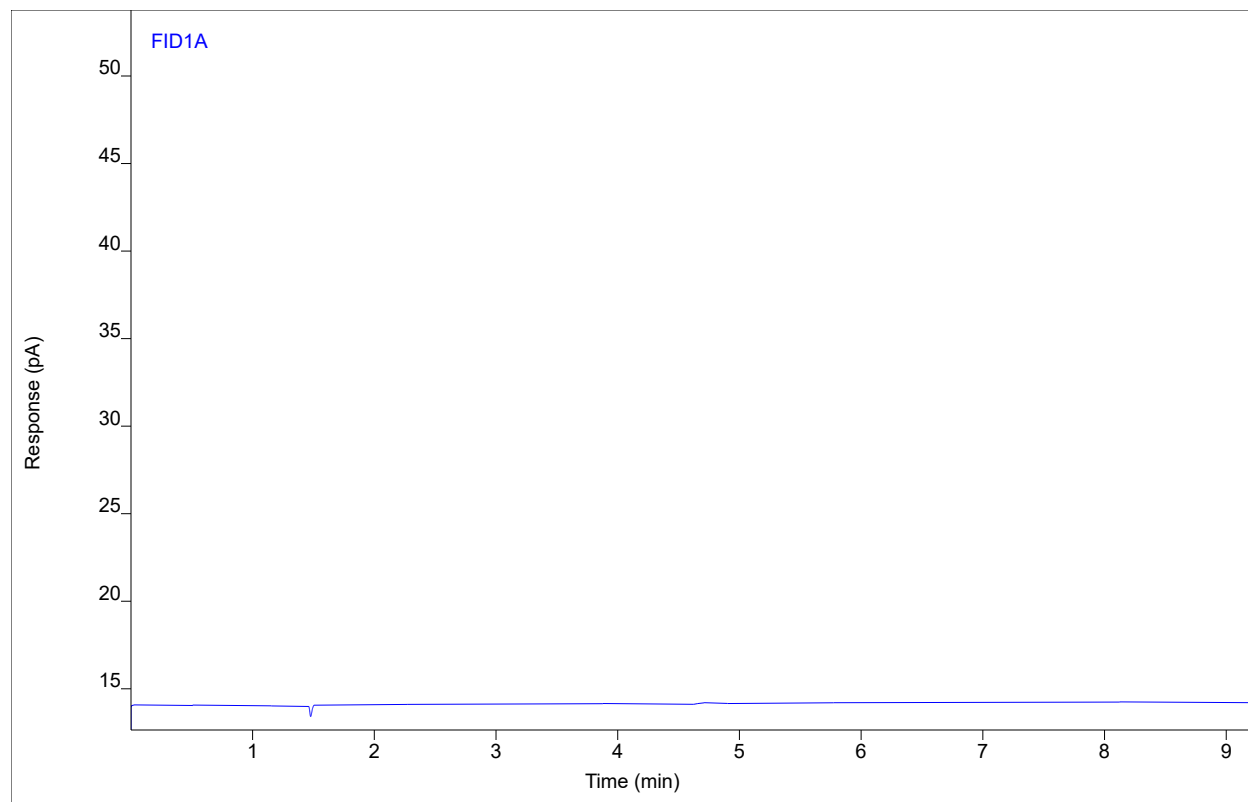
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 1.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_004\_005F0201.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 11:24 AM  
File Modified 10/27/2022 8:47 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



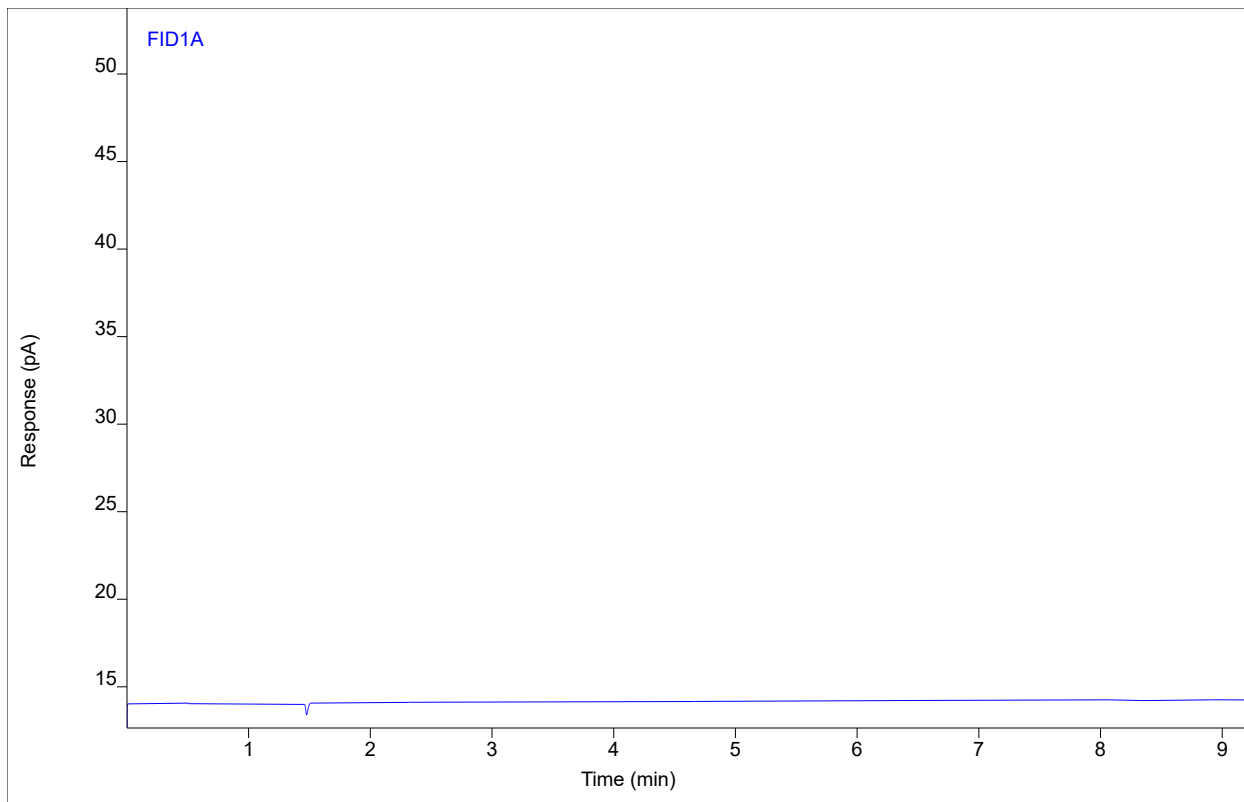
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 1.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_005\_005F0202.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 11:38 AM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



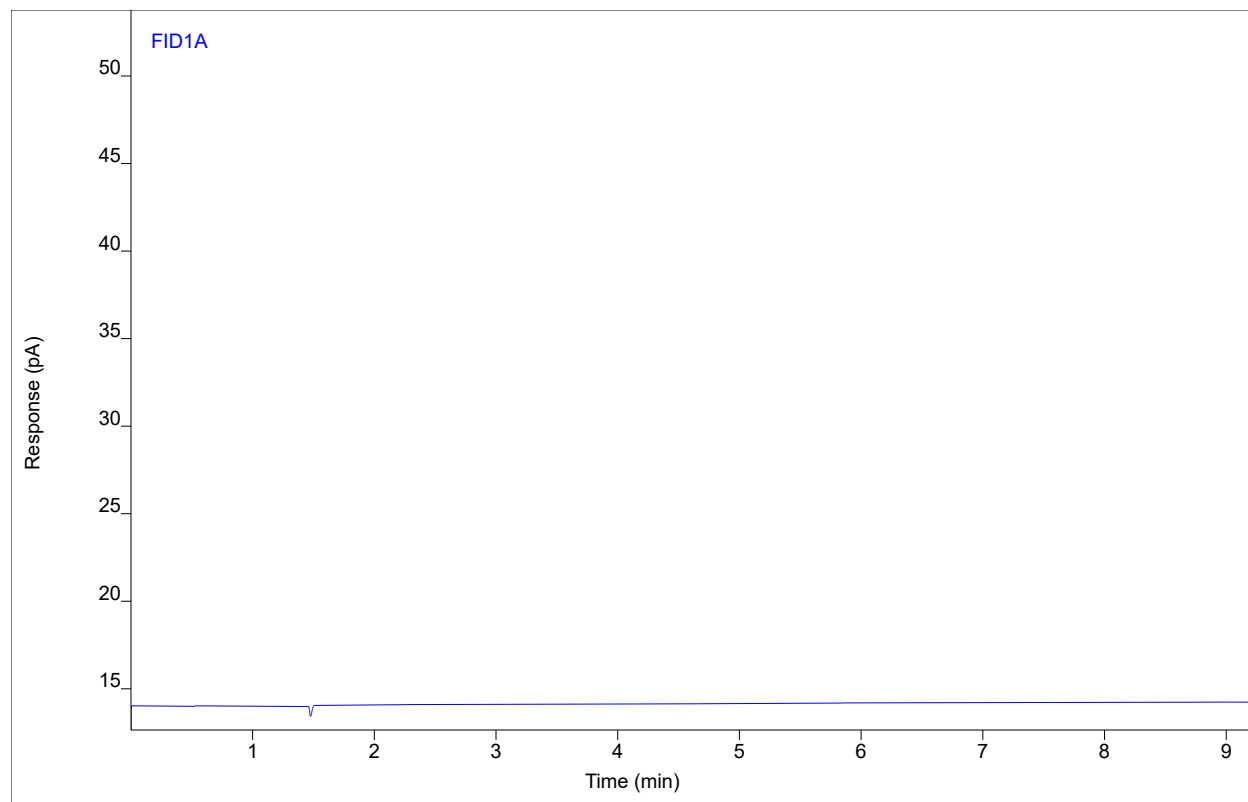
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
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Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 1.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_006\_005F0203.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 11:52 AM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



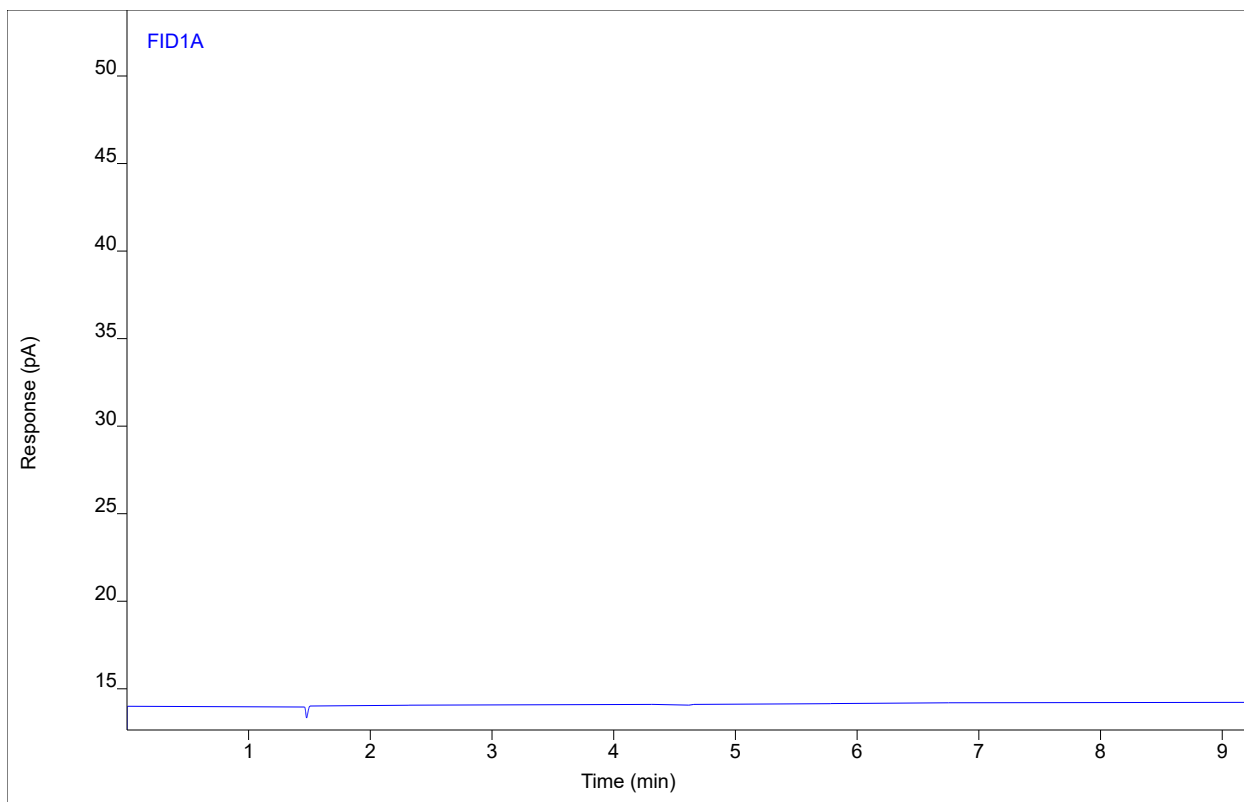
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Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 2.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_007\_006F0301.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 12:06 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



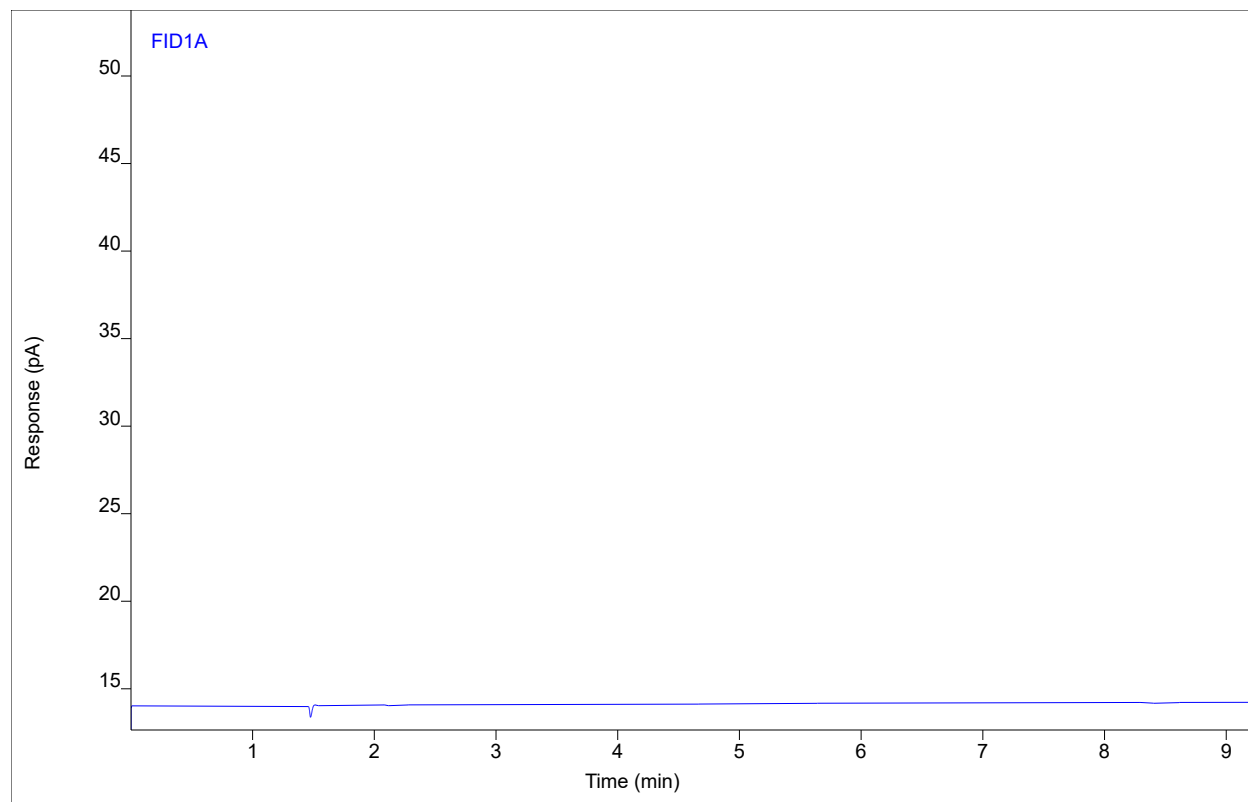
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 2.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_008\_006F0302.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 12:20 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



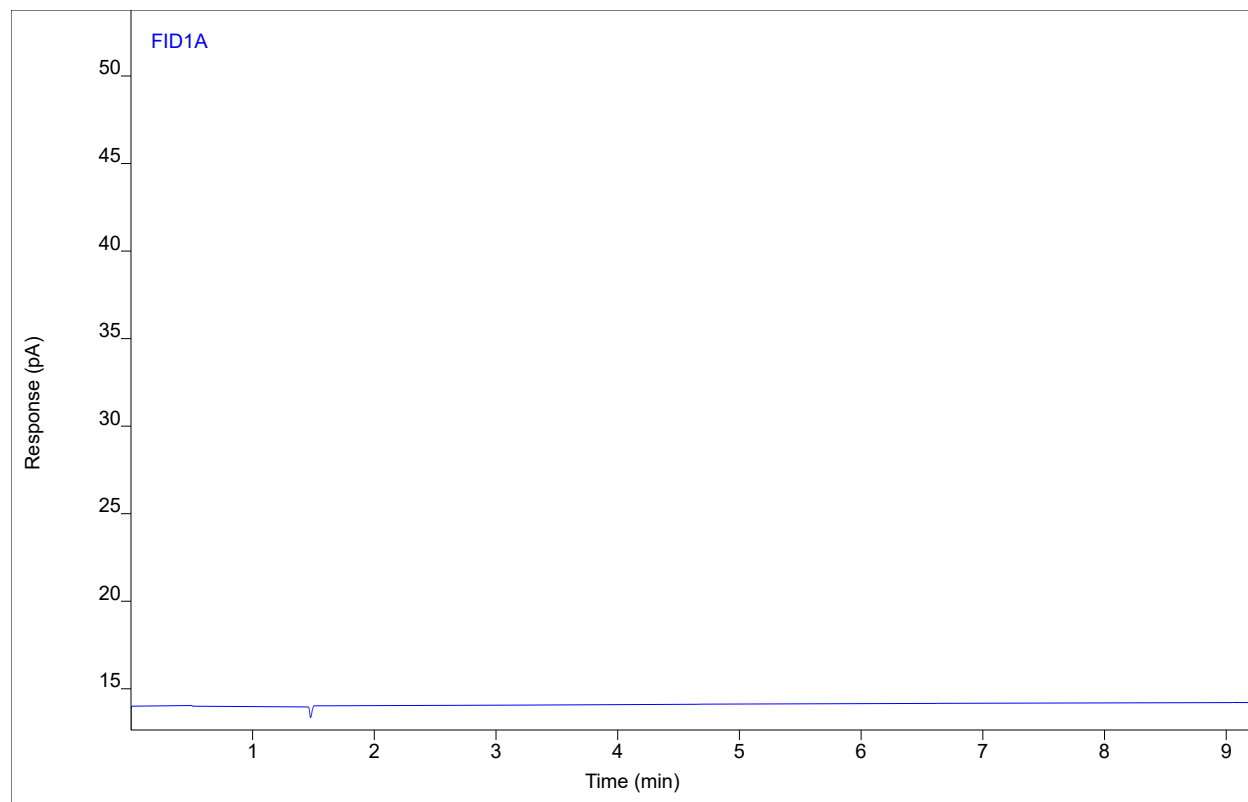
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
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Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 2.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_009\_006F0303.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 12:34 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

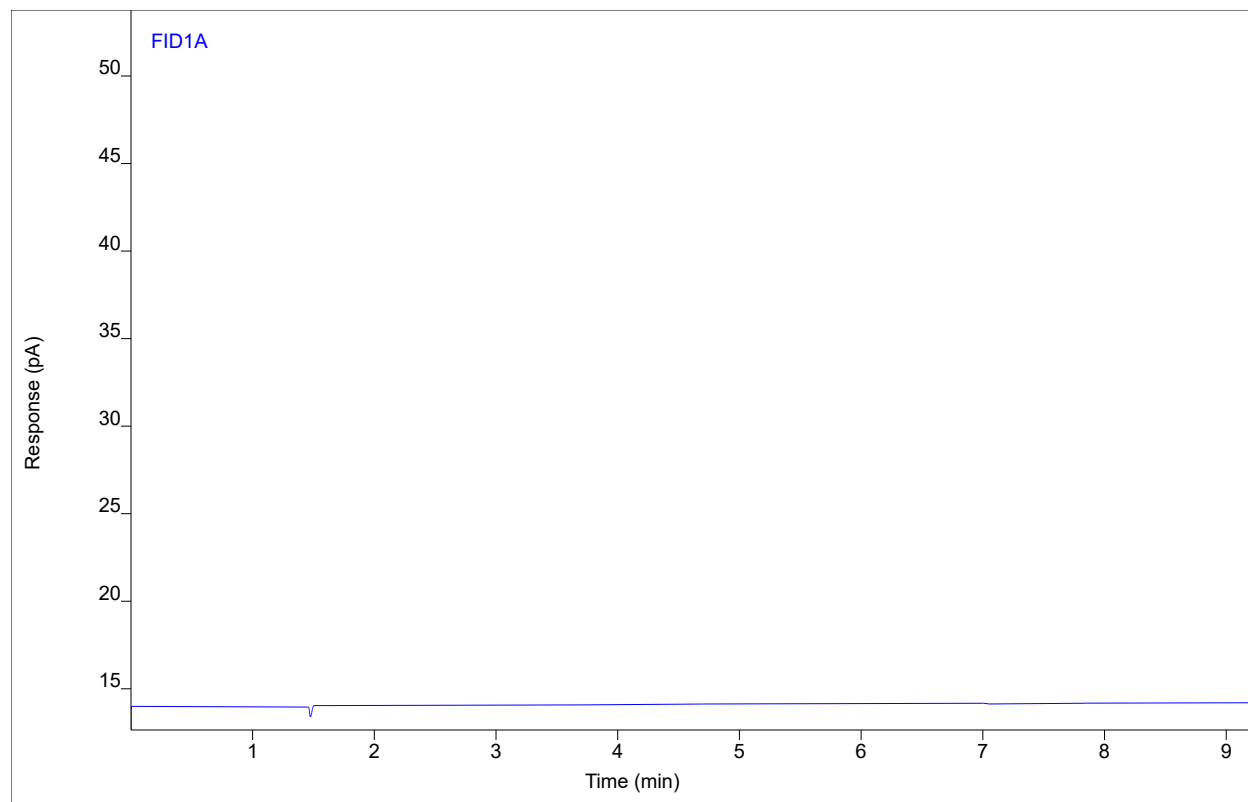


# Chromatogram Report

Sample Name 1022-165.M18 Run 3.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_010\_007F0401.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 12:48 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



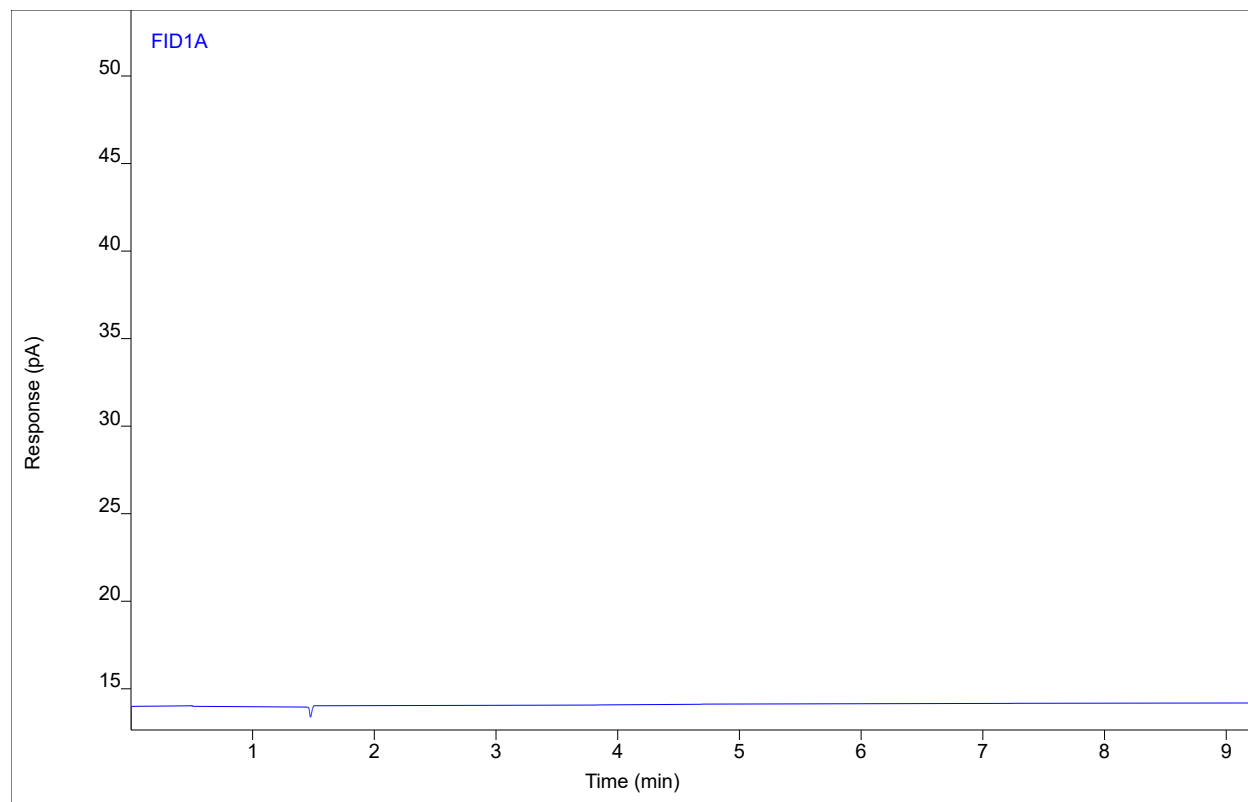
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 3.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_011\_007F0402.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 1:02 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



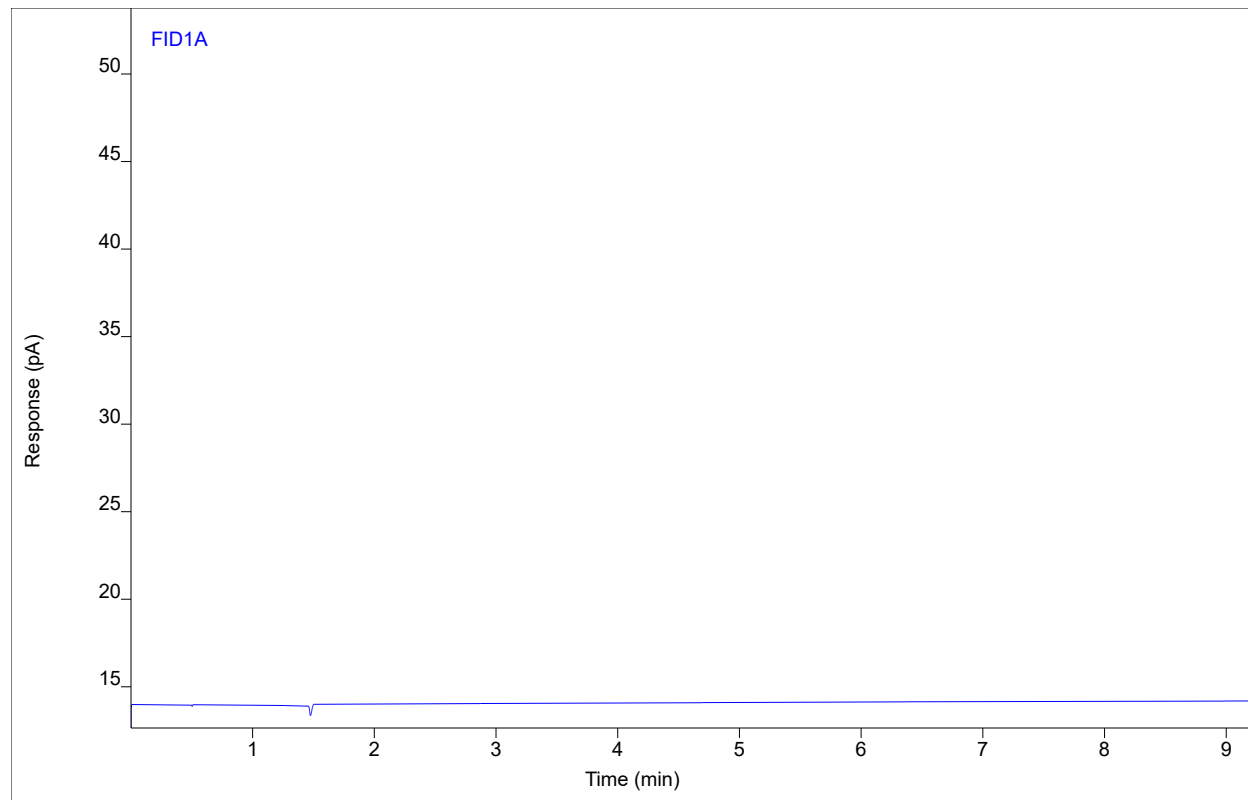
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 3.Bag  
Sequence Name EDITHP3014\_Izs ver.2  
Inj Data File \_012\_007F0403.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 1:16 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



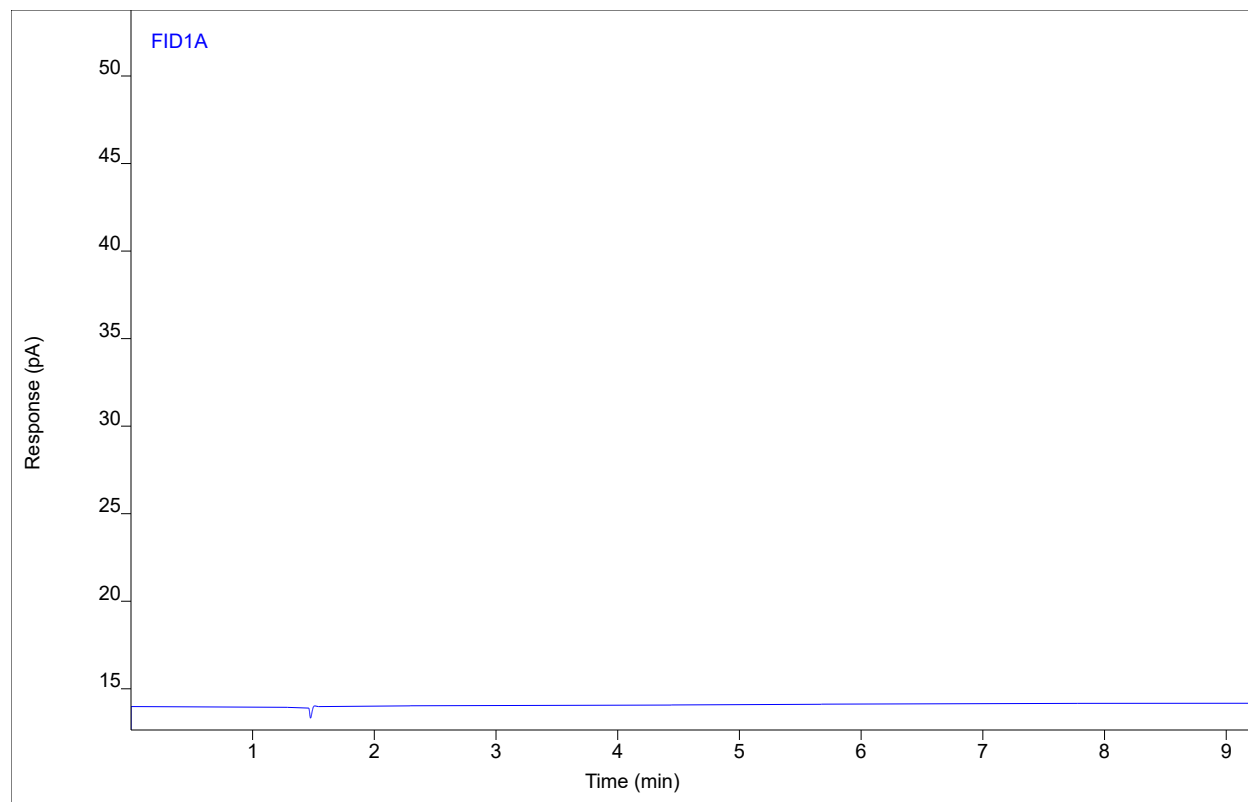
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 4.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_013\_008F0501.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 1:31 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



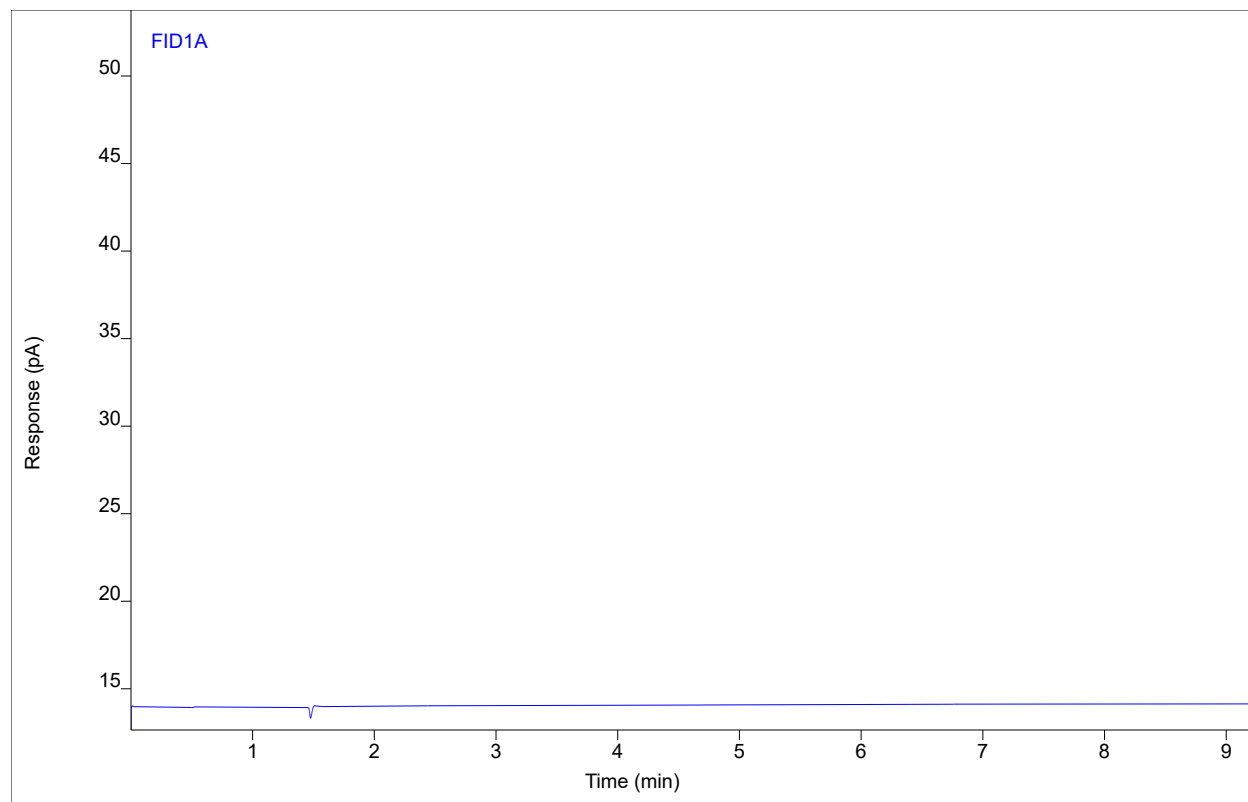
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 4.Bag  
Sequence Name EDITHP3014\_Izs ver.2  
Inj Data File \_014\_008F0502.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 1:45 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



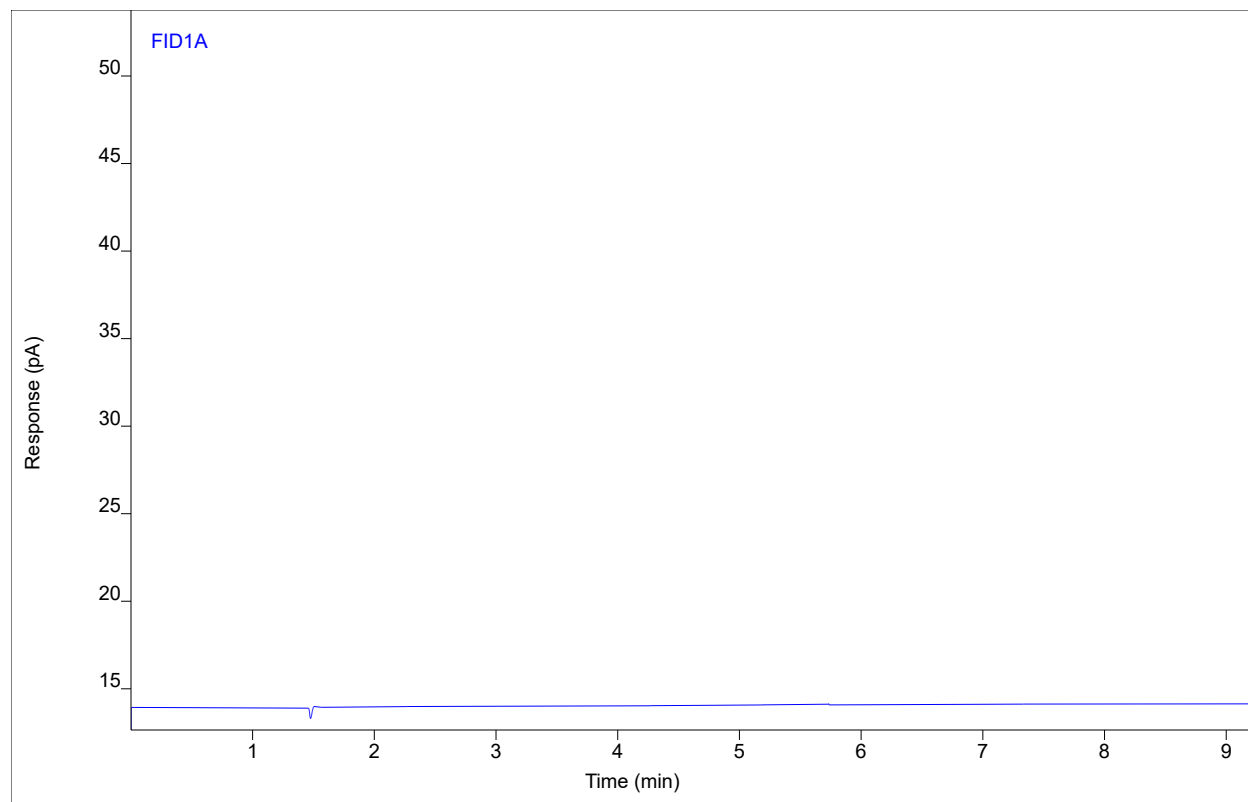
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 4.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_015\_008F0503.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 1:59 PM  
File Modified 10/27/2022 8:48 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



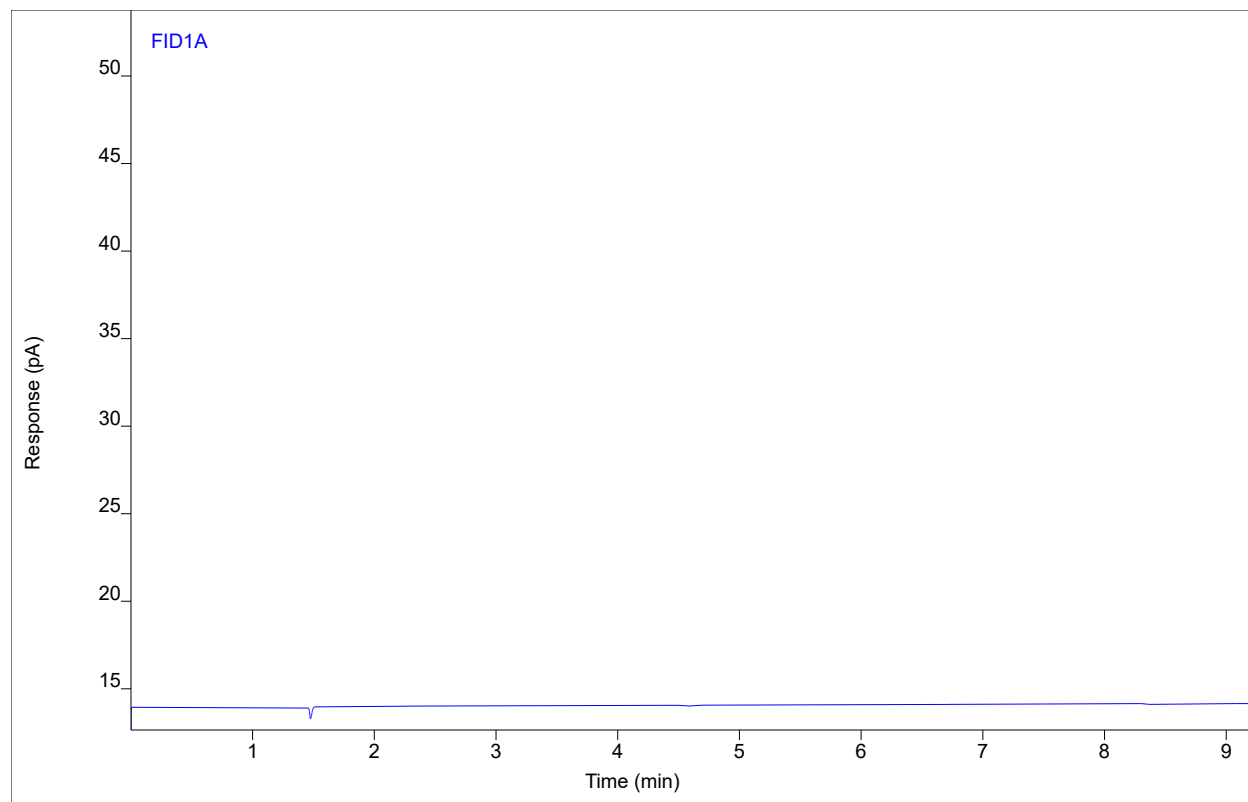
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 5.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_016\_009F0601.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 2:13 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



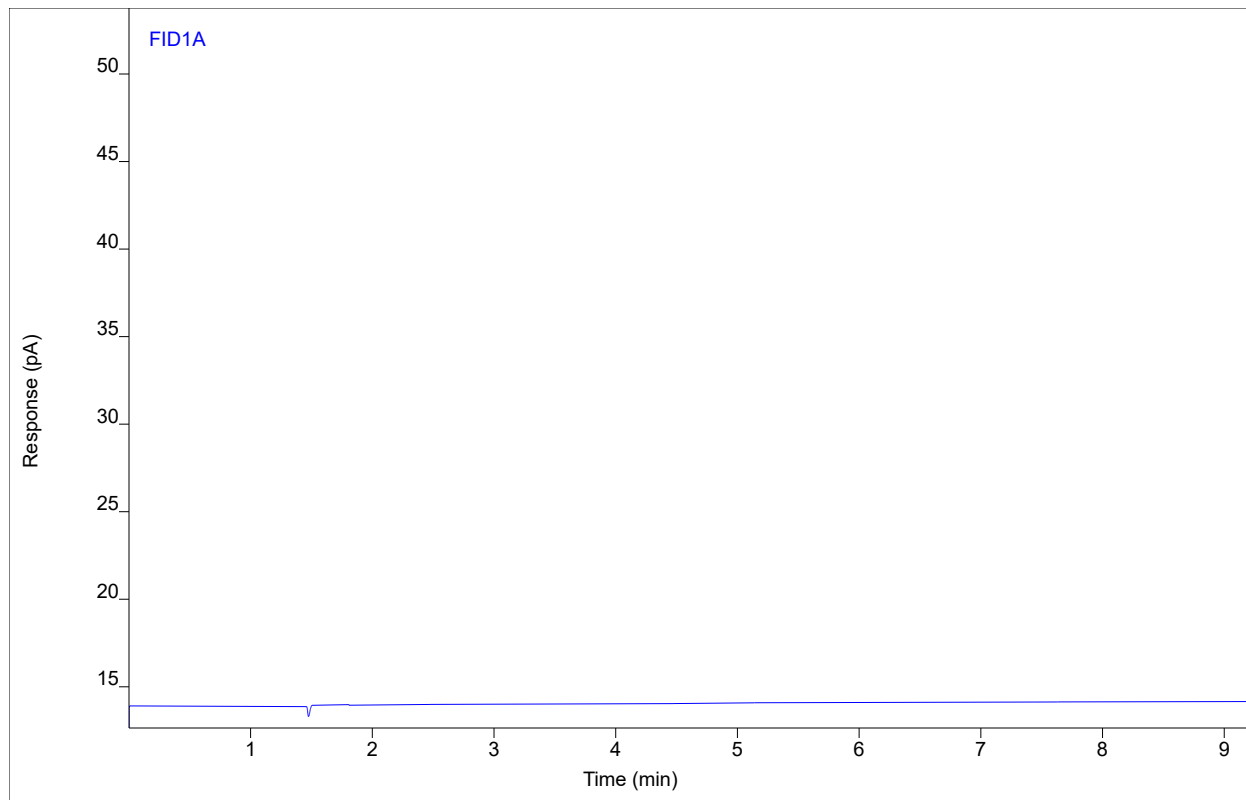
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 5.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_017\_009F0602.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 2:27 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

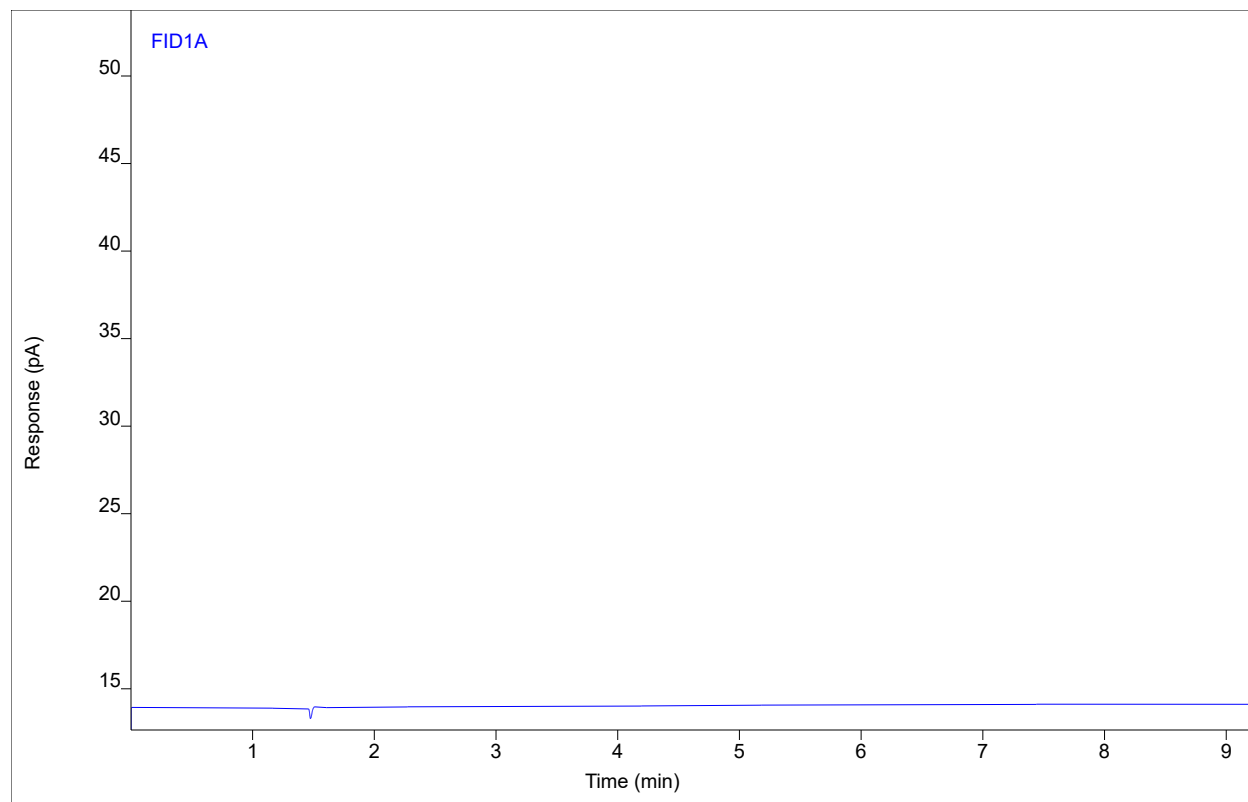


# Chromatogram Report

Sample Name 1022-165.M18 Run 5.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_018\_009F0603.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 2:41 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



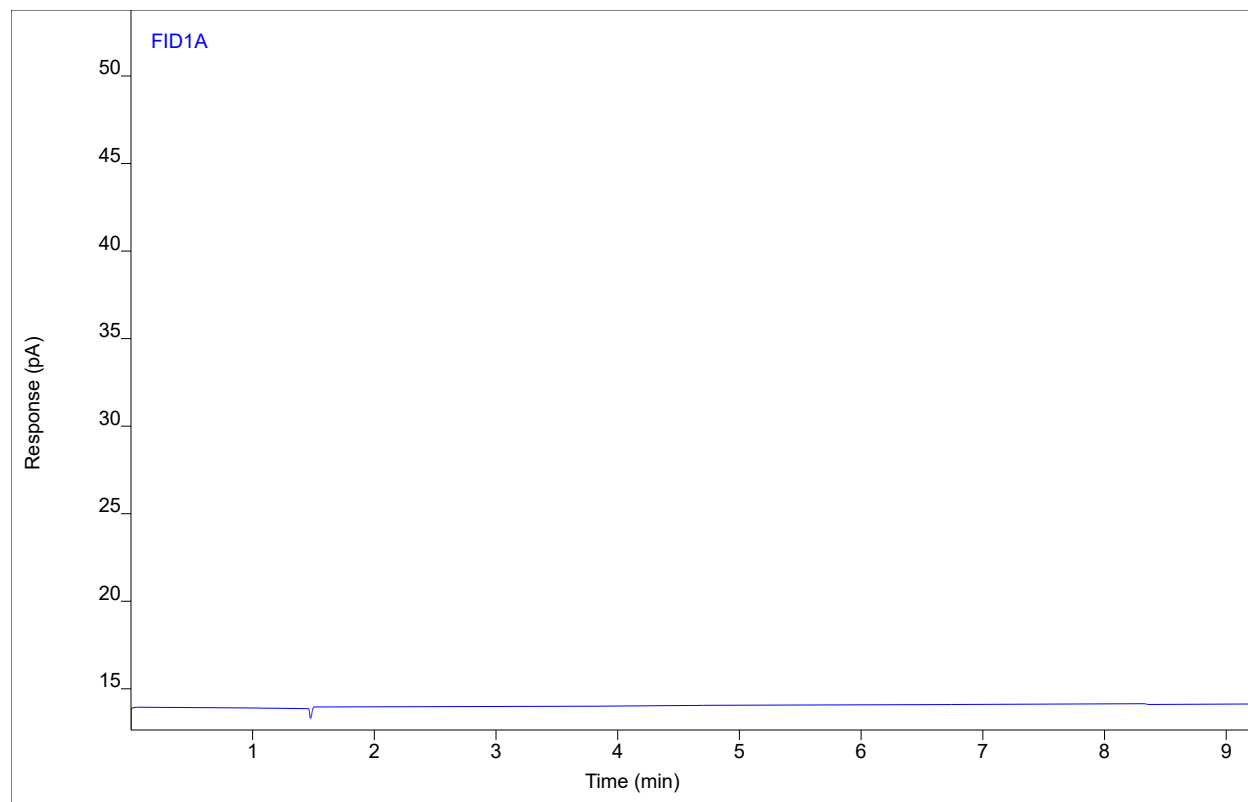
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 6.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_019\_010F0701.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 2:55 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



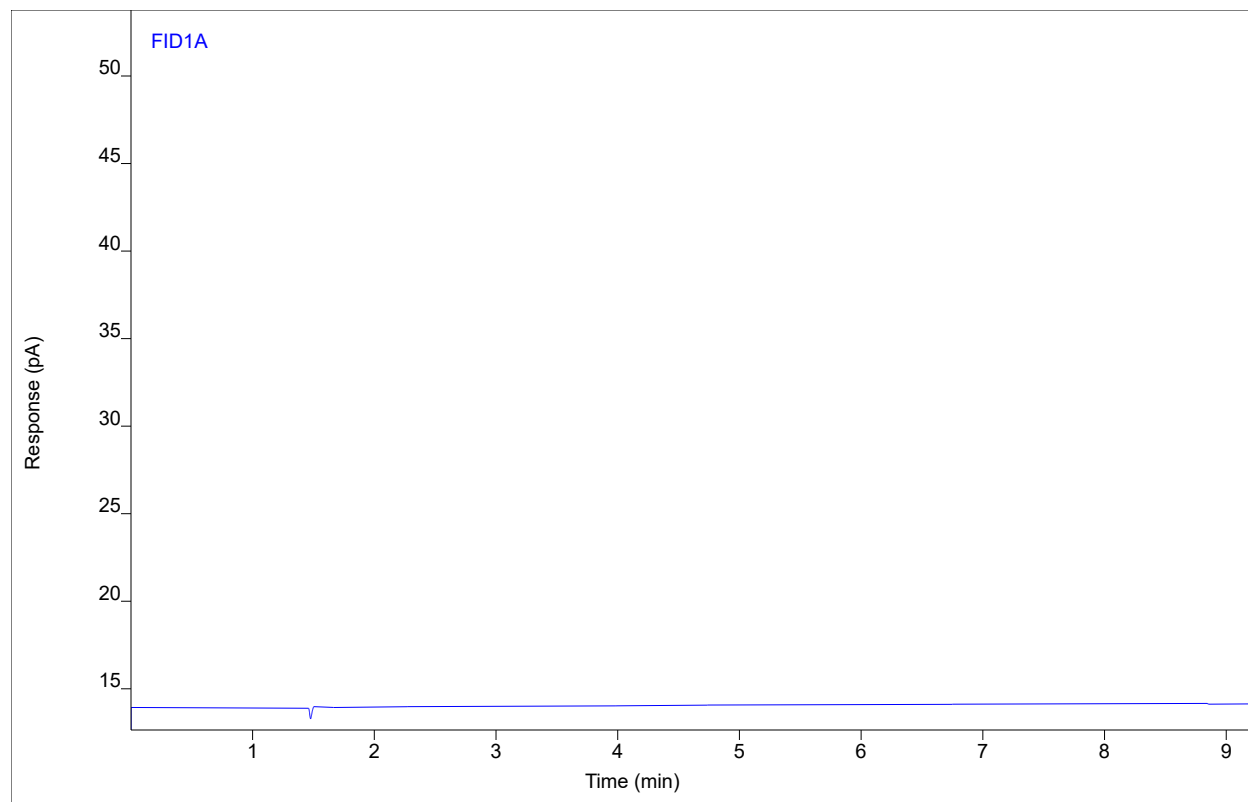
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 6.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_020\_010F0702.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 3:09 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



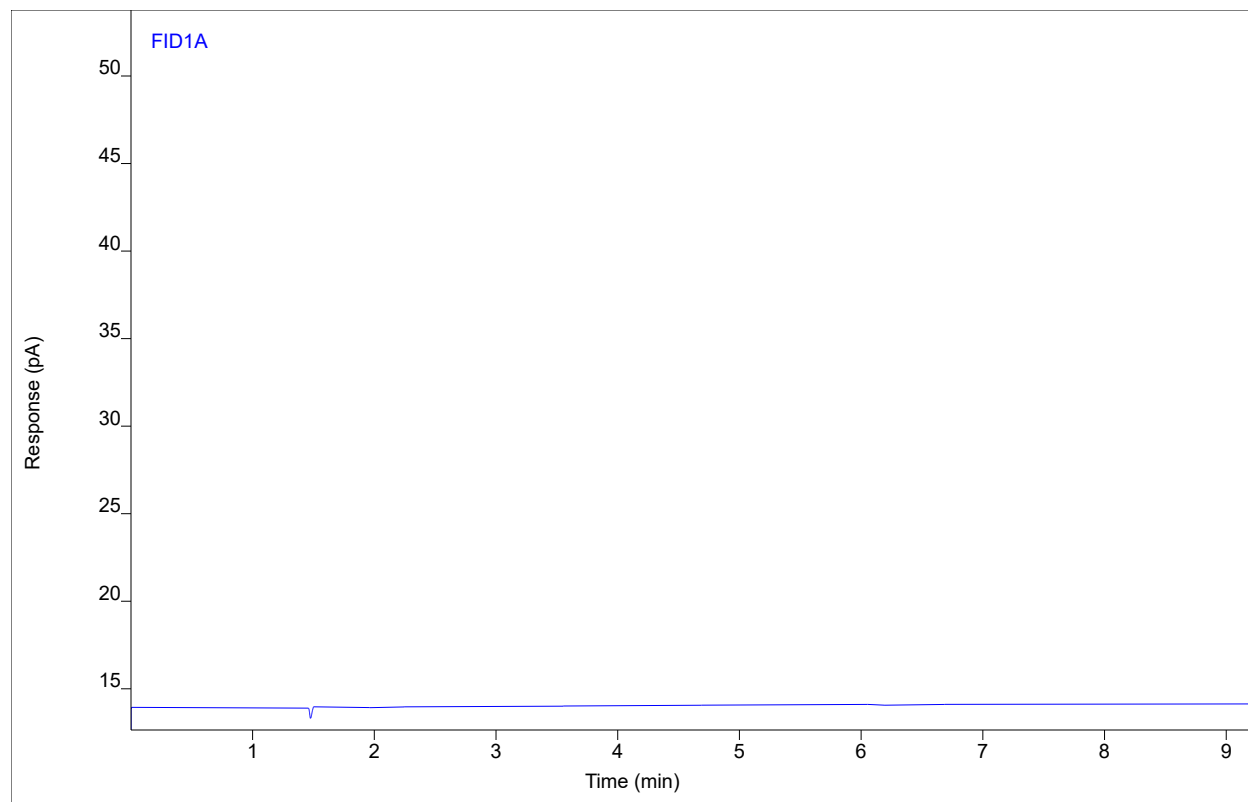
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 6.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_021\_010F0703.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 3:23 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



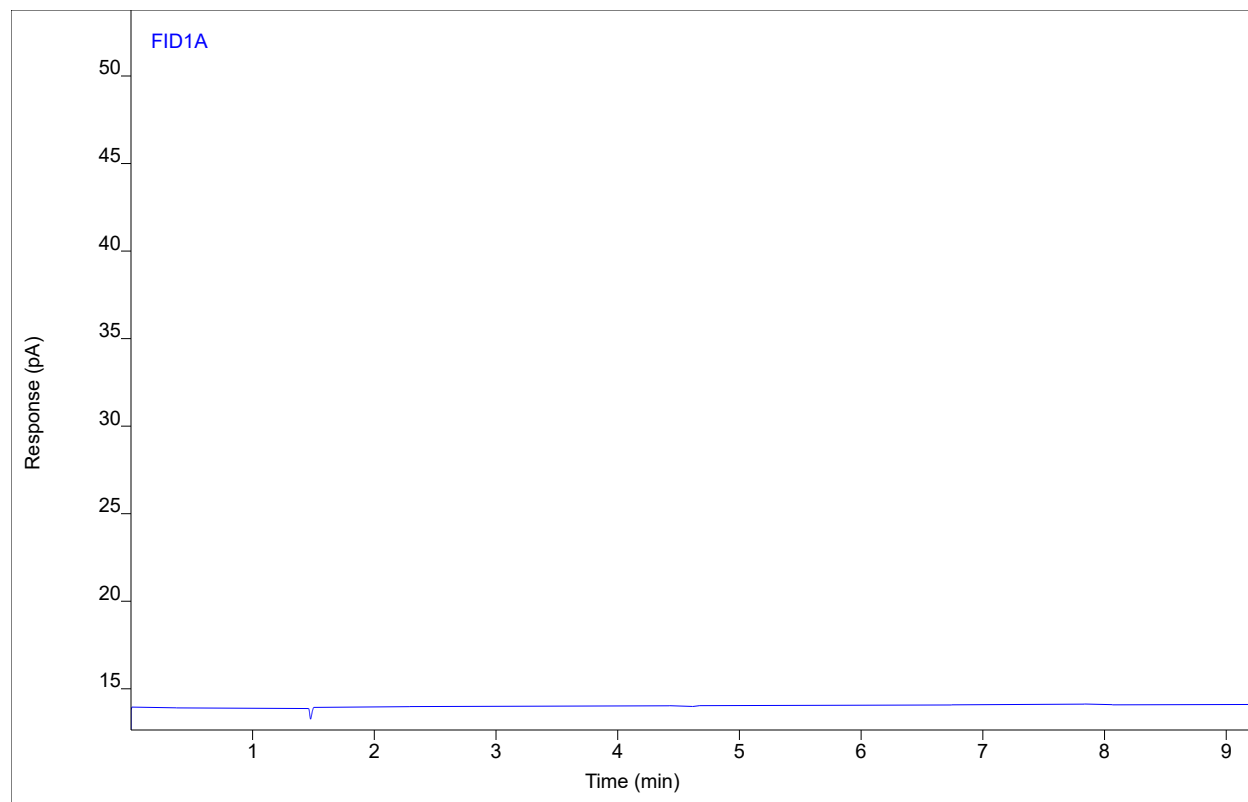
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 7.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_022\_004F0801.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 3:37 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



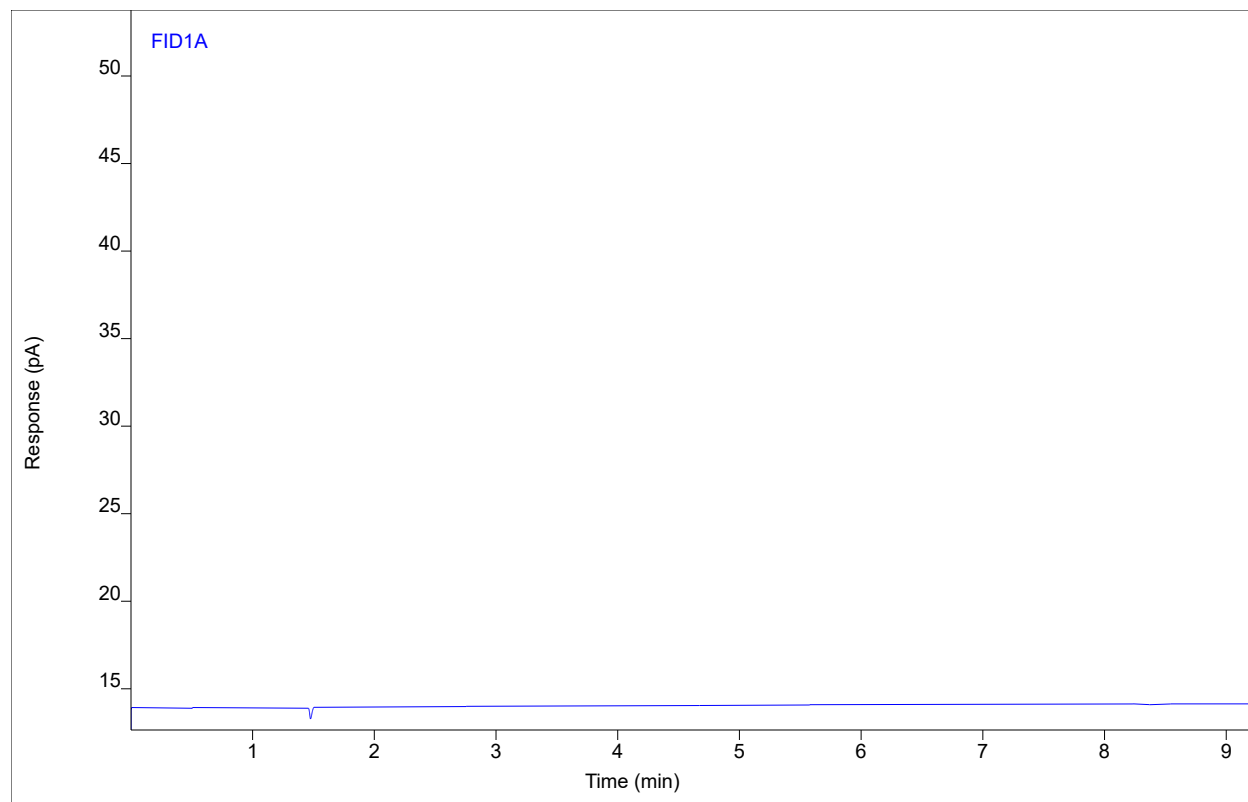
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 7.Bag  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_023\_004F0802.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 3:51 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



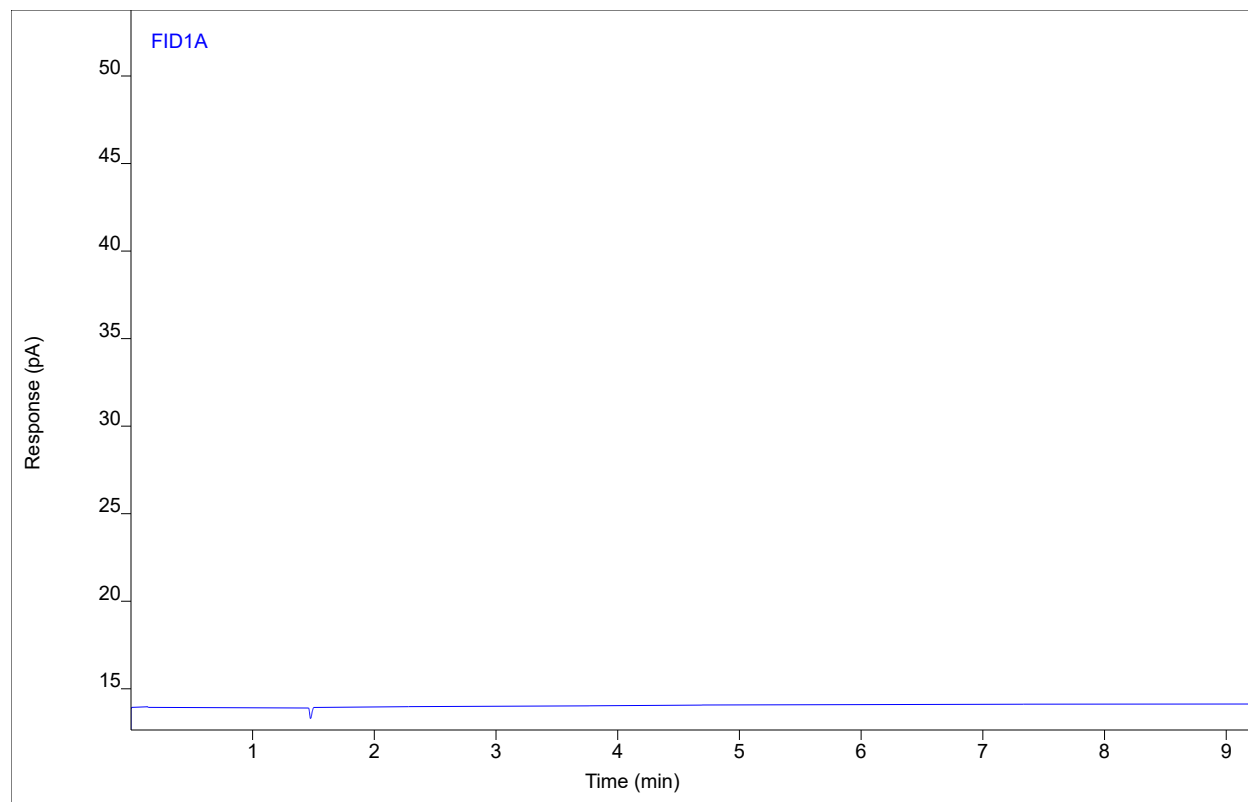
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 7.Bag  
Sequence Name EDITHP3014\_IJS ver.2  
Inj Data File \_024\_004F0803.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/26/2022 4:05 PM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



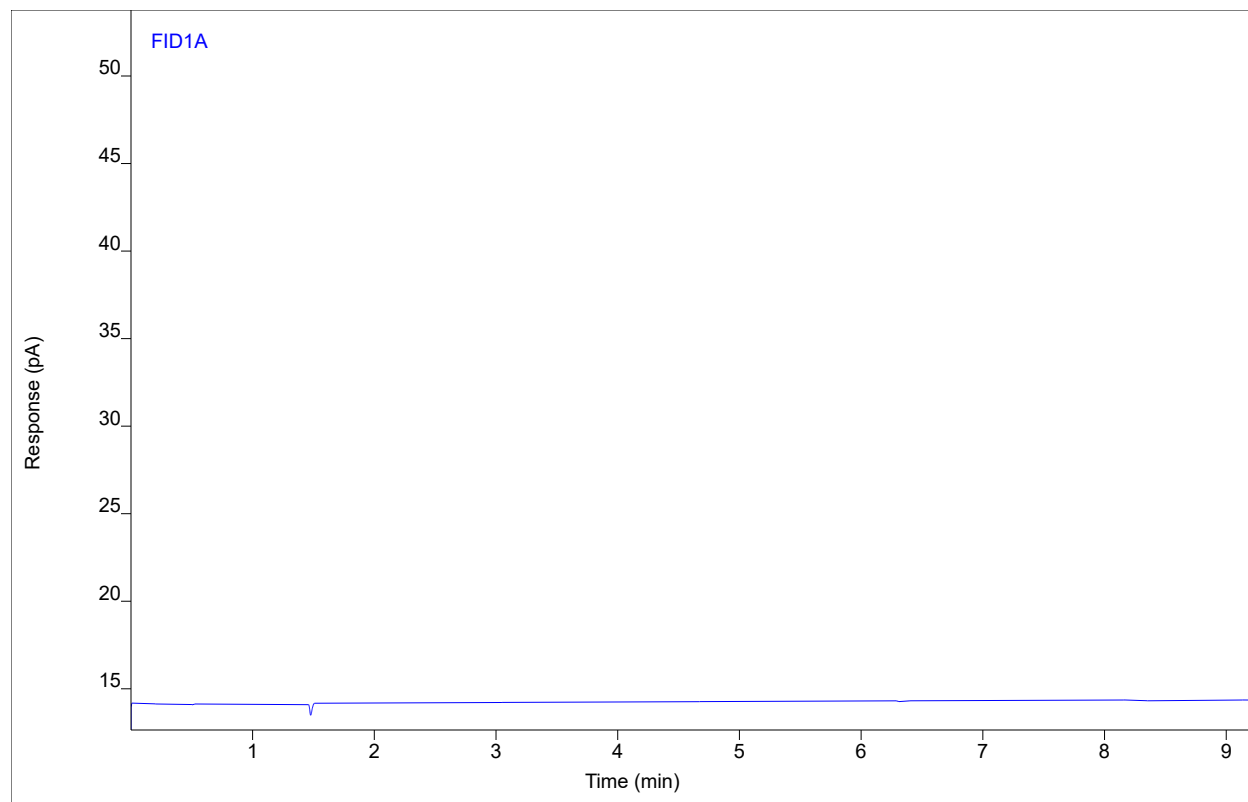
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_025\_001F1101.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 2:17 AM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

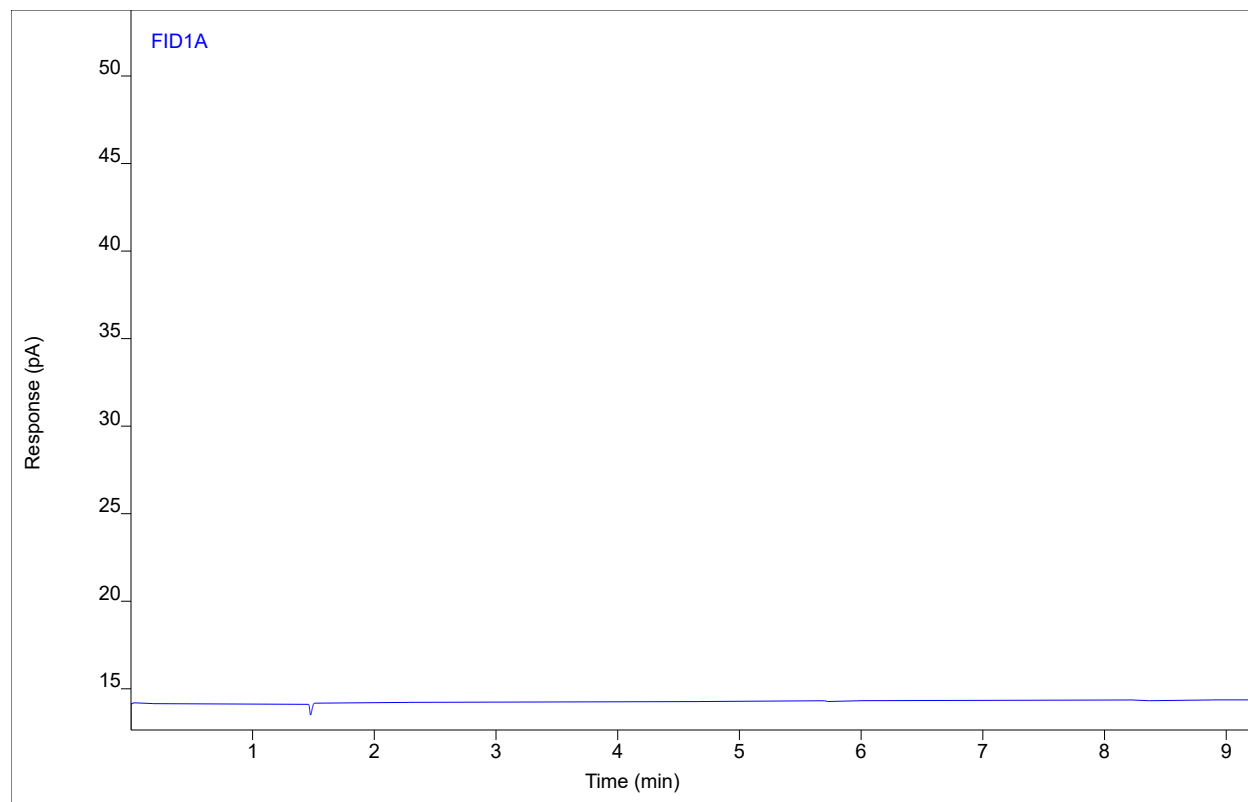


# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_026\_001F1102.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 2:31 AM  
File Modified 10/27/2022 8:49 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



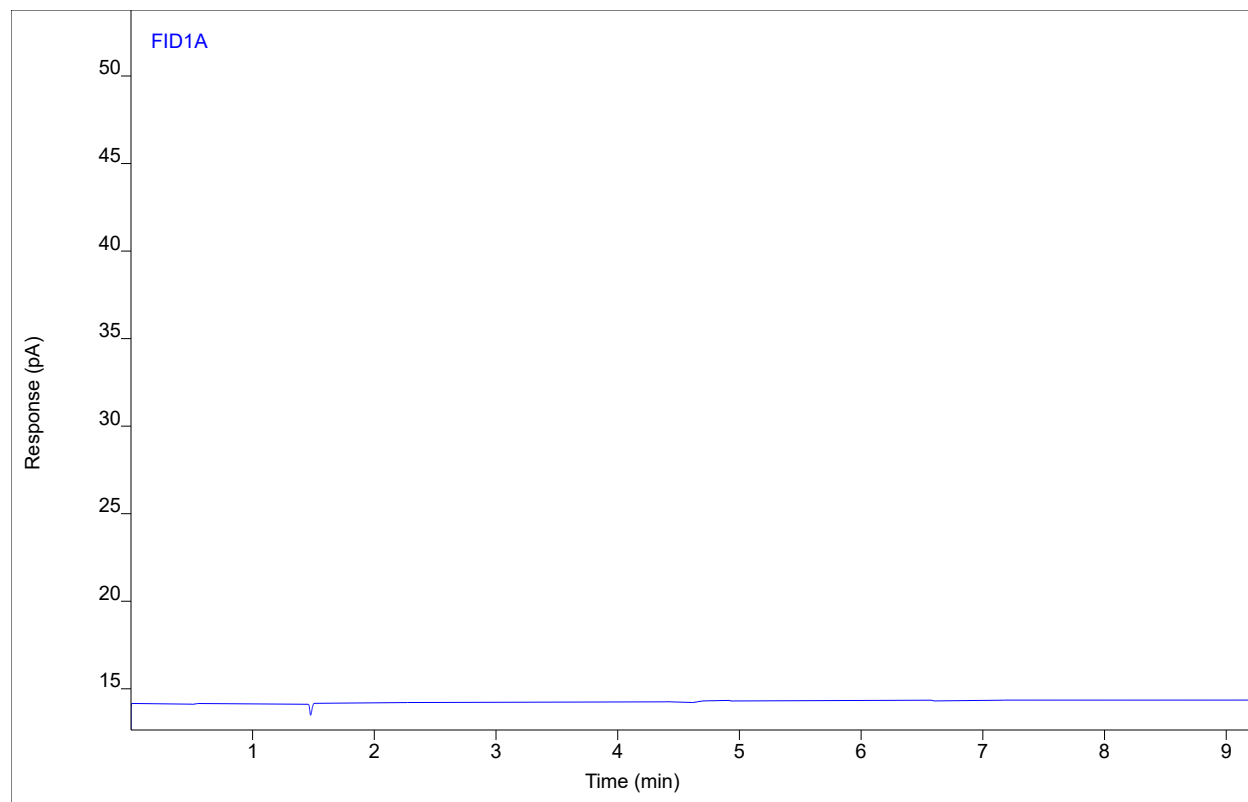
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3014\_IZS ver.2  
Inj Data File \_027\_001F1103.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 2:44 AM  
File Modified 10/27/2022 8:50 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



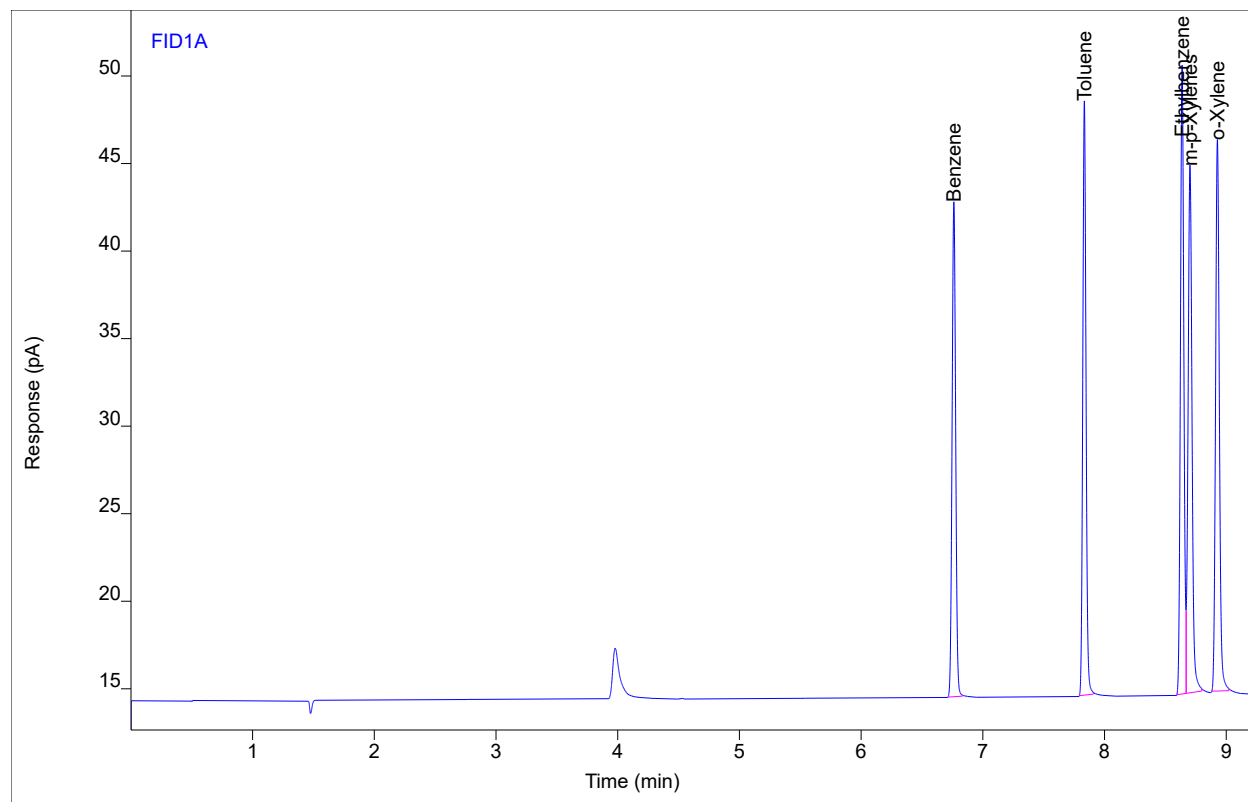
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		ppm
Toluene		(7.84)				1		ppm
Ethylbenzene		(8.64)				1		ppm
m-p-Xylenes		(8.71)				1		ppm
o-Xylene		(8.93)				1		ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0101.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:31 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



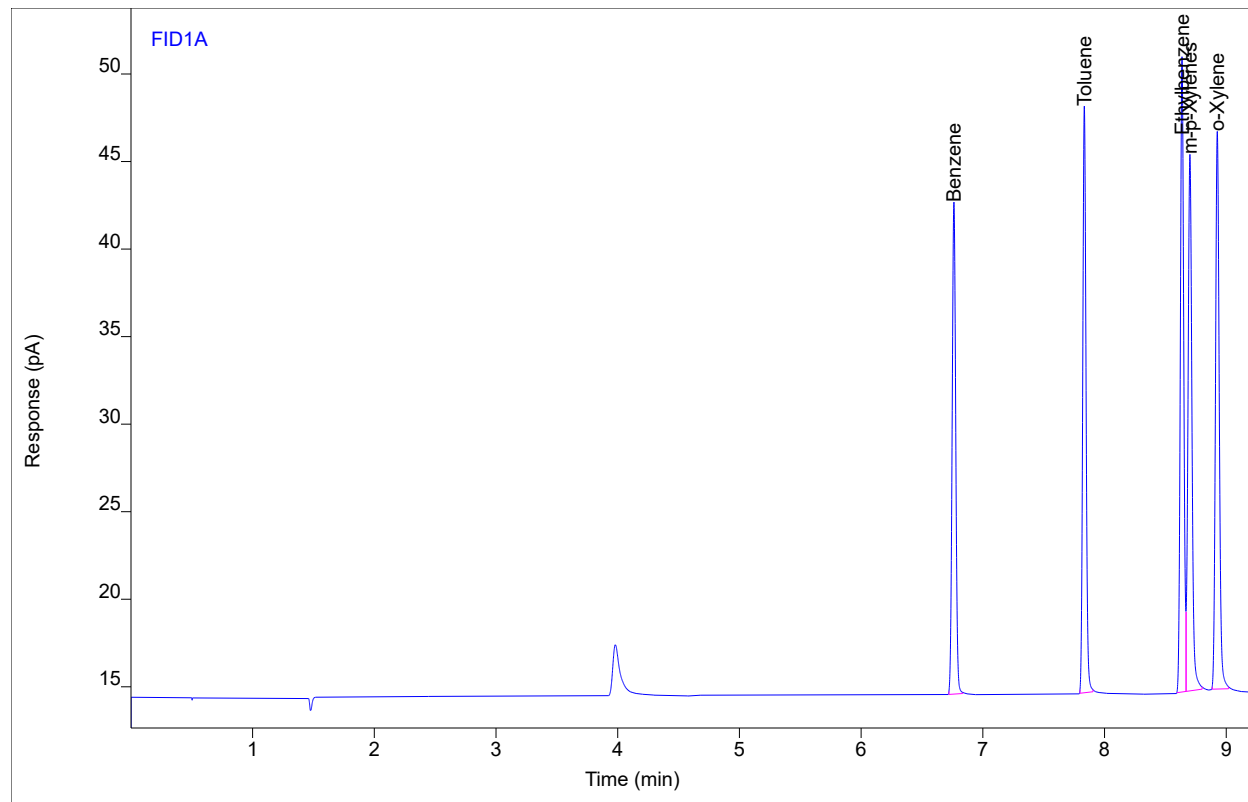
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	57.5574	28.1926	40.3561	1	40.3561	ppm
Toluene	BB	7.83	62.7702	33.8156	37.7601	1	37.7601	ppm
Ethylbenzene	BV	8.64	69.9872	35.8117	37.6131	1	37.6131	ppm
m-p-Xylenes	VB	8.70	68.2238	30.1035	39.5192	1	39.5192	ppm
o-Xylene	BB	8.93	68.0317	31.4267	39.0680	1	39.0680	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0102.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:50 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



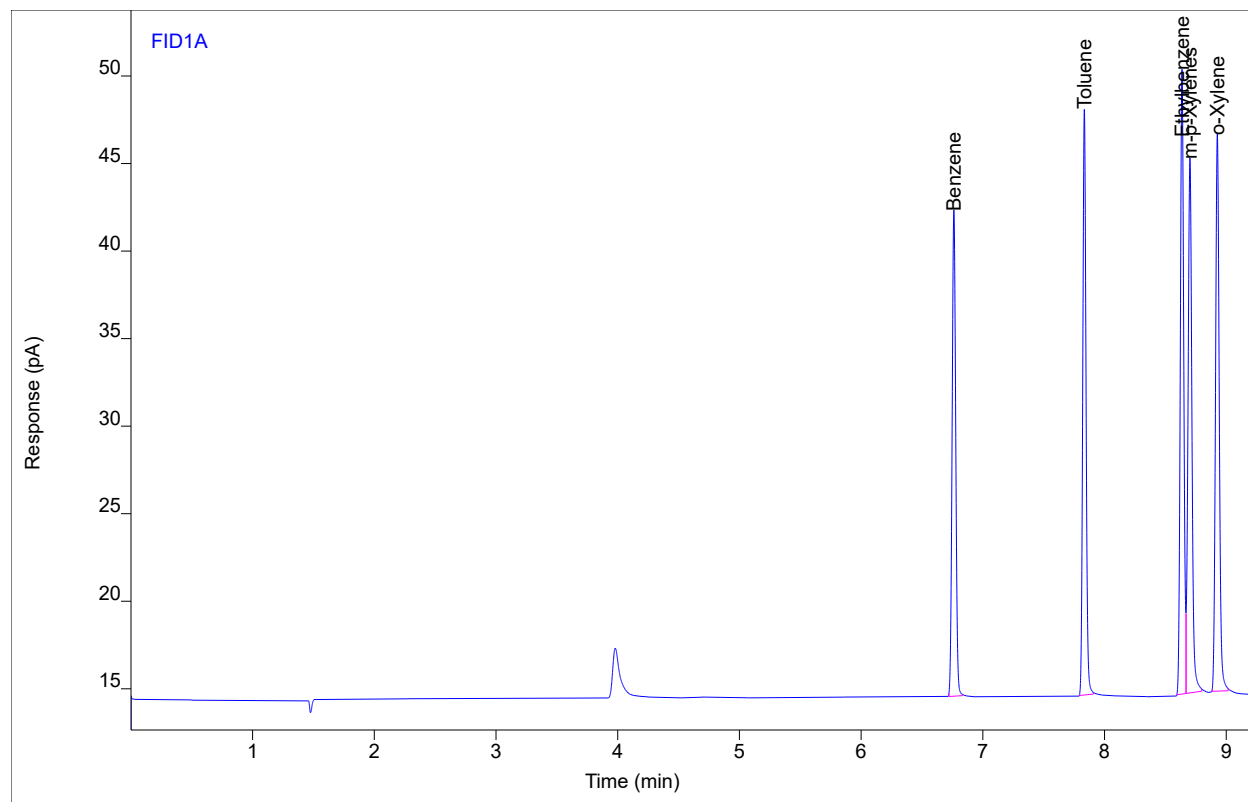
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	57.3530	28.0471	40.2135	1	40.2135	ppm
Toluene	BB	7.83	62.5991	33.3995	37.6581	1	37.6581	ppm
Ethylbenzene	BV	8.64	70.2519	36.1434	37.7536	1	37.7536	ppm
m-p-Xylenes	VB	8.70	68.8621	30.5840	39.8838	1	39.8838	ppm
o-Xylene	BB	8.93	68.6549	31.7535	39.4209	1	39.4209	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0103.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 9:09 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



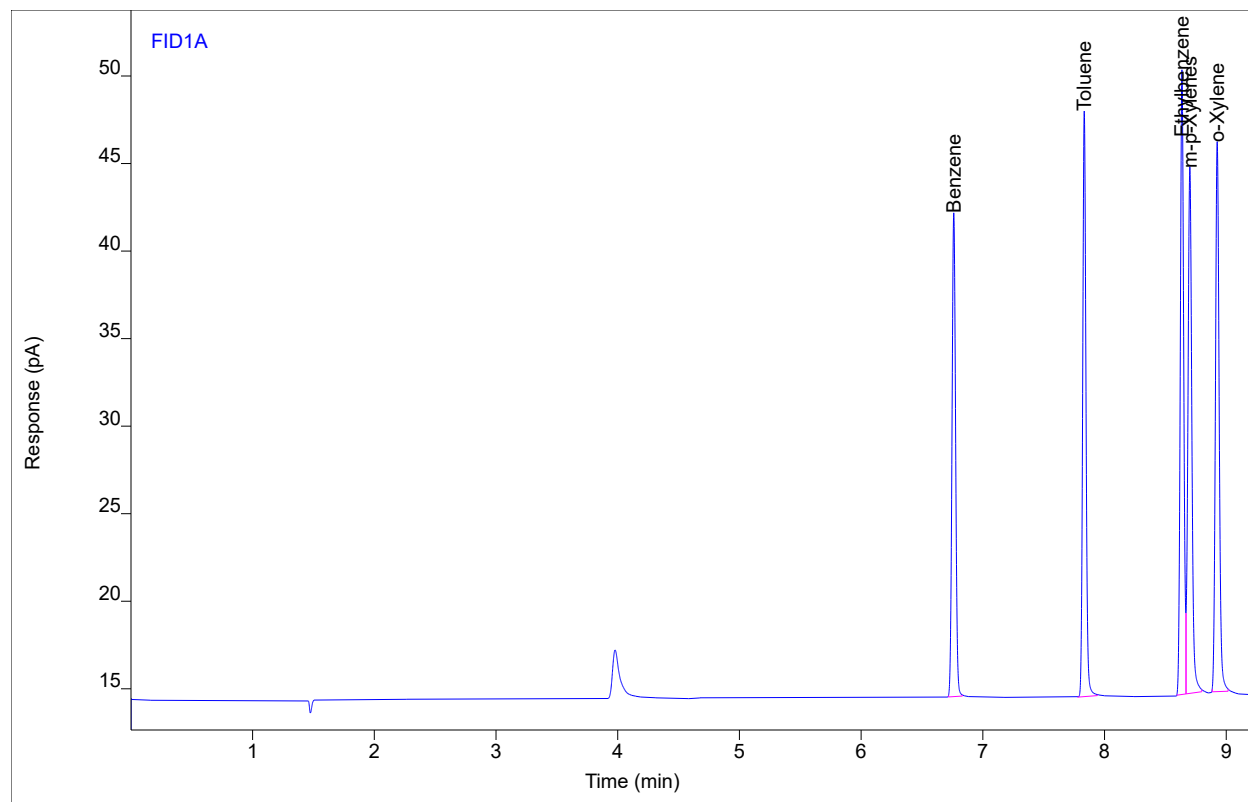
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.9486	27.7133	39.9312	1	39.9312	ppm
Toluene	BB	7.83	62.2340	33.3400	37.4405	1	37.4405	ppm
Ethylbenzene	BV	8.64	69.7876	35.5735	37.5072	1	37.5072	ppm
m-p-Xylenes	VB	8.70	67.9934	30.4938	39.3876	1	39.3876	ppm
o-Xylene	BB	8.93	67.8411	31.7694	38.9601	1	38.9601	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0602.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:20 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



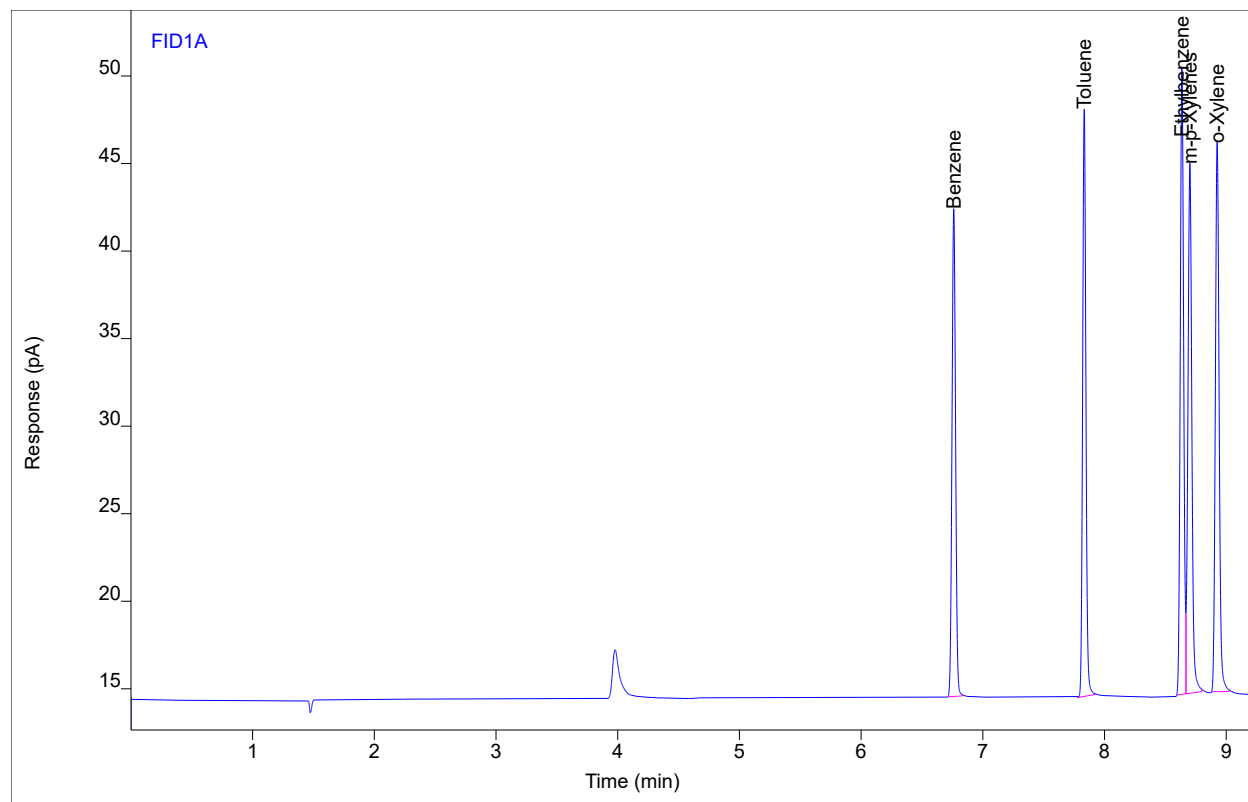
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.5447	27.5617	39.6494	1	39.6494	ppm
Toluene	MM	7.83	62.4751	33.5360	37.5842	1	37.5842	ppm
Ethylbenzene	BV	8.64	69.2432	35.5684	37.2184	1	37.2184	ppm
m-p-Xylenes	VB	8.70	67.1991	30.0202	38.9338	1	38.9338	ppm
o-Xylene	BB	8.93	67.1687	31.3586	38.5795	1	38.5795	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0603.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:39 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



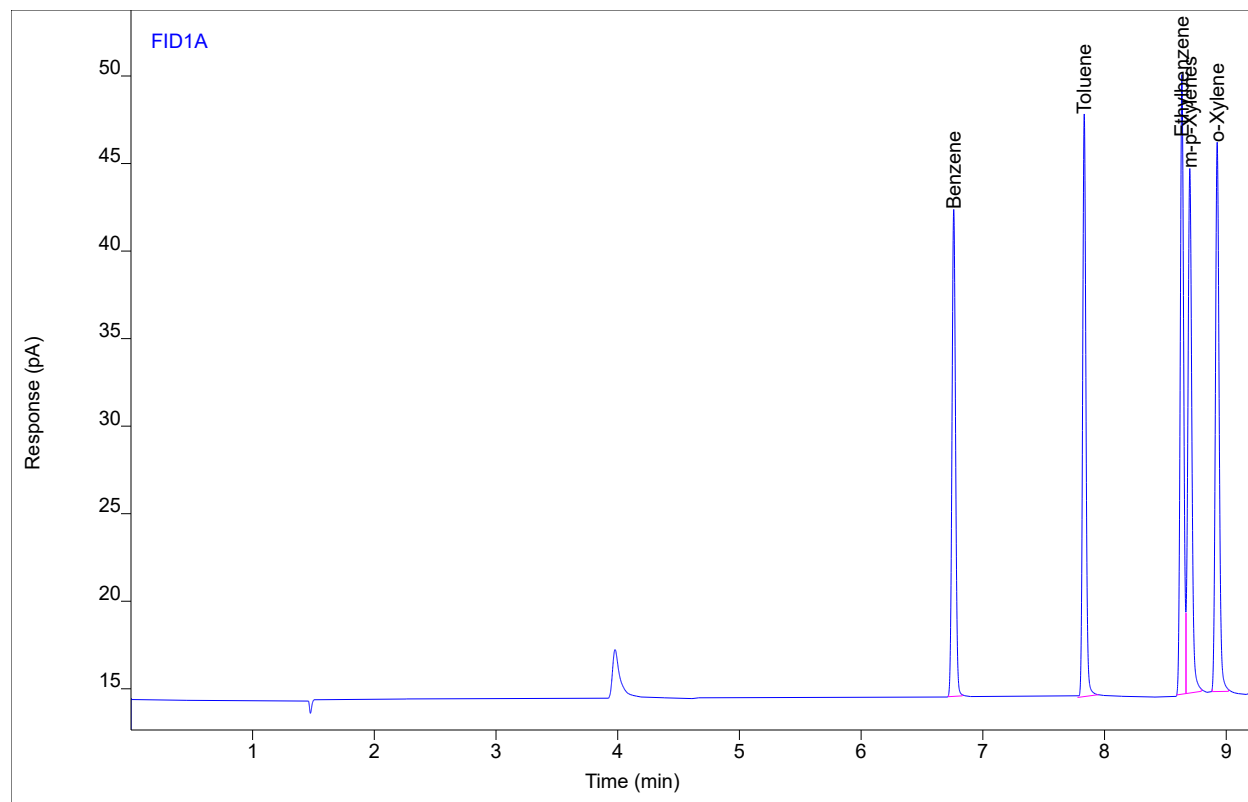
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7925	27.7814	39.8223	1	39.8223	ppm
Toluene	MM	7.83	62.5341	33.6707	37.6193	1	37.6193	ppm
Ethylbenzene	BV	8.64	69.7550	35.6973	37.4900	1	37.4900	ppm
m-p-Xylenes	VB	8.70	67.6666	30.2150	39.2008	1	39.2008	ppm
o-Xylene	BB	8.93	67.8203	31.3385	38.9483	1	38.9483	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0604.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:58 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.4860	27.7538	39.6085	1	39.6085	ppm
Toluene	MM	7.83	62.4111	33.3535	37.5461	1	37.5461	ppm
Ethylbenzene	BV	8.64	69.3350	35.3237	37.2671	1	37.2671	ppm
m-p-Xylenes	VB	8.70	67.2024	29.8953	38.9357	1	38.9357	ppm
o-Xylene	BB	8.93	67.3586	31.3058	38.6870	1	38.6870	ppm

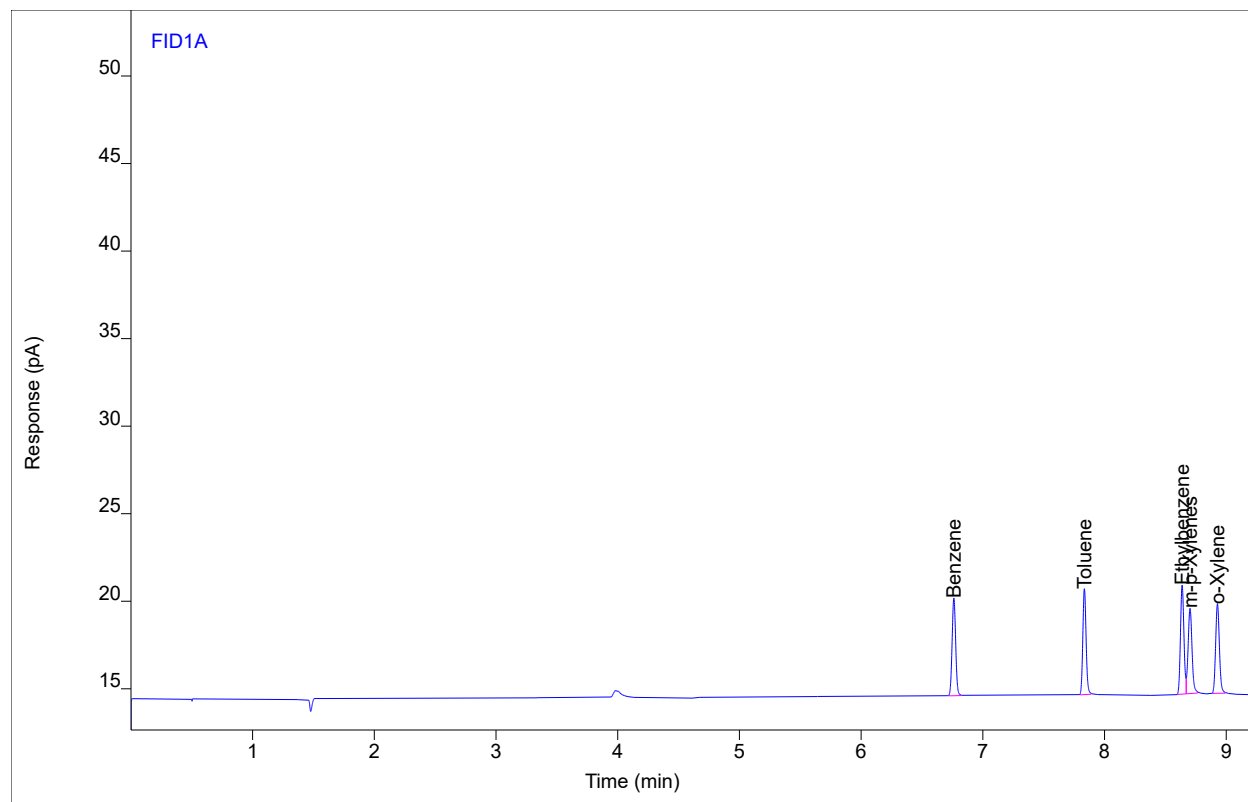


# Chromatogram Report

Sample Name 1022-165.M18 Run 5 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 004F0801.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 2:23 PM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



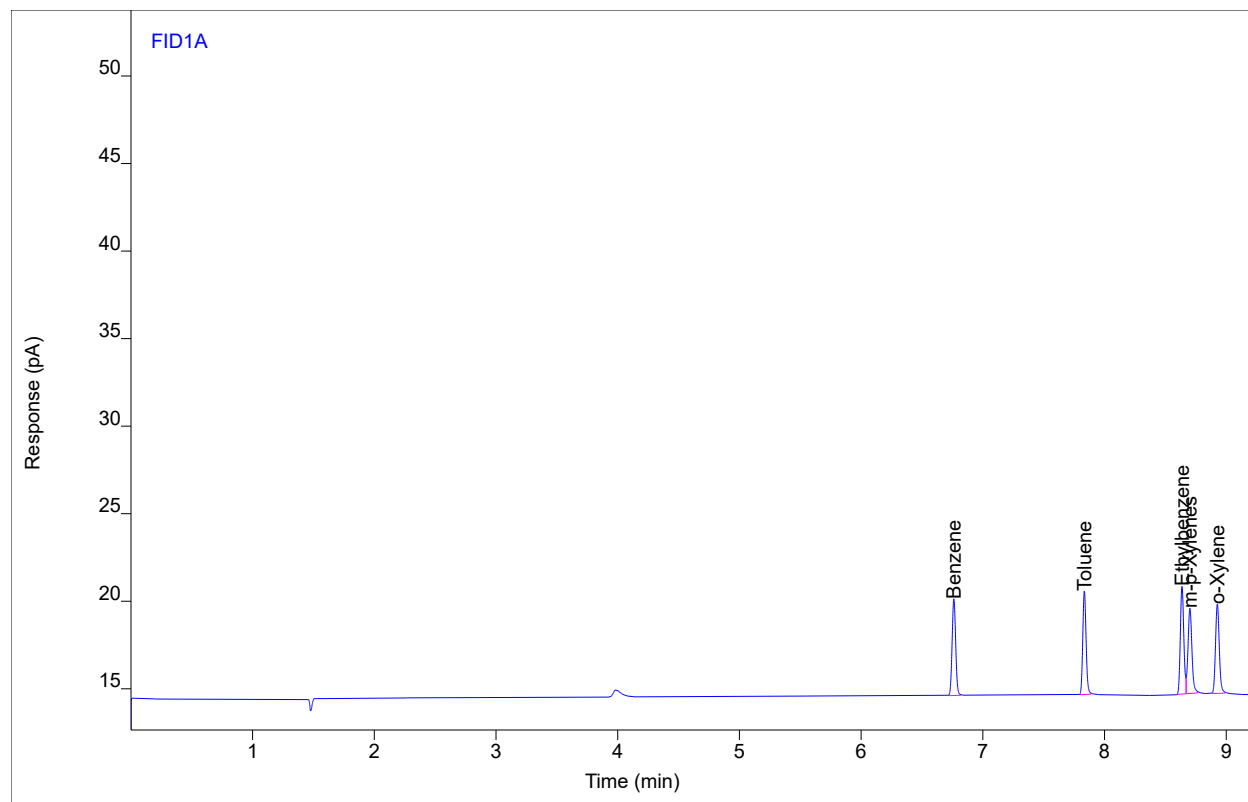
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	11.3748	5.57061	8.12924	1	8.12924	ppm
Toluene	BB	7.84	11.2950	6.03483	7.07694	1	7.07694	ppm
Ethylbenzene	BV	8.64	12.2456	6.20764	6.98115	1	6.98115	ppm
m-p-Xylenes	VB	8.70	10.9733	4.86557	6.81296	1	6.81296	ppm
o-Xylene	BB	8.93	10.9565	5.10976	6.75496	1	6.75496	ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 5 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 004F0802.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 2:37 PM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



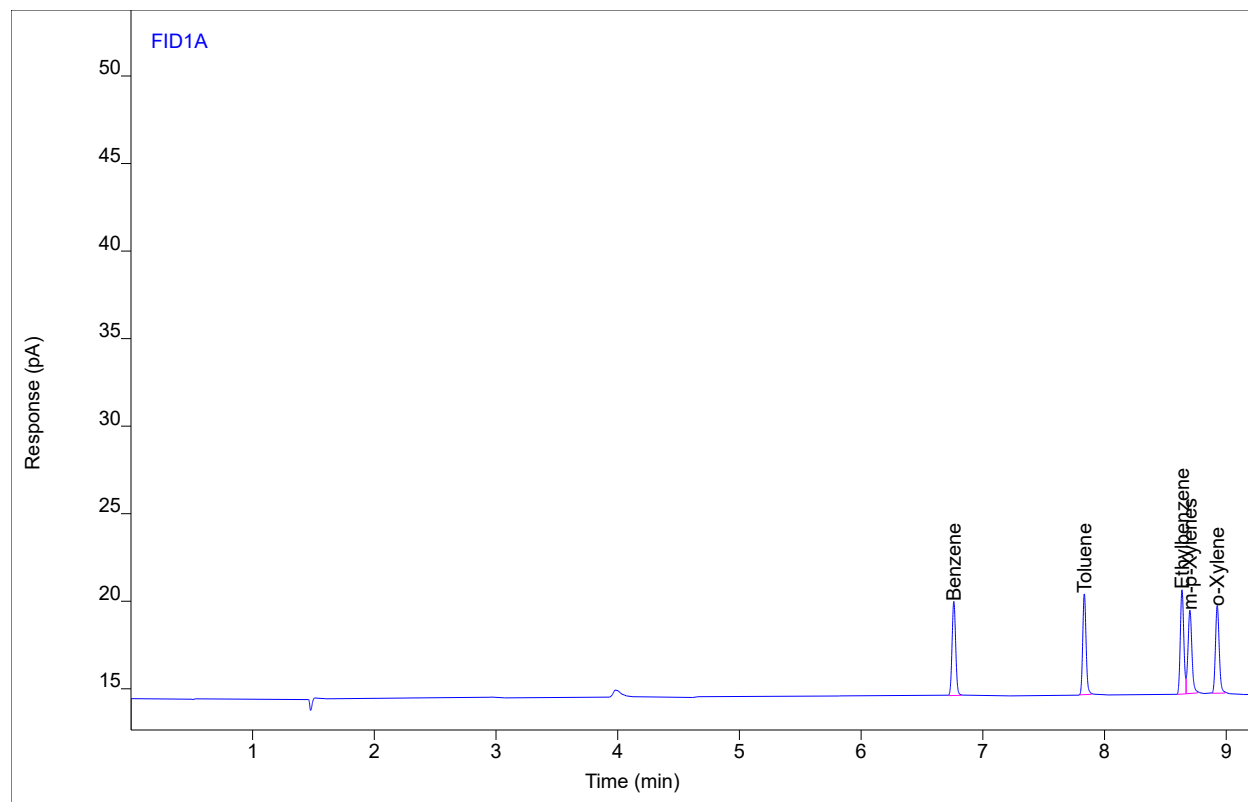
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	11.2513	5.50822	8.04303	1	8.04303	ppm
Toluene	BB	7.83	11.1703	5.89349	7.00259	1	7.00259	ppm
Ethylbenzene	BV	8.64	12.0849	6.16121	6.89590	1	6.89590	ppm
m-p-Xylenes	VB	8.70	10.9482	4.86387	6.79857	1	6.79857	ppm
o-Xylene	BB	8.93	10.9755	5.10044	6.76575	1	6.76575	ppm

# Chromatogram Report

Sample Name 1022-165.M18 Run 5 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 004F0803.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 2:51 PM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



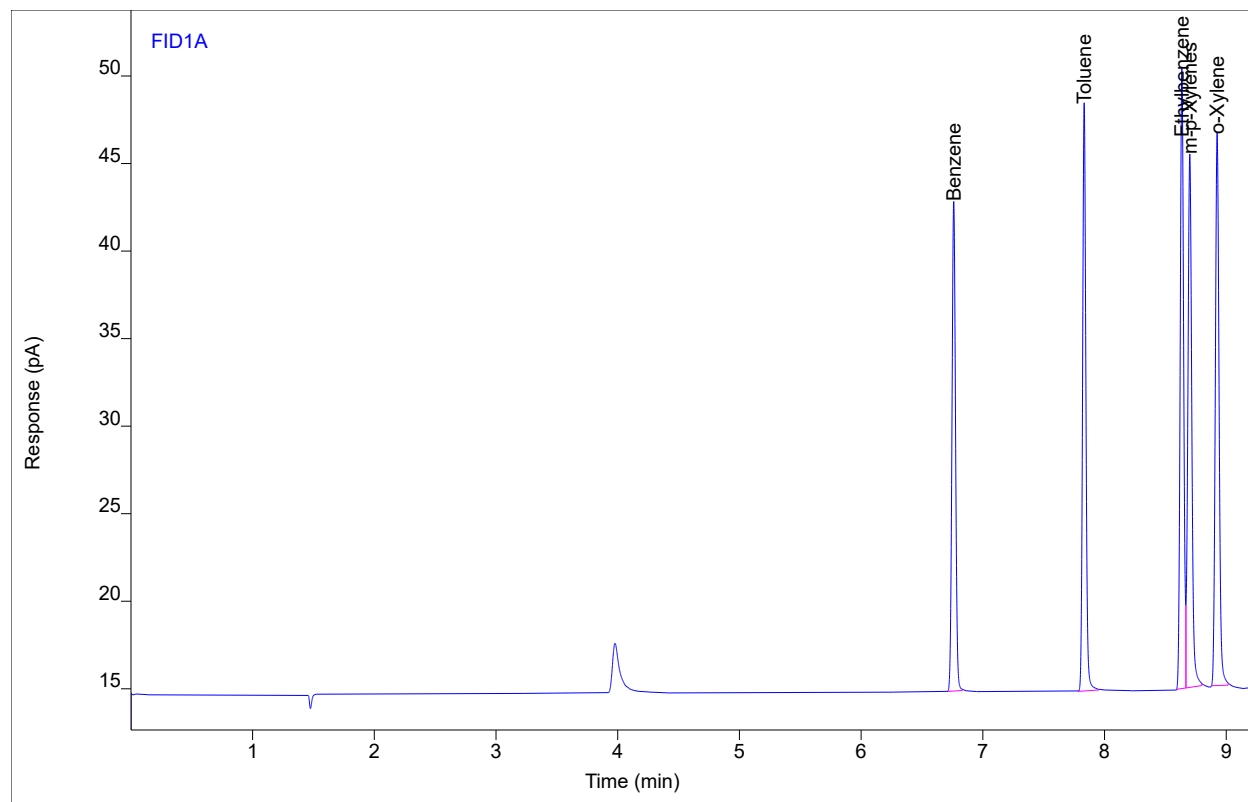
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	11.0682	5.36927	7.91530	1	7.91530	ppm
Toluene	BB	7.83	11.0049	5.75854	6.90398	1	6.90398	ppm
Ethylbenzene	BV	8.64	11.8320	5.97178	6.76177	1	6.76177	ppm
m-p-Xylenes	VB	8.70	10.7325	4.76108	6.67536	1	6.67536	ppm
o-Xylene	BB	8.93	10.7128	5.01233	6.61701	1	6.61701	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1502.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 4:31 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



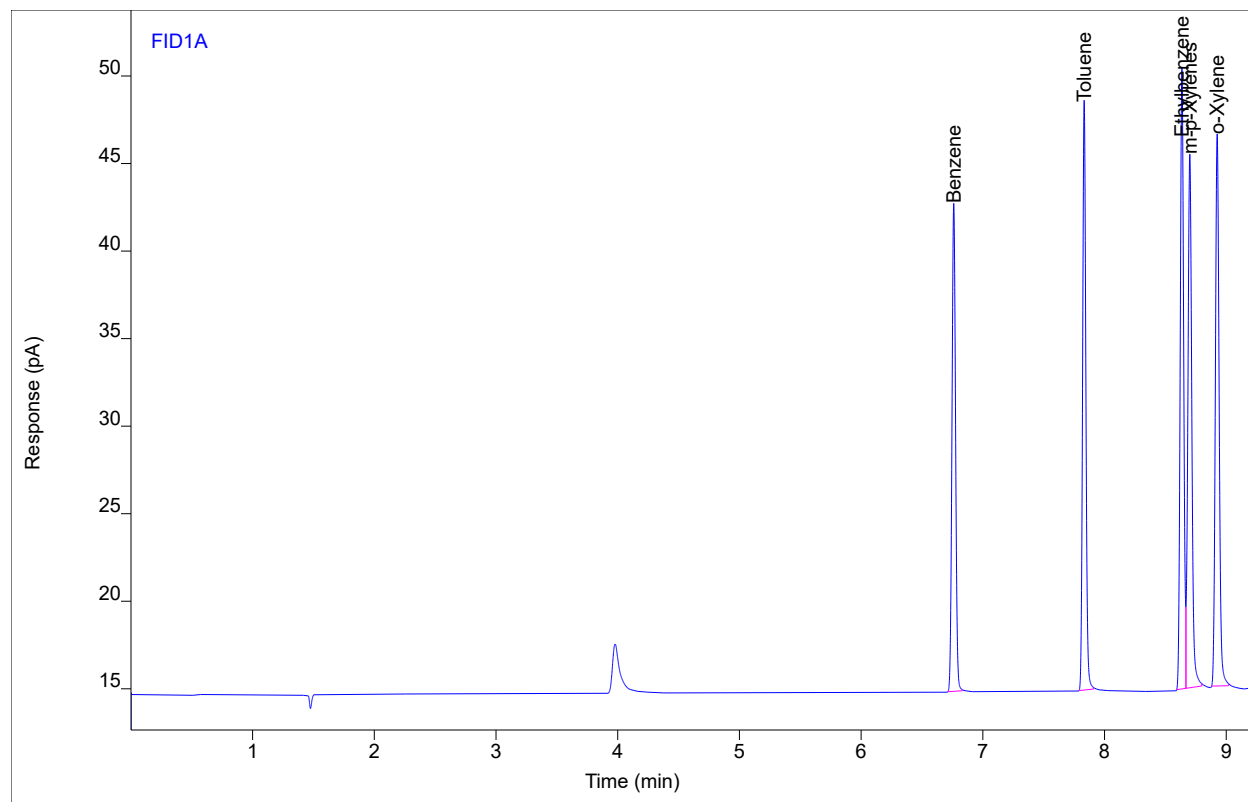
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.8782	27.8958	39.8822	1	39.8822	ppm
Toluene	MM	7.83	62.9730	33.7104	37.8810	1	37.8810	ppm
Ethylbenzene	BV	8.64	69.4043	35.4211	37.3039	1	37.3039	ppm
m-p-Xylenes	VB	8.70	68.3045	30.4004	39.5653	1	39.5653	ppm
o-Xylene	BB	8.93	67.9497	31.4798	39.0216	1	39.0216	ppm

# Chromatogram Report

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1503.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 4:50 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



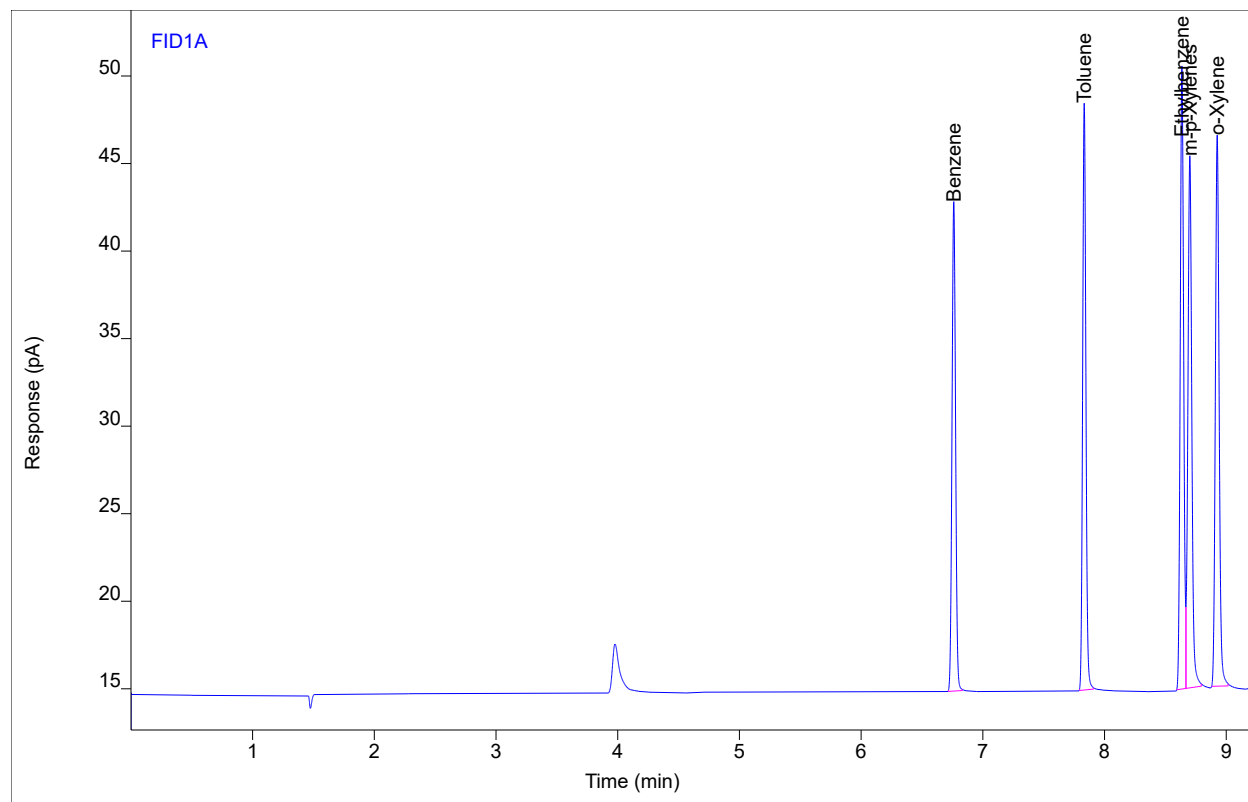
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.9114	27.7957	39.9053	1	39.9053	ppm
Toluene	BB	7.83	62.2711	33.5711	37.4626	1	37.4626	ppm
Ethylbenzene	BV	8.64	69.6872	35.3743	37.4540	1	37.4540	ppm
m-p-Xylenes	VB	8.70	68.3490	30.4134	39.5907	1	39.5907	ppm
o-Xylene	BB	8.93	68.1684	31.4582	39.1454	1	39.1454	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1504.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 5:09 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:03 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7394	27.8775	39.7853	1	39.7853	ppm
Toluene	BB	7.83	62.0351	33.3830	37.3219	1	37.3219	ppm
Ethylbenzene	BV	8.64	69.6628	35.5028	37.4410	1	37.4410	ppm
m-p-Xylenes	VB	8.70	67.8265	30.3375	39.2922	1	39.2922	ppm
o-Xylene	BB	8.93	67.8397	31.3949	38.9593	1	38.9593	ppm

=====

Calibration Table

=====

Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM

Rel. Reference Window : 0.000 %  
 Abs. Reference Window : 0.100 min  
 Rel. Non-ref. Window : 0.000 %  
 Abs. Non-ref. Window : 0.050 min  
 Uncalibrated Peaks : Separately calculated (see below)  
 Partial Calibration : Yes, identified peaks are recalibrated  
 Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear  
 Origin : Connected  
 Weight : Quadratic (Amnt)

Recalibration Settings:  
 Average Response : Average all calibrations  
 Average Retention Time: Floating Average New 75%

Calibration Report Options :  
 Printout of recalibrations within a sequence:  
 Calibration Table after Recalibration  
 Normal Report after Recalibration  
 If the sequence is done with bracketing:  
 Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal

Uncalibrated Peaks : compound name not specified

Signal 2: FID3 B, Back Signal

Uncalibrated Peaks : not reported

RetTime [min]	Lvl Sig	Amount [ppm]	Area	Amt/Area	Ref Grp Name
3.984	1 21	3.64000	5.71966e-1	6.36401	Acetone
	22	19.90000	4.37247	4.55120	
	23	39.80000	9.50873	4.18563	
	24	99.60000	26.80922	3.71514	
6.768	1 21	3.70000	5.03505	7.34848e-1	Benzene
	22	20.20000	28.44162	7.10227e-1	
	23	40.50000	57.54820	7.03758e-1	
	24	101.20000	146.23926	6.92017e-1	
7.839	1 21	3.65000	5.55869	6.56630e-1	Toluene
	22	20.00000	32.54202	6.14590e-1	
	23	40.00000	66.36354	6.02741e-1	
	24	99.90000	169.24173	5.90280e-1	
8.642	1 21	3.60000	5.88668	6.11551e-1	Ethylbenzene
	22	19.70000	35.68923	5.51987e-1	
	23	39.40000	73.38292	5.36910e-1	
	24	98.40000	186.75874	5.26883e-1	
8.707	1 21	3.69000	5.52648	6.67694e-1	m-p-Xylenes
	22	20.20000	33.66933	5.99953e-1	
	23	40.40000	69.90140	5.77957e-1	
	24	100.88000	178.43660	5.65355e-1	
8.933	1 21	3.69000	5.56491	6.63083e-1	o-Xylene
	22	20.20000	33.86403	5.96503e-1	
	23	40.30000	70.42869	5.72210e-1	
	24	100.80000	180.10786	5.59665e-1	

EA Job # 1022-165R 83 of 305

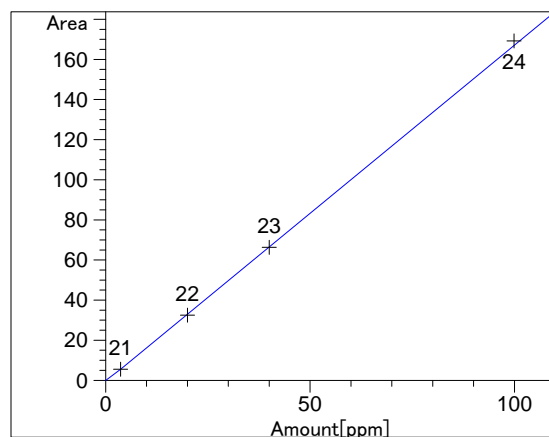
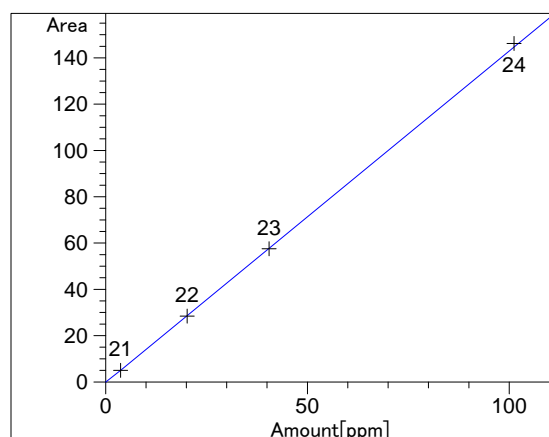
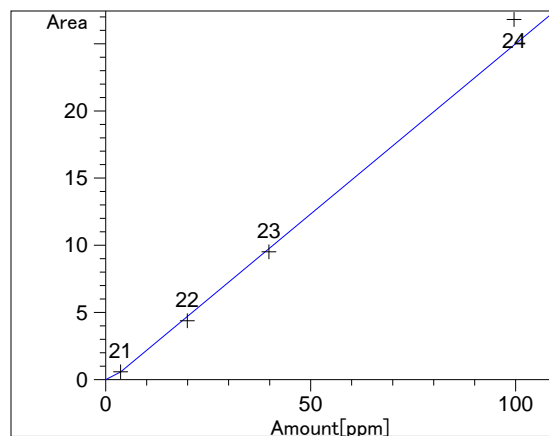
1 Warnings or Errors :

Warning : Cal. table open and changed while report was generated.

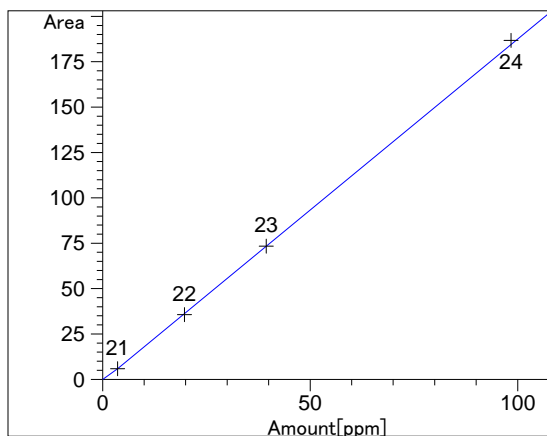
Peak Sum Table

\*\*\*No Entries in table\*\*\*

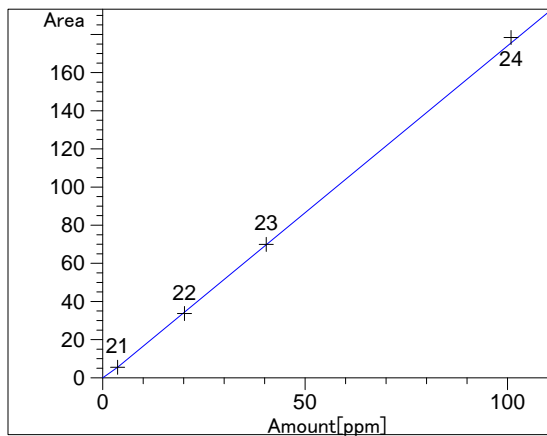
Calibration Curves



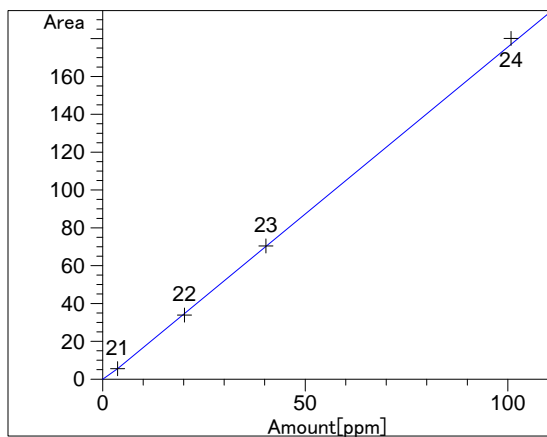




Ethylbenzene at exp. RT: 8.642  
FID1 A, Front Signal  
Correlation: 0.99993  
Residual Std. Dev.: 1.59201  
Formula:  $y = mx + b$   
m: 1.88501  
b:  $-9.13959e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.033394  
Level 23 : 0.008349  
Level 24 : 0.001338

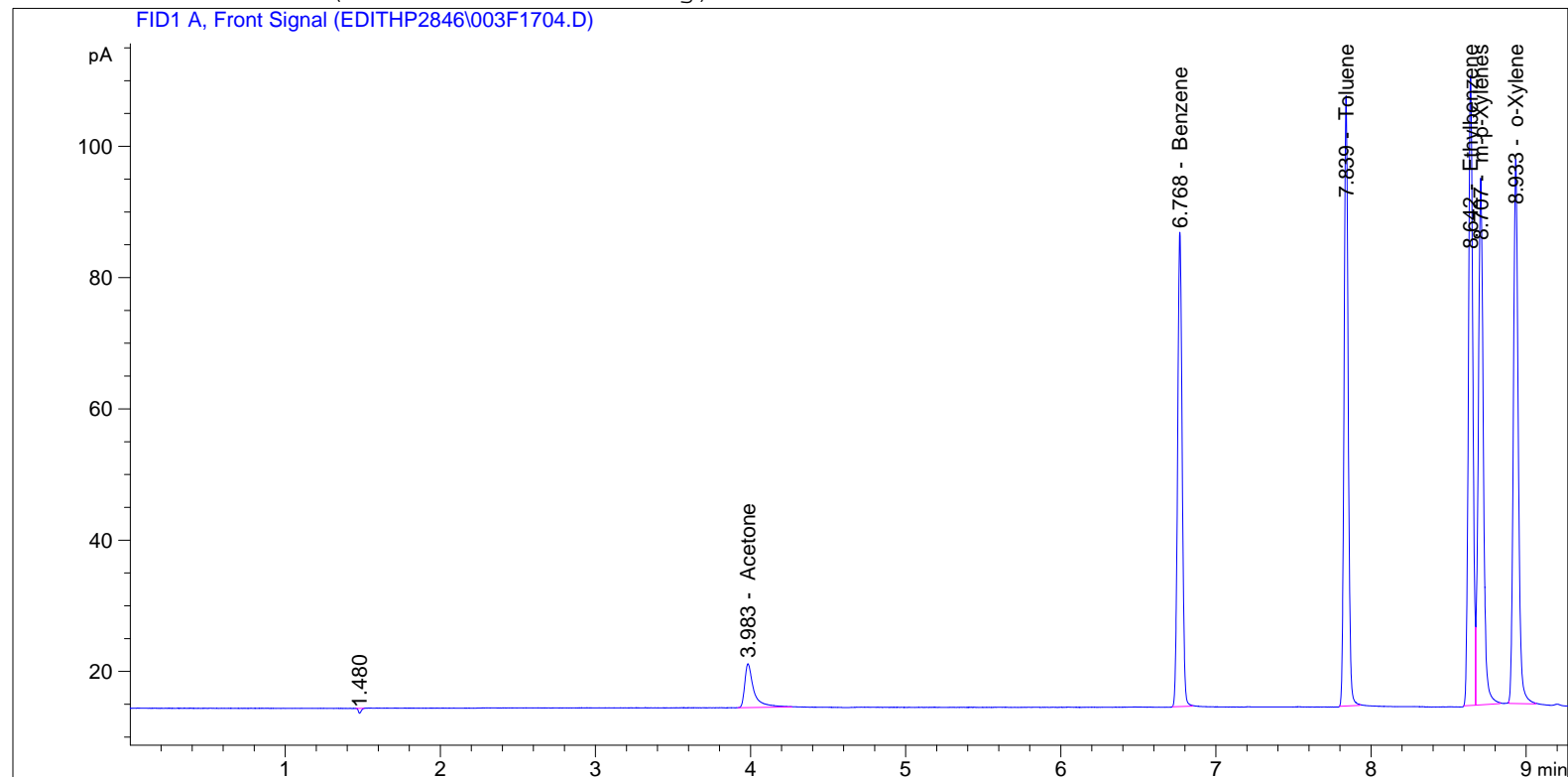


m-p-Xylenes at exp. RT: 8.707  
FID1 A, Front Signal  
Correlation: 0.99985  
Residual Std. Dev.: 2.05241  
Formula:  $y = mx + b$   
m: 1.75045  
b:  $-9.52382e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.03337  
Level 23 : 0.008342  
Level 24 : 0.001338



o-Xylene at exp. RT: 8.933  
FID1 A, Front Signal  
Correlation: 0.99982  
Residual Std. Dev.: 2.23435  
Formula:  $y = mx + b$   
m: 1.76632  
b:  $-9.74936e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.03337  
Level 23 : 0.008384  
Level 24 : 0.00134

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:49:05 PM      Inj       :    4
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
=====
Sorted By      : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.983	BB	27.12137	3.99233	108.27738		Acetone
6.768	BB	146.71381	6.99120e-1	102.57060		Benzene
7.839	BB	169.96719	5.98102e-1	101.65770		Toluene
8.642	BV	187.63574	5.33085e-1	100.02577		Ethylbenzene
8.707	VB	180.11488	5.74304e-1	103.44065		m-p-Xylenes
8.933	BB	181.34390	5.69193e-1	103.21966		o-Xylene

Totals : 619.19177

EA Job # 1022-165R 86 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.29950e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

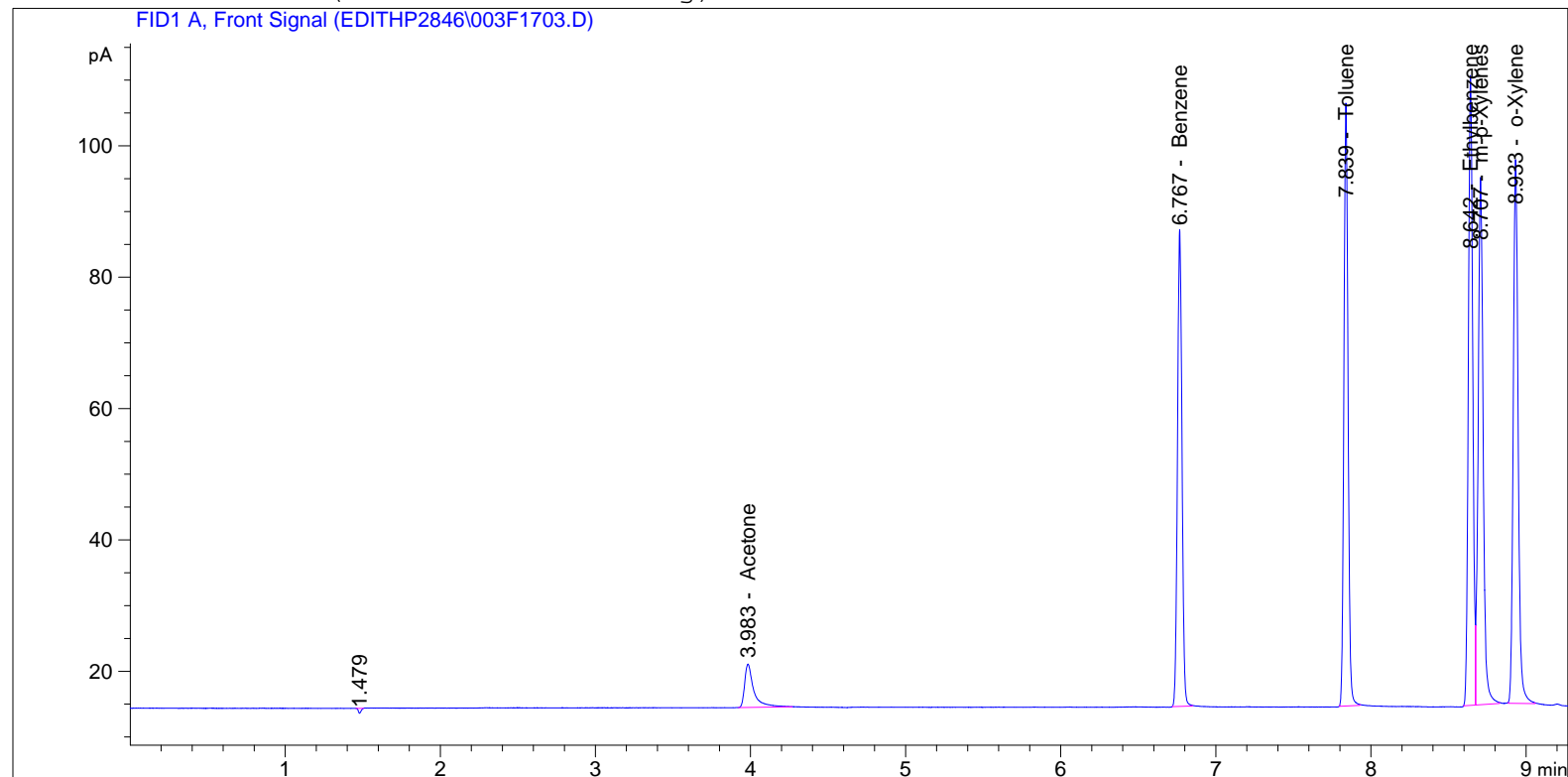
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	27.12137	108.2774
Benzene	146.71381	102.5706
Toluene	169.96719	101.6577
Ethylbenzene	187.63574	100.0258
m-p-Xylenes	180.11488	103.4406
o-Xylene	181.34390	103.2197

Totals : 619.1918

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:33:56 PM      Inj       :    3
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
=====
Sorted By      : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier     : 1.0000
Dilution       : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.983	BB	27.04018	3.99249	107.95754		Acetone
6.767	BB	146.71400	6.99120e-1	102.57074		Benzene
7.839	BB	170.07204	5.98101e-1	101.72020		Toluene
8.642	BV	188.00327	5.33080e-1	100.22074		Ethylbenzene
8.707	VB	180.17007	5.74303e-1	103.47218		m-p-Xylenes
8.933	BB	181.91898	5.69183e-1	103.54524		o-Xylene

Totals : 619.48664

EA Job # 1022-165R 88 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.17730e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

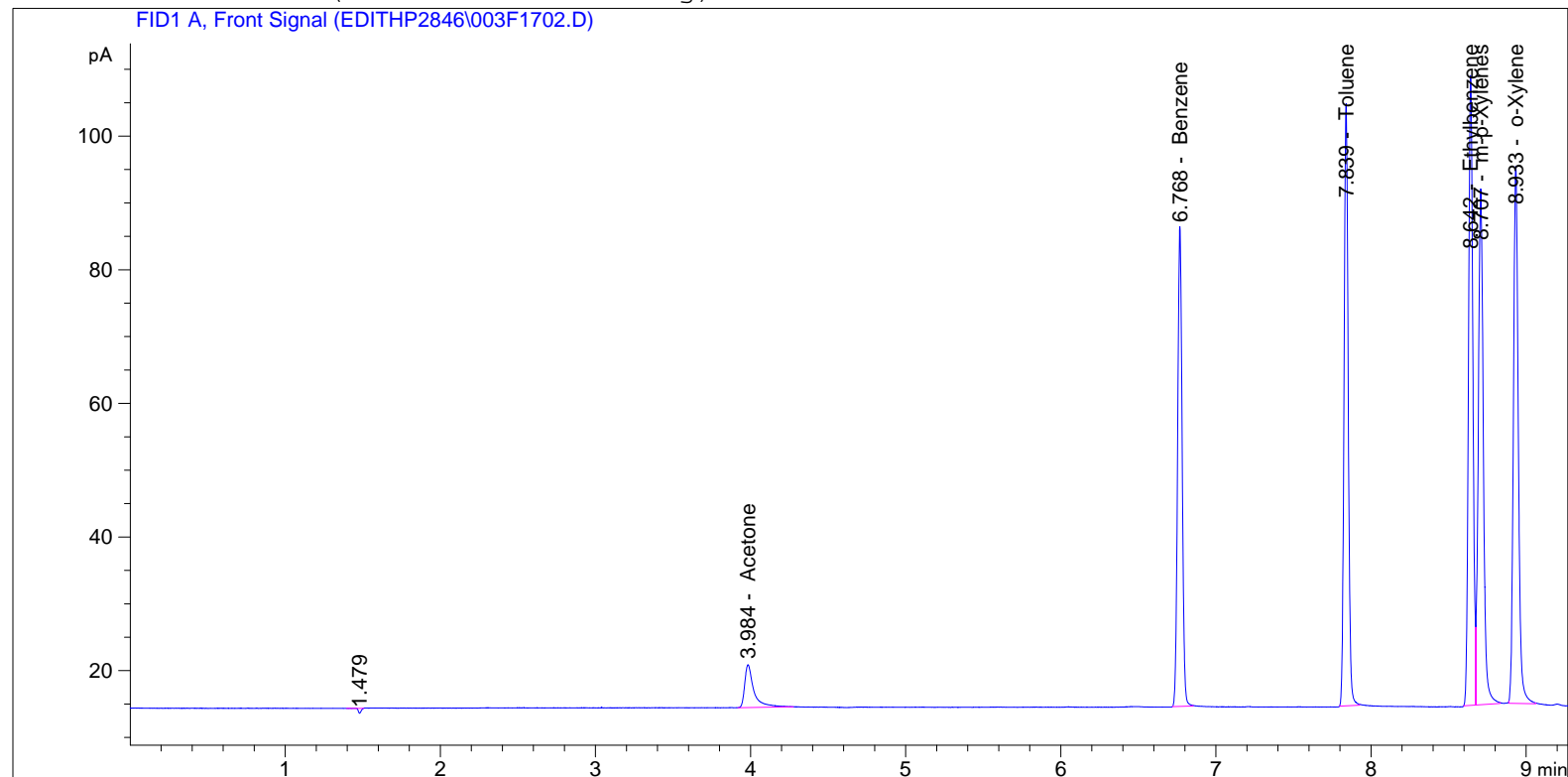
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	27.04018	107.9575
Benzene	146.71400	102.5707
Toluene	170.07204	101.7202
Ethylbenzene	188.00327	100.2207
m-p-Xylenes	180.17007	103.4722
o-Xylene	181.91898	103.5452

Totals : 619.4866

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:18:39 PM      Inj       :    2
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
Sorted By           : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.984	BB	26.26610	3.99404	104.90783		Acetone
6.768	BB	145.28996	6.99133e-1	101.57703		Benzene
7.839	BB	167.68596	5.98129e-1	100.29791		Toluene
8.642	BV	184.63721	5.33127e-1	98.43504		Ethylbenzene
8.707	VB	175.02484	5.74392e-1	100.53279		m-p-Xylenes
8.933	BB	177.06071	5.69267e-1	100.79474		o-Xylene

Totals : 606.54535

EA Job # 1022-165R 90 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.62701e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

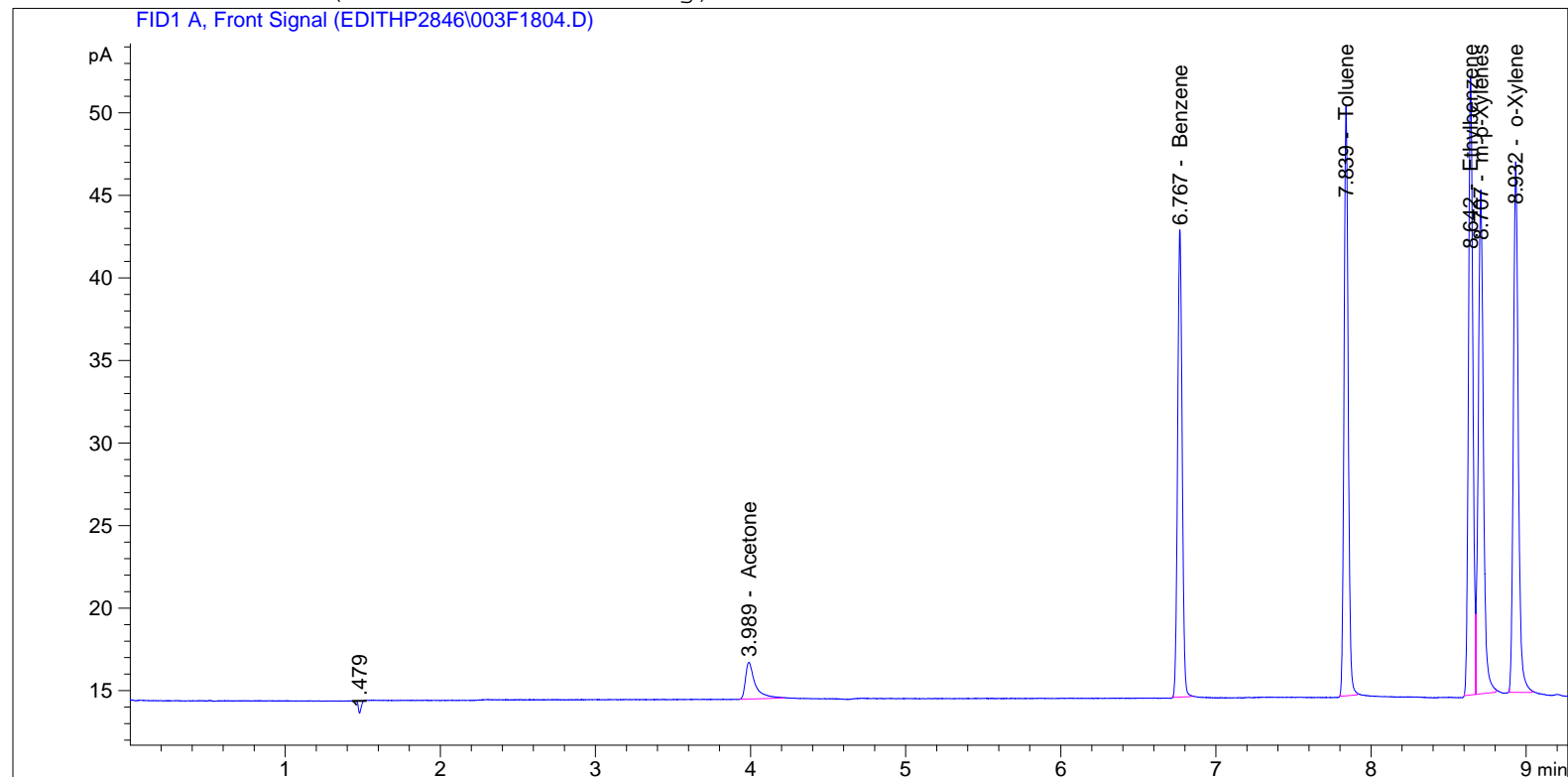
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	26.26610	104.9078
Benzene	145.28996	101.5770
Toluene	167.68596	100.2979
Ethylbenzene	184.63721	98.4350
m-p-Xylenes	175.02484	100.5328
o-Xylene	177.06071	100.7947

Totals : 606.5454

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   18
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 11:49:38 PM      Inj       :    4
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



```
=====
External Standard Report
=====
```

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.61018	4.08813	39.28772		Acetone
6.767	BB	57.60721	7.01142e-1	40.39083		Benzene
7.839	BB	66.47327	6.01255e-1	39.96740		Toluene
8.642	BV	73.50793	5.37097e-1	39.48087		Ethylbenzene
8.707	VB	69.97326	5.79059e-1	40.51861		m-p-Xylenes
8.932	BB	70.59382	5.73968e-1	40.51859		o-Xylene

Totals : 240.16403

EA Job # 1022-165R 92 of 305



Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	VP N	9.22298e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

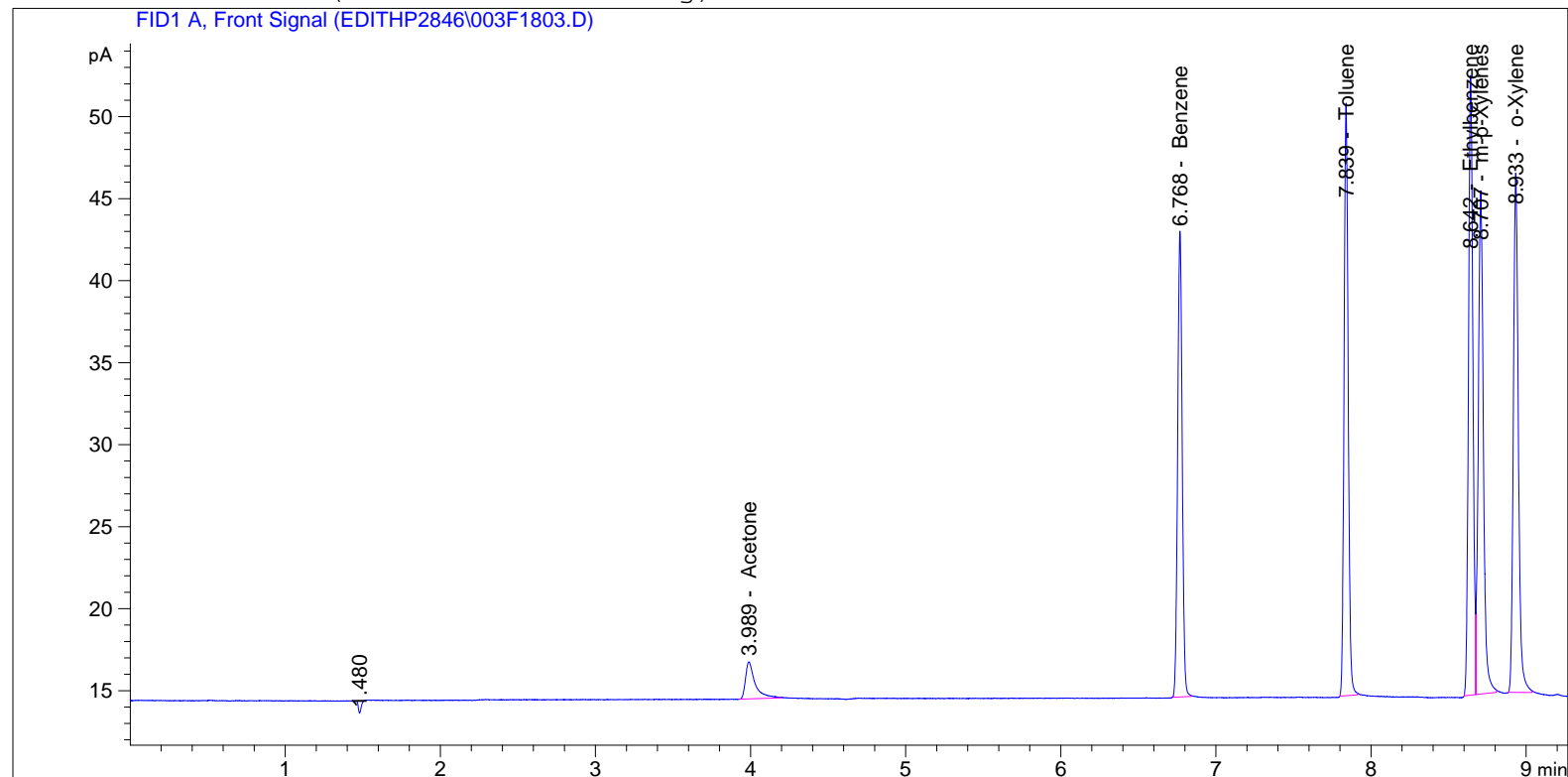
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.61018	39.2877
Benzene	57.60721	40.3908
Toluene	66.47327	39.9674
Ethylbenzene	73.50793	39.4809
m-p-Xylenes	69.97326	40.5186
o-Xylene	70.59382	40.5186

Totals : 240.1640

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   18
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 11:34:32 PM      Inj       :    3
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
=====
Sorted By           : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.58913	4.08846	39.20478		Acetone
6.768	BB	58.09200	7.01114e-1	40.72912		Benzene
7.839	BB	66.92036	6.01221e-1	40.23390		Toluene
8.642	BV	73.87671	5.37064e-1	39.67651		Ethylbenzene
8.707	VB	70.32369	5.79020e-1	40.71881		m-p-Xylenes
8.933	BB	70.79723	5.73946e-1	40.63376		o-Xylene

Totals : 241.19688

EA Job # 1022-165R 94 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.28214e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

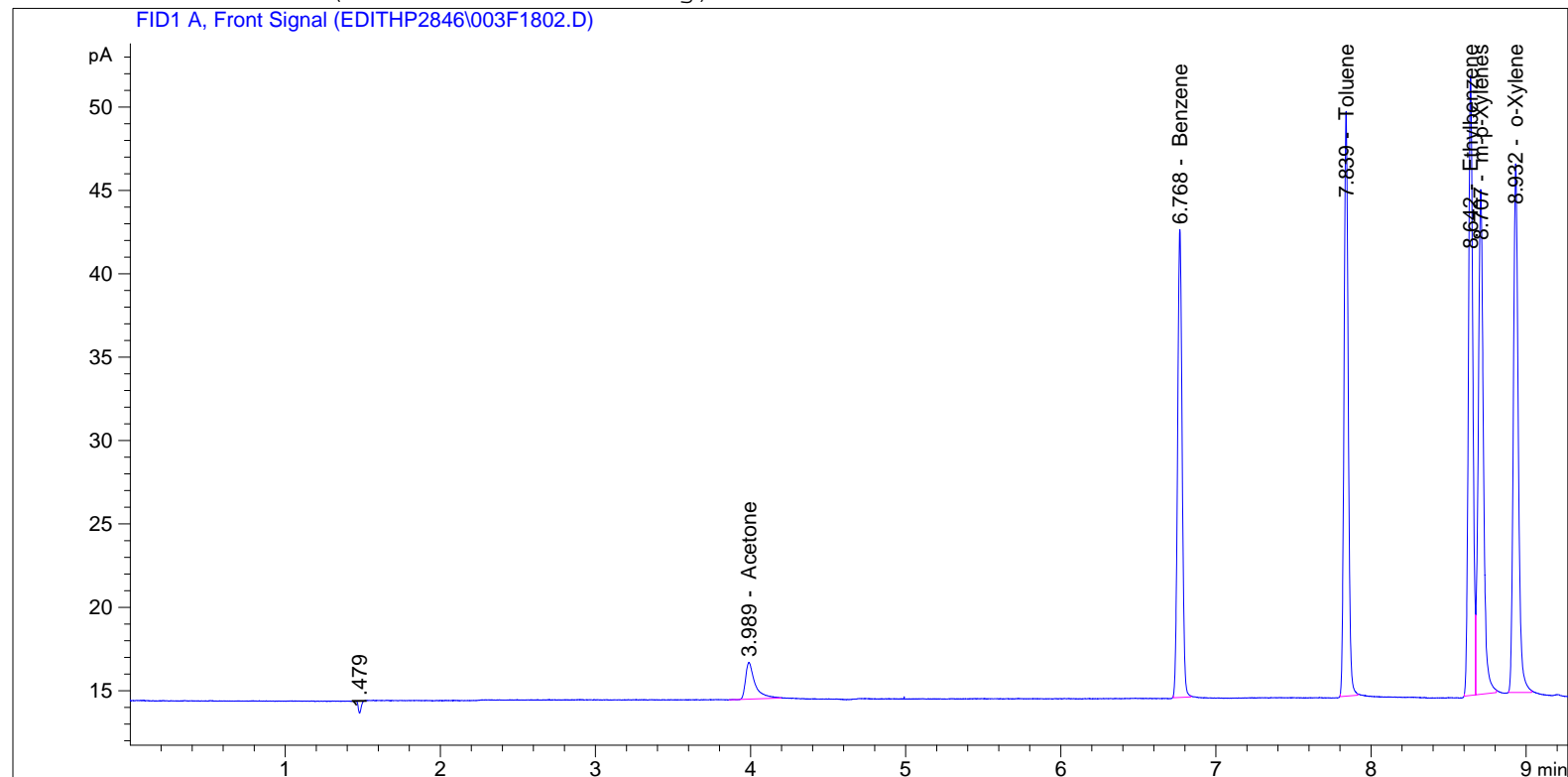
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.58913	39.2048
Benzene	58.09200	40.7291
Toluene	66.92036	40.2339
Ethylbenzene	73.87671	39.6765
m-p-Xylenes	70.32369	40.7188
o-Xylene	70.79723	40.6338

Totals : 241.1969

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 18
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/11/2022 11:19:23 PM	Inj	: 2
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



External Standard Report

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.32687	4.09264	38.17154		Acetone
6.768	BB	56.94540	7.01181e-1	39.92901		Benzene
7.839	BB	65.69698	6.01316e-1	39.50468		Toluene
8.642	BV	72.76412	5.37164e-1	39.08628		Ethylbenzene
8.707	VB	69.40724	5.79122e-1	40.19526		m-p-Xylenes
8.932	BB	69.89501	5.74046e-1	40.12296		o-Xylene

Totals : 237.00973

EA Job # 1022-165R 96 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.02891e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

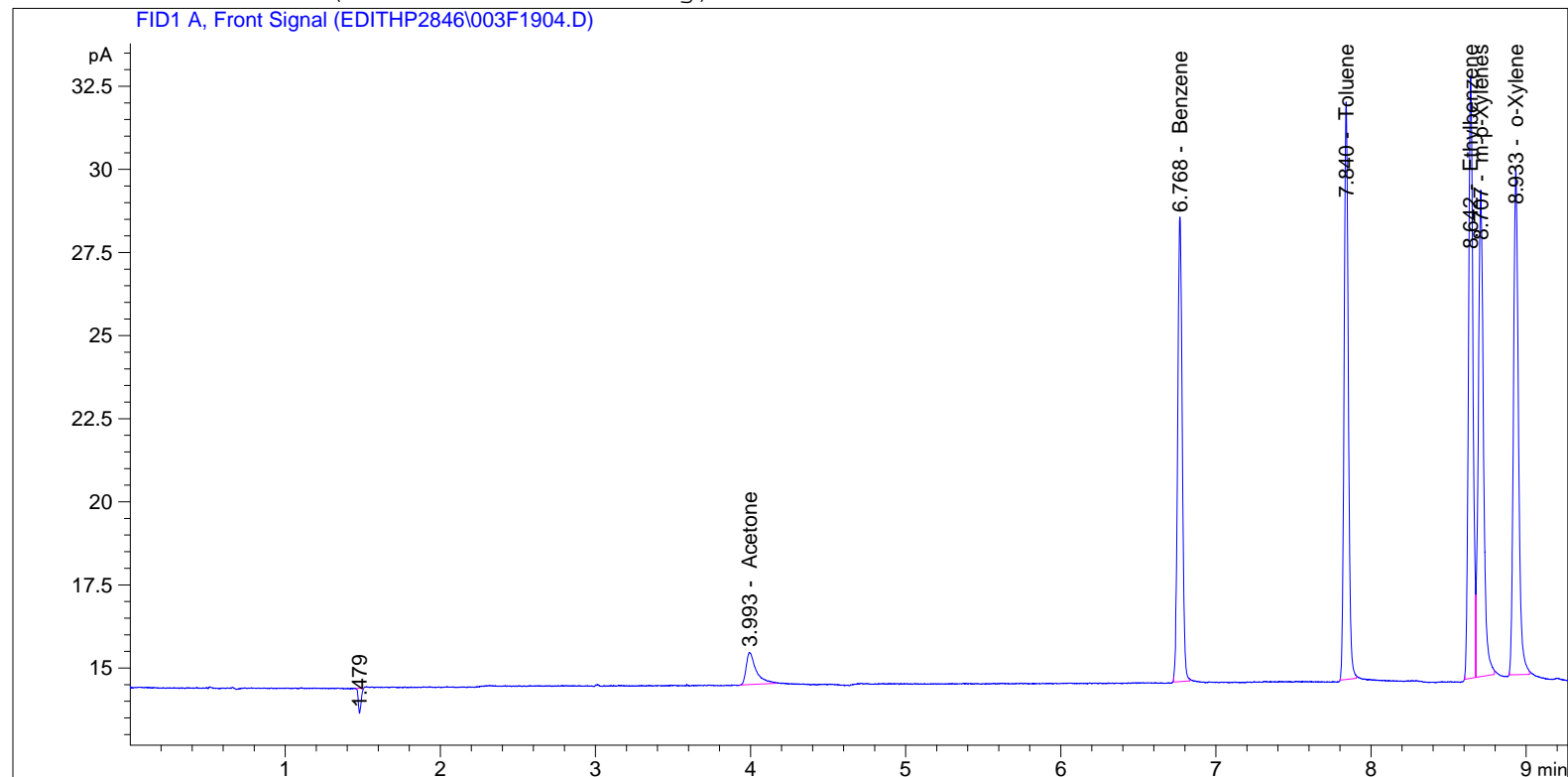
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.32687	38.1715
Benzene	56.94540	39.9290
Toluene	65.69698	39.5047
Ethylbenzene	72.76412	39.0863
m-p-Xylenes	69.40724	40.1953
o-Xylene	69.89501	40.1230

Totals : 237.0097

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 19
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 12:50:11 AM	Inj	: 4
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



External Standard Report

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.993	BB	4.28639	4.27243	18.31330		Acetone
6.768	BB	28.58117	7.04522e-1	20.13607		Benzene
7.840	BB	32.72217	6.06597e-1	19.84916		Toluene
8.642	BV	35.88250	5.44013e-1	19.52055		Ethylbenzene
8.707	VB	33.90421	5.87331e-1	19.91298		m-p-Xylenes
8.933	BB	34.04362	5.82362e-1	19.82573		o-Xylene

Totals : 117.55779

EA Job # 1022-165R 98 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.17087e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

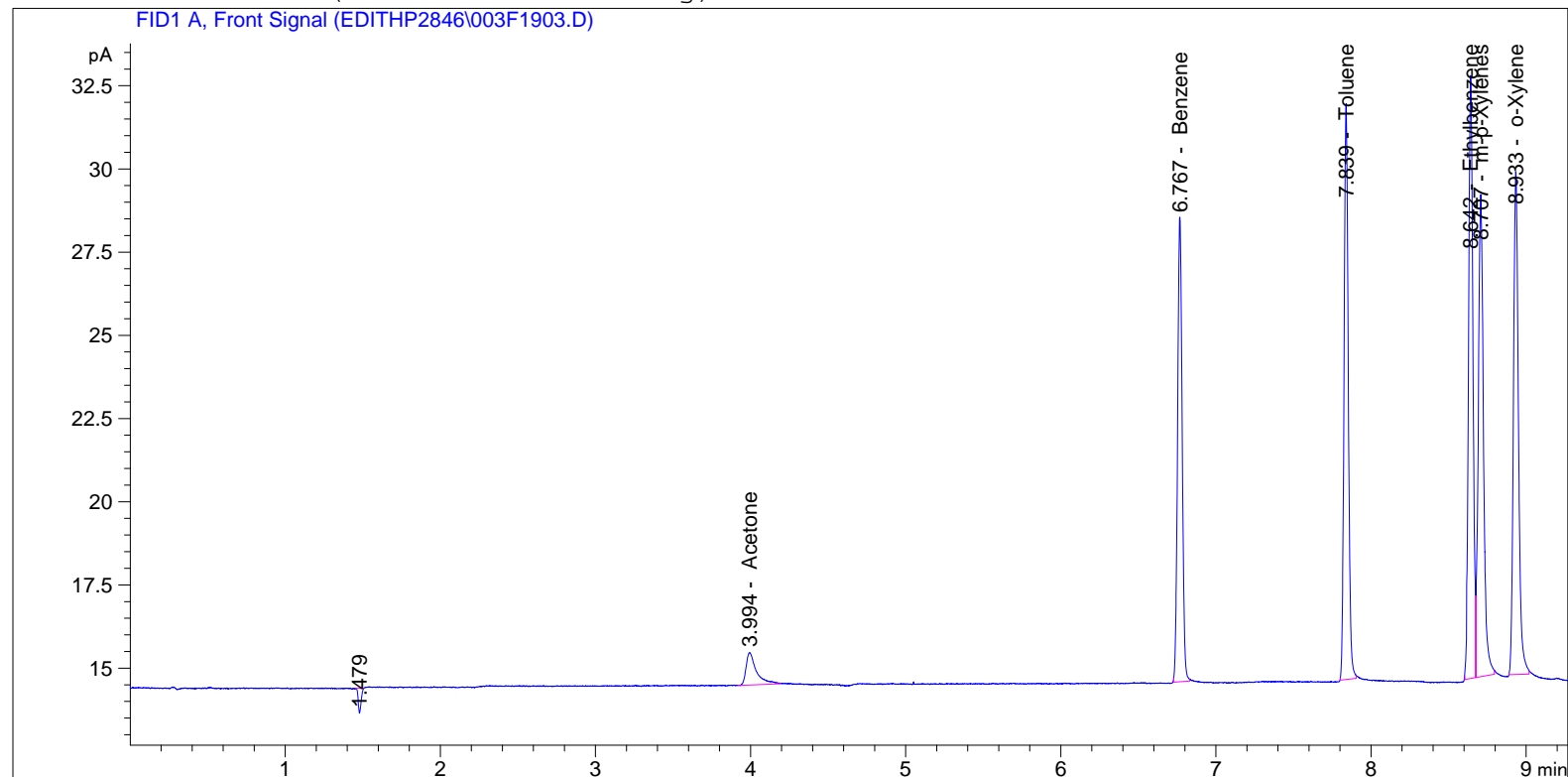
Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.28639	18.3133
Benzene	28.58117	20.1361
Toluene	32.72217	19.8492
Ethylbenzene	35.88250	19.5206
m-p-Xylenes	33.90421	19.9130
o-Xylene	34.04362	19.8257

Totals : 117.5578

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 19
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 12:35:03 AM	Inj	: 3
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



External Standard Report

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.994	BB	4.47057	4.25873	19.03895		Acetone
6.767	BB	28.53498	7.04533e-1	20.10384		Benzene
7.839	BB	32.61748	6.06631e-1	19.78676		Toluene
8.642	BV	35.79707	5.44045e-1	19.47523		Ethylbenzene
8.707	VB	33.83689	5.87362e-1	19.87452		m-p-Xylenes
8.933	BB	33.93857	5.82413e-1	19.76625		o-Xylene

Totals : 118.04555

EA Job # 1022-165R 100 of 305



Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.22555e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.47057	19.0389
Benzene	28.53498	20.1038
Toluene	32.61748	19.7868
Ethylbenzene	35.79707	19.4752
m-p-Xylenes	33.83689	19.8745
o-Xylene	33.93857	19.7663

Totals : 118.0456

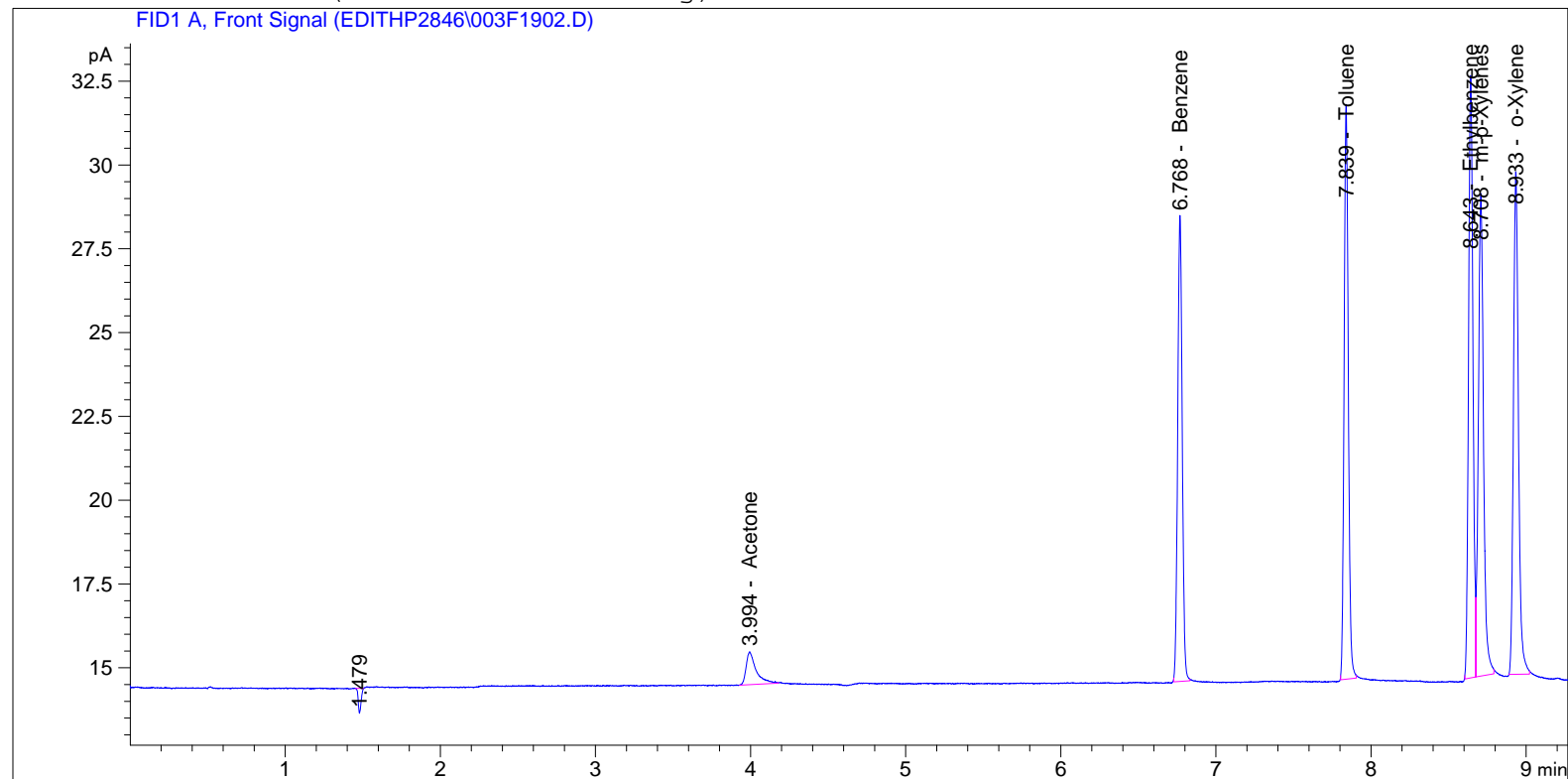
\*\*\* End of Report \*\*\*

Sample Name: Edithp2432 #B2 ENV(1=800,2=200)

```

=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   19
Acq. Instrument : Edith                    Location  : Vial 3
Injection Date  : 2/12/2022 12:19:56 AM      Inj       :    2
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====

```



External Standard Report

```

Sorted By           : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.994	BB	4.36046	4.26678	18.60512		Acetone
6.768	BB	28.20872	7.04611e-1	19.87617		Benzene
7.839	BB	32.28642	6.06739e-1	19.58942		Toluene
8.643	BV	35.38812	5.44202e-1	19.25828		Ethylbenzene
8.708	VB	33.26689	5.87638e-1	19.54889		m-p-Xylenes
8.933	BB	33.60988	5.82572e-1	19.58017		o-Xylene

Totals : 116.45805

EA Job # 1022-165R 102 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.05485e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.36046	18.6051
Benzene	28.20872	19.8762
Toluene	32.28642	19.5894
Ethylbenzene	35.38812	19.2583
m-p-Xylenes	33.26689	19.5489
o-Xylene	33.60988	19.5802

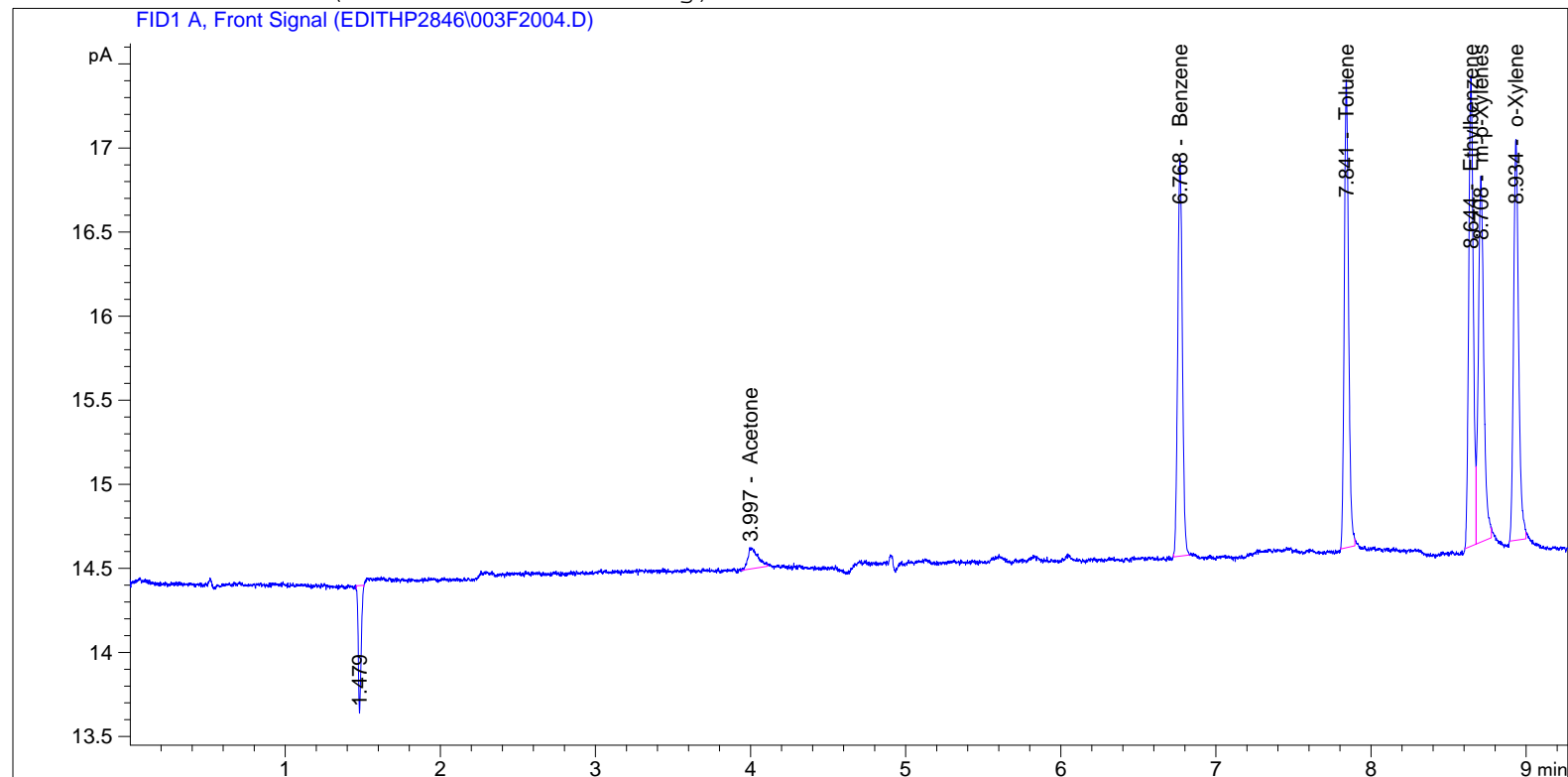
Totals : 116.4580

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 20
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 1:50:28 AM	Inj	: 4
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F\_ABTEX.M  
Last changed : 2/12/2022 8:13:38 AM by Nicholas Traversa  
ECM Server : http://s022vas01/Enthalpy  
ECM Operator : Nicholas Traversa  
ECM Path : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip  
ECM Version : 1 (modified after loading)



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.997	BB	5.58718e-1	6.47733	3.61900		Acetone
6.768	BB	4.91240	7.35954e-1	3.61530		Benzene
7.841	BB	5.40811	6.58149e-1	3.55934		Toluene
8.644	BV	5.69192	6.13070e-1	3.48955		Ethylbenzene
8.708	VB	5.27442	6.70085e-1	3.53431		m-p-Xylenes
8.934	BB	5.34856	6.65731e-1	3.56070		o-Xylene

Totals : 21.37820

EA Job # 1022-165R 104 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.32133e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	5.58718e-1	3.6190
Benzene	4.91240	3.6153
Toluene	5.40811	3.5593
Ethylbenzene	5.69192	3.4895
m-p-Xylenes	5.27442	3.5343
o-Xylene	5.34856	3.5607

Totals : 21.3782

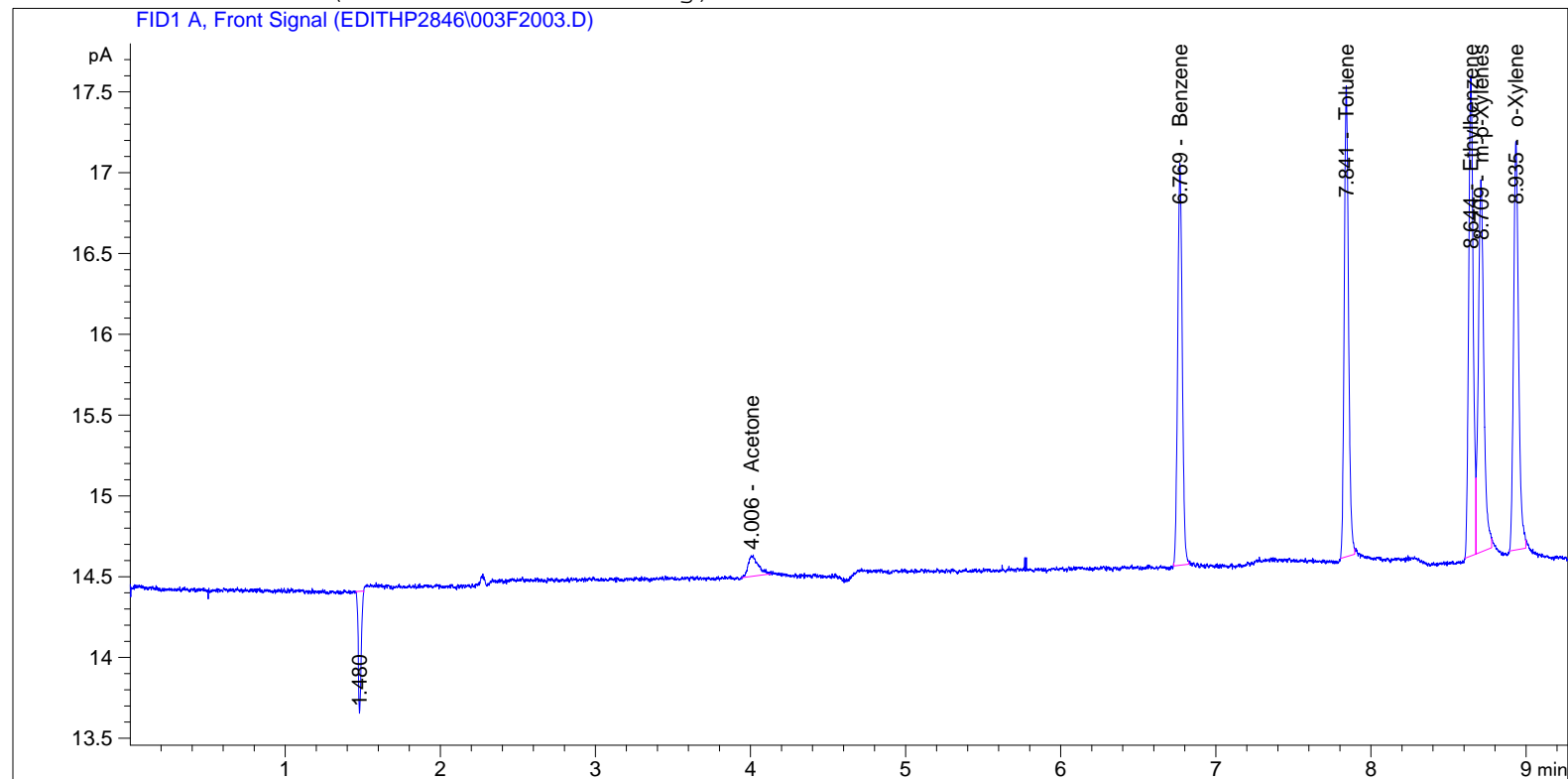
\*\*\* End of Report \*\*\*

Sample Name: Edithp2432 #B1 ENV(1=1975,2=75)

```

=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   20
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/12/2022 1:35:28 AM      Inj       :    3
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====

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External Standard Report

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Sorted By           : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs

```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
4.006	BB	5.71677e-1	6.43419	3.67828		Acetone
6.769	BB	5.08403	7.35530e-1	3.73945		Benzene
7.841	BB	5.63189	6.57201e-1	3.70128		Toluene
8.644	BV	5.96260	6.11817e-1	3.64802		Ethylbenzene
8.709	VB	5.61830	6.68124e-1	3.75372		m-p-Xylenes
8.935	BB	5.64359	6.63952e-1	3.74708		o-Xylene

Totals : 22.26783

EA Job # 1022-165R 106 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.49434e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

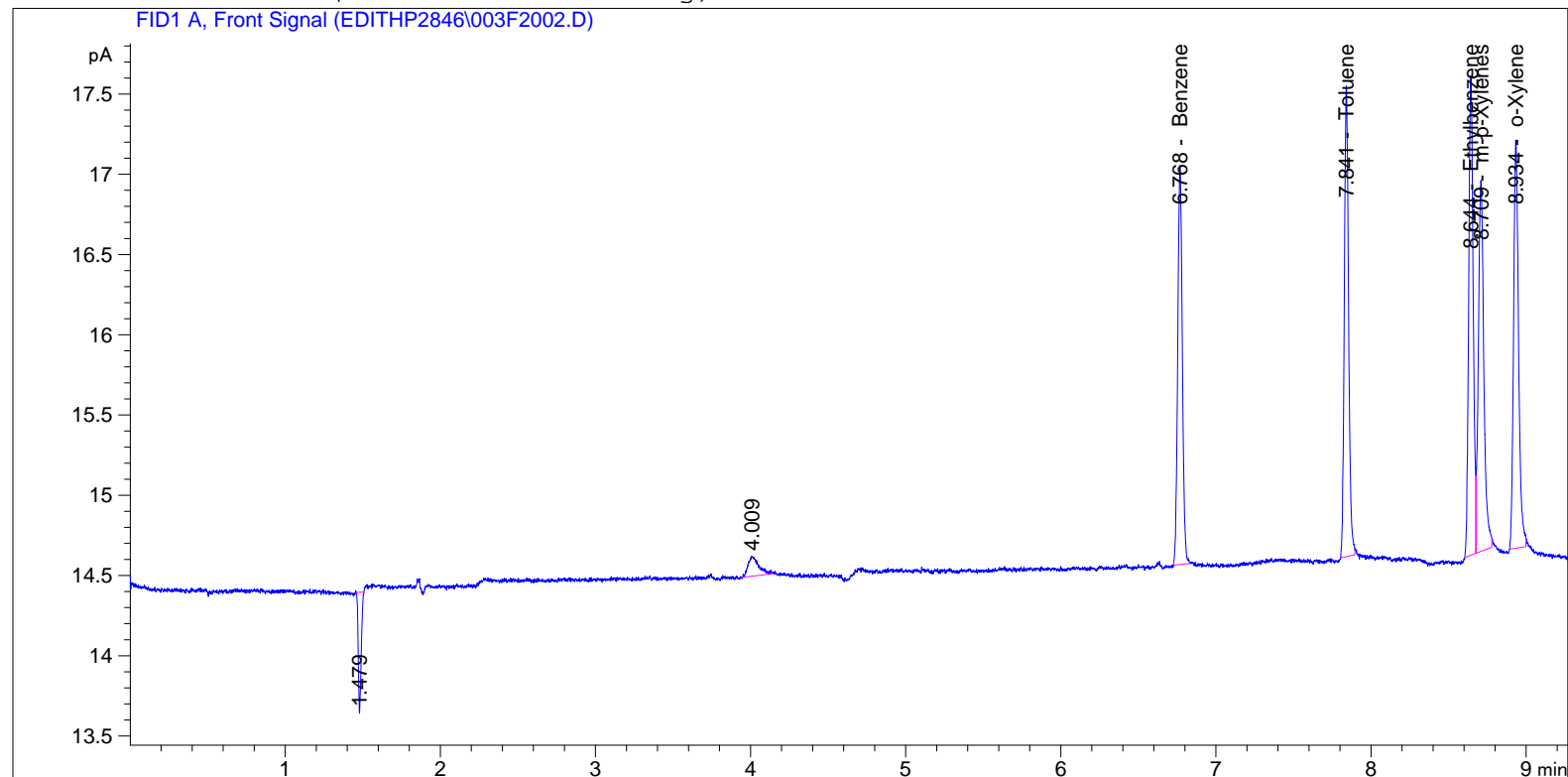
Name	Total Area [pA*s]	Amount [ppm]
Acetone	5.71677e-1	3.6783
Benzene	5.08403	3.7395
Toluene	5.63189	3.7013
Ethylbenzene	5.96260	3.6480
m-p-Xylenes	5.61830	3.7537
o-Xylene	5.64359	3.7471

Totals : 22.2678

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 20
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 1:20:21 AM	Inj	: 2
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



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External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.984		-	-	-		Acetone
6.768	BB	5.10873	7.35347e-1	3.75669		Benzene
7.841	BB	5.63605	6.57156e-1	3.70376		Toluene
8.644	BV	6.00551	6.11236e-1	3.67078		Ethylbenzene
8.709	VB	5.68674	6.66958e-1	3.79282		m-p-Xylenes
8.934	BB	5.70258	6.62940e-1	3.78047		o-Xylene

Totals : 18.70452

EA Job # 1022-165R 108 of 305



Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.24858e-1	0.00000	0.00000	?	
4.009	BB	5.85504e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)  
Warning : Calibrated compound(s) not found

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	0.00000	0.0000
Benzene	5.10873	3.7567
Toluene	5.63605	3.7038
Ethylbenzene	6.00551	3.6708
m-p-Xylenes	5.68674	3.7928
o-Xylene	5.70258	3.7805

Totals : 18.7045

\*\*\* End of Report \*\*\*

## CERTIFICATE OF ANALYSIS

### Grade of Product: CERTIFIED STANDARD-SPEC

Customer: MONTROSE ENVIRONMENTAL GROUP  
Part Number: X08NI99C15AC0N7  
Cylinder Number: ALM049224  
Laboratory: 124 - Pasadena (SG06) - TX  
Analysis Date: Mar 03, 2021  
Lot Number: 163-402037604-1

Reference Number: 163-402037604-1  
Cylinder Volume: 70.3 Cubic Feet  
Cylinder Pressure: 985 PSIG  
Valve Outlet: 350SS

Expiration Date: Mar 03, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

### ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
M XYLENE	50.00 PPM	49.80 PPM	+/- 2%
P XYLENE	50.00 PPM	51.08 PPM	+/- 2%
ACETONE	100.0 PPM	99.60 PPM	+/- 2%
BENZENE	100.0 PPM	101.2 PPM	+/- 2%
ETHYL BENZENE	100.0 PPM	98.40 PPM	+/- 2%
O XYLENE	100.0 PPM	100.8 PPM	+/- 2%
TOLUENE	100.0 PPM	99.90 PPM	+/- 2%
NITROGEN	99.94 %	99.939922 %	+/- 2%

**Permanent Notes:** CYLINDER STORAGE TEMPERATURE IS RECOMMENDED AT OR ABOVE 80F



Approved for Release

Page 1 of 163-402037604-1

EA Job # 1022-165R 110 of 305

Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

Date Analyzed 3/6/21  
Analyst NMW  
Date Reviewed 6/7/21  
Reviewed By QLF

Instrument Edith  
Logbook Page Edithp2432  
Injector (F,R,NA) F  
Column Rtx-1  
Injector (F,R,NA)  
Column

Job #(s)  
Applicable Method(s)  
Matrix  
Solvent

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

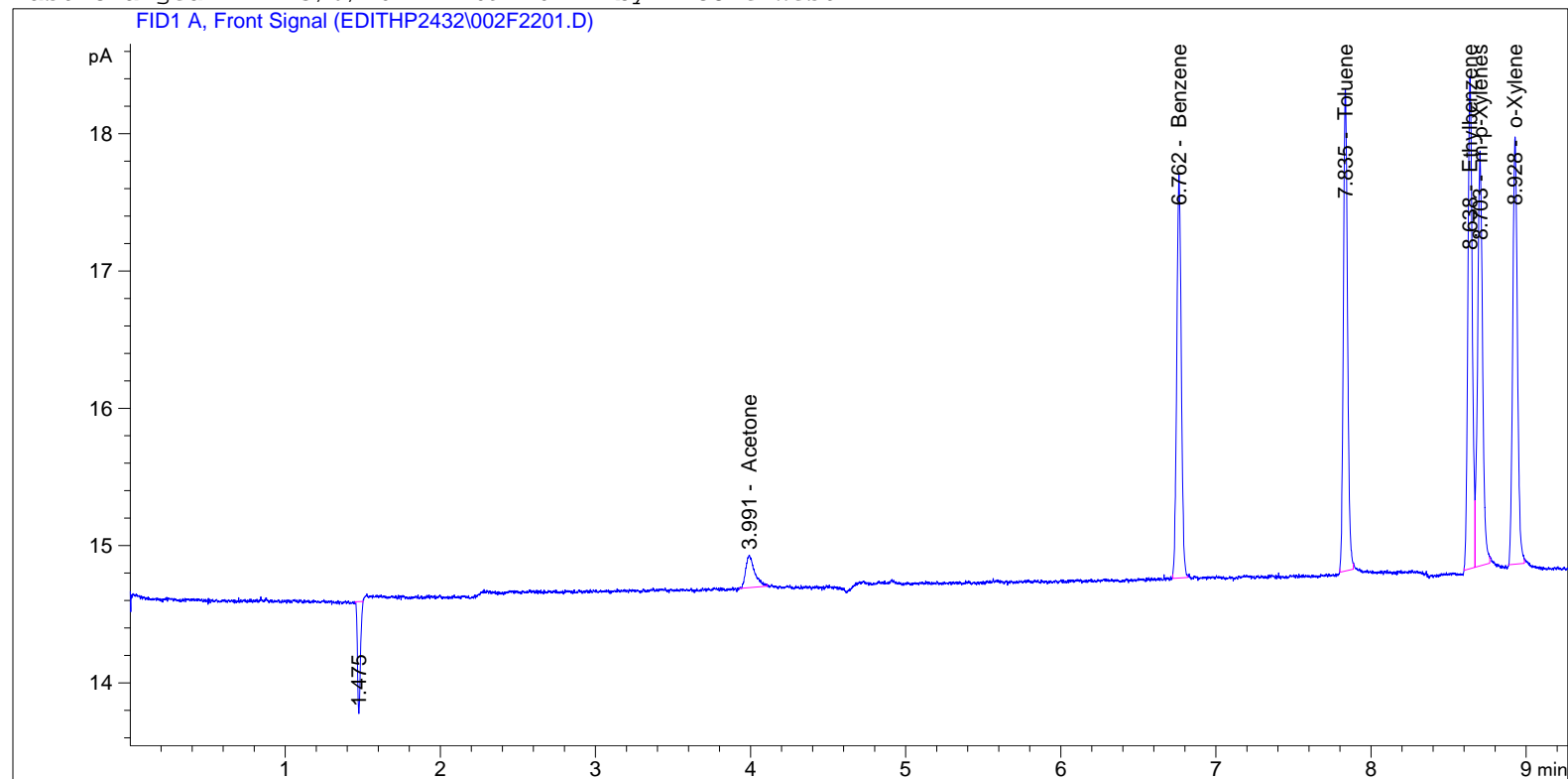
MDL = Stdev \* Student's t-value

t-value = 3.143 N=7 Degrees of Freedom = 6  
t-value = 2.998 N=8 Degrees of Freedom = 7  
t-value = 2.896 N=9 Degrees of Freedom = 8  
t-value = 2.821 N=10 Degrees of Freedom = 9

Compound #		1		2		3		4		5		6		7	
Compound Name		Acetone		Benzene		Toluene		Ethylbenzene		m-p-Xylenes		o-Xylene			
Notes (if needed)															
Test Std Concentrations	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	#1	3.74003	#1	3.79436	#1	3.75571	#1	3.83404	#1	3.89249	#1	3.85553	#1	3.85553	#1
	#2	3.77176	#2	3.78480	#2	3.75281	#2	3.79549	#2	3.86680	#2	3.81298	#2	3.81298	#2
	#3	3.61720	#3	3.79332	#3	3.73902	#3	3.76524	#3	3.84371	#3	3.80281	#3	3.80281	#3
	#4	3.82680	#4	3.78350	#4	3.75049	#4	3.76238	#4	3.83347	#4	3.79127	#4	3.79127	#4
	#5	3.69820	#5	3.79155	#5	3.73764	#5	3.76288	#5	3.82831	#5	3.78606	#5	3.78606	#5
	#6	3.76378	#6	3.80153	#6	3.74300	#6	3.76533	#6	3.82739	#6	3.76920	#6	3.76920	#6
	#7	3.71267	#7	3.80417	#7	3.74834	#7	3.74132	#7	3.83328	#7	3.79000	#7	3.79000	#7
	#8	3.68198	#8	3.77101	#8	3.71266	#8	3.71297	#8	3.78339	#8	3.74594	#8	3.74594	#8
	#9	3.73435	#9	3.78877	#9	3.71106	#9	3.72156	#9	3.80714	#9	3.73430	#9	3.73430	#9
!! Remove extra zeros !!	#10	3.89803	#10	3.79450	#10	3.72939	#10	3.72571	#10	3.80914	#10	3.75235	#10	3.75235	#10
	Standard Deviation	0.0781	0.0095	0.0159	0.0365	0.0308	0.0358	0.0358	0.0358	0.0358	0.0358	0.0358	0.0358	0.0358	0.0358
	Student's T factor	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821	2.821
	Calculated MDL = StDev * t	0.220	0.027	0.045	0.103	0.087	0.101	0.087	0.101	0.087	0.101	0.087	0.101	0.087	0.101
	Slope of Cal Curve	0.31663	1.57603	1.82753	1.98032	1.85487	1.86151	1.85487	1.86151	1.85487	1.86151	1.85487	1.86151	1.85487	1.86151
	Integration Area Reject	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Lowest Integratable Conc.	0.316	0.063	0.055	0.050	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054	0.054
	Concentration of Std	3.760	3.790	3.720	3.720	3.799	3.740	3.799	3.740	3.799	3.740	3.799	3.740	3.799	3.740
	Lowest Part 136 App B value*	0.376	0.379	0.372	0.372	0.380	0.374	0.380	0.374	0.380	0.374	0.380	0.374	0.380	0.374
	MDL value <1/10 Std Value?	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std	<1/10 Conc of Std
MDL to Use	0.37600	0.37900	0.37200	0.37200	0.37990	0.37400	0.37990	0.37400	0.37990	0.37400	0.37990	0.37400	0.37990	0.37400	

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 6:39:20 AM	Inj	: 1
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2021\EDITH\METHODS\EDITHP2432F_ABTEX.M		
Last changed	: 3/6/2021 1:09:10 PM by Nicole West		



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External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.991	BB	9.32887e-1	4.00910	3.74003		Acetone
6.762	BB	5.97417	6.35127e-1	3.79436		Benzene
7.835	BB	6.56260	5.72290e-1	3.75571		Toluene
8.638	BV	7.01656	5.46427e-1	3.83404		Ethylbenzene
8.703	VB	6.66585	5.83945e-1	3.89249		m-p-Xylenes
8.928	BB	6.57872	5.86060e-1	3.85553		o-Xylene

Totals : 22.87215

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.02740	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

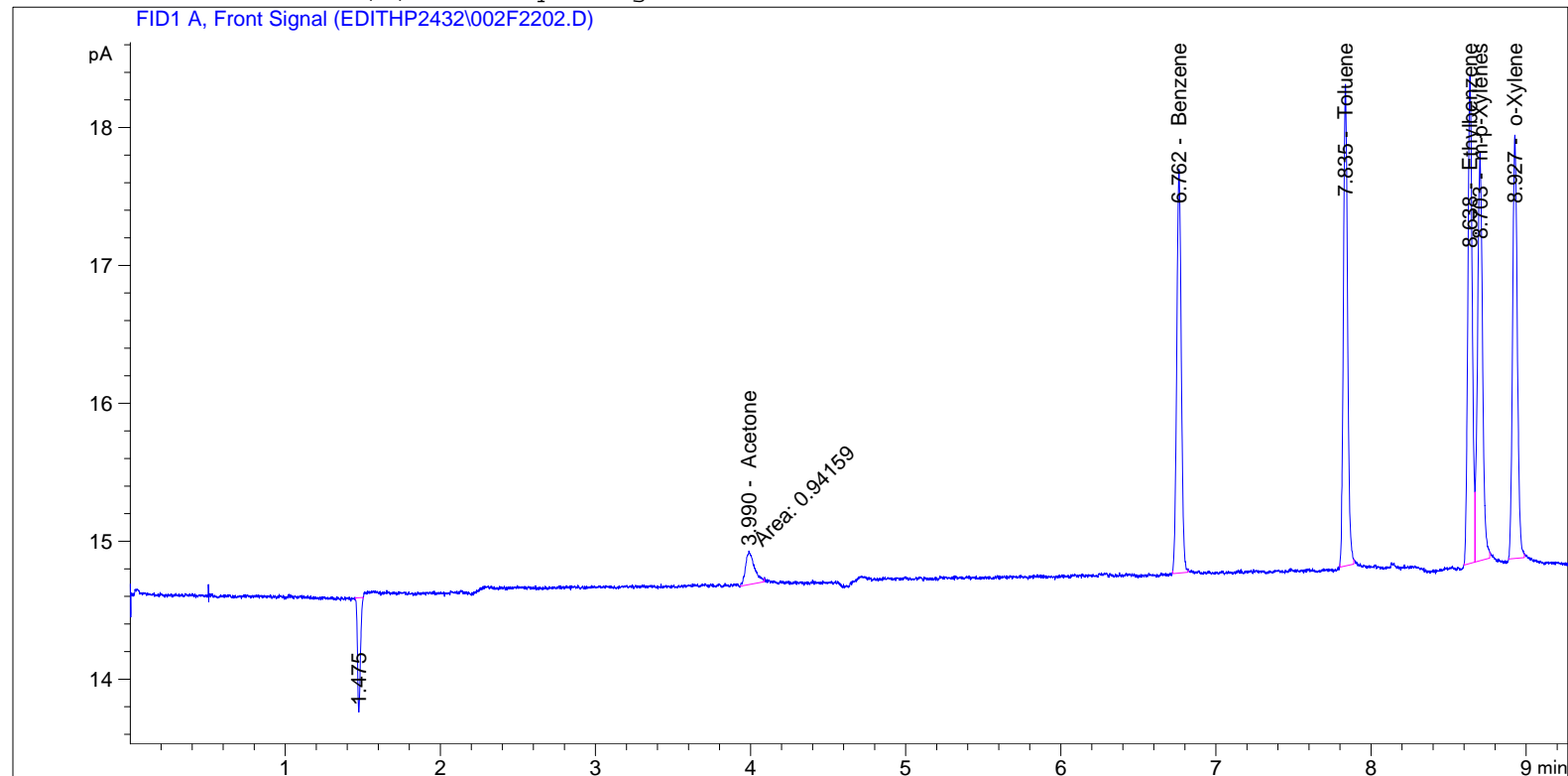
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.32887e-1	3.7400
Benzene	5.97417	3.7944
Toluene	6.56260	3.7557
Ethylbenzene	7.01656	3.8340
m-p-Xylenes	6.66585	3.8925
o-Xylene	6.57872	3.8555
Totals :	22.8721	

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 6:54:35 AM	Inj	: 2
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	MM	9.41590e-1	4.00573	3.77176		Acetone
6.762	BB	5.95911	6.35128e-1	3.78480		Benzene
7.835	BB	6.55731	5.72310e-1	3.75281		Toluene
8.638	BV	6.94023	5.46883e-1	3.79549		Ethylbenzene
8.703	VB	6.61819	5.84268e-1	3.86680		m-p-Xylenes
8.927	BB	6.49953	5.86655e-1	3.81298		o-Xylene

Totals : 22.78464

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.03902	0.00000	0.00000	?	

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.41590e-1	3.7718
Benzene	5.95911	3.7848
Toluene	6.55731	3.7528
Ethylbenzene	6.94023	3.7955
m-p-Xylenes	6.61819	3.8668
o-Xylene	6.49953	3.8130

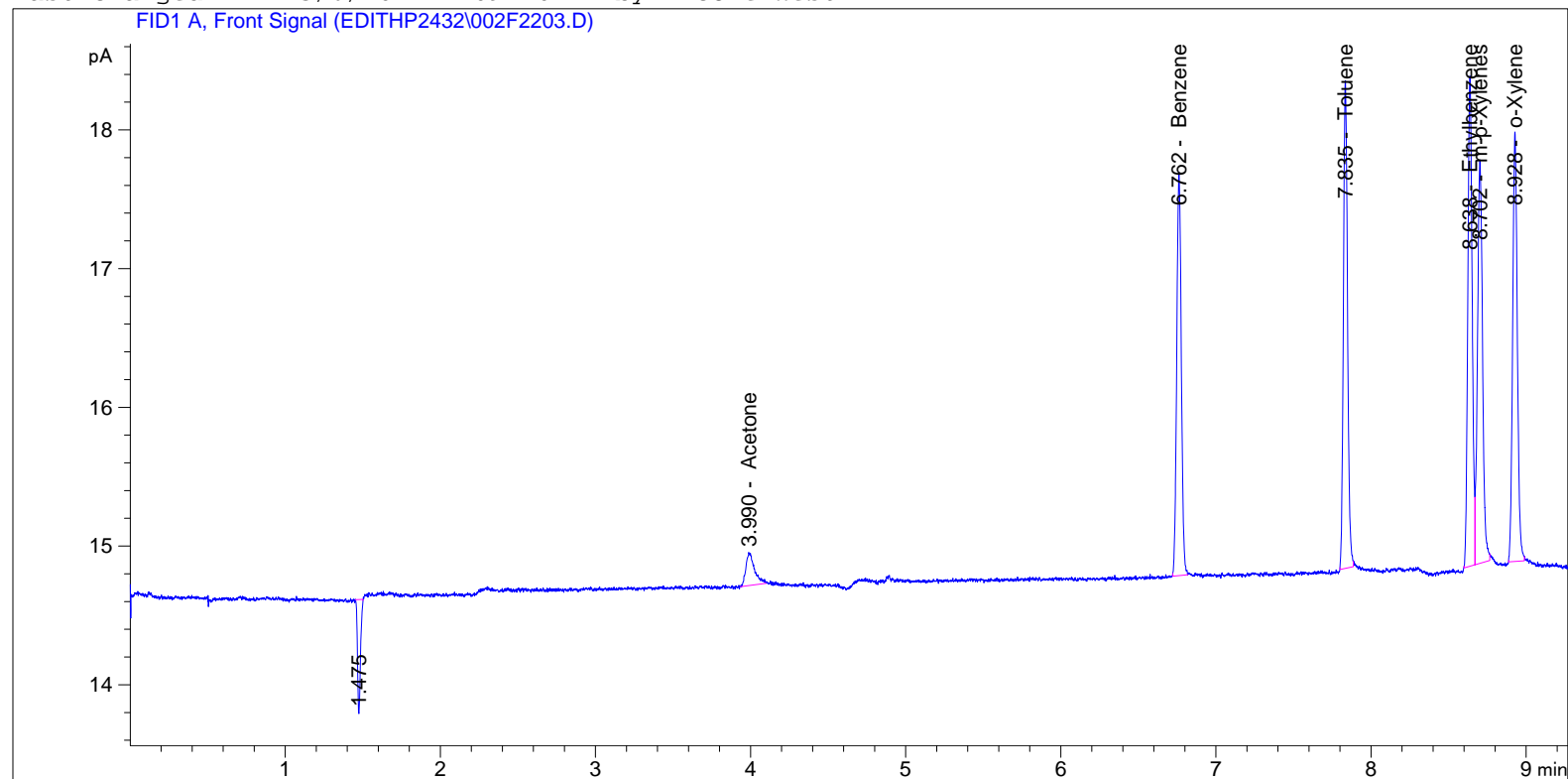
Totals : 22.7846

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:09:47 AM	Inj	: 3
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.02248e-1	4.00910	3.61720		Acetone
6.762	BB	5.97254	6.35127e-1	3.79332		Benzene
7.835	BB	6.53210	5.72407e-1	3.73902		Toluene
8.638	BV	6.88033	5.47248e-1	3.76524		Ethylbenzene
8.702	VB	6.57536	5.84562e-1	3.84371		m-p-Xylenes
8.928	BB	6.48059	5.86800e-1	3.80281		o-Xylene

Totals : 22.56131

Uncalibrated Peaks : compound name not specified



RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.02548	0.00000	0.00000	?	

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

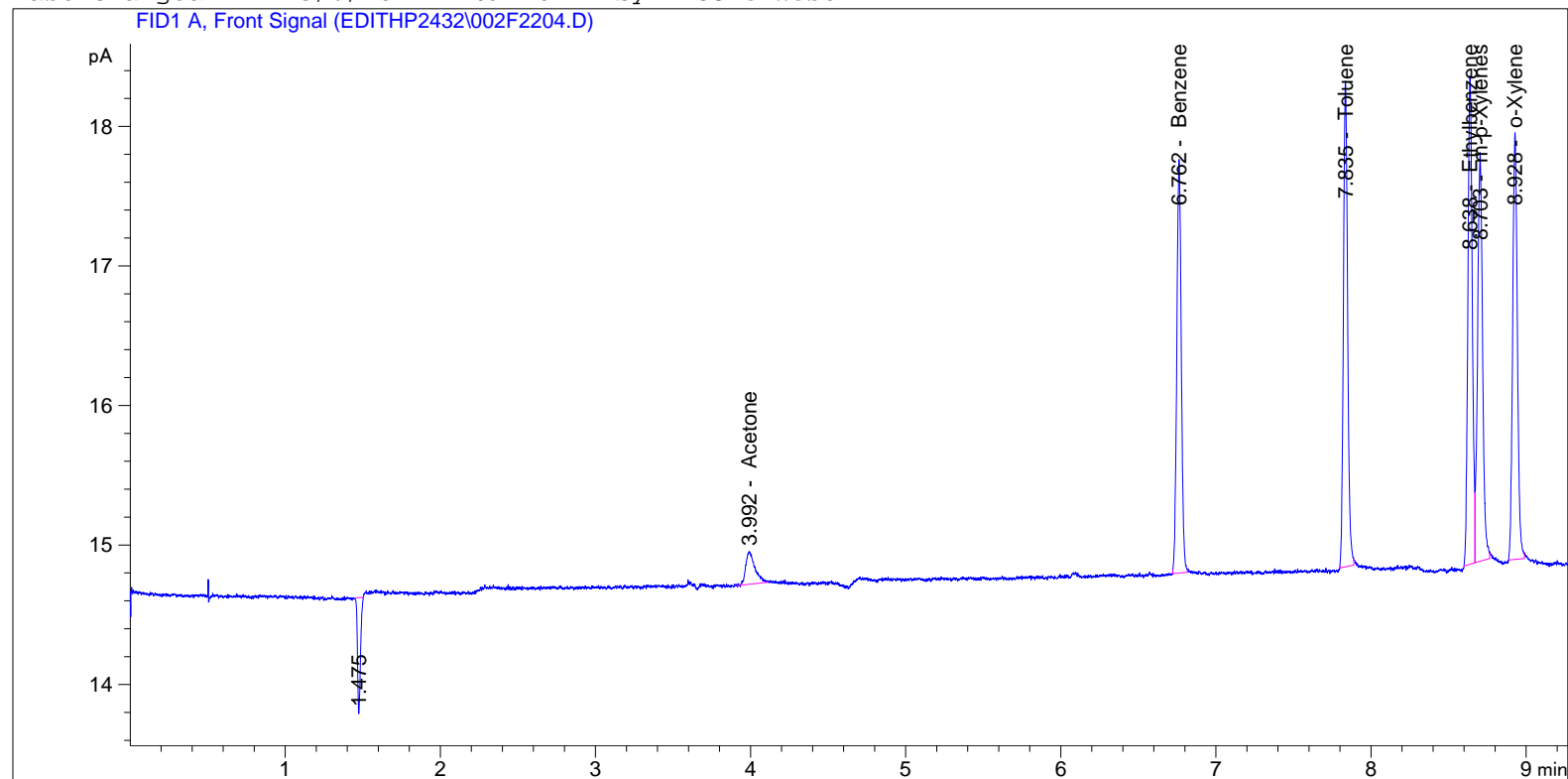
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.02248e-1	3.6172
Benzene	5.97254	3.7933
Toluene	6.53210	3.7390
Ethylbenzene	6.88033	3.7652
m-p-Xylenes	6.57536	3.8437
o-Xylene	6.48059	3.8028
Totals :	22.5613	

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:24:58 AM	Inj	: 4
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.992	BB	9.59017e-1	3.99033	3.82680		Acetone
6.762	BB	5.95707	6.35128e-1	3.78350		Benzene
7.835	BB	6.55306	5.72326e-1	3.75049		Toluene
8.638	BV	6.87466	5.47283e-1	3.76238		Ethylbenzene
8.703	VB	6.55638	5.84694e-1	3.83347		m-p-Xylenes
8.928	BB	6.45911	5.86965e-1	3.79127		o-Xylene

Totals : 22.74791

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04577	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

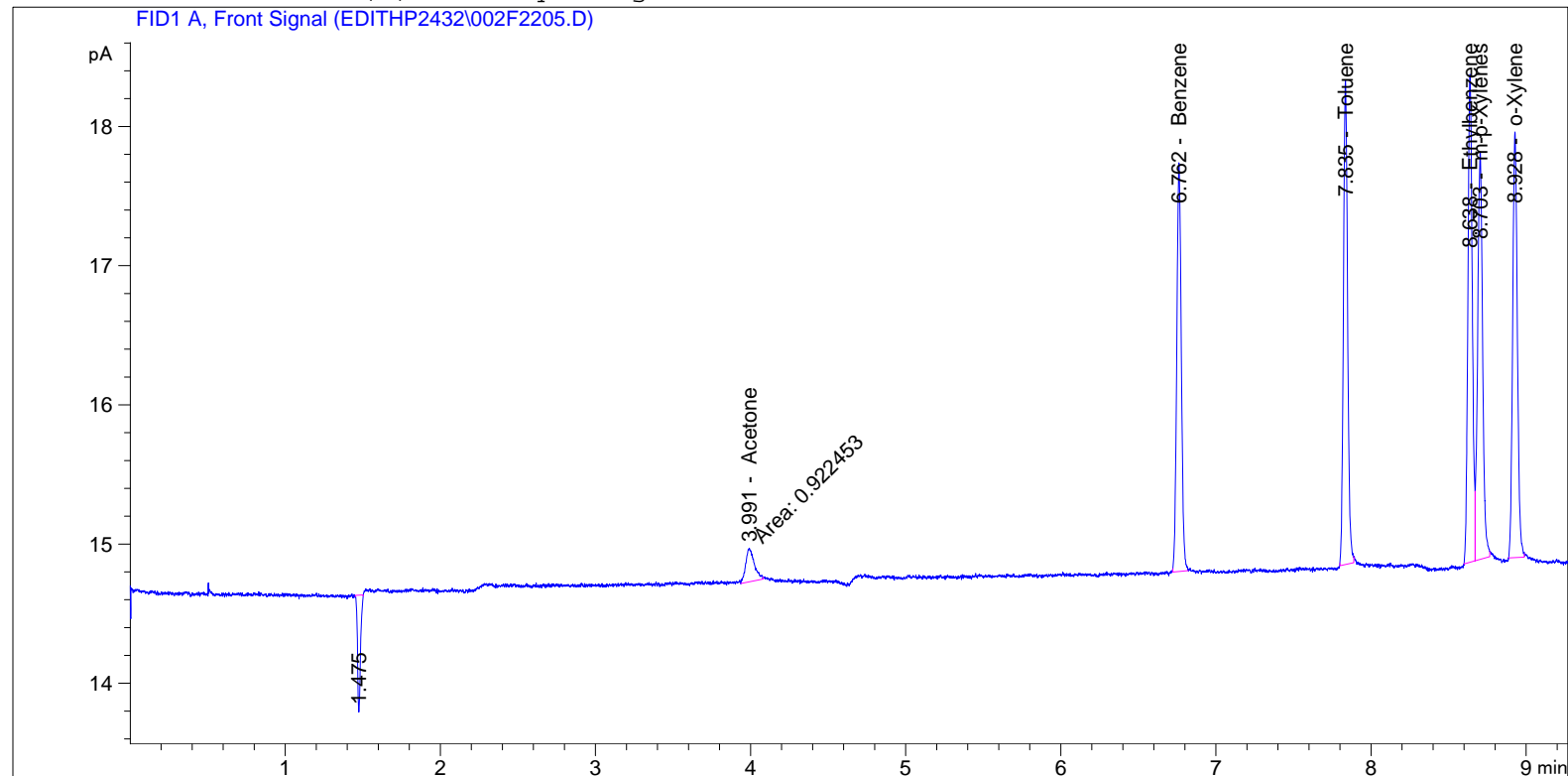
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.59017e-1	3.8268
Benzene	5.95707	3.7835
Toluene	6.55306	3.7505
Ethylbenzene	6.87466	3.7624
m-p-Xylenes	6.55638	3.8335
o-Xylene	6.45911	3.7913
Totals :	22.7479	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:40:11 AM	Inj	: 5
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.991	MM	9.22453e-1	4.00910	3.69820		Acetone
6.762	BB	5.96974	6.35128e-1	3.79155		Benzene
7.835	BB	6.52958	5.72417e-1	3.73764		Toluene
8.638	BV	6.87564	5.47277e-1	3.76288		Ethylbenzene
8.703	VB	6.54681	5.84760e-1	3.82831		m-p-Xylenes
8.928	BB	6.44941	5.87040e-1	3.78606		o-Xylene

Totals : 22.60464

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04562	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

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Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

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Final Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

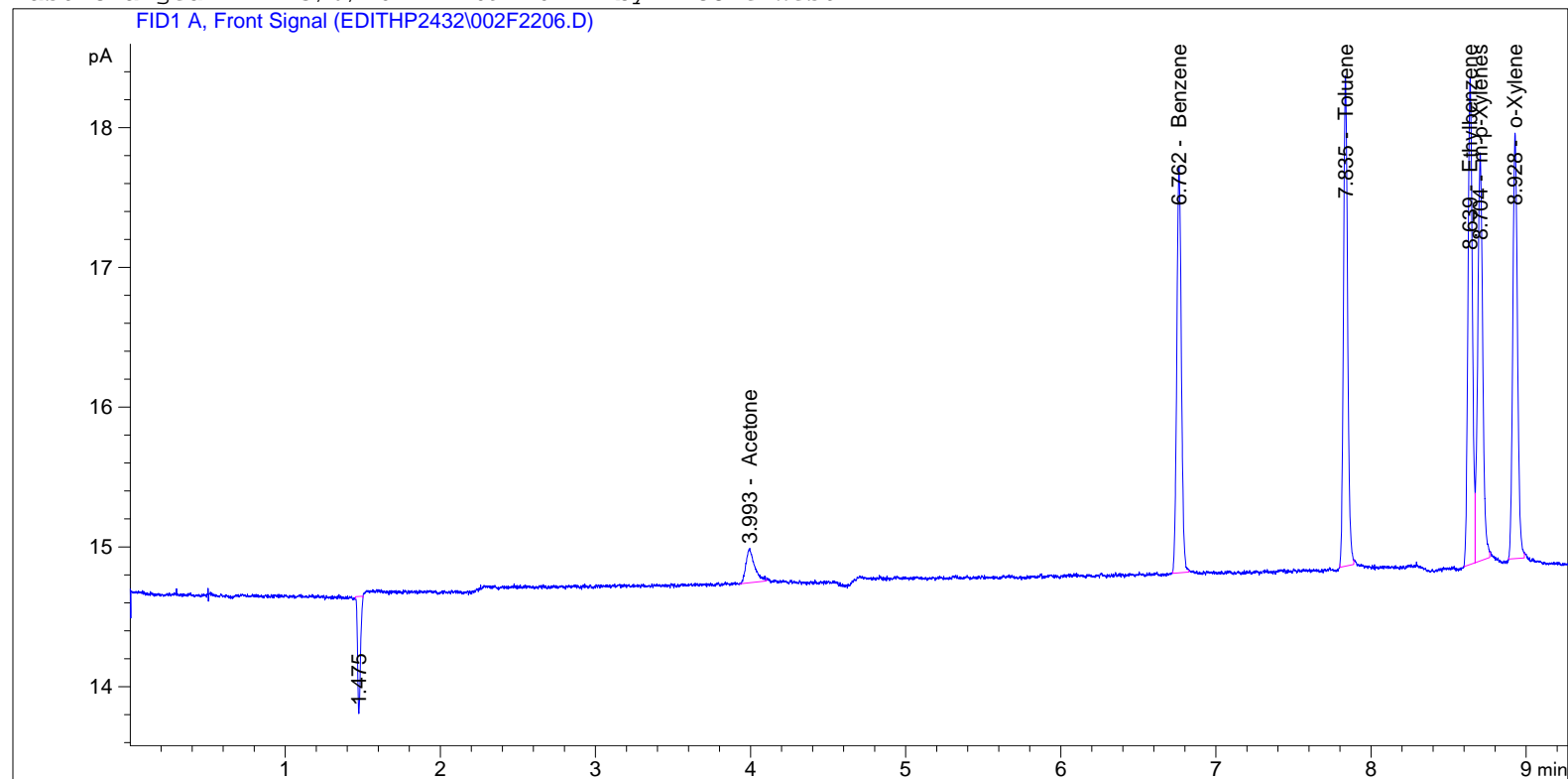
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.22453e-1	3.6982
Benzene	5.96974	3.7915
Toluene	6.52958	3.7376
Ethylbenzene	6.87564	3.7629
m-p-Xylenes	6.54681	3.8283
o-Xylene	6.44941	3.7861
Totals :	22.6046	

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:55:20 AM	Inj	: 6
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.993	BB	9.39063e-1	4.00801	3.76378		Acetone
6.762	BB	5.98547	6.35126e-1	3.80153		Benzene
7.835	BB	6.53937	5.72379e-1	3.74300		Toluene
8.639	BV	6.88049	5.47247e-1	3.76533		Ethylbenzene
8.704	VB	6.54509	5.84772e-1	3.82739		m-p-Xylenes
8.928	BB	6.41802	5.87283e-1	3.76920		o-Xylene

Totals : 22.67021

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.03932	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

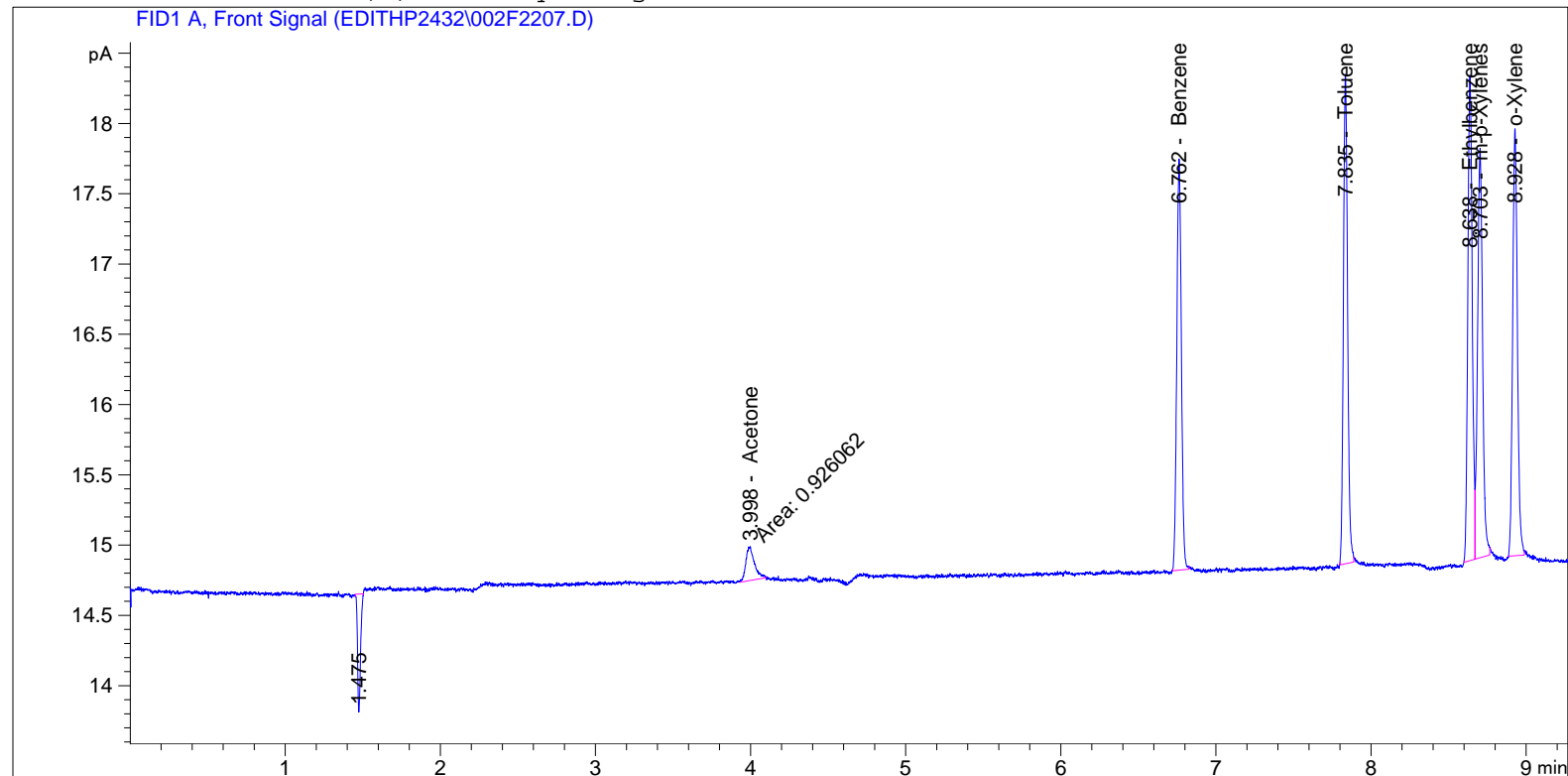
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.39063e-1	3.7638
Benzene	5.98547	3.8015
Toluene	6.53937	3.7430
Ethylbenzene	6.88049	3.7653
m-p-Xylenes	6.54509	3.8274
o-Xylene	6.41802	3.7692
Totals :	22.6702	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:10:36 AM	Inj	: 7
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.998	MM	9.26062e-1	4.00910	3.71267		Acetone
6.762	BB	5.98963	6.35126e-1	3.80417		Benzene
7.835	BB	6.54914	5.72341e-1	3.74834		Toluene
8.638	BV	6.83295	5.47541e-1	3.74132		Ethylbenzene
8.703	VB	6.55602	5.84696e-1	3.83328		m-p-Xylenes
8.928	BB	6.45675	5.86983e-1	3.79000		o-Xylene

Totals : 22.62978

Uncalibrated Peaks : compound name not specified



Sample Name: Edithp2432 #B1 ENV(1=1925,2=75)

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.05228	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

## =====

## Summed Peaks Report

Signal 1: FID1 A, Front Signal

## =====

## Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.26062e-1	3.7127
Benzene	5.98963	3.8042
Toluene	6.54914	3.7483
Ethylbenzene	6.83295	3.7413
m-p-Xylenes	6.55602	3.8333
o-Xylene	6.45675	3.7900

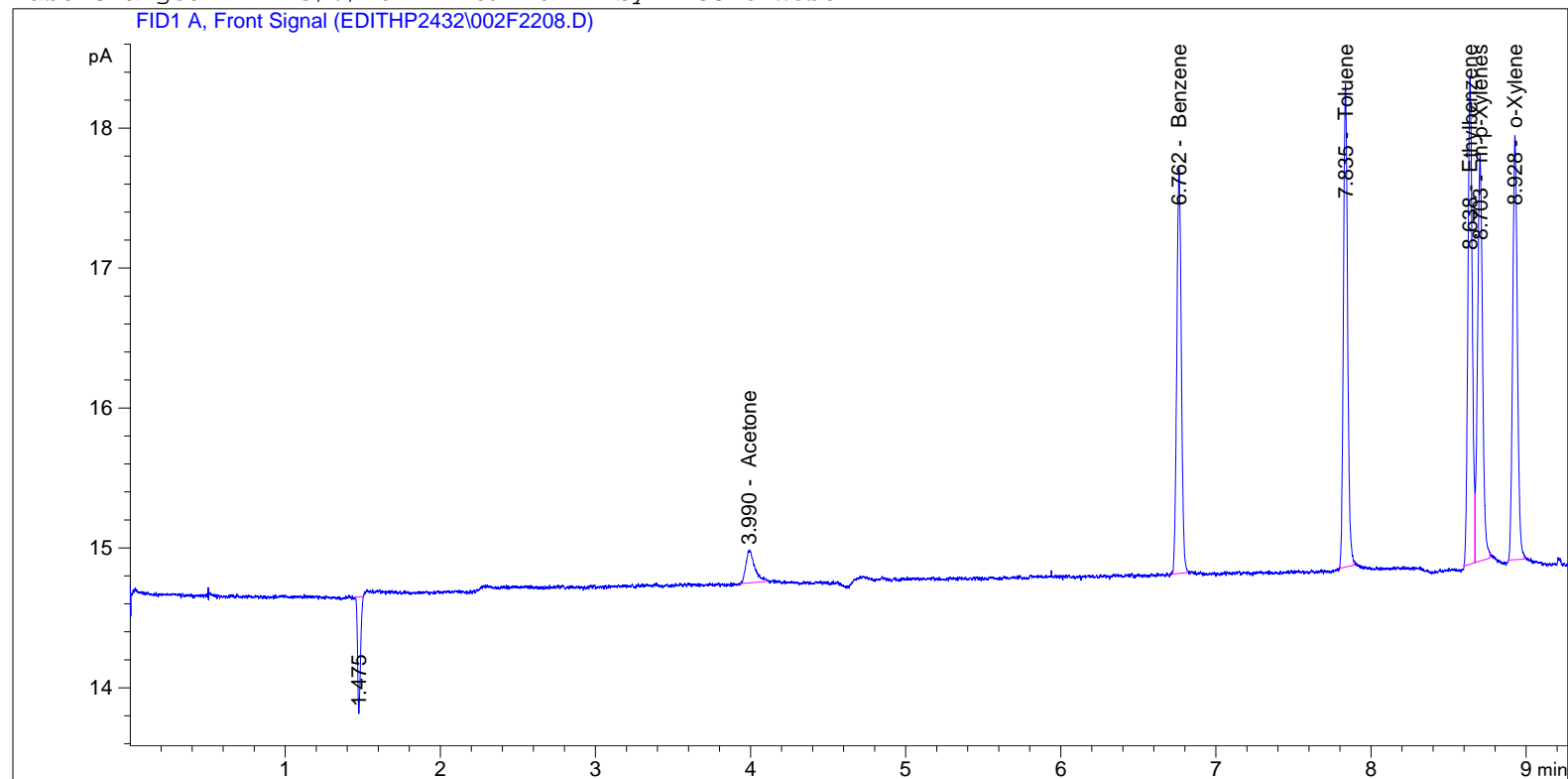
Totals : 22.6298

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:25:43 AM	Inj	: 8
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.18406e-1	4.00910	3.68198		Acetone
6.762	BB	5.93740	6.35128e-1	3.77101		Benzene
7.835	BB	6.48453	5.72542e-1	3.71266		Toluene
8.638	BV	6.77789	5.47806e-1	3.71297		Ethylbenzene
8.703	VB	6.46575	5.85143e-1	3.78339		m-p-Xylenes
8.928	BB	6.37473	5.87624e-1	3.74594		o-Xylene

Totals : 22.40794

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04847	0.00000	0.00000	?	

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.18406e-1	3.6820
Benzene	5.93740	3.7710
Toluene	6.48453	3.7127
Ethylbenzene	6.77789	3.7130
m-p-Xylenes	6.46575	3.7834
o-Xylene	6.37473	3.7459

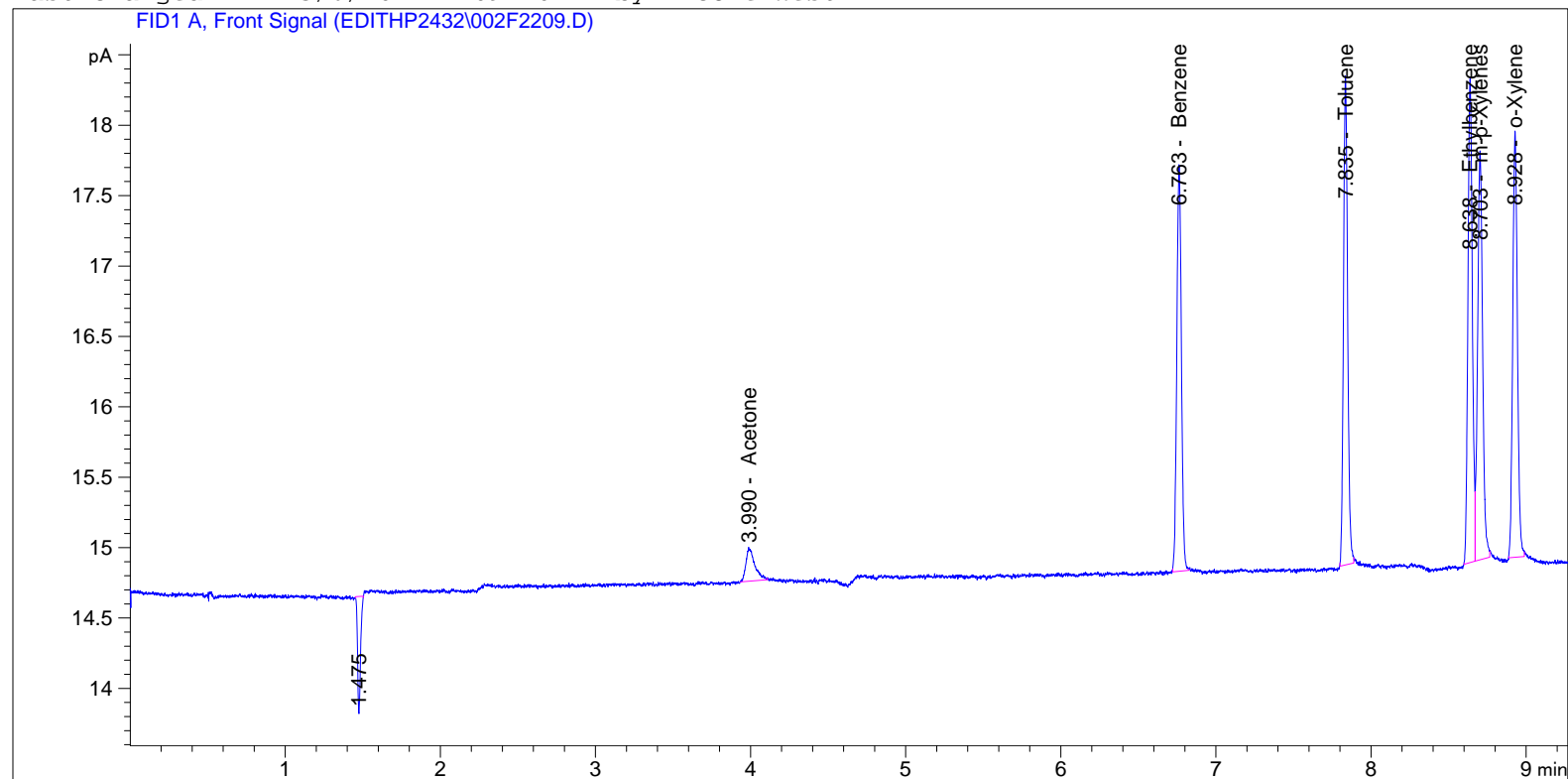
Totals : 22.4079

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:40:52 AM	Inj	: 9
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.31468e-1	4.00910	3.73435		Acetone
6.763	BB	5.96536	6.35128e-1	3.78877		Benzene
7.835	BB	6.48172	5.72542e-1	3.71106		Toluene
8.638	BV	6.79381	5.47786e-1	3.72156		Ethylbenzene
8.703	VB	6.50753	5.85036e-1	3.80714		m-p-Xylenes
8.928	BB	6.35397	5.87711e-1	3.73430		o-Xylene

Totals : 22.49716

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04057	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

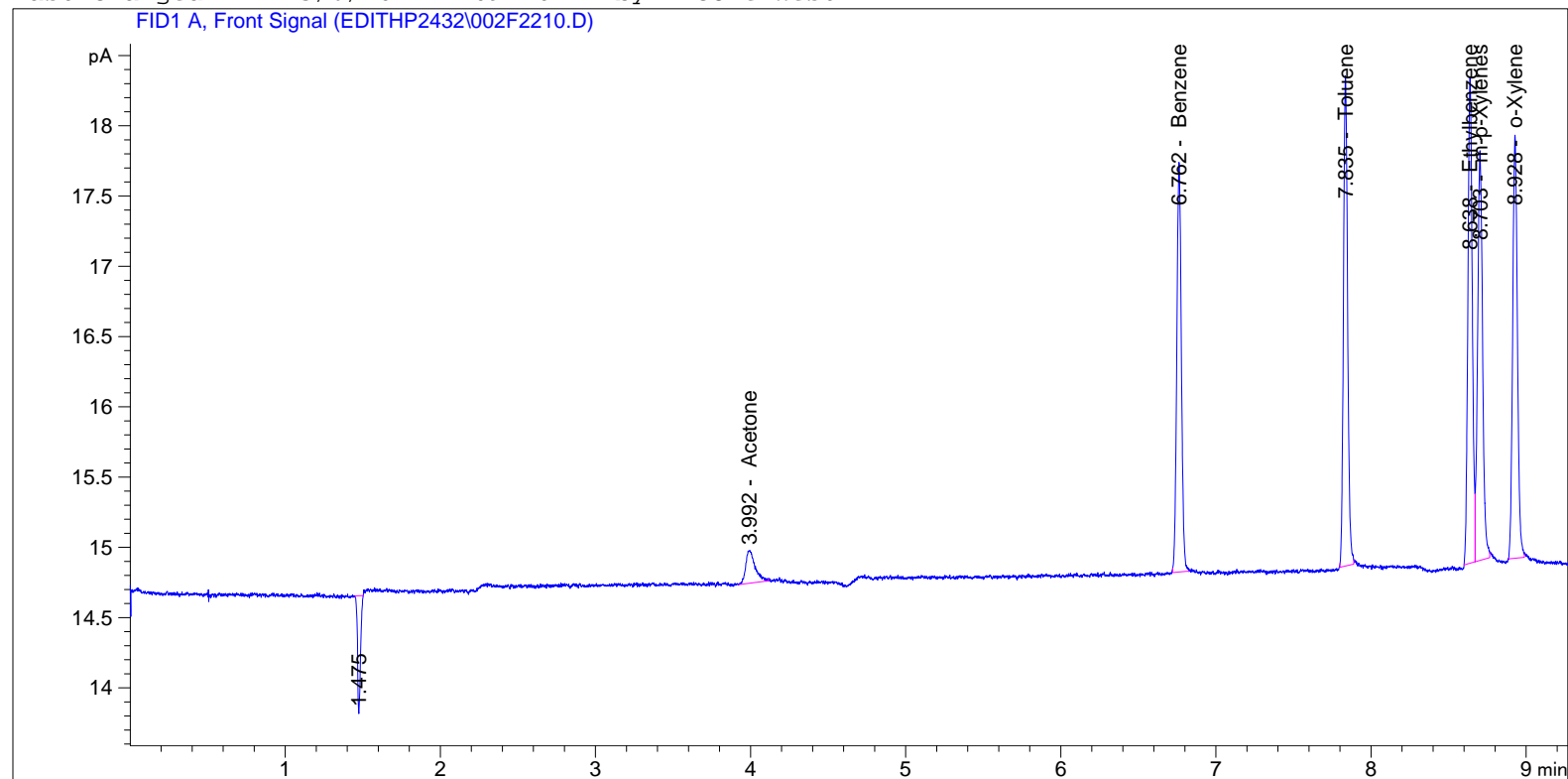
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.31468e-1	3.7343
Benzene	5.96536	3.7888
Toluene	6.48172	3.7111
Ethylbenzene	6.79381	3.7216
m-p-Xylenes	6.50753	3.8071
o-Xylene	6.35397	3.7343
Totals :	22.4972	

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:56:05 AM	Inj	: 10
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.992	BB	9.81572e-1	3.97121	3.89803		Acetone
6.762	BB	5.97439	6.35127e-1	3.79450		Benzene
7.835	BB	6.51450	5.72475e-1	3.72939		Toluene
8.638	BV	6.80204	5.47734e-1	3.72571		Ethylbenzene
8.703	VB	6.51125	5.85010e-1	3.80914		m-p-Xylenes
8.928	BB	6.38665	5.87529e-1	3.75235		o-Xylene

Totals : 22.70912

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.05223	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.81572e-1	3.8980
Benzene	5.97439	3.7945
Toluene	6.51450	3.7294
Ethylbenzene	6.80204	3.7257
m-p-Xylenes	6.51125	3.8091
o-Xylene	6.38665	3.7523
Totals :	22.7091	

\*\*\* End of Report \*\*\*

Location: GCDrawer: EdithAnalyst: IJSCabinet: 2022Folder: Quarter 4Date: 10-24-22

Job #s 0922-177 1022-126	Describe Work Documented on This Page MIF Column info in AQM
--------------------------------	---

C:\GC\2022\EDITH\QUARTER 4\EDITHP3013\EDITHP3013.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 2	Pause	PAUSE	1	
2	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
3	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
4	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
5	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
6	vial 2	Pause	PAUSE	1	
7	vial 4	0922-177.100522 Run 1 (4044).Can	AQ_EDITHP503_HRVOC	3	
8	vial 5	0922-177.100522 Run 2 (3863).Can	AQ_EDITHP503_HRVOC	3	
9	vial 6	0922-177.100622 Run 1 (3855).Can P2	AQ_EDITHP503_HRVOC	3	
10	vial 4	0922-177.100522 Run 2 (3863).Can	AQ_EDITHP503_HRVOC	3	
11	vial 5	1022-126.S1B-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
12	vial 5	1022-126.S2A-PP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
13	vial 2	Pause	PAUSE	1	
14	vial 7	0922-177.100622 Run 1 (3855).Can P1	AQ_EDITHP503_HRVOC	3	
15	vial 2	Pause	PAUSE	1	
16	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
17	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
18	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
19	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
20	vial 2	Pause	PAUSE	1	
21	vial 5	1022-126.S2A-TP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
22	vial 6	1022-126.S1A-PP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
23	vial 7	1022-126.S1B-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
24	vial 5	1022-126.S2A-TP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
25	vial 2	Pause	PAUSE	1	
26	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
27	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
28	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
29	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
30	vial 2	Pause	PAUSE	1	

C:\GC\2022\EDITH\QUARTER 4\EDITHP3013\EDITHP3013.S Back Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 18	Pause	PAUSE	1	
2	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
3	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
4	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
5	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
6	vial 18	Pause	PAUSE	1	
7	vial 20	0922-177.100522 Run 1 (4044).Can	AQ_EDITHP503_HRVOC	3	
8	vial 21	0922-177.100522 Run 2 (3863).Can	AQ_EDITHP503_HRVOC	3	
9	vial 22	0922-177.100622 Run 1 (3855).Can P2	AQ_EDITHP503_HRVOC	3	
10	vial 20	0922-177.100522 Run 2 (3863).Can P3	AQ_EDITHP503_HRVOC	3	
11	vial 21	1022-126.S1B-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
12	vial 21	1022-126.S1A-PP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
13	vial 18	Pause	PAUSE	1	
14	vial 23	0922-177.100622 Run 1 (3855).Can P3	AQ_EDITHP503_HRVOC	3	
15	vial 18	Pause	PAUSE	1	
16	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
17	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
18	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
19	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
20	vial 18	Pause	PAUSE	1	
21	vial 21	1022-126.S2A-TP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
22	vial 22	1022-126.S1A-PP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
23	vial 23	1022-126.S1B-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
24	vial 21	1022-126.S2A-TP-R1A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
25	vial 18	Pause	PAUSE	1	
26	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
27	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
28	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
29	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
30	vial 18	Pause	PAUSE	1	

Supplies, Ancillary Equipment  
Serial #s, Lot #s, Etc① Did not reproduce  
NR below

② Run 3

③ Run 3 was

leaking - Did not  
reproduce NR below  
N/B 10-26-22

#5

Small sample: 2000 mL  
Zero Ave

GC 100 mL S/N 17

cal due 1-26-23

DAM 00006242

8-15-22

N/B 10-26-22

Enthalpy Quality Assurance

ENTHALPY  
ANALYTICAL

Reviewer's Initials &amp; Date:

KAC 10/27/22

EDITH  
page 3013

EA-Job # 1022-165R 132 of 305



Job #s  
1022-165

Describe Work Documented on This Page  
M18 Column info in  
AQM

IZS 10-27-22

C:\GC\2022\EDITH\QUARTER 4\EDITHP3014\EDITHP3014.S Front Inlet

Line	Vial	SampleName	Method	Inj Dilution
1	vial 4	1022-165.Blank.Bag	AQ_EDITHP503_HRVOC	3
2	vial 5	1022-165.Run 1.Bag	AQ_EDITHP503_HRVOC	3
3	vial 6	1022-165.Run 2.Bag	AQ_EDITHP503_HRVOC	3
4	vial 7	1022-165.Run 3.Bag	AQ_EDITHP503_HRVOC	3
5	vial 8	1022-165.Run 4.Bag	AQ_EDITHP503_HRVOC	3
6	vial 9	1022-165.Run 5.Bag	AQ_EDITHP503_HRVOC	3
7	vial 10	1022-165.Run 6.Bag	AQ_EDITHP503_HRVOC	3
8	vial 4	1022-165.Run 7.Bag	AQ_EDITHP503_HRVOC	3
9	vial 2	Pause	PAUSE	1
10	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4
11	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3
12	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4
13	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4
14	vial 2	Pause	PAUSE	1

C:\GC\2022\EDITH\QUARTER 4\EDITHP3014\EDITHP3014.S Back Inlet

Line	Vial	SampleName	Method	Inj Dilution
1	vial 20	1022-165.Blank.Bag	AQ_EDITHP503_HRVOC	3
2	vial 21	1022-165.Run 1.Bag	AQ_EDITHP503_HRVOC	3
3	vial 22	1022-165.Run 2.Bag	AQ_EDITHP503_HRVOC	3
4	vial 23	1022-165.Run 3.Bag	AQ_EDITHP503_HRVOC	3
5	vial 24	1022-165.Run 4.Bag	AQ_EDITHP503_HRVOC	3
6	vial 25	1022-165.Run 5.Bag	AQ_EDITHP503_HRVOC	3
7	vial 26	1022-165.Run 6.Bag	AQ_EDITHP503_HRVOC	3
8	vial 20	1022-165.Run 7.Bag	AQ_EDITHP503_HRVOC	3
9	vial 18	Pause	PAUSE	1
10	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4
11	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3
12	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4
13	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4
14	vial 18	Pause	PAUSE	1

① Computer froze. Do not use RR on Edithp3015.  
IZS 10-27-22

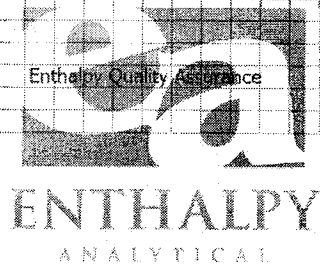
② Added 'M18' spec '165'. IZS 10-27-22

Supplies, Ancillary Equipment  
Serial #s, Lot #s, Etc

Reviewer's Initials & Date:

KKC 10/27/22

EDITH  
page 3014



Location: GL  
Cabinet: 2022

Drawer: Edith  
Folder: Quarter 4

Analyst: IZS  
Date: 10-27-22

Job #s <u>1022-126</u> <u>1022-165</u>	Describe Work Documented on This Page <u>M18 Column info in AQM</u>
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IZS 10-27-22

C:\GC\2022\EDITH\QUARTER 3\EDITHP3015\EDITHP3015.S Front Inlet

Line	Vial	SampleName	Method	Inj Dilution
1	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	3
2	vial 2	Pause	PAUSE	1
3	vial 5	1022-126.S2A-PP-R2A SP.Bag ①	AQ_EDITHP503_HRVOC	3
4	vial 5	1022-126.S2A-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3
5	vial 4	1022-165.West Primary Blank.Bag	AQ_EDITHP503_HRVOC	3
6	vial 6	1022-165.West Primary R1.Bag	AQ_EDITHP503_HRVOC	3
7	vial 7	1022-165.West Primary R2.Bag	AQ_EDITHP503_HRVOC	3
8	vial 8	1022-165.West Backup R3.Bag	AQ_EDITHP503_HRVOC	3
9	vial 9	1022-165.West Primary R4.Bag	AQ_EDITHP503_HRVOC	3
10	vial 10	1022-165.West Primary R5.Bag	AQ_EDITHP503_HRVOC	3
11	vial 11	1022-165.West Backup R6.Bag	AQ_EDITHP503_HRVOC	3
12	vial 12	1022-165.West Primary R7.Bag	AQ_EDITHP503_HRVOC	3
13	vial 5	1022-165.M18 Run 3 SP.Bag	AQ_EDITHP503_HRVOC	3
14	vial 2	Pause	PAUSE	1
15	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4
16	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3
17	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4
18	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4
19	vial 2	Pause	PAUSE	1

C:\GC\2022\EDITH\QUARTER 3\EDITHP3015\EDITHP3015.S Back Inlet

Line	Vial	SampleName	Method	Inj Dilution
1	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	3
2	vial 18	Pause	PAUSE	1
3	vial 21	1022-126.S2A-PP-R2A SP.Bag ①	AQ_EDITHP503_HRVOC	3
4	vial 21	1022-126.S2A-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3
5	vial 20	1022-165.West Primary Blank.Bag	AQ_EDITHP503_HRVOC	3
6	vial 22	1022-165.West Primary R1.Bag	AQ_EDITHP503_HRVOC	3
7	vial 23	1022-165.West Primary R2.Bag	AQ_EDITHP503_HRVOC	3
8	vial 24	1022-165.West Backup R3.Bag	AQ_EDITHP503_HRVOC	3
9	vial 25	1022-165.West Primary R4.Bag	AQ_EDITHP503_HRVOC	3
10	vial 26	1022-165.West Primary R5.Bag	AQ_EDITHP503_HRVOC	3
11	vial 27	1022-165.West Backup R6.Bag	AQ_EDITHP503_HRVOC	3
12	vial 28	1022-165.West Primary R7.Bag	AQ_EDITHP503_HRVOC	3
13	vial 21	1022-165.M18 Run 3 SP.Bag	AQ_EDITHP503_HRVOC	3
14	vial 18	Pause	PAUSE	1
15	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4
16	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3
17	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4
18	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4
19	vial 18	Pause	PAUSE	1

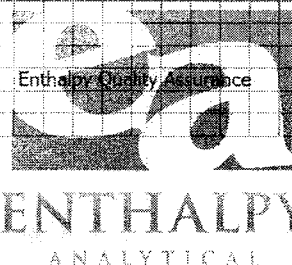
① Did not run long AQM - reason below M18 11-1-22

Reviewer's Initials & Date:

HC 11/1/22

EDITH  
page 3015

EA-Job # 1022-165R 134 of 305



Location: GC  
Cabinet: 2022

Drawer: Edith  
Folder: Quake 4

Analyst: IZS  
Date: 10-31-22

Job #s <u>1022-165</u>	Describe Work Documented on This Page <u>M18 Column info in AGM</u>
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IZS 11-2-22

C:\GC\2022\EDITH\QUARTER 3\EDITHP3017\EDITHP3017.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 4	1022-165.West Primary R1 SP.Bag	AQ_EDITHP503_HRVOC	3	
2	vial 2	Pause	PAUSE	1	
3	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
4	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
5	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
6	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
7	vial 2	Pause	PAUSE	1	
8	vial 4	1022-165.M18 Run 5 SP.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 2	Pause	PAUSE	1	
10	vial 5	1022-165.West Primary R2 SP.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 2	Pause	PAUSE	1	
12	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
13	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
14	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
15	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
16	vial 2	Pause	PAUSE	1	

C:\GC\2022\EDITH\QUARTER 3\EDITHP3017\EDITHP3017.S Back Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 20	1022-165.West Primary R1 SP.Bag	AQ_EDITHP503_HRVOC	3	
2	vial 18	Pause	PAUSE	1	
3	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
4	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
5	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
6	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
7	vial 18	Pause	PAUSE	1	
8	vial 20	1022-165.M18 Run 5 SP.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 18	Pause	PAUSE	1	
10	vial 21	1022-165.West Primary R2 SP.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 18	Pause	PAUSE	1	
12	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
13	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
14	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
15	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
16	vial 18	Pause	PAUSE	1	

Supplies, Ancillary Equipment  
Serial #s, Lot #s, Etc  
Do not use 2nd injection did not inject correctly. IZS 11-2-22

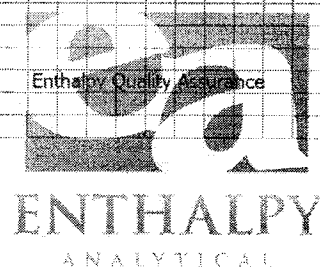
Job # 1022-165  
ID: West Primary R2  
Pbar Pre: 29.83 in H<sub>2</sub>O Bag dimensions 11" x 16 3/4"  
Temp Pre: 68.7 F WVD reading 3 1/4"  
WVD vol of bag: 2.1309 Weather Station # 75  
Date/Time Spiked: 10/31/22 1340 Init: IZS  
Date/Time to Rerun: 11/1/22 19:38  
Spike(s):  
Vol: 210 Unit: mL Source: ALM031541 Witness me

IZS 11-2-22

PASSES SIR  
IZS 11-2-22

Reviewer's Initials & Date:  
REB 11/2/22

EDITH  
page 3017



Location: NADrawer: NAAnalyst: RESCabinet: NAFolder: NADate: 11/1/22

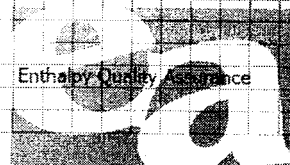
Job #s	Describe Work Documented on This Page	Supplies, Ancillary Equipment Serial #s, Lot #s, Etc
1022-165	M18 STR	
Job # 1022-165 ID: Run 3 Pbar Pre: 29.60 Temp Pre: 68.3 WVD vol of bag: 0.9217 Date/Time Spiked: 10-26-22 16:37 Date/Time to Rerun: 10-27-22 17:01 Spike(s): Vol: 90 Unit: mL Source: ALM031541 Witness: NPB	Bag dimensions 10 7/8 x 16 5/8 WVD reading 1 1/8" Weather Station # 75 Init: IZS	FAILS STR. Leaking. Spike R4. RES 11/1/22
Job # 1022-165 ID: M18 Run 4 Pbar Pre: 30.10 in Hg Temp Pre: 67.3 °F WVD vol of bag: 0.9391 Date/Time Spiked: 10/25/22 13:50 Date/Time to Rerun: 10/29/22 14:14 Spike(s): Vol: 90 Unit: mL Source: ALM031541 Witness: LNC	Bag dimensions 11 1/8" x 17 WVD reading 1 1/8" Weather Station # 75 Init: IZS	FAILS STR. Leaking. Spike R5. RES 11/1/22
Job # 1022-165 ID: West Primary R1 Pbar Pre: 30.14 Temp Pre: 66.4 WVD vol of bag: 2.7712 Date/Time Spiked: 10/29/22 10:36 Date/Time to Rerun: 10-29-22 11:00 Spike(s): Vol: 300 Unit: mL Source: ALM031541 Witness: LNC	Bag dimensions 11 x 16.75 WVD reading 4 3/16 Weather Station # 75 Init: IZS	Fail STR. Leaking. Spike R2. RES 11/1/22
Job # 1022-165 ID: Run 5 Pbar Pre: 29.83 in Hg Temp Pre: 68.5 °F WVD vol of bag: 0.9285 Date/Time Spiked: 10/31/22 13:38 Date/Time to Rerun: 11/1/22 14:02 Spike(s): Vol: 90 Unit: mL Source: ALM031541 Witness: LNC	Bag dimensions 11" x 16 1/8" WVD reading 1 1/8" Weather Station # 75 Init: IZS	PASSES STR RES 11/1/22

Reviewer's Initials &amp; Date:

DRL 11-2-22

EDITH  
page 3020

EA Job # 1022-165R 136 of 305

ENTHALPY  
ANALYTICAL

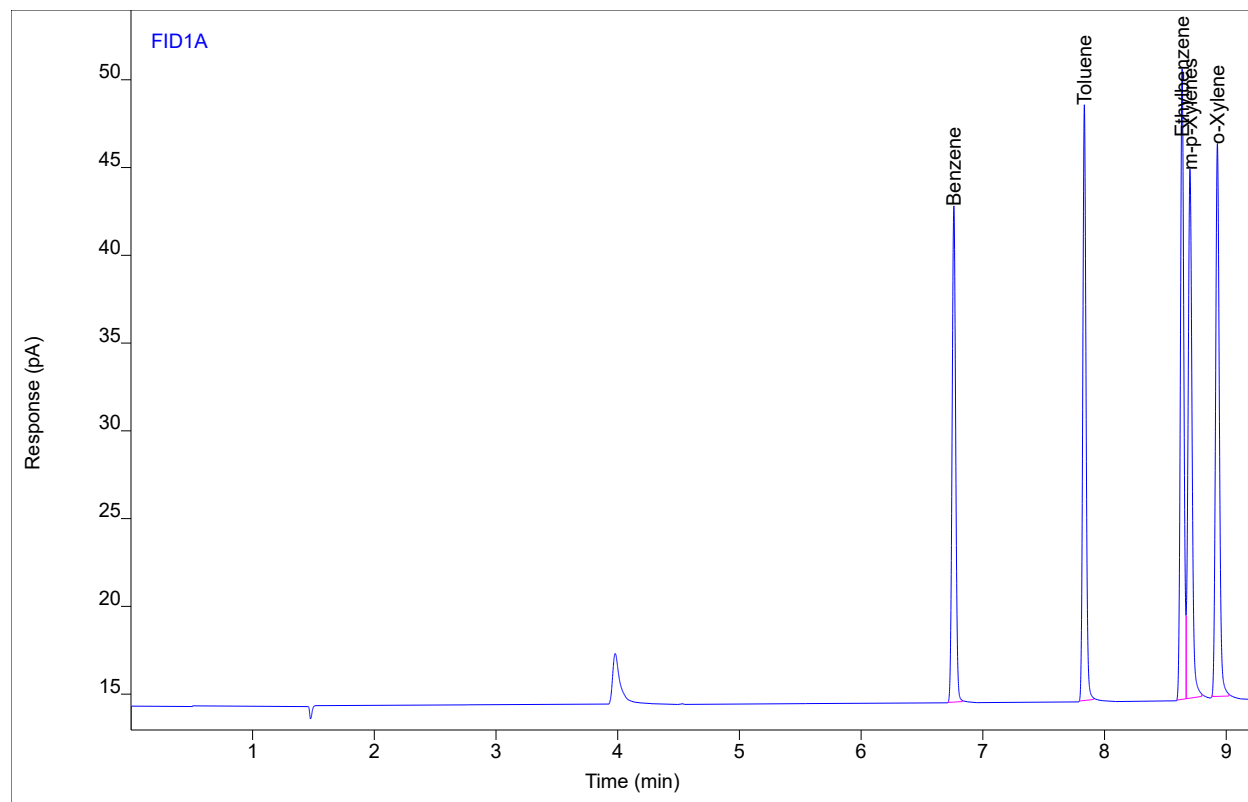
# Raw Data

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0101.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:31 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



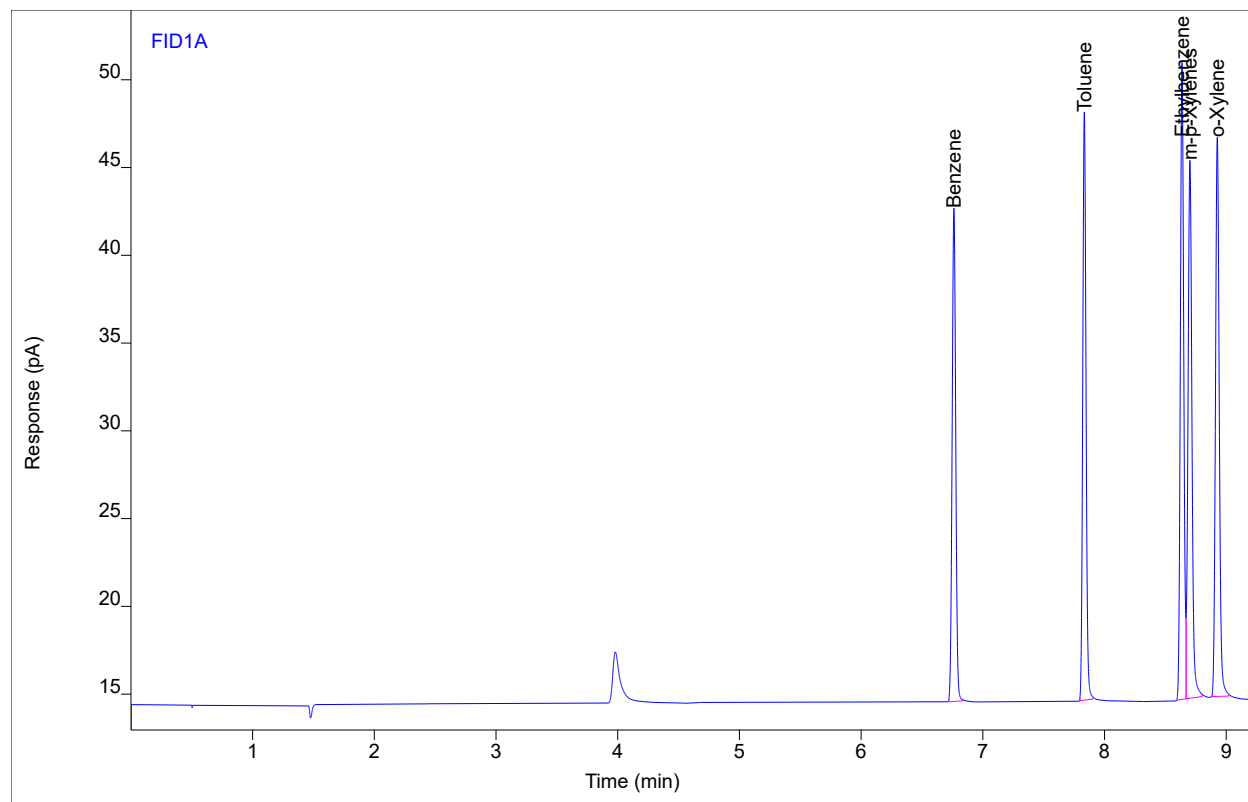
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	57.5574	28.1926	40.3561	1	40.3561	ppm
Toluene	BB	7.83	62.7702	33.8156	37.7601	1	37.7601	ppm
Ethylbenzene	BV	8.64	69.9872	35.8117	37.6131	1	37.6131	ppm
m-p-Xylenes	VB	8.70	68.2238	30.1035	39.5192	1	39.5192	ppm
o-Xylene	BB	8.93	68.0317	31.4267	39.0680	1	39.0680	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0102.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:50 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



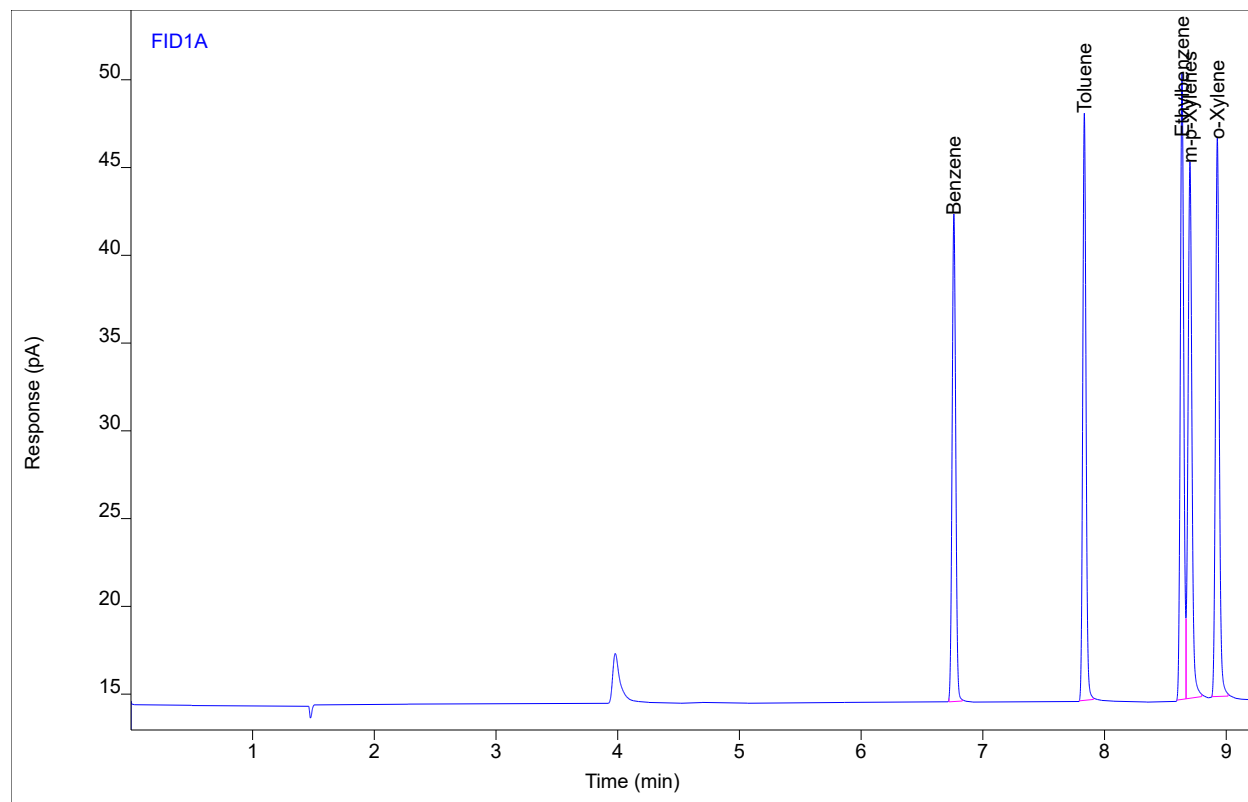
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	57.3530	28.0471	40.2135	1	40.2135	ppm
Toluene	BB	7.83	62.5991	33.3995	37.6581	1	37.6581	ppm
Ethylbenzene	BV	8.64	70.2519	36.1434	37.7536	1	37.7536	ppm
m-p-Xylenes	VB	8.70	68.8621	30.5840	39.8838	1	39.8838	ppm
o-Xylene	BB	8.93	68.6549	31.7535	39.4209	1	39.4209	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F0103.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 9:09 AM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.9486	27.7133	39.9312	1	39.9312	ppm
Toluene	BB	7.83	62.2340	33.3400	37.4405	1	37.4405	ppm
Ethylbenzene	BV	8.64	69.7876	35.5735	37.5072	1	37.5072	ppm
m-p-Xylenes	VB	8.70	67.9934	30.4938	39.3876	1	39.3876	ppm
o-Xylene	BB	8.93	67.8411	31.7694	38.9601	1	38.9601	ppm

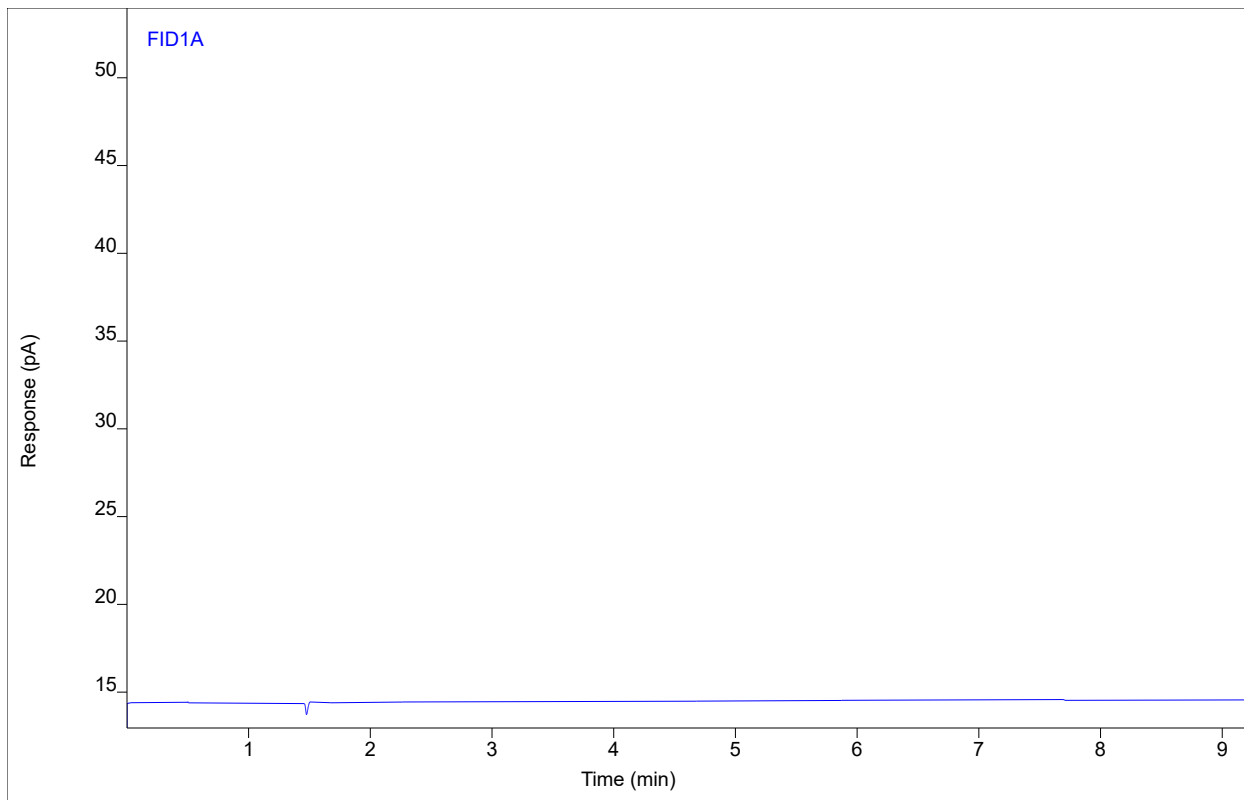


# Chromatogram Report

Sample Name 1022-165.West Primary Blank.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 004F0501.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 3:21 PM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



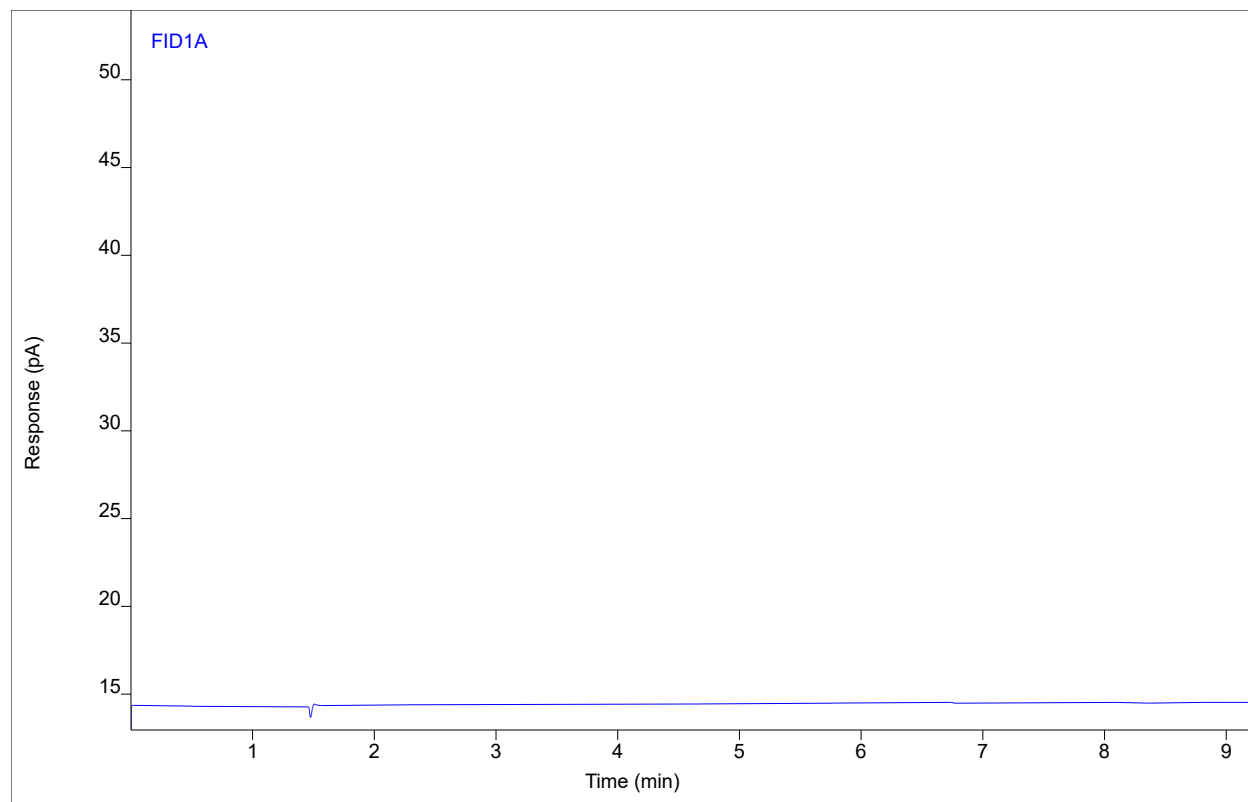
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary Blank.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 004F0502.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 3:35 PM  
File Modified 10/31/2022 8:33 AM  
Instrument Edith  
Operator Ivy Somocurcio

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



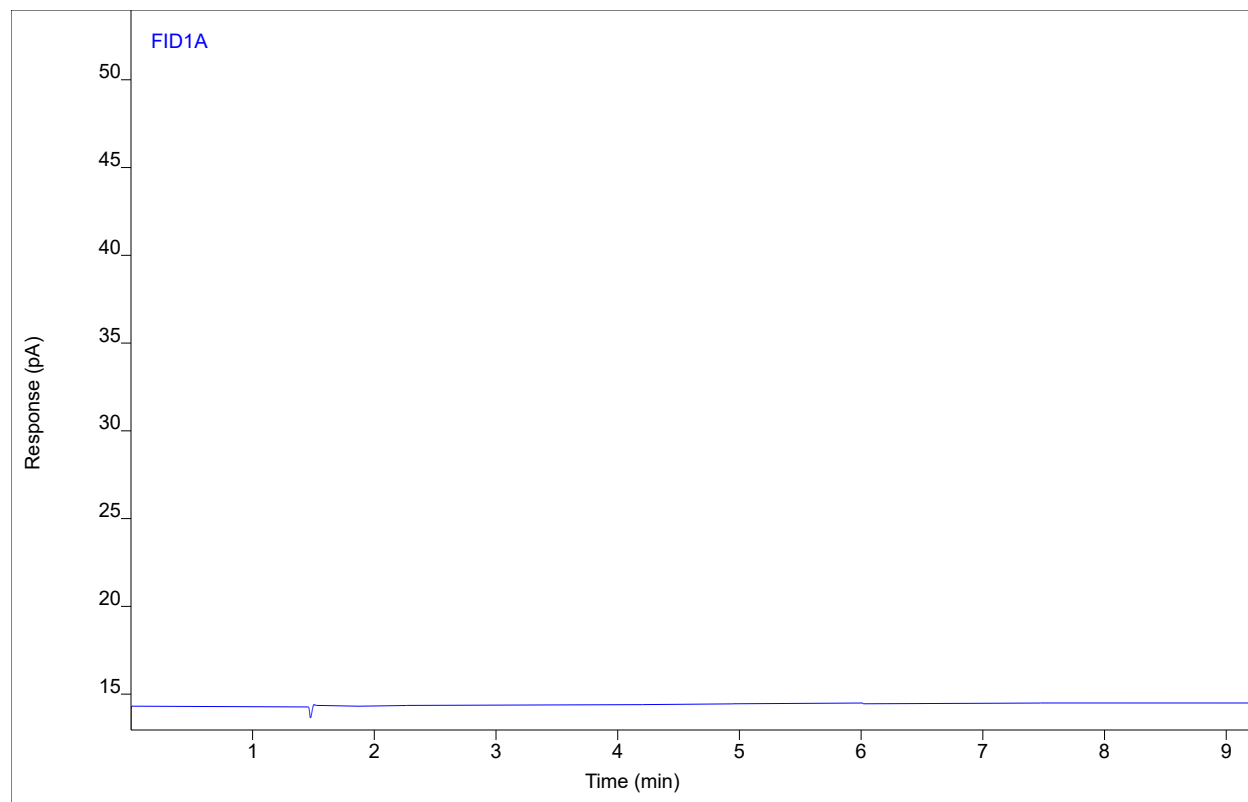
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary Blank.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 004F0503.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 3:49 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Ivy Somocurcio

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 4  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



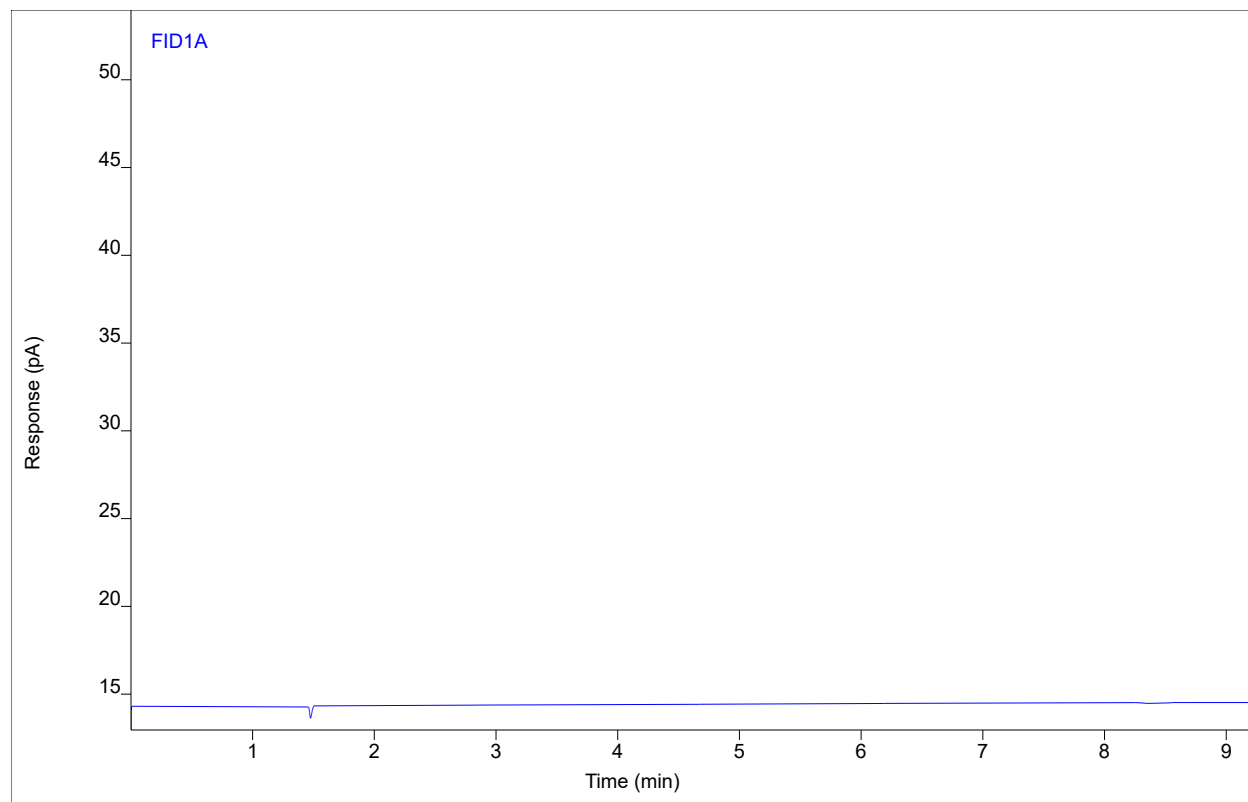
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R1.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 006F0601.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 4:03 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Ivy Somocurcio

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



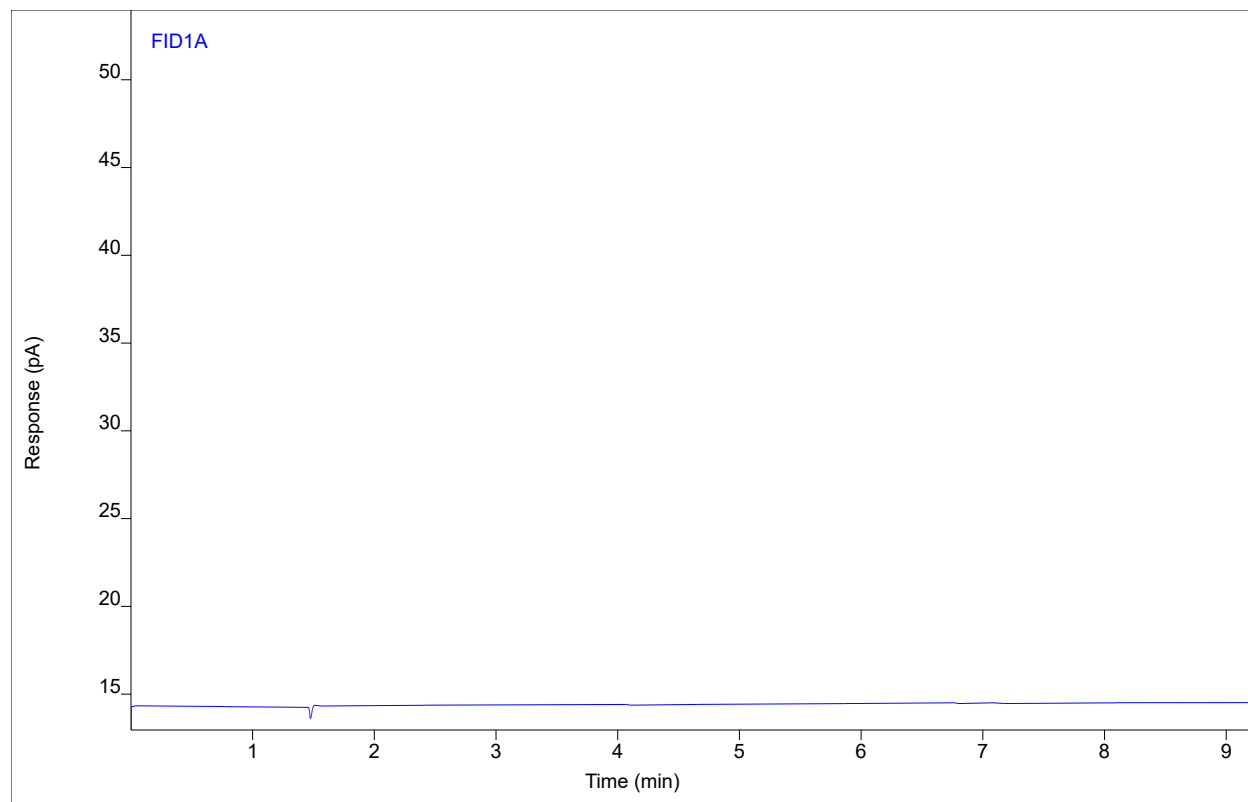
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R1.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 006F0602.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 4:17 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



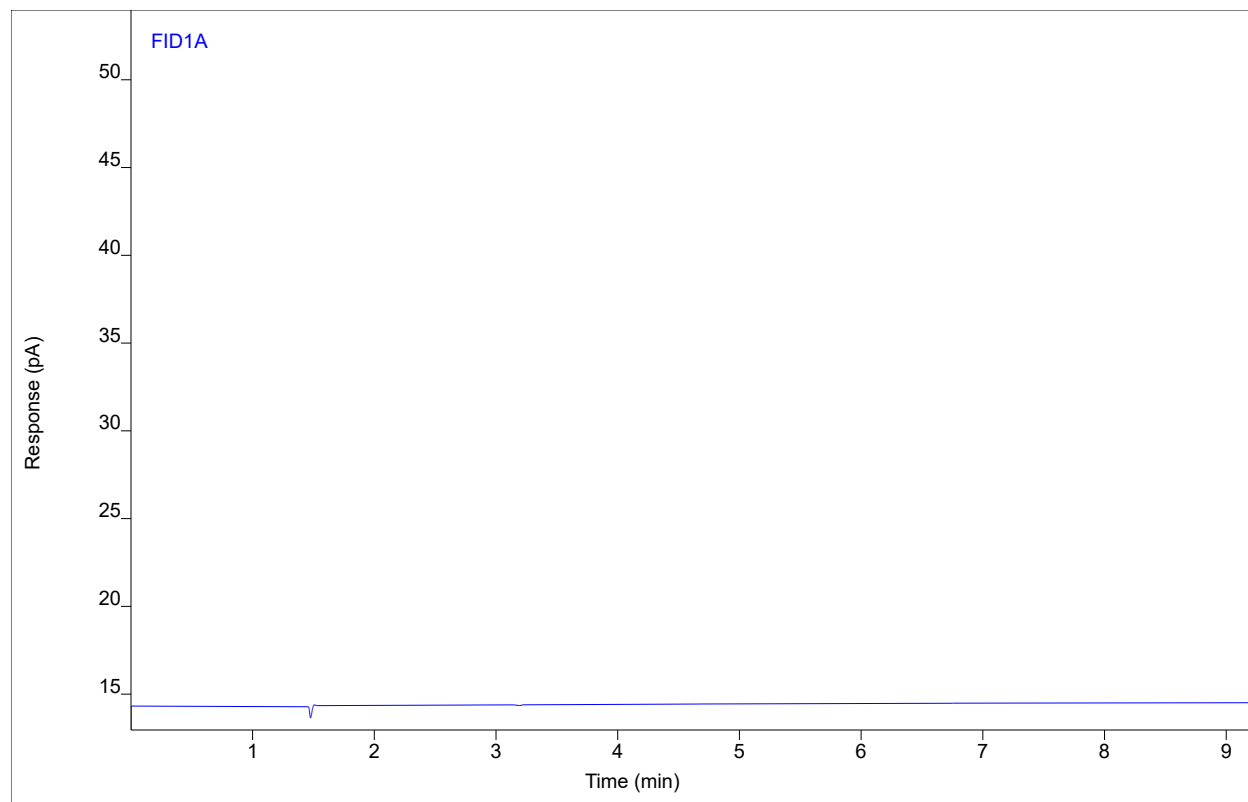
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R1.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 006F0603.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 4:31 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 6  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



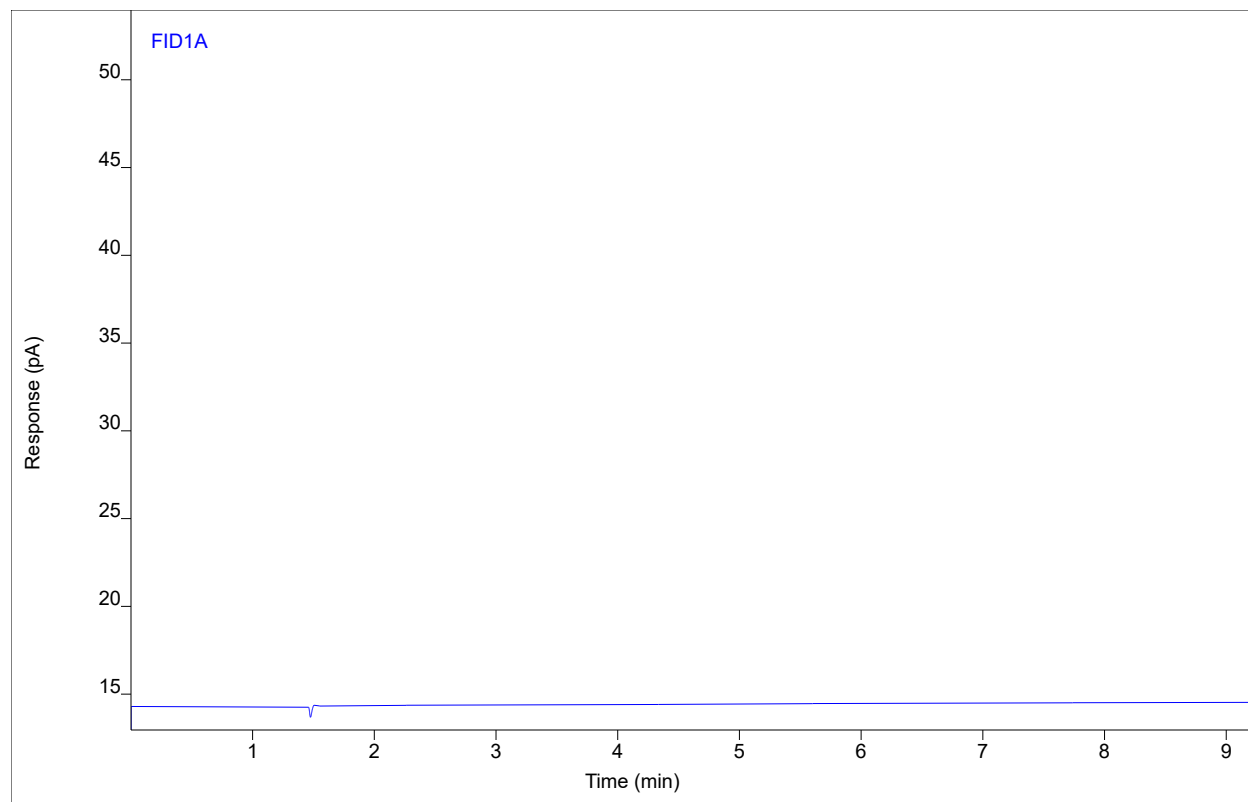
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R2.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 007F0701.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 4:45 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



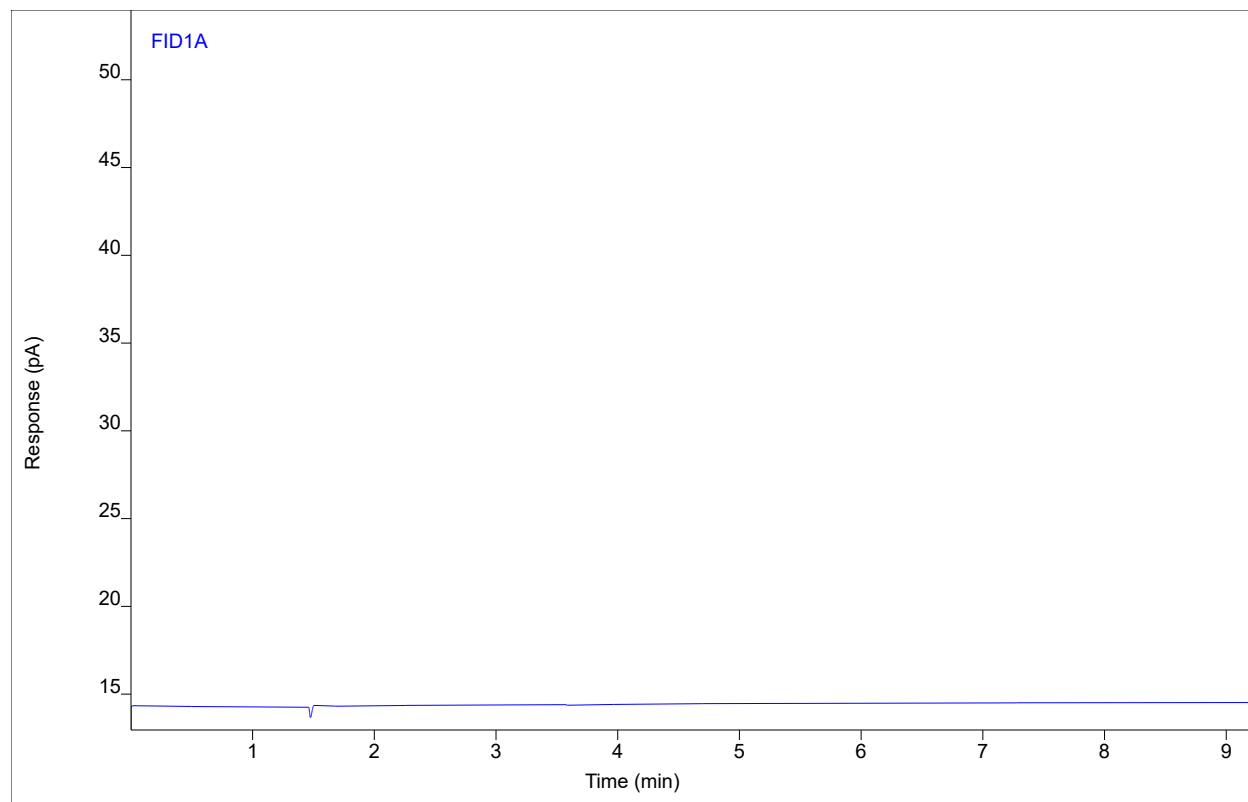
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R2.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 007F0702.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 4:59 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

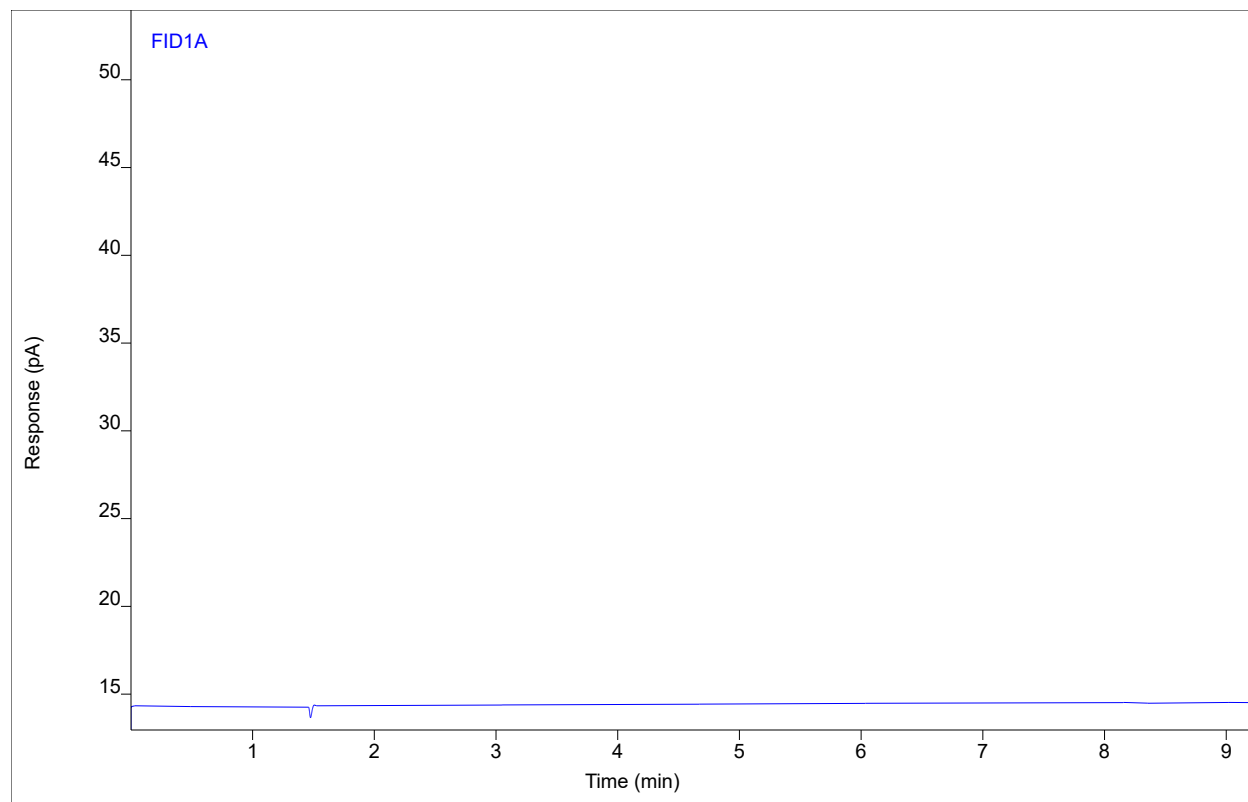


# Chromatogram Report

Sample Name 1022-165.West Primary R2.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 007F0703.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 5:13 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 7  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



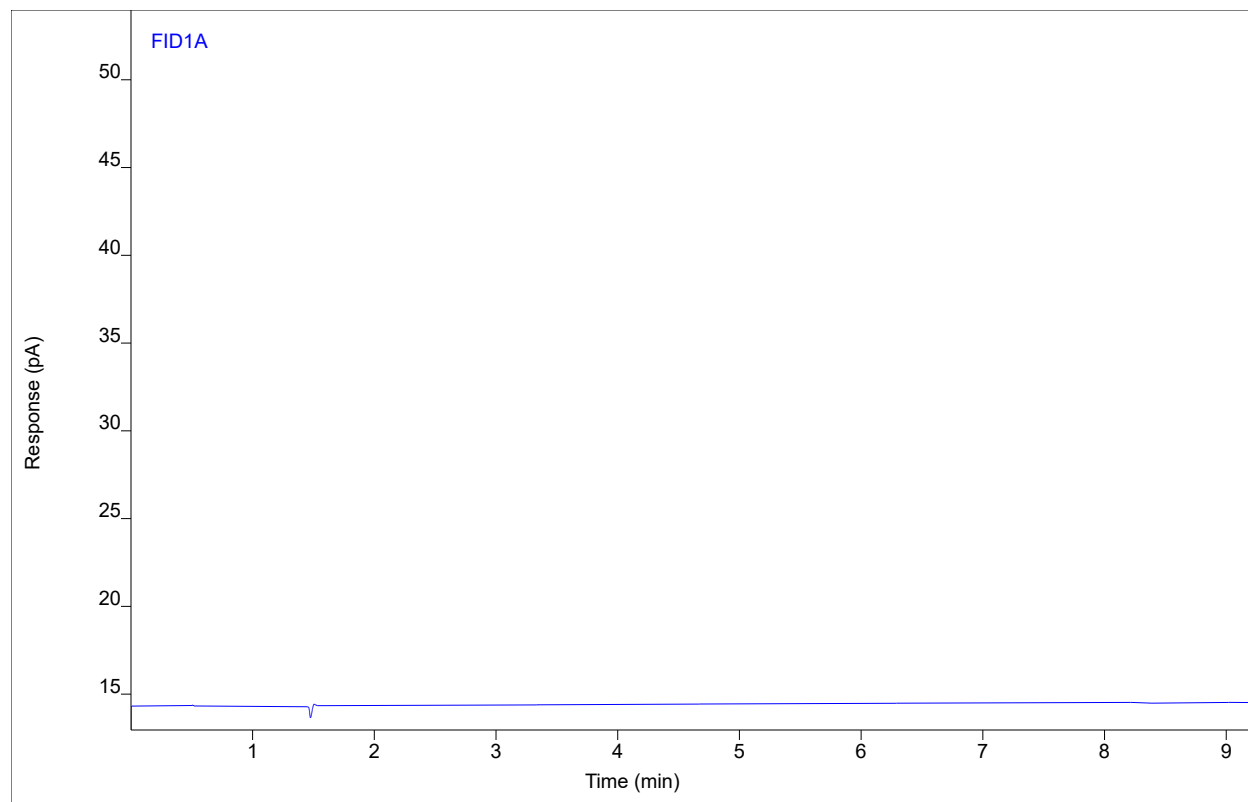
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R3.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 008F0801.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 5:27 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



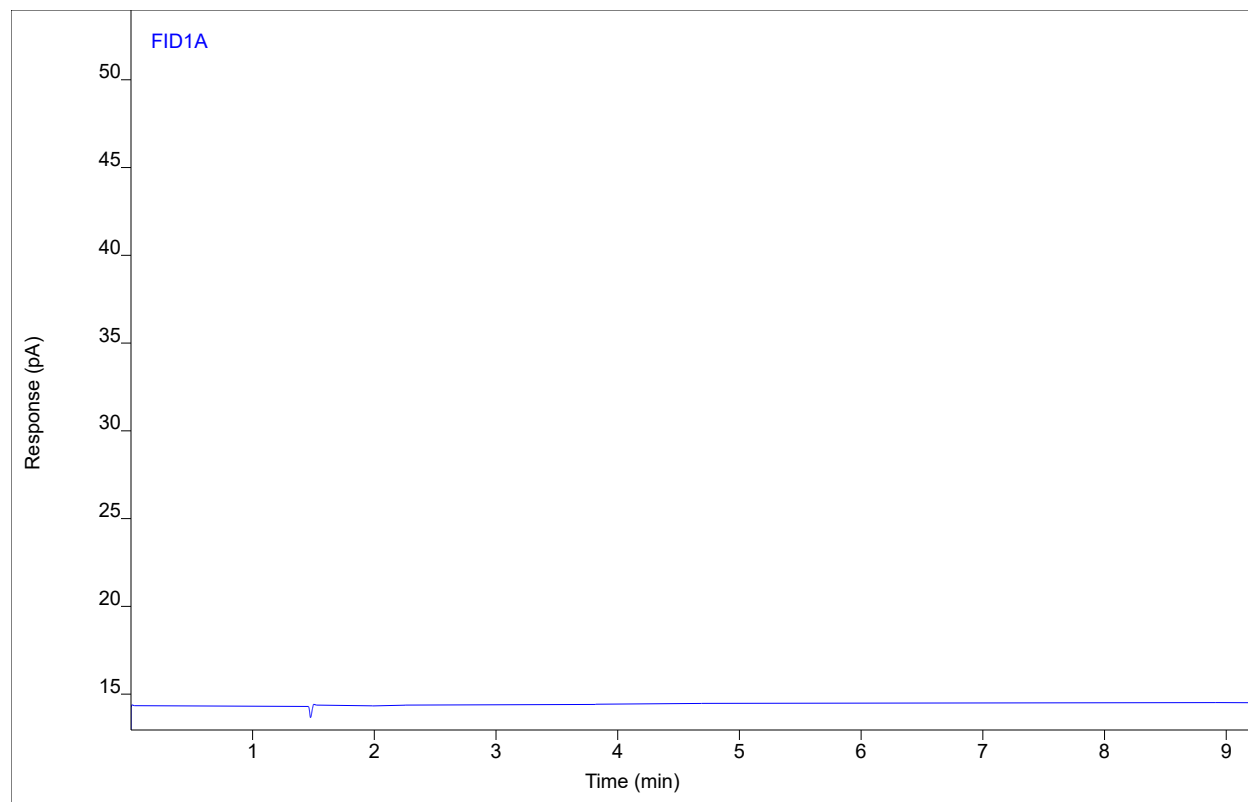
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R3.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 008F0802.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 5:41 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



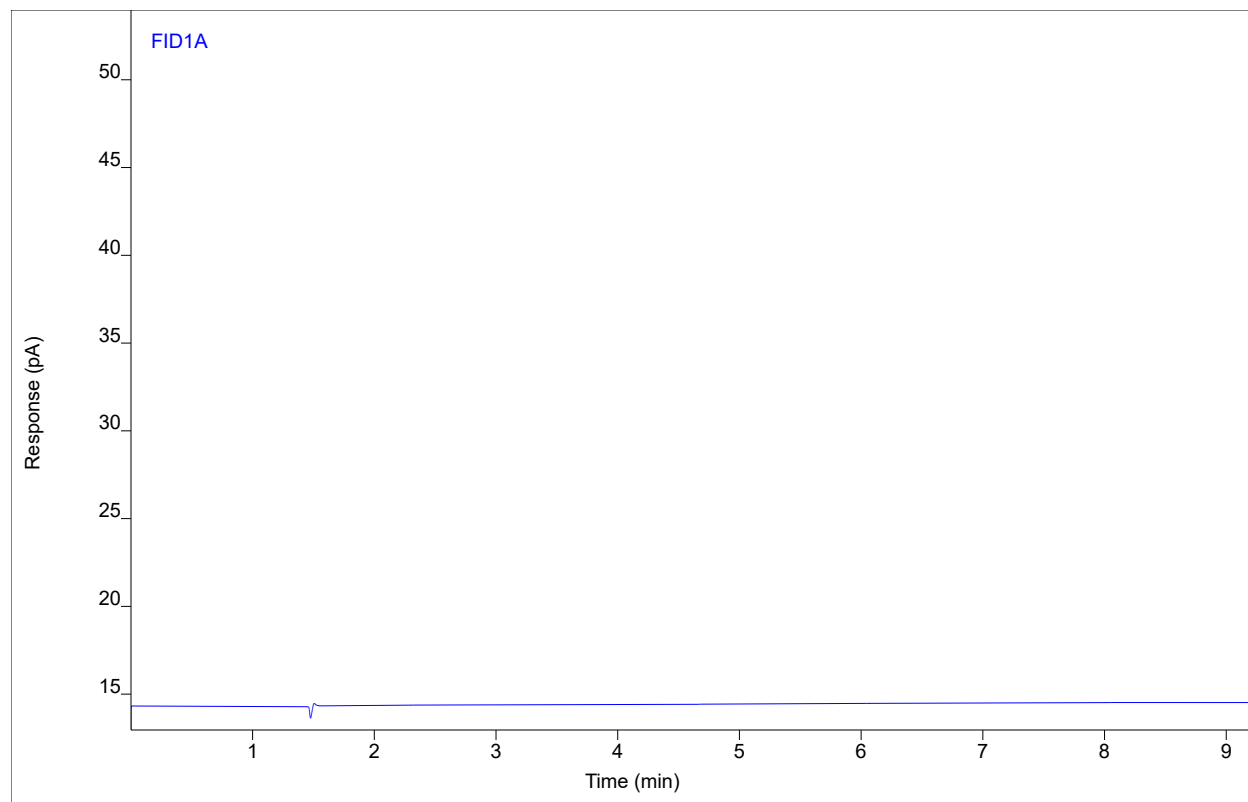
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R3.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 008F0803.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 5:56 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 8  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



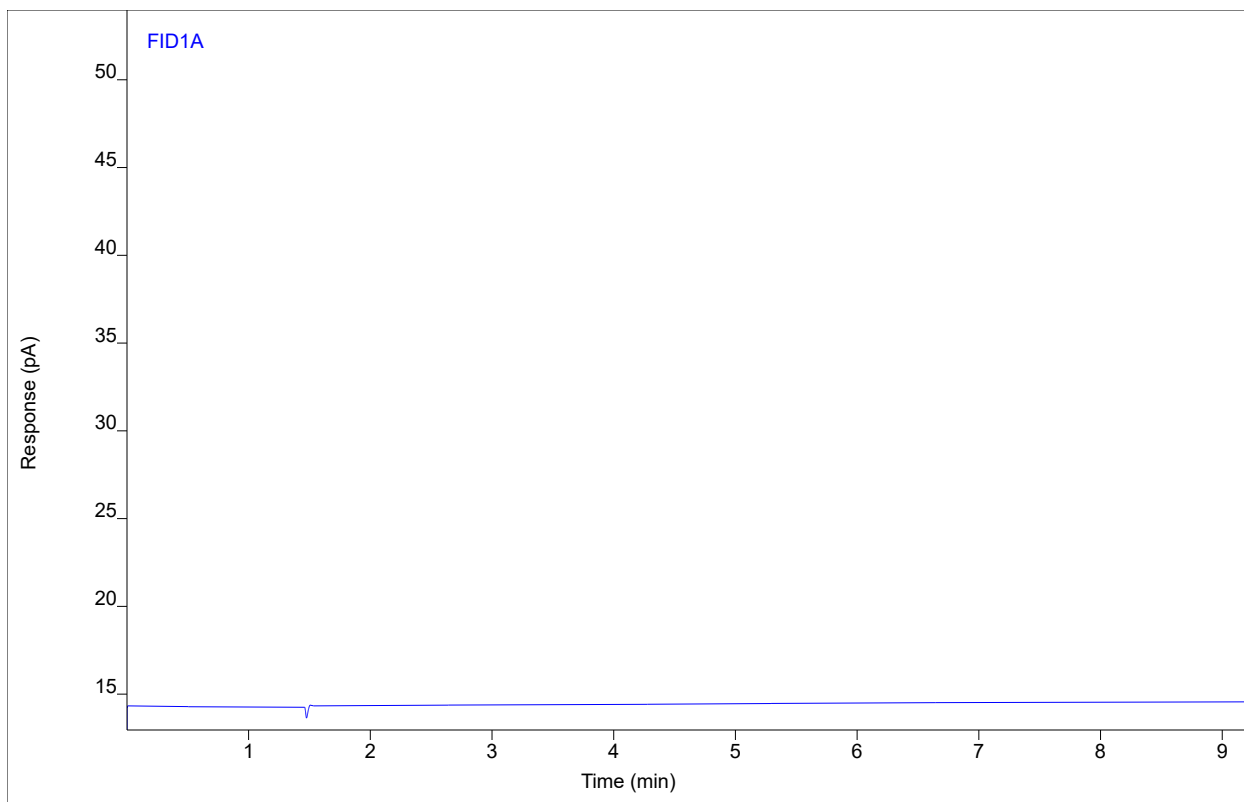
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R4.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 009F0901.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 6:09 PM  
File Modified 10/31/2022 8:34 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



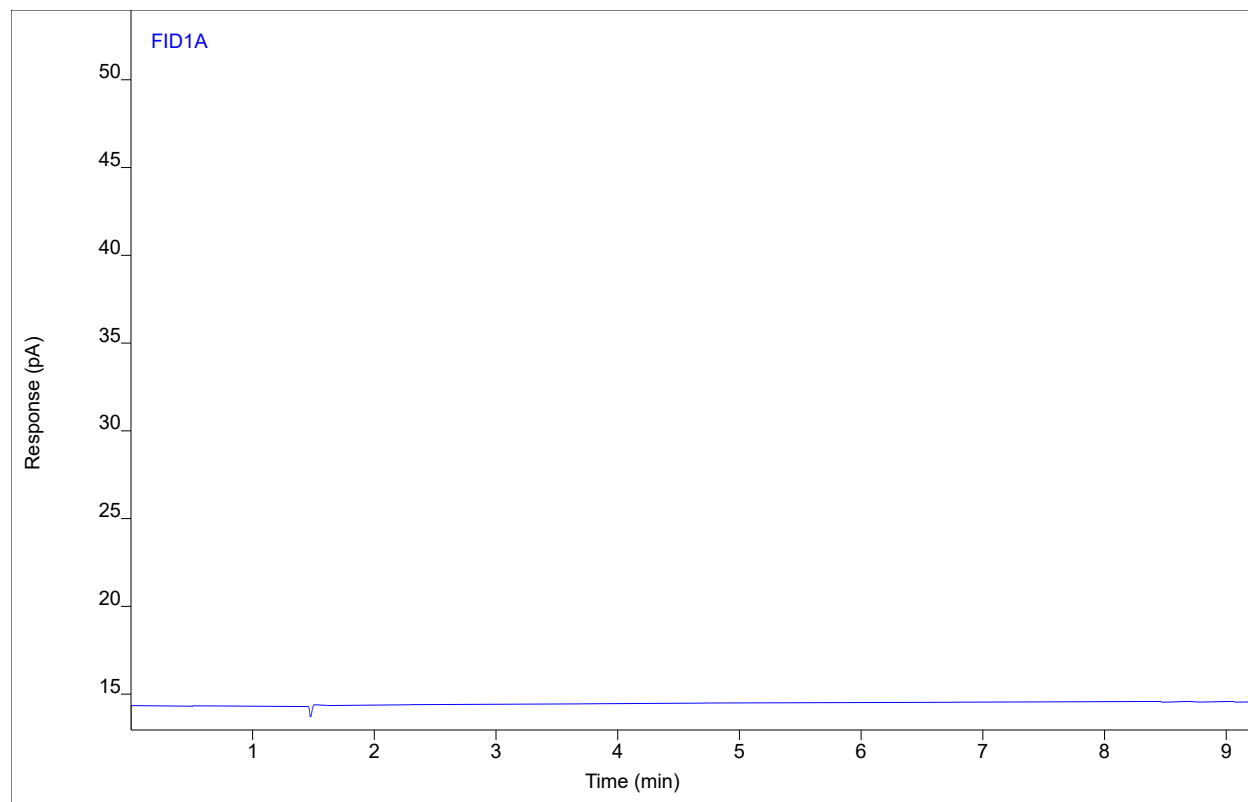
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R4.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 009F0902.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 6:24 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



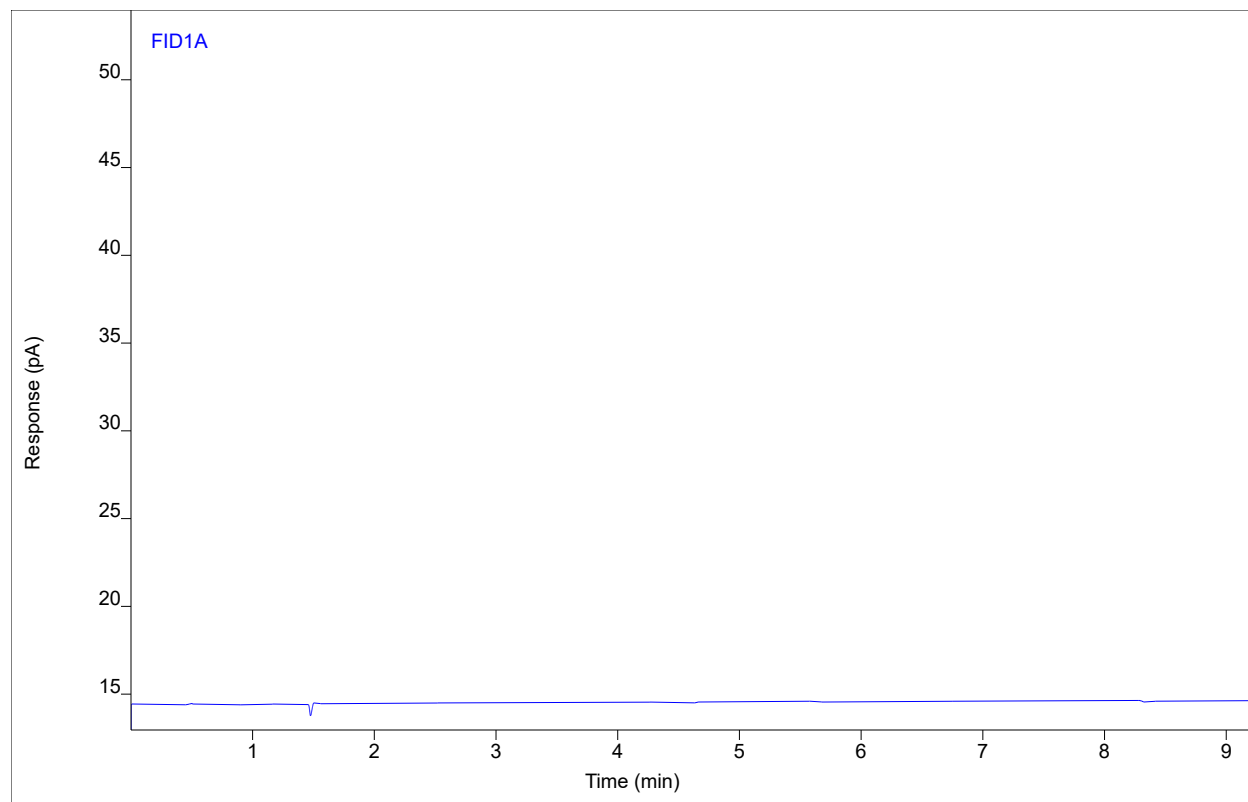
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R4.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 009F0903.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 6:37 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 9  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



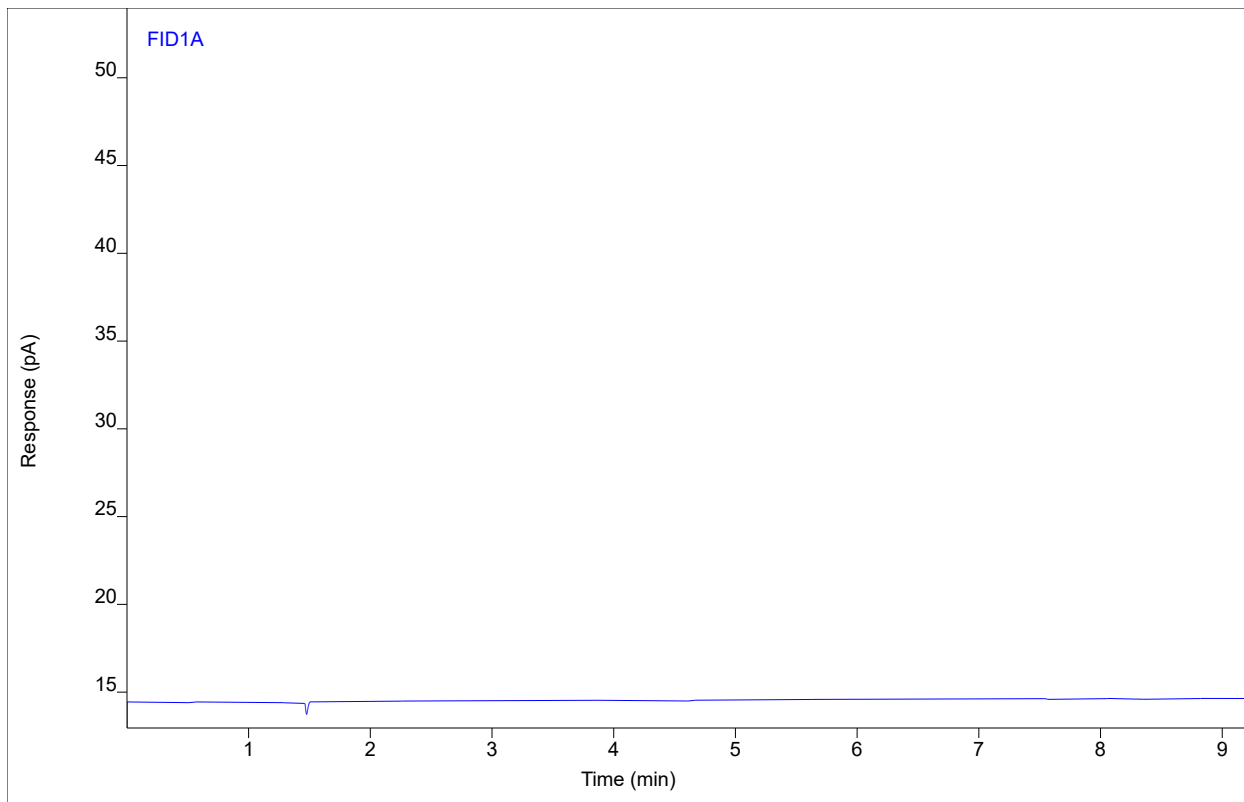
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R5.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 010F1001.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 6:52 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

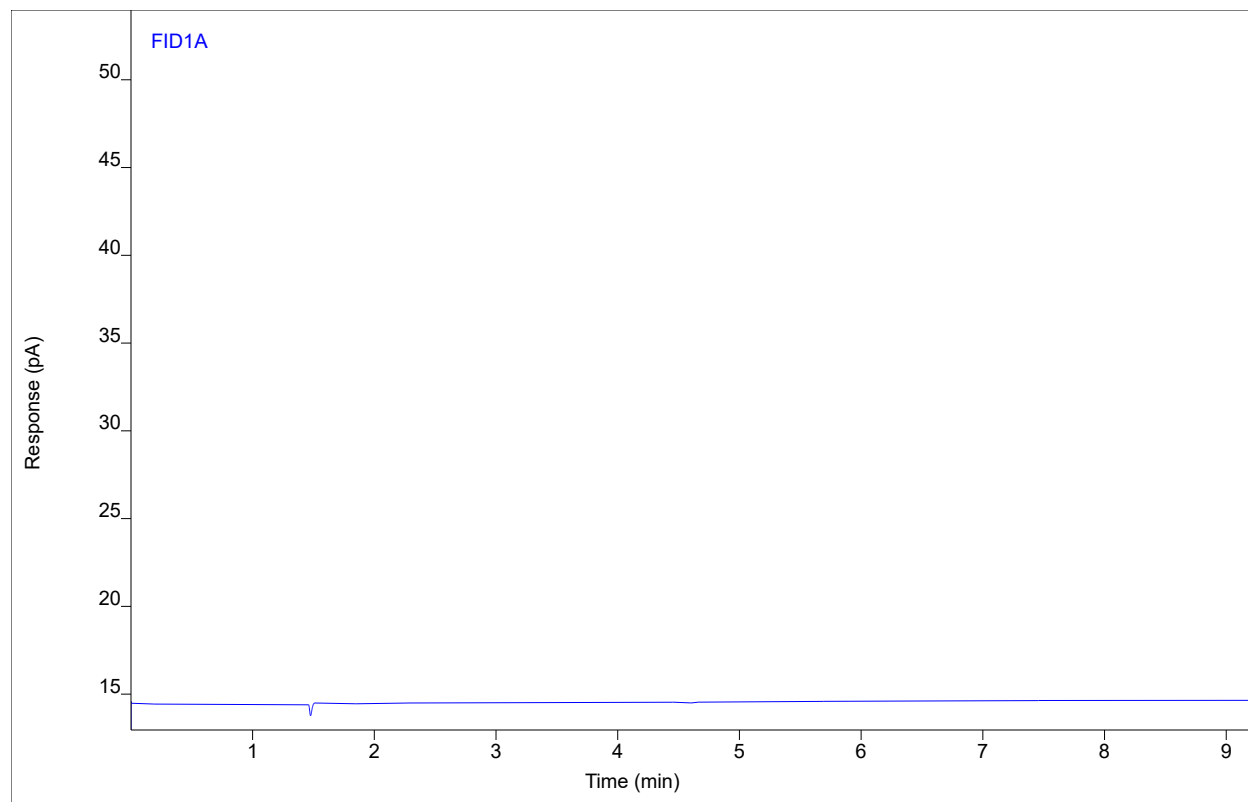


# Chromatogram Report

Sample Name 1022-165.West Primary R5.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 010F1002.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 7:11 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



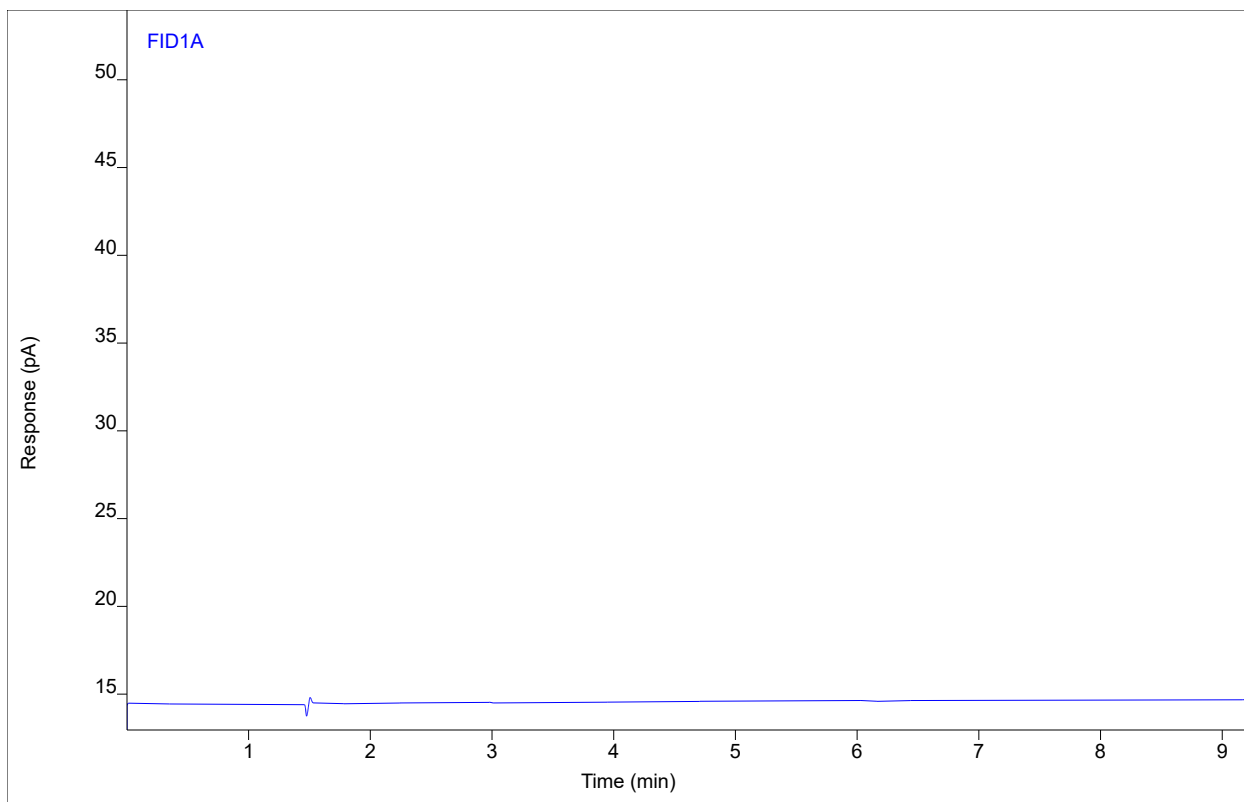
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R5.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 010F1003.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 7:26 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 10  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



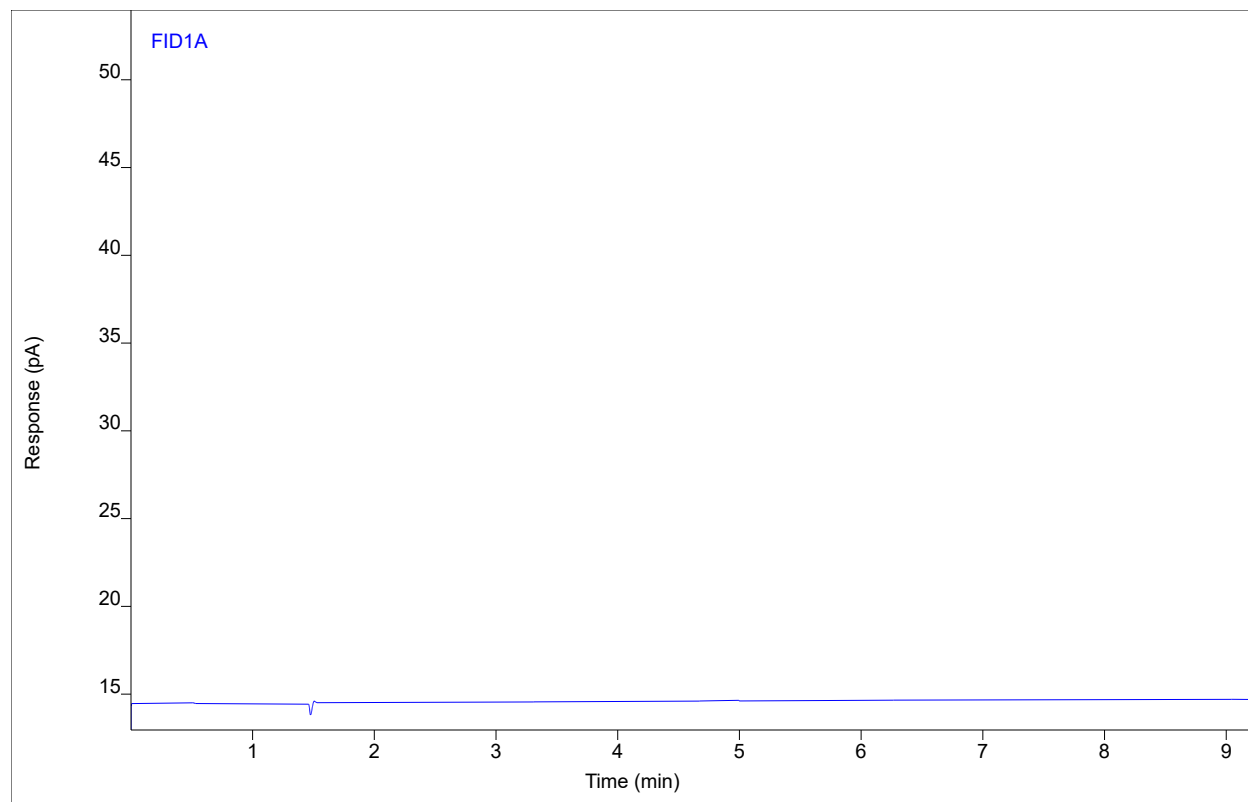
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R6.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 011F1101.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 7:40 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 11  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



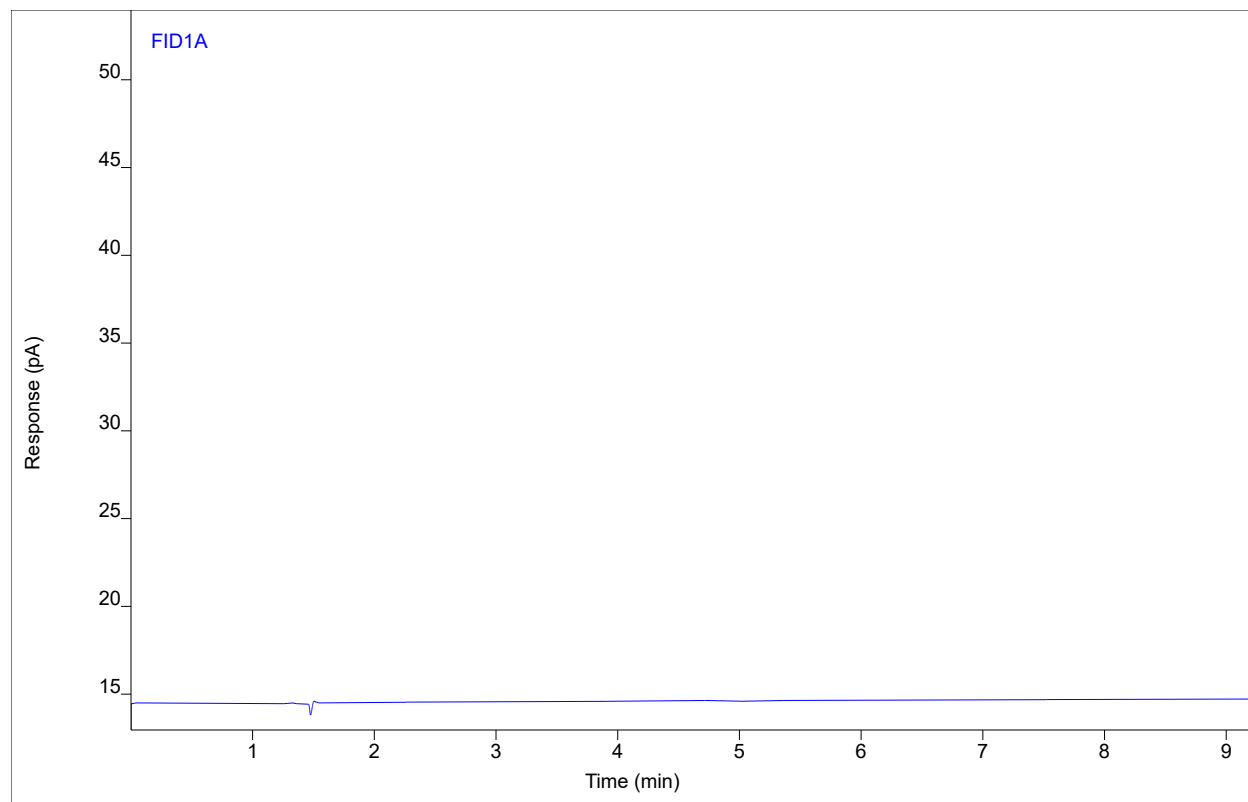
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R6.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 011F1102.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 7:54 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 11  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



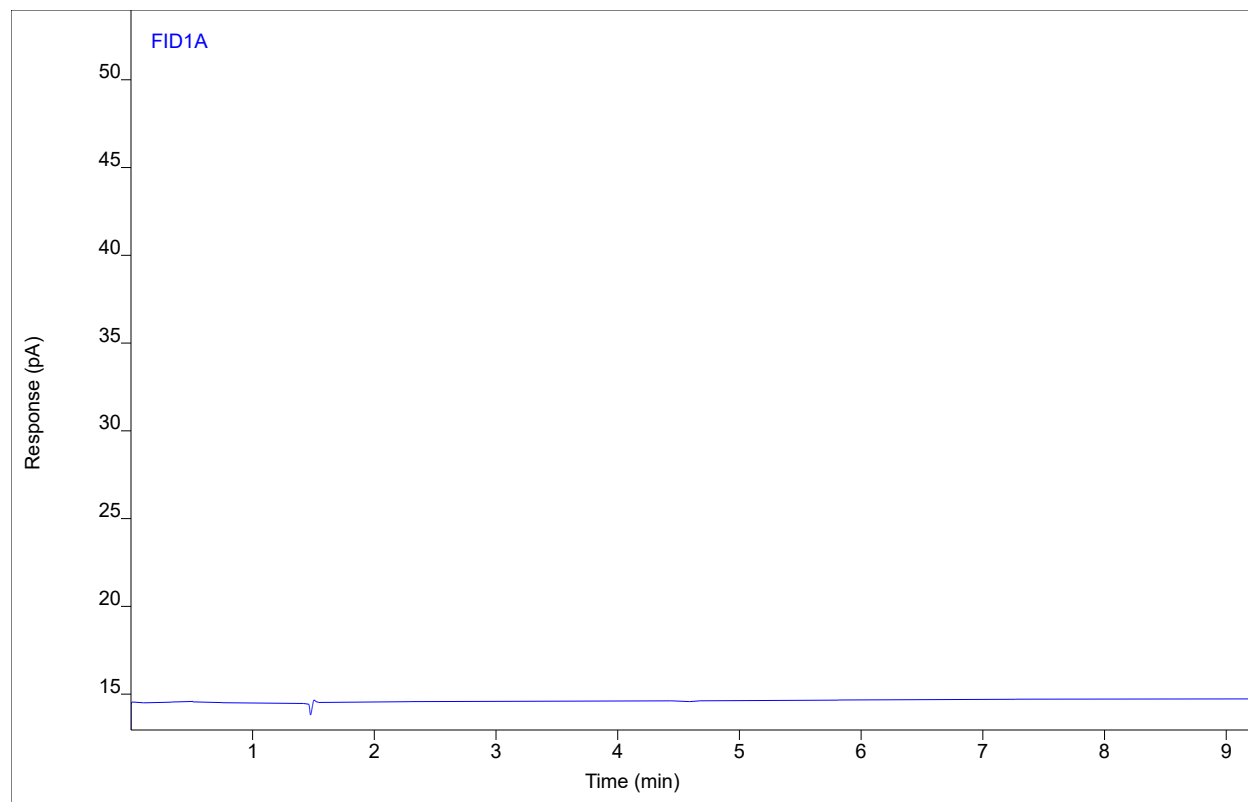
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Backup R6.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 011F1103.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:08 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 11  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



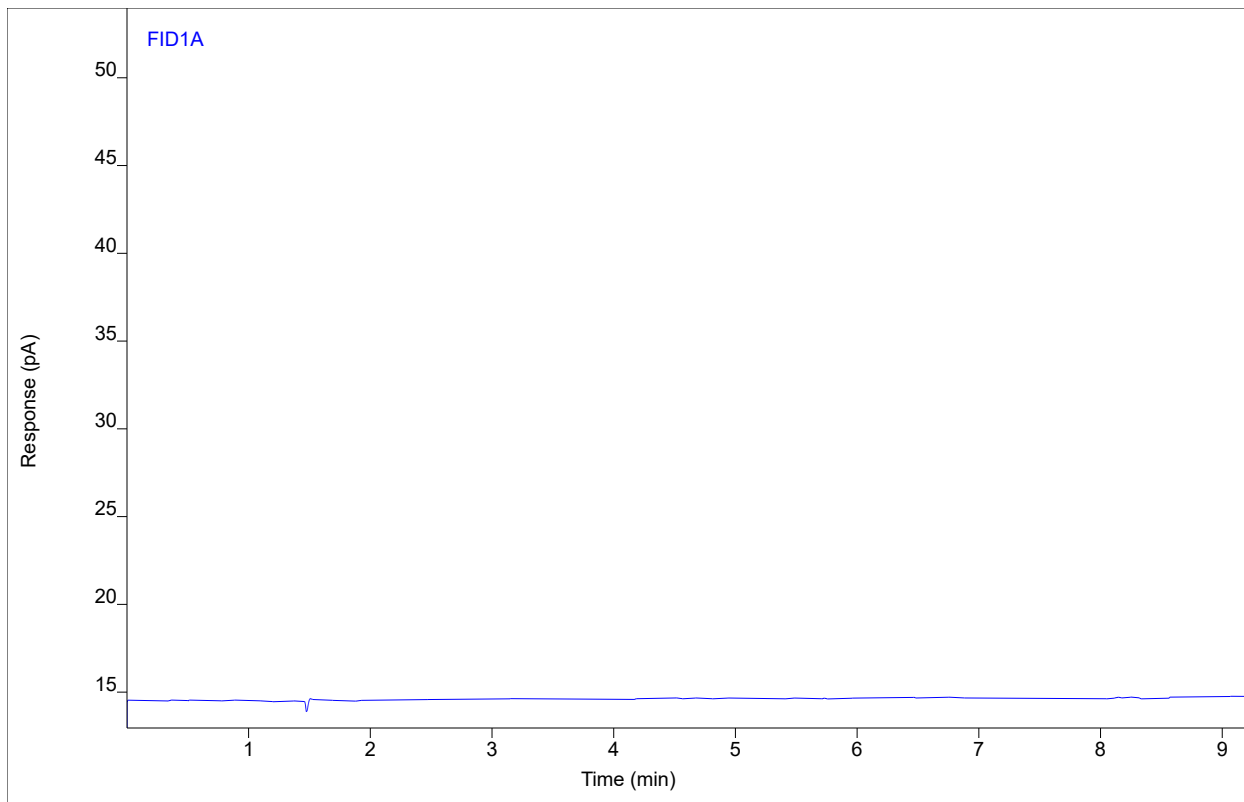
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R7.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 012F1201.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:22 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 12  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



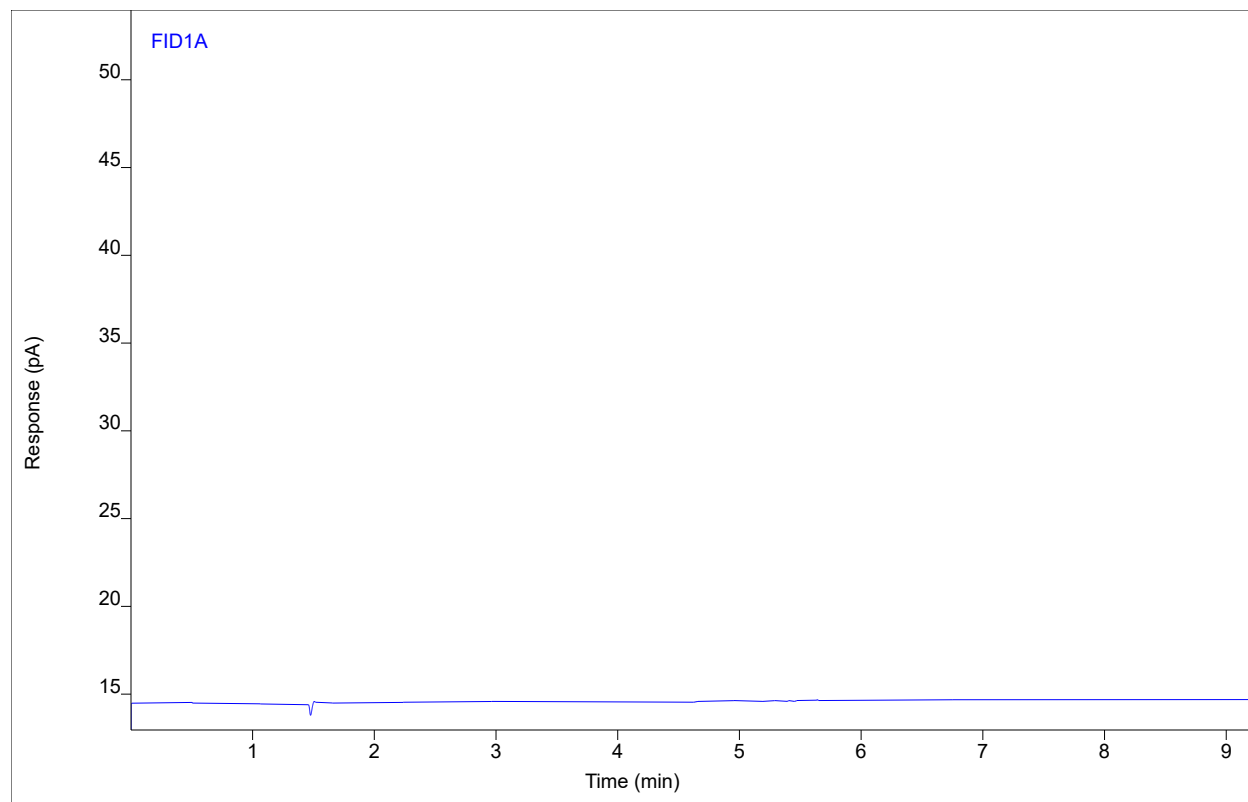
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R7.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 012F1202.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:36 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 12  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



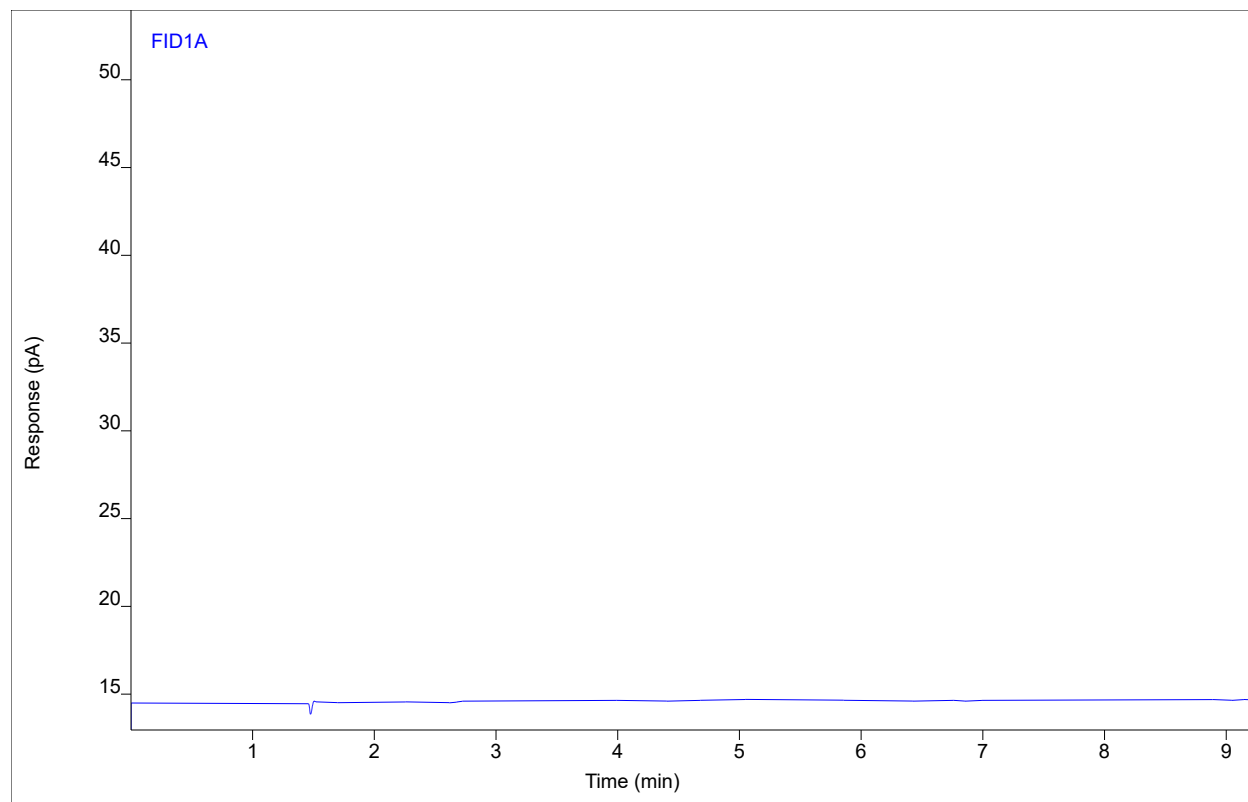
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name 1022-165.West Primary R7.Bag  
Sequence Name EDITHP3015 ver.1  
Inj Data File 012F1203.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/27/2022 8:49 PM  
File Modified 10/31/2022 8:35 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 12  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

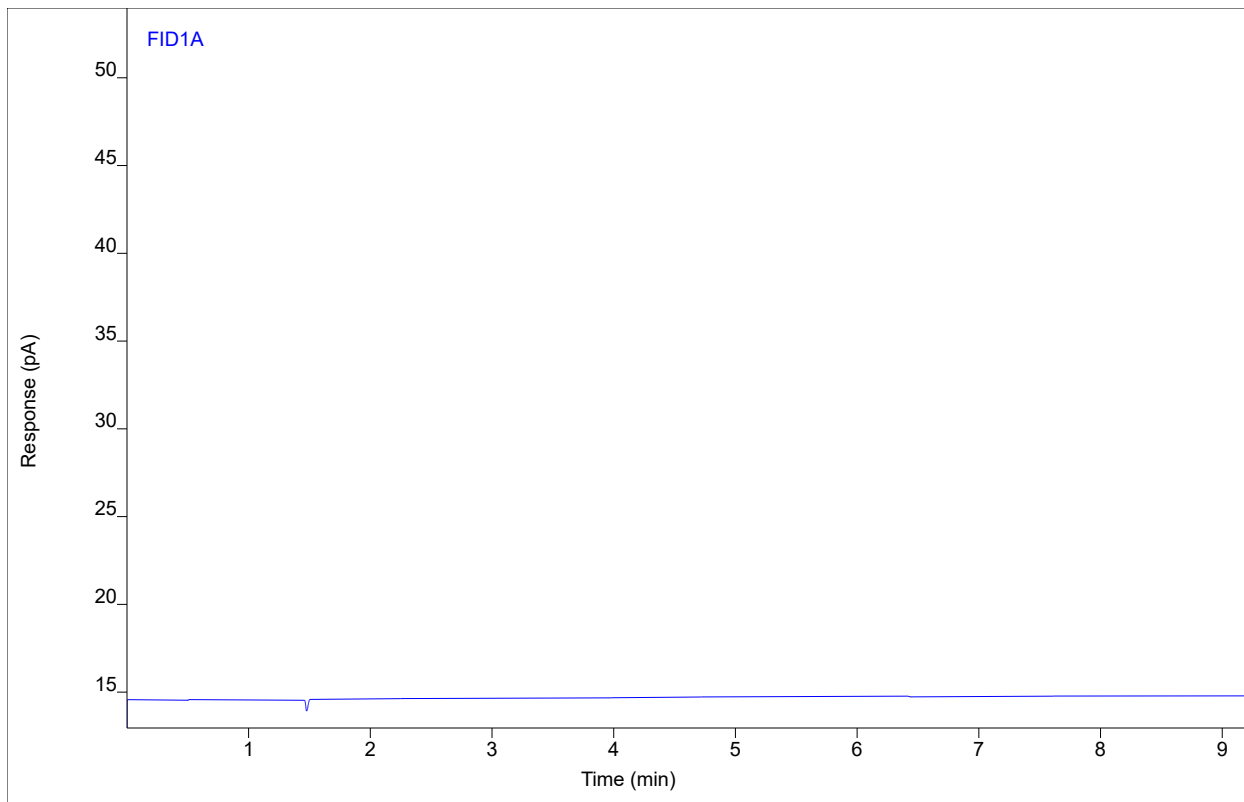


# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3015 ver.1  
Inj Data File 001F1601.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 2:17 AM  
File Modified 10/31/2022 8:36 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



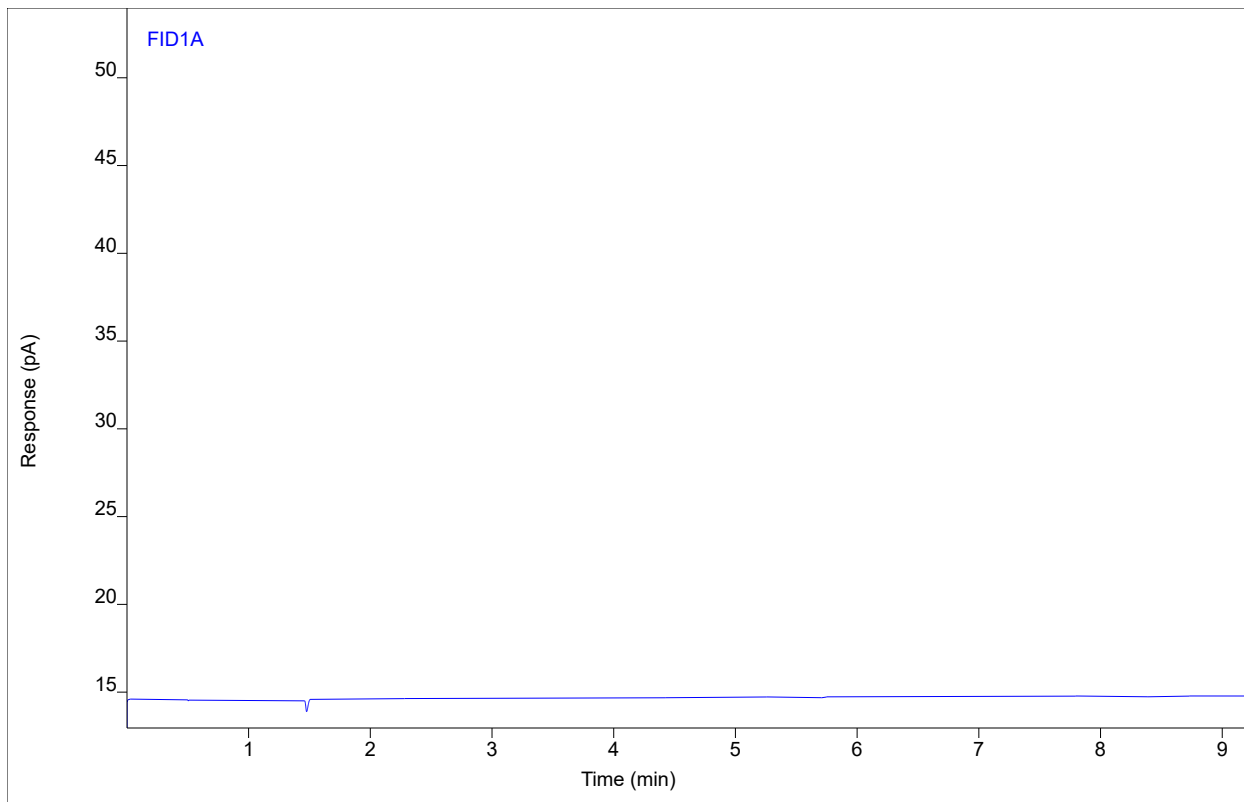
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3015 ver.1  
Inj Data File 001F1602.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 2:31 AM  
File Modified 10/31/2022 8:36 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



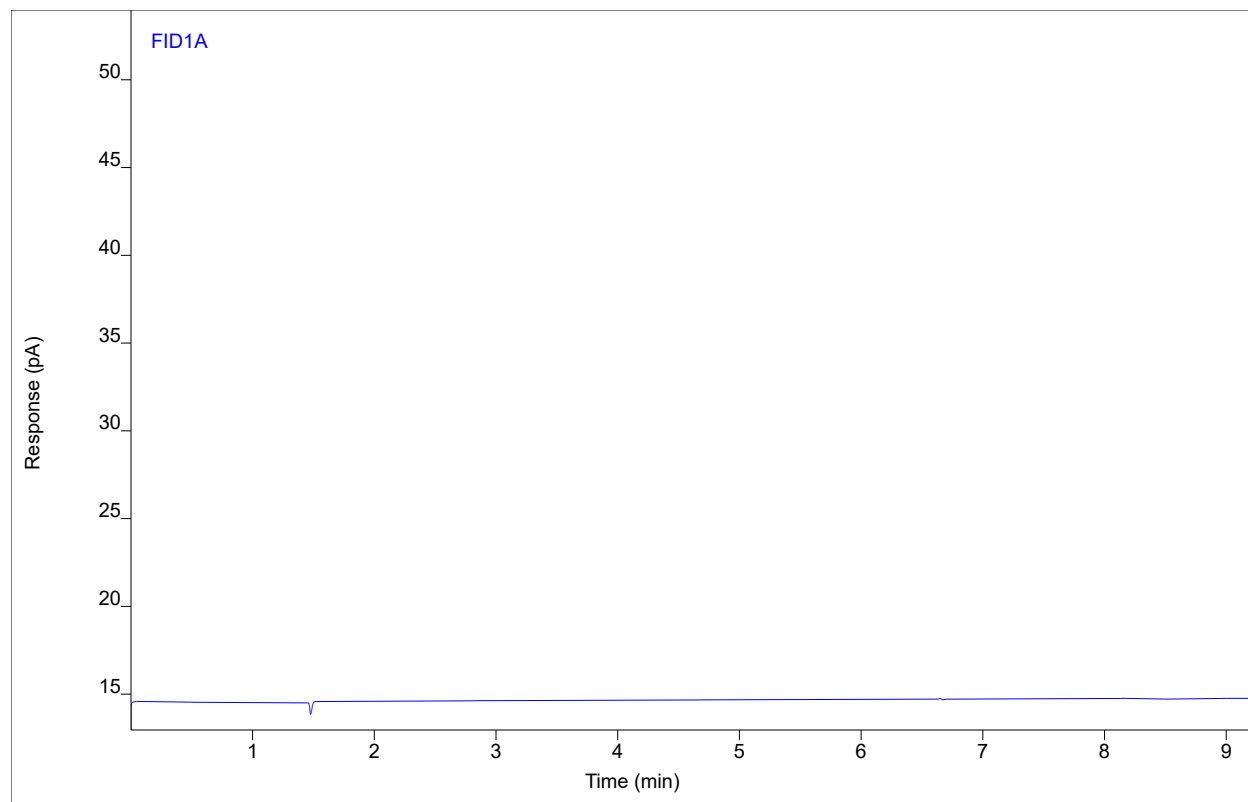
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

Sample Name Zero Air Blank  
Sequence Name EDITHP3015 ver.1  
Inj Data File 001F1603.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 2:45 AM  
File Modified 10/31/2022 8:36 AM  
Instrument Edith  
Operator Nicolas Benoit

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 1  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



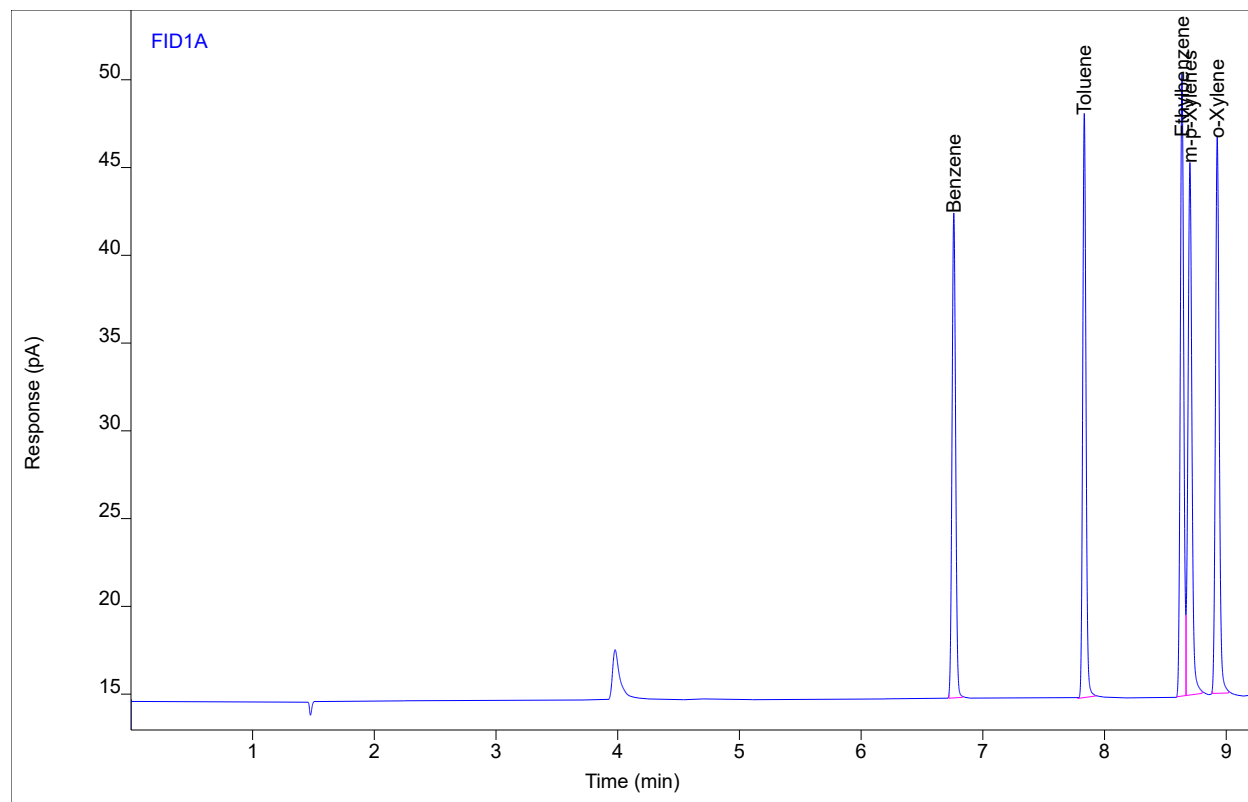
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene		(6.77)				1		
Toluene		(7.84)				1		
Ethylbenzene		(8.64)				1		
m-p-Xylenes		(8.71)				1		
o-Xylene		(8.93)				1		

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F1802.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 4:42 AM  
File Modified 10/31/2022 8:37 AM  
Instrument Edith  
Operator Nicolas Benoit

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



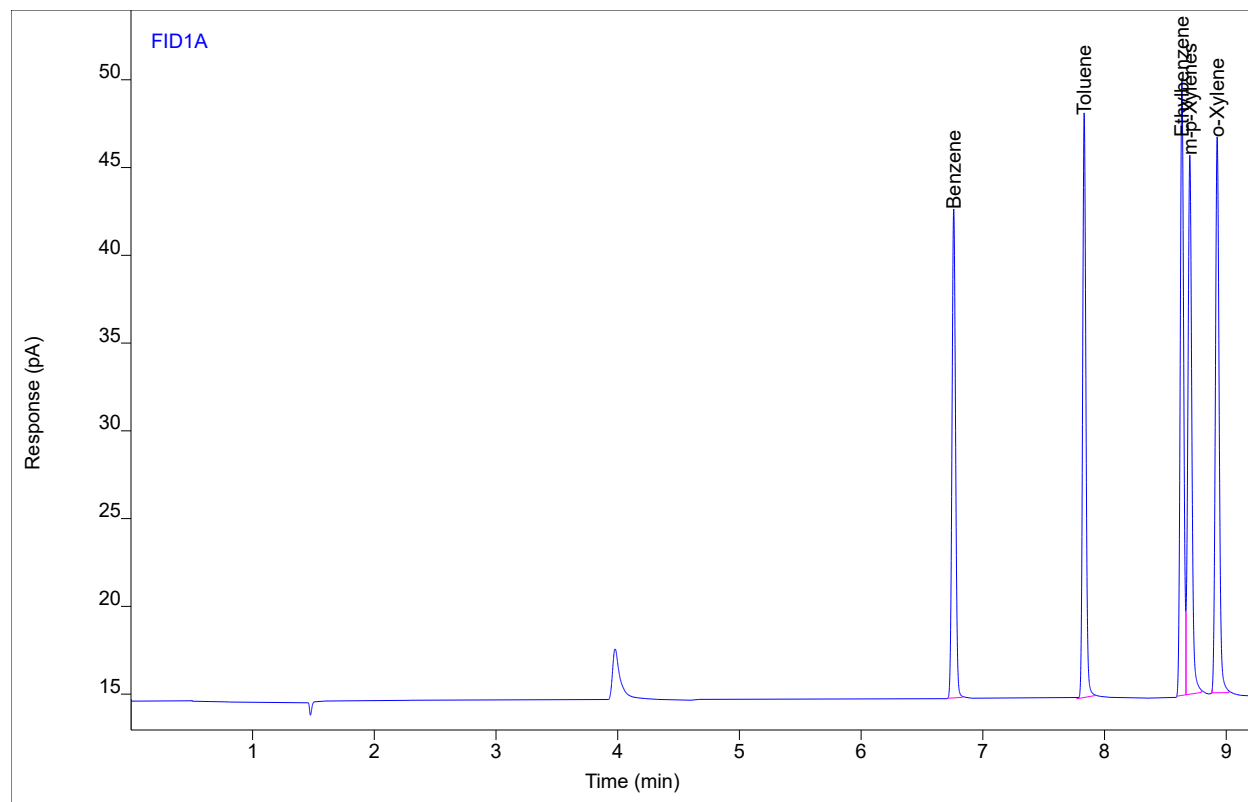
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7273	27.5730	39.7768	1	39.7768	ppm
Toluene	MM	7.83	62.3059	33.3943	37.4833	1	37.4833	ppm
Ethylbenzene	BV	8.64	69.4027	35.3687	37.3030	1	37.3030	ppm
m-p-Xylenes	VB	8.70	67.9641	30.2686	39.3708	1	39.3708	ppm
o-Xylene	BB	8.93	67.8135	31.6212	38.9445	1	38.9445	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F1803.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 5:01 AM  
File Modified 10/31/2022 8:37 AM  
Instrument Edith  
Operator Nicolas Benoit

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



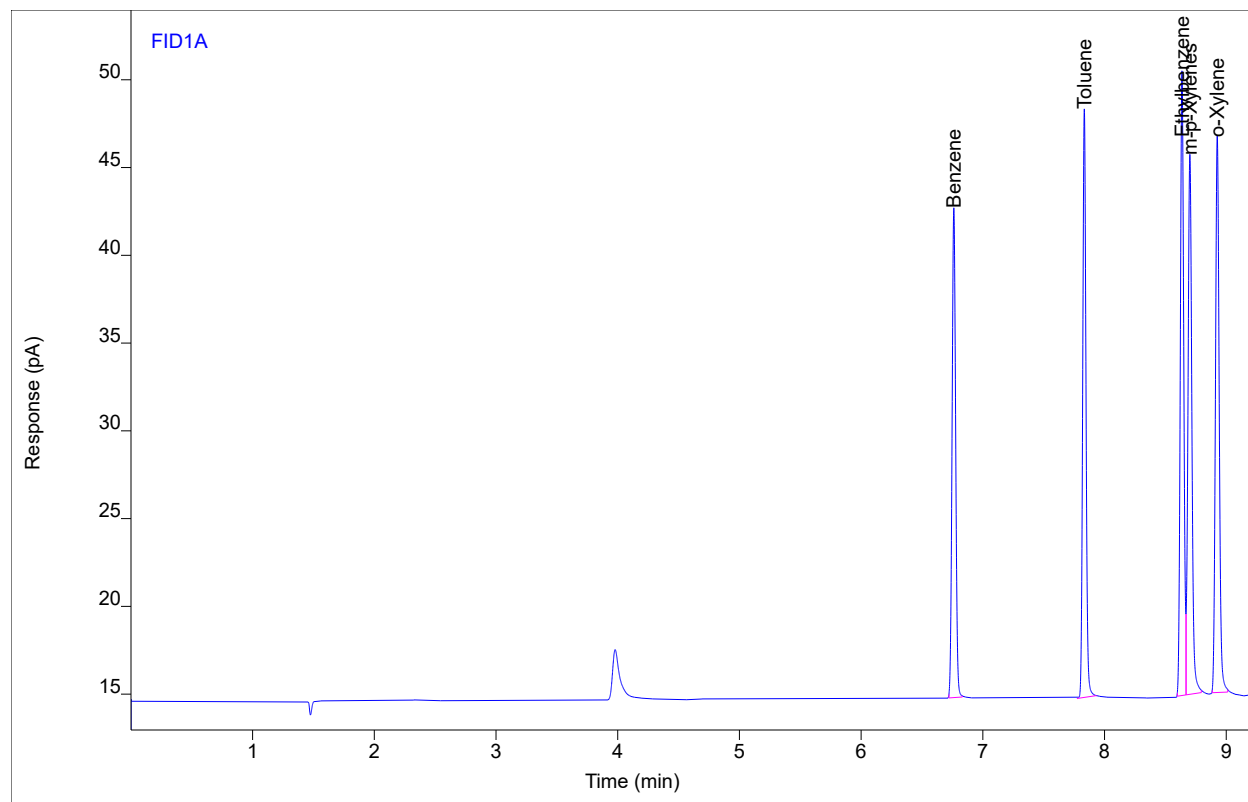
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.6942	27.7878	39.7537	1	39.7537	ppm
Toluene	MM	7.83	62.3457	33.3503	37.5071	1	37.5071	ppm
Ethylbenzene	BV	8.64	69.2063	35.0528	37.1989	1	37.1989	ppm
m-p-Xylenes	VB	8.70	68.6020	30.6416	39.7353	1	39.7353	ppm
o-Xylene	BB	8.93	68.3689	31.6166	39.2590	1	39.2590	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3015 ver.1  
Inj Data File 003F1804.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 10/28/2022 5:20 AM  
File Modified 10/31/2022 8:37 AM  
Instrument Edith  
Operator Nicolas Benoit

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



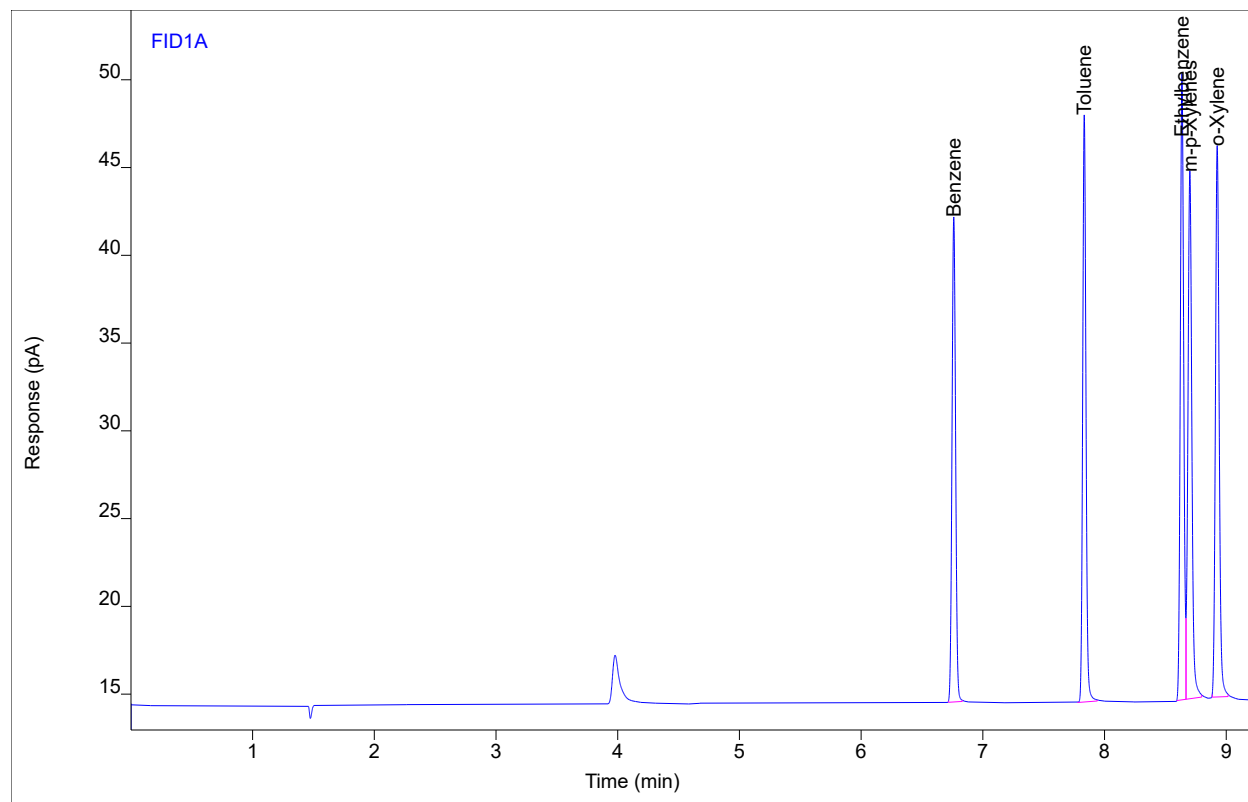
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7951	27.8344	39.8241	1	39.8241	ppm
Toluene	MM	7.83	62.5012	33.6279	37.5997	1	37.5997	ppm
Ethylbenzene	BV	8.64	69.7154	35.4634	37.4689	1	37.4689	ppm
m-p-Xylenes	VB	8.70	68.3481	30.7119	39.5902	1	39.5902	ppm
o-Xylene	BB	8.93	68.1538	31.6026	39.1372	1	39.1372	ppm

# Chromatogram Report

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0602.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:20 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



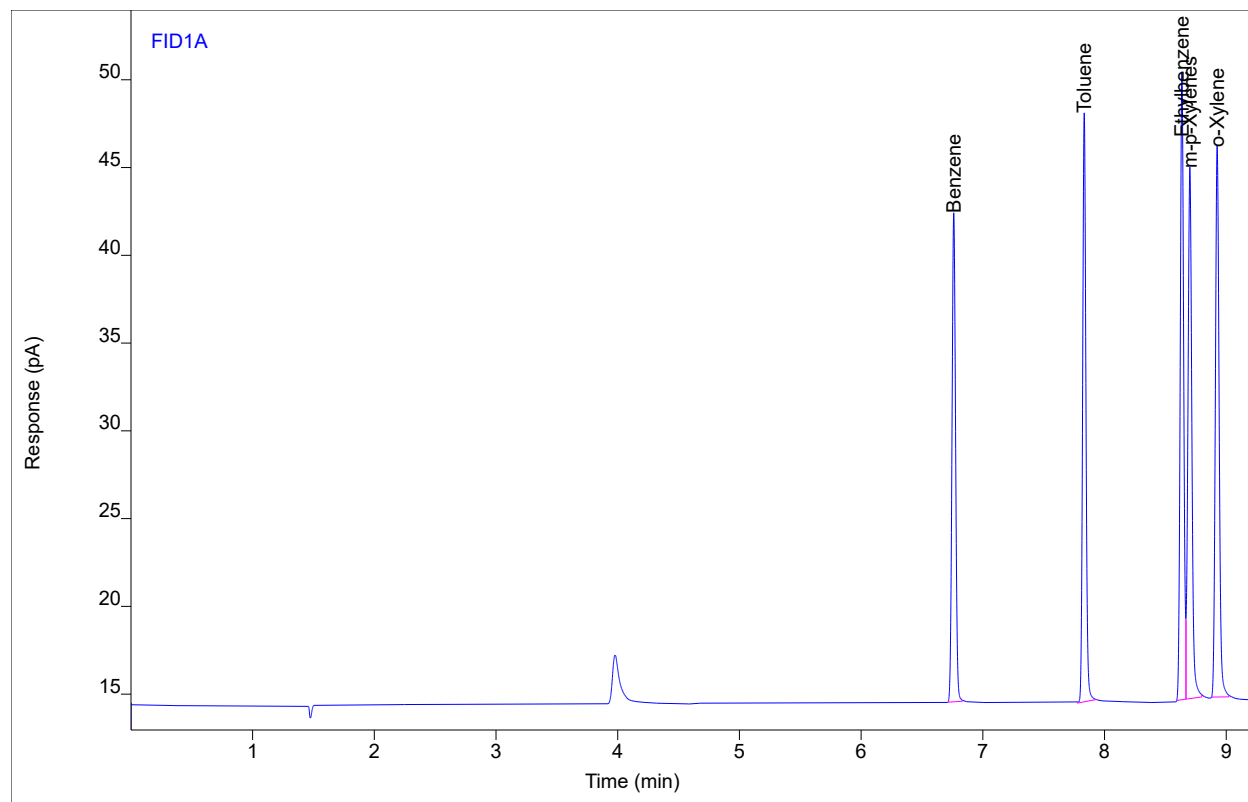
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.5447	27.5617	39.6494	1	39.6494	ppm
Toluene	MM	7.83	62.4751	33.5360	37.5842	1	37.5842	ppm
Ethylbenzene	BV	8.64	69.2432	35.5684	37.2184	1	37.2184	ppm
m-p-Xylenes	VB	8.70	67.1991	30.0202	38.9338	1	38.9338	ppm
o-Xylene	BB	8.93	67.1687	31.3586	38.5795	1	38.5795	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0603.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:39 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7925	27.7814	39.8223	1	39.8223	ppm
Toluene	MM	7.83	62.5341	33.6707	37.6193	1	37.6193	ppm
Ethylbenzene	BV	8.64	69.7550	35.6973	37.4900	1	37.4900	ppm
m-p-Xylenes	VB	8.70	67.6666	30.2150	39.2008	1	39.2008	ppm
o-Xylene	BB	8.93	67.8203	31.3385	38.9483	1	38.9483	ppm

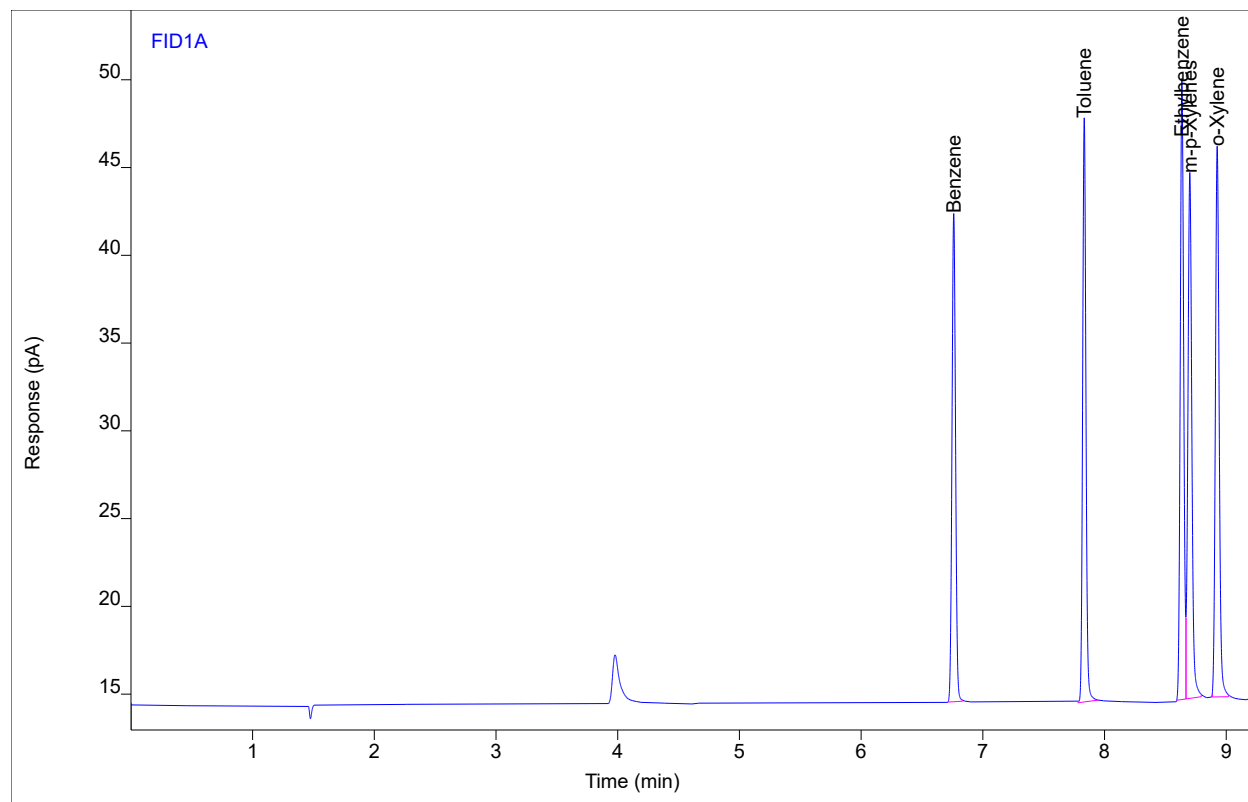


# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F0604.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 4:58 AM  
File Modified 11/2/2022 7:53 AM  
Instrument Edith  
Operator Ivy Somocurcio

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



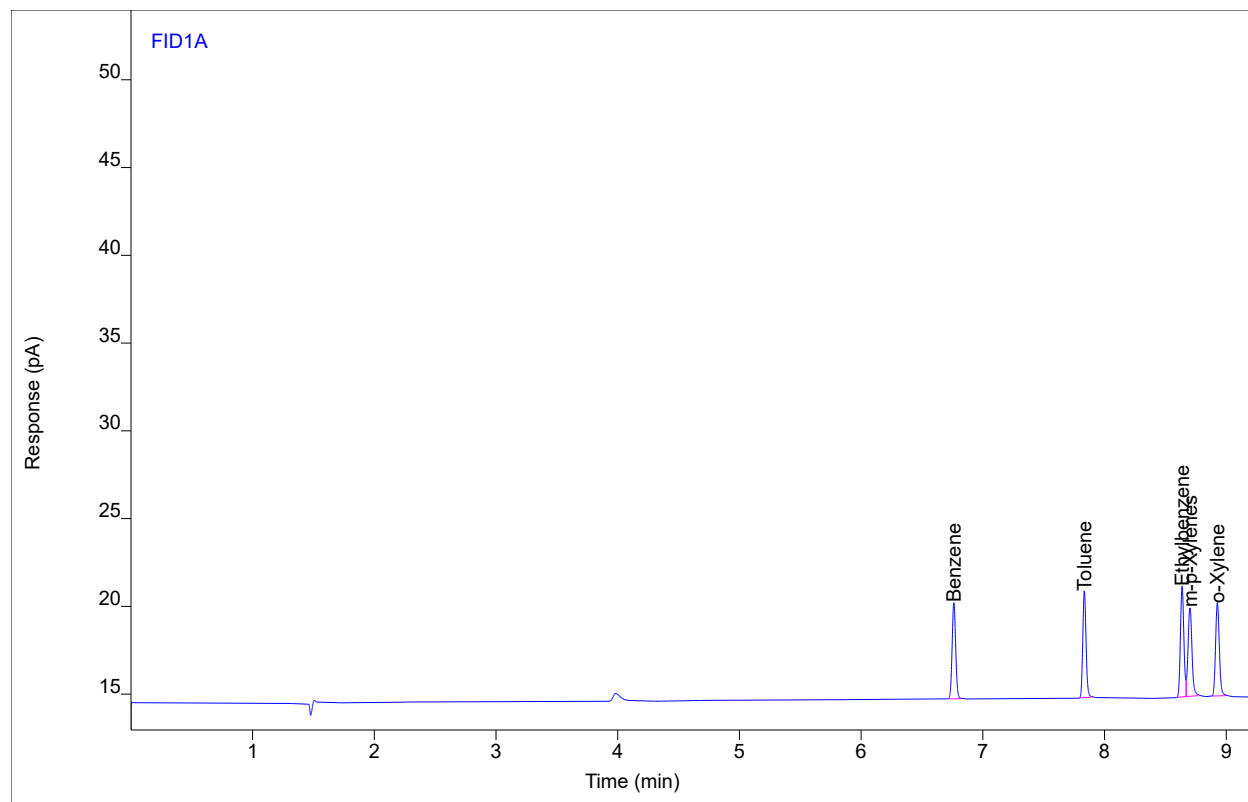
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.4860	27.7538	39.6085	1	39.6085	ppm
Toluene	MM	7.83	62.4111	33.3535	37.5461	1	37.5461	ppm
Ethylbenzene	BV	8.64	69.3350	35.3237	37.2671	1	37.2671	ppm
m-p-Xylenes	VB	8.70	67.2024	29.8953	38.9357	1	38.9357	ppm
o-Xylene	BB	8.93	67.3586	31.3058	38.6870	1	38.6870	ppm

# Chromatogram Report

Sample Name 1022-165.West Primary R2 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 005F1001.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 8:01 PM  
File Modified 11/2/2022 7:54 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 1 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



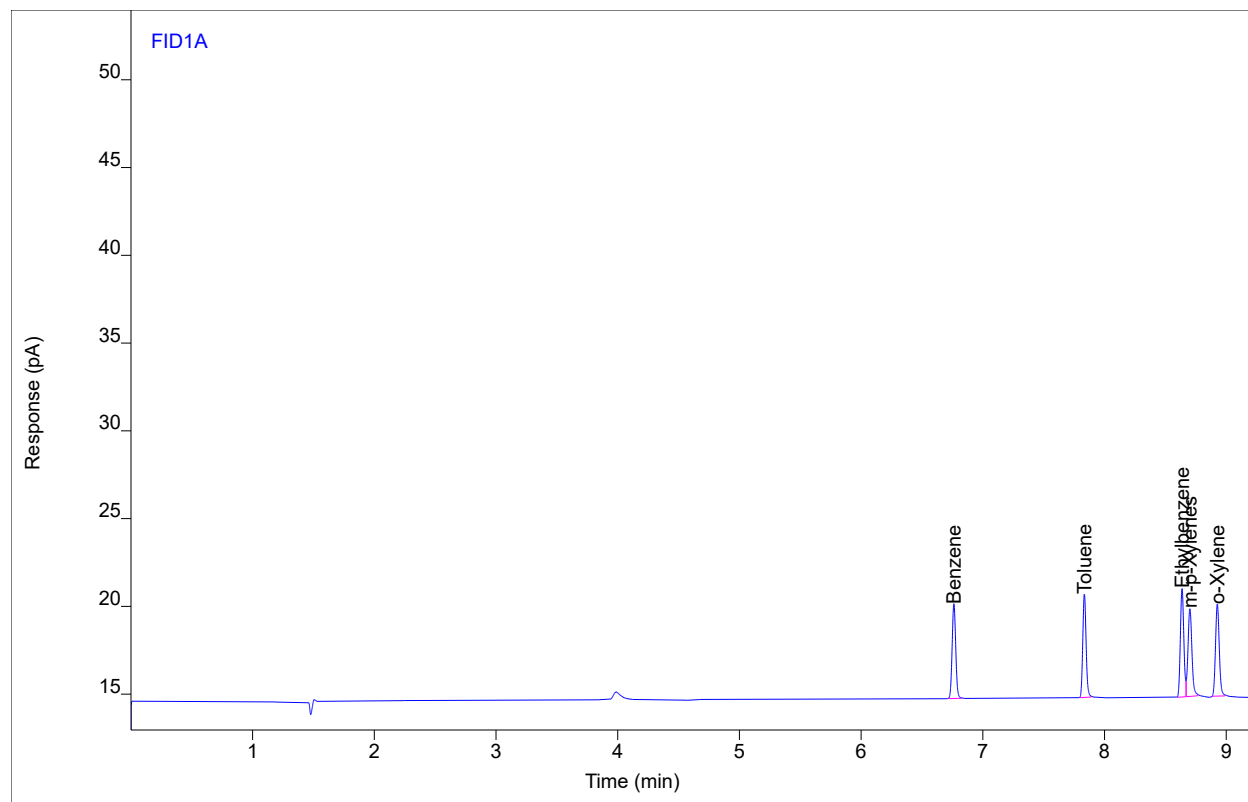
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	11.1418	5.49662	7.96667	1	7.96667	ppm
Toluene	BB	7.83	11.3293	6.08415	7.09738	1	7.09738	ppm
Ethylbenzene	BV	8.64	12.3396	6.30297	7.03100	1	7.03100	ppm
m-p-Xylenes	VB	8.70	11.4936	5.06273	7.11019	1	7.11019	ppm
o-Xylene	BB	8.93	11.3957	5.30832	7.00364	1	7.00364	ppm

# Chromatogram Report

Sample Name 1022-165.West Primary R2 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 005F1002.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 8:15 PM  
File Modified 11/2/2022 7:54 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 2 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



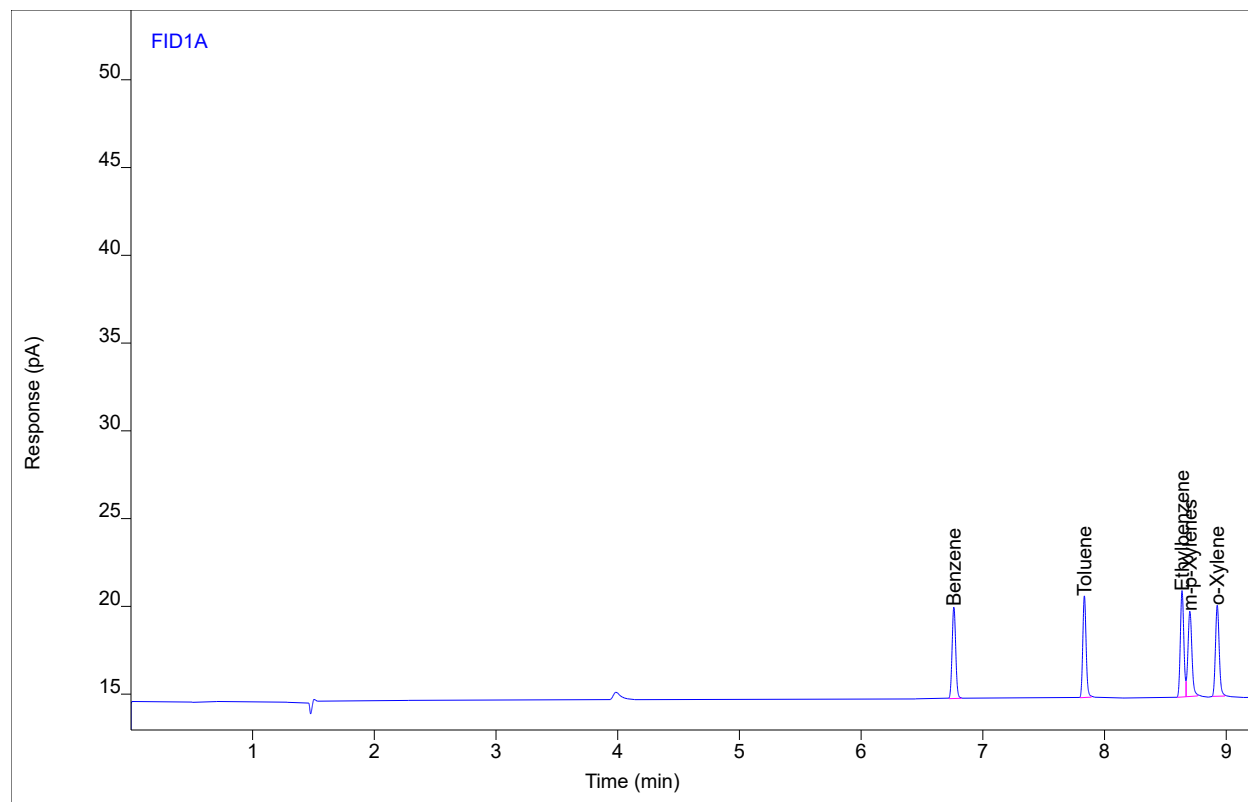
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	11.0514	5.39176	7.90353	1	7.90353	ppm
Toluene	BB	7.84	11.1635	5.88801	6.99857	1	6.99857	ppm
Ethylbenzene	BV	8.64	12.1636	6.18624	6.93765	1	6.93765	ppm
m-p-Xylenes	VB	8.70	11.3303	4.99918	7.01687	1	7.01687	ppm
o-Xylene	BB	8.93	11.2649	5.23845	6.92956	1	6.92956	ppm

# Chromatogram Report

Sample Name 1022-165.West Primary R2 SP.Bag  
Sequence Name EDITHP3017 ver.1  
Inj Data File 005F1003.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/1/2022 8:29 PM  
File Modified 11/2/2022 7:54 AM  
Instrument Edith  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume 250  
Injection 3 of 3  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
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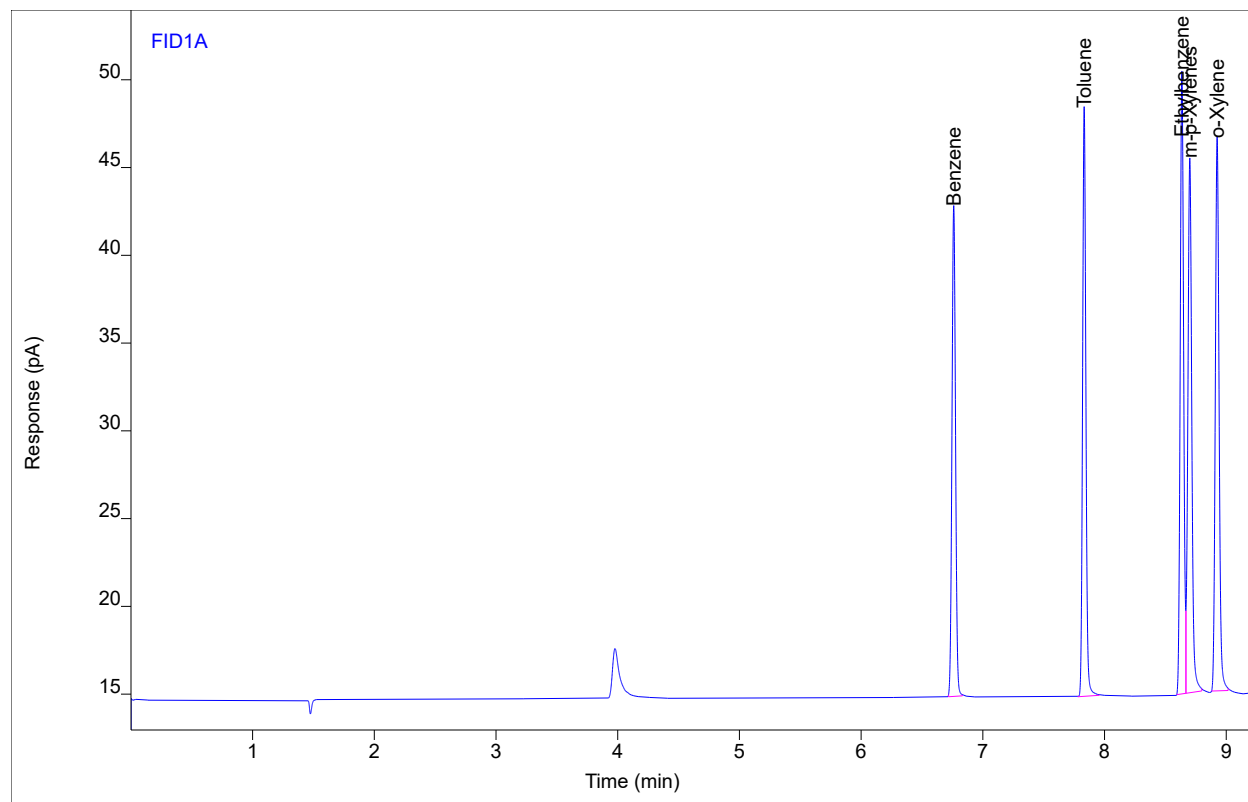
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	10.8034	5.23539	7.73054	1	7.73054	ppm
Toluene	BB	7.84	10.9810	5.79441	6.88974	1	6.88974	ppm
Ethylbenzene	BV	8.64	12.0018	6.04449	6.85183	1	6.85183	ppm
m-p-Xylenes	VB	8.70	11.1192	4.87153	6.89628	1	6.89628	ppm
o-Xylene	BB	8.93	11.1040	5.17553	6.83849	1	6.83849	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1502.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 4:31 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 2 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



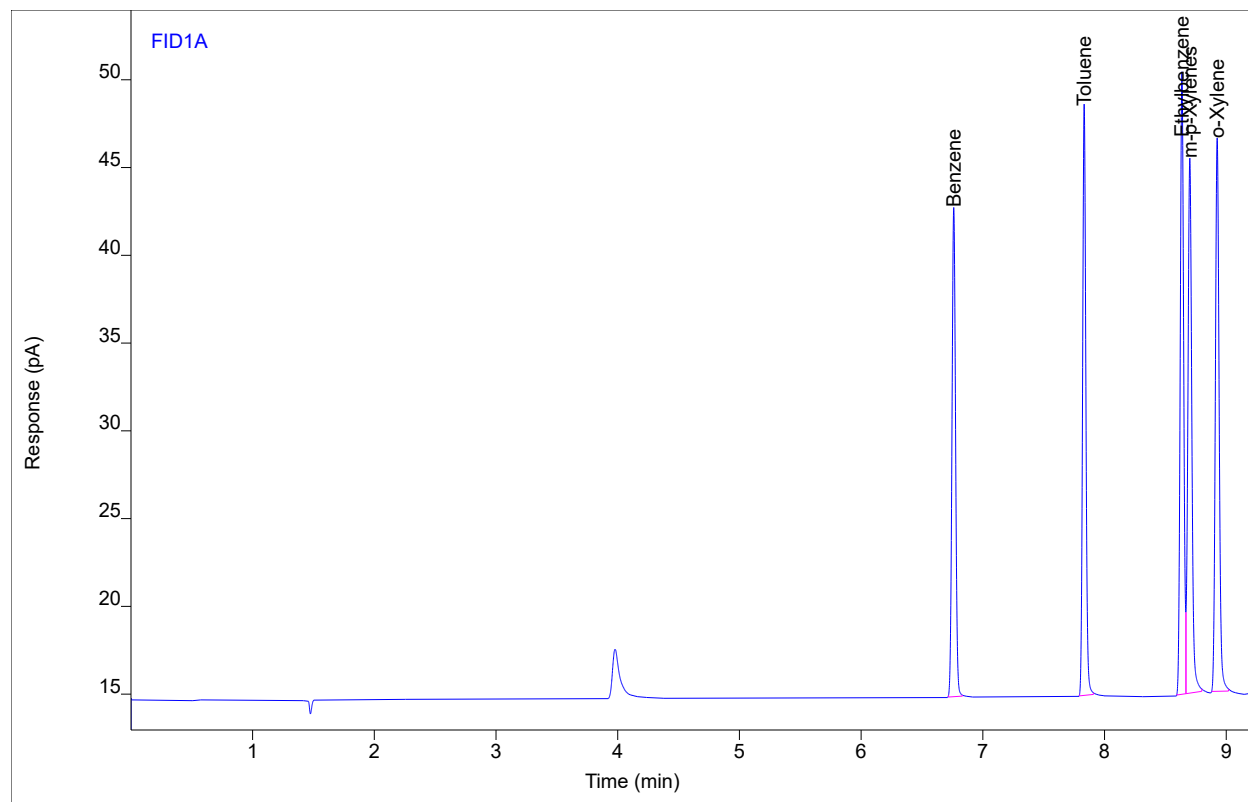
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.8782	27.8958	39.8822	1	39.8822	ppm
Toluene	MM	7.83	62.9730	33.7104	37.8810	1	37.8810	ppm
Ethylbenzene	BV	8.64	69.4043	35.4211	37.3039	1	37.3039	ppm
m-p-Xylenes	VB	8.70	68.3045	30.4004	39.5653	1	39.5653	ppm
o-Xylene	BB	8.93	67.9497	31.4798	39.0216	1	39.0216	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1503.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 4:50 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 3 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



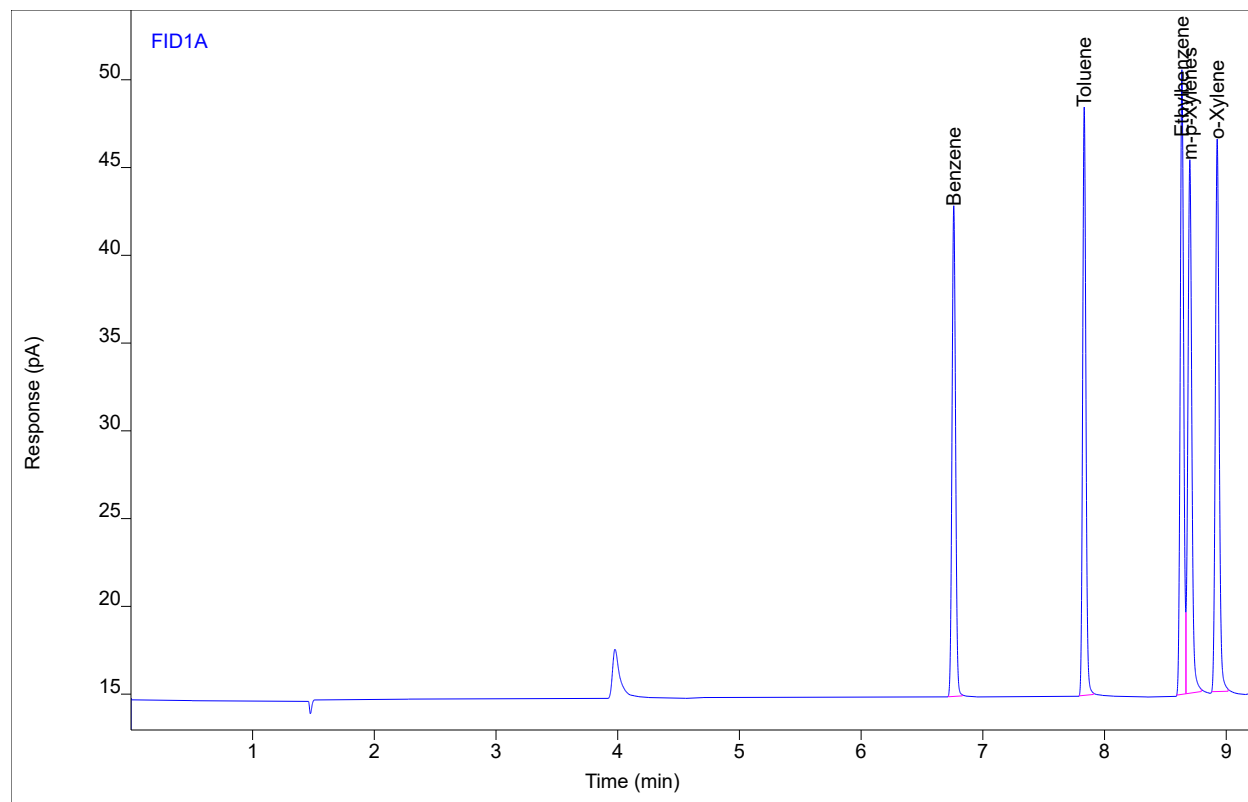
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.9114	27.7957	39.9053	1	39.9053	ppm
Toluene	BB	7.83	62.2711	33.5711	37.4626	1	37.4626	ppm
Ethylbenzene	BV	8.64	69.6872	35.3743	37.4540	1	37.4540	ppm
m-p-Xylenes	VB	8.70	68.3490	30.4134	39.5907	1	39.5907	ppm
o-Xylene	BB	8.93	68.1684	31.4582	39.1454	1	39.1454	ppm

# Chromatogram Report

# Enthalpy Analytical

Sample Name Edithp2924 #B3 ENV(1=600,5=400)  
Sequence Name EDITHP3017 ver.1  
Inj Data File 003F1504.D  
File Location GC/2022/Edith/Quarter 4  
Injection Date 11/2/2022 5:09 AM  
File Modified 11/2/2022 7:55 AM  
Instrument Edith  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 3  
Injection Volume 250  
Injection 4 of 4  
Acquisition Method AQ\_EDITHP503\_HRVOC.M  
Analysis Method EDITHP2846F\_ABTEX.M  
Method Modified 2/12/2022 8:13 AM  
Printed 11/2/2022 9:19 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Benzene	BB	6.76	56.7394	27.8775	39.7853	1	39.7853	ppm
Toluene	BB	7.83	62.0351	33.3830	37.3219	1	37.3219	ppm
Ethylbenzene	BV	8.64	69.6628	35.5028	37.4410	1	37.4410	ppm
m-p-Xylenes	VB	8.70	67.8265	30.3375	39.2922	1	39.2922	ppm
o-Xylene	BB	8.93	67.8397	31.3949	38.9593	1	38.9593	ppm

=====

Calibration Table

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Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM

Rel. Reference Window : 0.000 %  
 Abs. Reference Window : 0.100 min  
 Rel. Non-ref. Window : 0.000 %  
 Abs. Non-ref. Window : 0.050 min  
 Uncalibrated Peaks : Separately calculated (see below)  
 Partial Calibration : Yes, identified peaks are recalibrated  
 Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear  
 Origin : Connected  
 Weight : Quadratic (Amnt)

Recalibration Settings:  
 Average Response : Average all calibrations  
 Average Retention Time: Floating Average New 75%

Calibration Report Options :  
 Printout of recalibrations within a sequence:  
 Calibration Table after Recalibration  
 Normal Report after Recalibration  
 If the sequence is done with bracketing:  
 Results of first cycle (ending previous bracket)

Signal 1: FID1 A, Front Signal

Uncalibrated Peaks : compound name not specified

Signal 2: FID3 B, Back Signal

Uncalibrated Peaks : not reported

RetTime	Lvl	Amount	Area	Amt/Area	Ref Grp Name
[min]	Sig	[ppm]			
3.984	1 21	3.64000	5.71966e-1	6.36401	Acetone
	22	19.90000	4.37247	4.55120	
	23	39.80000	9.50873	4.18563	
	24	99.60000	26.80922	3.71514	
6.768	1 21	3.70000	5.03505	7.34848e-1	Benzene
	22	20.20000	28.44162	7.10227e-1	
	23	40.50000	57.54820	7.03758e-1	
	24	101.20000	146.23926	6.92017e-1	
7.839	1 21	3.65000	5.55869	6.56630e-1	Toluene
	22	20.00000	32.54202	6.14590e-1	
	23	40.00000	66.36354	6.02741e-1	
	24	99.90000	169.24173	5.90280e-1	
8.642	1 21	3.60000	5.88668	6.11551e-1	Ethylbenzene
	22	19.70000	35.68923	5.51987e-1	
	23	39.40000	73.38292	5.36910e-1	
	24	98.40000	186.75874	5.26883e-1	
8.707	1 21	3.69000	5.52648	6.67694e-1	m-p-Xylenes
	22	20.20000	33.66933	5.99953e-1	
	23	40.40000	69.90140	5.77957e-1	
	24	100.88000	178.43660	5.65355e-1	
8.933	1 21	3.69000	5.56491	6.63083e-1	o-Xylene
	22	20.20000	33.86403	5.96503e-1	
	23	40.30000	70.42869	5.72210e-1	
	24	100.80000	180.10786	5.59665e-1	

EA Job # 1022-165R 180 of 305



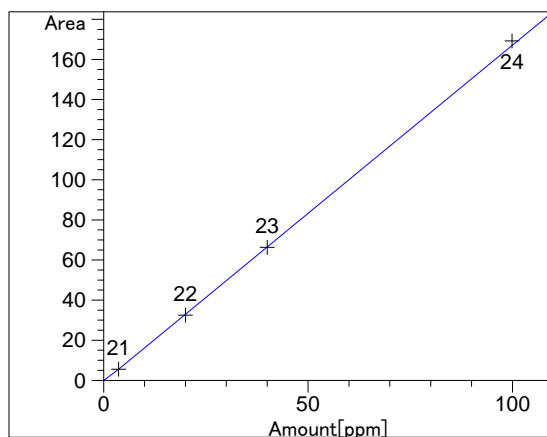
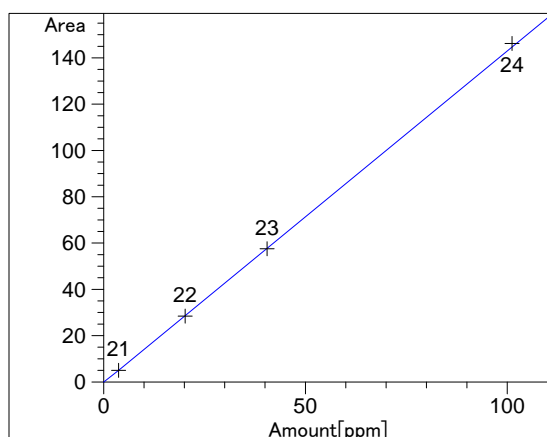
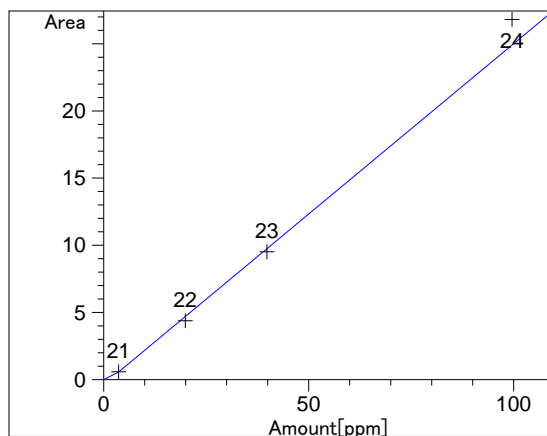
1 Warnings or Errors :

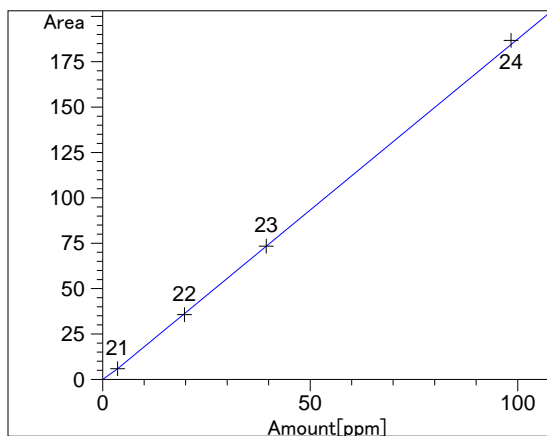
Warning : Cal. table open and changed while report was generated.

Peak Sum Table

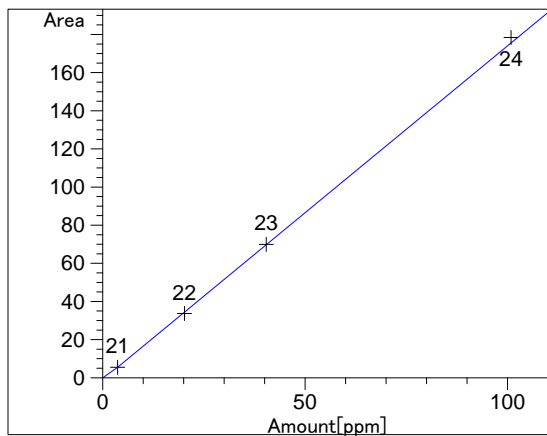
\*\*\*No Entries in table\*\*\*

Calibration Curves

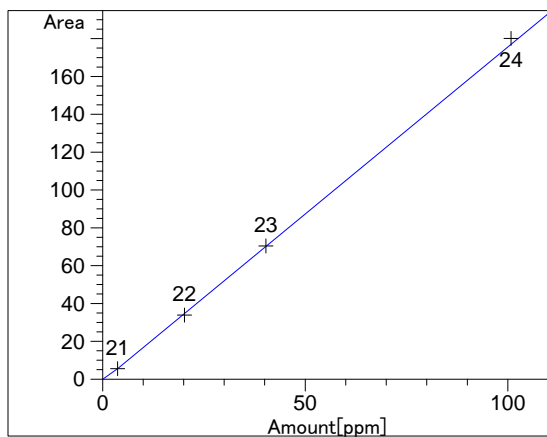




Ethylbenzene at exp. RT: 8.642  
FID1 A, Front Signal  
Correlation: 0.99993  
Residual Std. Dev.: 1.59201  
Formula:  $y = mx + b$   
m: 1.88501  
b:  $-9.13959e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.033394  
Level 23 : 0.008349  
Level 24 : 0.001338

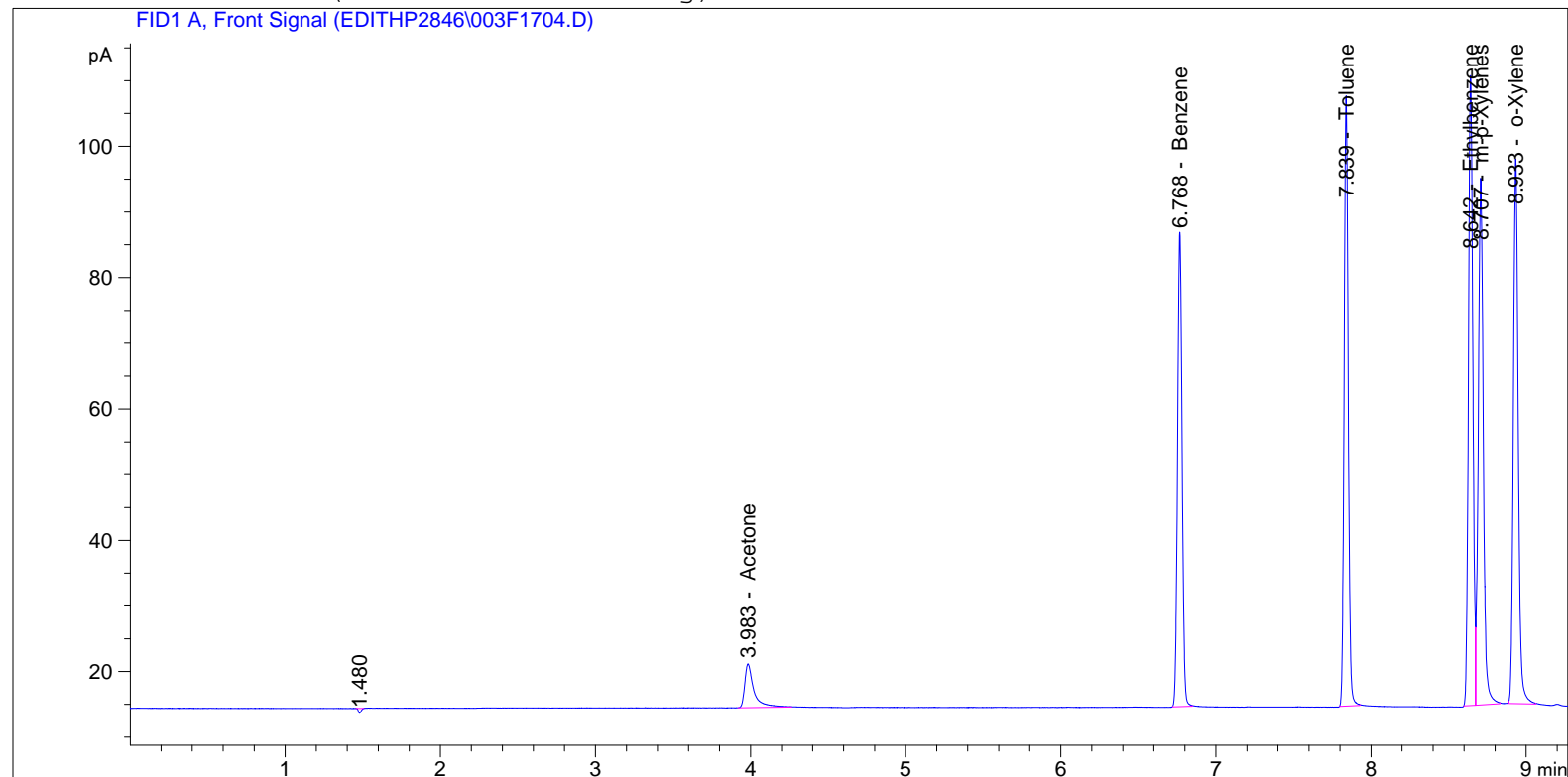


m-p-Xylenes at exp. RT: 8.707  
FID1 A, Front Signal  
Correlation: 0.99985  
Residual Std. Dev.: 2.05241  
Formula:  $y = mx + b$   
m: 1.75045  
b:  $-9.52382e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.03337  
Level 23 : 0.008342  
Level 24 : 0.001338



o-Xylene at exp. RT: 8.933  
FID1 A, Front Signal  
Correlation: 0.99982  
Residual Std. Dev.: 2.23435  
Formula:  $y = mx + b$   
m: 1.76632  
b:  $-9.74936e-1$   
x: Amount  
y: Area  
Calibration Level Weights:  
Level 21 : 1  
Level 22 : 0.03337  
Level 23 : 0.008384  
Level 24 : 0.00134

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:49:05 PM      Inj       :    4
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
=====
Sorted By       : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier      : 1.0000
Dilution        : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.983	BB	27.12137	3.99233	108.27738		Acetone
6.768	BB	146.71381	6.99120e-1	102.57060		Benzene
7.839	BB	169.96719	5.98102e-1	101.65770		Toluene
8.642	BV	187.63574	5.33085e-1	100.02577		Ethylbenzene
8.707	VB	180.11488	5.74304e-1	103.44065		m-p-Xylenes
8.933	BB	181.34390	5.69193e-1	103.21966		o-Xylene

Totals : 619.19177

EA Job # 1022-165R 183 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.29950e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

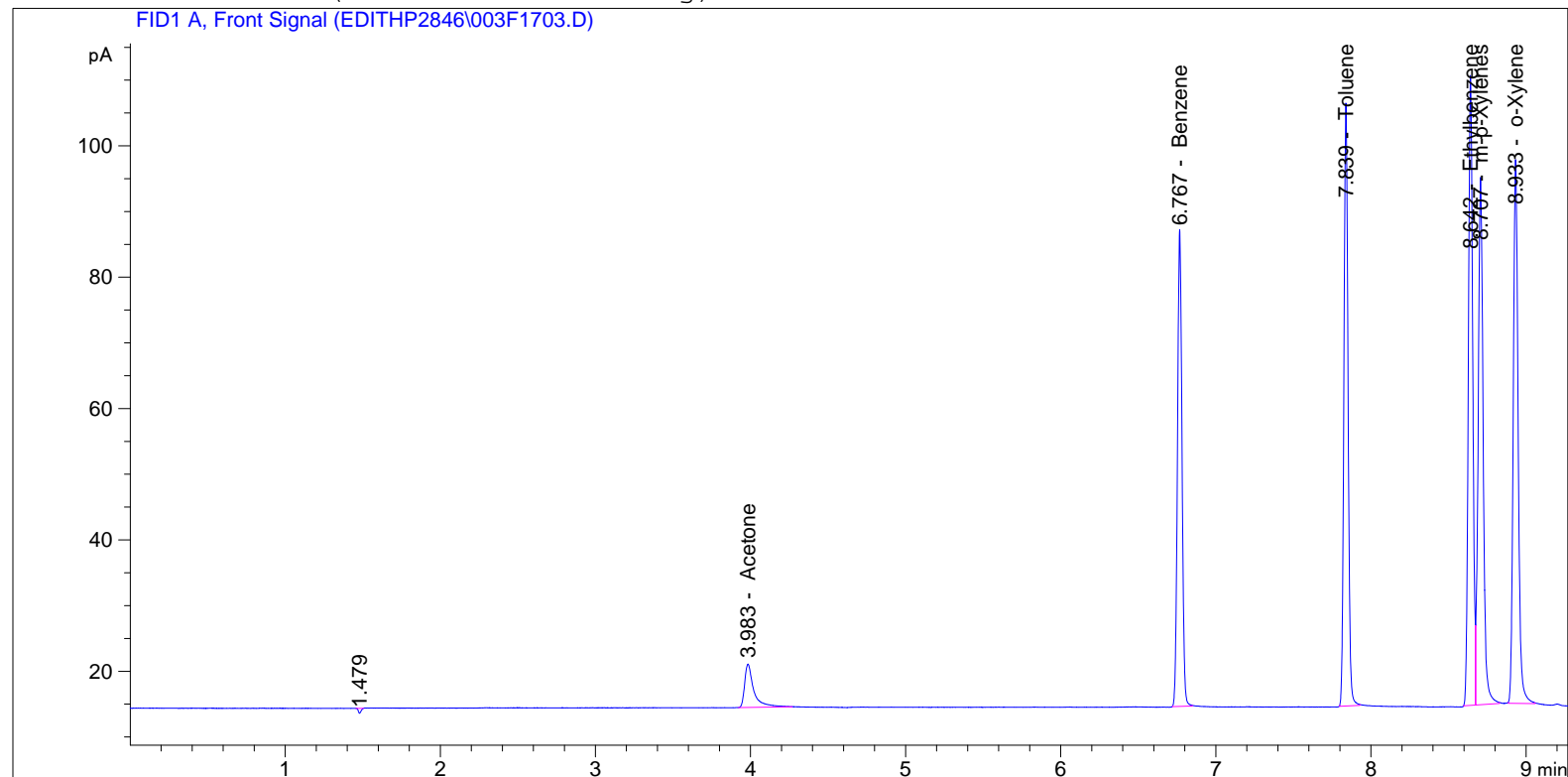
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	27.12137	108.2774
Benzene	146.71381	102.5706
Toluene	169.96719	101.6577
Ethylbenzene	187.63574	100.0258
m-p-Xylenes	180.11488	103.4406
o-Xylene	181.34390	103.2197

Totals : 619.1918

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:33:56 PM      Inj       :    3
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



```
=====
                        External Standard Report
=====
```

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.983	BB	27.04018	3.99249	107.95754		Acetone
6.767	BB	146.71400	6.99120e-1	102.57074		Benzene
7.839	BB	170.07204	5.98101e-1	101.72020		Toluene
8.642	BV	188.00327	5.33080e-1	100.22074		Ethylbenzene
8.707	VB	180.17007	5.74303e-1	103.47218		m-p-Xylenes
8.933	BB	181.91898	5.69183e-1	103.54524		o-Xylene

Totals : 619.48664

EA Job # 1022-165R 185 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.17730e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

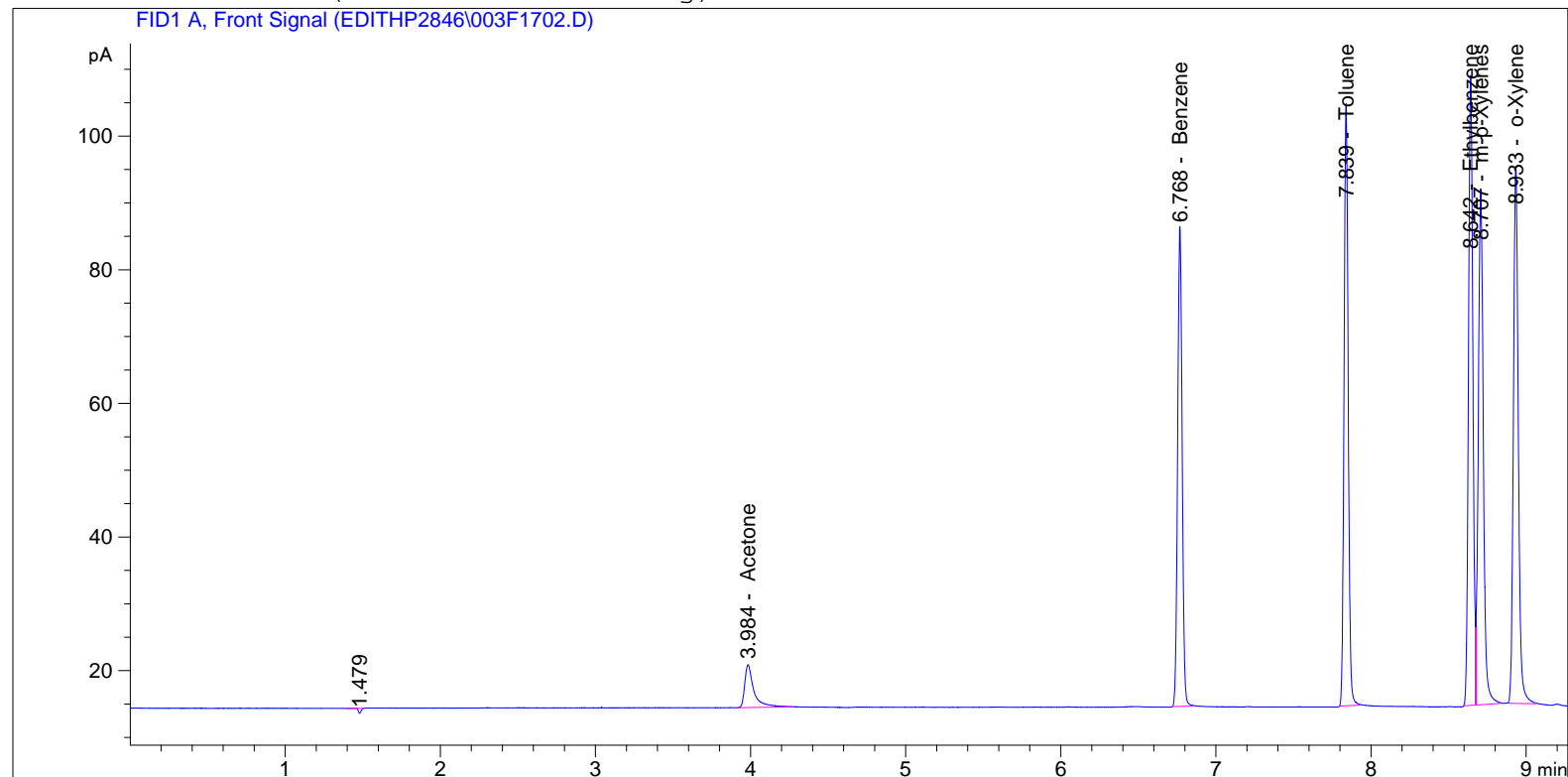
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	27.04018	107.9575
Benzene	146.71400	102.5707
Toluene	170.07204	101.7202
Ethylbenzene	188.00327	100.2207
m-p-Xylenes	180.17007	103.4722
o-Xylene	181.91898	103.5452

Totals : 619.4866

\*\*\* End of Report \*\*\*

```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   17
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 10:18:39 PM      Inj       :    2
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



External Standard Report

```
=====
Sorted By           : Signal
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM
Multiplier          : 1.0000
Dilution            : 1.0000
Use Multiplier & Dilution Factor with ISTDs
=====
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.984	BB	26.26610	3.99404	104.90783		Acetone
6.768	BB	145.28996	6.99133e-1	101.57703		Benzene
7.839	BB	167.68596	5.98129e-1	100.29791		Toluene
8.642	BV	184.63721	5.33127e-1	98.43504		Ethylbenzene
8.707	VB	175.02484	5.74392e-1	100.53279		m-p-Xylenes
8.933	BB	177.06071	5.69267e-1	100.79474		o-Xylene

Totals : 606.54535

EA Job # 1022-165R 187 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.62701e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

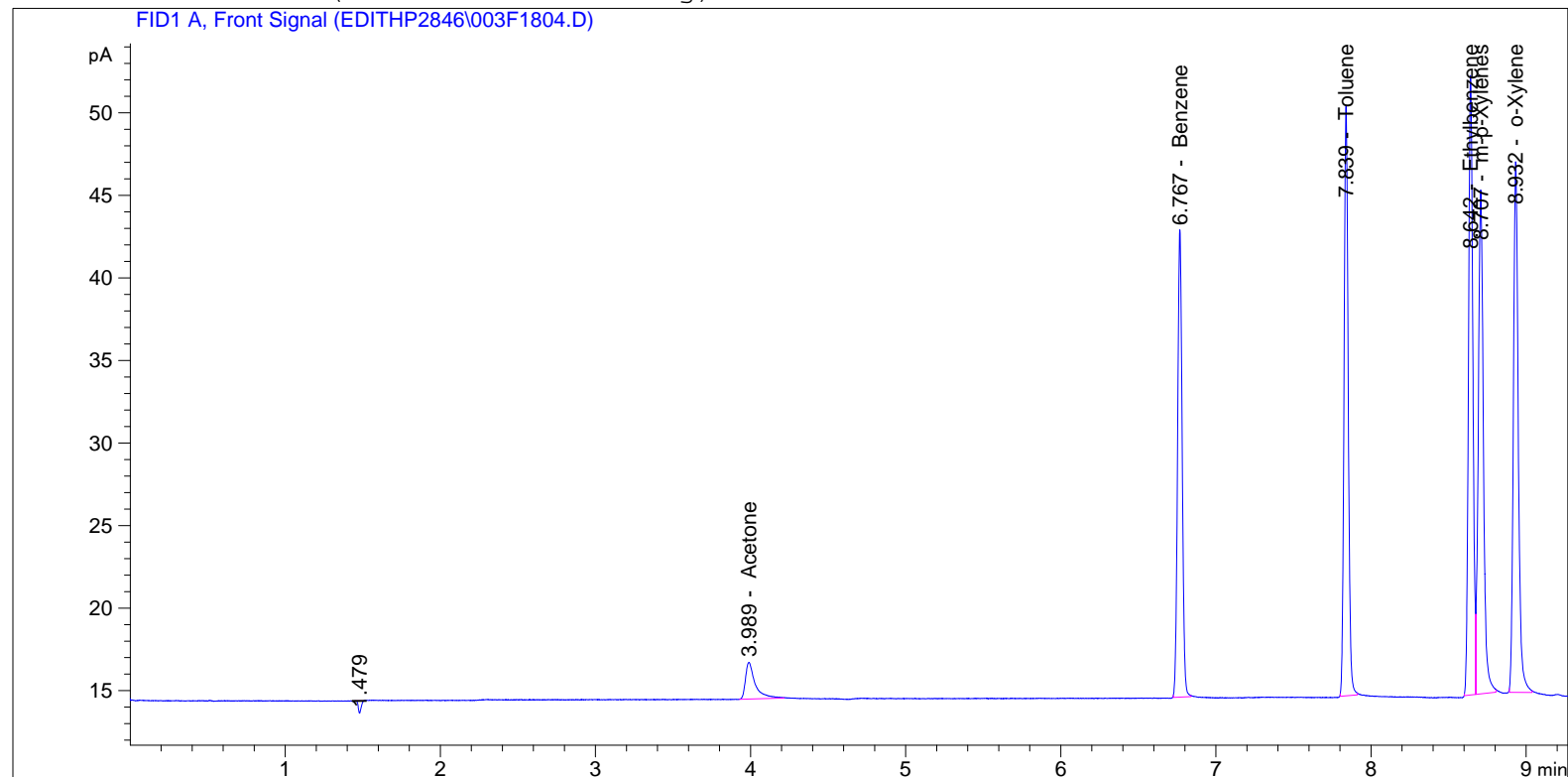
Name	Total Area [pA*s]	Amount [ppm]
Acetone	26.26610	104.9078
Benzene	145.28996	101.5770
Toluene	167.68596	100.2979
Ethylbenzene	184.63721	98.4350
m-p-Xylenes	175.02484	100.5328
o-Xylene	177.06071	100.7947

Totals : 606.5454

\*\*\* End of Report \*\*\*



```
=====
Acq. Operator   : Nicholas Traversa          Seq. Line :   18
Acq. Instrument : Edith                     Location  : Vial 3
Injection Date  : 2/11/2022 11:49:38 PM      Inj       :    4
                                           Inj Volume: 250 µl
Acq. Method     : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M
Last changed    : 2/12/2022 8:13:38 AM by Nicholas Traversa
ECM Server      : http://s022vas01/Enthalpy
ECM Operator    : Nicholas Traversa
ECM Path        : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip
ECM Version     : 1 (modified after loading)
=====
```



```
=====
External Standard Report
=====
```

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.61018	4.08813	39.28772		Acetone
6.767	BB	57.60721	7.01142e-1	40.39083		Benzene
7.839	BB	66.47327	6.01255e-1	39.96740		Toluene
8.642	BV	73.50793	5.37097e-1	39.48087		Ethylbenzene
8.707	VB	69.97326	5.79059e-1	40.51861		m-p-Xylenes
8.932	BB	70.59382	5.73968e-1	40.51859		o-Xylene

Totals : 240.16403

EA Job # 1022-165R 189 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	VP N	9.22298e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

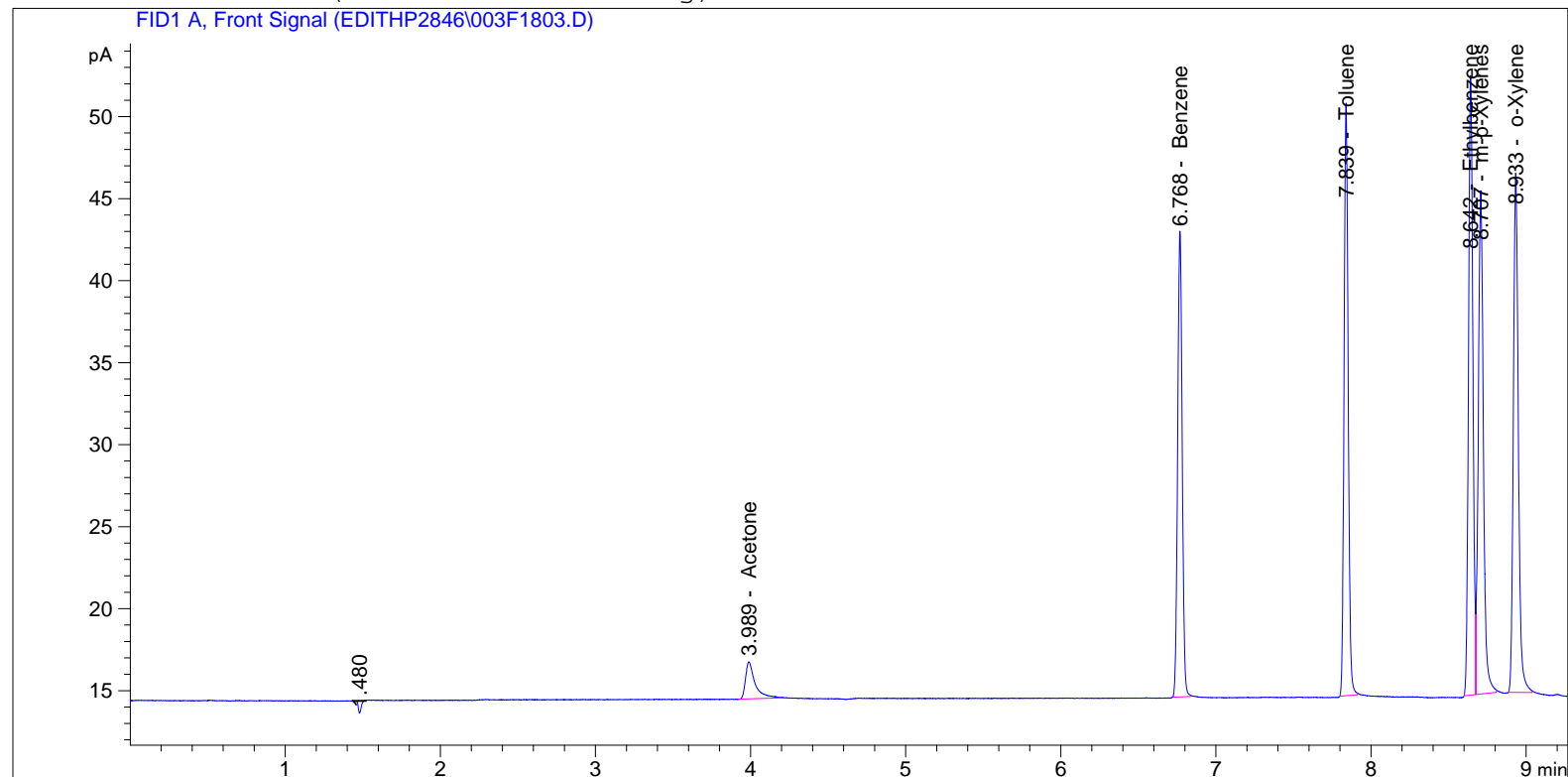
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.61018	39.2877
Benzene	57.60721	40.3908
Toluene	66.47327	39.9674
Ethylbenzene	73.50793	39.4809
m-p-Xylenes	69.97326	40.5186
o-Xylene	70.59382	40.5186

Totals : 240.1640

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 18
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/11/2022 11:34:32 PM	Inj	: 3
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



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External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.58913	4.08846	39.20478		Acetone
6.768	BB	58.09200	7.01114e-1	40.72912		Benzene
7.839	BB	66.92036	6.01221e-1	40.23390		Toluene
8.642	BV	73.87671	5.37064e-1	39.67651		Ethylbenzene
8.707	VB	70.32369	5.79020e-1	40.71881		m-p-Xylenes
8.933	BB	70.79723	5.73946e-1	40.63376		o-Xylene

Totals : 241.19688

EA Job # 1022-165R 191 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.28214e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

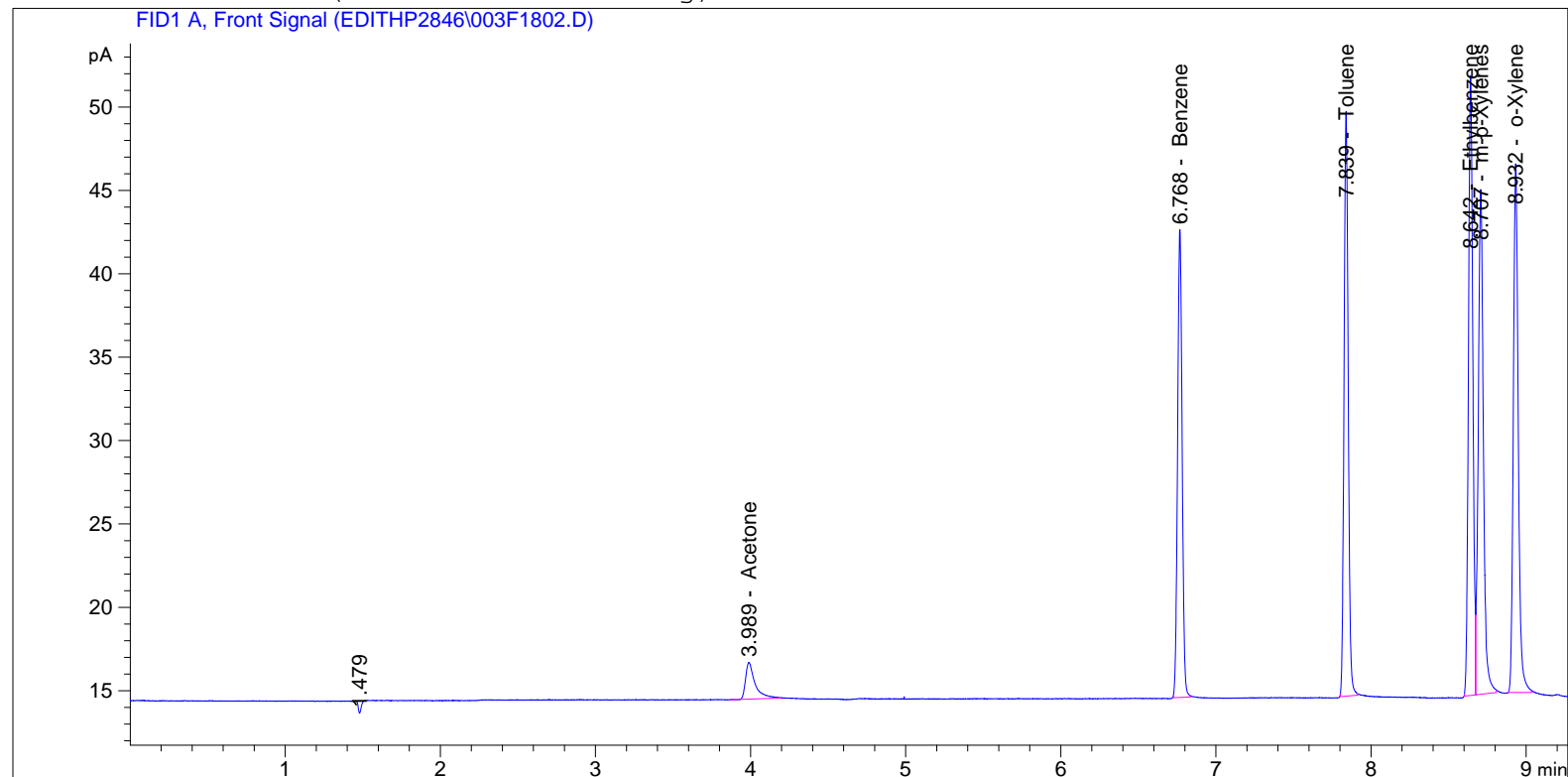
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.58913	39.2048
Benzene	58.09200	40.7291
Toluene	66.92036	40.2339
Ethylbenzene	73.87671	39.6765
m-p-Xylenes	70.32369	40.7188
o-Xylene	70.79723	40.6338

Totals : 241.1969

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 18
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/11/2022 11:19:23 PM	Inj	: 2
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.989	BB	9.32687	4.09264	38.17154		Acetone
6.768	BB	56.94540	7.01181e-1	39.92901		Benzene
7.839	BB	65.69698	6.01316e-1	39.50468		Toluene
8.642	BV	72.76412	5.37164e-1	39.08628		Ethylbenzene
8.707	VB	69.40724	5.79122e-1	40.19526		m-p-Xylenes
8.932	BB	69.89501	5.74046e-1	40.12296		o-Xylene

Totals : 237.00973

EA Job # 1022-165R 193 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.02891e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

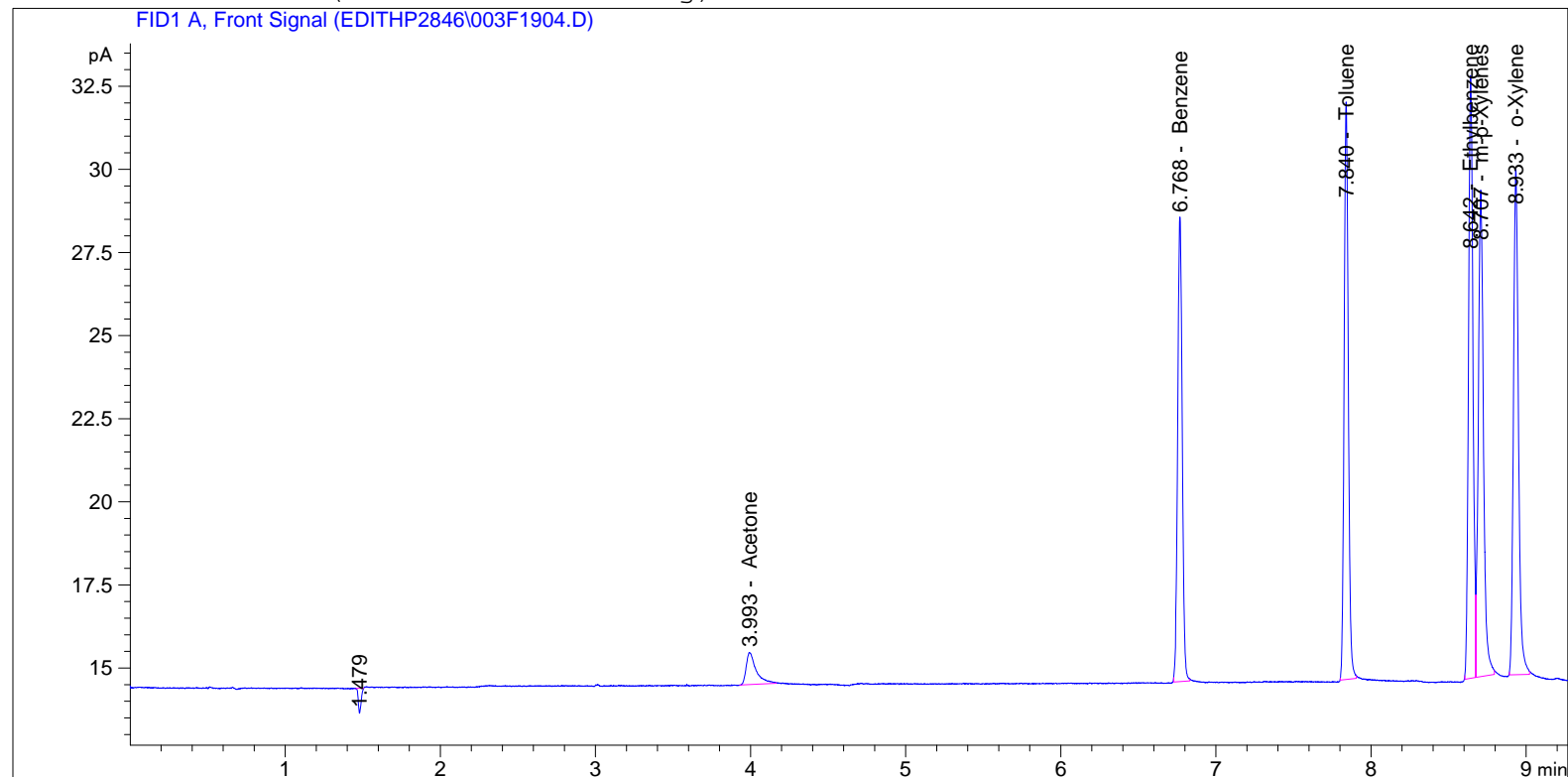
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.32687	38.1715
Benzene	56.94540	39.9290
Toluene	65.69698	39.5047
Ethylbenzene	72.76412	39.0863
m-p-Xylenes	69.40724	40.1953
o-Xylene	69.89501	40.1230

Totals : 237.0097

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 19
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 12:50:11 AM	Inj	: 4
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



External Standard Report

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.993	BB	4.28639	4.27243	18.31330		Acetone
6.768	BB	28.58117	7.04522e-1	20.13607		Benzene
7.840	BB	32.72217	6.06597e-1	19.84916		Toluene
8.642	BV	35.88250	5.44013e-1	19.52055		Ethylbenzene
8.707	VB	33.90421	5.87331e-1	19.91298		m-p-Xylenes
8.933	BB	34.04362	5.82362e-1	19.82573		o-Xylene

Totals : 117.55779

EA Job # 1022-165R 195 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.17087e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.28639	18.3133
Benzene	28.58117	20.1361
Toluene	32.72217	19.8492
Ethylbenzene	35.88250	19.5206
m-p-Xylenes	33.90421	19.9130
o-Xylene	34.04362	19.8257

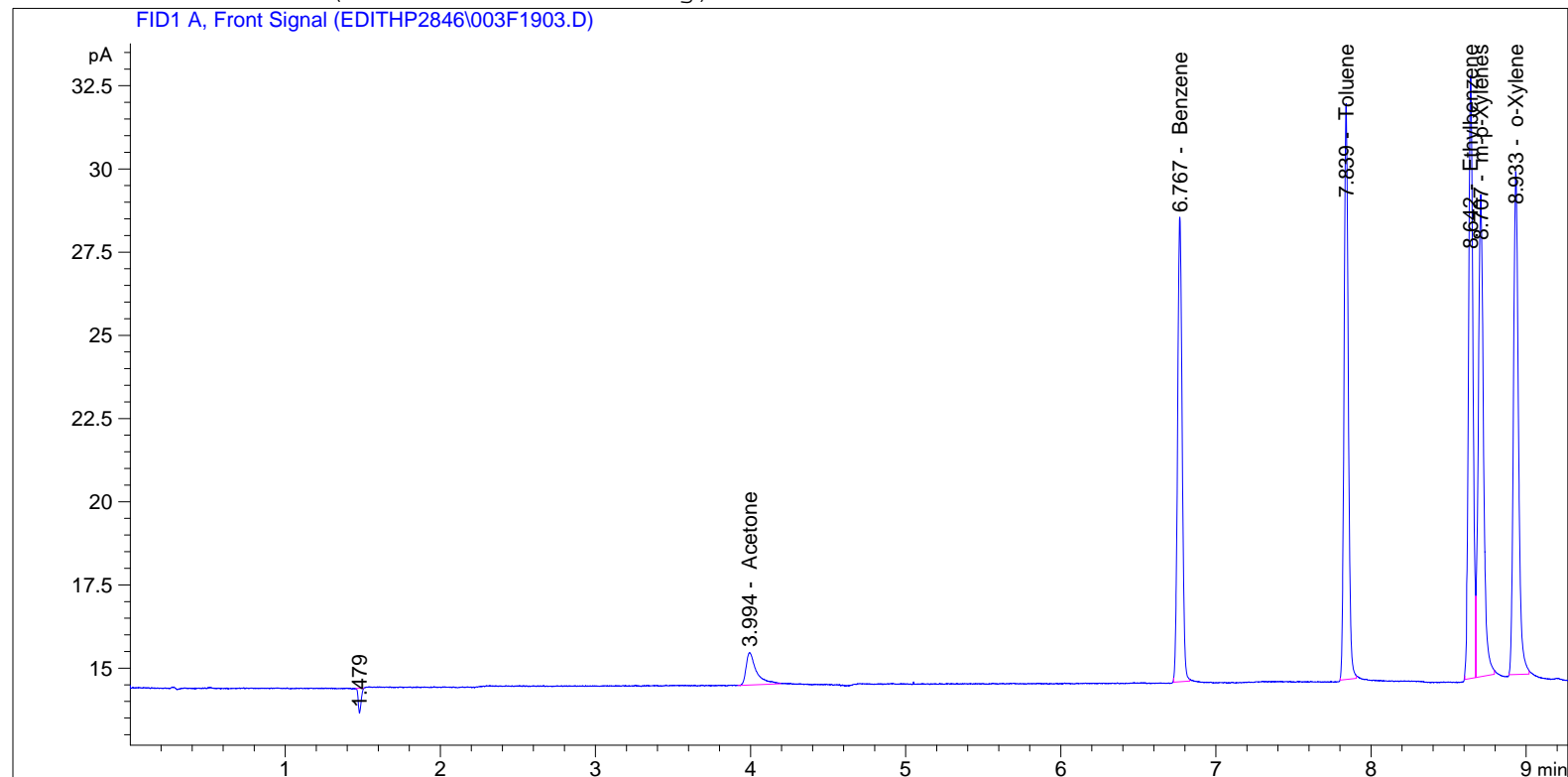
Totals : 117.5578

\*\*\* End of Report \*\*\*



=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 19
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 12:35:03 AM	Inj	: 3
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



External Standard Report

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.994	BB	4.47057	4.25873	19.03895		Acetone
6.767	BB	28.53498	7.04533e-1	20.10384		Benzene
7.839	BB	32.61748	6.06631e-1	19.78676		Toluene
8.642	BV	35.79707	5.44045e-1	19.47523		Ethylbenzene
8.707	VB	33.83689	5.87362e-1	19.87452		m-p-Xylenes
8.933	BB	33.93857	5.82413e-1	19.76625		o-Xylene

Totals : 118.04555

EA Job # 1022-165R 197 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.22555e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

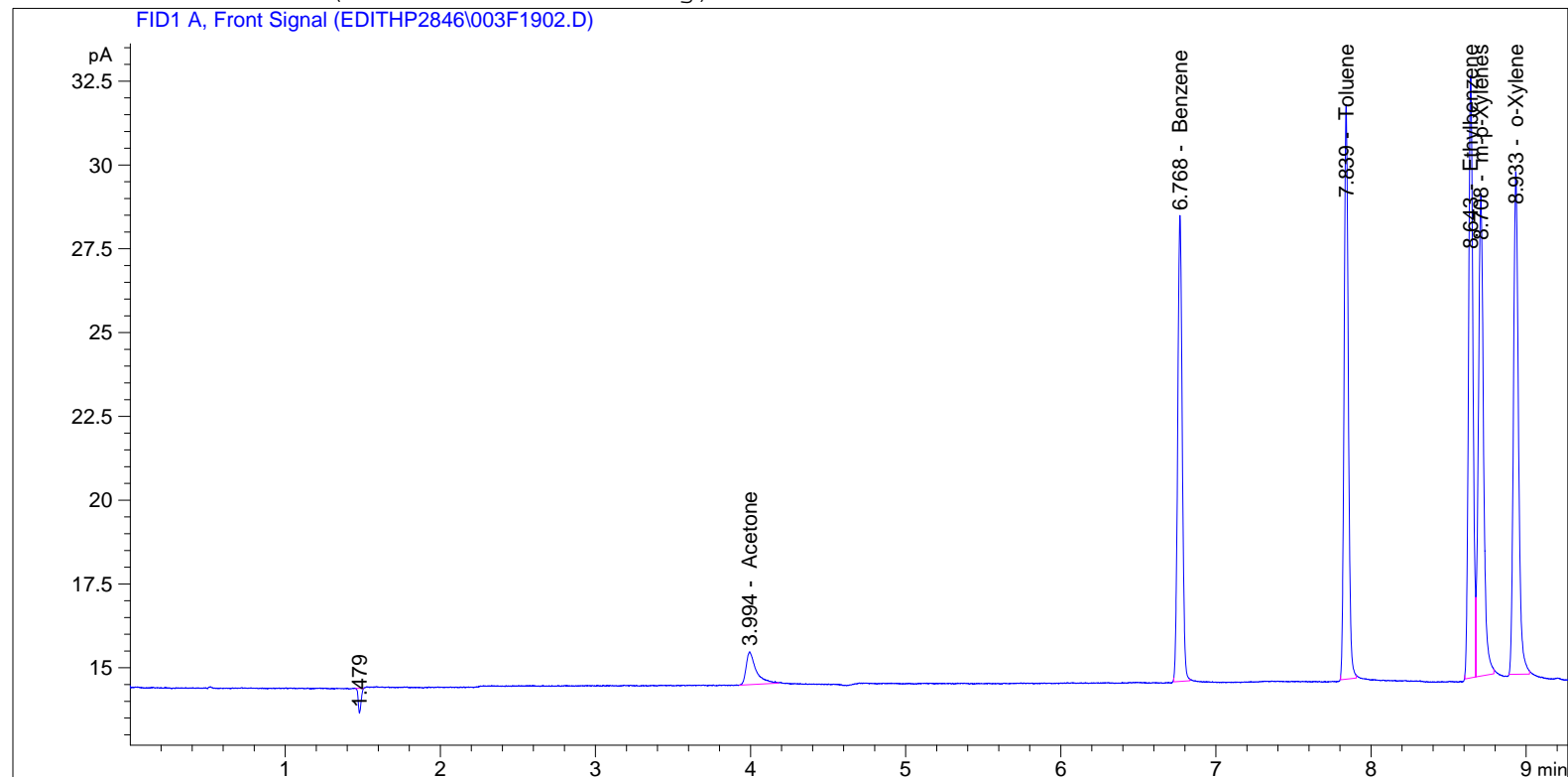
Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.47057	19.0389
Benzene	28.53498	20.1038
Toluene	32.61748	19.7868
Ethylbenzene	35.79707	19.4752
m-p-Xylenes	33.83689	19.8745
o-Xylene	33.93857	19.7663

Totals : 118.0456

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 19
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 12:19:56 AM	Inj	: 2
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.994	BB	4.36046	4.26678	18.60512		Acetone
6.768	BB	28.20872	7.04611e-1	19.87617		Benzene
7.839	BB	32.28642	6.06739e-1	19.58942		Toluene
8.643	BV	35.38812	5.44202e-1	19.25828		Ethylbenzene
8.708	VB	33.26689	5.87638e-1	19.54889		m-p-Xylenes
8.933	BB	33.60988	5.82572e-1	19.58017		o-Xylene

Totals : 116.45805

EA Job # 1022-165R 199 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.05485e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	4.36046	18.6051
Benzene	28.20872	19.8762
Toluene	32.28642	19.5894
Ethylbenzene	35.38812	19.2583
m-p-Xylenes	33.26689	19.5489
o-Xylene	33.60988	19.5802

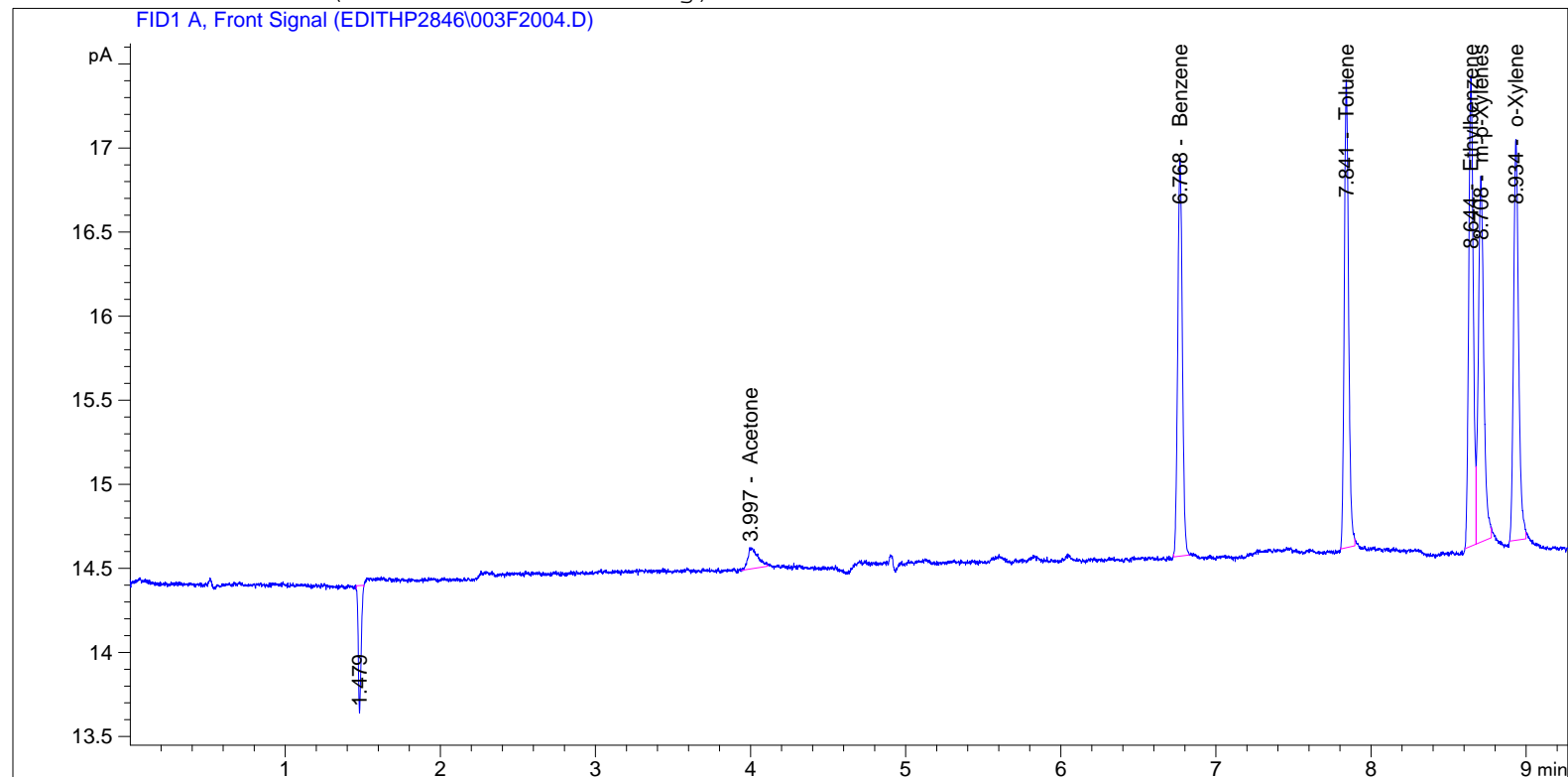
Totals : 116.4580

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 20
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 1:50:28 AM	Inj	: 4
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2022\EDITH\METHODS\EDITHP2846F\_ABTEX.M  
Last changed : 2/12/2022 8:13:38 AM by Nicholas Traversa  
ECM Server : http://s022vas01/Enthalpy  
ECM Operator : Nicholas Traversa  
ECM Path : GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip  
ECM Version : 1 (modified after loading)



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.997	BB	5.58718e-1	6.47733	3.61900		Acetone
6.768	BB	4.91240	7.35954e-1	3.61530		Benzene
7.841	BB	5.40811	6.58149e-1	3.55934		Toluene
8.644	BV	5.69192	6.13070e-1	3.48955		Ethylbenzene
8.708	VB	5.27442	6.70085e-1	3.53431		m-p-Xylenes
8.934	BB	5.34856	6.65731e-1	3.56070		o-Xylene

Totals : 21.37820

EA Job # 1022-165R 201 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.32133e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

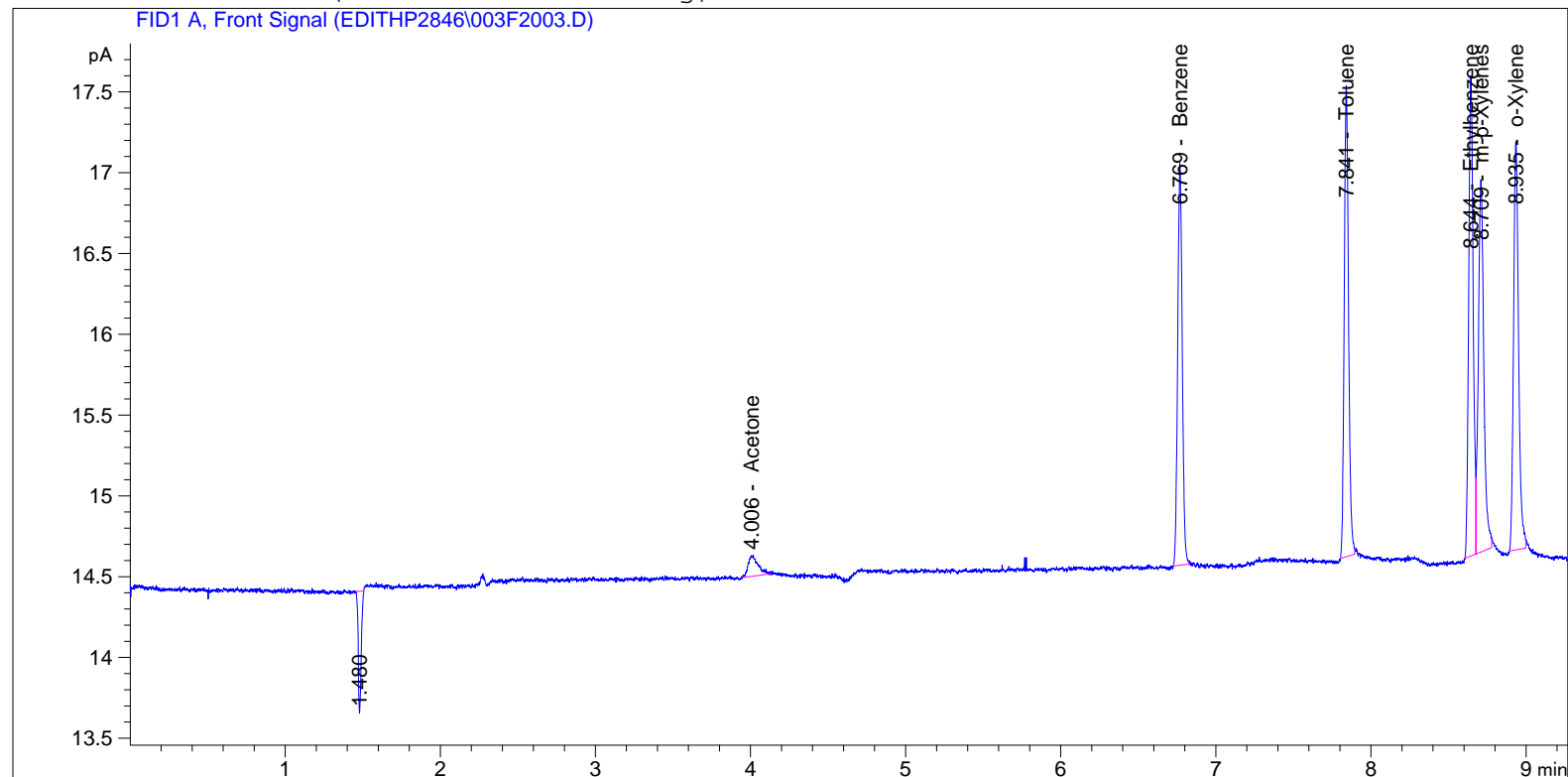
Name	Total Area [pA*s]	Amount [ppm]
Acetone	5.58718e-1	3.6190
Benzene	4.91240	3.6153
Toluene	5.40811	3.5593
Ethylbenzene	5.69192	3.4895
m-p-Xylenes	5.27442	3.5343
o-Xylene	5.34856	3.5607

Totals : 21.3782

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 20
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 1:35:28 AM	Inj	: 3
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



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External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
4.006	BB	5.71677e-1	6.43419	3.67828		Acetone
6.769	BB	5.08403	7.35530e-1	3.73945		Benzene
7.841	BB	5.63189	6.57201e-1	3.70128		Toluene
8.644	BV	5.96260	6.11817e-1	3.64802		Ethylbenzene
8.709	VB	5.61830	6.68124e-1	3.75372		m-p-Xylenes
8.935	BB	5.64359	6.63952e-1	3.74708		o-Xylene

Totals : 22.26783

EA Job # 1022-165R 203 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.480	BP N	9.49434e-1	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====

Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

=====

Final Summed Peaks Report

=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	5.71677e-1	3.6783
Benzene	5.08403	3.7395
Toluene	5.63189	3.7013
Ethylbenzene	5.96260	3.6480
m-p-Xylenes	5.61830	3.7537
o-Xylene	5.64359	3.7471

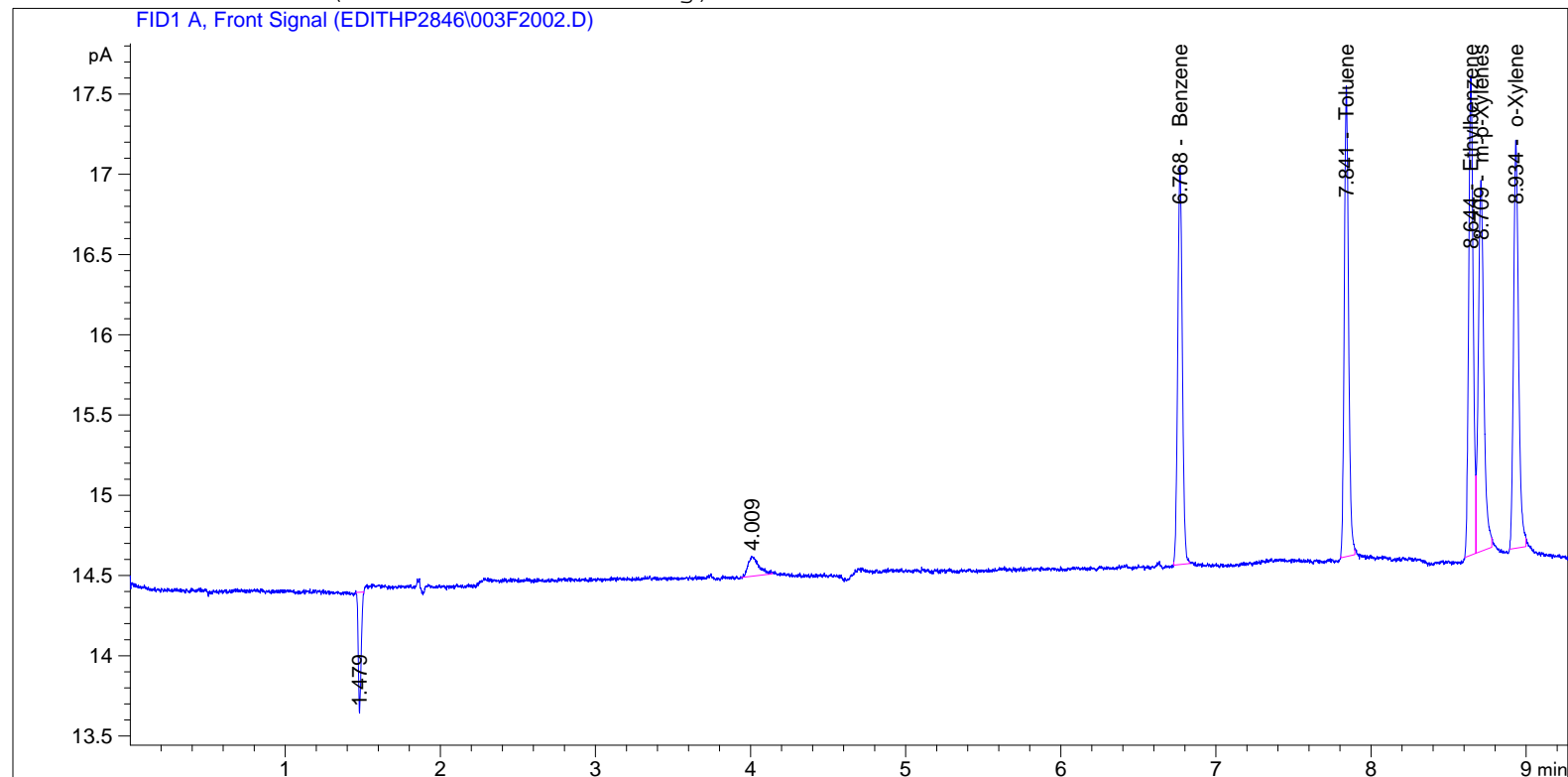
Totals : 22.2678

\*\*\* End of Report \*\*\*



=====

Acq. Operator	: Nicholas Traversa	Seq. Line	: 20
Acq. Instrument	: Edith	Location	: Vial 3
Injection Date	: 2/12/2022 1:20:21 AM	Inj	: 2
		Inj Volume	: 250 µl
Acq. Method	: C:\GC\2022\EDITH\QUARTER 1\EDITHP2846\AQ_EDITHP503_HRVOC.M		
Last changed	: 8/14/2017 12:18:06 PM by Nicholas Traversa		
Analysis Method	: C:\GC\2022\EDITH\METHODS\EDITHP2846F_ABTEX.M		
Last changed	: 2/12/2022 8:13:38 AM by Nicholas Traversa		
ECM Server	: http://s022vas01/Enthalpy		
ECM Operator	: Nicholas Traversa		
ECM Path	: GC\2022\Edith\Quarter 1\EDITHP2846.SC.SSIzip		
ECM Version	: 1 (modified after loading)		



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, February 12, 2022 8:11:08 AM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.984	-	-	-	-	-	Acetone
6.768	BB	5.10873	7.35347e-1	3.75669	-	Benzene
7.841	BB	5.63605	6.57156e-1	3.70376	-	Toluene
8.644	BV	6.00551	6.11236e-1	3.67078	-	Ethylbenzene
8.709	VB	5.68674	6.66958e-1	3.79282	-	m-p-Xylenes
8.934	BB	5.70258	6.62940e-1	3.78047	-	o-Xylene

Totals : 18.70452

EA Job # 1022-165R 205 of 305

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.479	BP N	9.24858e-1	0.00000	0.00000	?	
4.009	BB	5.85504e-1	0.00000	0.00000	?	

Uncalib. totals : 0.00000

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)  
Warning : Calibrated compound(s) not found

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	0.00000	0.0000
Benzene	5.10873	3.7567
Toluene	5.63605	3.7038
Ethylbenzene	6.00551	3.6708
m-p-Xylenes	5.68674	3.7928
o-Xylene	5.70258	3.7805

Totals : 18.7045

\*\*\* End of Report \*\*\*

## CERTIFICATE OF ANALYSIS

### Grade of Product: CERTIFIED STANDARD-SPEC

Customer:	MONTROSE ENVIRONMENTAL GROUP	Reference Number:	163-402037604-1
Part Number:	X08NI99C15AC0N7	Cylinder Volume:	70.3 Cubic Feet
Cylinder Number:	ALM049224	Cylinder Pressure:	985 PSIG
Laboratory:	124 - Pasadena (SG06) - TX	Valve Outlet:	350SS
Analysis Date:	Mar 03, 2021		
Lot Number:	163-402037604-1		

Expiration Date: Mar 03, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

### ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
M XYLENE	50.00 PPM	49.80 PPM	+/- 2%
P XYLENE	50.00 PPM	51.08 PPM	+/- 2%
ACETONE	100.0 PPM	99.60 PPM	+/- 2%
BENZENE	100.0 PPM	101.2 PPM	+/- 2%
ETHYL BENZENE	100.0 PPM	98.40 PPM	+/- 2%
O XYLENE	100.0 PPM	100.8 PPM	+/- 2%
TOLUENE	100.0 PPM	99.90 PPM	+/- 2%
NITROGEN	99.94 %	99.939922 %	+/- 2%

**Permanent Notes:** CYLINDER STORAGE TEMPERATURE IS RECOMMENDED AT OR ABOVE 80F



Approved for Release

## Calculation of MDL per SOP ENT-027

Enter values into the highlighted cells.

Date Analyzed 3/6/21  
 Analyst NMW  
 Date Reviewed 6/7/21  
 Reviewed By QLF

Instrument Edith  
 Logbook Page Edithp2432  
 Injector (F,R,NA) F  
 Column Rtx-1  
 Injector (F,R,NA)  
 Column

Job #(s)  
 Applicable Method(s)  
 Matrix  
 Solvent

Seven (or more) replicates of a low concentration preparation are made. The worst injection(s) (farthest from the mean area) may be removed assuming an appropriate Outlier Test calculation shows the value(s) to be an outlier. At least seven injections must remain.

MDL = Stdev \* Student's t-value

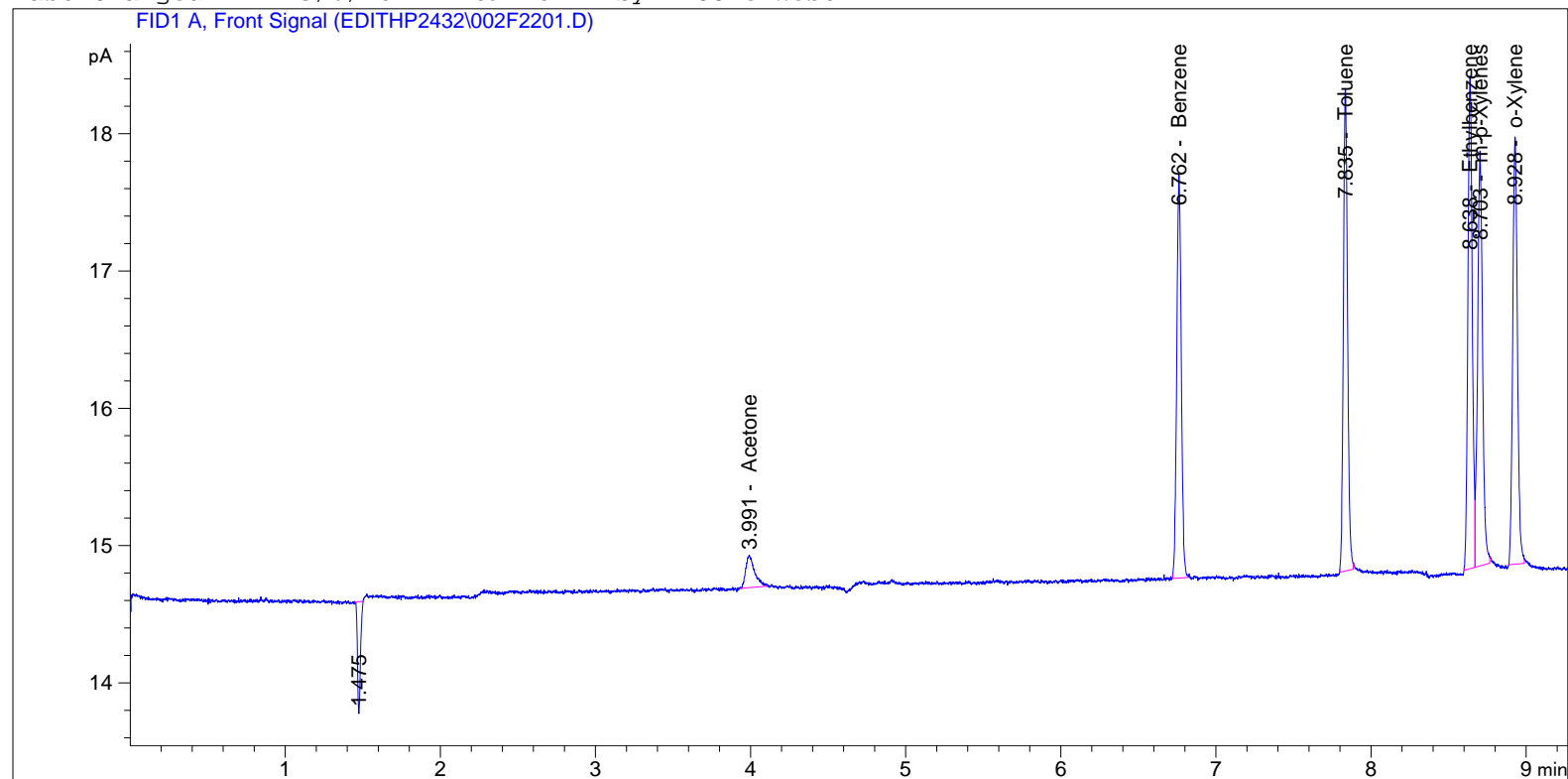
t-value = 3.143 N=7 Degrees of Freedom = 6  
 t-value = 2.998 N=8 Degrees of Freedom = 7  
 t-value = 2.896 N=9 Degrees of Freedom = 8  
 t-value = 2.821 N=10 Degrees of Freedom = 9

Compound #		2		3		4		5		6		7	
Compound Name		Benzene		Toluene		Ethylbenzene		m-p-Xylenes		o-Xylene			
Notes (if needed)													
Units		ppm		ppm		ppm		ppm		ppm		ppm	
Test Std Concentrations	#1	3.74003	#1	3.75571	#1	3.83404	#1	3.89249	#1	3.85553	#1	3.85553	#1
	#2	3.77176	#2	3.75281	#2	3.79549	#2	3.86680	#2	3.81298	#2	3.81298	#2
	#3	3.61720	#3	3.79302	#3	3.76524	#3	3.84371	#3	3.80281	#3	3.80281	#3
	#4	3.82680	#4	3.75049	#4	3.76238	#4	3.83347	#4	3.79127	#4	3.79127	#4
	#5	3.69820	#5	3.73764	#5	3.76288	#5	3.82831	#5	3.78606	#5	3.78606	#5
	#6	3.76378	#6	3.74300	#6	3.76533	#6	3.82739	#6	3.76920	#6	3.76920	#6
	#7	3.71267	#7	3.74834	#7	3.74132	#7	3.83328	#7	3.79000	#7	3.79000	#7
	#8	3.68198	#8	3.77101	#8	3.71297	#8	3.78339	#8	3.74594	#8	3.74594	#8
	#9	3.73435	#9	3.71106	#9	3.72156	#9	3.80714	#9	3.73430	#9	3.73430	#9
	#10	3.89803	#10	3.72939	#10	3.72571	#10	3.80914	#10	3.75235	#10	3.75235	#10
!! Remove extra zeros !!													
Standard Deviation		0.0781		0.0159		0.0365		0.0308		0.0358		0.0000	
Student's T factor		2.821		2.821		2.821		2.821		2.821		2.821	
Calculated MDL = StDev * t		0.220		0.045		0.103		0.087		0.101		0.000	
Slope of Cal Curve		0.31663		1.82753		1.98032		1.85487		1.86151		0.00000	
Integration Area Reject		0.1		0.1		0.1		0.1		0.1		0	
Lowest Integratable Conc.		0.316		0.063		0.050		0.054		0.054		#DIV/0!	
Concentration of Std		3.760		3.790		3.720		3.799		3.740		0.000	
Lowest Part 136 App B value*		0.376		0.379		0.372		0.380		0.374		0.000	
MDL value <1/10 Std Value?		<1/10 Conc of Std		<1/10 Conc of Std		<1/10 Conc of Std		<1/10 Conc of Std		<1/10 Conc of Std		#DIV/0!	
MDL to Use		0.37600		0.37200		0.37200		0.37990		0.37400		#DIV/0!	

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 6:39:20 AM	Inj	: 1
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.991	BB	9.32887e-1	4.00910	3.74003		Acetone
6.762	BB	5.97417	6.35127e-1	3.79436		Benzene
7.835	BB	6.56260	5.72290e-1	3.75571		Toluene
8.638	BV	7.01656	5.46427e-1	3.83404		Ethylbenzene
8.703	VB	6.66585	5.83945e-1	3.89249		m-p-Xylenes
8.928	BB	6.57872	5.86060e-1	3.85553		o-Xylene

Totals : 22.87215

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.02740	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal  
=====

Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

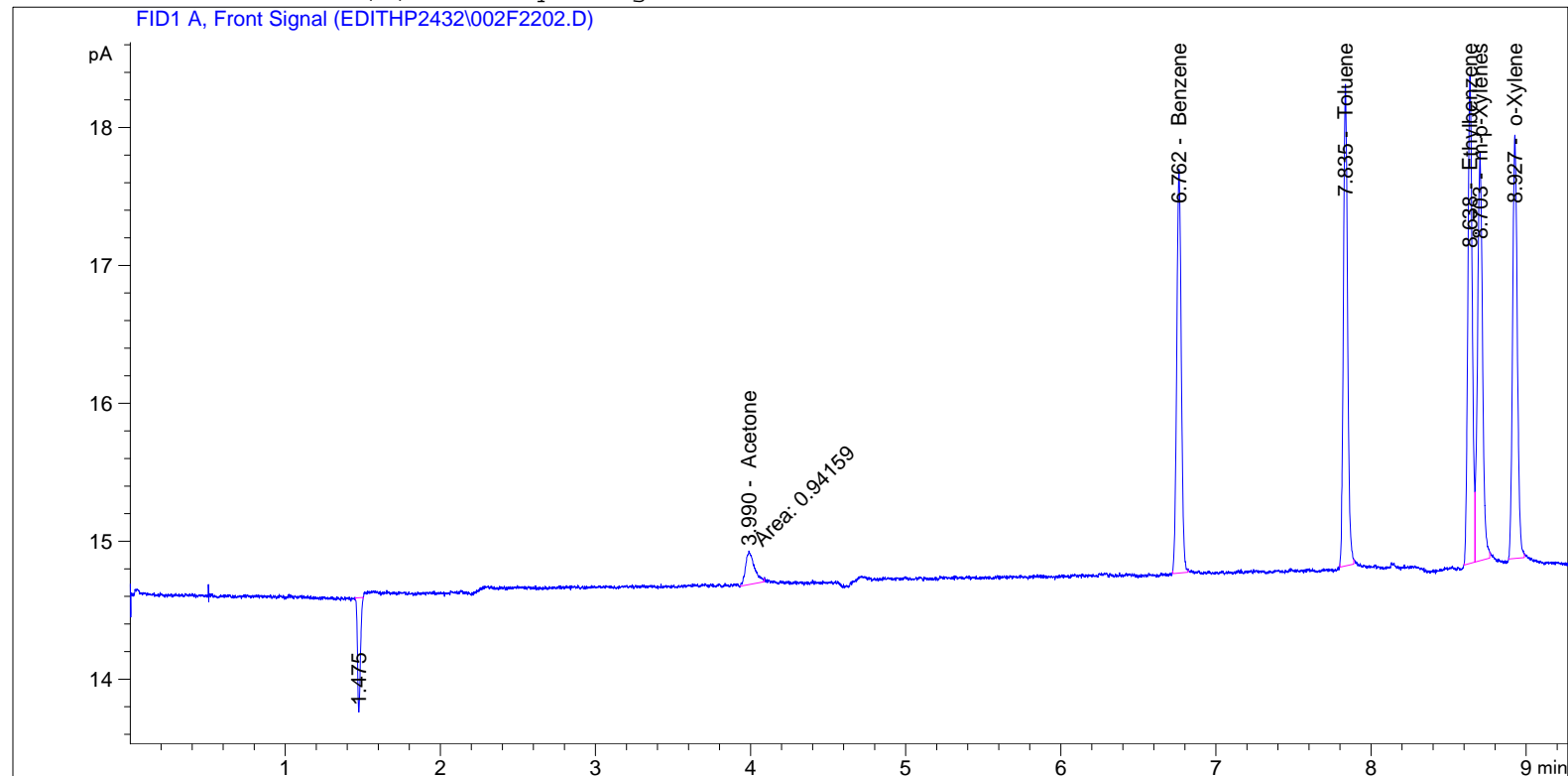
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.32887e-1	3.7400
Benzene	5.97417	3.7944
Toluene	6.56260	3.7557
Ethylbenzene	7.01656	3.8340
m-p-Xylenes	6.66585	3.8925
o-Xylene	6.57872	3.8555
Totals :	22.8721	

\*\*\* End of Report \*\*\*

=====

Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 6:54:35 AM	Inj	: 2
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



=====

External Standard Report

=====

Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	MM	9.41590e-1	4.00573	3.77176		Acetone
6.762	BB	5.95911	6.35128e-1	3.78480		Benzene
7.835	BB	6.55731	5.72310e-1	3.75281		Toluene
8.638	BV	6.94023	5.46883e-1	3.79549		Ethylbenzene
8.703	VB	6.61819	5.84268e-1	3.86680		m-p-Xylenes
8.927	BB	6.49953	5.86655e-1	3.81298		o-Xylene

Totals : 22.78464

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.03902	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

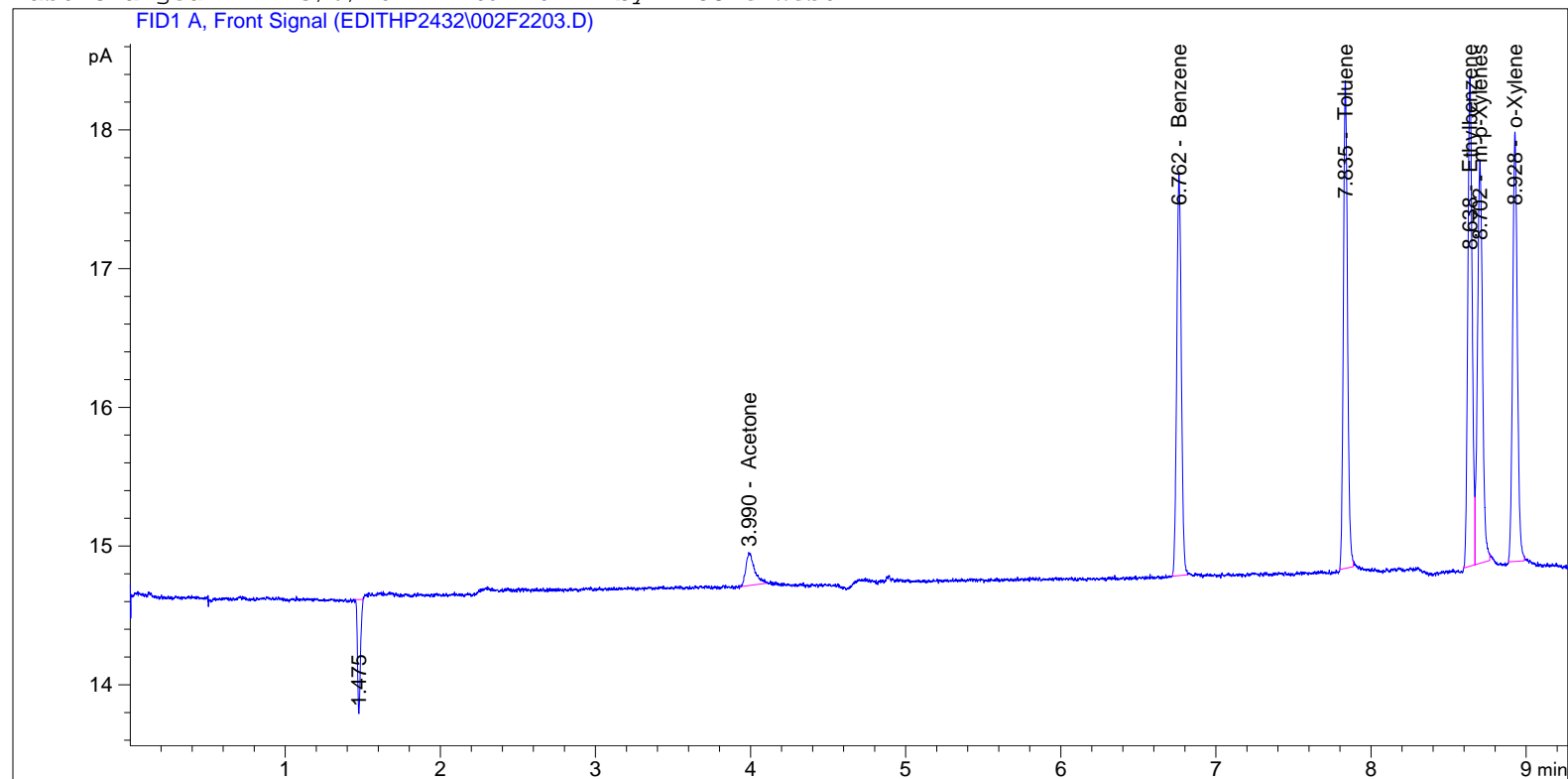
Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.41590e-1	3.7718
Benzene	5.95911	3.7848
Toluene	6.55731	3.7528
Ethylbenzene	6.94023	3.7955
m-p-Xylenes	6.61819	3.8668
o-Xylene	6.49953	3.8130
Totals :	22.7846	

\*\*\* End of Report \*\*\*



```
=====
Acq. Operator   : Nicole West                      Seq. Line :   22
Acq. Instrument : Edith                          Location  : Vial 2
Injection Date  : 3/6/2021 7:09:47 AM             Inj       :    3
                                                Inj Volume: 250 µl
Acq. Method     : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ_EDITHP503_HRVOC.M
Last changed    : 8/14/2017 12:18:06 PM by Nicholas Traversa
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F_ABTEX.M
Last changed    : 3/6/2021 1:09:10 PM by Nicole West
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                        External Standard Report
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Sorted By           :      Signal
Calib. Data Modified :      Saturday, March 06, 2021 1:09:06 PM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
```

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.02248e-1	4.00910	3.61720		Acetone
6.762	BB	5.97254	6.35127e-1	3.79332		Benzene
7.835	BB	6.53210	5.72407e-1	3.73902		Toluene
8.638	BV	6.88033	5.47248e-1	3.76524		Ethylbenzene
8.702	VB	6.57536	5.84562e-1	3.84371		m-p-Xylenes
8.928	BB	6.48059	5.86800e-1	3.80281		o-Xylene

Totals : 22.56131

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.02548	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

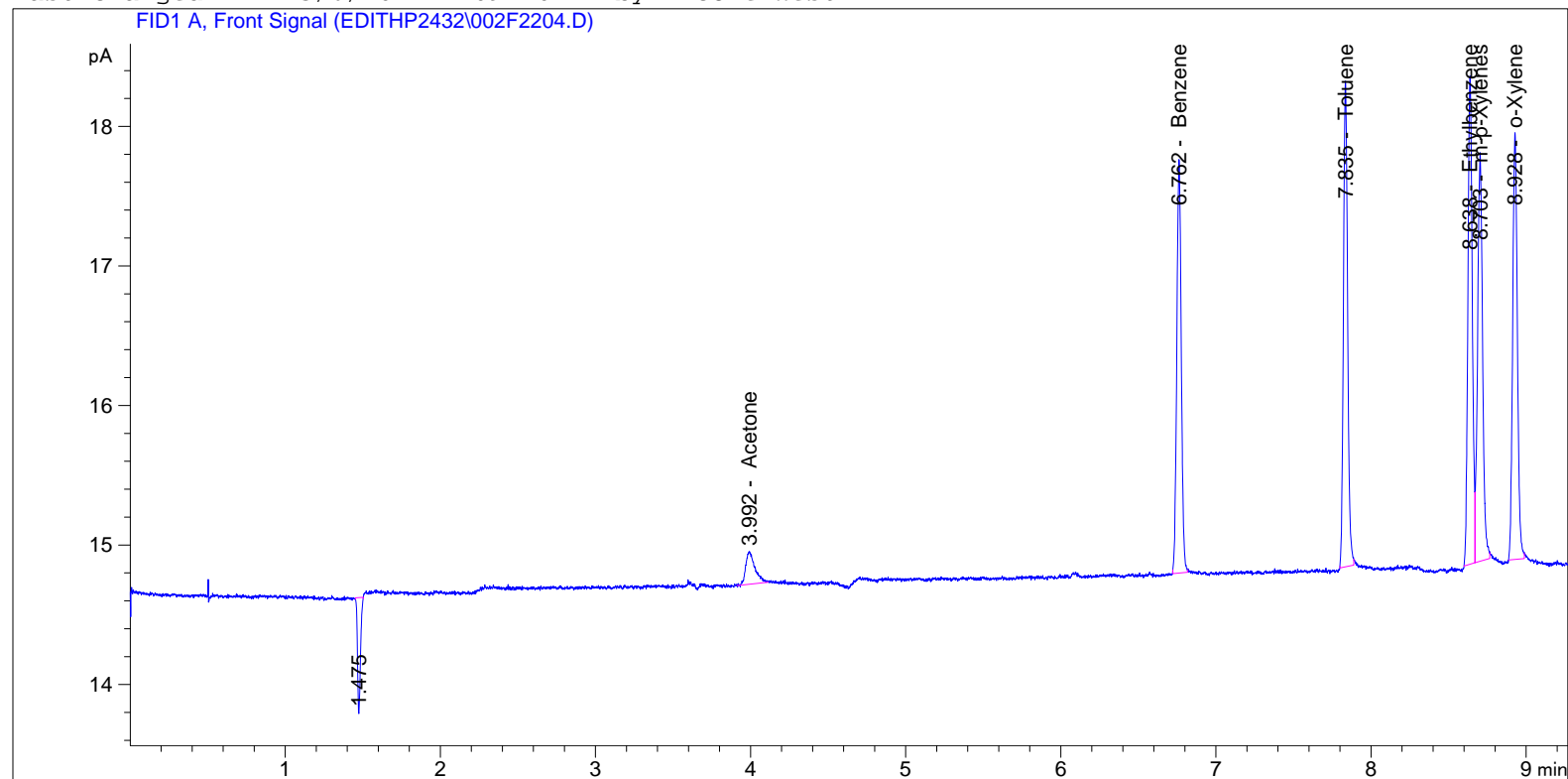
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.02248e-1	3.6172
Benzene	5.97254	3.7933
Toluene	6.53210	3.7390
Ethylbenzene	6.88033	3.7652
m-p-Xylenes	6.57536	3.8437
o-Xylene	6.48059	3.8028
Totals :	22.5613	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:24:58 AM	Inj	: 4
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.992	BB	9.59017e-1	3.99033	3.82680		Acetone
6.762	BB	5.95707	6.35128e-1	3.78350		Benzene
7.835	BB	6.55306	5.72326e-1	3.75049		Toluene
8.638	BV	6.87466	5.47283e-1	3.76238		Ethylbenzene
8.703	VB	6.55638	5.84694e-1	3.83347		m-p-Xylenes
8.928	BB	6.45911	5.86965e-1	3.79127		o-Xylene

Totals : 22.74791

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04577	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

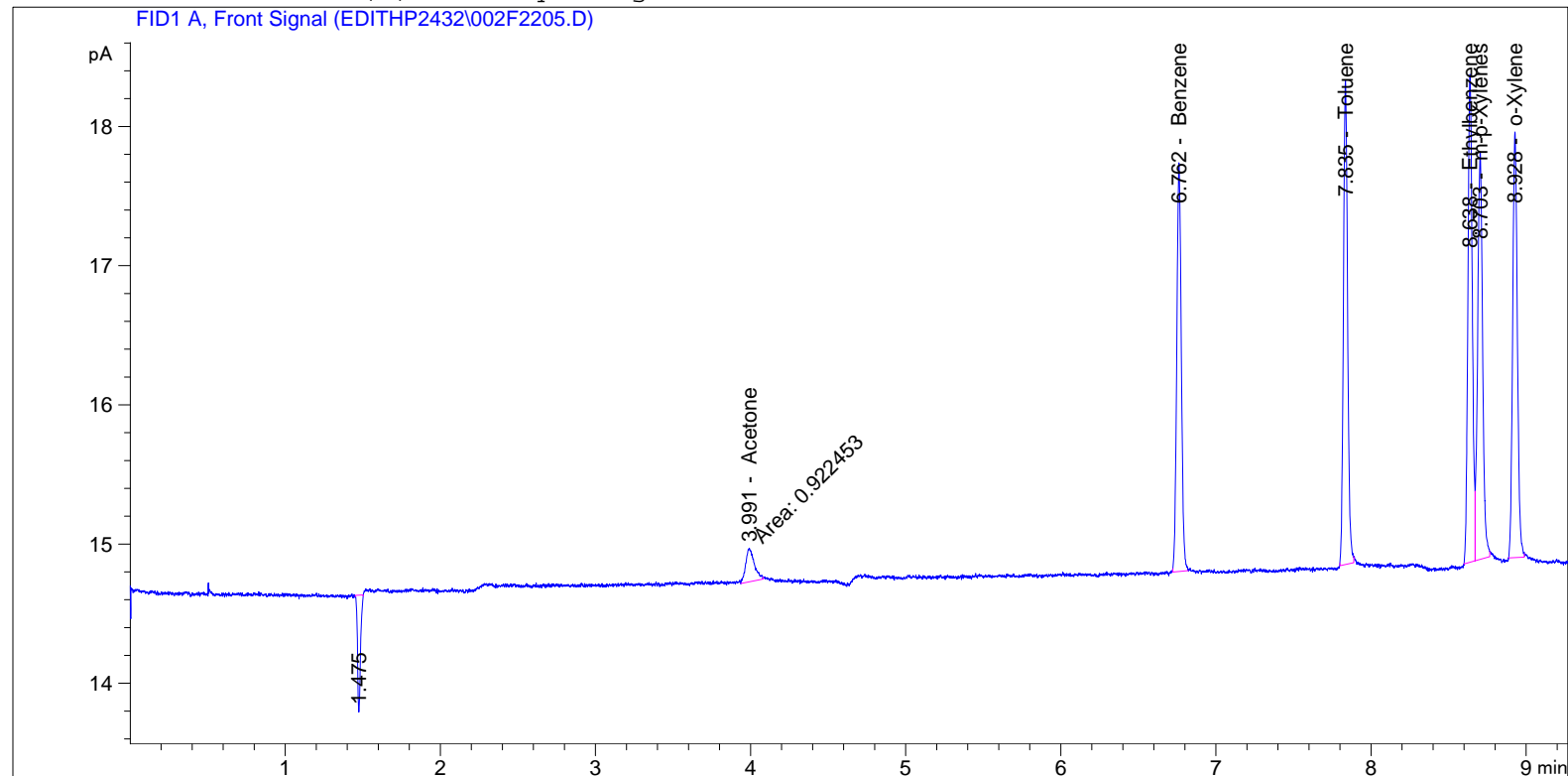
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.59017e-1	3.8268
Benzene	5.95707	3.7835
Toluene	6.55306	3.7505
Ethylbenzene	6.87466	3.7624
m-p-Xylenes	6.55638	3.8335
o-Xylene	6.45911	3.7913
Totals :	22.7479	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:40:11 AM	Inj	: 5
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.991	MM	9.22453e-1	4.00910	3.69820		Acetone
6.762	BB	5.96974	6.35128e-1	3.79155		Benzene
7.835	BB	6.52958	5.72417e-1	3.73764		Toluene
8.638	BV	6.87564	5.47277e-1	3.76288		Ethylbenzene
8.703	VB	6.54681	5.84760e-1	3.82831		m-p-Xylenes
8.928	BB	6.44941	5.87040e-1	3.78606		o-Xylene

Totals : 22.60464

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04562	0.00000	0.00000	?	

Uncalib. totals : 0.00000

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Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

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Final Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

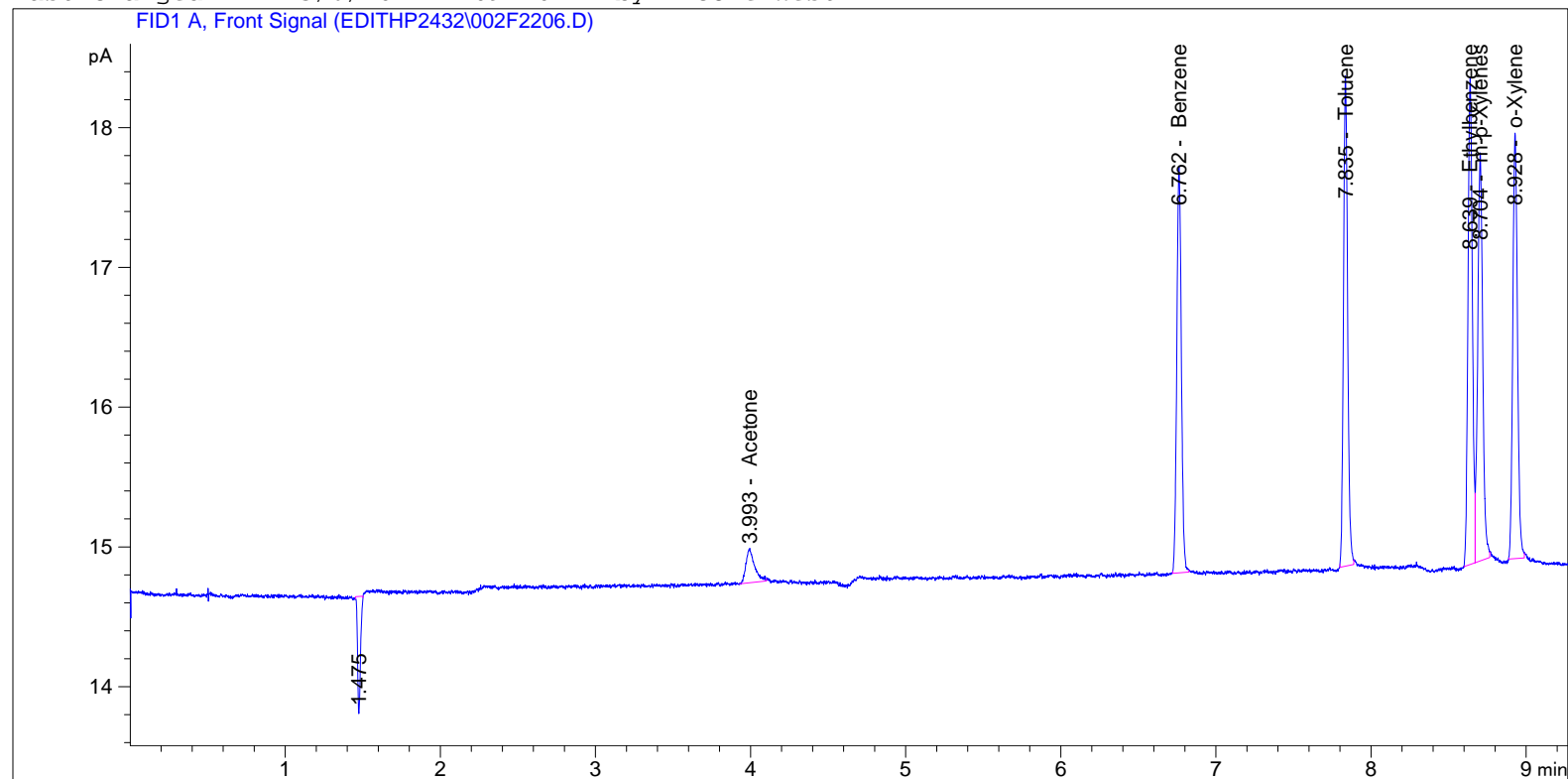
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.22453e-1	3.6982
Benzene	5.96974	3.7915
Toluene	6.52958	3.7376
Ethylbenzene	6.87564	3.7629
m-p-Xylenes	6.54681	3.8283
o-Xylene	6.44941	3.7861
Totals :	22.6046	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 7:55:20 AM	Inj	: 6
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.993	BB	9.39063e-1	4.00801	3.76378		Acetone
6.762	BB	5.98547	6.35126e-1	3.80153		Benzene
7.835	BB	6.53937	5.72379e-1	3.74300		Toluene
8.639	BV	6.88049	5.47247e-1	3.76533		Ethylbenzene
8.704	VB	6.54509	5.84772e-1	3.82739		m-p-Xylenes
8.928	BB	6.41802	5.87283e-1	3.76920		o-Xylene

Totals : 22.67021

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.03932	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

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Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

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Final Summed Peaks Report  
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Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.39063e-1	3.7638
Benzene	5.98547	3.8015
Toluene	6.53937	3.7430
Ethylbenzene	6.88049	3.7653
m-p-Xylenes	6.54509	3.8274
o-Xylene	6.41802	3.7692
Totals :	22.6702	

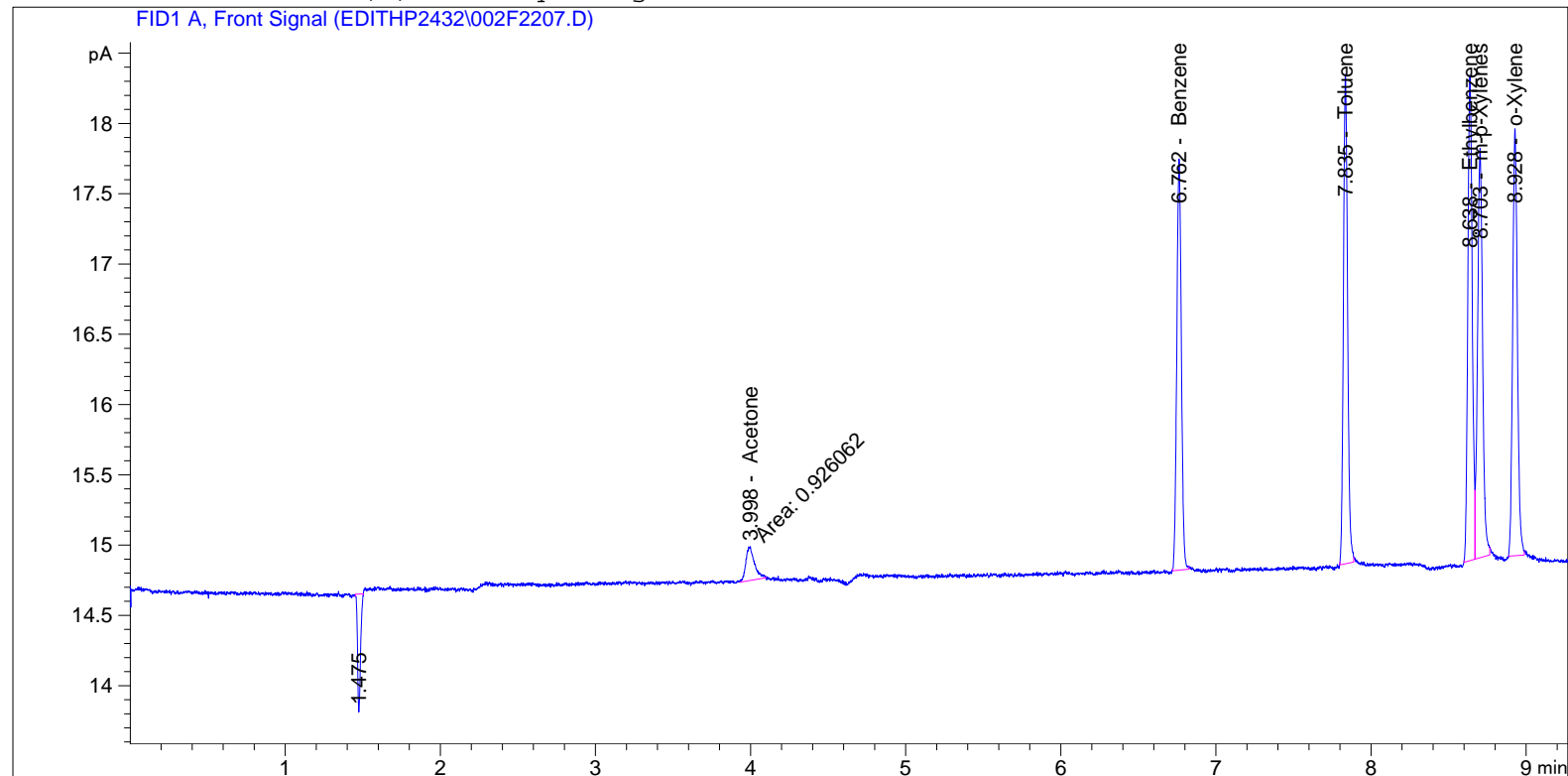
\*\*\* End of Report \*\*\*



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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:10:36 AM	Inj	: 7
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West  
Additional Info : Peak(s) manually integrated



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.998	MM	9.26062e-1	4.00910	3.71267		Acetone
6.762	BB	5.98963	6.35126e-1	3.80417		Benzene
7.835	BB	6.54914	5.72341e-1	3.74834		Toluene
8.638	BV	6.83295	5.47541e-1	3.74132		Ethylbenzene
8.703	VB	6.55602	5.84696e-1	3.83328		m-p-Xylenes
8.928	BB	6.45675	5.86983e-1	3.79000		o-Xylene

Totals : 22.62978

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.05228	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

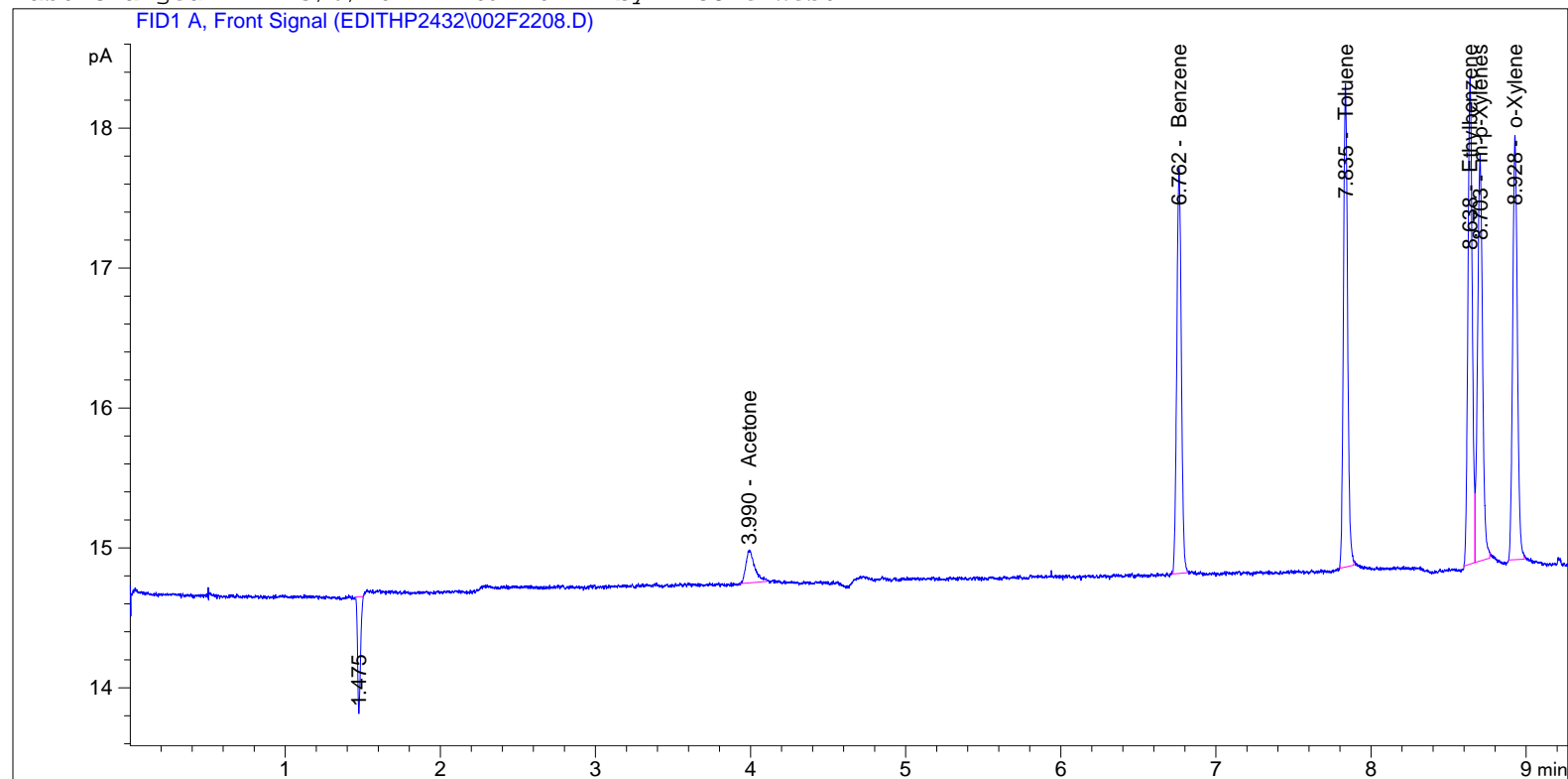
Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.26062e-1	3.7127
Benzene	5.98963	3.8042
Toluene	6.54914	3.7483
Ethylbenzene	6.83295	3.7413
m-p-Xylenes	6.55602	3.8333
o-Xylene	6.45675	3.7900
Totals :	22.6298	

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:25:43 AM	Inj	: 8
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.18406e-1	4.00910	3.68198		Acetone
6.762	BB	5.93740	6.35128e-1	3.77101		Benzene
7.835	BB	6.48453	5.72542e-1	3.71266		Toluene
8.638	BV	6.77789	5.47806e-1	3.71297		Ethylbenzene
8.703	VB	6.46575	5.85143e-1	3.78339		m-p-Xylenes
8.928	BB	6.37473	5.87624e-1	3.74594		o-Xylene

Totals : 22.40794

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04847	0.00000	0.00000	?	

Uncalib. totals : 0.00000

Summed Peaks Report

Signal 1: FID1 A, Front Signal

Final Summed Peaks Report

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.18406e-1	3.6820
Benzene	5.93740	3.7710
Toluene	6.48453	3.7127
Ethylbenzene	6.77789	3.7130
m-p-Xylenes	6.46575	3.7834
o-Xylene	6.37473	3.7459

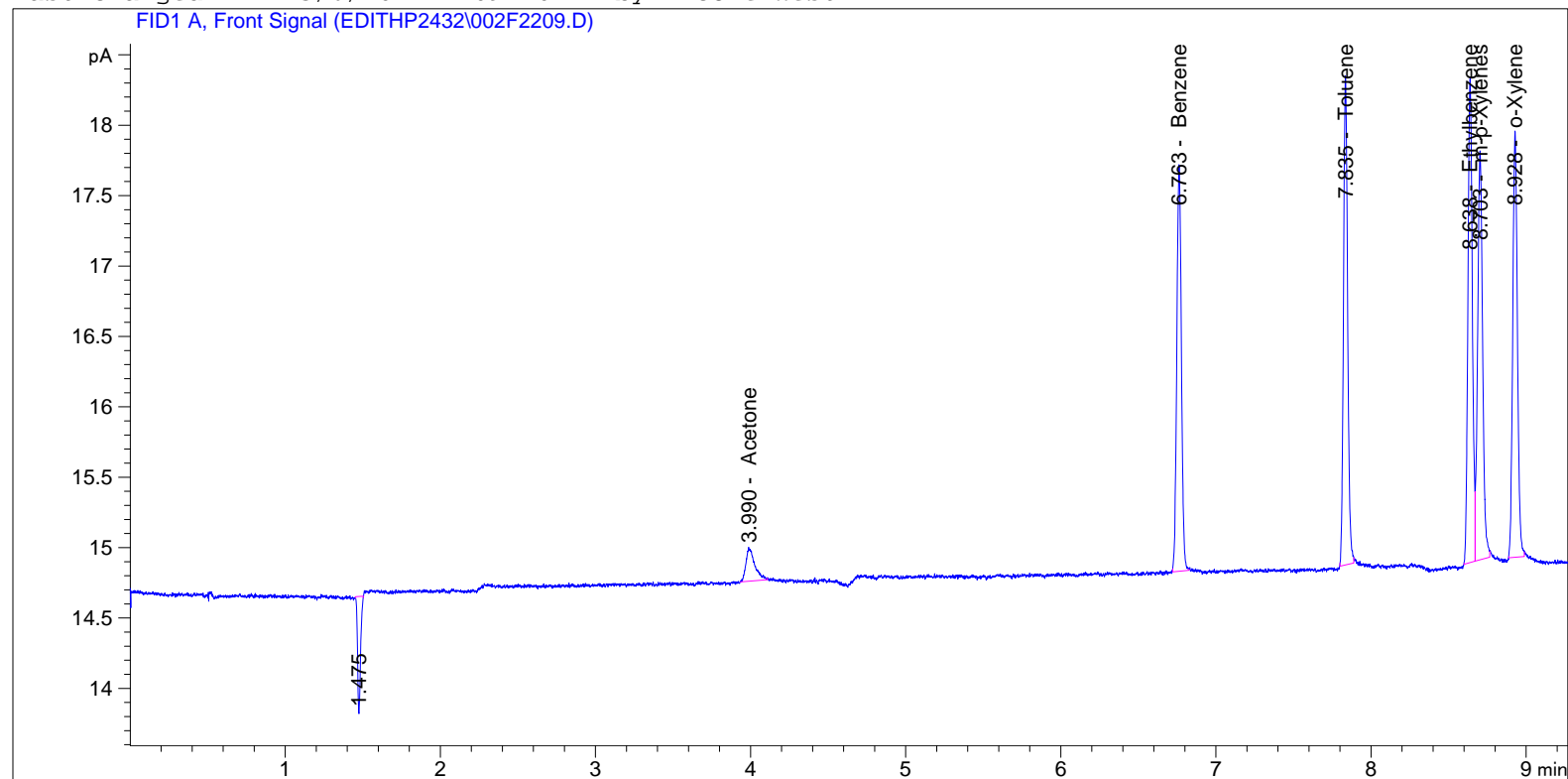
Totals : 22.4079

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:40:52 AM	Inj	: 9
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.990	BB	9.31468e-1	4.00910	3.73435		Acetone
6.763	BB	5.96536	6.35128e-1	3.78877		Benzene
7.835	BB	6.48172	5.72542e-1	3.71106		Toluene
8.638	BV	6.79381	5.47786e-1	3.72156		Ethylbenzene
8.703	VB	6.50753	5.85036e-1	3.80714		m-p-Xylenes
8.928	BB	6.35397	5.87711e-1	3.73430		o-Xylene

Totals : 22.49716

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.04057	0.00000	0.00000	--	?

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.31468e-1	3.7343
Benzene	5.96536	3.7888
Toluene	6.48172	3.7111
Ethylbenzene	6.79381	3.7216
m-p-Xylenes	6.50753	3.8071
o-Xylene	6.35397	3.7343

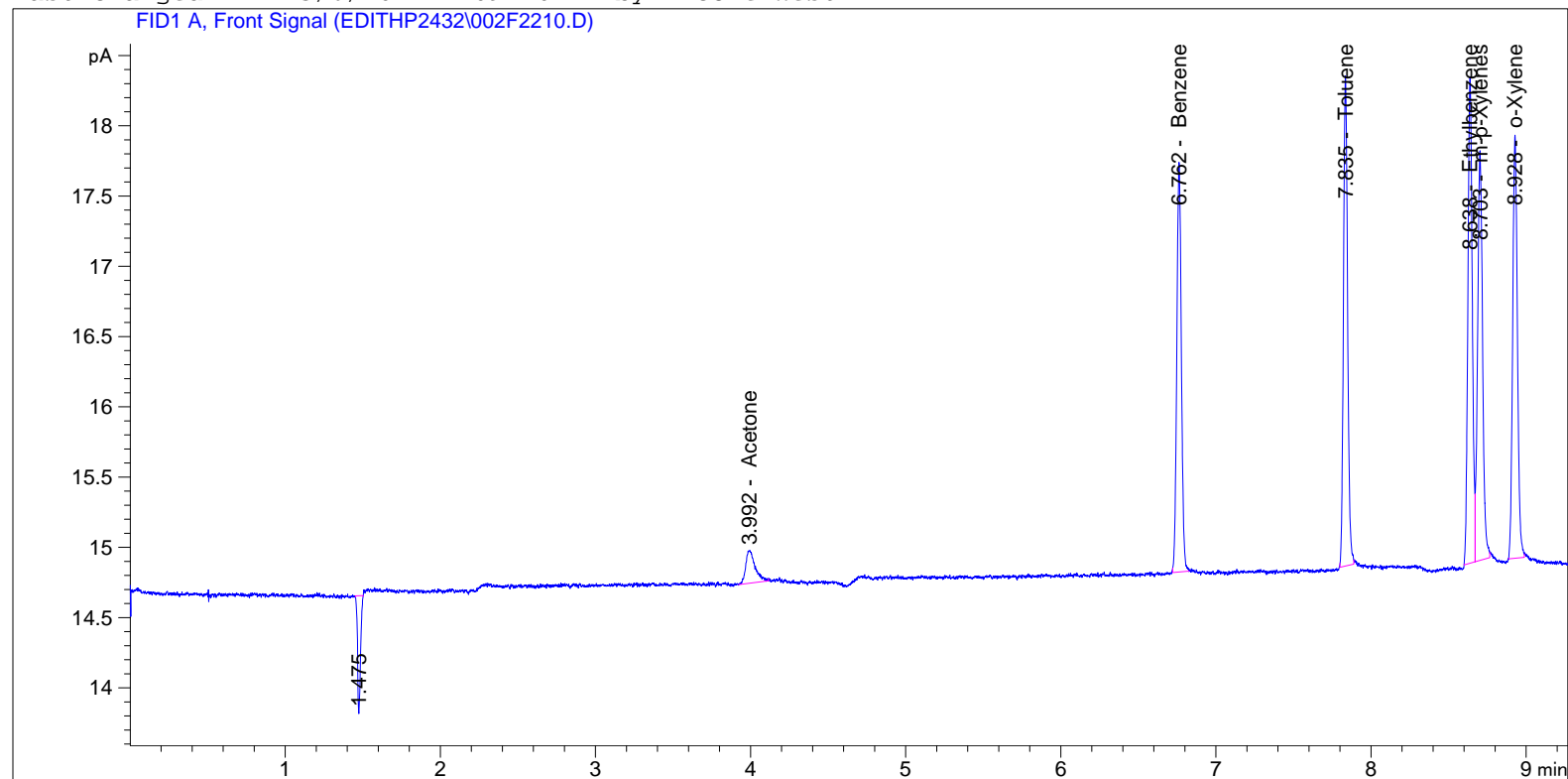
Totals : 22.4972

\*\*\* End of Report \*\*\*

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Acq. Operator	: Nicole West	Seq. Line	: 22
Acq. Instrument	: Edith	Location	: Vial 2
Injection Date	: 3/6/2021 8:56:05 AM	Inj	: 10
		Inj Volume	: 250 µl

Acq. Method : C:\GC\2021\EDITH\QUARTER 1\EDITHP2432\AQ\_EDITHP503\_HRVOC.M  
Last changed : 8/14/2017 12:18:06 PM by Nicholas Traversa  
Analysis Method : C:\GC\2021\EDITH\METHODS\EDITHP2432F\_ABTEX.M  
Last changed : 3/6/2021 1:09:10 PM by Nicole West



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External Standard Report

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Sorted By : Signal  
Calib. Data Modified : Saturday, March 06, 2021 1:09:06 PM  
Multiplier : 1.0000  
Dilution : 1.0000  
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
3.992	BB	9.81572e-1	3.97121	3.89803		Acetone
6.762	BB	5.97439	6.35127e-1	3.79450		Benzene
7.835	BB	6.51450	5.72475e-1	3.72939		Toluene
8.638	BV	6.80204	5.47734e-1	3.72571		Ethylbenzene
8.703	VB	6.51125	5.85010e-1	3.80914		m-p-Xylenes
8.928	BB	6.38665	5.87529e-1	3.75235		o-Xylene

Totals : 22.70912

Uncalibrated Peaks : compound name not specified

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [ppm]	Grp	Name
1.475	BP N	1.05223	0.00000	0.00000	?	

Uncalib. totals : 0.00000

=====  
Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

=====  
Final Summed Peaks Report  
=====

Signal 1: FID1 A, Front Signal

Name	Total Area [pA*s]	Amount [ppm]
Acetone	9.81572e-1	3.8980
Benzene	5.97439	3.7945
Toluene	6.51450	3.7294
Ethylbenzene	6.80204	3.7257
m-p-Xylenes	6.51125	3.8091
o-Xylene	6.38665	3.7523
Totals :	22.7091	

\*\*\* End of Report \*\*\*



Location: GL  
Cabinet: 2022

Drawer: Edith  
Folder: Quarter 4

Analyst: IZS  
Date: 10-27-22

Job #s <u>1022-126</u> <u>1022-165</u>	Describe Work Documented on This Page <u>M18 Column info in AQM</u>
--	--

IZS 10-27-22

Supplies, Ancillary Equipment  
Serial #s, Lot #s, Etc

C:\GC\2022\EDITH\QUARTER 3\EDITHP3015\EDITHP3015.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	3	
2	vial 2	Pause	PAUSE	1	
3	vial 5	1022-126.S2A-PP-R2A SP.Bag ①	AQ_EDITHP503_HRVOC	3	
4	vial 5	1022-126.S2A-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
5	vial 4	1022-165.West Primary Blank.Bag	AQ_EDITHP503_HRVOC	3	
6	vial 6	1022-165.West Primary R1.Bag	AQ_EDITHP503_HRVOC	3	
7	vial 7	1022-165.West Primary R2.Bag	AQ_EDITHP503_HRVOC	3	
8	vial 8	1022-165.West Backup R3.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 9	1022-165.West Primary R4.Bag	AQ_EDITHP503_HRVOC	3	
10	vial 10	1022-165.West Primary R5.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 11	1022-165.West Backup R6.Bag	AQ_EDITHP503_HRVOC	3	
12	vial 12	1022-165.West Primary R7.Bag	AQ_EDITHP503_HRVOC	3	
13	vial 5	1022-165.M18 Run 3 SP.Bag	AQ_EDITHP503_HRVOC	3	
14	vial 2	Pause	PAUSE	1	
15	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
16	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
17	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
18	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
19	vial 2	Pause	PAUSE	1	

C:\GC\2022\EDITH\QUARTER 3\EDITHP3015\EDITHP3015.S Back Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	3	
2	vial 18	Pause	PAUSE	1	
3	vial 21	1022-126.S2A-PP-R2A SP.Bag ①	AQ_EDITHP503_HRVOC	3	
4	vial 21	1022-126.S2A-PP-R2A SP.Bag	AQ_EDITHP503_HRVOC_LONG	3	
5	vial 20	1022-165.West Primary Blank.Bag	AQ_EDITHP503_HRVOC	3	
6	vial 22	1022-165.West Primary R1.Bag	AQ_EDITHP503_HRVOC	3	
7	vial 23	1022-165.West Primary R2.Bag	AQ_EDITHP503_HRVOC	3	
8	vial 24	1022-165.West Backup R3.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 25	1022-165.West Primary R4.Bag	AQ_EDITHP503_HRVOC	3	
10	vial 26	1022-165.West Primary R5.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 27	1022-165.West Backup R6.Bag	AQ_EDITHP503_HRVOC	3	
12	vial 28	1022-165.West Primary R7.Bag	AQ_EDITHP503_HRVOC	3	
13	vial 21	1022-165.M18 Run 3 SP.Bag	AQ_EDITHP503_HRVOC	3	
14	vial 18	Pause	PAUSE	1	
15	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
16	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
17	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	4	
18	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
19	vial 18	Pause	PAUSE	1	

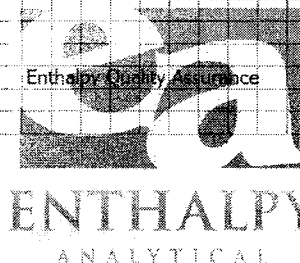
① Did not run long AQM - reason below M18 11-1-22

Reviewer's Initials & Date:

HC 11/1/22

EDITH  
page 3015

EA-Job # 1022-165R 229 of 305



Location: GC  
Cabinet: 2022

Drawer: Edith  
Folder: Quake 4

Analyst: IZS  
Date: 10-31-22

Job #s <u>1022-165</u>	Describe Work Documented on This Page <u>M18 Column info in AGM</u>
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IZS 11-2-22

C:\GC\2022\EDITH\QUARTER 3\EDITHP3017\EDITHP3017.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 4	1022-165.West Primary R1 SP.Bag	AQ_EDITHP503_HRVOC	3	
2	vial 2	Pause	PAUSE	1	
3	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
4	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
5	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
6	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
7	vial 2	Pause	PAUSE	1	
8	vial 4	1022-165.M18 Run 5 SP.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 2	Pause	PAUSE	1	
10	vial 5	1022-165.West Primary R2 SP.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 2	Pause	PAUSE	1	
12	vial 3	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
13	vial 1	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
14	vial 3	Edithp2970 #HR5 ENV(1=0,3=400)①	AQ_EDITHP503_HRVOC	3	
15	vial 3	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
16	vial 2	Pause	PAUSE	1	

C:\GC\2022\EDITH\QUARTER 3\EDITHP3017\EDITHP3017.S Back Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 20	1022-165.West Primary R1 SP.Bag	AQ_EDITHP503_HRVOC	3	
2	vial 18	Pause	PAUSE	1	
3	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
4	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
5	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)	AQ_EDITHP503_HRVOC	3	
6	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
7	vial 18	Pause	PAUSE	1	
8	vial 20	1022-165.M18 Run 5 SP.Bag	AQ_EDITHP503_HRVOC	3	
9	vial 18	Pause	PAUSE	1	
10	vial 21	1022-165.West Primary R2 SP.Bag	AQ_EDITHP503_HRVOC	3	
11	vial 18	Pause	PAUSE	1	
12	vial 19	Edithp2915 #C5 ENV(1=0,6=400)	AQ_EDITHP503_HRVOC	4	
13	vial 17	Zero Air Blank	AQ_EDITHP503_HRVOC	3	
14	vial 19	Edithp2970 #HR5 ENV(1=0,3=400)①	AQ_EDITHP503_HRVOC	3	
15	vial 19	Edithp2924 #B3 ENV(1=600,5=400)	AQ_EDITHP503_HRVOC	4	
16	vial 18	Pause	PAUSE	1	

Supplies, Ancillary Equipment

Serial #s, Lot #s, Etc

① Do not use 2nd  
injection did not  
inject correctly. IZS  
11-2-22

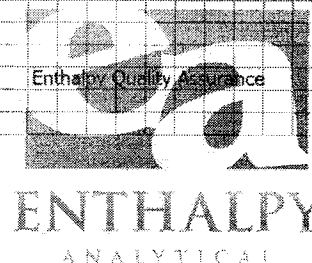
Job # 1022-165  
ID: West Primary R2  
Pbar Pre: 29.83 in H<sub>2</sub> Bag dimensions 11" x 16 3/4"  
Temp Pre: 68.7 F WVD reading 3 1/4"  
WVD vol of bag: 2.1309 Weather Station # 75  
Date/Time Spiked: 10/31/22 1340 Init: IZS  
Date/Time to Rerun: 11/1/22 19:38  
Spike(s):  
Vol: 210 Unit: mL Source: ALM031541 Witness IZS

IZS 11-2-22

PASSES SIR  
IZS 11-2-22

Reviewer's Initials & Date:  
REB 11/2/22

EDITH  
page 3017



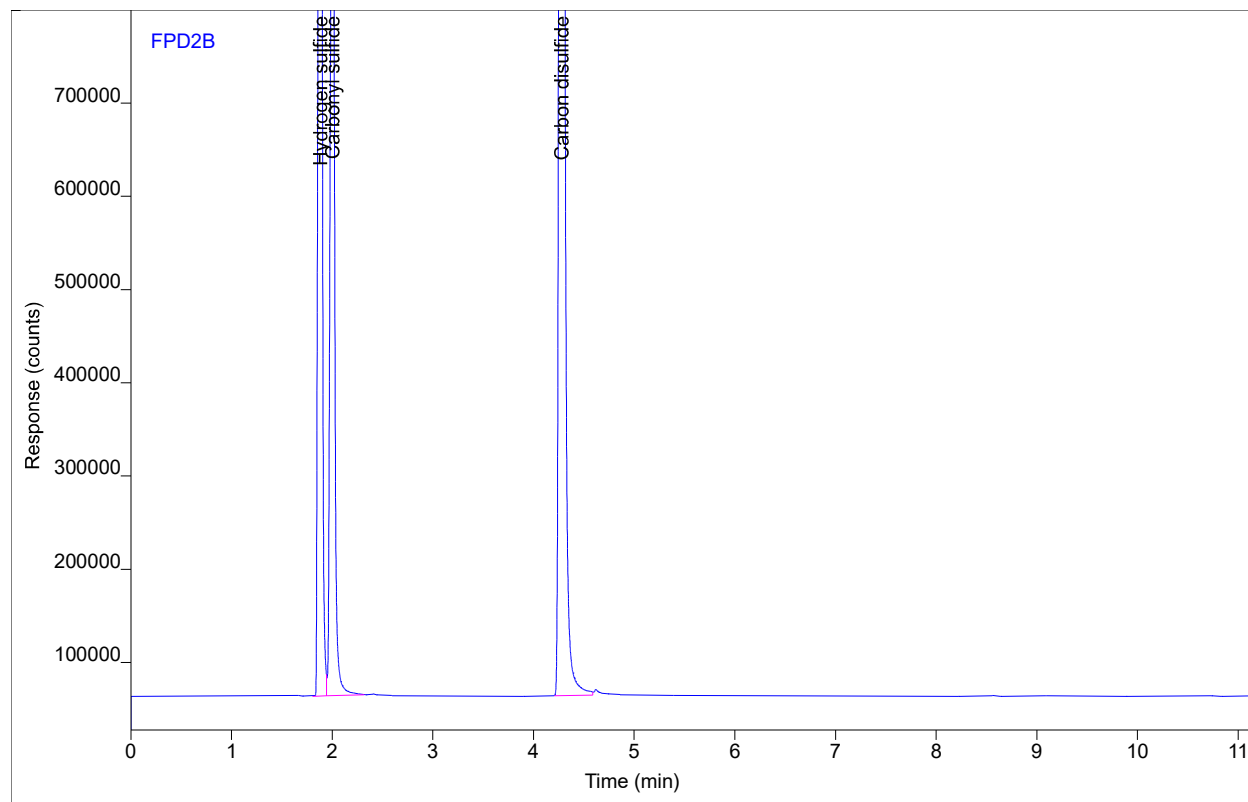
# Raw Data

# Chromatogram Report

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B0203.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 1:37 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



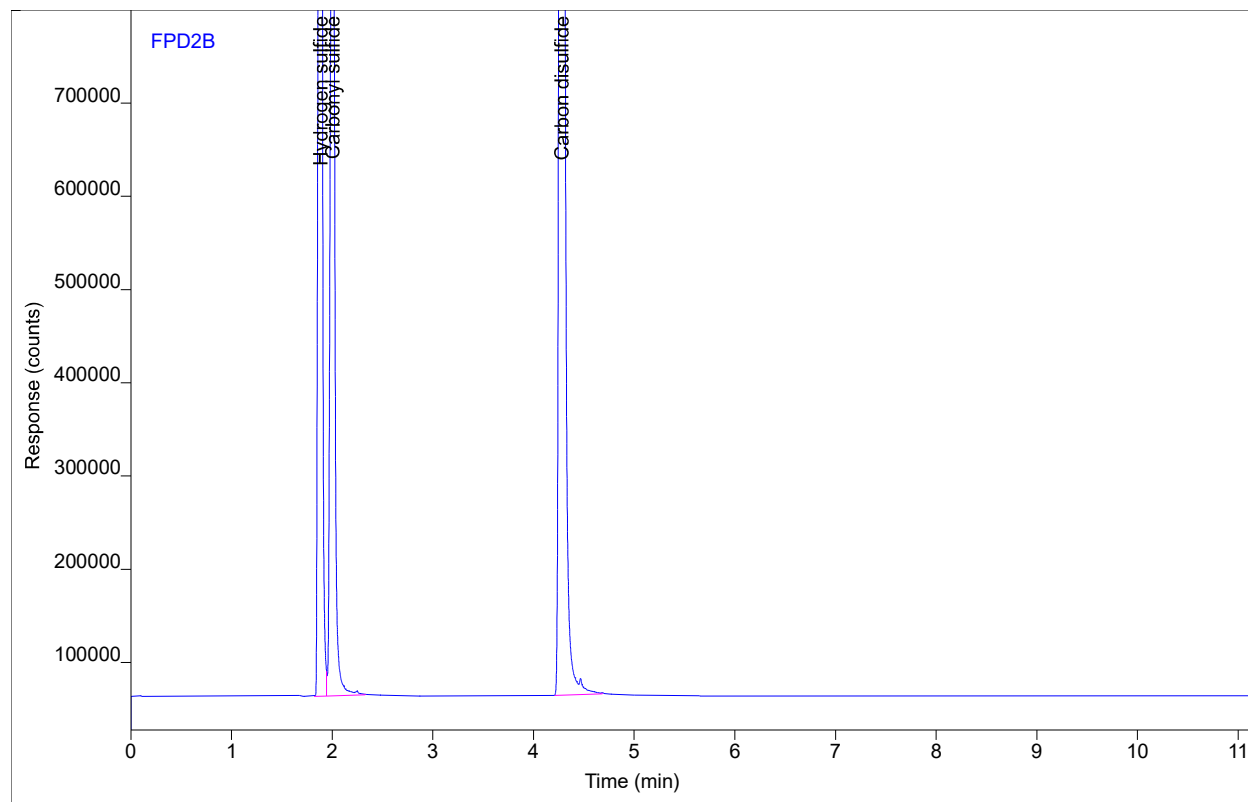
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	3553110	1217421	11.6933	1	11.6933	ppmv
Carbonyl sulfide	VB	2.00	3003575	950186	6.92455	1	6.92455	ppmv
Carbon disulfide	BV	4.28	1.13E+007	4059851	8.70153	1	8.70153	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B0204.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 1:55 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



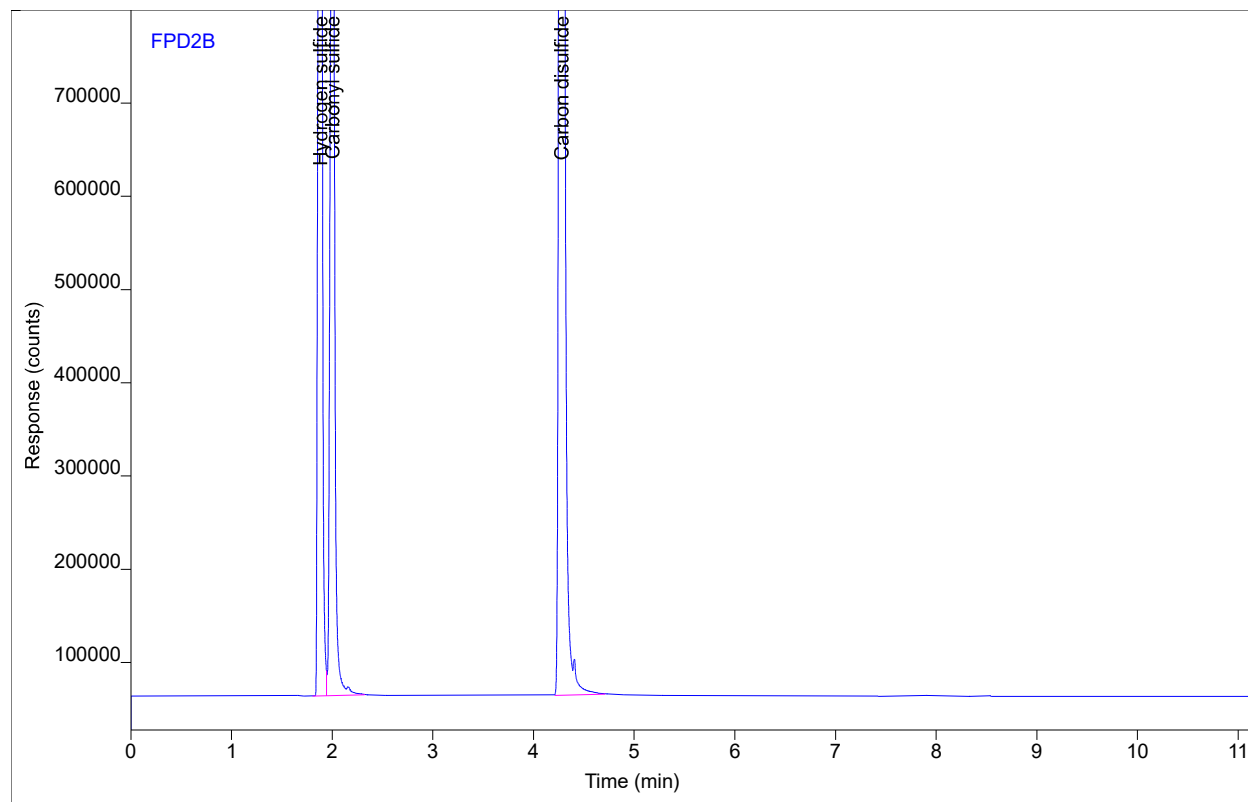
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	3686608	1237873	11.9026	1	11.9026	ppmv
Carbonyl sulfide	VB	2.00	3158205	978587	7.08464	1	7.08464	ppmv
Carbon disulfide	BB	4.28	1.16E+007	4143181	8.82538	1	8.82538	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B0205.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 2:12 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



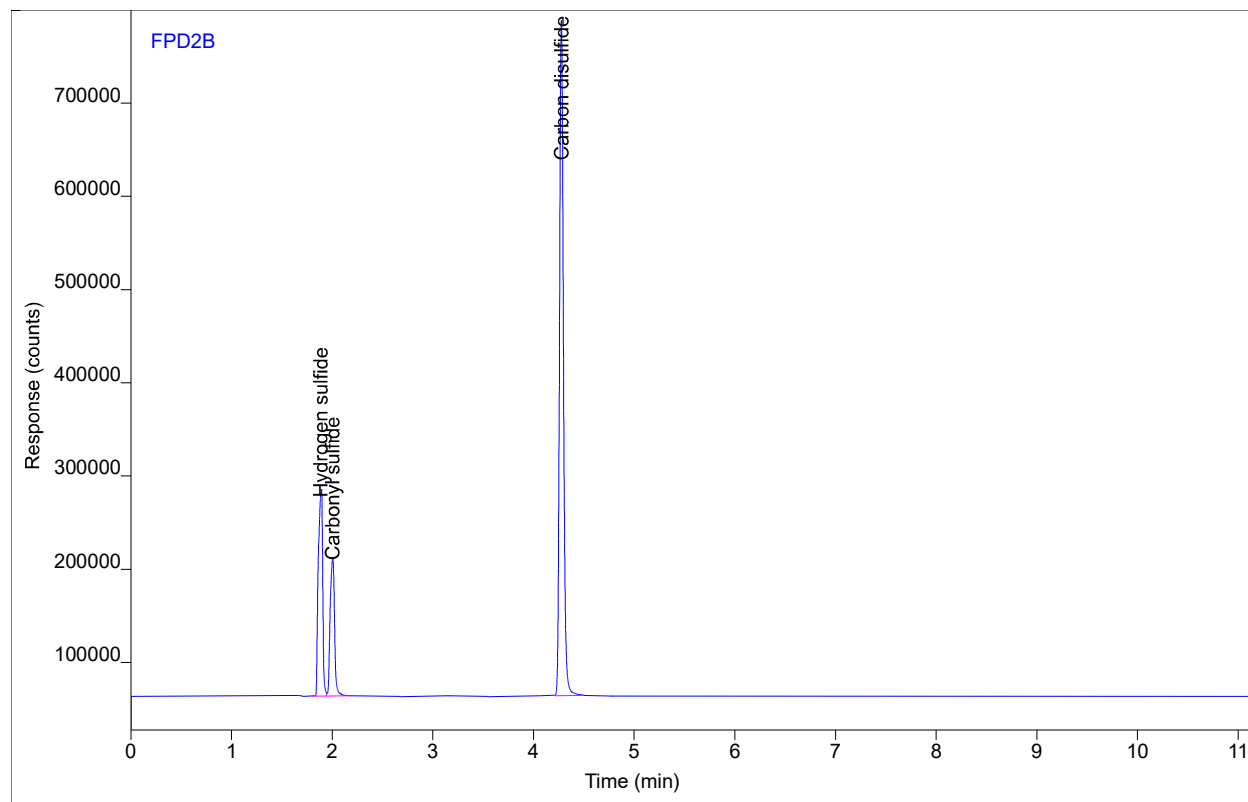
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	3744716	1292543	11.9925	1	11.9925	ppmv
Carbonyl sulfide	VB	2.00	3180815	1002652	7.10769	1	7.10769	ppmv
Carbon disulfide	BB	4.28	1.14E+007	4087290	8.73362	1	8.73362	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B0303.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 3:05 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



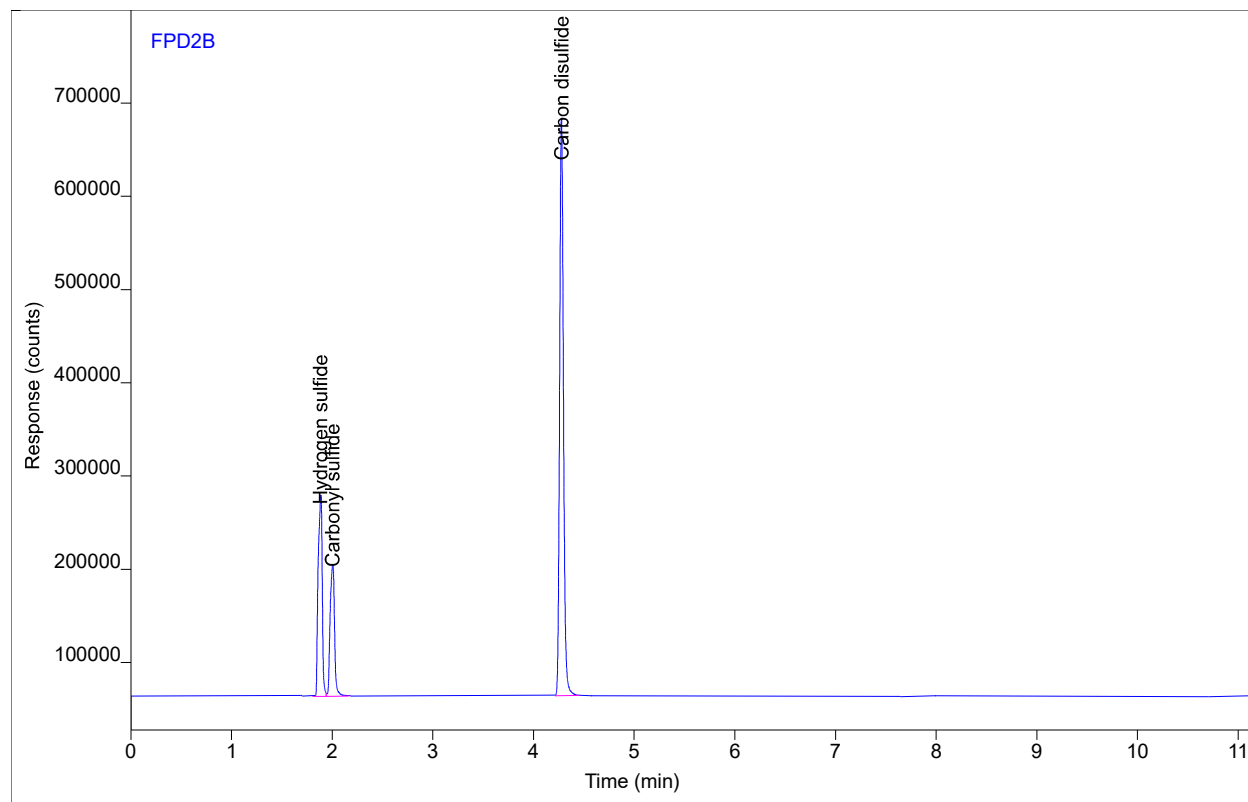
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.89	665112	210816	5.22240	1	5.22240	ppmv
Carbonyl sulfide	VB	2.00	449121	146594	2.91507	1	2.91507	ppmv
Carbon disulfide	BB	4.28	1959718	721614	3.90525	1	3.90525	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B0304.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 3:22 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	603437	209367	4.98356	1	4.98356	ppmv
Carbonyl sulfide	VB	2.00	428625	139441	2.85373	1	2.85373	ppmv
Carbon disulfide	BB	4.28	1643187	617501	3.60269	1	3.60269	ppmv

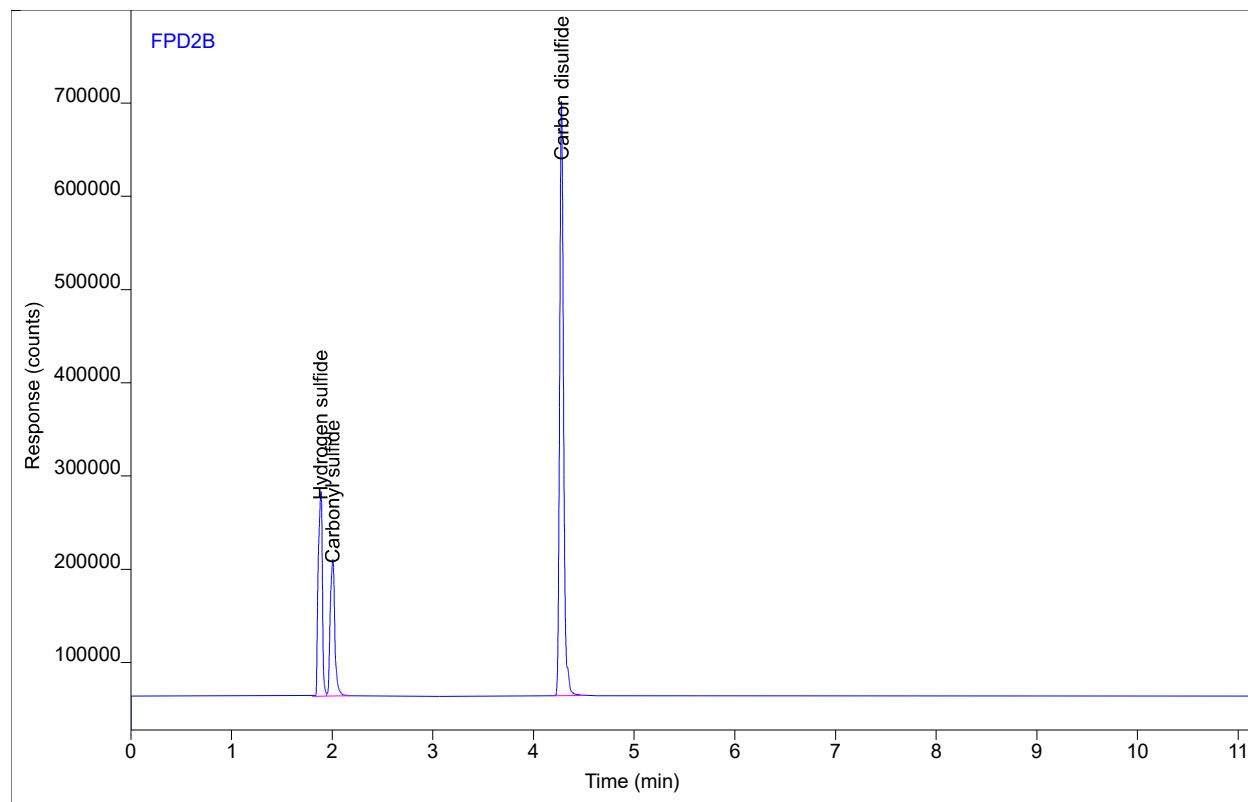


# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B0305.D  
File Location GC/2022/Zeppo/Quarter 4  
Injection Date 10/26/2022 3:39 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



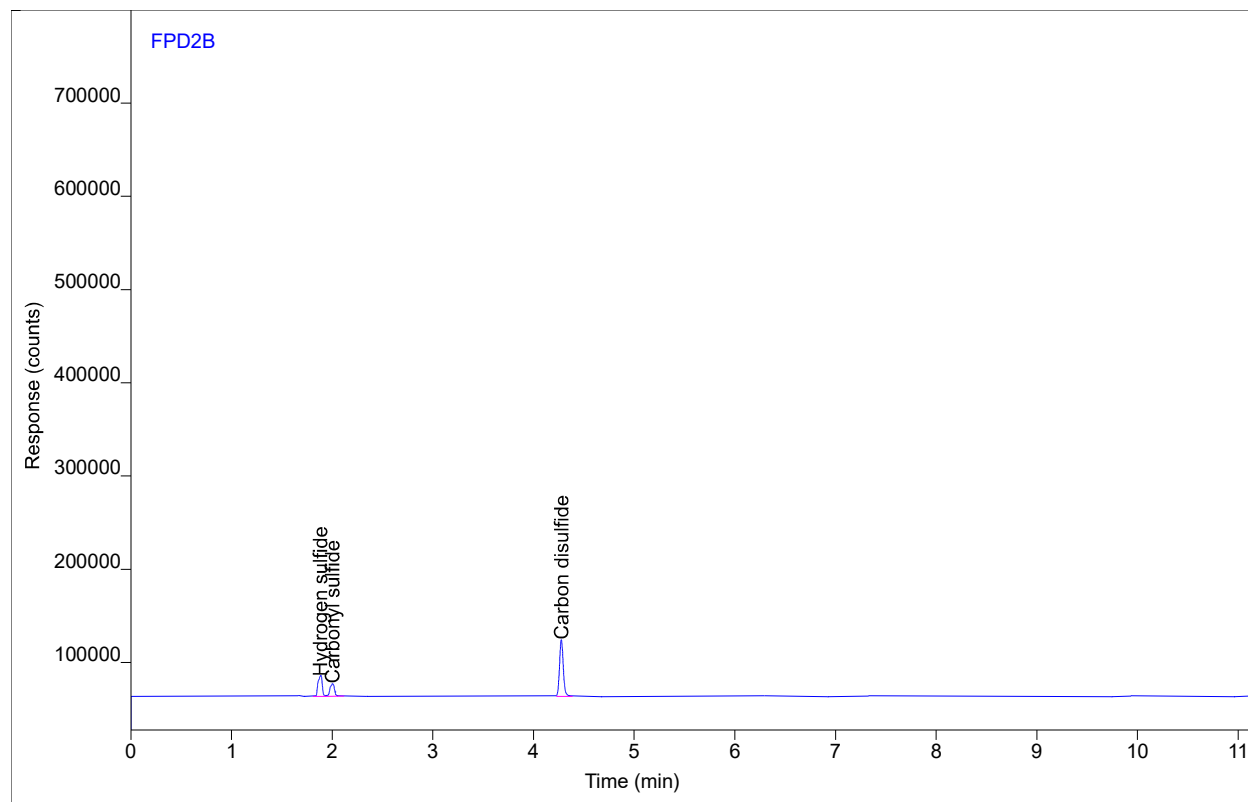
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	620999	210760	5.05281	1	5.05281	ppmv
Carbonyl sulfide	VB	2.00	467638	142801	2.96919	1	2.96919	ppmv
Carbon disulfide	BB	4.28	1717477	634265	3.67636	1	3.67636	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B0403.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 4:32 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



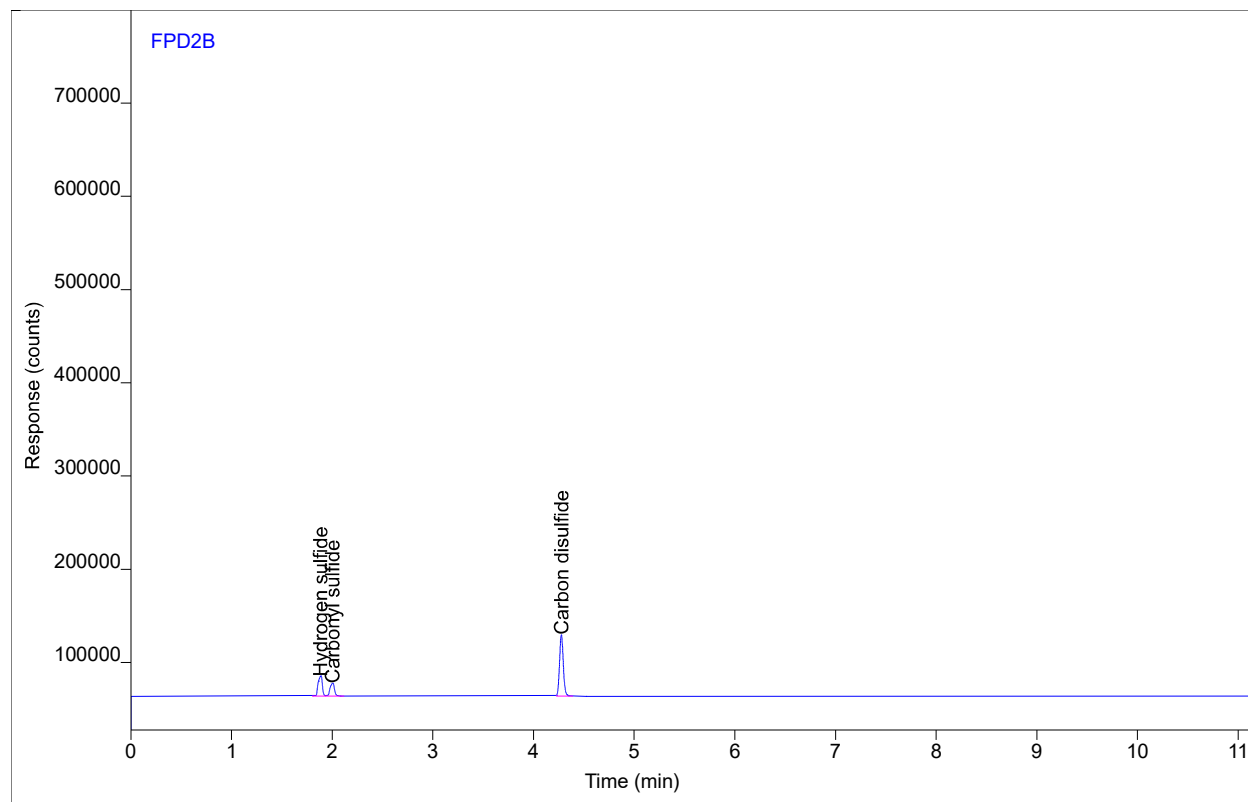
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	63645.3	21803.9	1.68896	1	1.68896	ppmv
Carbonyl sulfide	VB	2.00	40873.2	13524.6	0.97887	1	0.97887	ppmv
Carbon disulfide	BB	4.28	156957	60475.4	1.22955	1	1.22955	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B0404.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 4:49 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



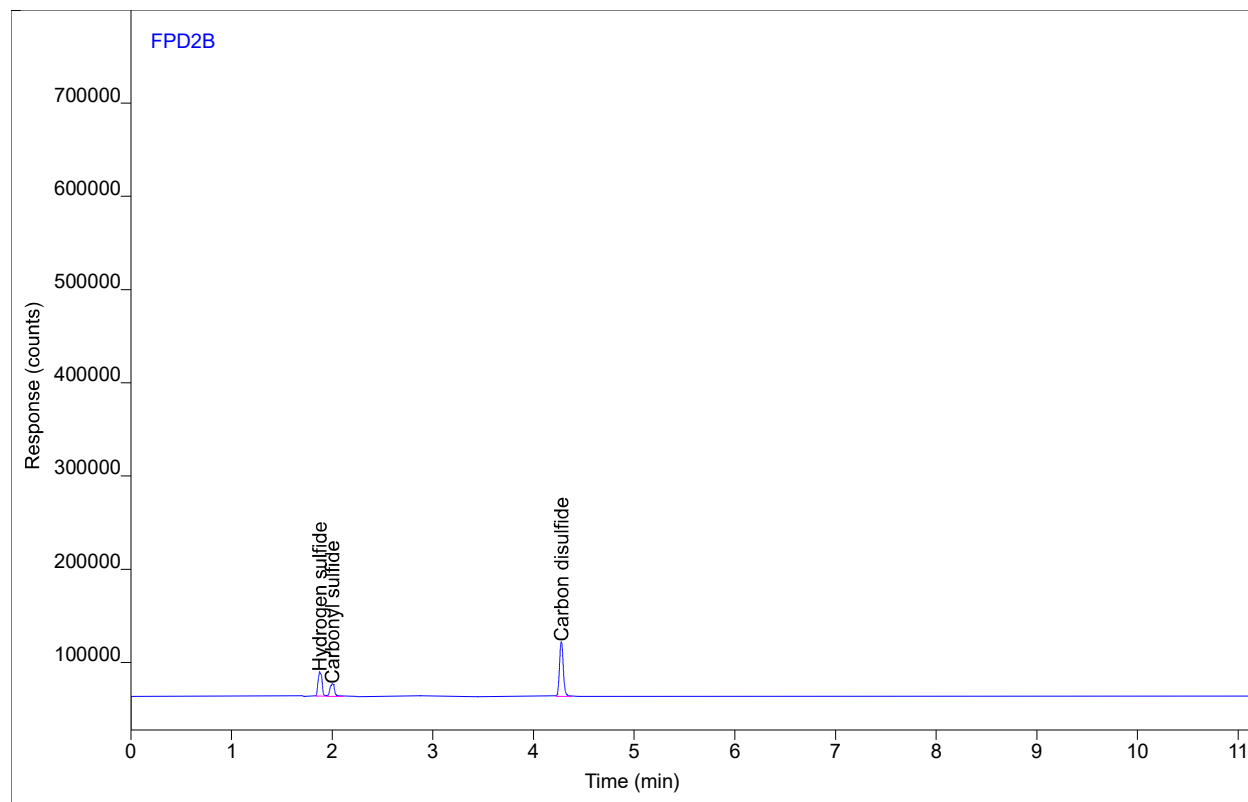
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	62260.9	21338.4	1.67118	1	1.67118	ppmv
Carbonyl sulfide	VB	2.00	43258.4	13872.8	1.00447	1	1.00447	ppmv
Carbon disulfide	BB	4.28	170748	65673.9	1.27787	1	1.27787	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B0405.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 5:07 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



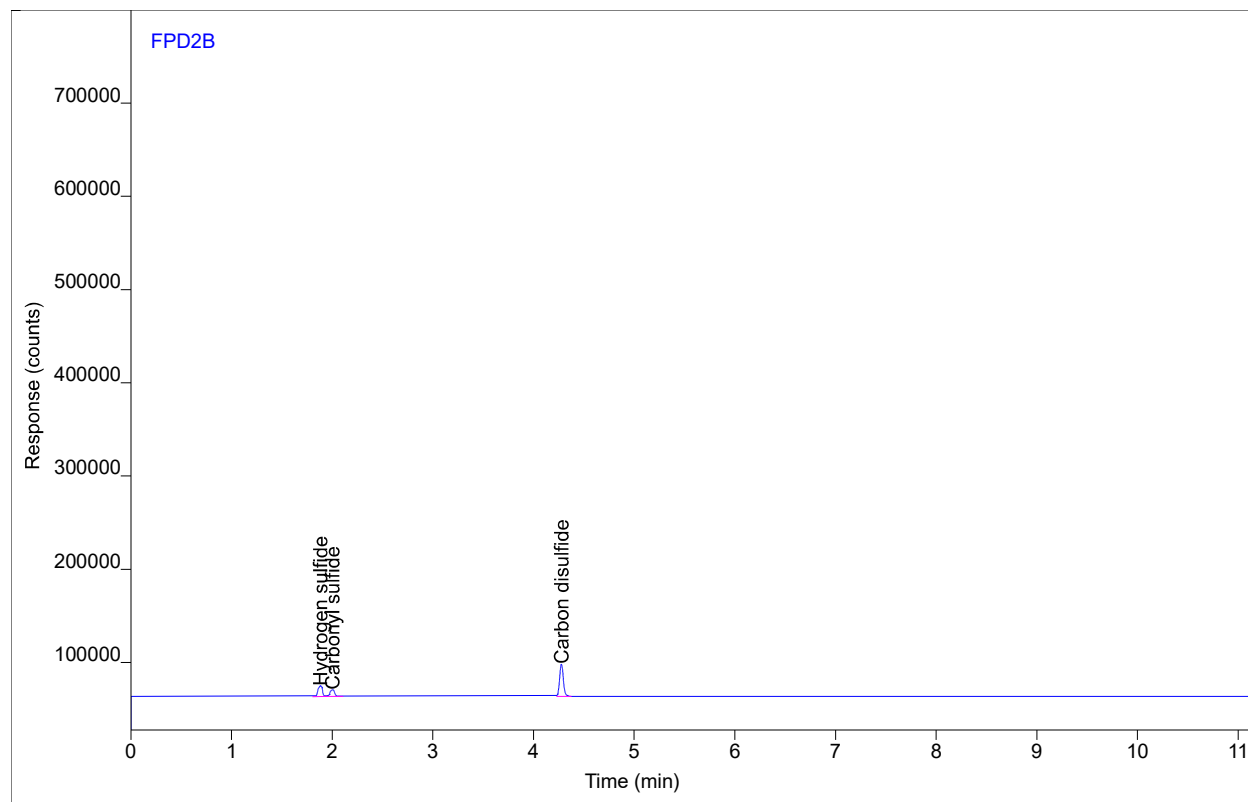
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	MM	1.88	69315.9	26093.6	1.75974	1	1.75974	ppmv
Carbonyl sulfide	VB	2.00	41004.8	13242.8	0.98030	1	0.98030	ppmv
Carbon disulfide	BB	4.28	153664	58715.9	1.21767	1	1.21767	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B0503.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 5:59 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



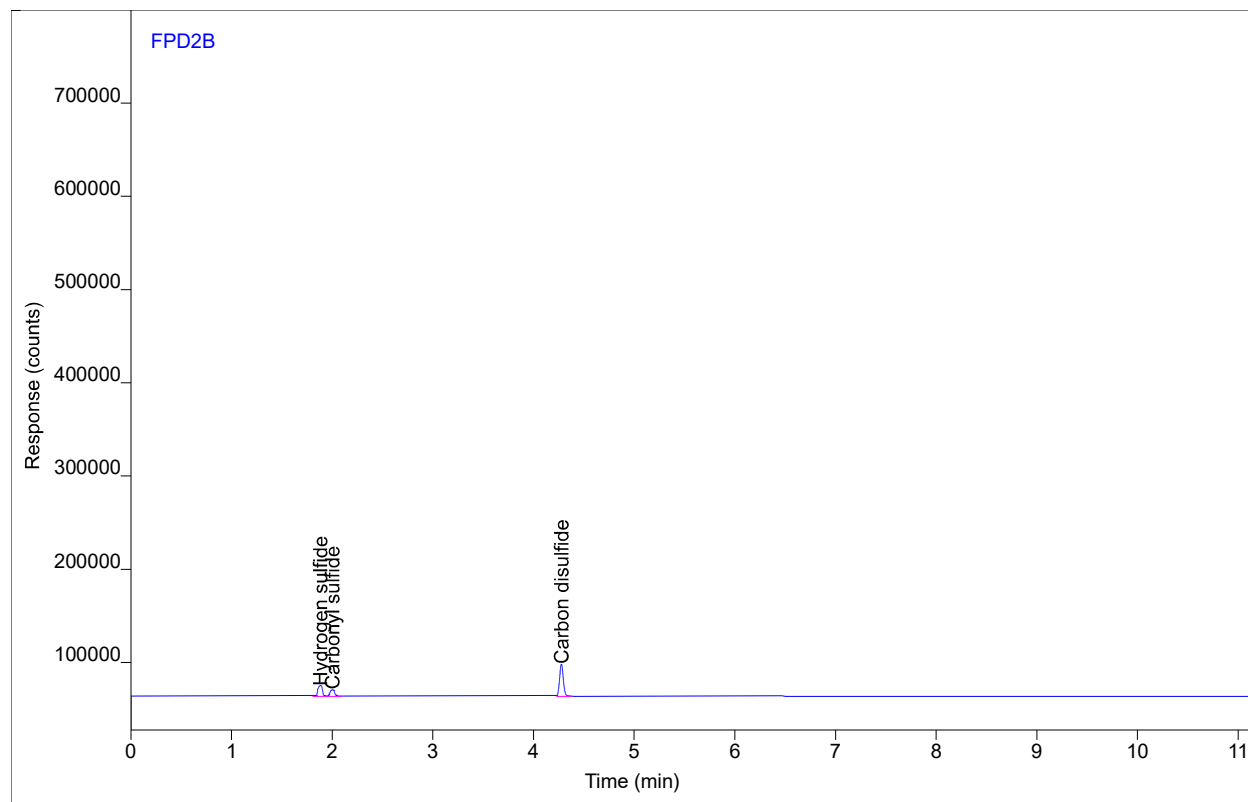
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	34491.9	11555.6	1.25787	1	1.25787	ppmv
Carbonyl sulfide	VB	2.00	22938.8	7404.65	0.75250	1	0.75250	ppmv
Carbon disulfide	BB	4.28	89033.2	34601.1	0.94848	1	0.94848	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B0504.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 6:17 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



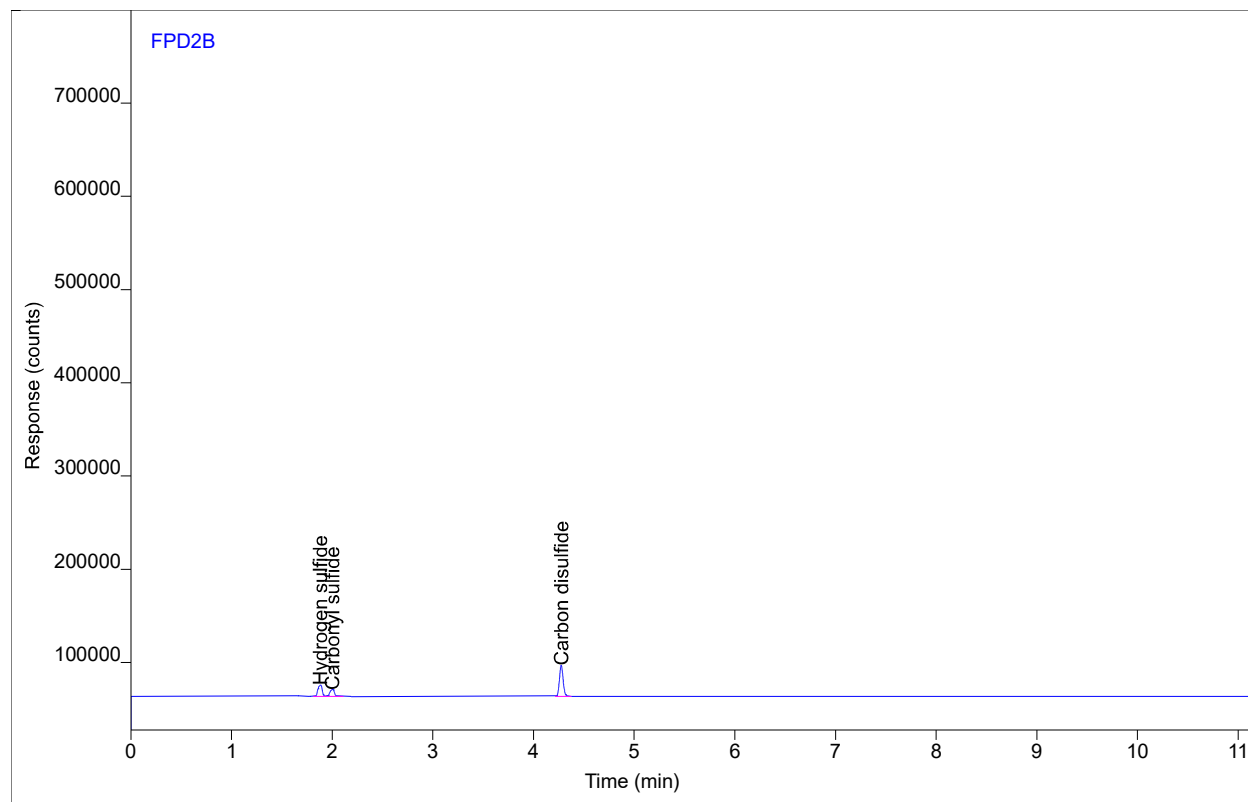
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	36377.1	11573.7	1.29048	1	1.29048	ppmv
Carbonyl sulfide	VB	2.00	24479.5	7490.07	0.77510	1	0.77510	ppmv
Carbon disulfide	BB	4.28	89934.8	34652.8	0.95287	1	0.95287	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B0505.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 6:34 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



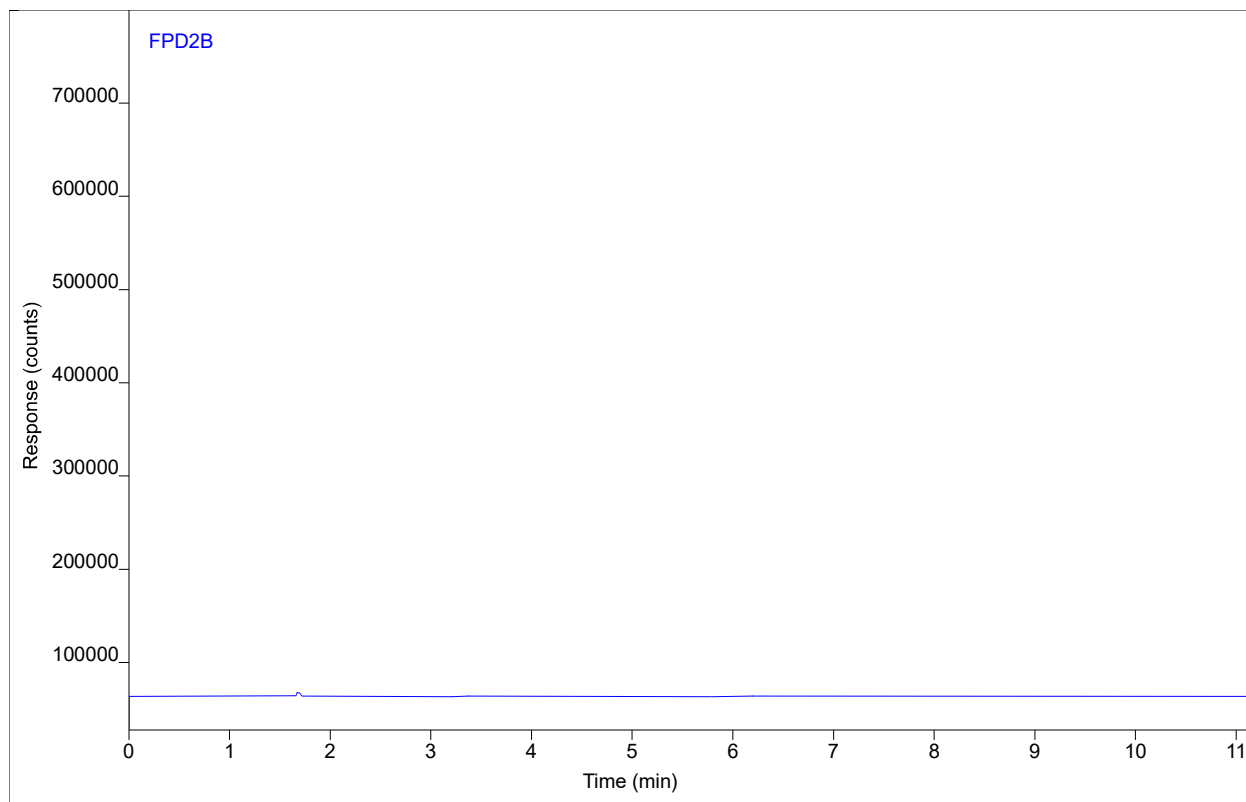
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	34683.5	12322.6	1.26122	1	1.26122	ppmv
Carbonyl sulfide	VB	2.00	21908.3	7250.93	0.73691	1	0.73691	ppmv
Carbon disulfide	BB	4.28	85263.1	33273.6	0.92988	1	0.92988	ppmv

# Chromatogram Report

Sample Name        zeppoP0551 #MB  
Sequence Name     ZEPPOP0680 ver.1  
Inj Data File      005B0601.D  
File Location      GC/2022/Zepo/Quarter 4  
Injection Date     10/26/2022 6:52 AM  
File Modified      10/28/2022 9:59 AM  
Instrument         Zeppo  
Operator            Rhiannon Buchman

# Enthalpy Analytical

Sample Type        Sample  
Vial Number        Vial 5  
Injection Volume    NA  
Injection            1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method    ZEPPOP0680\_1.M  
Method Modified    10/26/2022 9:17 AM  
Printed             10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

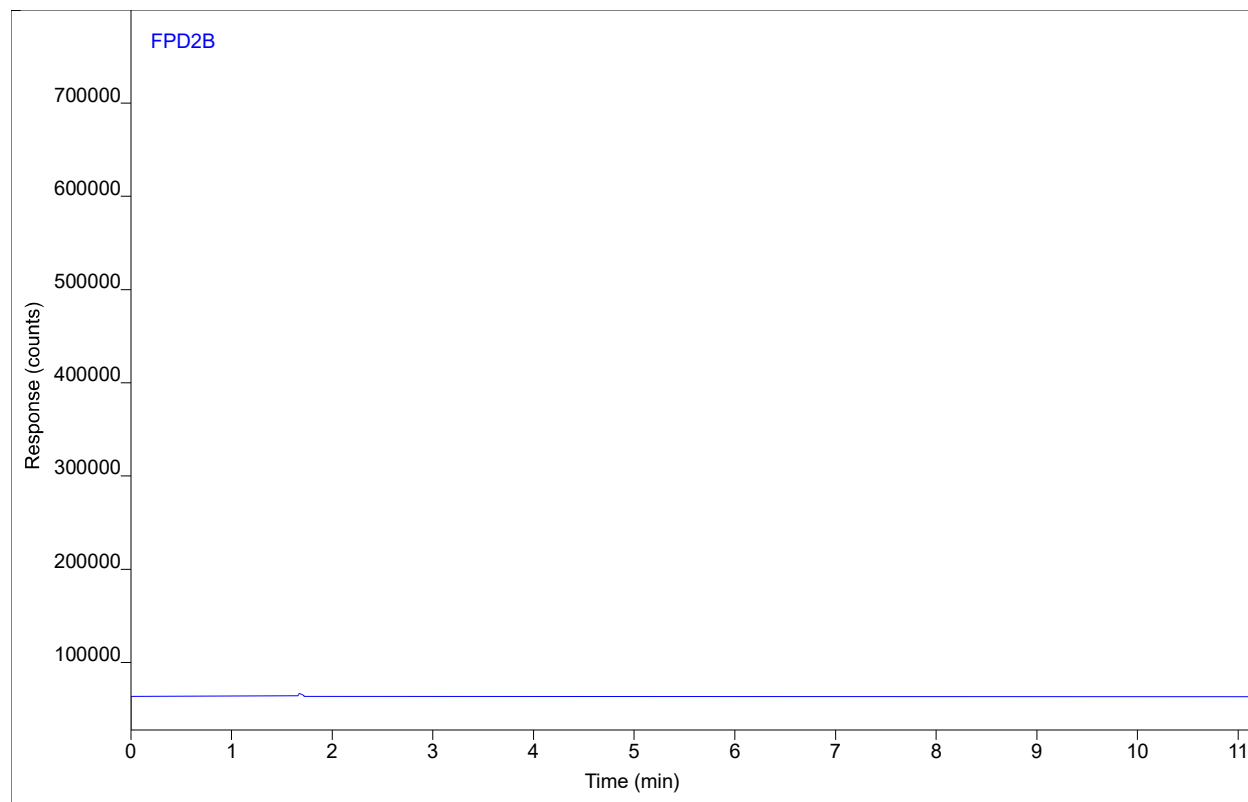


# Chromatogram Report

Sample Name zeppoP0551 #MB  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B0602.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 7:09 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



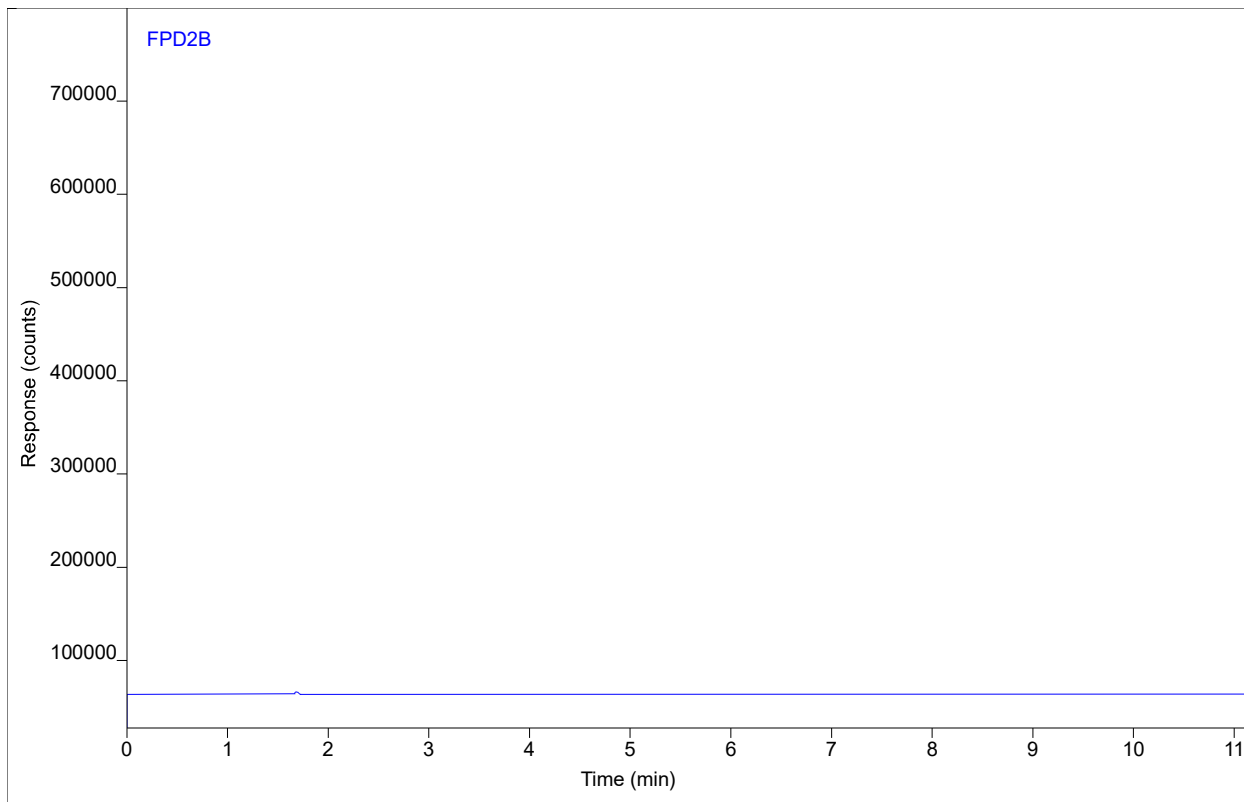
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name        zeppoP0551 #MB  
Sequence Name     ZEPPOP0680 ver.1  
Inj Data File      005B0603.D  
File Location      GC/2022/Zepo/Quarter 4  
Injection Date     10/26/2022 7:26 AM  
File Modified      10/28/2022 9:59 AM  
Instrument        Zeppo  
Operator           Rhiannon Buchman

# Enthalpy Analytical

Sample Type        Sample  
Vial Number        Vial 5  
Injection Volume    NA  
Injection           3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method    ZEPPOP0680\_1.M  
Method Modified    10/26/2022 9:17 AM  
Printed            10/28/2022 3:47 PM



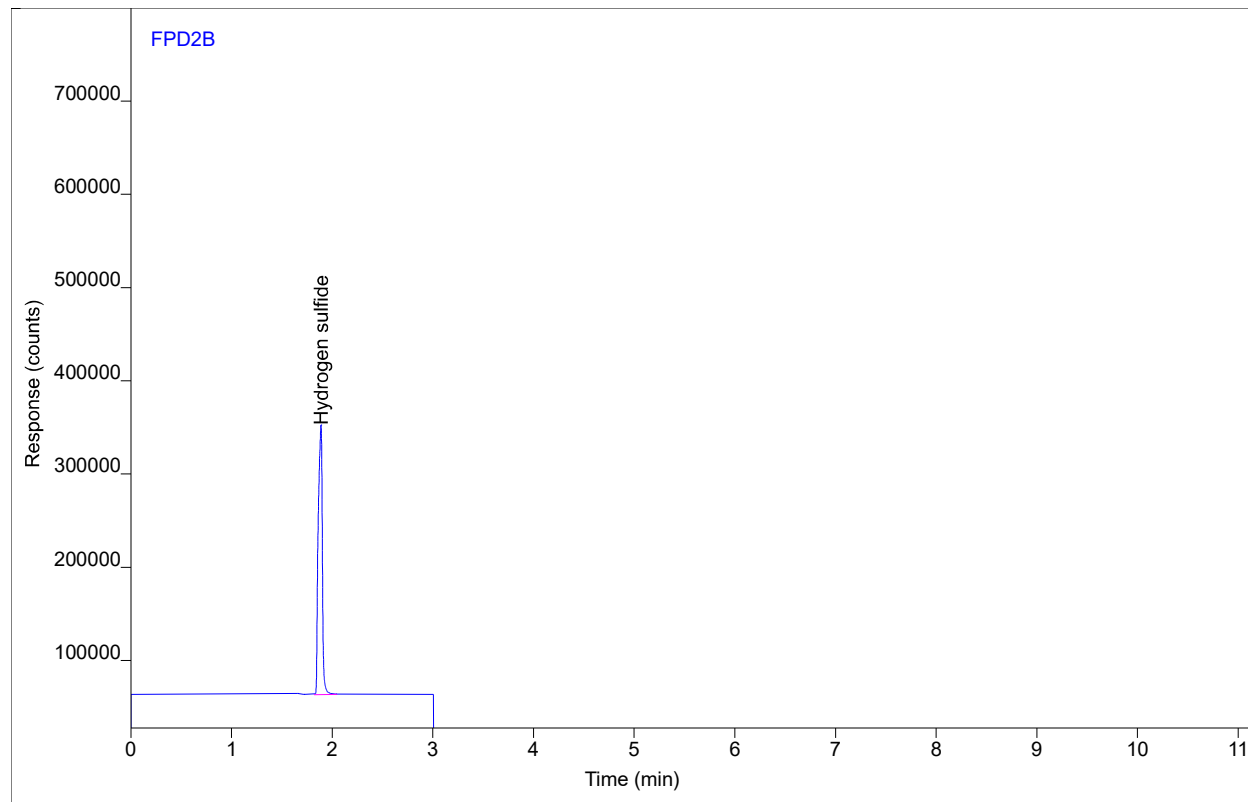
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name zeppoP0675 #LCS  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1301.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 10:09 AM  
File Modified 10/28/2022 9:59 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 2  
Acquisition Method DUALFPD8\_SHORT.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



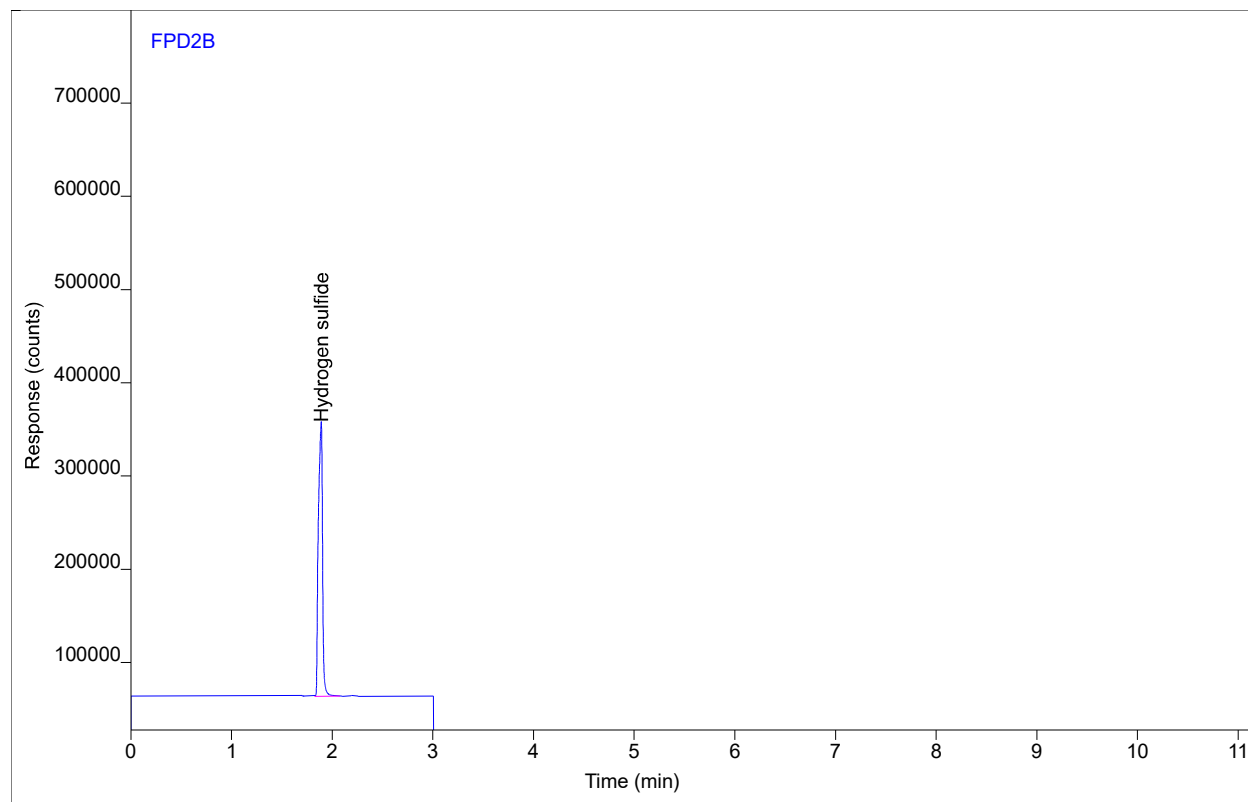
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	MM	1.89	817907	294061	5.76863	1	5.76863	ppmv

# Chromatogram Report

Sample Name zeppoP0675 #LCS  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1302.D  
File Location GC/2022/Zeppo/Quarter 4  
Injection Date 10/26/2022 10:15 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 2  
Acquisition Method DUALFPD8\_SHORT.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



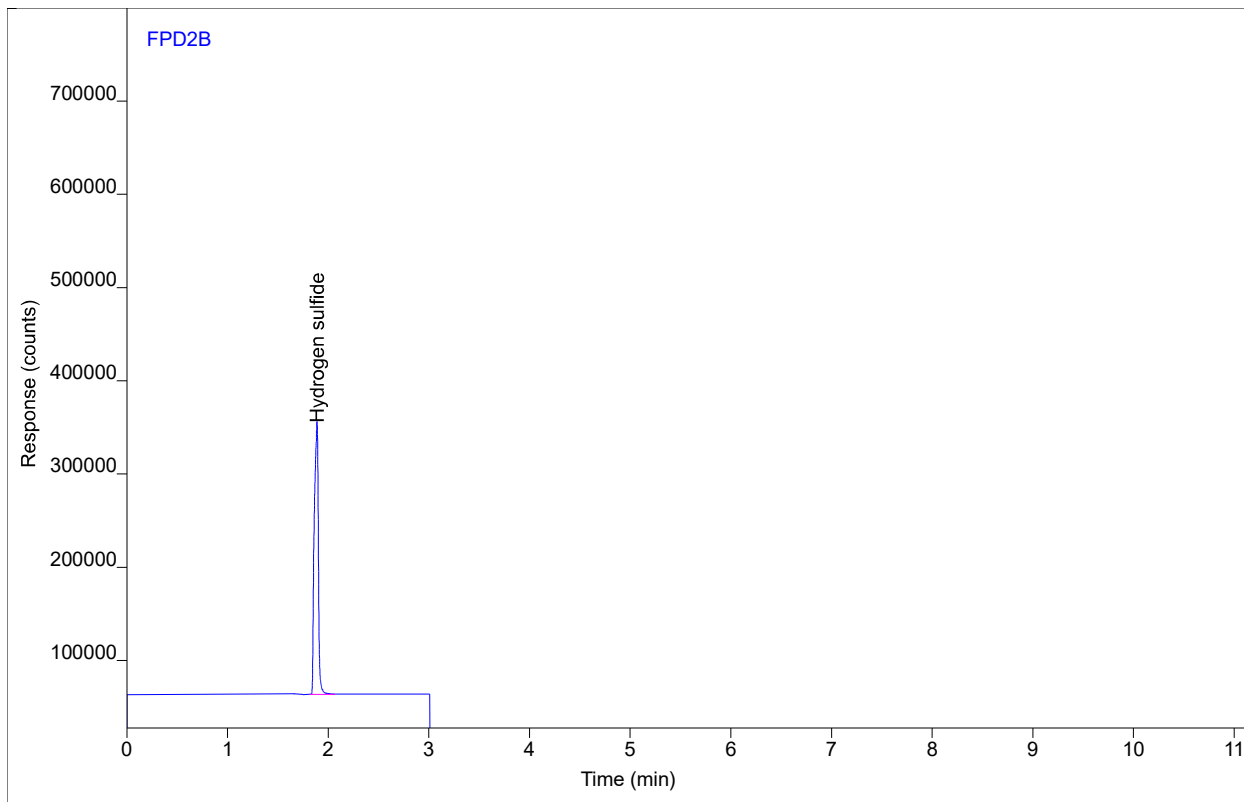
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	MM	1.89	843110	299657	5.85347	1	5.85347	ppmv

# Chromatogram Report

Sample Name zeppoP0675 #LCS  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1401.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 10:22 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 1  
Acquisition Method DUALFPD8\_SHORT.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



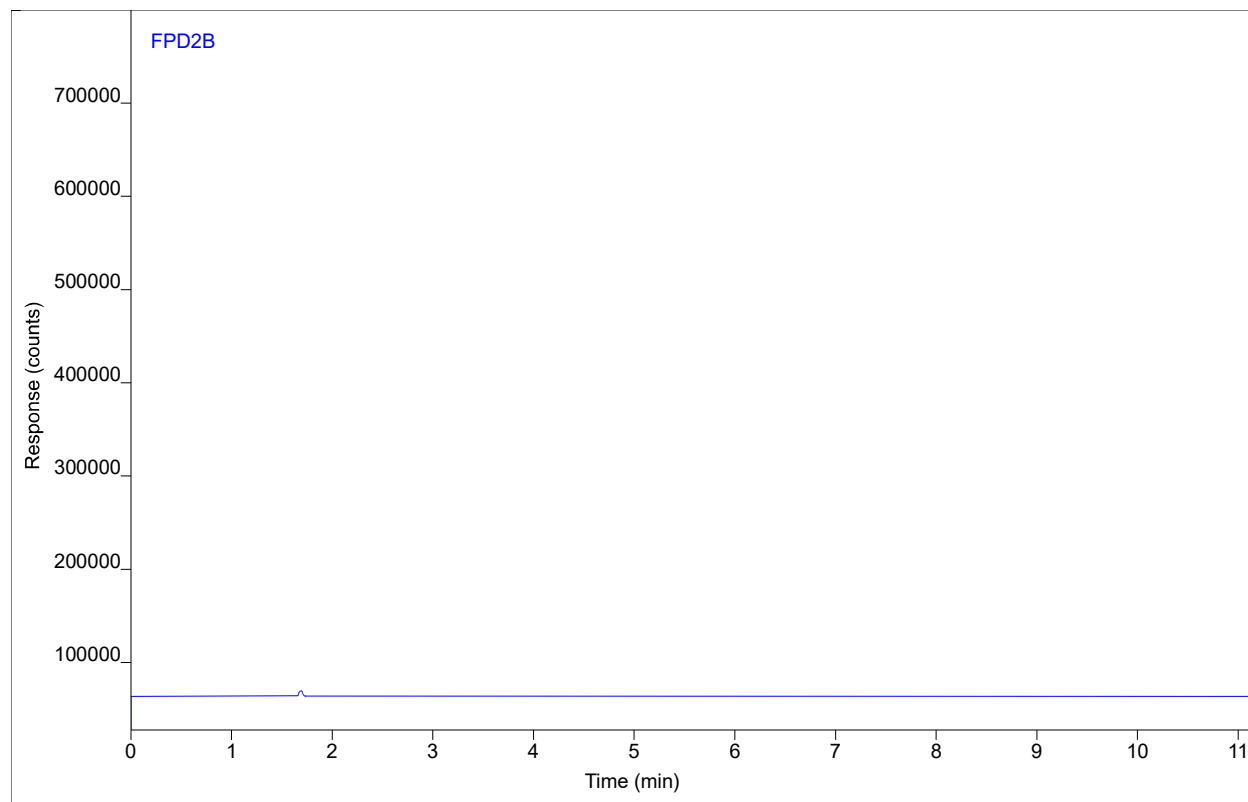
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	MM	1.89	822576	293367	5.78445	1	5.78445	ppmv

# Chromatogram Report

Sample Name 1022-165.Run 1.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1601.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 10:31 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



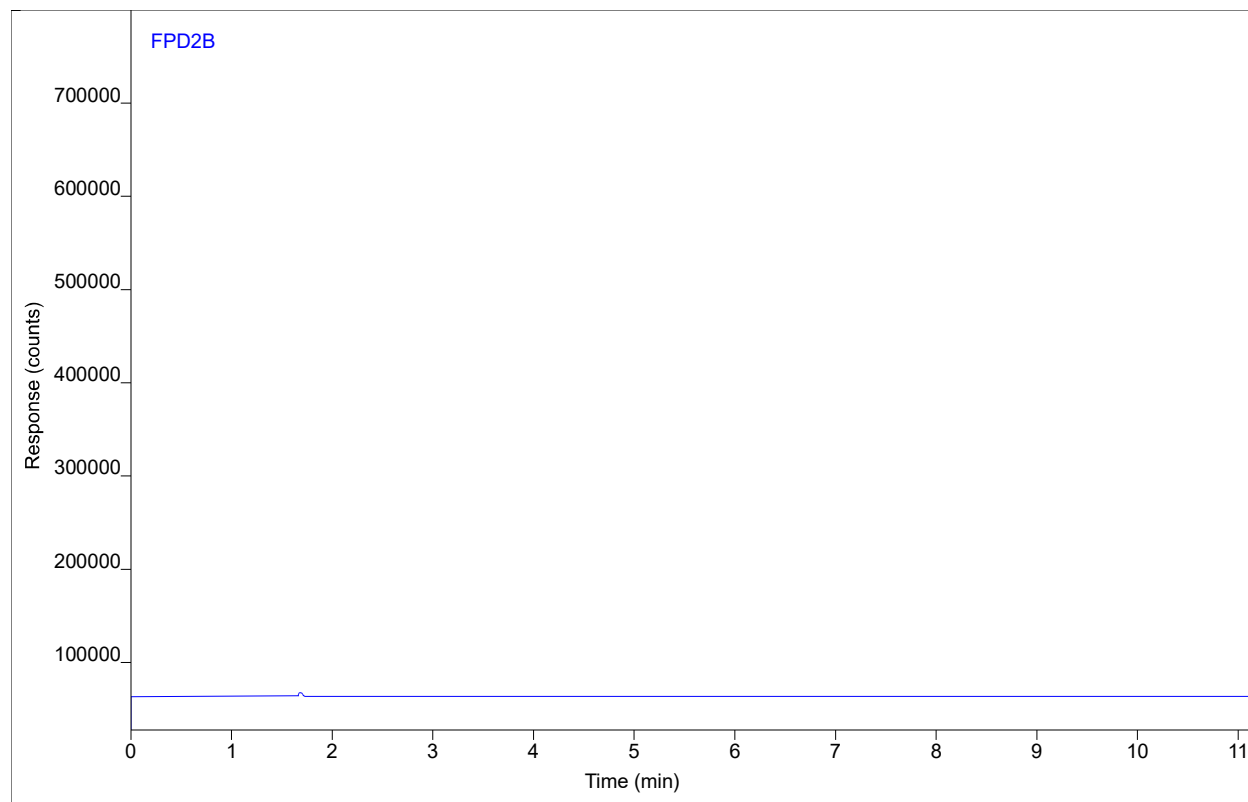
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 1.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1602.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 10:49 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



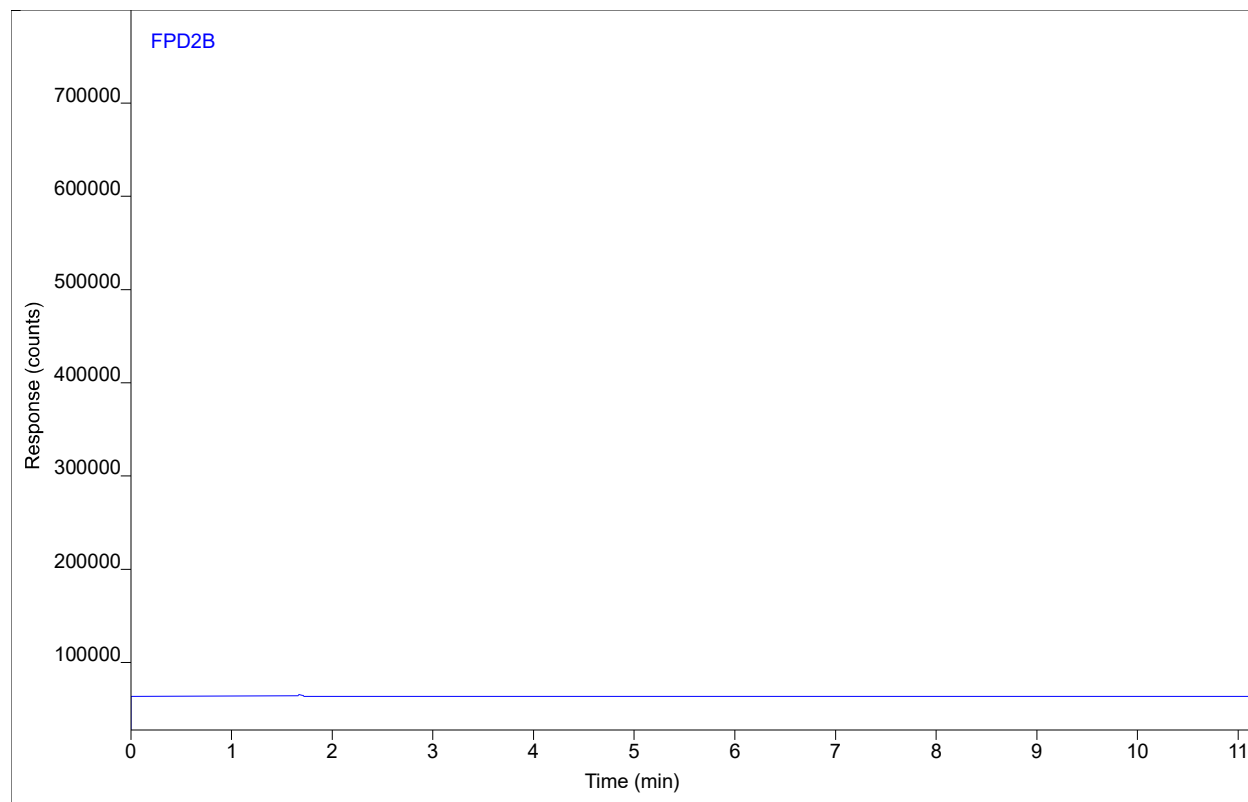
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 1.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1603.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 11:06 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

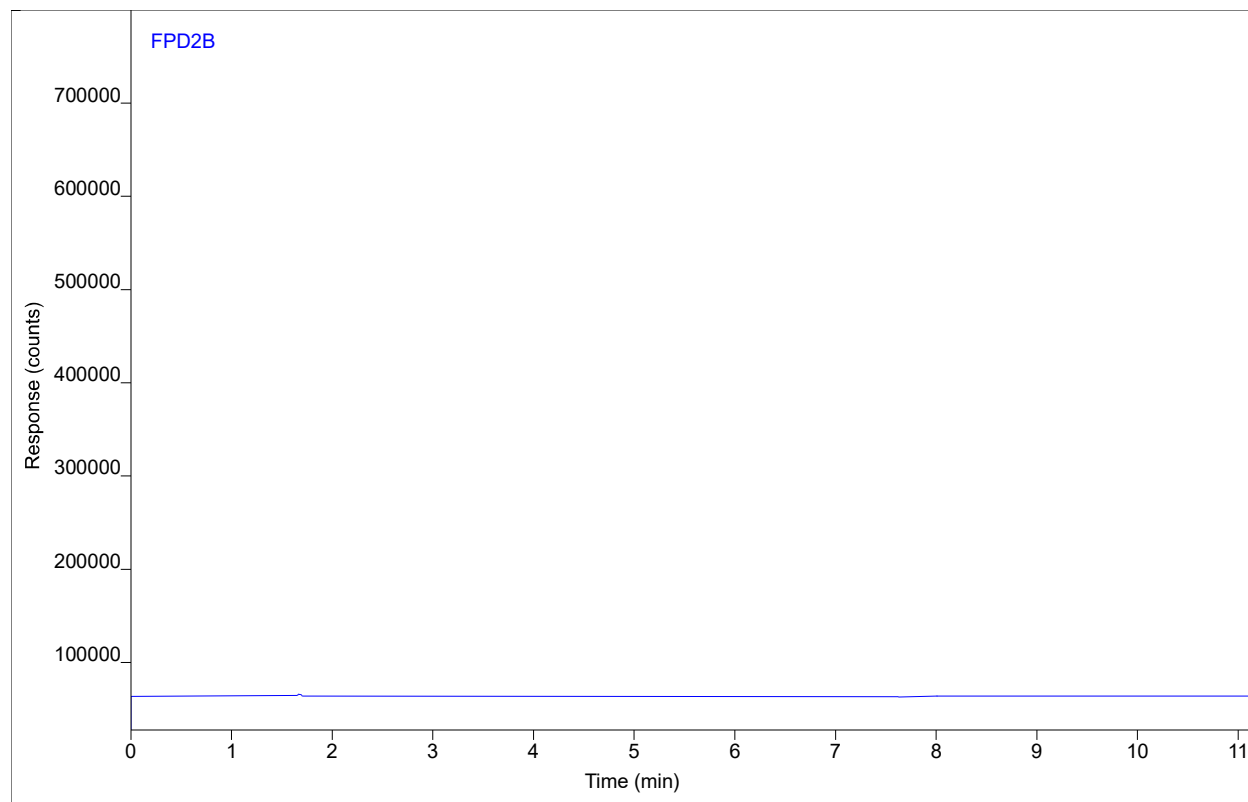


# Chromatogram Report

Sample Name 1022-165.Run 2.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1701.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 11:24 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



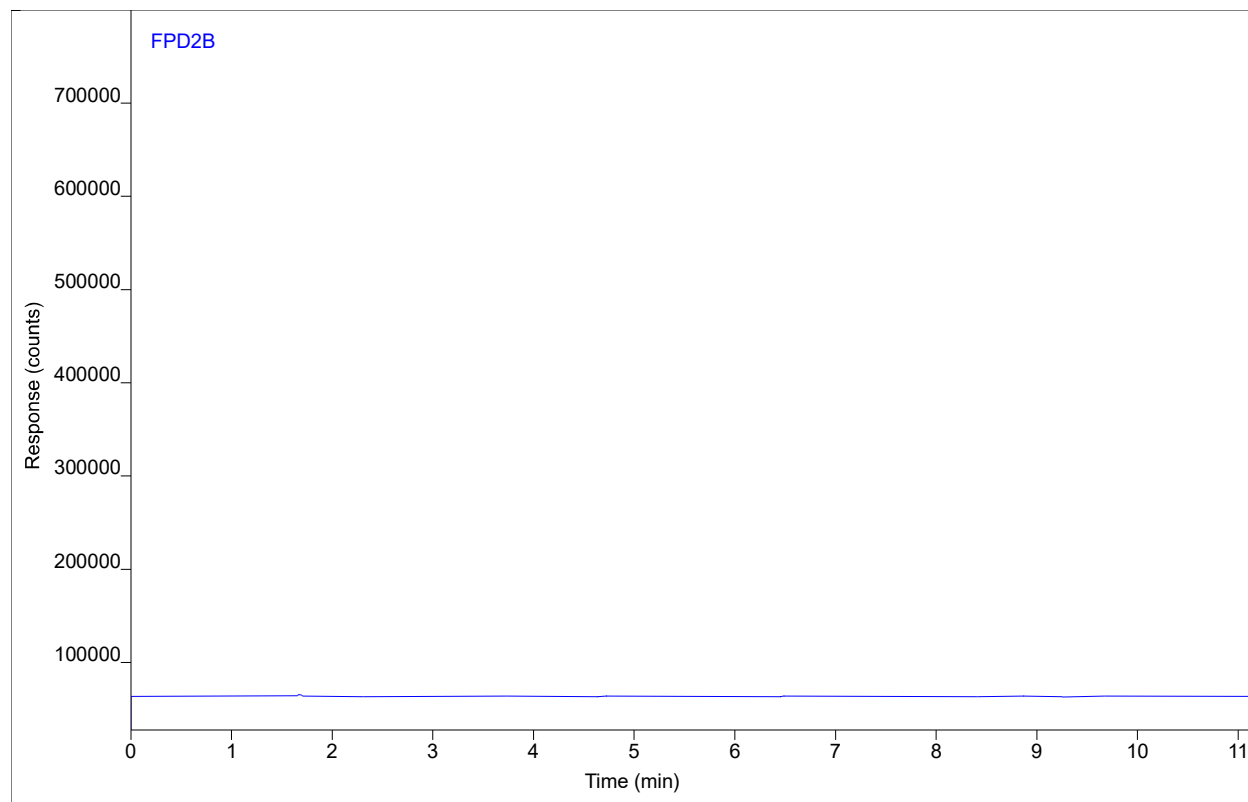
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 2.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1702.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 11:41 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



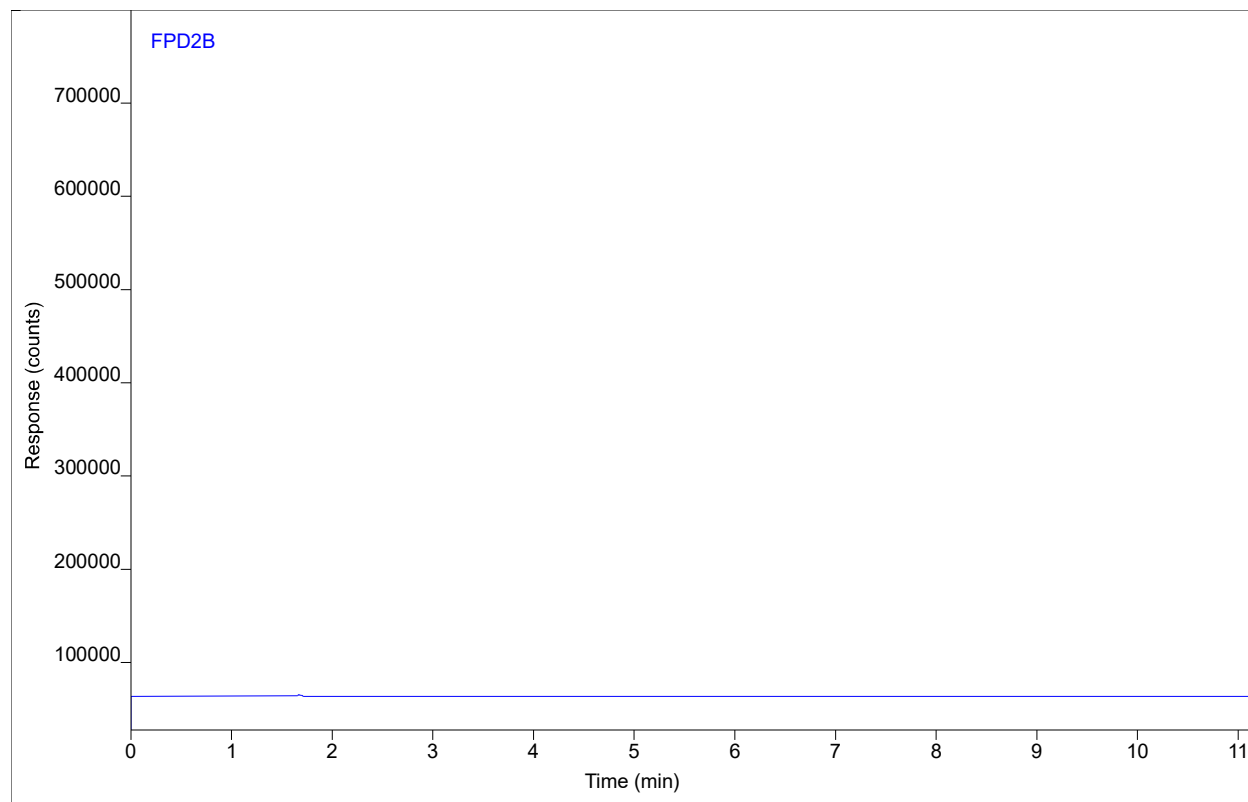
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 2.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1703.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 11:59 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



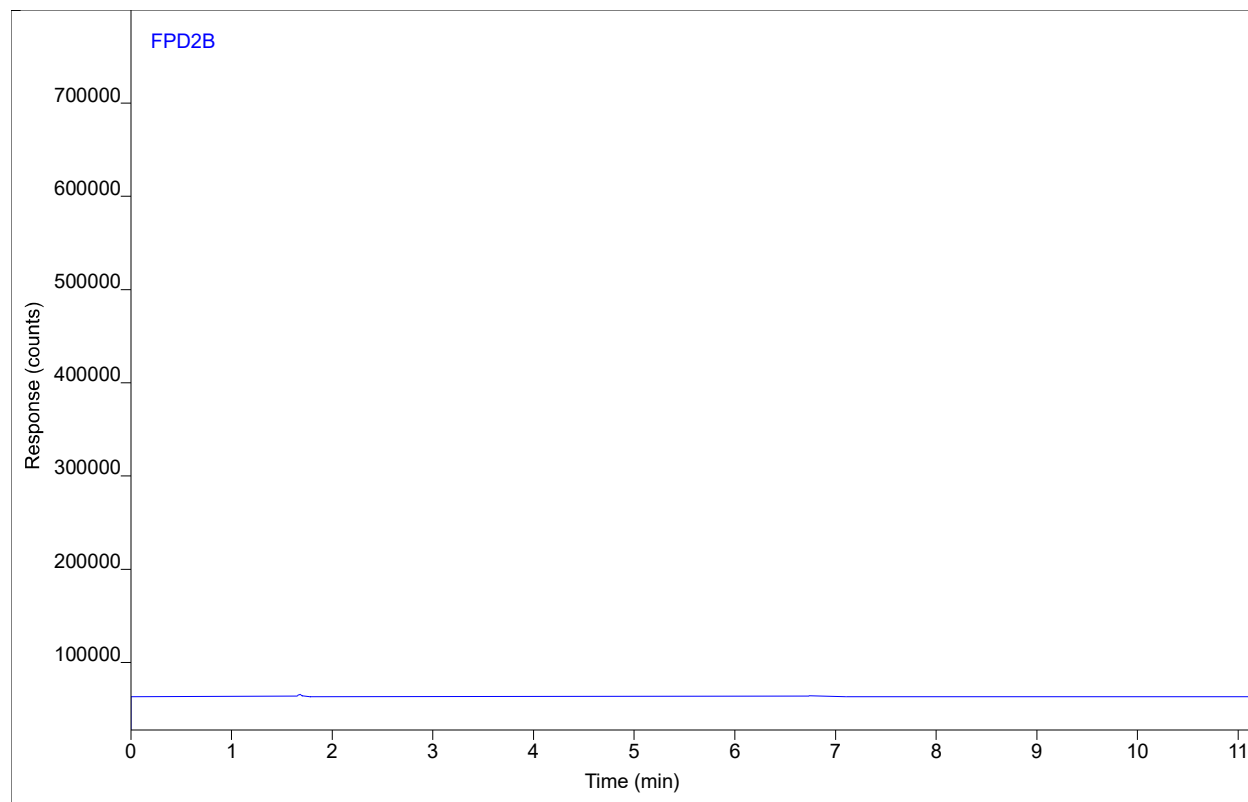
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 3.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1801.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 12:16 PM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



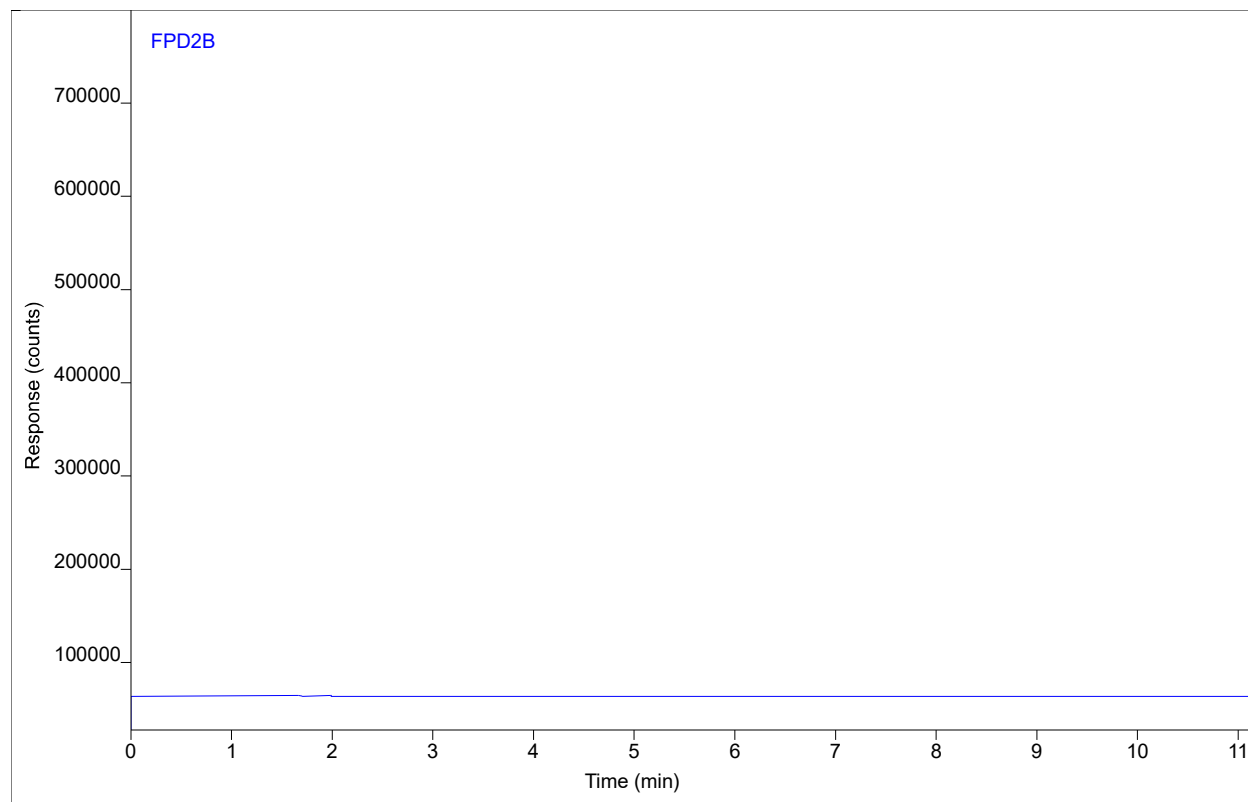
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 3.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1802.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 12:34 PM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



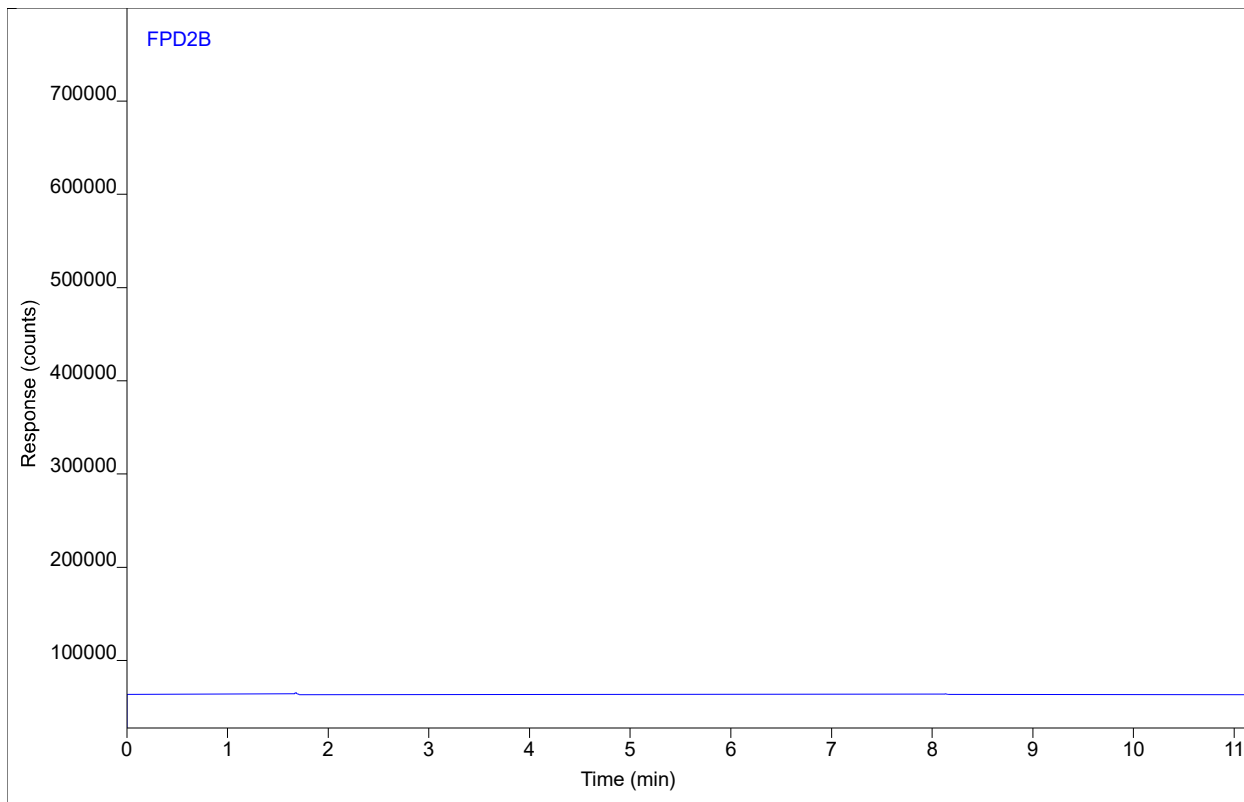
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.Run 3.Bag  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B1803.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/26/2022 12:51 PM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_1.M  
Method Modified 10/26/2022 9:17 AM  
Printed 10/28/2022 3:47 PM



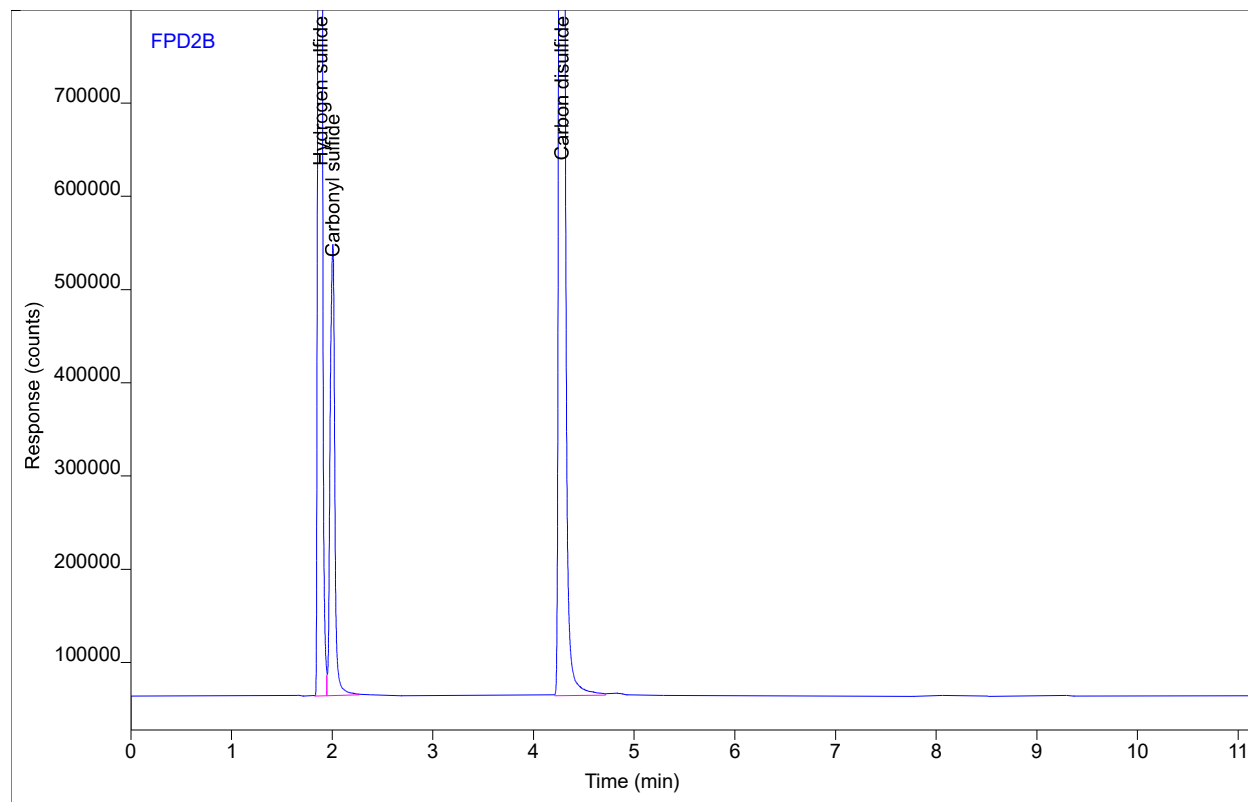
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.00)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B2003.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 1:37 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



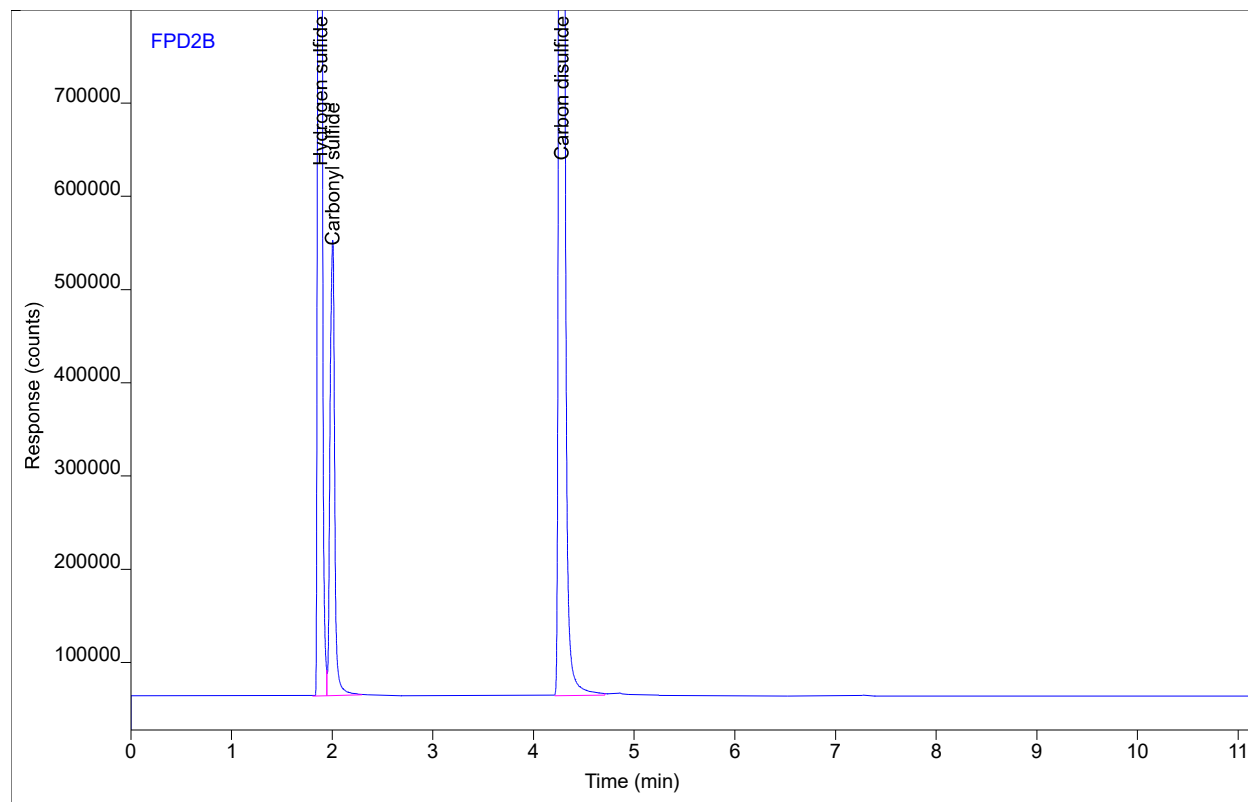
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4240474	1442833	11.7681	1	11.7681	ppmv
Carbonyl sulfide	VB	2.00	1557678	473170	6.98296	1	6.98296	ppmv
Carbon disulfide	BB	4.28	1.14E+007	4065962	8.70606	1	8.70606	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B2004.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 1:55 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4276735	1486925	11.8159	1	11.8159	ppmv
Carbonyl sulfide	VB	2.00	1577519	484487	7.02388	1	7.02388	ppmv
Carbon disulfide	BB	4.28	1.13E+007	4066817	8.68605	1	8.68605	ppmv

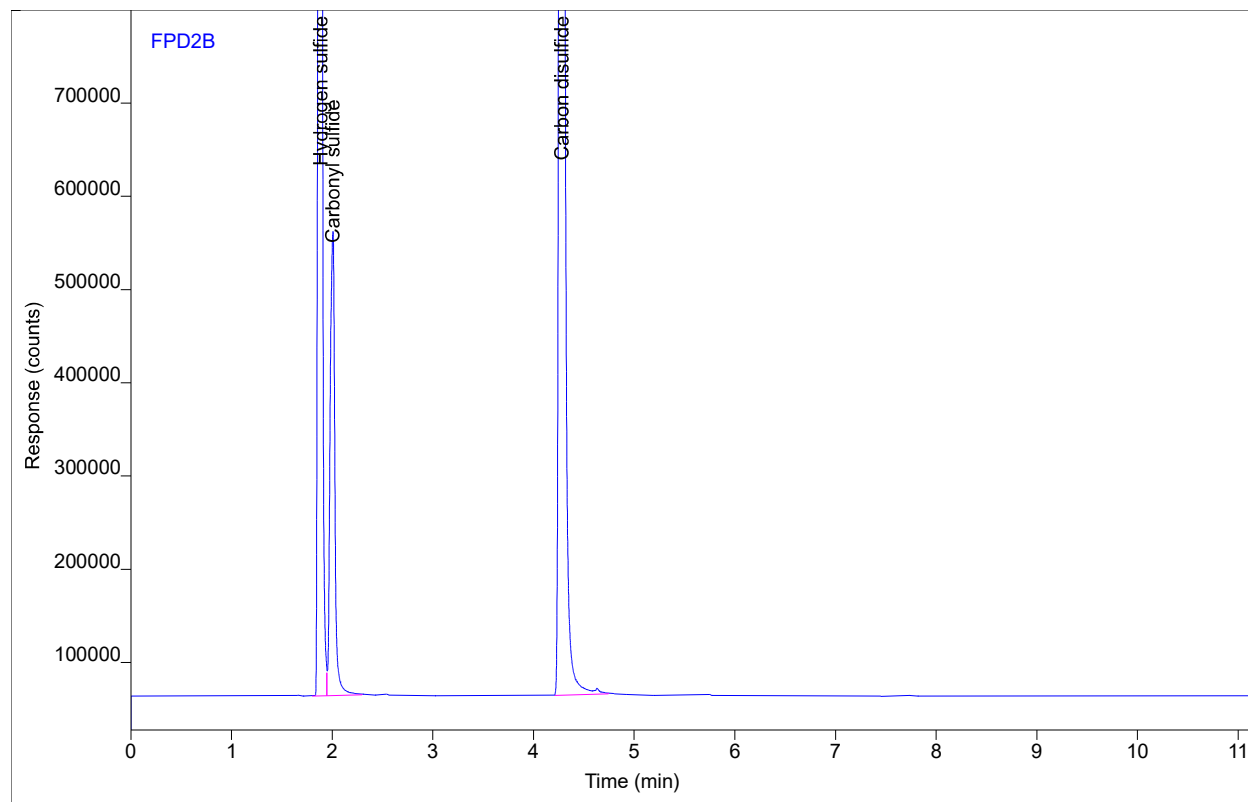


# Chromatogram Report

Sample Name zeppoP0680 #5  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 005B2005.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 2:12 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



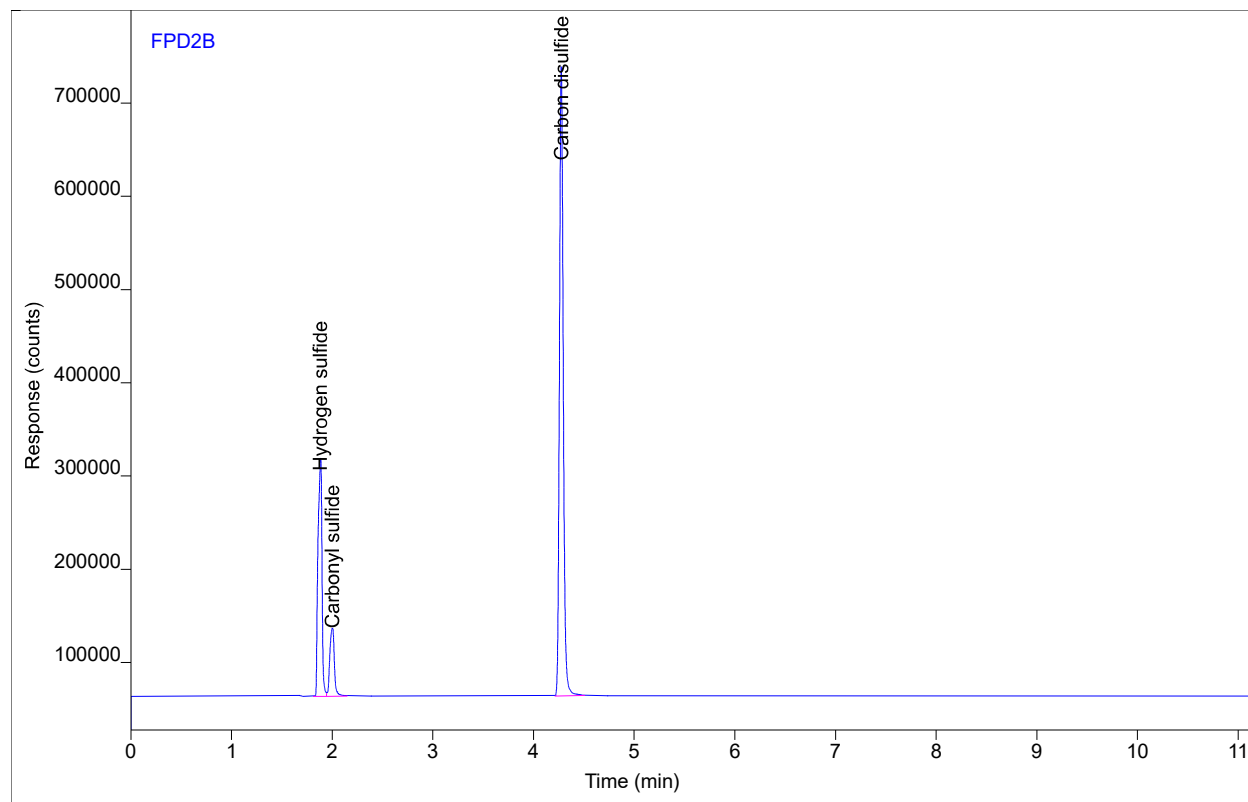
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4357944	1462273	11.9222	1	11.9222	ppmv
Carbonyl sulfide	VB	2.00	1643901	485662	7.15882	1	7.15882	ppmv
Carbon disulfide	BB	4.28	1.19E+007	4218005	8.88215	1	8.88215	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B2103.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 3:04 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



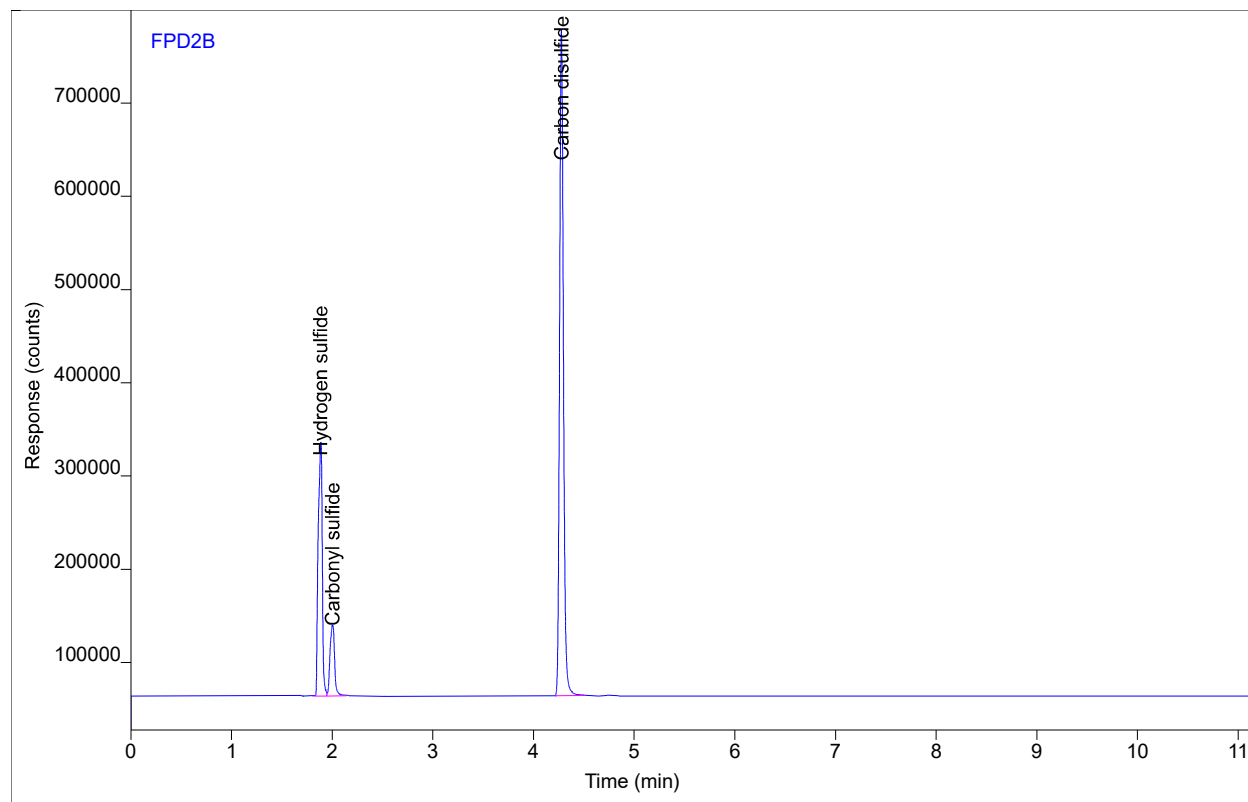
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	698629	254246	4.98779	1	4.98779	ppmv
Carbonyl sulfide	VB	2.00	229215	71225.3	2.88279	1	2.88279	ppmv
Carbon disulfide	BB	4.28	1791734	670264	3.69159	1	3.69159	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B2104.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 3:22 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



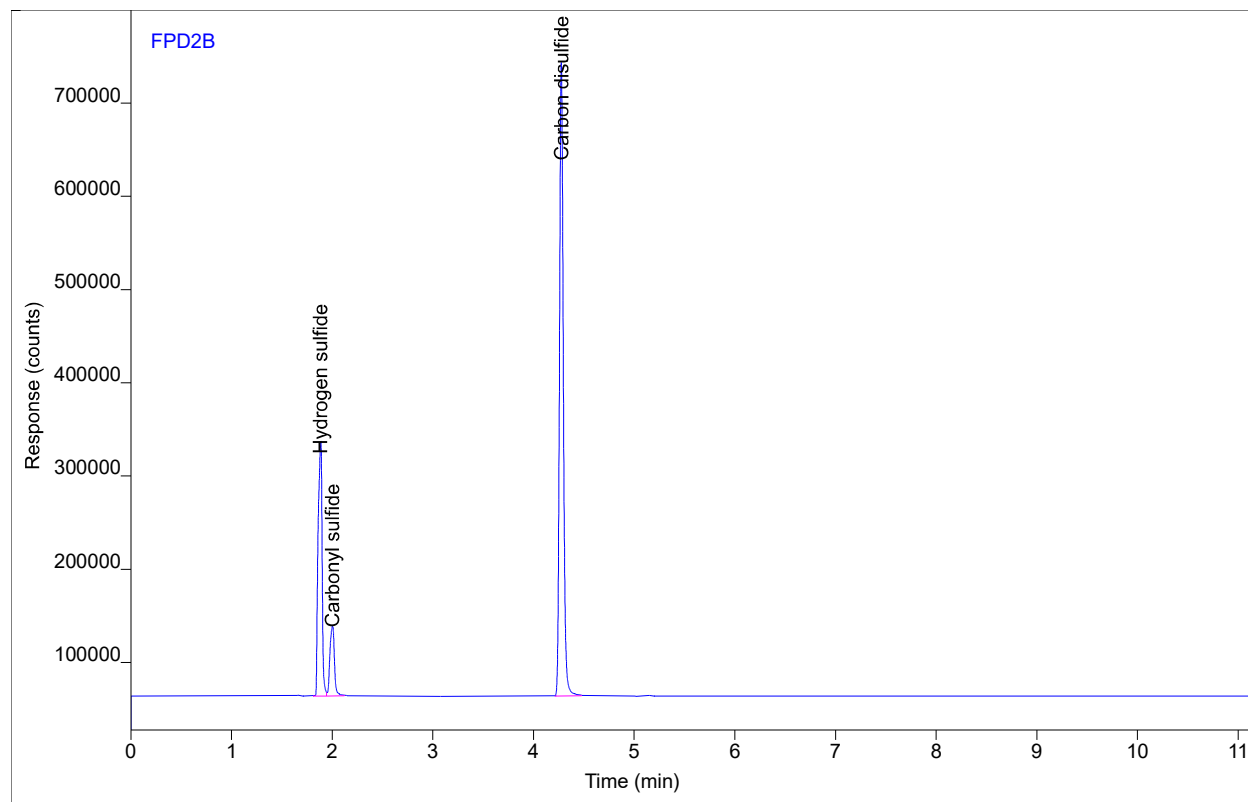
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	758807	260527	5.18788	1	5.18788	ppmv
Carbonyl sulfide	VB	2.00	242326	75715.7	2.95778	1	2.95778	ppmv
Carbon disulfide	BB	4.28	1908735	708654	3.80148	1	3.80148	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0680 #4  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 004B2105.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 3:39 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



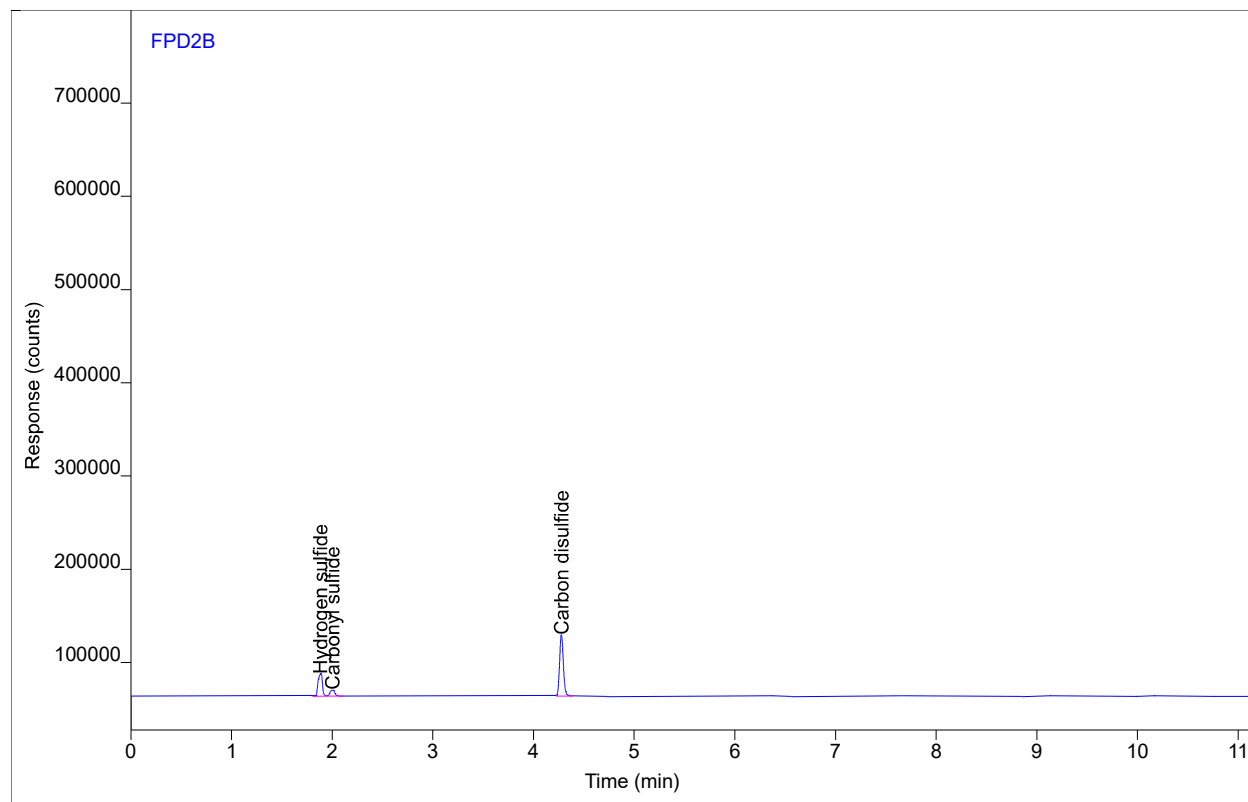
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	754400	267698	5.17352	1	5.17352	ppmv
Carbonyl sulfide	VB	2.00	232559	75099.4	2.90213	1	2.90213	ppmv
Carbon disulfide	BB	4.28	1801106	675332	3.70054	1	3.70054	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B2203.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 4:32 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



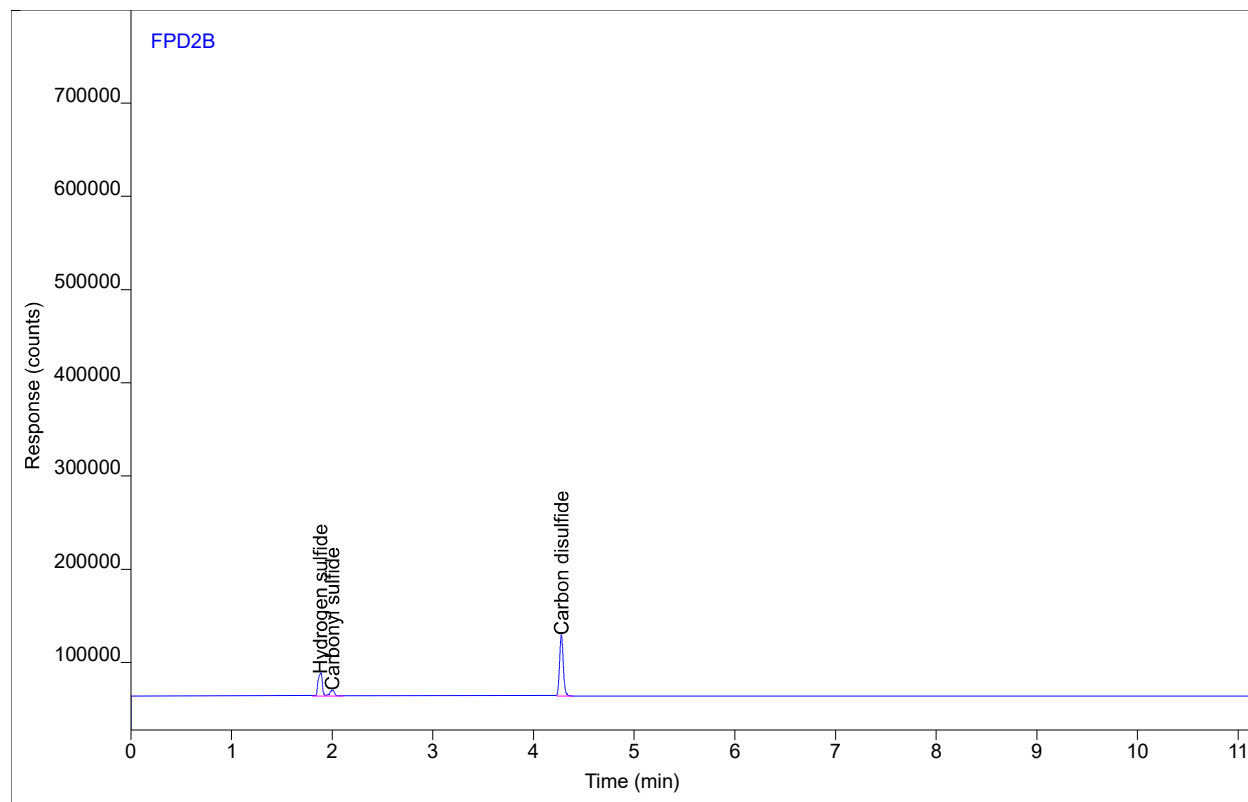
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	71391.3	23831.0	1.68411	1	1.68411	ppmv
Carbonyl sulfide	VB	2.00	21666.1	6804.92	0.97015	1	0.97015	ppmv
Carbon disulfide	BB	4.28	172448	65982.0	1.24688	1	1.24688	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B2204.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 4:49 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



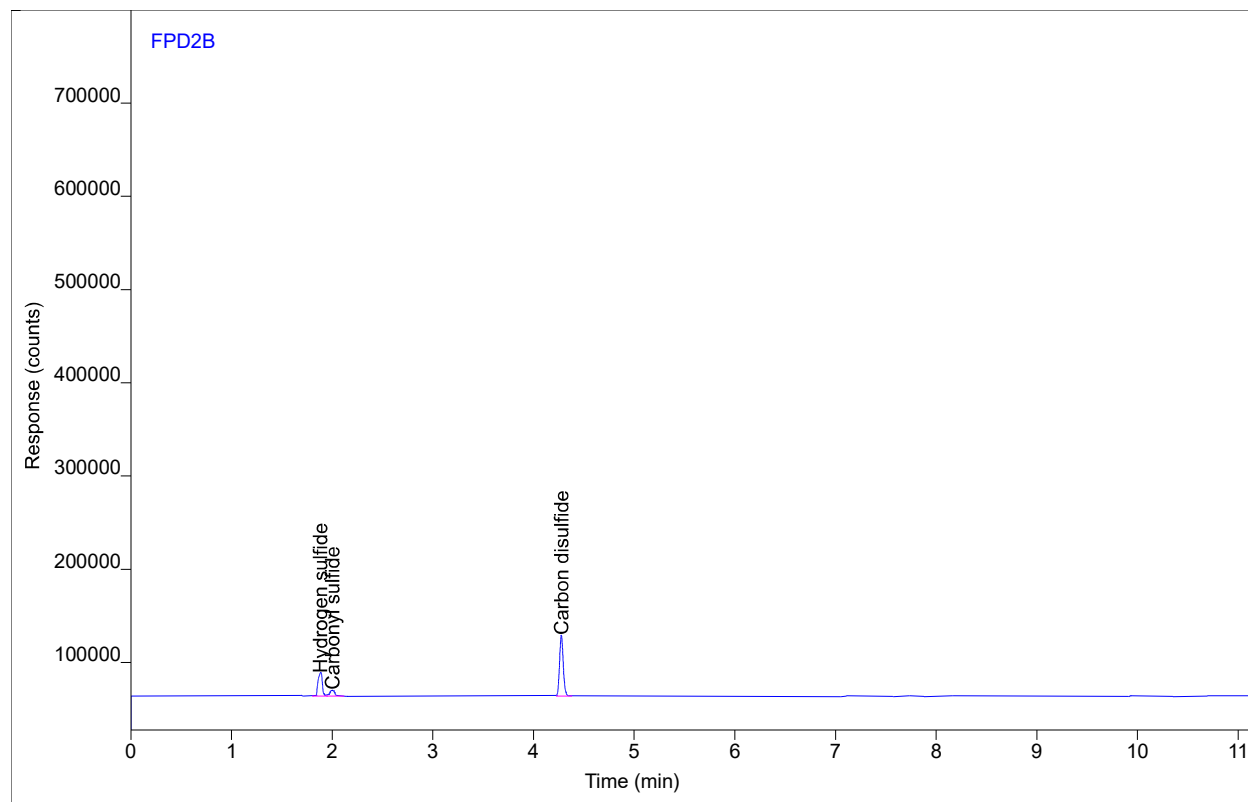
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	71167.1	24300.7	1.68159	1	1.68159	ppmv
Carbonyl sulfide	VB	2.00	21714.5	6602.74	0.97115	1	0.97115	ppmv
Carbon disulfide	BB	4.28	167922	65251.2	1.23159	1	1.23159	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #3  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 003B2205.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:07 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



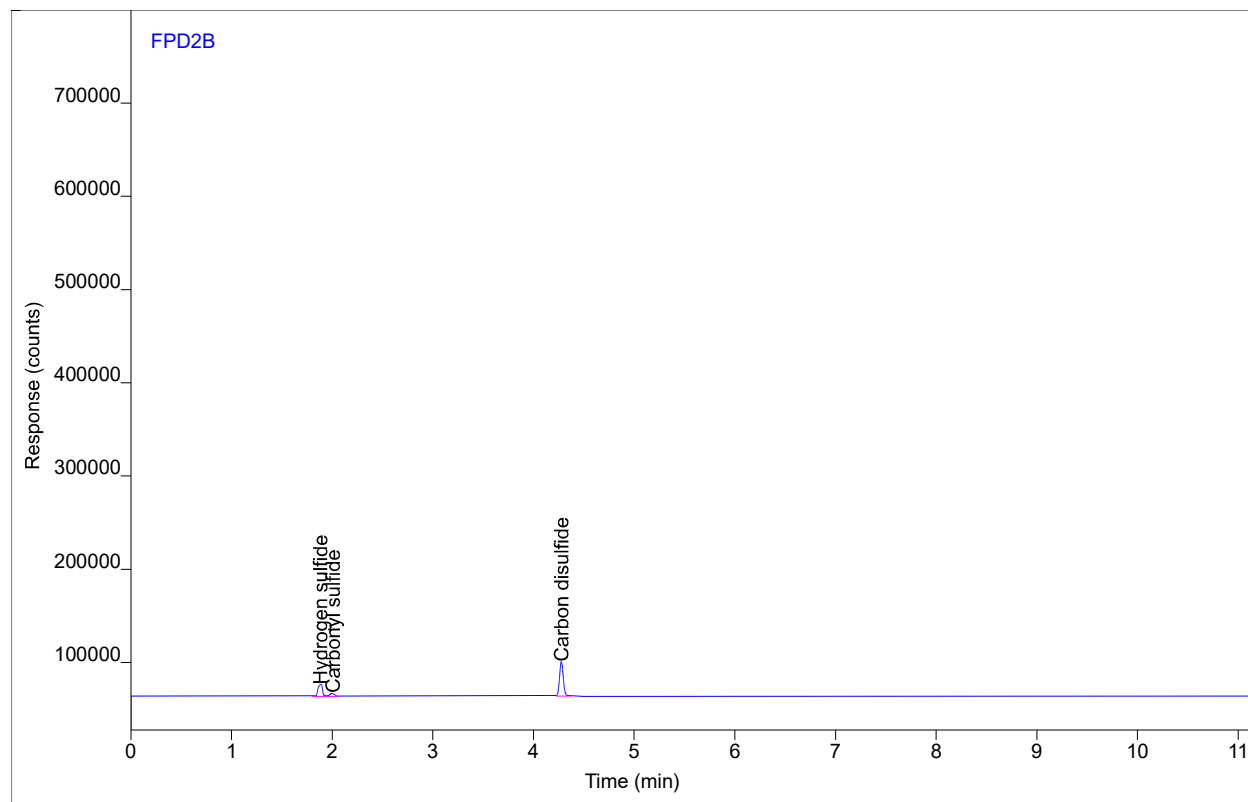
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	73025.9	25077.0	1.70235	1	1.70235	ppmv
Carbonyl sulfide	VB	2.00	21418.6	6718.95	0.96502	1	0.96502	ppmv
Carbon disulfide	BB	4.28	166744	65060.9	1.22758	1	1.22758	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B2303.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:59 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	39483.4	12770.7	1.27035	1	1.27035	ppmv
Carbonyl sulfide	MM	2.01	11701.1	3613.13	0.72999	1	0.72999	ppmv
Carbon disulfide	BB	4.28	95992.8	36975.1	0.95028	1	0.95028	ppmv

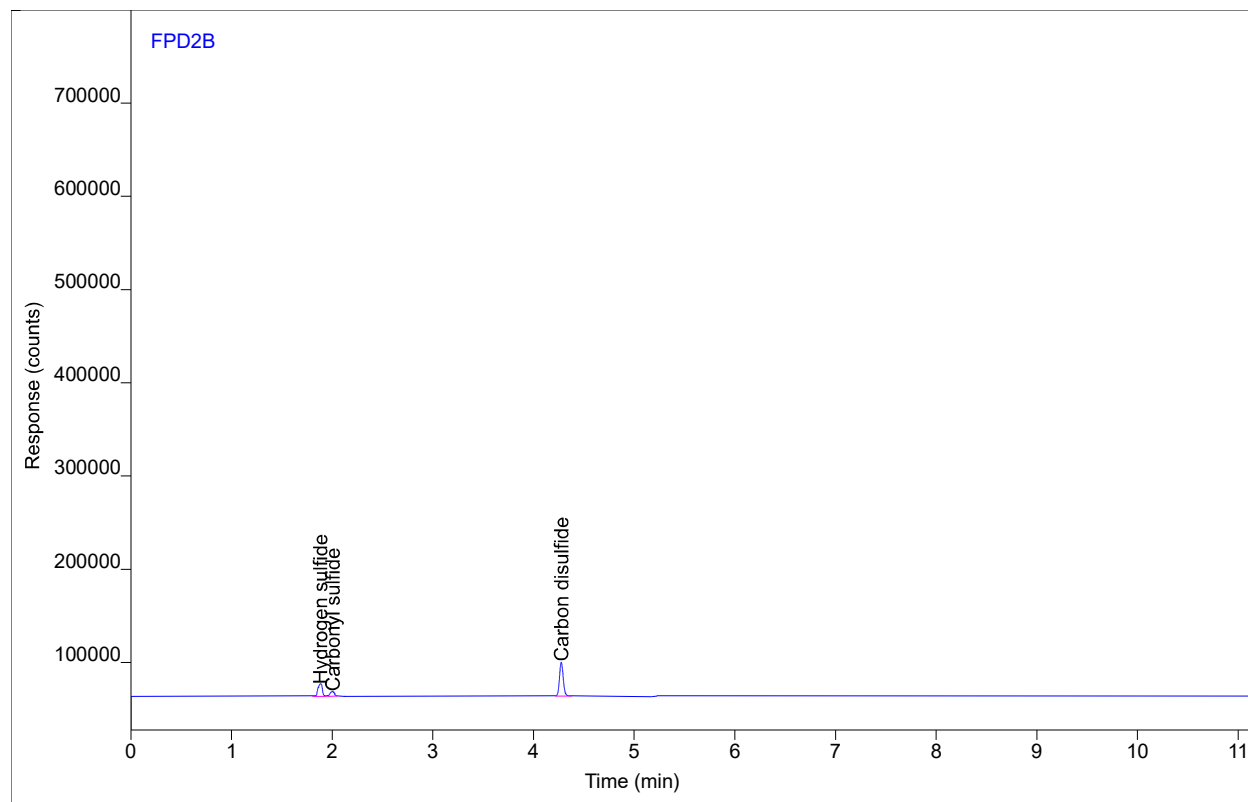


# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B2304.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 6:16 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



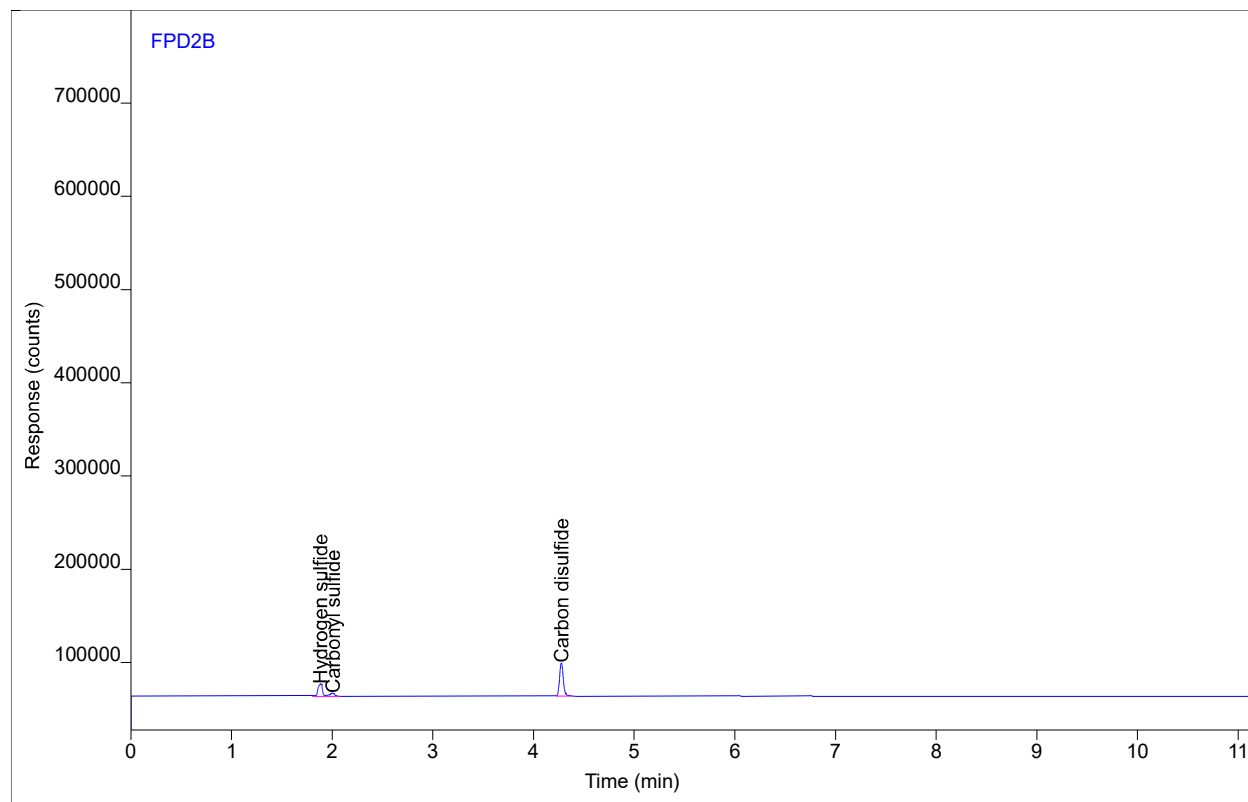
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	40777.1	13466.6	1.29000	1	1.29000	ppmv
Carbonyl sulfide	MM	2.01	14485.6	5572.79	0.80559	1	0.80559	ppmv
Carbon disulfide	BB	4.28	94425.8	36751.3	0.94306	1	0.94306	ppmv

# Chromatogram Report

Sample Name zeppoP0680 #2  
Sequence Name ZEPPOP0680 ver.1  
Inj Data File 002B2305.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 6:34 AM  
File Modified 10/28/2022 10:00 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



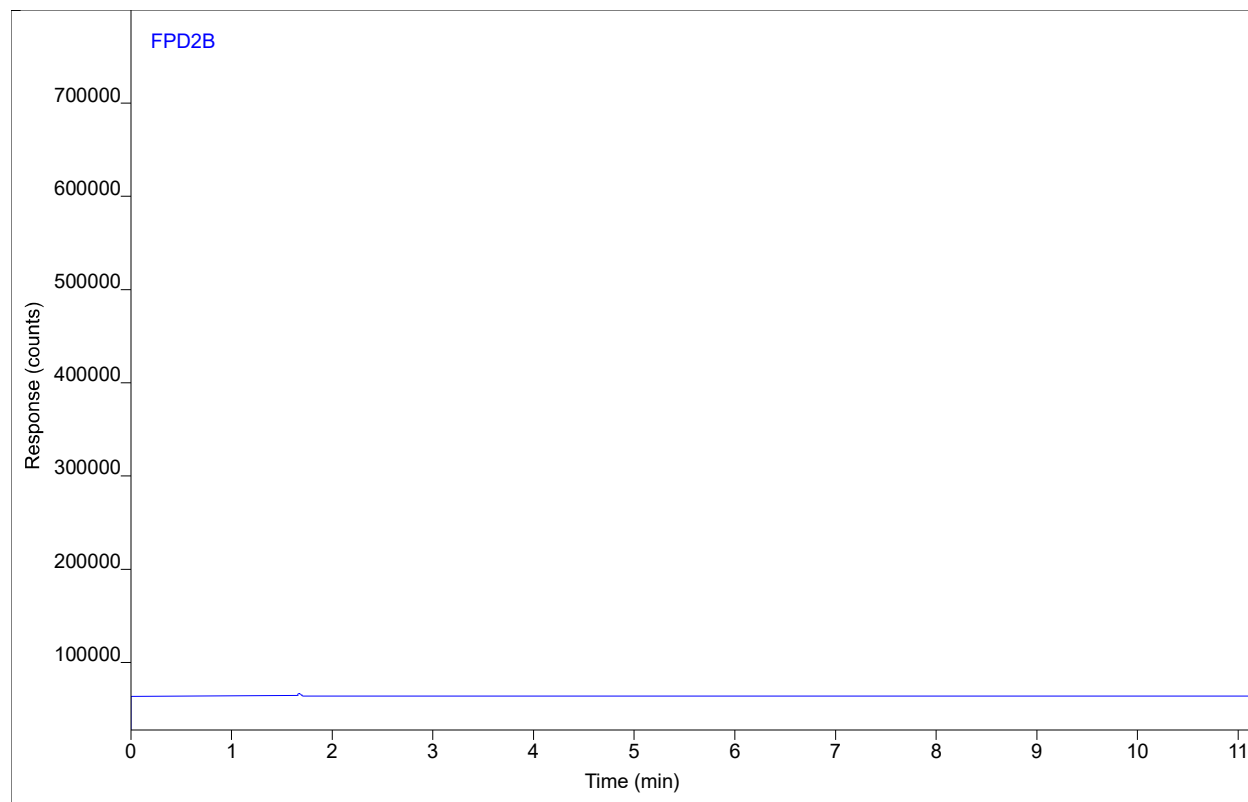
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	38808.4	13197.8	1.25997	1	1.25997	ppmv
Carbonyl sulfide	MM	2.01	11645.8	3878.98	0.72839	1	0.72839	ppmv
Carbon disulfide	BB	4.28	92093.1	35774.9	0.93218	1	0.93218	ppmv

# Chromatogram Report

Sample Name 1022-165.West Run 1.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0301.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 3:53 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



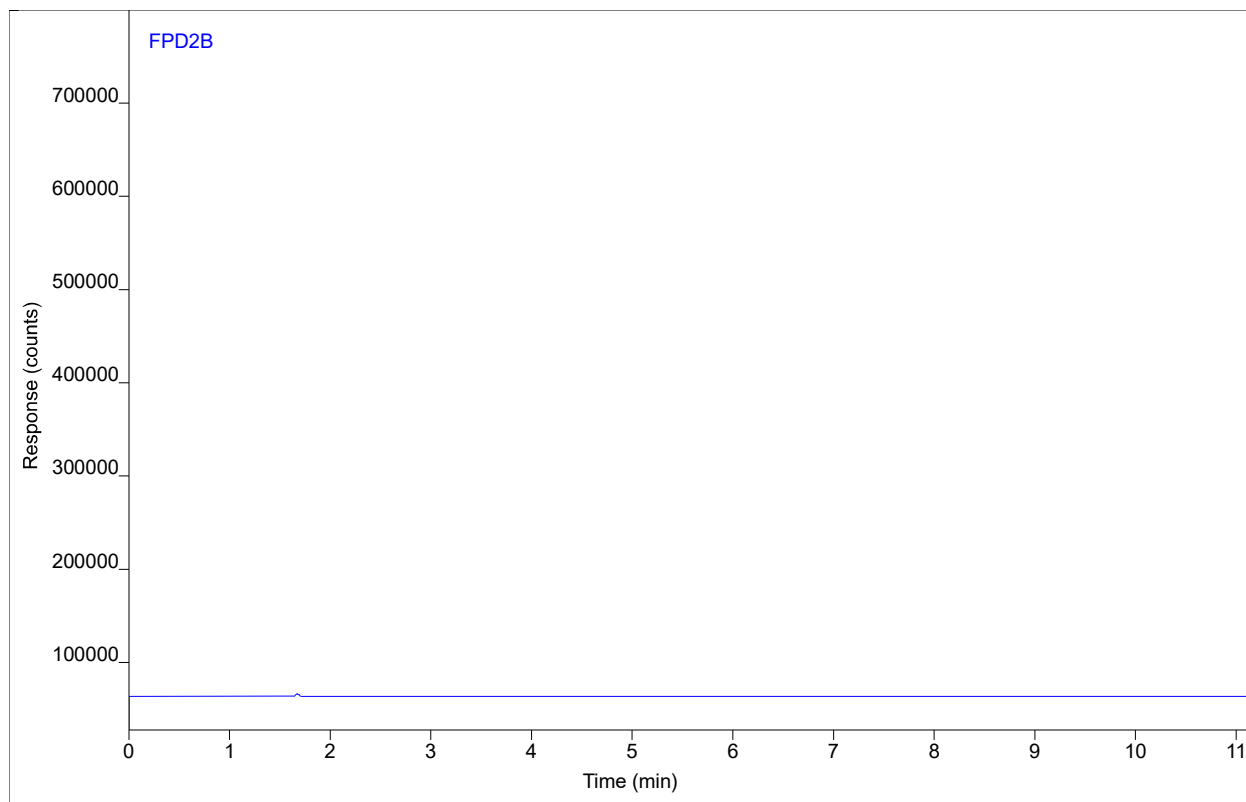
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 1.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0302.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 4:10 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



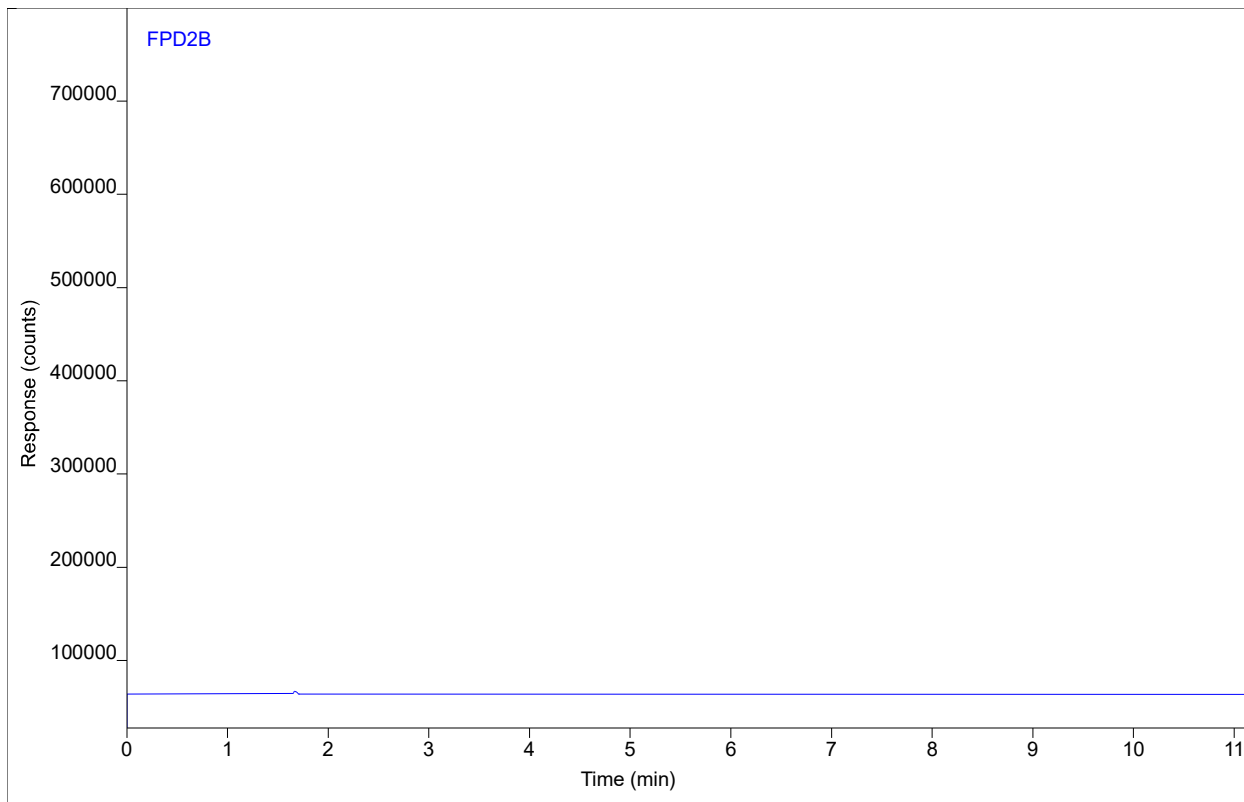
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 1.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0303.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 4:27 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



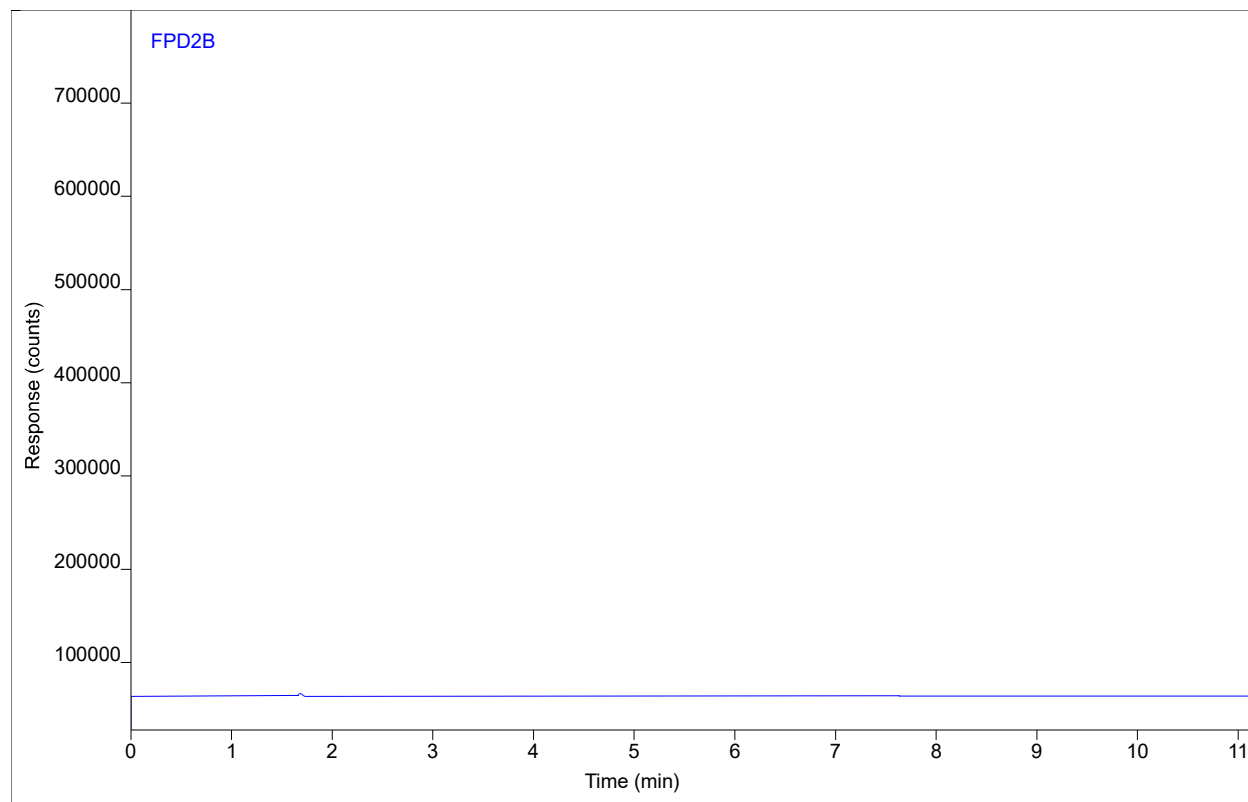
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 2.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0401.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 4:45 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



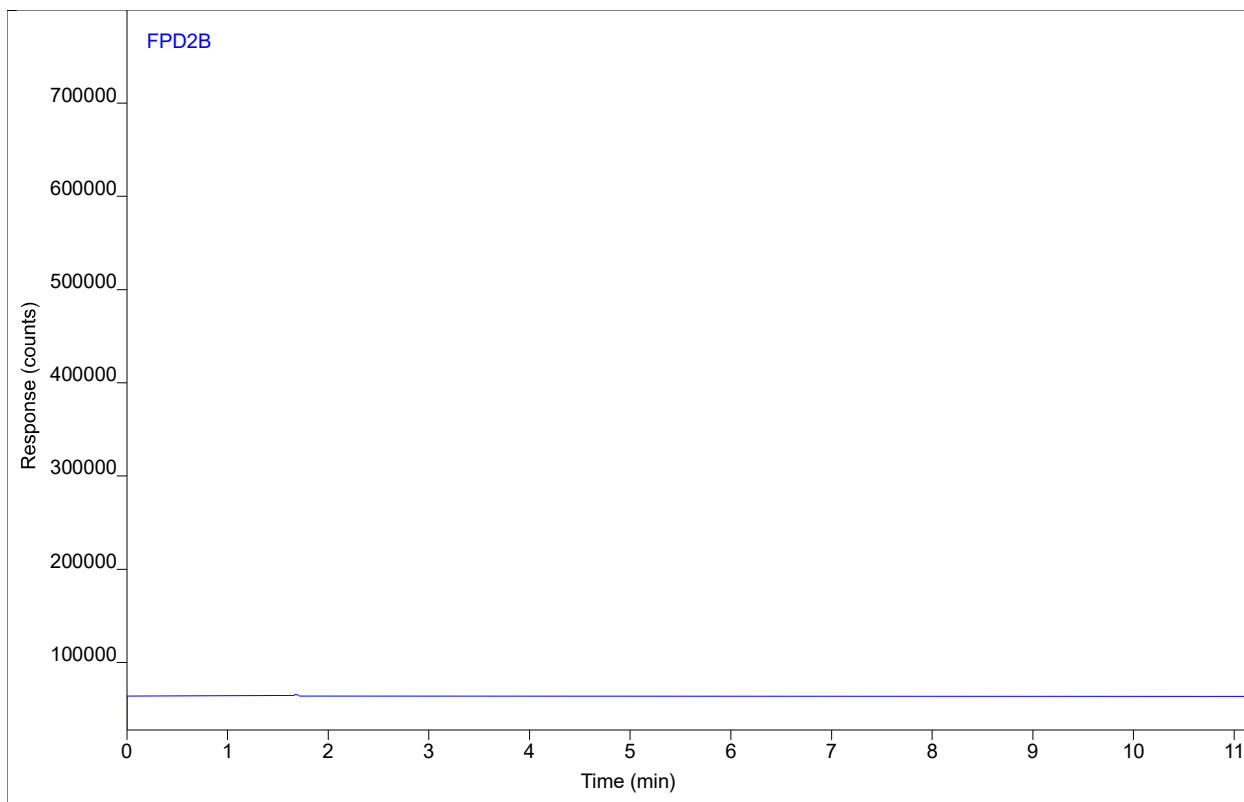
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 2.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0402.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:02 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



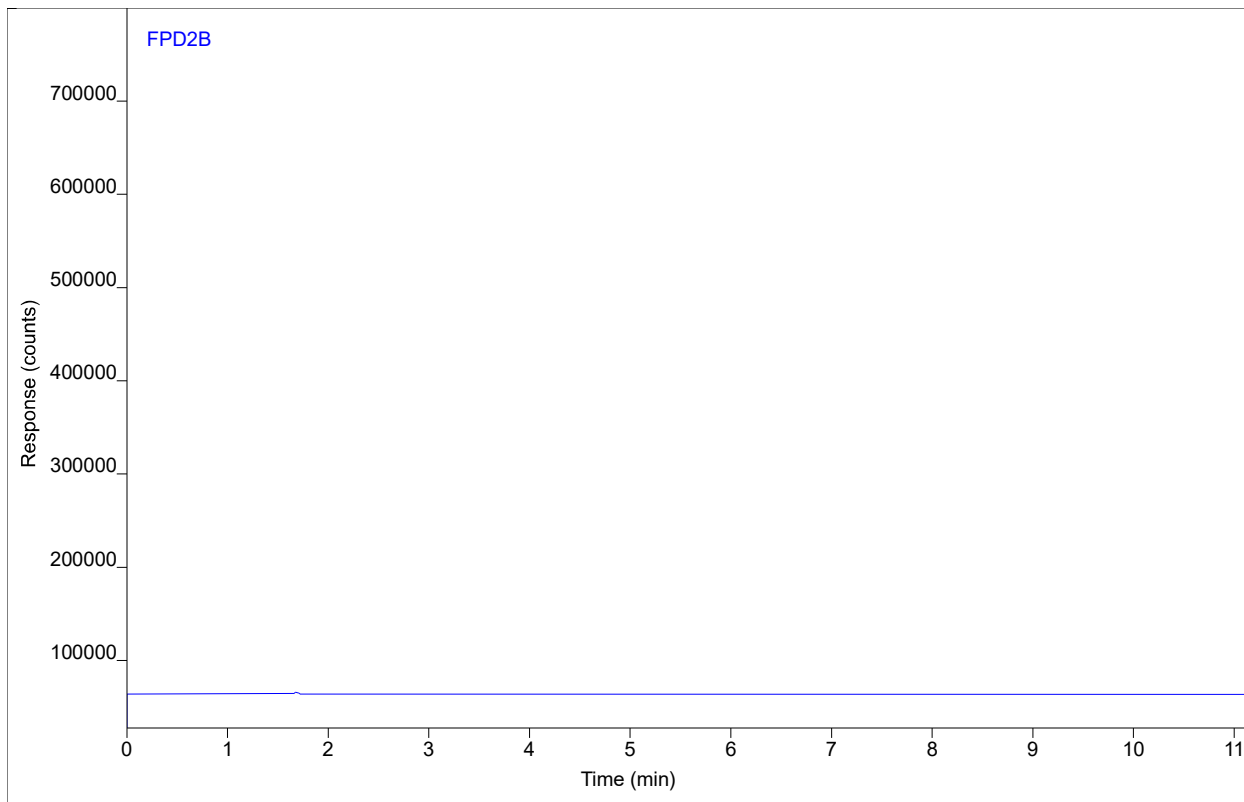
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 2.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0403.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:20 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

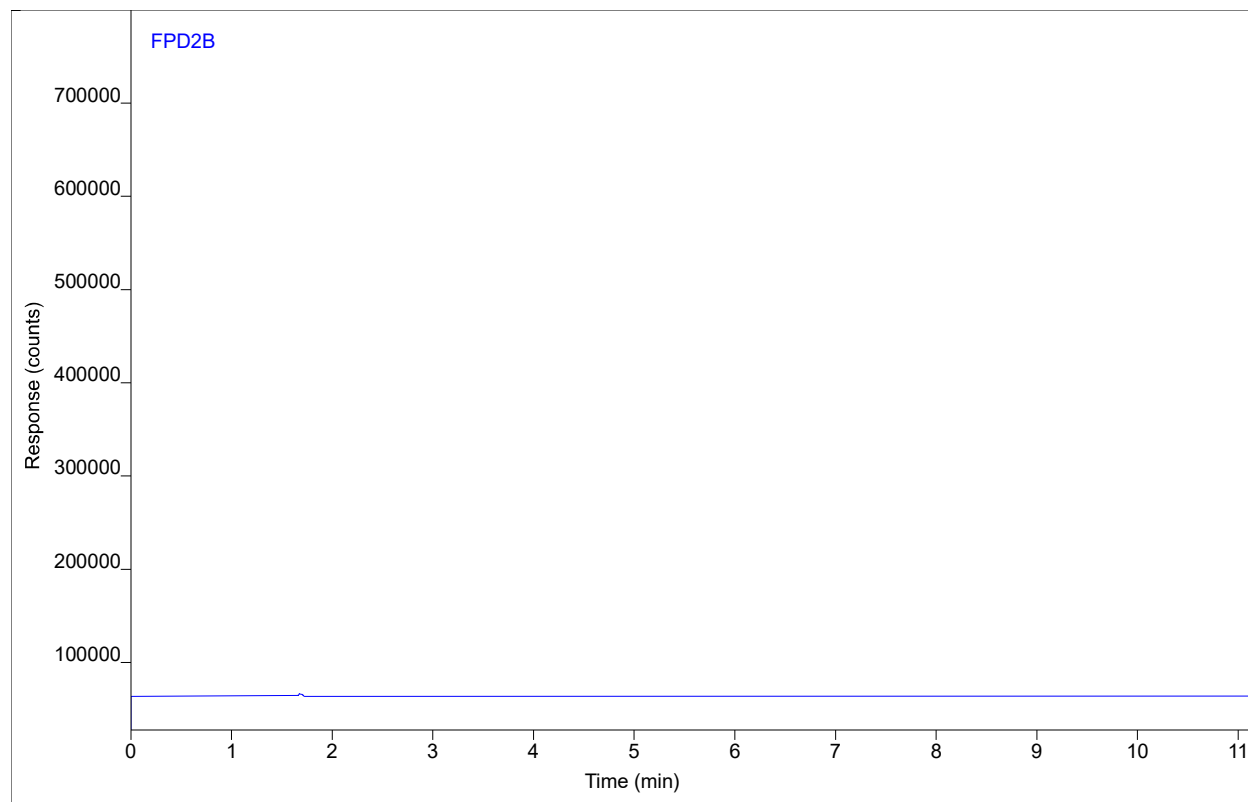


# Chromatogram Report

Sample Name 1022-165.West Run 3.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0501.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:37 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 1 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



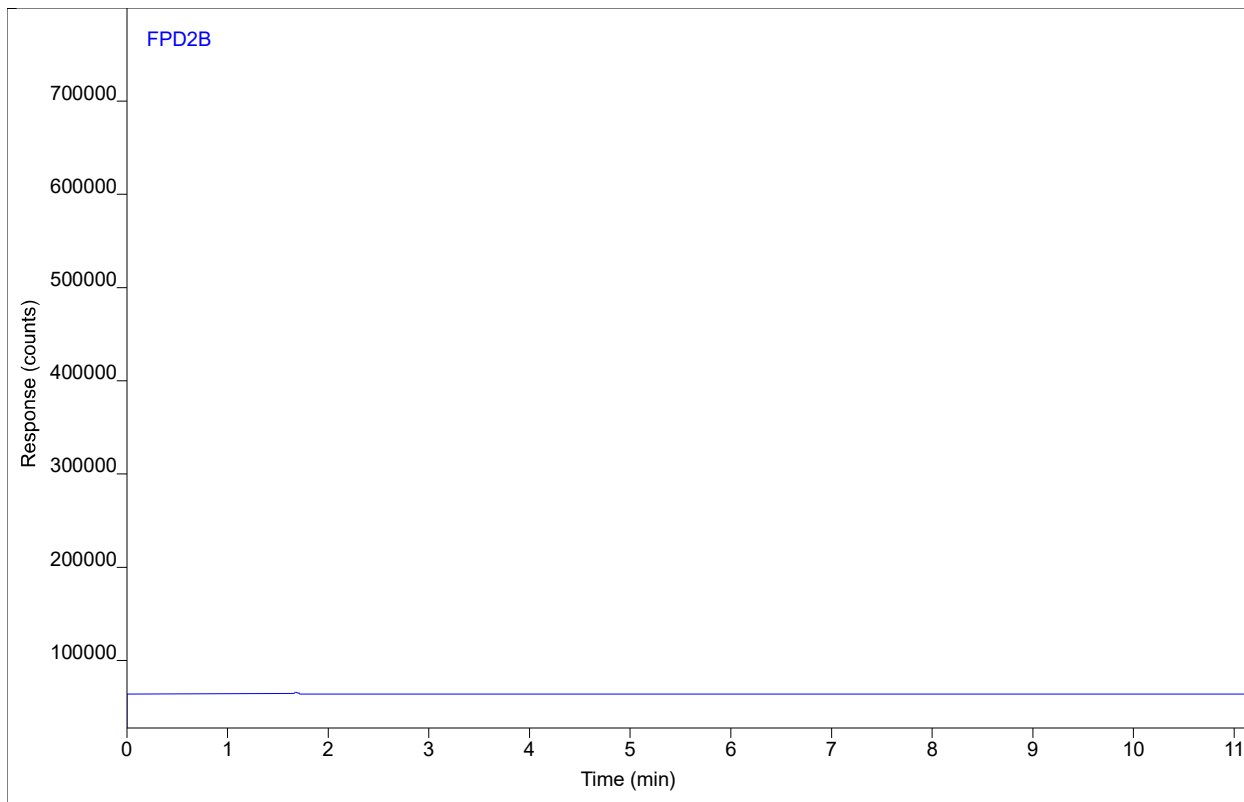
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 3.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0502.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 5:55 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 2 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



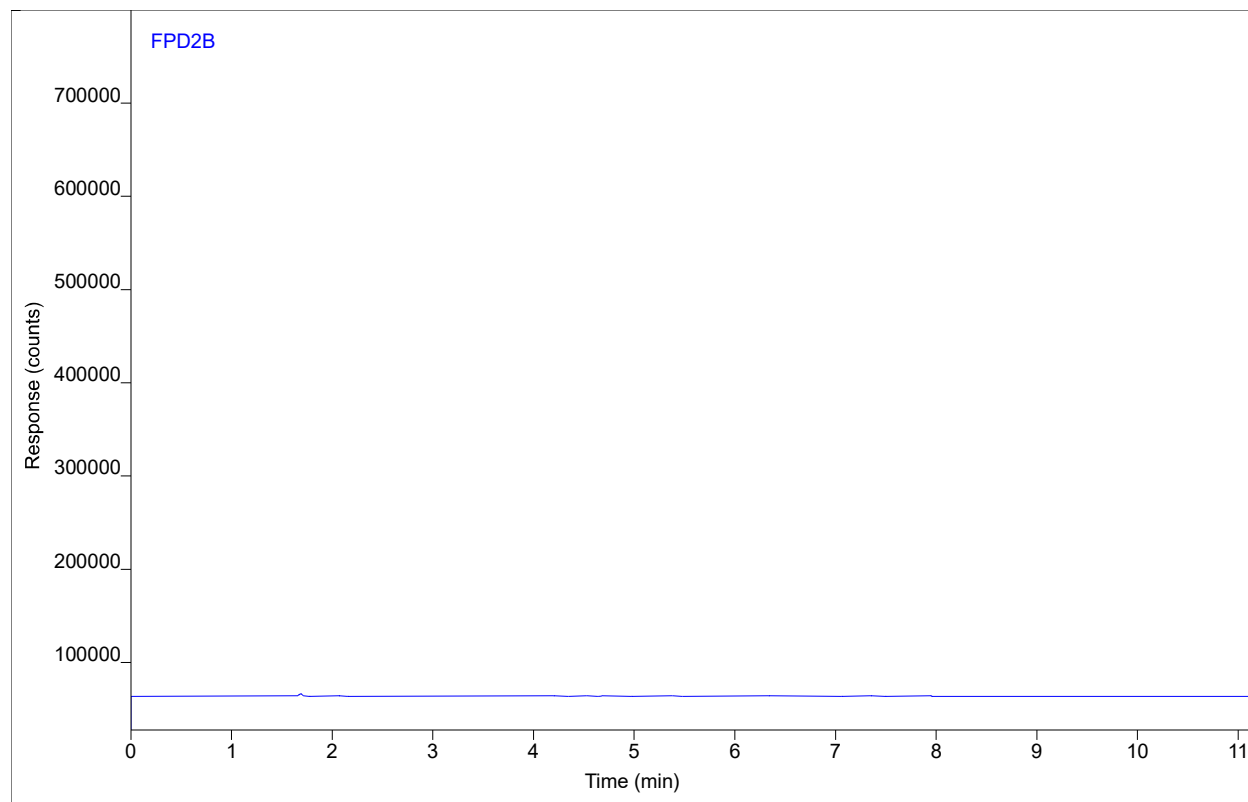
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name 1022-165.West Run 3.Bag  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0503.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 6:12 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Sample  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 3  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



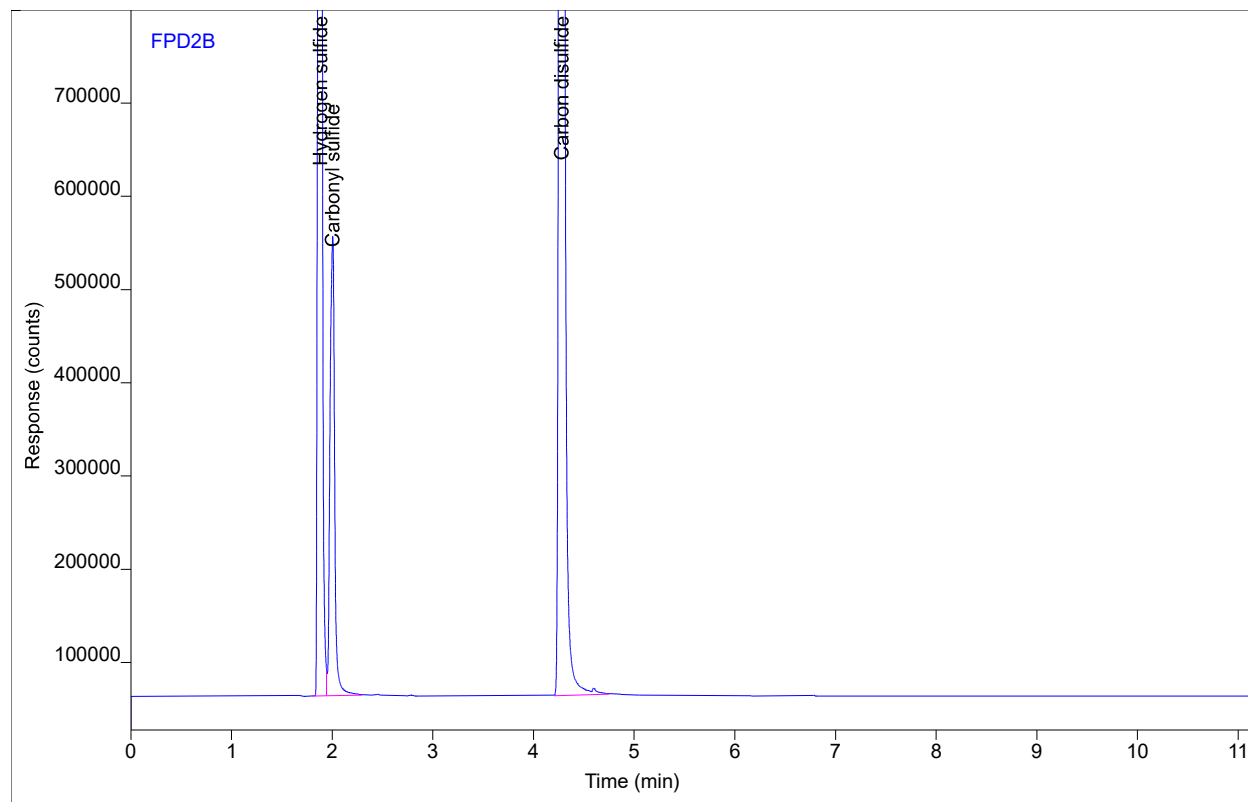
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide		(1.88)				1		
Carbonyl sulfide		(2.01)				1		
Carbon disulfide		(4.28)				1		

# Chromatogram Report

Sample Name zeppoP0681 #5  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0603.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 7:04 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



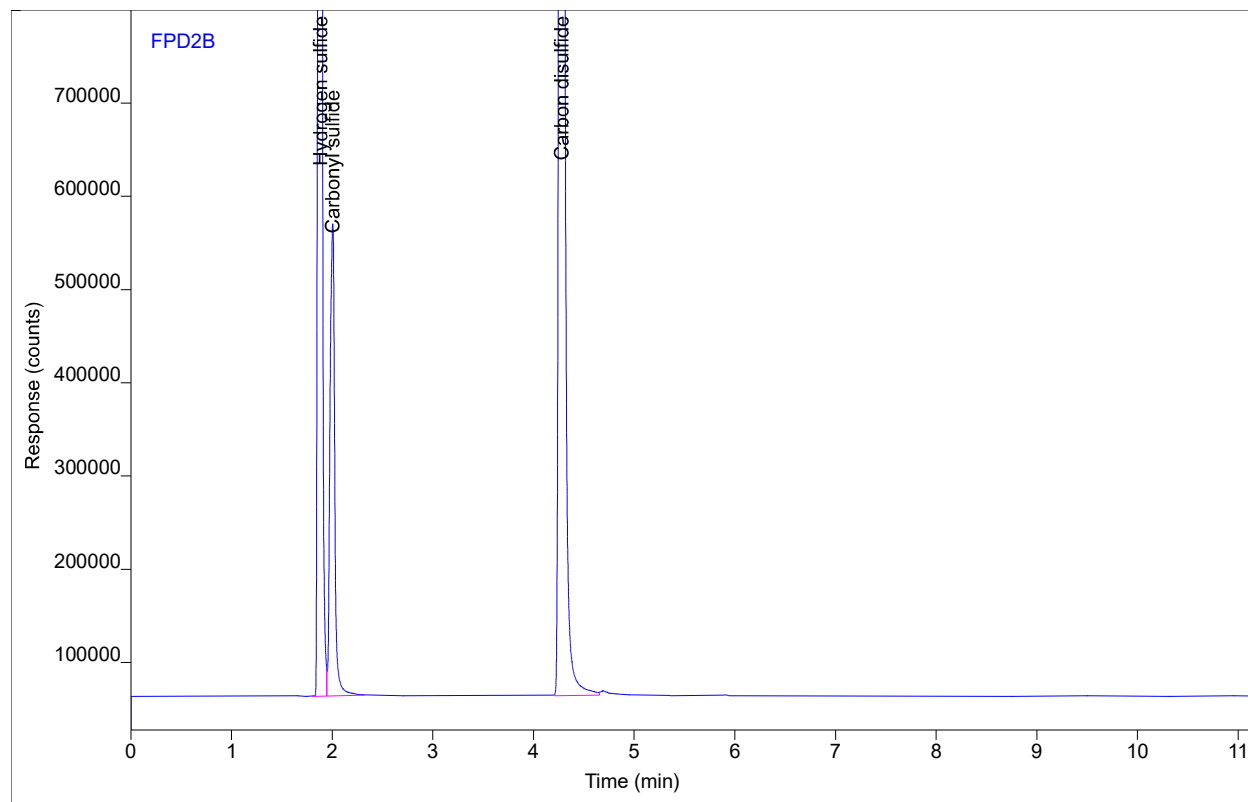
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4320573	1505181	11.8734	1	11.8734	ppmv
Carbonyl sulfide	VB	2.00	1580778	486474	7.03057	1	7.03057	ppmv
Carbon disulfide	BB	4.28	1.16E+007	4136924	8.77351	1	8.77351	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #5  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0604.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 7:22 PM  
File Modified 10/28/2022 10:07 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



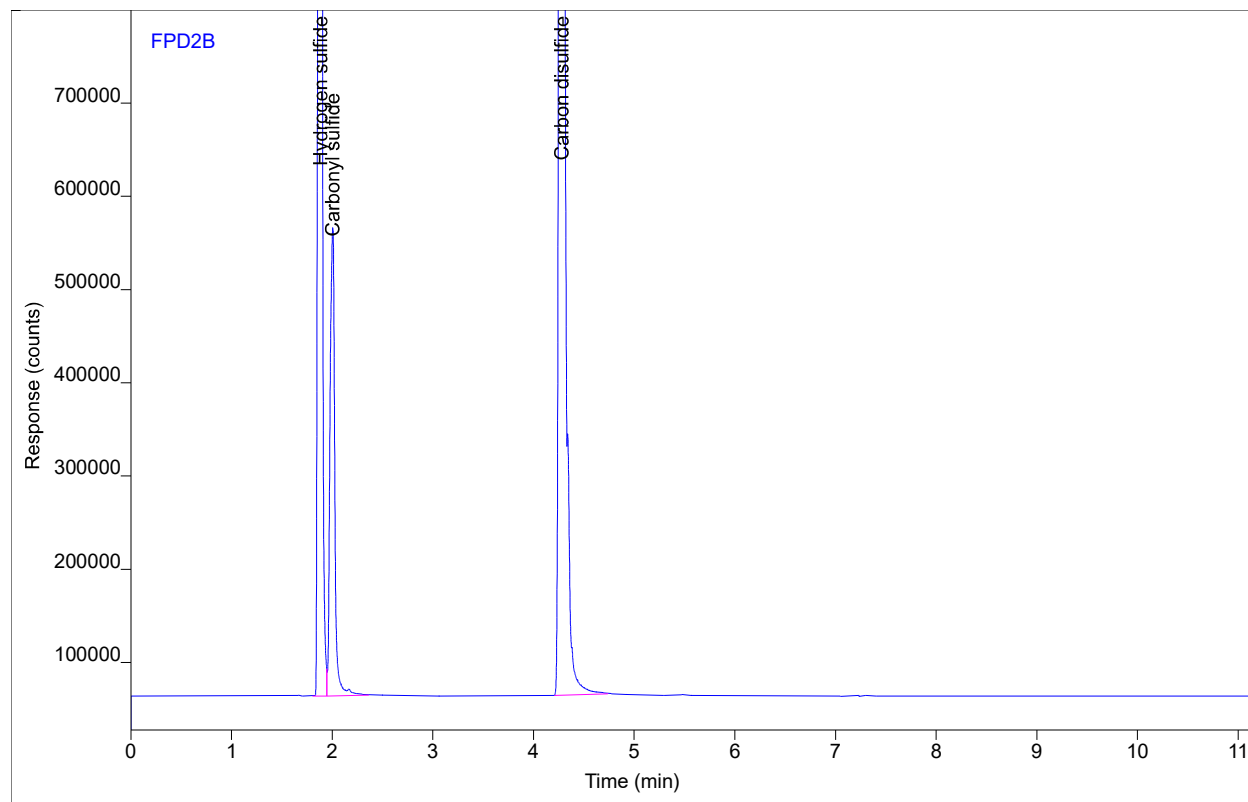
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4495634	1535135	12.1000	1	12.1000	ppmv
Carbonyl sulfide	VB	2.00	1656347	500693	7.18379	1	7.18379	ppmv
Carbon disulfide	BV	4.28	1.21E+007	4296391	8.94535	1	8.94535	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #5  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 005B0605.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 7:39 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 5  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



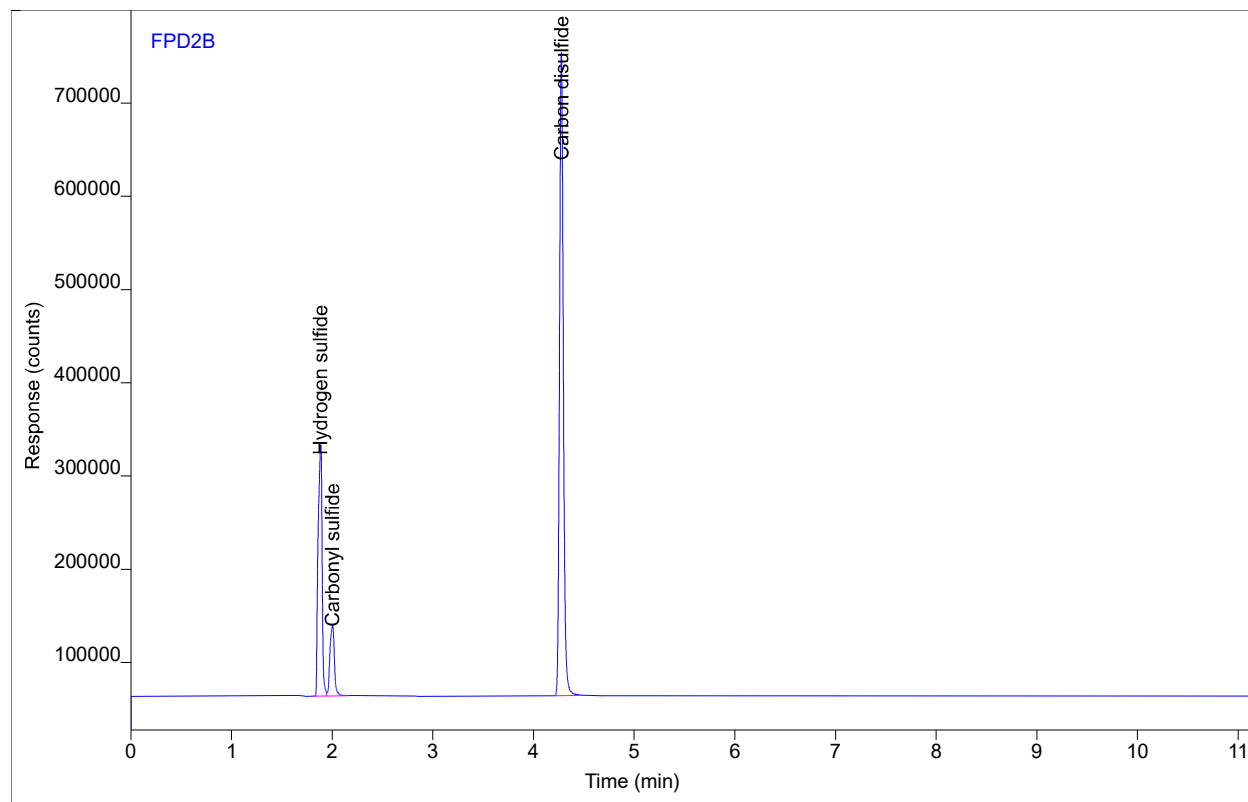
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	4417730	1504937	11.9997	1	11.9997	ppmv
Carbonyl sulfide	VB	2.00	1657896	495987	7.18690	1	7.18690	ppmv
Carbon disulfide	BB	4.28	1.24E+007	4324509	9.06209	1	9.06209	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0681 #4  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 004B0703.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 8:32 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



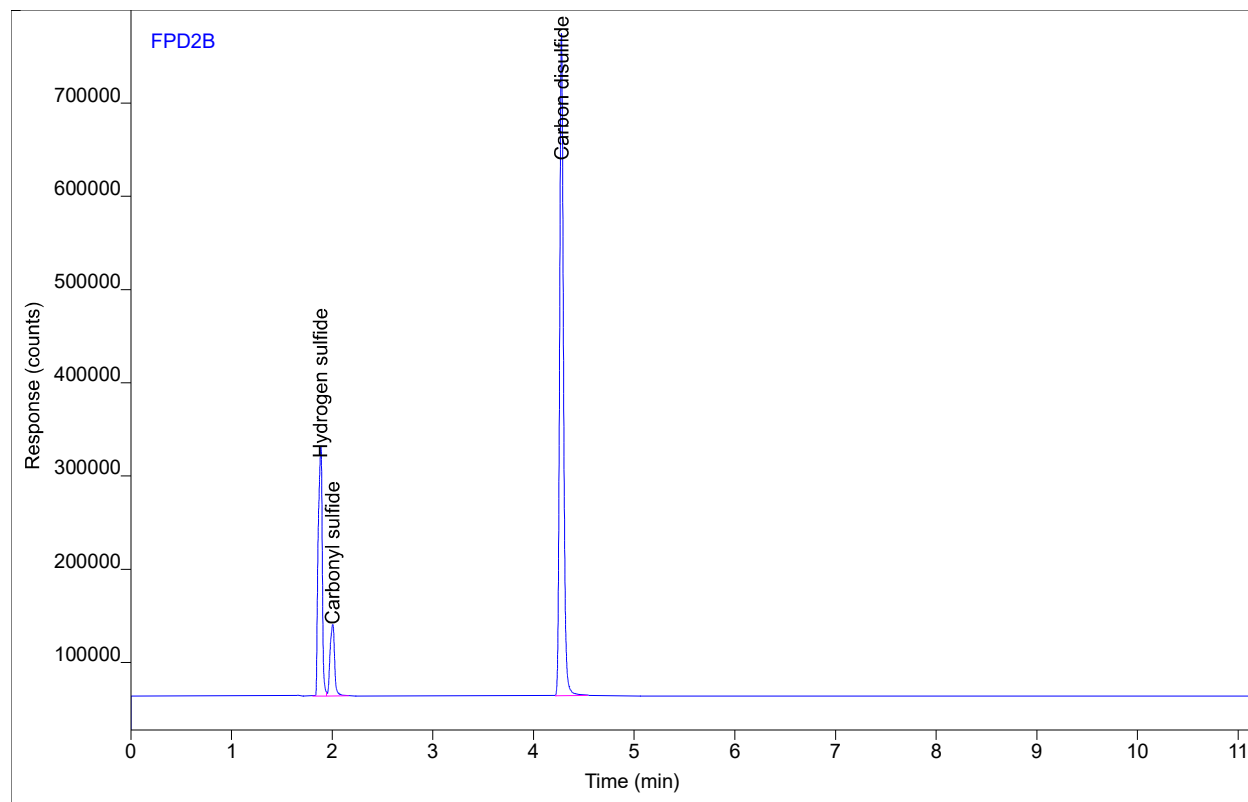
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	743333	264901	5.13725	1	5.13725	ppmv
Carbonyl sulfide	VB	2.00	236435	76431.0	2.92436	1	2.92436	ppmv
Carbon disulfide	BB	4.28	1823966	686413	3.72224	1	3.72224	ppmv

# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0681 #4  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 004B0704.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 8:49 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	749514	258881	5.15754	1	5.15754	ppmv
Carbonyl sulfide	VB	2.00	241425	76223.4	2.95269	1	2.95269	ppmv
Carbon disulfide	BB	4.28	1891578	706181	3.78560	1	3.78560	ppmv

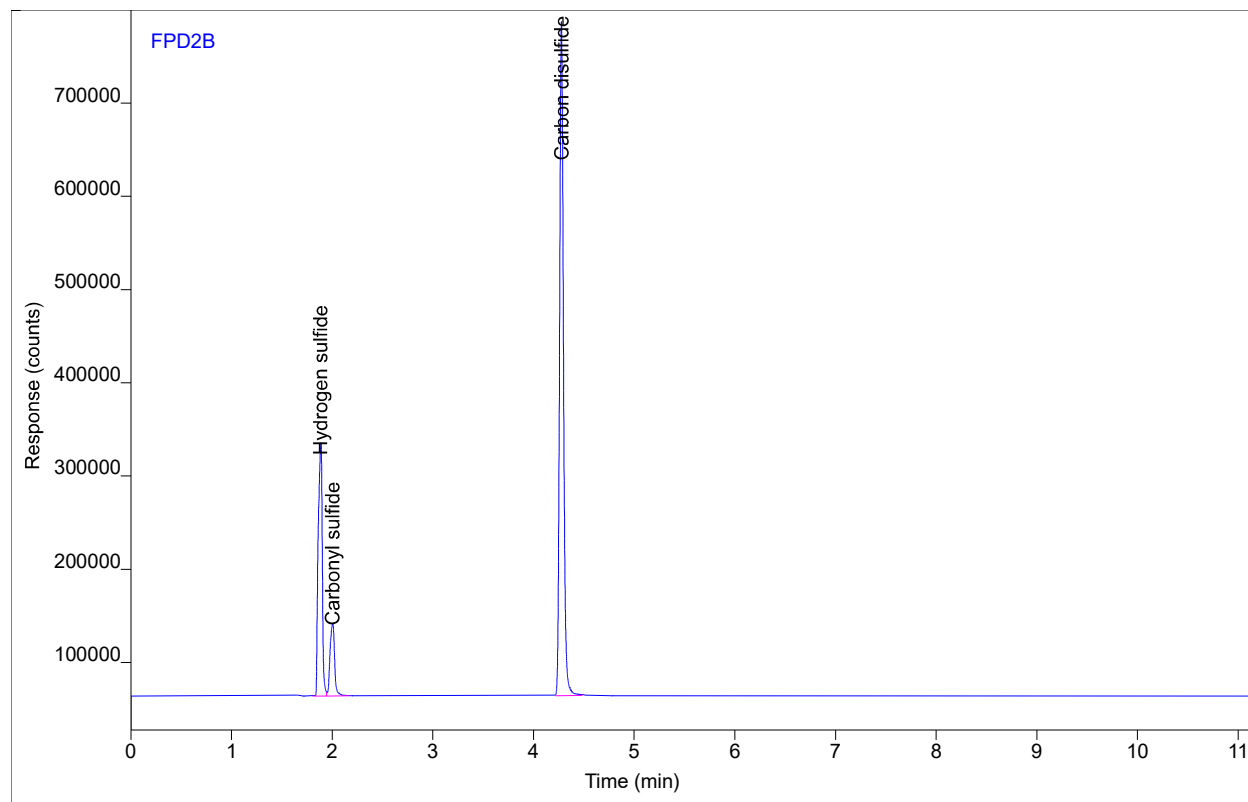


# Chromatogram Report

# Enthalpy Analytical

Sample Name zeppoP0681 #4  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 004B0705.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 9:06 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

Sample Type  
Vial Number Vial 4  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



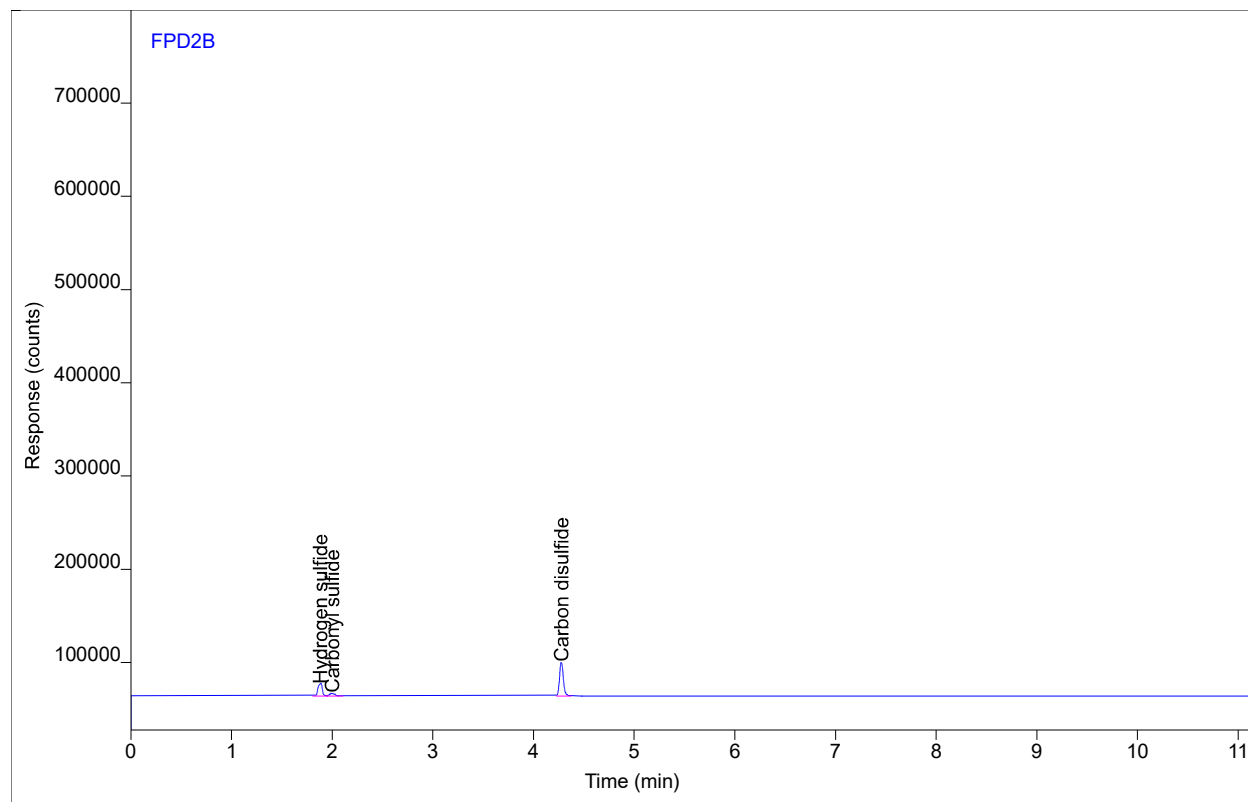
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	761774	262358	5.19753	1	5.19753	ppmv
Carbonyl sulfide	VB	2.00	244878	76533.8	2.97212	1	2.97212	ppmv
Carbon disulfide	BB	4.28	1927056	717080	3.81835	1	3.81835	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #2  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 002B0903.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 11:26 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 3 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



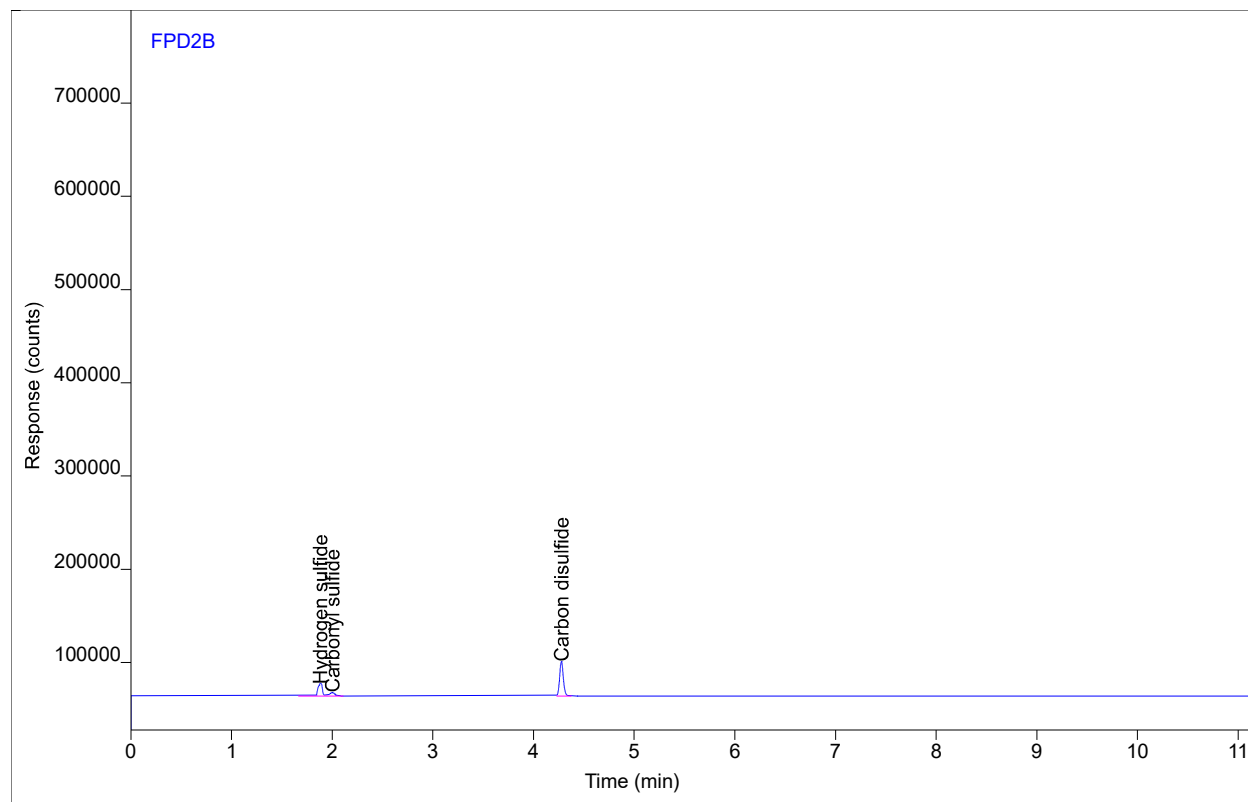
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	39482.9	13209.5	1.27034	1	1.27034	ppmv
Carbonyl sulfide	VB	2.00	11375.6	3415.96	0.72054	1	0.72054	ppmv
Carbon disulfide	BB	4.28	94998.4	36589.4	0.94571	1	0.94571	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #2  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 002B0904.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/27/2022 11:43 PM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 4 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



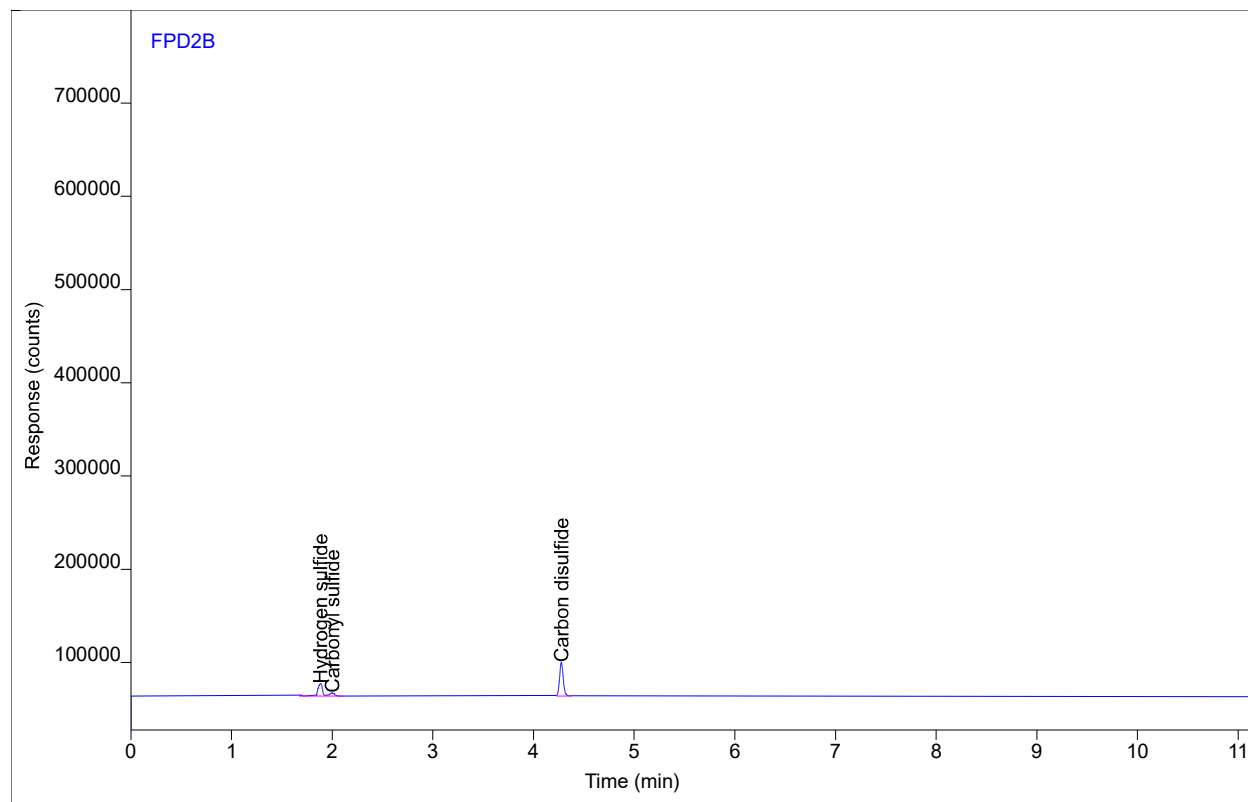
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	41929.6	12995.0	1.30723	1	1.30723	ppmv
Carbonyl sulfide	VB	2.00	11993.4	3746.93	0.73835	1	0.73835	ppmv
Carbon disulfide	BB	4.28	94323.2	36431.3	0.94258	1	0.94258	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #2  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 002B0905.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/28/2022 12:01 AM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type Calibration  
Vial Number Vial 2  
Injection Volume NA  
Injection 5 of 5  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



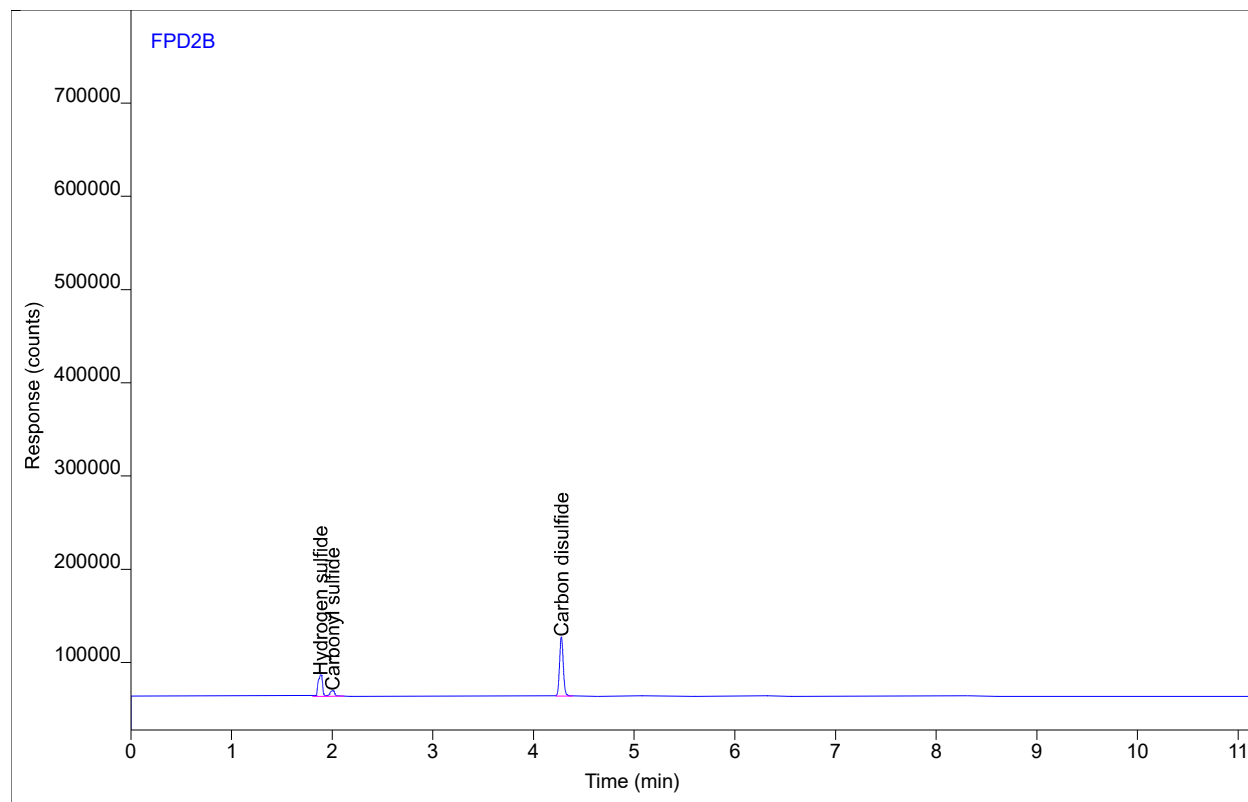
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	41343.5	13120.2	1.29850	1	1.29850	ppmv
Carbonyl sulfide	VB	2.00	11346.9	3589.73	0.71970	1	0.71970	ppmv
Carbon disulfide	BB	4.28	92336.7	36132.5	0.93333	1	0.93333	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #3  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 003B1102.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/28/2022 8:53 AM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 2 of 4  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



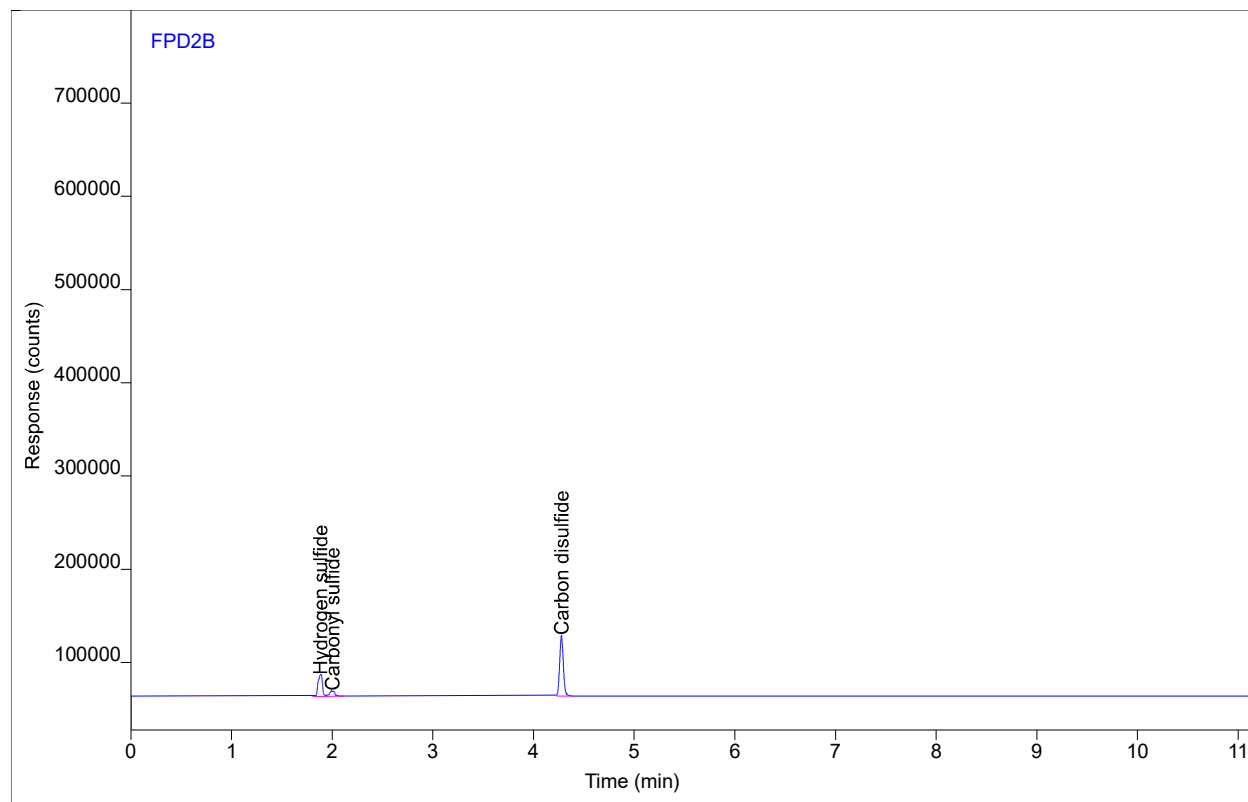
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	69009.6	22491.0	1.65712	1	1.65712	ppmv
Carbonyl sulfide	VB	2.00	19306.0	6007.63	0.91984	1	0.91984	ppmv
Carbon disulfide	BB	4.28	163635	63666.5	1.21692	1	1.21692	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #3  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 003B1103.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/28/2022 9:10 AM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 3 of 4  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



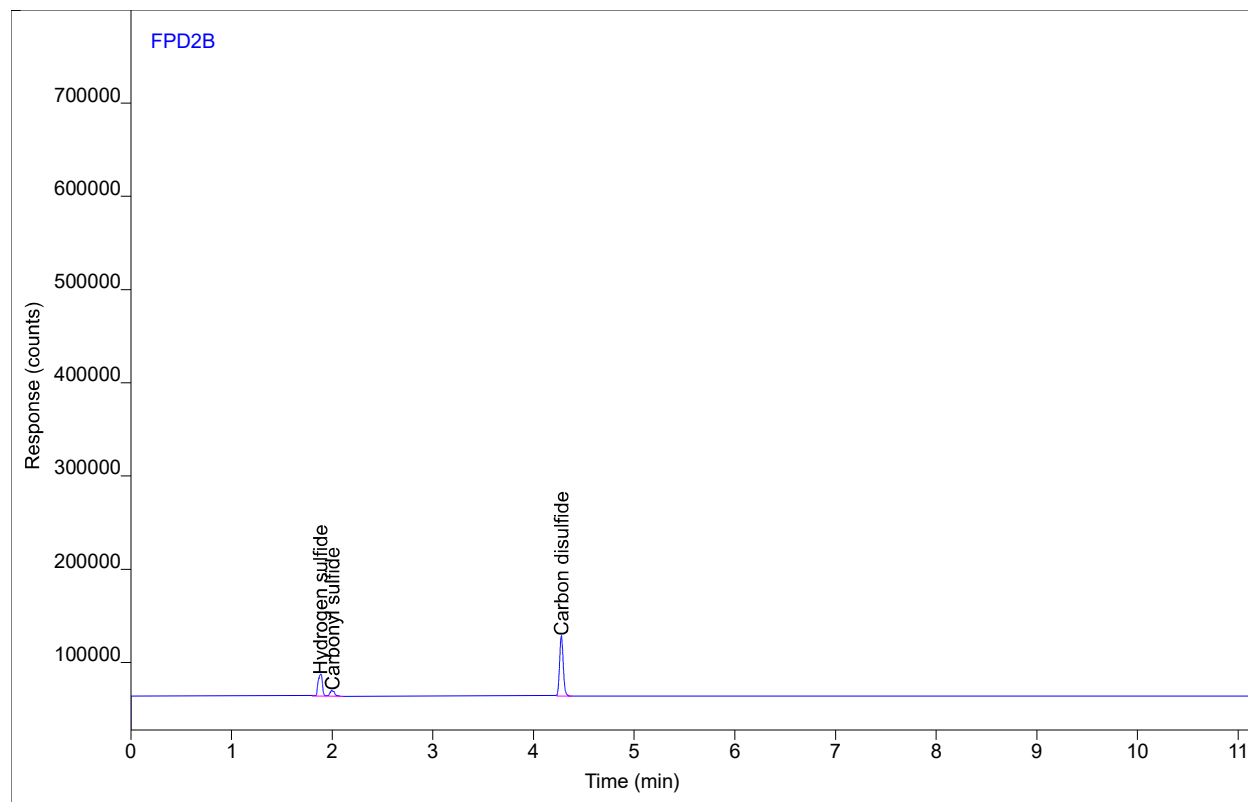
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	69102.2	22869.9	1.65818	1	1.65818	ppmv
Carbonyl sulfide	VB	2.00	20428.9	5887.19	0.94417	1	0.94417	ppmv
Carbon disulfide	BB	4.28	163885	64351.8	1.21778	1	1.21778	ppmv

# Chromatogram Report

Sample Name zeppoP0681 #3  
Sequence Name ZEPPOP0681 ver.1  
Inj Data File 003B1104.D  
File Location GC/2022/Zepo/Quarter 4  
Injection Date 10/28/2022 9:28 AM  
File Modified 10/28/2022 10:08 AM  
Instrument Zeppo  
Operator Rhiannon Buchman

# Enthalpy Analytical

Sample Type  
Vial Number Vial 3  
Injection Volume NA  
Injection 4 of 4  
Acquisition Method DUALFPD8.M  
Analysis Method ZEPPOP0680\_2.M  
Method Modified 10/27/2022 8:13 AM  
Printed 10/28/2022 3:47 PM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Hydrogen sulfide	BV	1.88	69737.2	23177.7	1.66542	1	1.66542	ppmv
Carbonyl sulfide	VB	2.00	20994.3	6461.01	0.95615	1	0.95615	ppmv
Carbon disulfide	BB	4.28	163740	64662.2	1.21728	1	1.21728	ppmv

```
=====
                        Calibration Table
=====
```

Calib. Data Modified : Wednesday, October 26, 2022 9:17:04 AM

Rel. Reference Window : 2.500 %  
 Abs. Reference Window : 0.000 min  
 Rel. Non-ref. Window : 5.000 %  
 Abs. Non-ref. Window : 0.100 min  
 Uncalibrated Peaks : using compound Hydrogen sulfide  
 Partial Calibration : Yes, identified peaks are recalibrated  
 Correct All Ret. Times: No, only for identified peaks

Curve Type : Power  
 Origin : Ignored  
 Weight : Equal

Recalibration Settings:  
 Average Response : Average all calibrations  
 Average Retention Time: Floating Average New 75%

Calibration Report Options :  
 Printout of recalibrations within a sequence:  
     Calibration Table after Recalibration  
     Normal Report after Recalibration  
 If the sequence is done with bracketing:  
     Results of first cycle (ending previous bracket)

Signal 1: FPD2 B,

RetTime [min]	Lvl Sig	Amount [ppmv]	Area	Amt/Area	Ref Grp Name
1.877	1 2	1.26652	3.51841e4	3.59970e-5	Hydrogen sulfide
	3	1.69694	6.50740e4	2.60771e-5	
	4	5.19829	6.29850e5	8.25323e-6	
	5	11.71128	3.66148e6	3.19851e-6	
2.001	1 2	7.40593e-1	2.31088e4	3.20480e-5	Carbonyl sulfide
	3	9.92276e-1	4.17121e4	2.37887e-5	
	4	3.03967	4.48461e5	6.77800e-6	
	5	6.84810	3.11420e6	2.19899e-6	
4.277	1 2	9.31487e-1	8.80771e4	1.05758e-5	Carbon disulfide
	3	1.24804	1.60457e5	7.77807e-6	
	4	3.82317	1.77346e6	2.15577e-6	
	5	8.61326	1.14276e7	7.53723e-7	

More compound-specific settings:

Compound: Hydrogen sulfide  
 Time Window : From 1.760 min To 1.974 min

1 Warnings or Errors :

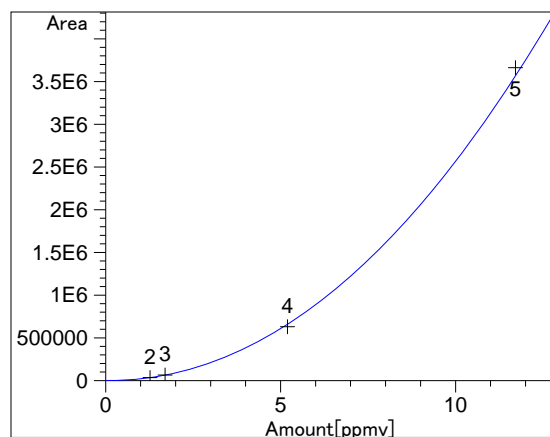
Warning : Overlapping peak time windows at 1.877 min, signal 1

```
=====
                        Peak Sum Table
=====
```

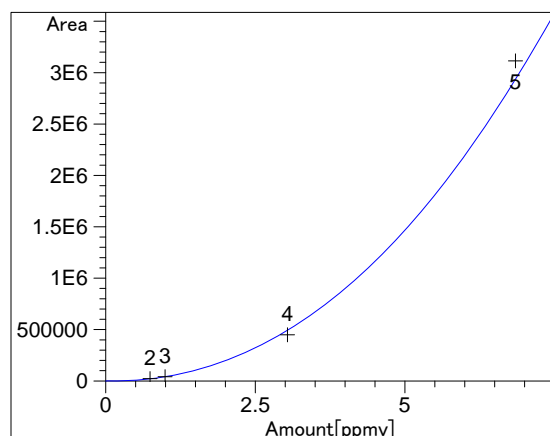


Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
Total Redu	2.700	12.000	Hydrogen S	0.0000	1.432e-6	None

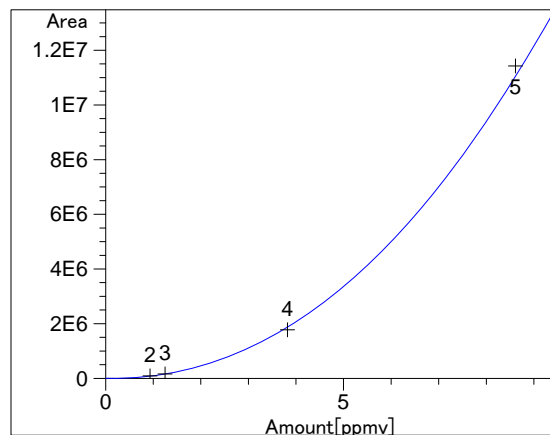
## Calibration Curves



Hydrogen sulfide at exp. RT: 1.877  
FPD2 B,  
Correlation: 0.99991  
Residual Std. Dev.: 71564.83924  
Formula:  $y = b * x^m$   
m: 2.07879  
b: 21409.00272  
x: Amount  
y: Area



Carbonyl sulfide at exp. RT: 2.001  
FPD2 B,  
Correlation: 0.99971  
Residual Std. Dev.: 133055.31743  
Formula:  $y = b * x^m$   
m: 2.19639  
b: 42836.37234  
x: Amount  
y: Area



Carbon disulfide at exp. RT: 4.277  
FPD2 B,  
Correlation: 0.99989  
Residual Std. Dev.: 288848.79435  
Formula:  $y = b * x^m$   
m: 2.18451  
b: 99938.39030  
x: Amount  
y: Area

```
=====
                        Calibration Table
=====
```

Calib. Data Modified : Thursday, October 27, 2022 8:13:45 AM

Rel. Reference Window : 2.500 %  
 Abs. Reference Window : 0.000 min  
 Rel. Non-ref. Window : 5.000 %  
 Abs. Non-ref. Window : 0.100 min  
 Uncalibrated Peaks : using compound Hydrogen sulfide  
 Partial Calibration : Yes, identified peaks are recalibrated  
 Correct All Ret. Times: No, only for identified peaks

Curve Type : Power  
 Origin : Ignored  
 Weight : Equal

Recalibration Settings:  
 Average Response : Average all calibrations  
 Average Retention Time: Floating Average New 75%

Calibration Report Options :  
 Printout of recalibrations within a sequence:  
     Calibration Table after Recalibration  
     Normal Report after Recalibration  
 If the sequence is done with bracketing:  
     Results of first cycle (ending previous bracket)

Signal 1: FPD2 B,

RetTime [min]	Lvl Sig	Amount [ppmv]	Area	Amt/Area	Ref Grp Name
1.882	1 2	1.26652	4.00344e4	3.16359e-5	Hydrogen sulfide
	3	1.69694	7.18614e4	2.36141e-5	
	4	5.19829	7.37279e5	7.05065e-6	
	5	11.71128	4.29172e6	2.72881e-6	
2.006	1 2	7.40593e-1	1.30566e4	5.67219e-5	Carbonyl sulfide
	3	9.92276e-1	2.15997e4	4.59393e-5	
	4	3.03967	2.34700e5	1.29513e-5	
	5	6.84810	1.59303e6	4.29878e-6	
4.277	1 2	9.31487e-1	9.55240e4	9.75133e-6	Carbon disulfide
	3	1.24804	1.69038e5	7.38321e-6	
	4	3.82317	1.83386e6	2.08477e-6	
	5	8.61326	1.15475e7	7.45900e-7	

More compound-specific settings:

Compound: Hydrogen sulfide  
 Time Window : From 1.765 min To 1.979 min

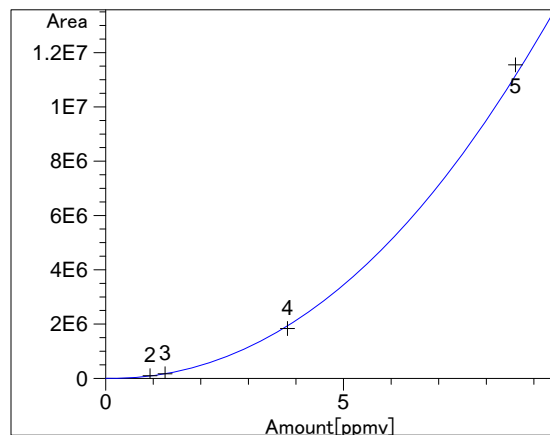
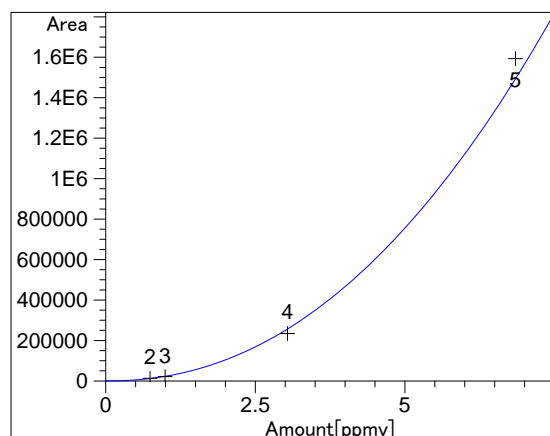
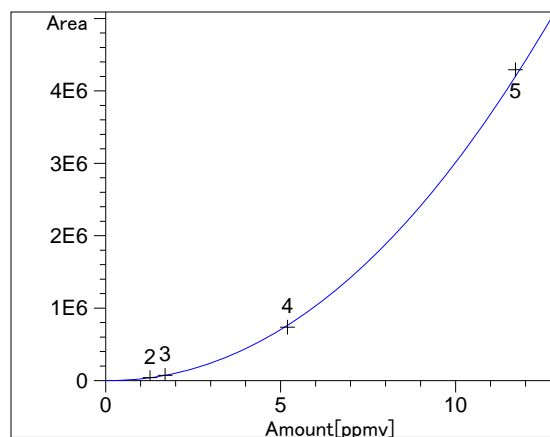
1 Warnings or Errors :

Warning : Overlapping peak time windows at 1.882 min, signal 1

```
=====
                        Peak Sum Table
=====
```

Name	StartTime [min]	EndTime [min]	Use Reference	Response factor	Multiplier	ISTD Peak
Total Redu	2.700	12.000	Hydrogen S	0.0000	1.432e-6	None

## Calibration Curves



# Trace Source™ Permeation Tube

## Certificate of Calibration

This tube was individually calibrated by gravimetric weight loss analysis at the temperature listed. The tube was held at a constant temperature (+/- 0.05°C traceable to N.I.S.T.), under an inert purge for an extended period of time and its weight loss per unit time recorded. This Certificate of Calibration certifies that the tube listed is traceable to the National Institute of Standards and Technology through an unbroken chain of standards for the duration listed below.

Customer: Enthalpy Analytical

Customer P.O. No.: PO-030050

KIN-TEK Order No.: 145327

Calibration Date: 7/21/2022

Certification Expires: 7/22/23

NIST Weight Set: 2001/01067908-1

Other: Per procedure 30260953 Rev1.31

Ship Date: 7-22-2022

**KIN -TEK**   
**The Calibration Specialists**

Type: EL-SRT-2

Serial No.: 68464

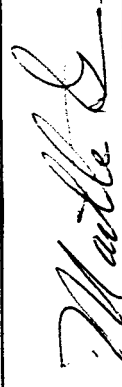
KIN-TEK Part No.: EL-SRT-2 - 001.00 - 1002 /50

Permeating Fluid: Hydrogen sulfide

K<sub>0</sub>: 0.657 MW: 34.08

Emission Rate	ng / min	Temperature °C
2.703		50

Calibrated by:



Certification Specialist

KIN-TEK Analytical, Inc. 504 Laurel  
 La Marque, Texas 77568  
 Phone: (409) 938-3627  
 Fax: (409) 938-3710

# YNACAL® PERMEATION DEVICE CERTIFICATE



26295 Twelve Trees, Poulsbo, WA 98370, USA | tel: (360) 697-9199 | toll free: (877) 377-1887 | web: vicimetronics.com

The permeation rate of the DYNACAL® PERMEATION DEVICE below is certified traceable to N.I.S.T standards.

Serial Number: F-55888

Certification Date: Apr 1, 2022      Certificate Expires: Apr 1, 2023  
Chemical: Carbonyl Sulfide 463-58-1  
Part Number: 157-553-7600-VH-C50  
Device Type: Dynacal Wafer      Geometry: 30F3  
Permeation Rate: 2789.23 ng/min      Temperature: 50 C  
True Accuracy: +/- 0.28 %      Max Allowed Accuracy: +/- 5.00 %  
Certification Method: Gravimetric      Order No: 135425  
Customer: ENTHALPY ANALYTICAL  
Note: Empty weight 19.8 g.

Approved By:  \_\_\_\_\_

## INDIVIDUAL DEVICE CERTIFICATION

The gravimetric method measures the weight loss per unit of time at the certification temperature. Traceability is thus established by the use of temperature and weight standards traceable to N.I.S.T. standards. Individual certification is accomplished by: (1) maintaining the device in a constant temperature chamber with purge flow of dry nitrogen, and (2) weighing periodically on a semi-microanalytical balance, accurate to the nearest 0.01 mg, until a steady weight loss per unit has been achieved. Temperature control and accuracy are better than 0.05° C referenced against temperature standards traceable to the National Institute of Standards and Technology. The semi-microanalytical balances are routinely serviced and calibrated by an independent service organization using N.I.S.T. traceable weight standards. Gravimetric permeation rate determination is continued until the standard error of the permeation rate meets the required accuracy at the 95% confidence level.

# YNACAL<sup>®</sup> PERMEATION DEVICE CERTIFICATE



26295 Twelve Trees, Poulsbo, WA 98370, USA | tel: (360) 697-9199 | toll free: (877) 377-1887 | web: vicimetronics.com

The permeation rate of the DYNACAL<sup>®</sup> PERMEATION DEVICE below is certified traceable to N.I.S.T standards.

Serial Number: 89-57842

Certification Date: Apr 1, 2022      Certificate Expires: Apr 1, 2023  
Chemical: Carbon Disulfide CAS# 75-15-0  
Part Number: PD-6300-C50  
Device Type: Dynacal Tube      Length: 1.50  
Permeation Rate: 4443.69 ng/min      Temperature: 50 C  
True Accuracy: +/- 0.63 %      Max-Allowed Accuracy: +/- 2.00 %  
Certification Method: Gravimetric      Order No: 135425  
Customer: ENTHALPY ANALYTICAL  
Note: Empty weight 14.1 g.

Approved By: 

## INDIVIDUAL DEVICE CERTIFICATION

The gravimetric method measures the weight loss per unit of time at the certification temperature. Traceability is thus established by the use of temperature and weight standards traceable to N.I.S.T. standards. Individual certification is accomplished by: (1) maintaining the device in a constant temperature chamber with purge flow of dry nitrogen, and (2) weighing periodically on a semi-microanalytical balance, accurate to the nearest 0.01 mg, until a steady weight loss per unit has been achieved. Temperature control and accuracy are better than 0.05° C referenced against temperature standards traceable to the National Institute of Standards and Technology. The semi-microanalytical balances are routinely serviced and calibrated by an independent service organization using N.I.S.T. traceable weight standards. Gravimetric permeation rate determination is continued until the standard error of the permeation rate meets the required accuracy at the 95% confidence level.

**CERTIFICATE OF ANALYSIS**  
**Grade of Product: CERTIFIED STANDARD-SPEC**

Customer: MONTROSE ENVIRONMENTAL GROUP,  
Part Number: X02NI99C15AC3D4  
Cylinder Number: CC274930  
Laboratory: 124 - Durham (SAP) - NC  
Analysis Date: Jul 18, 2022  
Lot Number: 122-402492572-1

Reference Number: 122-402492572-1  
Cylinder Volume: 144.0 CF  
Cylinder Pressure: 2015 PSIG  
Valve Outlet: 330

Expiration Date: Jul 18, 2025

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

**ANALYTICAL RESULTS**

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
HYDROGEN SULFIDE	7.000 PPM	7.135 PPM	+/- 5%
NITROGEN	Balance		

Permanent Notes: MONTROSE ENV ENTHALPY ANALY

COPY



*[Signature]*  
Approved for Release

FA Job # 1022-165R 299 of 305

**MDL Calculator**

Noise Peak Areas	74	107	81	72	87	71	101	Average
Type in 7 noise peak areas above. The average is calculated, tripled, and placed into the MDL calculations.								

		(ppm)	
		MDL	
H2S	m= 2.101 b= 23,883	0.115143	
COS	m= 2.166 b= 23,136	0.124703	
MeSH	m= 1.991 b= 769,971	0.017876	
DMS	m= 1.991 b= 769,971	0.017876	
CS2	m= 2.157 b= 107,152	0.060711	
DMDS	m= 1.991 b= 769,971	0.017876	

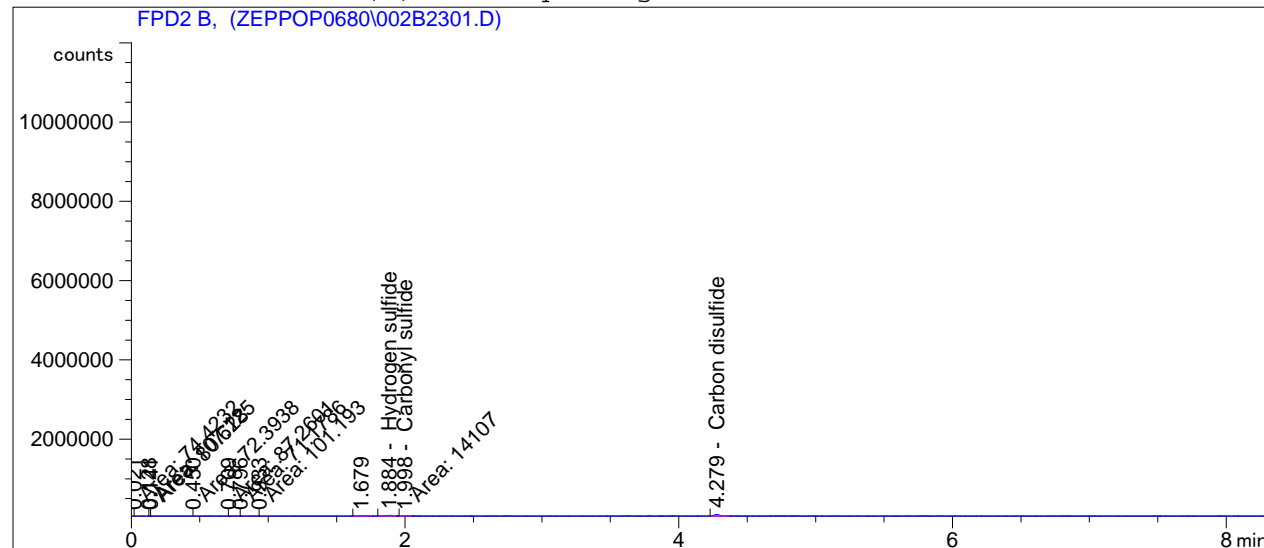


Sample Name: zeppoP0680 #2

```

=====
Acq. Operator   : Rhiannon Buchman          Seq. Line :   23
Acq. Instrument : Zeppo                    Location  : Vial 2
Injection Date  : 10/27/2022 5:24:28 AM      Inj       :    1
                                           Inj Volume: External
Acq. Method     : C:\GC\2022\ZEPPO\QUARTER 4\ZEPPOP0680\DUALFPD8.M
Last changed    : 10/26/2022 1:00:05 AM by System
Analysis Method : C:\GC\2022\ZEPPO\METHODS\ZEPPOP0680_1.M
Last changed    : 10/26/2022 9:17:09 AM by Rhiannon Buchman
Additional Info  : Peak(s) manually integrated
=====

```



External Standard Report

```

=====
Sorted By           :      Signal
Calib. Data Modified :      Wednesday, October 26, 2022 9:17:04 AM
Multiplier          :      1.0000
Dilution            :      1.0000
Use Multiplier & Dilution Factor with ISTDs
=====

```

Signal 1: FPD2 B,

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
1.884	BV	4.20510e4	3.29047e-5	1.38367		Hydrogen sulfide
1.998	MM	1.41070e4	4.27506e-5	6.03082e-1		Carbonyl sulfide
4.279	BB	9.75180e4	1.01401e-5	9.88839e-1		Carbon disulfide

Totals : 2.97560

Uncalibrated Peaks : using compound Hydrogen sulfide

RetTime [min]	Type	Area counts*s	Amt/Area	Amount [ppmv]	Grp	Name
0.021	MM	74.42319	8.81950e-4	6.56375e-2	?	
0.128	MM	107.12518	7.30054e-4	7.82071e-2	?	
0.141	MM	80.62803	8.46050e-4	6.82153e-2	?	
0.450	MM	72.39381	8.94695e-4	6.47704e-2	?	
0.709	MM	87.26010	8.12046e-4	7.08592e-2	?	
0.796	MM	71.17863	9.02589e-4	6.42451e-2	?	
0.933	MM	101.19319	7.51958e-4	7.60931e-2	?	
1.679	BB	2494.23242	1.42537e-4	3.55519e-1	?	

Uncalib. totals : 8.43547e-1

1 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

=====  
Summed Peaks Report  
=====

Signal 1: FPD2 B,

2 Warnings or Errors :

Warning : Reference compound(s) not found

Warning : ISTD compound(s) not found

=====  
Final Summed Peaks Report  
=====

Signal 1: FPD2 B,

Name	Total Area counts*s	Amount [ppmv]
Hydrogen sulfid	4.20510e4	1.3837
Carbonyl sulfid	1.41070e4	0.6031
Carbon disulfid	9.75180e4	0.9888

Totals : 2.9756

\*\*\* End of Report \*\*\*

Location: GC Drawer: Zeppo Analyst: REB  
Cabinet: 2022 Folder: Quarter 4 Date: 10/25/22

Job #s <u>1022-165</u> <u>1022-171</u>	Describe Work Documented on This Page <u>M15/16 column info in AQM</u>
--	---

Date= 10/26/22  
Perm Chamber Temp= 50.0 C  
Buckmeter S/N & cal. check due date= A55533 7/13/2023

Compound	Perm Tube #	Expiration	(Ng/min) Perm Rates	MW	Concentration (ppm)			
					2	3	4	5
H2S	<u>88464</u>	<u>7/22/2023</u>	<u>2703.00</u>	<u>34</u>	<u>1.267</u>	<u>1.697</u>	<u>5.198</u>	<u>11.711</u>
COS	<u>F-55888</u>	<u>4/1/2023</u>	<u>2789.23</u>	<u>60</u>	<u>0.741</u>	<u>0.992</u>	<u>3.040</u>	<u>6.848</u>
CS2	<u>89-57842</u>	<u>4/1/2023</u>	<u>4443.69</u>	<u>76</u>	<u>0.931</u>	<u>1.248</u>	<u>3.823</u>	<u>8.613</u>
Flow Rate=					<u>1510</u>	<u>1127</u>	<u>367.9</u>	<u>163.3</u> mL/min

REB 10/27/22

C:\GC\2022\ZEPP\QUARTER 4\ZEPP\0680\ZEPP\0680.S Front Inlet

Line	Vial	SampleName	Method	Inj Dilution
1	vial 6	pause	PAUSE_FPD8	1
2	vial 10	zeppoP0680 #5	DUALFPD8	5
3	vial 10	zeppoP0680 #4	DUALFPD8	5
4	vial 10	zeppoP0680 #3	DUALFPD8	5
5	vial 10	zeppoP0680 #2	DUALFPD8	5
6	vial 14	zeppoP0551 #MB	DUALFPD8	3
7	vial 2	zeppoP0675 #LCS	DUALFPD8_SHORT	4
8	vial 6	pause	PAUSE_FPD8	1
9	vial 2	zeppoP0675 #LCS	DUALFPD8_SHORT	4
10	vial 2	zeppoP0675 #LCS	DUALFPD8_SHORT	1
11	vial 2	zeppoP0675 #LCS	DUALFPD8_SHORT	1
12	vial 1	zeppoP0675 #LCS	DUALFPD8_SHORT	1
13	vial 1	zeppoP0675 #LCS	DUALFPD8_SHORT	2
14	vial 1	zeppoP0675 #LCS	DUALFPD8_SHORT	1
15	vial 6	pause	PAUSE_FPD8	1
16	vial 7	1022-165.Run 1.Bag	DUALFPD8	3
17	vial 8	1022-165.Run 2.Bag	DUALFPD8	3
18	vial 9	1022-165.Run 3.Bag	DUALFPD8	3
19	vial 6	pause	PAUSE_FPD8	1
20	vial 10	zeppoP0680 #5	DUALFPD8	5
21	vial 10	zeppoP0680 #4	DUALFPD8	5
22	vial 10	zeppoP0680 #3	DUALFPD8	5
23	vial 10	zeppoP0680 #2	DUALFPD8	5
24	vial 6	pause	PAUSE_FPD8	1

① Report last 3 injections.  
REB 10/27/22

② Use first 3 injections.  
REB 10/27/22

Reviewer's Initials & Date:

REB 10-31-22

ZEPP  
page 680

EA Job # 1022-165R 303 of 305

Location: GC  
Cabinet: 2022

Drawer: ZEPO  
Folder: Quarter 4

Analyst: REB  
Date: 10/27/22

Job #s <u>1022-171</u> <u>1022-165</u>	Describe Work Documented on This Page <u>M 15/16 Column info in AQM</u>
--	--

C:\GC\2022\ZEPO\QUARTER 4\ZEPOPOP0681\ZEPOPOP0681.S Front Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 7	1022-171.Outlet R2 2.Bag	DUALFPD8	3	
2	vial 8	1022-171.Outlet R3 2.Bag	DUALFPD8	3	
3	vial 9	1022-165.West Run 1.Bag	DUALFPD8	3	
4	vial 15	1022-165.West Run 2.Bag	DUALFPD8	3	
5	vial 7	1022-165.West Run 3.Bag	DUALFPD8	3	
6	vial 10	zeppoP0681 #5	DUALFPD8	5	
7	vial 10	zeppoP0681 #4	DUALFPD8	5	
8	vial 10	zeppoP0681 #3①	DUALFPD8	5	
9	vial 10	zeppoP0681 #2	DUALFPD8	5	
10	vial 6	pause	PAUSE_FPD8	1	
11	vial 10	zeppoP0681 #3	DUALFPD8	4	
12	vial 6	pause	PAUSE_FPD8	1	

① Do not use. Rem.  
REB 10/28/22

Supplies, Ancillary Equipment  
Serial #s, Lot #s, Etc

C:\GC\2022\ZEPO\QUARTER 4\ZEPOPOP0681\ZEPOPOP0681.S Back Inlet

Line	Vial	SampleName	Method	Inj	Dilution
1	vial 5	1022-171.Outlet R2 2.Bag	DUALFPD8	3	
2	vial 5	1022-171.Outlet R3 2.Bag	DUALFPD8	3	
3	vial 5	1022-165.West Run 1.Bag	DUALFPD8	3	
4	vial 5	1022-165.West Run 2.Bag	DUALFPD8	3	
5	vial 5	1022-165.West Run 3.Bag	DUALFPD8	3	
6	vial 5	zeppoP0681 #5	DUALFPD8	5	
7	vial 4	zeppoP0681 #4	DUALFPD8	5	
8	vial 3	zeppoP0681 #3①	DUALFPD8	5	
9	vial 2	zeppoP0681 #2	DUALFPD8	5	
10	vial 5	pause	PAUSE_FPD8	1	
11	vial 3	zeppoP0681 #3	DUALFPD8	4	
12	vial 5	pause	PAUSE_FPD8	1	

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Enthalpy Quality Assurance

Reviewer's Initials & Date:

ZEPO  
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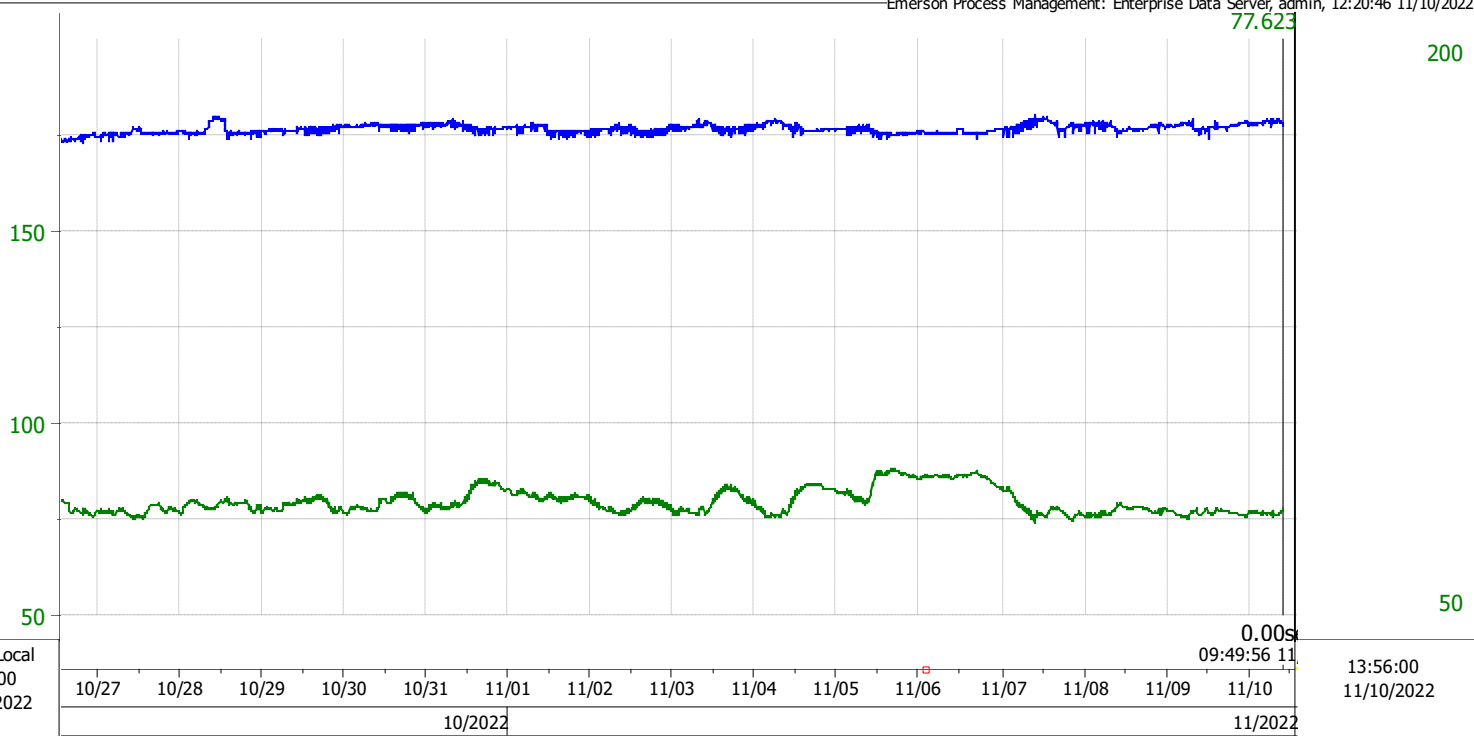
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## Appendix C



IESS	Description	Unit	IDCS	Source	Avg	Max	Min	Hair	Show alias
TE0056.UNIT1@OVATION1	CTW RETURN TO TOWER TEMP	DEGF	TE0056	unit1	79.34053G	87.8837	73.8595	77.62357G	
PT0014.UNIT1@OVATION1	CTW HEADER PRESS	PSIG	PT0014	unit1	101.347G	104.07	98.2104	102.2096G	

**BRANCH DESCRIPTION**

Branch Number: 1  
Branch Name: East Return Piping

Created By: J Hosfield  
Date: 2022-11-10



**ONE-PAGE SUMMARY**

Branch Number: 1  
Branch Name: East Return Piping

**FLUID DESCRIPTION**

Asmpt: Incompressible  
Fluid: Water  
Temperature: 79.30 Fahrenheit  
Pressure: 29.60 PSIA  
Density: 1.00 grams/CC = 62.18 lb/cu ft  
Specific Volume: 0.016 cu ft/lb  
Specific Gravity: 0.996  
Abs. Viscosity: 0.868 centipoise  
Kin. Viscosity: 0.872 centistokes

**HARDWARE DESCRIPTION**

Number of Components: 7  
Branch Inlet Diameter: 47.000 inches  
Branch Outlet Diameter: 34.500 inches

Branch Elevational Change: 0.0 feet  
Branch K Factor: 2.24

**FLOW DESCRIPTION**

Mass Flow Rate: 8,578,821.9 lb/hr  
Volumetric Flow Rate: 17,201.3 US gal/min  
Velocity: 3.2 ft/sec (FPS)

Differential Pressure: 0.30 PSID  
Head Loss: 0.35 feet  
Head Loss: 0.15 PSID

**FLUID DESCRIPTION - SUMMARY**

Fluid: Water  
Temperature: 79.30 Fahrenheit  
Pressure: 29.60 PSIA  
Incompressible - No Specific Location

**HARDWARE DESCRIPTION - TABLE**

Branch Number: 1  
 Branch Name: East Return Piping  
 Number of Components: 7

Units as follows:

Diameter: inches  
 Equivalent Length: feet  
 Inlet Pressure (Pin): PSIA  
 Differential Pressure (DP): PSID  
 Head Loss (HL): feet  
 Inlet Velocity: ft/sec (FPS)

Component Name	In Dia Pin	Out Dia DP	Eq Lnth HL	K Factor In Vel
INLET	47.000 29.60		870.79 0.35	2.237 3.181
Tee, 47.000" Thru Run	47.000 29.60	47.000 0.01	78.33 0.03	0.201 3.181
Pipe, 47.000" custom, 9.25 feet	47.000 29.59	47.000 0.00	9.25 0.00	0.028 3.181
Reducer, 47.000 X 36" X 28	47.000 29.59	35.000 0.17	109.42 0.04	0.281 3.181
Pipe, NPS 36, sched 20, 45.50 feet	35.000 29.42	35.000 0.04	45.50 0.10	0.187 5.736
Gate valve	34.500 29.38	34.500 0.02	23.00 0.05	0.085 5.904
Elbow, 36" 90 LR flg/BW	34.500 29.36	34.500 0.03	40.25 0.08	0.149 5.904
Pipe, NPS 36, sched 40, 21.93 feet	34.500 29.32	34.500 0.02	21.93 0.05	0.091 5.904
OUTLET		34.500 29.30	870.79	2.237 5.904

**FLOW DESCRIPTION - SUMMARY**

Mass Flow Rate: 8,578,821.9 lb/hr

Inlet Vol. Flow Rate: 17,201.3 US gal/min

Inlet Velocity: 3.2 ft/sec (FPS)

Outlet Vol. Flow Rate: 17,201.3 US gal/min

Outlet Velocity: 5.9 ft/sec (FPS)

Differential Pressure: 0.30 PSID

Head Loss: 0.35 feet

Head Loss: 0.15 PSID

**BRANCH DESCRIPTION**

Branch Number: 2  
Branch Name: West Return Piping

Created By: J Hosfield  
Date: 2022-11-10

**ONE-PAGE SUMMARY**

Branch Number: 2  
Branch Name: West Return Piping

**FLUID DESCRIPTION**

Asmpt: Incompressible  
Fluid: Water  
Temperature: 79.30 Fahrenheit  
Pressure: 29.60 PSIA  
Density: 1.00 grams/CC = 62.18 lb/cu ft  
Specific Volume: 0.016 cu ft/lb  
Specific Gravity: 0.996  
Abs. Viscosity: 0.868 centipoise  
Kin. Viscosity: 0.872 centistokes

**HARDWARE DESCRIPTION**

Number of Components: 3  
Branch Inlet Diameter: 47.000 inches  
Branch Outlet Diameter: 35.000 inches

Branch Elevational Change: 0.0 feet  
Branch K Factor: 1.68

**FLOW DESCRIPTION**

Mass Flow Rate: 18,958,010.9 lb/hr  
Volumetric Flow Rate: 38,012.5 US gal/min  
Velocity: 7.0 ft/sec (FPS)

Differential Pressure: 1.30 PSID  
Head Loss: 1.29 feet  
Head Loss: 0.56 PSID

**FLUID DESCRIPTION - SUMMARY**

Fluid: Water  
Temperature: 79.30 Fahrenheit  
Pressure: 29.60 PSIA  
Incompressible - No Specific Location

**HARDWARE DESCRIPTION - TABLE**

Branch Number: 2  
 Branch Name: West Return Piping  
 Number of Components: 3

Units as follows:

Diameter: inches  
 Equivalent Length: feet  
 Inlet Pressure (Pin): PSIA  
 Differential Pressure (DP): PSID  
 Head Loss (HL): feet  
 Inlet Velocity: ft/sec (FPS)

Component Name	In Dia Pin	Out Dia DP	Eq Lnth HL	K Factor In Vel
INLET	47.000 29.60	1.30	655.46 1.29	1.684 7.029
Tee, 47.000" Thru Branch	47.000 29.60	47.000 0.20	235.00 0.46	0.604 7.029
Reducer, 47.000 X 36" sud	47.000 29.40	35.000 0.99	281.97 0.56	0.724 7.029
Pipe, NPS 36, sched 20, 28.21 feet	35.000 28.42	35.000 0.12	28.21 0.27	0.109 12.676
OUTLET	28.30	35.000	655.46	1.684 12.676



**FLOW DESCRIPTION - SUMMARY**

Mass Flow Rate: 18,958,010.9 lb/hr

Inlet Vol. Flow Rate: 38,012.5 US gal/min

Inlet Velocity: 7.0 ft/sec (FPS)

Outlet Vol. Flow Rate: 38,012.5 US gal/min

Outlet Velocity: 12.7 ft/sec (FPS)

Differential Pressure: 1.30 PSID

Head Loss: 1.29 feet

Head Loss: 0.56 PSID

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