



# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

East Palestine

## JOB NUMBER

240-180257-1

# Eurofins Canton

## Job Notes

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## Authorization



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# Table of Contents

|                                  |    |
|----------------------------------|----|
| Cover Page . . . . .             | 1  |
| Table of Contents . . . . .      | 3  |
| Definitions/Glossary . . . . .   | 4  |
| Case Narrative . . . . .         | 5  |
| Method Summary . . . . .         | 7  |
| Sample Summary . . . . .         | 8  |
| Detection Summary . . . . .      | 9  |
| Client Sample Results . . . . .  | 10 |
| Surrogate Summary . . . . .      | 38 |
| QC Sample Results . . . . .      | 40 |
| QC Association Summary . . . . . | 57 |
| Lab Chronicle . . . . .          | 59 |
| Certification Summary . . . . .  | 61 |
| Chain of Custody . . . . .       | 63 |
| Receipt Checklists . . . . .     | 66 |

# Definitions/Glossary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U         | Indicates the analyte was analyzed for but not detected.   |

### GC/MS Semi VOA

| Qualifier | Qualifier Description  |
|-----------|--|
| *-        | LCS and/or LCSD is outside acceptance limits, low biased.  |
| F1        | MS and/or MSD recovery exceeds control limits.   |
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U         | Indicates the analyte was analyzed for but not detected.   |

## Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|---|
| α              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery  |
| CFL            | Contains Free Liquid  |
| CFU            | Colony Forming Unit   |
| CNF            | Contains No Free Liquid   |
| DER            | Duplicate Error Ratio (normalized absolute difference)  |
| Dil Fac        | Dilution Factor   |
| DL             | Detection Limit (DoD/DOE)   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)   |
| EDL            | Estimated Detection Limit (Dioxin)  |
| LOD            | Limit of Detection (DoD/DOE)  |
| LOQ            | Limit of Quantitation (DoD/DOE)   |
| MCL            | EPA recommended "Maximum Contaminant Level"   |
| MDA            | Minimum Detectable Activity (Radiochemistry)  |
| MDC            | Minimum Detectable Concentration (Radiochemistry)   |
| MDL            | Method Detection Limit  |
| ML             | Minimum Level (Dioxin)  |
| MPN            | Most Probable Number  |
| MQL            | Method Quantitation Limit   |
| NC             | Not Calculated  |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)  |
| NEG            | Negative / Absent   |
| POS            | Positive / Present  |
| PQL            | Practical Quantitation Limit  |
| PRES           | Presumptive   |
| QC             | Quality Control   |
| RER            | Relative Error Ratio (Radiochemistry)   |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)   |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)   |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)   |
| TNTC           | Too Numerous To Count   |

# Case Narrative

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Job ID: 240-180257-1**

**Laboratory: Eurofins Canton**

## Narrative

### Job Narrative 240-180257-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/10/2023 8:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 7.2° C and 9.7° C.

#### GC/MS VOA

Method 524.2: PW201-20230210 (240-180257-1), PW202-20230210 (240-180257-2), PW203-20230210 (240-180257-3), PW204-20230210 (240-180257-4), FB-20230210 (240-180257-5) and TB-20230210 (240-180257-6): The sample chromatogram was searched for (+/-)-2-ethylhexyl acrylate (CAS #103-11-7), which was observed to elute at 16.05 minutes in a spiked blank. (+/-)-2-ethylhexyl acrylate was not observed in this sample. [Analytical Batch 810-47591]

Method 524.2: FB-20230210 (240-180257-5): The sample (pH 4.5) was outside the method pH limit of 2. The sample container indicated the sample was unpreserved. Sample was not repeated due to headspace in remaining vial. [Analytical Batch 810-47575]

Method 524.2: (CCVIS 810-47883/3): The continuing calibration verification (CCVIS) associated with batch 810-47883 recovered above the upper control limit for tert-butyl alcohol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 524.2: PW202-20230210 (240-180257-2): The sample contained a large air bubble in its vial, while the EPA method requires that sample bottles should not have any trapped air bubbles when sealed. [Analytical Batch 810-47883].

Method 524.2: The continuing calibration verification (CCV) associated with batch 810-47876 recovered outside acceptance criteria, low biased, for Methyl iodide (67%). Methyl iodide was not detected in any of the associated field samples.

Method 524.2: PW202-20230210 (240-180257-2): The sample chromatogram was searched (+/-)-2-ethylhexyl acrylate (CAS #103-11-7), which were observed to elute at 16.05 minutes in a spiked blank. (+/-)-2-ethylhexyl acrylate was not observed in this sample. [Analytical Batch 810-47883]

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method 525.2: The laboratory control sample (LCS) for preparation batch 810-47583 and analytical batch 47668 recovered outside control limits (70-130%) for the following analytes: 2,6-Dinitrotoluene (66%) and 2,4-Dinitrotoluene (68%). These analytes recovered low due to poor performance associated with these compounds. Data impact would be potentially low biased results for these analytes.

(LCS 810-47583/2-A)

Method 525.2: The laboratory control sample (LCS) for preparation batch 810-47583 and analytical batch 810-47668 recovered outside control limits (70-130%) for the following analytes: Prometon (18%). Prometon is known to have low extraction recovery under acidic conditions per table 6B of our SOP. Neutral pH extraction is required. See EPA Method 525.2 Rev 2.0 Section 8.2.2.

(LCS 810-47583/2-A)

Method 525.2: The matrix spike (MS) recoveries for Prometon (18%) for preparation batch 810-47583 and analytical batch 810-47668 were outside control limits (70-130%). Prometon is known to have low extraction recovery under acidic conditions per table 6B of our SOP. Neutral pH extraction is required. See EPA Method 525.2 Rev 2.0 Section 8.2.2.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

# Case Narrative

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

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## Job ID: 240-180257-1 (Continued)

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### Laboratory: Eurofins Canton (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Method Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

| Method    | Method Description                     | Protocol | Laboratory |
|-----------|--|----------|------------|
| 524.2     | Volatile Organic Compounds (GC/MS)     | EPA-DW   | EA SB      |
| 524.2 Ext | Volatile Organic Compounds (GC/MS)     | EPA-DW   | EA SB      |
| 525.2     | Semivolatile Organic Compounds (GC/MS) | EPA      | EA SB      |
| 525.2     | Extraction of Semivolatile Compounds   | EPA      | EA SB      |

**Protocol References:**

EPA = US Environmental Protection Agency

EPA-DW = "Methods For The Determination Of Organic Compounds In Drinking Water", EPA/600/4-88/039, December 1988 And Its Supplements.

**Laboratory References:**

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777



# Sample Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       |
|---------------|------------------|--------|----------------|----------------|
| 240-180257-1  | PW201-20230210   | Water  | 02/10/23 16:50 | 02/10/23 20:50 |
| 240-180257-2  | PW202-20230210   | Water  | 02/10/23 17:05 | 02/10/23 20:50 |
| 240-180257-3  | PW203-20230210   | Water  | 02/10/23 17:40 | 02/10/23 20:50 |
| 240-180257-4  | PW204-20230210   | Water  | 02/10/23 18:00 | 02/10/23 20:50 |
| 240-180257-5  | FB-20230210      | Water  | 02/10/23 16:25 | 02/10/23 20:50 |
| 240-180257-6  | TB-20230210      | Water  | 02/10/23 00:00 | 02/10/23 20:50 |

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# Detection Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Client Sample ID: PW201-20230210

Lab Sample ID: 240-180257-1

| Analyte              | Result | Qualifier | RL  | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|-------|------|---------|---|--------|-----------|
| Di-n-butyl phthalate | 0.79   | J         | 2.0 | 0.071 | ug/L | 1       |   | 525.2  | Total/NA  |

## Client Sample ID: PW202-20230210

Lab Sample ID: 240-180257-2

| Analyte              | Result | Qualifier | RL   | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|------|-------|------|---------|---|--------|-----------|
| Carbon disulfide     | 1.1    |           | 0.50 | 0.20  | ug/L | 1       |   | 524.2  | Total/NA  |
| Di-n-butyl phthalate | 0.63   | J         | 2.0  | 0.070 | ug/L | 1       |   | 525.2  | Total/NA  |

## Client Sample ID: PW203-20230210

Lab Sample ID: 240-180257-3

| Analyte              | Result | Qualifier | RL  | MDL   | Unit | Dil Fac | D | Method | Prep Type |
|----------------------|--------|-----------|-----|-------|------|---------|---|--------|-----------|
| Di-n-butyl phthalate | 0.11   | J         | 2.0 | 0.070 | ug/L | 1       |   | 525.2  | Total/NA  |

## Client Sample ID: PW204-20230210

Lab Sample ID: 240-180257-4

No Detections.

## Client Sample ID: FB-20230210

Lab Sample ID: 240-180257-5

| Analyte | Result | Qualifier | RL  | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|------|---------|---|--------|-----------|
| Acetone | 3.0    | J         | 5.0 | 2.0 | ug/L | 1       |   | 524.2  | Total/NA  |

## Client Sample ID: TB-20230210

Lab Sample ID: 240-180257-6

| Analyte         | Result | Qualifier | RL  | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-----------------|--------|-----------|-----|-----|------|---------|---|--------|-----------|
| Tetrahydrofuran | 1.8    | J         | 5.0 | 1.4 | ug/L | 1       |   | 524.2  | Total/NA  |

This Detection Summary does not include radiochemical test results.

Eurofins Canton

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 Ext - Volatile Organic Compounds (GC/MS)**

| Analyte                       | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Ethanol                       | 5.0              | U                | 10            | 5.0 | ug/L |   |                 | 02/13/23 17:15  | 1              |
| <b>Surrogate</b>              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1,2-Dichlorobenzene-d4 (Surr) | 96               |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:15  | 1              |
| 1,2-Dichloroethane-d4 (Surr)  | 99               |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:15  | 1              |
| Toluene-d8 (Surr)             | 99               |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:15  | 1              |
| 4-Bromofluorobenzene (Surr)   | 99               |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:15  | 1              |

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Epichlorohydrin                | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 12:15 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,3-Butadiene                  | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 12:15 | 1       |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Cyclohexanone                  | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:15 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 10:53 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bis(2-chloroethyl)ether        | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 12:15 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Chloroprene                    | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 12:15 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Ethyl acrylate                 | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 12:15 | 1       |
| n-Butyl acrylate               | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 12:15 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:53 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |

Eurofins Canton

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon tetrachloride                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1-Dichloropropene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 2-Hexanone                            | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 2,2-Dichloropropane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Ethyl ether                           | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Ethyl tert-butyl ether                | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 12:15 | 1       |
| Chloroform                            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Hexachloroethane                      | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Benzene                               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1,1-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromomethane                          | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Chloromethane                         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Dibromomethane                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromochloromethane                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Chloroethane                          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Vinyl chloride                        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Dichloromethane                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromoform                             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromodichloromethane                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1-Dichloroethane                    | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1-Dichloroethene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 12:15 | 1       |
| Trichlorofluoromethane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Methyl methacrylate                   | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:53 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Methyl acrylate                       | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Ethyl methacrylate                    | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Benzyl chloride                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 12:15 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                    | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Propionitrile              | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Vinyl acetate              | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:15 | 1       |
| Isopropyl ether            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 12:15 | 1       |
| 1,4-Dioxane                | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:15 | 1       |
| sec-Butylbenzene           | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 2-Nitropropane             | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/15/23 10:53 | 1       |
| t-Amyl methyl ether        | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 12:15 | 1       |
| Acetone                    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:53 | 1       |
| Bromoethane                | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:53 | 1       |
| 1,3-Dichloropropene, Total | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:53 | 1       |
| Xylenes, Total             | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 10:53 | 1       |

| Surrogate                     | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr)  | 95        |           | 70 - 130 |          | 02/13/23 12:15 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 104       |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 102       |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| Toluene-d8 (Surr)             | 93        |           | 70 - 130 |          | 02/13/23 12:15 | 1       |
| Toluene-d8 (Surr)             | 98        |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| Toluene-d8 (Surr)             | 100       |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| 4-Bromofluorobenzene (Surr)   | 89        |           | 70 - 130 |          | 02/13/23 12:15 | 1       |
| 4-Bromofluorobenzene (Surr)   | 88        |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| 4-Bromofluorobenzene (Surr)   | 105       |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 86        |           | 70 - 130 |          | 02/13/23 12:15 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 85        |           | 70 - 130 |          | 02/15/23 10:53 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 101       |           | 70 - 130 |          | 02/15/23 10:53 | 1       |

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)**

| Analyte                     | Result      | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-------|--------|------|---|----------------|----------------|---------|
| 2,4-Dinitrotoluene          | 0.020       | U *       | 0.51  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Acenaphthylene              | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Alachlor                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Aldrin                      | 0.0082      | U         | 0.10  | 0.0082 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Anthracene                  | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Atrazine                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| alpha-Chlordane             | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Benzo[a]anthracene          | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Benzo[a]pyrene              | 0.012       | U         | 0.020 | 0.012  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Benzo[b]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Benzo[g,h,i]perylene        | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Benzo[k]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Bromacil                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Butachlor                   | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Butylbenzylphthalate        | 0.020       | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Chrysene                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Di(2-ethylhexyl)adipate     | 0.020       | U         | 0.61  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Di (2-ethylhexyl)phthalate  | 0.10        | U         | 0.61  | 0.10   | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| <b>Di-n-butyl phthalate</b> | <b>0.79</b> | <b>J</b>  | 2.0   | 0.071  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Diazinon                    | 0.030       | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Dibenz(a,h)anthracene       | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Dieldrin                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Diethylphthalate          | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Dimethoate                | 0.030  | U         | 0.51  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Dimethylphthalate         | 0.30   | U         | 1.0   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Endrin                    | 0.010  | U         | 0.010 | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Fluoranthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Fluorene                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| gamma-BHC (Lindane)       | 0.0085 | U         | 0.020 | 0.0085 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Heptachlor                | 0.0044 | U         | 0.040 | 0.0044 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Heptachlor epoxide        | 0.0040 | U         | 0.020 | 0.0040 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Hexachlorobenzene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Isophorone                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Methoxychlor              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Metolachlor               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Metribuzin                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Molinate                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Phenanthrene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Propachlor                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Pyrene                    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Simazine                  | 0.030  | U         | 0.071 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| gamma-Chlordane           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Trifluralin               | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| trans-Nonachlor           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Thiobencarb               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 1-Methylnaphthalene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 2-Methylnaphthalene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 4,4'-DDD                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 4,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 4,4'-DDT                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Acenaphthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Chlorothalonil            | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Di-n-octyl phthalate      | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| EPTC                      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Malathion                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Naphthalene               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Parathion                 | 0.091  | U         | 0.51  | 0.091  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Terbacil                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Endrin aldehyde           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 2,4'-DDD                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 2,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 2,4'-DDT                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| 2,6-Dinitrotoluene        | 0.040  | U *       | 0.10  | 0.040  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Acetochlor                | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| alpha-BHC                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| beta-BHC                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Chlorobenzilate           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Chloroneb                 | 0.071  | U         | 0.10  | 0.071  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |
| Chlorpyrifos              | 0.020  | U         | 0.051 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:15 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result           | Qualifier        | RL            | MDL   | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|---------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| delta-BHC                 | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Dichlorvos                | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Endosulfan I              | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Endosulfan II             | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Endosulfan sulfate        | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| cis-Permethrin            | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| trans-Permethrin          | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Caffeine                  | 0.020            | U                | 0.051         | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Pendimethalin             | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Terbutylazine             | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Hexazinone                | 0.051            | U                | 0.10          | 0.051 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Permethrin                | 0.020            | U                | 0.20          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Chlordane (n.o.s.)        | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Cyanazine                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Prometon                  | 0.010            | U *-             | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Desethylatrazine          | 0.010            | U                | 1.0           | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Deisopropylatrazine       | 0.040            | U                | 1.0           | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Prometryn                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| <b>Surrogate</b>          | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Triphenylphosphate (Surr) | 100              |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| Perylene-d12 (Surr)       | 94               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |
| 2-Nitro-m-xylene (Surr)   | 99               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:15  | 1              |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 Ext - Volatile Organic Compounds (GC/MS)**

| Analyte                       | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Ethanol                       | 5.0              | U                | 10            | 5.0 | ug/L |   |                 | 02/13/23 17:40  | 1              |
| <b>Surrogate</b>              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1,2-Dichlorobenzene-d4 (Surr) | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:40  | 1              |
| 1,2-Dichloroethane-d4 (Surr)  | 102              |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:40  | 1              |
| Toluene-d8 (Surr)             | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:40  | 1              |
| 4-Bromofluorobenzene (Surr)   | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 17:40  | 1              |

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Epichlorohydrin                | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 09:34 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,3-Butadiene                  | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/15/23 09:34 | 1       |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Cyclohexanone                  | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:34 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 12:34 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bis(2-chloroethyl)ether        | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/15/23 09:34 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Chloroprene                    | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/15/23 09:34 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Ethyl acrylate                 | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/15/23 09:34 | 1       |
| n-Butyl acrylate               | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/15/23 09:34 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 12:34 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result     | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon tetrachloride                  | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1-Dichloropropene                   | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 2-Hexanone                            | 1.2        | U         | 5.0  | 1.2  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 2,2-Dichloropropane                   | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Ethyl ether                           | 0.30       | U         | 2.0  | 0.30 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Ethyl tert-butyl ether                | 0.40       | U         | 2.0  | 0.40 | ug/L |   |          | 02/15/23 09:34 | 1       |
| Chloroform                            | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Hexachloroethane                      | 1.1        | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Benzene                               | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1,1-Trichloroethane                 | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromomethane                          | 0.40       | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Chloromethane                         | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Methyl iodide                         | 2.0        | U         | 2.0  | 2.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Dibromomethane                        | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromochloromethane                    | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Chloroethane                          | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Vinyl chloride                        | 0.20       | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Dichloromethane                       | 0.40       | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 12:34 | 1       |
| <b>Carbon disulfide</b>               | <b>1.1</b> |           | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromoform                             | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromodichloromethane                  | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1-Dichloroethane                    | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1-Dichloroethene                    | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| tert-Butyl alcohol                    | 0.60       | U         | 2.0  | 0.60 | ug/L |   |          | 02/15/23 09:34 | 1       |
| Trichlorofluoromethane                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Dichlorodifluoromethane               | 0.30       | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Pentachloroethane                     | 1.1        | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30       | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2-Dichloropropane                   | 0.20       | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 2-Butanone (MEK)                      | 2.0        | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1,2-Trichloroethane                 | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Trichloroethylene                     | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Methyl methacrylate                   | 1.0        | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Hexachlorobutadiene                   | 0.20       | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Naphthalene                           | 0.30       | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 12:34 | 1       |
| o-Xylene                              | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 2-Chlorotoluene                       | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2-Dichlorobenzene                   | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20       | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,2,3-Trichloropropane                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Methyl acrylate                       | 0.80       | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Ethyl methacrylate                    | 1.0        | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| tert-Butylbenzene                     | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Isopropylbenzene                      | 0.20       | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 4-Isopropyltoluene                    | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Benzyl chloride                       | 0.40       | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 09:34 | 1       |



# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                    | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Propionitrile              | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Vinyl acetate              | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:34 | 1       |
| Isopropyl ether            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 09:34 | 1       |
| 1,4-Dioxane                | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:34 | 1       |
| sec-Butylbenzene           | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 2-Nitropropane             | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/13/23 12:34 | 1       |
| t-Amyl methyl ether        | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/15/23 09:34 | 1       |
| Acetone                    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 12:34 | 1       |
| Bromoethane                | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 12:34 | 1       |
| 1,3-Dichloropropene, Total | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 12:34 | 1       |
| Xylenes, Total             | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 12:34 | 1       |

| Surrogate                     | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr)  | 103       |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 100       |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 101       |           | 70 - 130 |          | 02/15/23 09:34 | 1       |
| Toluene-d8 (Surr)             | 98        |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| Toluene-d8 (Surr)             | 99        |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| Toluene-d8 (Surr)             | 96        |           | 70 - 130 |          | 02/15/23 09:34 | 1       |
| 4-Bromofluorobenzene (Surr)   | 88        |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 4-Bromofluorobenzene (Surr)   | 104       |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 4-Bromofluorobenzene (Surr)   | 91        |           | 70 - 130 |          | 02/15/23 09:34 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 84        |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 99        |           | 70 - 130 |          | 02/13/23 12:34 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 87        |           | 70 - 130 |          | 02/15/23 09:34 | 1       |

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)**

| Analyte                     | Result      | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-------|--------|------|---|----------------|----------------|---------|
| 2,4-Dinitrotoluene          | 0.020       | U *       | 0.50  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Acenaphthylene              | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Alachlor                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Aldrin                      | 0.0081      | U         | 0.10  | 0.0081 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Anthracene                  | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Atrazine                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| alpha-Chlordane             | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Benzo[a]anthracene          | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Benzo[a]pyrene              | 0.012       | U         | 0.020 | 0.012  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Benzo[b]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Benzo[g,h,i]perylene        | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Benzo[k]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Bromacil                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Butachlor                   | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Butylbenzylphthalate        | 0.020       | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Chrysene                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Di(2-ethylhexyl)adipate     | 0.020       | U         | 0.60  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Di (2-ethylhexyl)phthalate  | 0.10        | U         | 0.60  | 0.10   | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| <b>Di-n-butyl phthalate</b> | <b>0.63</b> | <b>J</b>  | 2.0   | 0.070  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Diazinon                    | 0.030       | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Dibenz(a,h)anthracene       | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Dieldrin                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Diethylphthalate          | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Dimethoate                | 0.030  | U         | 0.50  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Dimethylphthalate         | 0.30   | U         | 1.0   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Endrin                    | 0.0099 | U         | 0.010 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Fluoranthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Fluorene                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| gamma-BHC (Lindane)       | 0.0084 | U         | 0.020 | 0.0084 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Heptachlor                | 0.0044 | U         | 0.040 | 0.0044 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Heptachlor epoxide        | 0.0040 | U         | 0.020 | 0.0040 | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Hexachlorobenzene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Isophorone                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Methoxychlor              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Metolachlor               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Metribuzin                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Molinate                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Phenanthrene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Propachlor                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Pyrene                    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Simazine                  | 0.030  | U         | 0.070 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| gamma-Chlordane           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Trifluralin               | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| trans-Nonachlor           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Thiobencarb               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 1-Methylnaphthalene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 2-Methylnaphthalene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 4,4'-DDD                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 4,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 4,4'-DDT                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Acenaphthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Chlorothalonil            | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Di-n-octyl phthalate      | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| EPTC                      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Malathion                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Naphthalene               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Parathion                 | 0.090  | U         | 0.50  | 0.090  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Terbacil                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Endrin aldehyde           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 2,4'-DDD                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 2,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 2,4'-DDT                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| 2,6-Dinitrotoluene        | 0.040  | U *       | 0.10  | 0.040  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Acetochlor                | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| alpha-BHC                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| beta-BHC                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Chlorobenzilate           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Chloroneb                 | 0.070  | U         | 0.10  | 0.070  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |
| Chlorpyrifos              | 0.020  | U         | 0.050 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 23:40 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result           | Qualifier        | RL            | MDL   | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|---------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| delta-BHC                 | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Dichlorvos                | 0.010            | U                | 0.050         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Endosulfan I              | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Endosulfan II             | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Endosulfan sulfate        | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| cis-Permethrin            | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| trans-Permethrin          | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Caffeine                  | 0.020            | U                | 0.050         | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Pendimethalin             | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Terbutylazine             | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Hexazinone                | 0.050            | U                | 0.10          | 0.050 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Permethrin                | 0.020            | U                | 0.20          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Chlordane (n.o.s.)        | 0.010            | U                | 0.050         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Cyanazine                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Prometon                  | 0.010            | U *-             | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Desethylatrazine          | 0.010            | U                | 1.0           | 0.010 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Deisopropylatrazine       | 0.040            | U                | 1.0           | 0.040 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Prometryn                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| <b>Surrogate</b>          | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Triphenylphosphate (Surr) | 105              |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| Perylene-d12 (Surr)       | 95               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |
| 2-Nitro-m-xylene (Surr)   | 100              |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/13/23 23:40  | 1              |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 Ext - Volatile Organic Compounds (GC/MS)**

| Analyte                       | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Ethanol                       | 5.0              | U                | 10            | 5.0 | ug/L |   |                 | 02/13/23 18:04  | 1              |
| <b>Surrogate</b>              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1,2-Dichlorobenzene-d4 (Surr) | 97               |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:04  | 1              |
| 1,2-Dichloroethane-d4 (Surr)  | 102              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:04  | 1              |
| Toluene-d8 (Surr)             | 101              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:04  | 1              |
| 4-Bromofluorobenzene (Surr)   | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:04  | 1              |

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Epichlorohydrin                | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 13:03 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,3-Butadiene                  | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 13:03 | 1       |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Cyclohexanone                  | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:03 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 11:19 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bis(2-chloroethyl)ether        | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 13:03 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Chloroprene                    | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 13:03 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Ethyl acrylate                 | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 13:03 | 1       |
| n-Butyl acrylate               | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 13:03 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:19 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon tetrachloride                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1-Dichloropropene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 2-Hexanone                            | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 2,2-Dichloropropane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Ethyl ether                           | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Ethyl tert-butyl ether                | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 13:03 | 1       |
| Chloroform                            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Hexachloroethane                      | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Benzene                               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1,1-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromomethane                          | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Chloromethane                         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Dibromomethane                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromochloromethane                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Chloroethane                          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Vinyl chloride                        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Dichloromethane                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromoform                             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromodichloromethane                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1-Dichloroethane                    | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1-Dichloroethene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 13:03 | 1       |
| Trichlorofluoromethane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Methyl methacrylate                   | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:19 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Methyl acrylate                       | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Ethyl methacrylate                    | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Benzyl chloride                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:03 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                    | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Propionitrile              | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Vinyl acetate              | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:03 | 1       |
| Isopropyl ether            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 13:03 | 1       |
| 1,4-Dioxane                | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:03 | 1       |
| sec-Butylbenzene           | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 2-Nitropropane             | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/15/23 11:19 | 1       |
| t-Amyl methyl ether        | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 13:03 | 1       |
| Acetone                    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:19 | 1       |
| Bromoethane                | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:19 | 1       |
| 1,3-Dichloropropene, Total | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:19 | 1       |
| Xylenes, Total             | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 11:19 | 1       |

| Surrogate                     | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr)  | 99        |           | 70 - 130 |          | 02/13/23 13:03 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 111       |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 108       |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| Toluene-d8 (Surr)             | 93        |           | 70 - 130 |          | 02/13/23 13:03 | 1       |
| Toluene-d8 (Surr)             | 99        |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| Toluene-d8 (Surr)             | 98        |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| 4-Bromofluorobenzene (Surr)   | 89        |           | 70 - 130 |          | 02/13/23 13:03 | 1       |
| 4-Bromofluorobenzene (Surr)   | 88        |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| 4-Bromofluorobenzene (Surr)   | 104       |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 87        |           | 70 - 130 |          | 02/13/23 13:03 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 86        |           | 70 - 130 |          | 02/15/23 11:19 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 102       |           | 70 - 130 |          | 02/15/23 11:19 | 1       |

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)**

| Analyte                     | Result      | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|-----------------------------|-------------|-----------|-------|--------|------|---|----------------|----------------|---------|
| 2,4-Dinitrotoluene          | 0.020       | U *       | 0.50  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Acenaphthylene              | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Alachlor                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Aldrin                      | 0.0081      | U         | 0.10  | 0.0081 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Anthracene                  | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Atrazine                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| alpha-Chlordane             | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Benzo[a]anthracene          | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Benzo[a]pyrene              | 0.012       | U         | 0.020 | 0.012  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Benzo[b]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Benzo[g,h,i]perylene        | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Benzo[k]fluoranthene        | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Bromacil                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Butachlor                   | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Butylbenzylphthalate        | 0.020       | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Chrysene                    | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Di(2-ethylhexyl)adipate     | 0.020       | U         | 0.60  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Di (2-ethylhexyl)phthalate  | 0.10        | U         | 0.60  | 0.10   | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| <b>Di-n-butyl phthalate</b> | <b>0.11</b> | <b>J</b>  | 2.0   | 0.070  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Diazinon                    | 0.030       | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Dibenz(a,h)anthracene       | 0.010       | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Dieldrin                    | 0.020       | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Diethylphthalate          | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Dimethoate                | 0.030  | U         | 0.50  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Dimethylphthalate         | 0.30   | U         | 1.0   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Endrin                    | 0.0099 | U         | 0.010 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Fluoranthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Fluorene                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| gamma-BHC (Lindane)       | 0.0084 | U         | 0.020 | 0.0084 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Heptachlor                | 0.0044 | U         | 0.040 | 0.0044 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Heptachlor epoxide        | 0.0040 | U         | 0.020 | 0.0040 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Hexachlorobenzene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Isophorone                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Methoxychlor              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Metolachlor               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Metribuzin                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Molinate                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Phenanthrene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Propachlor                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Pyrene                    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Simazine                  | 0.030  | U         | 0.070 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| gamma-Chlordane           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Trifluralin               | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| trans-Nonachlor           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Thiobencarb               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 1-Methylnaphthalene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 2-Methylnaphthalene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 4,4'-DDD                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 4,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 4,4'-DDT                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Acenaphthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Chlorothalonil            | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Di-n-octyl phthalate      | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| EPTC                      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Malathion                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Naphthalene               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Parathion                 | 0.090  | U         | 0.50  | 0.090  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Terbacil                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Endrin aldehyde           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 2,4'-DDD                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 2,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 2,4'-DDT                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| 2,6-Dinitrotoluene        | 0.040  | U *       | 0.10  | 0.040  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Acetochlor                | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| alpha-BHC                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| beta-BHC                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Chlorobenzilate           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Chloroneb                 | 0.070  | U         | 0.10  | 0.070  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |
| Chlorpyrifos              | 0.020  | U         | 0.050 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:05 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result           | Qualifier        | RL            | MDL   | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|---------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| delta-BHC                 | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Dichlorvos                | 0.010            | U                | 0.050         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Endosulfan I              | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Endosulfan II             | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Endosulfan sulfate        | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| cis-Permethrin            | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| trans-Permethrin          | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Caffeine                  | 0.020            | U                | 0.050         | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Pendimethalin             | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Terbutylazine             | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Hexazinone                | 0.050            | U                | 0.10          | 0.050 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Permethrin                | 0.020            | U                | 0.20          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Chlordane (n.o.s.)        | 0.010            | U                | 0.050         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Cyanazine                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Prometon                  | 0.010            | U *- F1          | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Desethylatrazine          | 0.010            | U                | 1.0           | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Deisopropylatrazine       | 0.040            | U                | 1.0           | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Prometryn                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| <b>Surrogate</b>          | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Triphenylphosphate (Surr) | 106              |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| Perylene-d12 (Surr)       | 95               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |
| 2-Nitro-m-xylene (Surr)   | 94               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:05  | 1              |



# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 Ext - Volatile Organic Compounds (GC/MS)**

| Analyte                       | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Ethanol                       | 5.0              | U                | 10            | 5.0 | ug/L |   |                 | 02/13/23 18:28  | 1              |
| <b>Surrogate</b>              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1,2-Dichlorobenzene-d4 (Surr) | 101              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:28  | 1              |
| 1,2-Dichloroethane-d4 (Surr)  | 104              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:28  | 1              |
| Toluene-d8 (Surr)             | 99               |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:28  | 1              |
| 4-Bromofluorobenzene (Surr)   | 98               |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:28  | 1              |

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Epichlorohydrin                | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 13:26 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,3-Butadiene                  | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 13:26 | 1       |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Cyclohexanone                  | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:26 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 11:44 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bis(2-chloroethyl)ether        | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 13:26 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Chloroprene                    | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 13:26 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Ethyl acrylate                 | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 13:26 | 1       |
| n-Butyl acrylate               | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 13:26 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:44 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon tetrachloride                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1-Dichloropropene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 2-Hexanone                            | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 2,2-Dichloropropane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Ethyl ether                           | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Ethyl tert-butyl ether                | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 13:26 | 1       |
| Chloroform                            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Hexachloroethane                      | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Benzene                               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1,1-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromomethane                          | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Chloromethane                         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Dibromomethane                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromochloromethane                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Chloroethane                          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Vinyl chloride                        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Dichloromethane                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromoform                             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromodichloromethane                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1-Dichloroethane                    | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1-Dichloroethene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 13:26 | 1       |
| Trichlorofluoromethane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Methyl methacrylate                   | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 11:44 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Methyl acrylate                       | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Ethyl methacrylate                    | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Benzyl chloride                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:26 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                    | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Propionitrile              | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Vinyl acetate              | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:26 | 1       |
| Isopropyl ether            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 13:26 | 1       |
| 1,4-Dioxane                | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:26 | 1       |
| sec-Butylbenzene           | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 2-Nitropropane             | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/15/23 11:44 | 1       |
| t-Amyl methyl ether        | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 13:26 | 1       |
| Acetone                    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 11:44 | 1       |
| Bromoethane                | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 11:44 | 1       |
| 1,3-Dichloropropene, Total | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 11:44 | 1       |
| Xylenes, Total             | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 11:44 | 1       |

| Surrogate                     | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr)  | 95        |           | 70 - 130 |          | 02/13/23 13:26 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 110       |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 106       |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| Toluene-d8 (Surr)             | 95        |           | 70 - 130 |          | 02/13/23 13:26 | 1       |
| Toluene-d8 (Surr)             | 99        |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| Toluene-d8 (Surr)             | 100       |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)   | 88        |           | 70 - 130 |          | 02/13/23 13:26 | 1       |
| 4-Bromofluorobenzene (Surr)   | 84        |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| 4-Bromofluorobenzene (Surr)   | 98        |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 90        |           | 70 - 130 |          | 02/13/23 13:26 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 82        |           | 70 - 130 |          | 02/15/23 11:44 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 96        |           | 70 - 130 |          | 02/15/23 11:44 | 1       |

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)**

| Analyte                    | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| 2,4-Dinitrotoluene         | 0.020  | U *       | 0.51  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Acenaphthylene             | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Alachlor                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Aldrin                     | 0.0082 | U         | 0.10  | 0.0082 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Anthracene                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Atrazine                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| alpha-Chlordane            | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Benzo[a]anthracene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Benzo[a]pyrene             | 0.012  | U         | 0.020 | 0.012  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Benzo[b]fluoranthene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Benzo[g,h,i]perylene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Benzo[k]fluoranthene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Bromacil                   | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Butachlor                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Butylbenzylphthalate       | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Chrysene                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Di(2-ethylhexyl)adipate    | 0.020  | U         | 0.61  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Di (2-ethylhexyl)phthalate | 0.10   | U         | 0.61  | 0.10   | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Di-n-butyl phthalate       | 0.071  | U         | 2.0   | 0.071  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Diazinon                   | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Dibenz(a,h)anthracene      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Dieldrin                   | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Diethylphthalate          | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Dimethoate                | 0.030  | U         | 0.51  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Dimethylphthalate         | 0.30   | U         | 1.0   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Endrin                    | 0.010  | U         | 0.010 | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Fluoranthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Fluorene                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| gamma-BHC (Lindane)       | 0.0085 | U         | 0.020 | 0.0085 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Heptachlor                | 0.0045 | U         | 0.041 | 0.0045 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Heptachlor epoxide        | 0.0041 | U         | 0.020 | 0.0041 | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Hexachlorobenzene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Isophorone                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Methoxychlor              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Metolachlor               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Metribuzin                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Molinate                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Phenanthrene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Propachlor                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Pyrene                    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Simazine                  | 0.030  | U         | 0.071 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| gamma-Chlordane           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Trifluralin               | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| trans-Nonachlor           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Thiobencarb               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 1-Methylnaphthalene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 2-Methylnaphthalene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 4,4'-DDD                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 4,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 4,4'-DDT                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Acenaphthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Chlorothalonil            | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Di-n-octyl phthalate      | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| EPTC                      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Malathion                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Naphthalene               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Parathion                 | 0.091  | U         | 0.51  | 0.091  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Terbacil                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Endrin aldehyde           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 2,4'-DDD                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 2,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 2,4'-DDT                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| 2,6-Dinitrotoluene        | 0.041  | U *       | 0.10  | 0.041  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Acetochlor                | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| alpha-BHC                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| beta-BHC                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Chlorobenzilate           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Chloroneb                 | 0.071  | U         | 0.10  | 0.071  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |
| Chlorpyrifos              | 0.020  | U         | 0.051 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 00:55 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result           | Qualifier        | RL            | MDL   | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|---------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| delta-BHC                 | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Dichlorvos                | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Endosulfan I              | 0.041            | U                | 0.10          | 0.041 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Endosulfan II             | 0.041            | U                | 0.10          | 0.041 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Endosulfan sulfate        | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| cis-Permethrin            | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| trans-Permethrin          | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Caffeine                  | 0.020            | U                | 0.051         | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Pendimethalin             | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Terbutylazine             | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Hexazinone                | 0.051            | U                | 0.10          | 0.051 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Permethrin                | 0.020            | U                | 0.20          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Chlordane (n.o.s.)        | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Cyanazine                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Prometon                  | 0.010            | U *-             | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Desethylatrazine          | 0.010            | U                | 1.0           | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Deisopropylatrazine       | 0.041            | U                | 1.0           | 0.041 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Prometryn                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| <b>Surrogate</b>          | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Triphenylphosphate (Surr) | 99               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| Perylene-d12 (Surr)       | 94               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |
| 2-Nitro-m-xylene (Surr)   | 95               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 00:55  | 1              |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 Ext - Volatile Organic Compounds (GC/MS)**

| Analyte                       | Result           | Qualifier        | RL            | MDL | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|-------------------------------|------------------|------------------|---------------|-----|------|---|-----------------|-----------------|----------------|
| Ethanol                       | 5.0              | U                | 10            | 5.0 | ug/L |   |                 | 02/13/23 18:52  | 1              |
| <b>Surrogate</b>              | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |     |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| 1,2-Dichlorobenzene-d4 (Surr) | 103              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:52  | 1              |
| 1,2-Dichloroethane-d4 (Surr)  | 102              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:52  | 1              |
| Toluene-d8 (Surr)             | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:52  | 1              |
| 4-Bromofluorobenzene (Surr)   | 100              |                  | 70 - 130      |     |      |   |                 | 02/13/23 18:52  | 1              |

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Epichlorohydrin                | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 13:50 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,3-Butadiene                  | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 13:50 | 1       |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Cyclohexanone                  | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:50 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 13:49 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bis(2-chloroethyl)ether        | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 13:50 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Chloroprene                    | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 13:50 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Ethyl acrylate                 | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 13:50 | 1       |
| n-Butyl acrylate               | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 13:50 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:49 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| Carbon tetrachloride                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1-Dichloropropene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 2-Hexanone                            | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 2,2-Dichloropropane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Ethyl ether                           | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Ethyl tert-butyl ether                | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 13:50 | 1       |
| Chloroform                            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Hexachloroethane                      | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Benzene                               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1,1-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromomethane                          | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Chloromethane                         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Dibromomethane                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromochloromethane                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Chloroethane                          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Vinyl chloride                        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Dichloromethane                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromoform                             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromodichloromethane                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1-Dichloroethane                    | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1-Dichloroethene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 13:50 | 1       |
| Trichlorofluoromethane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Methyl methacrylate                   | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 13:49 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Methyl acrylate                       | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Ethyl methacrylate                    | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Benzyl chloride                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 13:50 | 1       |



# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                    | Result     | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|----------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| Propionitrile              | 1.3        | U         | 5.0  | 1.3  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Vinyl acetate              | 2.0        | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:50 | 1       |
| Isopropyl ether            | 0.50       | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 13:50 | 1       |
| 1,4-Dioxane                | 2.0        | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:50 | 1       |
| sec-Butylbenzene           | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 2-Nitropropane             | 0.90       | U         | 2.0  | 0.90 | ug/L |   |          | 02/13/23 13:49 | 1       |
| t-Amyl methyl ether        | 0.60       | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 13:50 | 1       |
| <b>Acetone</b>             | <b>3.0</b> | <b>J</b>  | 5.0  | 2.0  | ug/L |   |          | 02/13/23 13:49 | 1       |
| Bromoethane                | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 13:49 | 1       |
| 1,3-Dichloropropene, Total | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 13:49 | 1       |
| Xylenes, Total             | 0.50       | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 13:49 | 1       |

| Surrogate                     | %Recovery | Qualifier | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr)  | 106       |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 103       |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 95        |           | 70 - 130 |          | 02/13/23 13:50 | 1       |
| Toluene-d8 (Surr)             | 96        |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| Toluene-d8 (Surr)             | 97        |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| Toluene-d8 (Surr)             | 94        |           | 70 - 130 |          | 02/13/23 13:50 | 1       |
| 4-Bromofluorobenzene (Surr)   | 84        |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 4-Bromofluorobenzene (Surr)   | 101       |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 4-Bromofluorobenzene (Surr)   | 87        |           | 70 - 130 |          | 02/13/23 13:50 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 87        |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 102       |           | 70 - 130 |          | 02/13/23 13:49 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 87        |           | 70 - 130 |          | 02/13/23 13:50 | 1       |

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS)**

| Analyte                    | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| 2,4-Dinitrotoluene         | 0.020  | U *       | 0.51  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Acenaphthylene             | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Alachlor                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Aldrin                     | 0.0082 | U         | 0.10  | 0.0082 | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Anthracene                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Atrazine                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| alpha-Chlordane            | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Benzo[a]anthracene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Benzo[a]pyrene             | 0.012  | U         | 0.020 | 0.012  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Benzo[b]fluoranthene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Benzo[g,h,i]perylene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Benzo[k]fluoranthene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Bromacil                   | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Butachlor                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Butylbenzylphthalate       | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Chrysene                   | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Di(2-ethylhexyl)adipate    | 0.020  | U         | 0.61  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Di (2-ethylhexyl)phthalate | 0.10   | U         | 0.61  | 0.10   | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Di-n-butyl phthalate       | 0.071  | U         | 2.0   | 0.071  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Diazinon                   | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Dibenz(a,h)anthracene      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Dieldrin                   | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result | Qualifier | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
| Diethylphthalate          | 0.020  | U         | 1.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Dimethoate                | 0.030  | U         | 0.51  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Dimethylphthalate         | 0.30   | U         | 1.0   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Endrin                    | 0.010  | U         | 0.010 | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Fluoranthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Fluorene                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| gamma-BHC (Lindane)       | 0.0085 | U         | 0.020 | 0.0085 | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Heptachlor                | 0.0045 | U         | 0.040 | 0.0045 | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Heptachlor epoxide        | 0.0040 | U         | 0.020 | 0.0040 | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Hexachlorobenzene         | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Isophorone                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Methoxychlor              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Metolachlor               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Metribuzin                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Molinate                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Phenanthrene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Propachlor                | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Pyrene                    | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Simazine                  | 0.030  | U         | 0.071 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| gamma-Chlordane           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Trifluralin               | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| trans-Nonachlor           | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Thiobencarb               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 1-Methylnaphthalene       | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 2-Methylnaphthalene       | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 4,4'-DDD                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 4,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 4,4'-DDT                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Acenaphthene              | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Chlorothalonil            | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Di-n-octyl phthalate      | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| EPTC                      | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Malathion                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Naphthalene               | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Parathion                 | 0.091  | U         | 0.51  | 0.091  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Terbacil                  | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Endrin aldehyde           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 2,4'-DDD                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 2,4'-DDE                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 2,4'-DDT                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| 2,6-Dinitrotoluene        | 0.040  | U *       | 0.10  | 0.040  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Acetochlor                | 0.020  | U         | 0.10  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| alpha-BHC                 | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| beta-BHC                  | 0.010  | U         | 0.10  | 0.010  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Chlorobenzilate           | 0.030  | U         | 0.10  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Chloroneb                 | 0.071  | U         | 0.10  | 0.071  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |
| Chlorpyrifos              | 0.020  | U         | 0.051 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/14/23 01:46 | 1       |

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# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)**

| Analyte                   | Result           | Qualifier        | RL            | MDL   | Unit | D | Prepared        | Analyzed        | Dil Fac        |
|---------------------------|------------------|------------------|---------------|-------|------|---|-----------------|-----------------|----------------|
| delta-BHC                 | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Dichlorvos                | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Endosulfan I              | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Endosulfan II             | 0.040            | U                | 0.10          | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Endosulfan sulfate        | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| cis-Permethrin            | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| trans-Permethrin          | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Caffeine                  | 0.020            | U                | 0.051         | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Pendimethalin             | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Terbutylazine             | 0.010            | U                | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Hexazinone                | 0.051            | U                | 0.10          | 0.051 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Permethrin                | 0.020            | U                | 0.20          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Chlordane (n.o.s.)        | 0.010            | U                | 0.051         | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Cyanazine                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Prometon                  | 0.010            | U *-             | 0.10          | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Desethylatrazine          | 0.010            | U                | 1.0           | 0.010 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Deisopropylatrazine       | 0.040            | U                | 1.0           | 0.040 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Prometryn                 | 0.020            | U                | 0.10          | 0.020 | ug/L |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| <b>Surrogate</b>          | <b>%Recovery</b> | <b>Qualifier</b> | <b>Limits</b> |       |      |   | <b>Prepared</b> | <b>Analyzed</b> | <b>Dil Fac</b> |
| Triphenylphosphate (Surr) | 97               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| Perylene-d12 (Surr)       | 92               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |
| 2-Nitro-m-xylene (Surr)   | 98               |                  | 70 - 130      |       |      |   | 02/13/23 08:25  | 02/14/23 01:46  | 1              |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: TB-20230210**

**Lab Sample ID: 240-180257-6**

Date Collected: 02/10/23 00:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS)**

| Analyte                        | Result     | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|------------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1,2-Tetrachloroethane      | 0.30       | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Ethylbenzene                   | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Styrene                        | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| cis-1,3-Dichloropropylene      | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| trans-1,3-Dichloropropylene    | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| N-Propylbenzene                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| n-Butylbenzene                 | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 4-Chlorotoluene                | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,4-Dichlorobenzene            | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Epichlorohydrin                | 0.80       | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 14:14 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20       | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,3-Butadiene                  | 0.50       | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Allyl chloride                 | 1.1        | U         | 5.0  | 1.1  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichloroethane             | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Acrylonitrile                  | 0.90       | U         | 1.0  | 0.90 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Chloroacetonitrile             | 2.0        | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5        | U         | 2.0  | 1.5  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromobenzene                   | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Toluene                        | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Chlorobenzene                  | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Cyclohexanone                  | 2.0        | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 14:14 | 1       |
| 1-Chlorobutane                 | 0.70       | U         | 5.0  | 0.70 | ug/L |   |          | 02/13/23 11:45 | 1       |
| <b>Tetrahydrofuran</b>         | <b>1.8</b> | <b>J</b>  | 5.0  | 1.4  | ug/L |   |          | 02/13/23 11:45 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4        | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bis(2-chloroethyl)ether        | 0.80       | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 14:14 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Dibromochloromethane           | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Methacrylonitrile              | 1.7        | U         | 5.0  | 1.7  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Chloroprene                    | 0.40       | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Tetrachloroethene              | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Ethyl acrylate                 | 0.40       | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 14:14 | 1       |
| n-Butyl acrylate               | 0.50       | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 14:14 | 1       |
| 1,3-Dichloropropane            | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| cis-1,2-Dichloroethylene       | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| trans-1,2-Dichloroethylene     | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40       | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:45 | 1       |
| m-Xylene & p-Xylene            | 0.50       | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,3-Dichlorobenzene            | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Carbon tetrachloride           | 0.10       | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1-Dichloropropene            | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 2-Hexanone                     | 1.2        | U         | 5.0  | 1.2  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 2,2-Dichloropropane            | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Ethyl ether                    | 0.30       | U         | 2.0  | 0.30 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Ethyl tert-butyl ether         | 0.40       | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Chloroform                     | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Hexachloroethane               | 1.1        | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Benzene                        | 0.20       | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: TB-20230210**

**Lab Sample ID: 240-180257-6**

Date Collected: 02/10/23 00:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                               | Result | Qualifier | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
| 1,1,1-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromomethane                          | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Chloromethane                         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Dibromomethane                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromochloromethane                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Chloroethane                          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Vinyl chloride                        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Dichloromethane                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromoform                             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromodichloromethane                  | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1-Dichloroethane                    | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1-Dichloroethene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Trichlorofluoromethane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,1,1,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Methyl methacrylate                   | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:45 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Methyl acrylate                       | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Ethyl methacrylate                    | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Benzyl chloride                       | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Propionitrile                         | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Vinyl acetate                         | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 14:14 | 1       |
| Isopropyl ether                       | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 14:14 | 1       |
| 1,4-Dioxane                           | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 14:14 | 1       |
| sec-Butylbenzene                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| 2-Nitropropane                        | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/13/23 11:45 | 1       |
| t-Amyl methyl ether                   | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 14:14 | 1       |
| Acetone                               | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:45 | 1       |
| Bromoethane                           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:45 | 1       |

# Client Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: TB-20230210**

**Lab Sample ID: 240-180257-6**

Date Collected: 02/10/23 00:00

Matrix: Water

Date Received: 02/10/23 20:50

**Method: EPA-DW 524.2 - Volatile Organic Compounds (GC/MS) (Continued)**

| Analyte                       | Result    | Qualifier | RL       | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|------|------|---|----------|----------------|---------|
| 1,3-Dichloropropene, Total    | 0.20      | U         | 0.50     | 0.20 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Xylenes, Total                | 0.50      | U         | 0.50     | 0.50 | ug/L |   |          | 02/13/23 11:45 | 1       |
| Surrogate                     | %Recovery | Qualifier | Limits   |      |      |   | Prepared | Analyzed       | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr)  | 106       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 104       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 98        |           | 70 - 130 |      |      |   |          | 02/13/23 14:14 | 1       |
| Toluene-d8 (Surr)             | 100       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| Toluene-d8 (Surr)             | 101       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| Toluene-d8 (Surr)             | 94        |           | 70 - 130 |      |      |   |          | 02/13/23 14:14 | 1       |
| 4-Bromofluorobenzene (Surr)   | 89        |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 4-Bromofluorobenzene (Surr)   | 103       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 4-Bromofluorobenzene (Surr)   | 85        |           | 70 - 130 |      |      |   |          | 02/13/23 14:14 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 88        |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 105       |           | 70 - 130 |      |      |   |          | 02/13/23 11:45 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 86        |           | 70 - 130 |      |      |   |          | 02/13/23 14:14 | 1       |

# Surrogate Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID  | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |                 |                 |                 |                 |
|----------------|------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                |                  | DCA<br>(70-130)                                | DCA<br>(70-130) | TOL<br>(70-130) | TOL<br>(70-130) | BFB<br>(70-130) | BFB<br>(70-130) | DCZ<br>(70-130) | DCZ<br>(70-130) |
| 240-180257-1   | PW201-20230210   | 95   | 95              | 93              | 93              | 89              | 89              | 86              | 86              |
| 240-180257-1   | PW201-20230210   | 104  | 104             | 98              | 98              | 88              | 88              | 85              | 85              |
| 240-180257-2   | PW202-20230210   | 103  | 103             | 98              | 98              | 88              | 88              | 84              | 84              |
| 240-180257-2   | PW202-20230210   | 101  | 101             | 96              | 96              | 91              | 91              | 87              | 87              |
| 240-180257-3   | PW203-20230210   | 99   | 99              | 93              | 93              | 89              | 89              | 87              | 87              |
| 240-180257-3   | PW203-20230210   | 111  | 111             | 99              | 99              | 88              | 88              | 86              | 86              |
| 240-180257-4   | PW204-20230210   | 95   | 95              | 95              | 95              | 88              | 88              | 90              | 90              |
| 240-180257-4   | PW204-20230210   | 110  | 110             | 99              | 99              | 84              | 84              | 82              | 82              |
| 240-180257-5   | FB-20230210      | 106  | 106             | 96              | 96              | 84              | 84              | 87              | 87              |
| 240-180257-5   | FB-20230210      | 95   | 95              | 94              | 94              | 87              | 87              | 87              | 87              |
| 240-180257-6   | TB-20230210      | 106  | 106             | 100             | 100             | 89              | 89              | 88              | 88              |
| 240-180257-6   | TB-20230210      | 98   | 98              | 94              | 94              | 85              | 85              | 86              | 86              |
| MB 810-47575/6 | Method Blank     | 100  | 100             | 97              | 97              | 88              | 88              | 85              | 85              |
| MB 810-47576/6 | Method Blank     | 98   | 98              | 98              | 98              | 104             | 104             | 100             | 100             |
| MB 810-47591/6 | Method Blank     | 100  | 100             | 94              | 94              | 86              | 86              | 82              | 82              |
| MB 810-47875/6 | Method Blank     | 106  | 106             | 96              | 96              | 84              | 84              | 83              | 83              |
| MB 810-47876/6 | Method Blank     | 104  | 104             | 97              | 97              | 99              | 99              | 98              | 98              |
| MB 810-47883/4 | Method Blank     | 104  | 104             | 95              | 95              | 89              | 89              | 90              | 90              |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DCZ = 1,2-Dichlorobenzene-d4 (Surr)

## Method: 524.2 Ext - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID   | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                 |                 |
|-----------------|------------------|--|-----------------|-----------------|-----------------|
|                 |                  | DCZ<br>(70-130)                                | DCA<br>(70-130) | TOL<br>(70-130) | BFB<br>(70-130) |
| 240-180257-1    | PW201-20230210   | 96   | 99              | 99              | 99              |
| 240-180257-2    | PW202-20230210   | 100  | 102             | 100             | 100             |
| 240-180257-3    | PW203-20230210   | 97   | 102             | 101             | 100             |
| 240-180257-4    | PW204-20230210   | 101  | 104             | 99              | 98              |
| 240-180257-5    | FB-20230210      | 103  | 102             | 100             | 100             |
| MB 810-47621/16 | Method Blank     | 95   | 100             | 98              | 96              |

**Surrogate Legend**

DCZ = 1,2-Dichlorobenzene-d4 (Surr)  
DCA = 1,2-Dichloroethane-d4 (Surr)  
TOL = Toluene-d8 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |
|---------------|------------------|--|-----------------|------------------|
|               |                  | TPP<br>(70-130)                                | PRY<br>(70-130) | 2NMX<br>(70-130) |
| 240-180257-1  | PW201-20230210   | 100  | 94              | 99               |

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# Surrogate Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID      | Client Sample ID   | Percent Surrogate Recovery (Acceptance Limits) |                 |                  |
|--------------------|--------------------|--|-----------------|------------------|
|                    |                    | TPP<br>(70-130)                                | PRY<br>(70-130) | 2NMX<br>(70-130) |
| 240-180257-2       | PW202-20230210     | 105  | 95              | 100              |
| 240-180257-3       | PW203-20230210     | 106  | 95              | 94               |
| 240-180257-3 MS    | PW203-20230210     | 103  | 98              | 98               |
| 240-180257-4       | PW204-20230210     | 99   | 94              | 95               |
| 240-180257-4 DU    | PW204-20230210     | 106  | 95              | 95               |
| 240-180257-5       | FB-20230210        | 97   | 92              | 98               |
| LCS 810-47583/2-A  | Lab Control Sample | 103  | 96              | 97               |
| LLCS 810-47583/3-A | Lab Control Sample | 102  | 95              | 95               |
| MB 810-47583/1-A   | Method Blank       | 102  | 90              | 97               |

### Surrogate Legend

TPP = Triphenylphosphate (Surr)

PRY = Perylene-d12 (Surr)

2NMX = 2-Nitro-m-xylene (Surr)

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 810-47575/6

Matrix: Water

Analysis Batch: 47575

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                        | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                | Result | Qualifier |      |      |      |   |          |                |         |
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:20 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Carbon tetrachloride           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1-Dichloropropene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Hexanone                     | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2,2-Dichloropropane            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Ethyl tert-butyl ether         | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Chloroform                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Benzene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1,1-Trichloroethane          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromomethane                   | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Chloromethane                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Dibromomethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromochloromethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Chloroethane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Vinyl chloride                 | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Dichloromethane                | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Carbon disulfide               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromoform                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromodichloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1-Dichloroethane             | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1-Dichloroethene             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Trichlorofluoromethane         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |



# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47575/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 47575

| Analyte                               | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                       | Result | Qualifier |      |      |      |   |          |                |         |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/13/23 11:20 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Isopropyl ether                       | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 11:20 | 1       |
| sec-Butylbenzene                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| t-Amyl methyl ether                   | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Acetone                               | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromoethane                           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1,3-Dichloropropene, Total            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Xylenes, Total                        | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 11:20 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 100       |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| Toluene-d8 (Surr)             | 97        |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| 4-Bromofluorobenzene (Surr)   | 88        |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 85        |           | 70 - 130 |          | 02/13/23 11:20 | 1       |

Lab Sample ID: MB 810-47576/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 47576

| Analyte                        | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                | Result | Qualifier |      |      |      |   |          |                |         |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 11:20 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Hexanone                     | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/13/23 11:20 | 1       |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47576/6

Matrix: Water

Analysis Batch: 47576

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte             | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                     | Result | Qualifier |      |      |      |   |          |                |         |
| Ethyl ether         | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Hexachloroethane    | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methyl iodide       | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Carbon disulfide    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Pentachloroethane   | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Butanone (MEK)    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methyl methacrylate | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Methyl acrylate     | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Ethyl methacrylate  | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Propionitrile       | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/13/23 11:20 | 1       |
| 2-Nitropropane      | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/13/23 11:20 | 1       |
| Acetone             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:20 | 1       |
| Bromoethane         | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:20 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 98        |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| Toluene-d8 (Surr)             | 98        |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| 4-Bromofluorobenzene (Surr)   | 104       |           | 70 - 130 |          | 02/13/23 11:20 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 100       |           | 70 - 130 |          | 02/13/23 11:20 | 1       |

Lab Sample ID: MB 810-47591/6

Matrix: Water

Analysis Batch: 47591

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                 | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                         | Result | Qualifier |      |      |      |   |          |                |         |
| Epichlorohydrin         | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/13/23 11:52 | 1       |
| 1,3-Butadiene           | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Cyclohexanone           | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:52 | 1       |
| Bis(2-chloroethyl)ether | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Chloroprene             | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Ethyl acrylate          | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/13/23 11:52 | 1       |
| n-Butyl acrylate        | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Ethyl tert-butyl ether  | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/13/23 11:52 | 1       |
| tert-Butyl alcohol      | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Benzyl chloride         | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Vinyl acetate           | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:52 | 1       |
| Isopropyl ether         | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/13/23 11:52 | 1       |
| 1,4-Dioxane             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:52 | 1       |
| t-Amyl methyl ether     | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/13/23 11:52 | 1       |
| Acetone                 | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/13/23 11:52 | 1       |
| Bromoethane             | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/13/23 11:52 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 100       |           | 70 - 130 |          | 02/13/23 11:52 | 1       |
| Toluene-d8 (Surr)             | 94        |           | 70 - 130 |          | 02/13/23 11:52 | 1       |
| 4-Bromofluorobenzene (Surr)   | 86        |           | 70 - 130 |          | 02/13/23 11:52 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 82        |           | 70 - 130 |          | 02/13/23 11:52 | 1       |

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47875/6

Matrix: Water

Analysis Batch: 47875

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                        | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                | Result | Qualifier |      |      |      |   |          |                |         |
| 1,1,1,2-Tetrachloroethane      | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Ethylbenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Styrene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| cis-1,3-Dichloropropylene      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| trans-1,3-Dichloropropylene    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| N-Propylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| n-Butylbenzene                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 4-Chlorotoluene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,4-Dichlorobenzene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2-Dibromoethane (EDB)        | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2-Dichloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,3,5-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromobenzene                   | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Toluene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Chlorobenzene                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2,4-Trichlorobenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Dibromochloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Tetrachloroethene              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,3-Dichloropropane            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| cis-1,2-Dichloroethylene       | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| trans-1,2-Dichloroethylene     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:28 | 1       |
| m-Xylene & p-Xylene            | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2,3-Trimethylbenzene         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,3-Dichlorobenzene            | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Carbon tetrachloride           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1-Dichloropropene            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Hexanone                     | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2,2-Dichloropropane            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Ethyl tert-butyl ether         | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Chloroform                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Benzene                        | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1,1-Trichloroethane          | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromomethane                   | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Chloromethane                  | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Dibromomethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromochloromethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Chloroethane                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Vinyl chloride                 | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Dichloromethane                | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Carbon disulfide               | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromoform                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromodichloromethane           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1-Dichloroethane             | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1-Dichloroethene             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Trichlorofluoromethane         | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47875/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 47875

| Analyte                               | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                       | Result | Qualifier |      |      |      |   |          |                |         |
| Dichlorodifluoromethane               | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2-Dichloropropane                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1,2-Trichloroethane                 | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Trichloroethylene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,1,2,2-Tetrachloroethane             | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2,3-Trichlorobenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Hexachlorobutadiene                   | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Naphthalene                           | 0.30   | U         | 0.50 | 0.30 | ug/L |   |          | 02/15/23 10:28 | 1       |
| o-Xylene                              | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Chlorotoluene                       | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2-Dichlorobenzene                   | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2,4-Trimethylbenzene                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2-Dibromo-3-Chloropropane           | 0.20   | U         | 0.20 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,2,3-Trichloropropane                | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| tert-Butylbenzene                     | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Isopropylbenzene                      | 0.20   | U         | 0.25 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 4-Isopropyltoluene                    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Isopropyl ether                       | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 10:28 | 1       |
| sec-Butylbenzene                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| t-Amyl methyl ether                   | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Acetone                               | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Bromoethane                           | 0.10   | U         | 0.50 | 0.10 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1,3-Dichloropropene, Total            | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Xylenes, Total                        | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 10:28 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 106       |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| Toluene-d8 (Surr)             | 96        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| 4-Bromofluorobenzene (Surr)   | 84        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 83        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |

Lab Sample ID: MB 810-47876/6

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 47876

| Analyte                        | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|--------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                | Result | Qualifier |      |      |      |   |          |                |         |
| Allyl chloride                 | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Acrylonitrile                  | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Chloroacetonitrile             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 4-Methyl-2-pentanone (MIBK)    | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 1-Chlorobutane                 | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Tetrahydrofuran                | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 10:28 | 1       |
| trans-1,4-Dichloro-2-butylene  | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methacrylonitrile              | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methyl-tert-butyl Ether (MTBE) | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Hexanone                     | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 10:28 | 1       |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47876/6

Matrix: Water

Analysis Batch: 47876

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte             | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                     | Result | Qualifier |      |      |      |   |          |                |         |
| Ethyl ether         | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Hexachloroethane    | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methyl iodide       | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Carbon disulfide    | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Pentachloroethane   | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Butanone (MEK)    | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methyl methacrylate | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Methyl acrylate     | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Ethyl methacrylate  | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 10:28 | 1       |
| Propionitrile       | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/15/23 10:28 | 1       |
| 2-Nitropropane      | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/15/23 10:28 | 1       |
| Acetone             | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 10:28 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 104       |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| Toluene-d8 (Surr)             | 97        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| 4-Bromofluorobenzene (Surr)   | 99        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 98        |           | 70 - 130 |          | 02/15/23 10:28 | 1       |

Lab Sample ID: MB 810-47883/4

Matrix: Water

Analysis Batch: 47883

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                             | Result | Qualifier |      |      |      |   |          |                |         |
| 1,1,1,2-Tetrachloroethane   | NC     |           | 0.50 | 0.30 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Ethylbenzene                | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Styrene                     | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| cis-1,3-Dichloropropylene   | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| trans-1,3-Dichloropropylene | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| N-Propylbenzene             | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| n-Butylbenzene              | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 4-Chlorotoluene             | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,4-Dichlorobenzene         | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Epichlorohydrin             | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2-Dibromoethane (EDB)     | NC     |           | 0.20 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,3-Butadiene               | 0.50   | U         | 5.0  | 0.50 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Allyl chloride              | 1.1    | U         | 5.0  | 1.1  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2-Dichloroethane          | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Acrylonitrile               | 0.90   | U         | 1.0  | 0.90 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chloroacetonitrile          | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 4-Methyl-2-pentanone (MIBK) | 1.5    | U         | 2.0  | 1.5  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,3,5-Trimethylbenzene      | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromobenzene                | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Toluene                     | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chlorobenzene               | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Cyclohexanone               | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1-Chlorobutane              | 0.70   | U         | 5.0  | 0.70 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Tetrahydrofuran             | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 09:08 | 1       |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47883/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 47883

| Analyte                               | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------------------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                                       | Result | Qualifier |      |      |      |   |          |                |         |
| trans-1,4-Dichloro-2-butylene         | 1.4    | U         | 5.0  | 1.4  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bis(2-chloroethyl)ether               | 0.80   | U         | 2.0  | 0.80 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2,4-Trichlorobenzene                | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Dibromochloromethane                  | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Methacrylonitrile                     | 1.7    | U         | 5.0  | 1.7  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chloroprene                           | 0.40   | U         | 5.0  | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Tetrachloroethene                     | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Ethyl acrylate                        | 0.40   | U         | 1.0  | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| n-Butyl acrylate                      | 0.50   | U         | 1.0  | 0.50 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,3-Dichloropropane                   | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| cis-1,2-Dichloroethylene              | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| trans-1,2-Dichloroethylene            | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Methyl-tert-butyl Ether (MTBE)        | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| m-Xylene & p-Xylene                   | NC     |           | 0.50 | 0.50 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2,3-Trimethylbenzene                | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,3-Dichlorobenzene                   | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Carbon tetrachloride                  | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1-Dichloropropene                   | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 2-Hexanone                            | 1.2    | U         | 5.0  | 1.2  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 2,2-Dichloropropane                   | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Ethyl ether                           | 0.30   | U         | 2.0  | 0.30 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Ethyl tert-butyl ether                | 0.40   | U         | 2.0  | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chloroform                            | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Hexachloroethane                      | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Benzene                               | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1,1-Trichloroethane                 | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromomethane                          | NC     |           | 0.50 | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chloromethane                         | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Methyl iodide                         | 2.0    | U         | 2.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Dibromomethane                        | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromochloromethane                    | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Chloroethane                          | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Vinyl chloride                        | NC     |           | 0.20 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Dichloromethane                       | NC     |           | 0.50 | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Carbon disulfide                      | 0.20   | U         | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromoform                             | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromodichloromethane                  | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1-Dichloroethane                    | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1-Dichloroethene                    | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| tert-Butyl alcohol                    | 0.60   | U         | 2.0  | 0.60 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Trichlorofluoromethane                | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Dichlorodifluoromethane               | NC     |           | 0.50 | 0.30 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Pentachloroethane                     | 1.1    | U         | 2.0  | 1.1  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | NC     |           | 0.50 | 0.30 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2-Dichloropropane                   | NC     |           | 0.25 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 2-Butanone (MEK)                      | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1,2-Trichloroethane                 | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Trichloroethylene                     | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,1,2,2-Tetrachloroethane             | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 524.2 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47883/4

Matrix: Water

Analysis Batch: 47883

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte                     | MB     | MB        | RL   | MDL  | Unit | D | Prepared | Analyzed       | Dil Fac |
|-----------------------------|--------|-----------|------|------|------|---|----------|----------------|---------|
|                             | Result | Qualifier |      |      |      |   |          |                |         |
| Methyl methacrylate         | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2,3-Trichlorobenzene      | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Hexachlorobutadiene         | NC     |           | 0.25 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Naphthalene                 | NC     |           | 0.50 | 0.30 | ug/L |   |          | 02/15/23 09:08 | 1       |
| o-Xylene                    | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 2-Chlorotoluene             | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2-Dichlorobenzene         | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2,4-Trimethylbenzene      | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2-Dibromo-3-Chloropropane | NC     |           | 0.20 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,2,3-Trichloropropane      | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Methyl acrylate             | 0.80   | U         | 1.0  | 0.80 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Ethyl methacrylate          | 1.0    | U         | 1.0  | 1.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| tert-Butylbenzene           | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Isopropylbenzene            | NC     |           | 0.25 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 4-Isopropyltoluene          | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Benzyl chloride             | 0.40   | U         | 0.50 | 0.40 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Propionitrile               | 1.3    | U         | 5.0  | 1.3  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Vinyl acetate               | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Isopropyl ether             | 0.50   | U         | 0.50 | 0.50 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 1,4-Dioxane                 | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| sec-Butylbenzene            | NC     |           | 0.50 | 0.20 | ug/L |   |          | 02/15/23 09:08 | 1       |
| 2-Nitropropane              | 0.90   | U         | 2.0  | 0.90 | ug/L |   |          | 02/15/23 09:08 | 1       |
| t-Amyl methyl ether         | 0.60   | U         | 3.0  | 0.60 | ug/L |   |          | 02/15/23 09:08 | 1       |
| Acetone                     | 2.0    | U         | 5.0  | 2.0  | ug/L |   |          | 02/15/23 09:08 | 1       |
| Bromoethane                 | NC     |           | 0.50 | 0.10 | ug/L |   |          | 02/15/23 09:08 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichloroethane-d4 (Surr)  | 104       |           | 70 - 130 |          | 02/15/23 09:08 | 1       |
| Toluene-d8 (Surr)             | 95        |           | 70 - 130 |          | 02/15/23 09:08 | 1       |
| 4-Bromofluorobenzene (Surr)   | 89        |           | 70 - 130 |          | 02/15/23 09:08 | 1       |
| 1,2-Dichlorobenzene-d4 (Surr) | 90        |           | 70 - 130 |          | 02/15/23 09:08 | 1       |

## Method: 524.2 Ext - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 810-47621/16

Matrix: Water

Analysis Batch: 47621

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB     | MB        | RL | MDL | Unit | D | Prepared | Analyzed       | Dil Fac |
|---------|--------|-----------|----|-----|------|---|----------|----------------|---------|
|         | Result | Qualifier |    |     |      |   |          |                |         |
| Ethanol | 5.0    | U         | 10 | 5.0 | ug/L |   |          | 02/13/23 16:51 | 1       |

| Surrogate                     | MB        | MB        | Limits   | Prepared | Analyzed       | Dil Fac |
|-------------------------------|-----------|-----------|----------|----------|----------------|---------|
|                               | %Recovery | Qualifier |          |          |                |         |
| 1,2-Dichlorobenzene-d4 (Surr) | 95        |           | 70 - 130 |          | 02/13/23 16:51 | 1       |
| 1,2-Dichloroethane-d4 (Surr)  | 100       |           | 70 - 130 |          | 02/13/23 16:51 | 1       |
| Toluene-d8 (Surr)             | 98        |           | 70 - 130 |          | 02/13/23 16:51 | 1       |
| 4-Bromofluorobenzene (Surr)   | 96        |           | 70 - 130 |          | 02/13/23 16:51 | 1       |

Eurofins Canton



# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 810-47583/1-A  
Matrix: Water  
Analysis Batch: 47668

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 47583

| Analyte                    | MB     | MB        | RL     | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
|                            | Result | Qualifier |        |        |      |   |                |                |         |
| 2,4-Dinitrotoluene         | 0.020  | U         | 0.49   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Acenaphthylene             | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Alachlor                   | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Aldrin                     | 0.0080 | U         | 0.099  | 0.0080 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Anthracene                 | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Atrazine                   | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| alpha-Chlordane            | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Benzo[a]anthracene         | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Benzo[a]pyrene             | 0.012  | U         | 0.020  | 0.012  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Benzo[b]fluoranthene       | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Benzo[g,h,i]perylene       | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Benzo[k]fluoranthene       | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Bromacil                   | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Butachlor                  | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Butylbenzylphthalate       | 0.020  | U         | 0.99   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chrysene                   | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Di(2-ethylhexyl)adipate    | 0.020  | U         | 0.59   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Di (2-ethylhexyl)phthalate | 0.099  | U         | 0.59   | 0.099  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Di-n-butyl phthalate       | 0.069  | U         | 2.0    | 0.069  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Diazinon                   | 0.030  | U         | 0.099  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Dibenz(a,h)anthracene      | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Dieldrin                   | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Diethylphthalate           | 0.020  | U         | 0.99   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Dimethoate                 | 0.030  | U         | 0.49   | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Dimethylphthalate          | 0.30   | U         | 0.99   | 0.30   | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Endrin                     | 0.0098 | U         | 0.0099 | 0.0098 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Fluoranthene               | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Fluorene                   | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| gamma-BHC (Lindane)        | 0.0083 | U         | 0.020  | 0.0083 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Heptachlor                 | 0.0043 | U         | 0.039  | 0.0043 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Heptachlor epoxide         | 0.0039 | U         | 0.020  | 0.0039 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Hexachlorobenzene          | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Hexachlorocyclopentadiene  | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Indeno[1,2,3-cd]pyrene     | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Isophorone                 | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Methoxychlor               | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Metolachlor                | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Metribuzin                 | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Molinate                   | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Phenanthrene               | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Propachlor                 | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Pyrene                     | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Simazine                   | 0.030  | U         | 0.069  | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| gamma-Chlordane            | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Trifluralin                | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| trans-Nonachlor            | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Thiobencarb                | 0.0099 | U         | 0.099  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 1-Methylnaphthalene        | 0.020  | U         | 0.099  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |



# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 810-47583/1-A

Matrix: Water

Analysis Batch: 47668

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 47583

| Analyte              | MB     | MB        | RL    | MDL    | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------|--------|-----------|-------|--------|------|---|----------------|----------------|---------|
|                      | Result | Qualifier |       |        |      |   |                |                |         |
| 2-Methylnaphthalene  | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 4,4'-DDD             | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 4,4'-DDE             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 4,4'-DDT             | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Acenaphthene         | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chlorothalonil       | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Di-n-octyl phthalate | 0.020  | U         | 2.0   | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| EPTC                 | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Malathion            | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Naphthalene          | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Parathion            | 0.089  | U         | 0.49  | 0.089  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Terbacil             | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Endrin aldehyde      | 0.030  | U         | 0.099 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 2,4'-DDD             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 2,4'-DDE             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 2,4'-DDT             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 2,6-Dinitrotoluene   | 0.039  | U         | 0.099 | 0.039  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Acetochlor           | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| alpha-BHC            | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| beta-BHC             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chlorobenzilate      | 0.030  | U         | 0.099 | 0.030  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chloroneb            | 0.069  | U         | 0.099 | 0.069  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chlorpyrifos         | 0.020  | U         | 0.049 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| delta-BHC            | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Dichlorvos           | 0.0099 | U         | 0.049 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Endosulfan I         | 0.039  | U         | 0.099 | 0.039  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Endosulfan II        | 0.039  | U         | 0.099 | 0.039  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Endosulfan sulfate   | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| cis-Permethrin       | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| trans-Permethrin     | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Caffeine             | 0.020  | U         | 0.049 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Pendimethalin        | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Terbutylazine        | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Hexazinone           | 0.049  | U         | 0.099 | 0.049  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Permethrin           | 0.020  | U         | 0.20  | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Chlordane (n.o.s.)   | 0.0099 | U         | 0.049 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Cyanazine            | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Prometon             | 0.0099 | U         | 0.099 | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Desethylatrazine     | 0.0099 | U         | 0.99  | 0.0099 | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Deisopropylatrazine  | 0.039  | U         | 0.99  | 0.039  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Prometryn            | 0.020  | U         | 0.099 | 0.020  | ug/L |   | 02/13/23 08:25 | 02/13/23 22:49 | 1       |

| Surrogate                 | MB        | MB        | Limits   | Prepared       | Analyzed       | Dil Fac |
|---------------------------|-----------|-----------|----------|----------------|----------------|---------|
|                           | %Recovery | Qualifier |          |                |                |         |
| Triphenylphosphate (Surr) | 102       |           | 70 - 130 | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| Perylene-d12 (Surr)       | 90        |           | 70 - 130 | 02/13/23 08:25 | 02/13/23 22:49 | 1       |
| 2-Nitro-m-xylene (Surr)   | 97        |           | 70 - 130 | 02/13/23 08:25 | 02/13/23 22:49 | 1       |

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 810-47583/2-A

Matrix: Water

Analysis Batch: 47668

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47583

| Analyte                    | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------|-------------|------------|---------------|------|---|------|-------------|
|                            |             |            |               |      |   |      |             |
| 2,4-Dinitrotoluene         | 1.99        | 1.31       | *-            | ug/L |   | 66   | 70 - 130    |
| Aldrin                     | 1.99        | 1.88       |               | ug/L |   | 94   | 70 - 130    |
| alpha-Chlordane            | 1.99        | 1.75       |               | ug/L |   | 88   | 70 - 130    |
| Bromacil                   | 1.99        | 2.03       |               | ug/L |   | 102  | 70 - 130    |
| Butachlor                  | 1.99        | 2.37       |               | ug/L |   | 119  | 70 - 130    |
| Chrysene                   | 1.99        | 2.05       |               | ug/L |   | 103  | 70 - 130    |
| Di(2-ethylhexyl)adipate    | 1.99        | 2.01       |               | ug/L |   | 101  | 70 - 130    |
| Di (2-ethylhexyl)phthalate | 1.99        | 1.97       |               | ug/L |   | 99   | 70 - 130    |
| Di-n-butyl phthalate       | 1.99        | 2.03       |               | ug/L |   | 102  | 70 - 130    |
| Diazinon                   | 1.99        | 1.67       |               | ug/L |   | 84   | 70 - 130    |
| Dibenz(a,h)anthracene      | 1.99        | 1.90       |               | ug/L |   | 96   | 70 - 130    |
| Dieldrin                   | 1.99        | 1.92       |               | ug/L |   | 97   | 70 - 130    |
| Diethylphthalate           | 1.99        | 1.96       |               | ug/L |   | 99   | 70 - 130    |
| Dimethoate                 | 1.99        | 0.830      |               | ug/L |   | 42   | 28 - 85     |
| Dimethylphthalate          | 1.99        | 1.96       |               | ug/L |   | 99   | 70 - 130    |
| Endrin                     | 1.99        | 1.97       |               | ug/L |   | 99   | 70 - 130    |
| Fluoranthene               | 1.99        | 1.98       |               | ug/L |   | 100  | 70 - 130    |
| Fluorene                   | 1.99        | 1.97       |               | ug/L |   | 99   | 70 - 130    |
| gamma-BHC (Lindane)        | 1.99        | 1.93       |               | ug/L |   | 97   | 70 - 130    |
| Heptachlor                 | 1.99        | 1.76       |               | ug/L |   | 88   | 70 - 130    |
| Heptachlor epoxide         | 1.99        | 1.80       |               | ug/L |   | 91   | 70 - 130    |
| Hexachlorobenzene          | 1.99        | 1.64       |               | ug/L |   | 82   | 70 - 130    |
| Hexachlorocyclopentadiene  | 1.99        | 1.60       |               | ug/L |   | 81   | 70 - 130    |
| Indeno[1,2,3-cd]pyrene     | 1.99        | 1.82       |               | ug/L |   | 92   | 70 - 130    |
| Isophorone                 | 1.99        | 2.01       |               | ug/L |   | 101  | 70 - 130    |
| Methoxychlor               | 1.99        | 1.95       |               | ug/L |   | 98   | 70 - 130    |
| Metolachlor                | 1.99        | 2.01       |               | ug/L |   | 101  | 70 - 130    |
| Metribuzin                 | 1.99        | 1.95       |               | ug/L |   | 98   | 70 - 130    |
| Molinate                   | 1.99        | 1.95       |               | ug/L |   | 98   | 70 - 130    |
| Phenanthrene               | 1.99        | 1.84       |               | ug/L |   | 92   | 70 - 130    |
| Propachlor                 | 1.99        | 1.96       |               | ug/L |   | 98   | 70 - 130    |
| Pyrene                     | 1.99        | 2.00       |               | ug/L |   | 101  | 70 - 130    |
| Simazine                   | 1.99        | 1.81       |               | ug/L |   | 91   | 70 - 130    |
| gamma-Chlordane            | 1.99        | 1.77       |               | ug/L |   | 89   | 70 - 130    |
| Trifluralin                | 1.99        | 1.82       |               | ug/L |   | 92   | 70 - 130    |
| trans-Nonachlor            | 1.99        | 1.74       |               | ug/L |   | 87   | 70 - 130    |
| Thiobencarb                | 1.99        | 1.98       |               | ug/L |   | 100  | 70 - 130    |
| 1-Methylnaphthalene        | 1.99        | 1.94       |               | ug/L |   | 97   | 70 - 130    |
| 2-Methylnaphthalene        | 1.99        | 1.80       |               | ug/L |   | 91   | 70 - 130    |
| 4,4'-DDD                   | 1.99        | 1.94       |               | ug/L |   | 98   | 70 - 130    |
| 4,4'-DDE                   | 1.99        | 1.98       |               | ug/L |   | 99   | 70 - 130    |
| 4,4'-DDT                   | 1.99        | 1.95       |               | ug/L |   | 98   | 70 - 130    |
| Acenaphthene               | 1.99        | 1.87       |               | ug/L |   | 94   | 70 - 130    |
| Chlorothalonil             | 1.99        | 1.82       |               | ug/L |   | 92   | 70 - 130    |
| Di-n-octyl phthalate       | 1.99        | 1.95       | J             | ug/L |   | 98   | 60 - 122    |
| EPTC                       | 1.99        | 1.93       |               | ug/L |   | 97   | 70 - 130    |
| Malathion                  | 1.99        | 2.07       |               | ug/L |   | 104  | 80 - 134    |
| Naphthalene                | 1.99        | 1.90       |               | ug/L |   | 96   | 70 - 130    |

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 810-47583/2-A

Matrix: Water

Analysis Batch: 47668

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47583

| Analyte             | Spike Added | LCS    | LCS       | Unit | D | %Rec | %Rec Limits |
|---------------------|-------------|--------|-----------|------|---|------|-------------|
|                     |             | Result | Qualifier |      |   |      |             |
| Parathion           | 1.99        | 2.06   |           | ug/L |   | 104  | 80 - 134    |
| Terbacil            | 1.99        | 1.96   |           | ug/L |   | 99   | 70 - 130    |
| Endrin aldehyde     | 1.99        | 1.82   |           | ug/L |   | 91   | 64 - 125    |
| 2,4'-DDD            | 1.99        | 1.93   |           | ug/L |   | 97   | 70 - 130    |
| 2,4'-DDE            | 1.99        | 1.92   |           | ug/L |   | 97   | 70 - 130    |
| 2,4'-DDT            | 1.99        | 2.11   |           | ug/L |   | 106  | 70 - 130    |
| 2,6-Dinitrotoluene  | 1.99        | 1.35   | *         | ug/L |   | 68   | 70 - 130    |
| Acetochlor          | 1.99        | 2.16   |           | ug/L |   | 109  | 70 - 130    |
| alpha-BHC           | 1.99        | 1.91   |           | ug/L |   | 96   | 70 - 130    |
| beta-BHC            | 1.99        | 1.95   |           | ug/L |   | 98   | 70 - 130    |
| Chlorobenzilate     | 1.99        | 2.29   |           | ug/L |   | 115  | 70 - 130    |
| Chloroneb           | 1.99        | 2.16   |           | ug/L |   | 109  | 70 - 130    |
| Chlorpyrifos        | 1.99        | 1.95   |           | ug/L |   | 98   | 70 - 130    |
| delta-BHC           | 1.99        | 1.93   |           | ug/L |   | 97   | 70 - 130    |
| Dichlorvos          | 1.99        | 1.97   |           | ug/L |   | 99   | 70 - 130    |
| Endosulfan I        | 1.99        | 2.04   |           | ug/L |   | 102  | 70 - 130    |
| Endosulfan II       | 1.99        | 2.14   |           | ug/L |   | 108  | 70 - 130    |
| Endosulfan sulfate  | 1.99        | 1.81   |           | ug/L |   | 91   | 70 - 130    |
| cis-Permethrin      | 1.99        | 2.03   |           | ug/L |   | 102  | 70 - 130    |
| trans-Permethrin    | 1.99        | 1.98   |           | ug/L |   | 100  | 70 - 130    |
| Caffeine            | 1.99        | 1.03   |           | ug/L |   | 52   | 41 - 110    |
| Pendimethalin       | 1.99        | 2.03   |           | ug/L |   | 102  | 65 - 122    |
| Terbutylazine       | 1.99        | 1.95   |           | ug/L |   | 98   | 70 - 130    |
| Hexazinone          | 1.99        | 2.05   |           | ug/L |   | 103  | 70 - 130    |
| Cyanazine           | 1.99        | 1.79   |           | ug/L |   | 90   | 70 - 130    |
| Prometon            | 1.99        | 0.357  | *         | ug/L |   | 18   | 70 - 130    |
| Desethylatrazine    | 1.99        | 0.756  | J         | ug/L |   | 38   | 8 - 94      |
| Deisopropylatrazine | 1.99        | 0.214  | J         | ug/L |   | 11   | 4 - 27      |
| Prometryn           | 1.99        | 1.59   |           | ug/L |   | 80   | 70 - 130    |

| Surrogate                 | LCS LCS   |           | Limits   |
|---------------------------|-----------|-----------|----------|
|                           | %Recovery | Qualifier |          |
| Triphenylphosphate (Surr) | 103       |           | 70 - 130 |
| Perylene-d12 (Surr)       | 96        |           | 70 - 130 |
| 2-Nitro-m-xylene (Surr)   | 97        |           | 70 - 130 |

Lab Sample ID: LLCS 810-47583/3-A

Matrix: Water

Analysis Batch: 47668

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47583

| Analyte                    | Spike Added | LLCS    | LLCS      | Unit | D | %Rec | %Rec Limits |
|----------------------------|-------------|---------|-----------|------|---|------|-------------|
|                            |             | Result  | Qualifier |      |   |      |             |
| Aldrin                     | 0.0694      | 0.0591  | J         | ug/L |   | 85   | 50 - 150    |
| Butachlor                  | 0.0991      | 0.0870  | J         | ug/L |   | 88   | 50 - 150    |
| Di(2-ethylhexyl)adipate    | 0.595       | 0.546   | J         | ug/L |   | 92   | 50 - 150    |
| Di (2-ethylhexyl)phthalate | 0.595       | 0.632   |           | ug/L |   | 106  | 50 - 150    |
| Dieldrin                   | 0.0198      | 0.0263  | J         | ug/L |   | 133  | 50 - 150    |
| Endrin                     | 0.00991     | 0.0124  |           | ug/L |   | 125  | 50 - 150    |
| gamma-BHC (Lindane)        | 0.0198      | 0.0171  | J         | ug/L |   | 86   | 50 - 150    |
| Heptachlor                 | 0.00991     | 0.00856 | J         | ug/L |   | 86   | 50 - 150    |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LLCS 810-47583/3-A

Matrix: Water

Analysis Batch: 47668

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 47583

| Analyte                   | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|-------------|-------------|----------------|------|---|------|-------------|
|                           |             |             |                |      |   |      |             |
| Heptachlor epoxide        | 0.00991     | 0.00857     | J              | ug/L |   | 86   | 50 - 150    |
| Hexachlorobenzene         | 0.0991      | 0.0757      | J              | ug/L |   | 76   | 50 - 150    |
| Hexachlorocyclopentadiene | 0.0991      | 0.0647      | J              | ug/L |   | 65   | 50 - 150    |
| Methoxychlor              | 0.0991      | 0.0672      | J              | ug/L |   | 68   | 50 - 150    |
| Metolachlor               | 0.0991      | 0.0859      | J              | ug/L |   | 87   | 50 - 150    |
| Metribuzin                | 0.0991      | 0.0817      | J              | ug/L |   | 82   | 50 - 150    |
| Propachlor                | 0.0991      | 0.0859      | J              | ug/L |   | 87   | 50 - 150    |
| Simazine                  | 0.0694      | 0.0562      | J              | ug/L |   | 81   | 50 - 150    |

| Surrogate                 | LLCS      |           | Limits   |
|---------------------------|-----------|-----------|----------|
|                           | %Recovery | Qualifier |          |
| Triphenylphosphate (Surr) | 102       |           | 70 - 130 |
| Perylene-d12 (Surr)       | 95        |           | 70 - 130 |
| 2-Nitro-m-xylene (Surr)   | 95        |           | 70 - 130 |

Lab Sample ID: 240-180257-3 MS

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW203-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Analyte                    | Sample Result | Sample Qualifier | Spike Added | MS     |           | Unit | D | %Rec | %Rec Limits |
|----------------------------|---------------|------------------|-------------|--------|-----------|------|---|------|-------------|
|                            |               |                  |             | Result | Qualifier |      |   |      |             |
| 2,4-Dinitrotoluene         | 0.020         | U *-             | 2.01        | 1.54   |           | ug/L |   | 76   | 70 - 130    |
| Aldrin                     | 0.0081        | U                | 2.01        | 1.81   |           | ug/L |   | 90   | 70 - 130    |
| alpha-Chlordane            | 0.010         | U                | 2.01        | 1.85   |           | ug/L |   | 92   | 70 - 130    |
| Bromacil                   | 0.020         | U                | 2.01        | 2.07   |           | ug/L |   | 103  | 70 - 130    |
| Butachlor                  | 0.020         | U                | 2.01        | 2.42   |           | ug/L |   | 120  | 70 - 130    |
| Chrysene                   | 0.010         | U                | 2.01        | 2.06   |           | ug/L |   | 103  | 70 - 130    |
| Di(2-ethylhexyl)adipate    | 0.020         | U                | 2.01        | 2.01   |           | ug/L |   | 100  | 70 - 130    |
| Di (2-ethylhexyl)phthalate | 0.10          | U                | 2.01        | 2.11   |           | ug/L |   | 105  | 70 - 130    |
| Di-n-butyl phthalate       | 0.11          | J                | 2.01        | 2.05   |           | ug/L |   | 96   | 70 - 130    |
| Diazinon                   | 0.030         | U                | 2.01        | 1.81   |           | ug/L |   | 90   | 70 - 130    |
| Dibenz(a,h)anthracene      | 0.010         | U                | 2.01        | 1.88   |           | ug/L |   | 93   | 70 - 130    |
| Dieldrin                   | 0.020         | U                | 2.01        | 2.03   |           | ug/L |   | 101  | 70 - 130    |
| Diethylphthalate           | 0.020         | U                | 2.01        | 1.99   |           | ug/L |   | 99   | 70 - 130    |
| Dimethoate                 | 0.030         | U                | 2.01        | 1.13   |           | ug/L |   | 56   | 28 - 85     |
| Dimethylphthalate          | 0.30          | U                | 2.01        | 1.98   |           | ug/L |   | 99   | 70 - 130    |
| Endrin                     | 0.0099        | U                | 2.01        | 2.02   |           | ug/L |   | 100  | 70 - 130    |
| Fluoranthene               | 0.010         | U                | 2.01        | 1.92   |           | ug/L |   | 95   | 70 - 130    |
| Fluorene                   | 0.010         | U                | 2.01        | 1.91   |           | ug/L |   | 95   | 70 - 130    |
| gamma-BHC (Lindane)        | 0.0084        | U                | 2.01        | 1.90   |           | ug/L |   | 94   | 70 - 130    |
| Heptachlor                 | 0.0044        | U                | 2.01        | 1.77   |           | ug/L |   | 88   | 70 - 130    |
| Heptachlor epoxide         | 0.0040        | U                | 2.01        | 1.95   |           | ug/L |   | 97   | 70 - 130    |
| Hexachlorobenzene          | 0.010         | U                | 2.01        | 1.73   |           | ug/L |   | 86   | 70 - 130    |
| Hexachlorocyclopentadiene  | 0.010         | U                | 2.01        | 1.77   |           | ug/L |   | 88   | 70 - 130    |
| Indeno[1,2,3-cd]pyrene     | 0.010         | U                | 2.01        | 1.85   |           | ug/L |   | 92   | 70 - 130    |
| Isophorone                 | 0.010         | U                | 2.01        | 1.95   |           | ug/L |   | 97   | 70 - 130    |
| Methoxychlor               | 0.010         | U                | 2.01        | 1.99   |           | ug/L |   | 99   | 70 - 130    |
| Metolachlor                | 0.010         | U                | 2.01        | 2.03   |           | ug/L |   | 101  | 70 - 130    |
| Metribuzin                 | 0.010         | U                | 2.01        | 1.98   |           | ug/L |   | 99   | 70 - 130    |
| Molinate                   | 0.020         | U                | 2.01        | 1.98   |           | ug/L |   | 98   | 70 - 130    |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-180257-3 MS

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW203-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Analyte              | Sample | Sample    | Spike | MS     | MS        | Unit | D | %Rec | %Rec<br>Limits |
|----------------------|--------|-----------|-------|--------|-----------|------|---|------|----------------|
|                      | Result | Qualifier | Added | Result | Qualifier |      |   |      |                |
| Phenanthrene         | 0.010  | U         | 2.01  | 1.87   |           | ug/L |   | 93   | 70 - 130       |
| Propachlor           | 0.010  | U         | 2.01  | 2.01   |           | ug/L |   | 100  | 70 - 130       |
| Pyrene               | 0.010  | U         | 2.01  | 2.02   |           | ug/L |   | 100  | 70 - 130       |
| Simazine             | 0.030  | U         | 2.01  | 1.73   |           | ug/L |   | 86   | 70 - 130       |
| gamma-Chlordane      | 0.020  | U         | 2.01  | 1.91   |           | ug/L |   | 95   | 70 - 130       |
| Trifluralin          | 0.020  | U         | 2.01  | 1.89   |           | ug/L |   | 94   | 70 - 130       |
| trans-Nonachlor      | 0.020  | U         | 2.01  | 1.88   |           | ug/L |   | 93   | 70 - 130       |
| Thiobencarb          | 0.010  | U         | 2.01  | 1.96   |           | ug/L |   | 97   | 70 - 130       |
| 1-Methylnaphthalene  | 0.020  | U         | 2.01  | 1.96   |           | ug/L |   | 97   | 70 - 130       |
| 2-Methylnaphthalene  | 0.010  | U         | 2.01  | 1.86   |           | ug/L |   | 93   | 70 - 130       |
| 4,4'-DDD             | 0.020  | U         | 2.01  | 2.04   |           | ug/L |   | 101  | 70 - 130       |
| 4,4'-DDE             | 0.010  | U         | 2.01  | 1.96   |           | ug/L |   | 98   | 70 - 130       |
| 4,4'-DDT             | 0.020  | U         | 2.01  | 1.97   |           | ug/L |   | 98   | 70 - 130       |
| Acenaphthene         | 0.010  | U         | 2.01  | 1.91   |           | ug/L |   | 95   | 70 - 130       |
| Chlorothalonil       | 0.020  | U         | 2.01  | 1.78   |           | ug/L |   | 88   | 70 - 130       |
| Di-n-octyl phthalate | 0.020  | U         | 2.01  | 1.90   | J         | ug/L |   | 95   | 60 - 122       |
| EPTC                 | 0.010  | U         | 2.01  | 2.00   |           | ug/L |   | 99   | 70 - 130       |
| Malathion            | 0.010  | U         | 2.01  | 2.09   |           | ug/L |   | 104  | 80 - 134       |
| Naphthalene          | 0.010  | U         | 2.01  | 1.86   |           | ug/L |   | 92   | 70 - 130       |
| Parathion            | 0.090  | U         | 2.01  | 1.93   |           | ug/L |   | 96   | 80 - 134       |
| Terbacil             | 0.020  | U         | 2.01  | 2.00   |           | ug/L |   | 99   | 70 - 130       |
| Endrin aldehyde      | 0.030  | U         | 2.01  | 1.95   |           | ug/L |   | 97   | 64 - 125       |
| 2,4'-DDD             | 0.010  | U         | 2.01  | 1.88   |           | ug/L |   | 93   | 70 - 130       |
| 2,4'-DDE             | 0.010  | U         | 2.01  | 1.96   |           | ug/L |   | 97   | 70 - 130       |
| 2,4'-DDT             | 0.010  | U         | 2.01  | 1.87   |           | ug/L |   | 93   | 70 - 130       |
| 2,6-Dinitrotoluene   | 0.040  | U *       | 2.01  | 1.59   |           | ug/L |   | 79   | 70 - 130       |
| Acetochlor           | 0.020  | U         | 2.01  | 2.13   |           | ug/L |   | 106  | 70 - 130       |
| alpha-BHC            | 0.010  | U         | 2.01  | 1.94   |           | ug/L |   | 96   | 70 - 130       |
| beta-BHC             | 0.010  | U         | 2.01  | 1.96   |           | ug/L |   | 97   | 70 - 130       |
| Chlorobenzilate      | 0.030  | U         | 2.01  | 2.52   |           | ug/L |   | 125  | 70 - 130       |
| Chloroneb            | 0.070  | U         | 2.01  | 2.23   |           | ug/L |   | 111  | 70 - 130       |
| Chlorpyrifos         | 0.020  | U         | 2.01  | 1.89   |           | ug/L |   | 94   | 70 - 130       |
| delta-BHC            | 0.010  | U         | 2.01  | 1.90   |           | ug/L |   | 94   | 70 - 130       |
| Dichlorvos           | 0.010  | U         | 2.01  | 1.99   |           | ug/L |   | 99   | 70 - 130       |
| Endosulfan I         | 0.040  | U         | 2.01  | 2.24   |           | ug/L |   | 111  | 70 - 130       |
| Endosulfan II        | 0.040  | U         | 2.01  | 2.21   |           | ug/L |   | 110  | 70 - 130       |
| Endosulfan sulfate   | 0.020  | U         | 2.01  | 1.88   |           | ug/L |   | 93   | 70 - 130       |
| cis-Permethrin       | 0.020  | U         | 2.01  | 2.07   |           | ug/L |   | 103  | 70 - 130       |
| trans-Permethrin     | 0.020  | U         | 2.01  | 2.02   |           | ug/L |   | 100  | 70 - 130       |
| Caffeine             | 0.020  | U         | 2.01  | 1.48   |           | ug/L |   | 74   | 41 - 110       |
| Pendimethalin        | 0.020  | U         | 2.01  | 2.13   |           | ug/L |   | 106  | 65 - 122       |
| Terbutylazine        | 0.010  | U         | 2.01  | 1.90   |           | ug/L |   | 94   | 70 - 130       |
| Hexazinone           | 0.050  | U         | 2.01  | 2.18   |           | ug/L |   | 108  | 70 - 130       |
| Cyanazine            | 0.020  | U         | 2.01  | 1.46   |           | ug/L |   | 72   | 70 - 130       |
| Prometon             | 0.010  | U * - F1  | 2.01  | 0.363  | F1        | ug/L |   | 18   | 70 - 130       |
| Desethylatrazine     | 0.010  | U         | 2.01  | 0.985  | J         | ug/L |   | 49   | 8 - 94         |
| Deisopropylatrazine  | 0.040  | U         | 2.01  | 0.282  | J         | ug/L |   | 14   | 4 - 27         |
| Prometryn            | 0.020  | U         | 2.01  | 1.72   |           | ug/L |   | 85   | 70 - 130       |

# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-180257-3 MS

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW203-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Surrogate                 | MS MS     |           | Limits   |
|---------------------------|-----------|-----------|----------|
|                           | %Recovery | Qualifier |          |
| Triphenylphosphate (Surr) | 103       |           | 70 - 130 |
| Perylene-d12 (Surr)       | 98        |           | 70 - 130 |
| 2-Nitro-m-xylene (Surr)   | 98        |           | 70 - 130 |

Lab Sample ID: 240-180257-4 DU

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW204-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Analyte                   | Sample |           | DU DU  |           | Unit | D | RPD | Limit |
|---------------------------|--------|-----------|--------|-----------|------|---|-----|-------|
|                           | Result | Qualifier | Result | Qualifier |      |   |     |       |
| 2,4-Dinitrotoluene        | 0.020  | U *-      | 0.020  | U *-      | ug/L |   | NC  | 20    |
| Acenaphthylene            | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 34    |
| Alachlor                  | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 15    |
| Aldrin                    | 0.0082 | U         | 0.0081 | U         | ug/L |   | NC  | 18    |
| Anthracene                | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 52    |
| Atrazine                  | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 17    |
| alpha-Chlordane           | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 15    |
| Benzo[a]anthracene        | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 14    |
| Benzo[a]pyrene            | 0.012  | U         | 0.012  | U         | ug/L |   | NC  | 26    |
| Benzo[b]fluoranthene      | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 20    |
| Benzo[g,h,i]perylene      | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 14    |
| Benzo[k]fluoranthene      | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 20    |
| Bromacil                  | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 20    |
| Butachlor                 | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 15    |
| Butylbenzylphthalate      | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 23    |
| Chrysene                  | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 12    |
| Di(2-ethylhexyl)adipate   | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 16    |
| Di(2-ethylhexyl)phthalate | 0.10   | U         | 0.10   | U         | ug/L |   | NC  | 18    |
| Di-n-butyl phthalate      | 0.071  | U         | 0.070  | U         | ug/L |   | NC  | 20    |
| Diazinon                  | 0.030  | U         | 0.030  | U         | ug/L |   | NC  | 16    |
| Dibenz(a,h)anthracene     | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 19    |
| Dieldrin                  | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 19    |
| Diethylphthalate          | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 21    |
| Dimethoate                | 0.030  | U         | 0.030  | U         | ug/L |   | NC  | 36    |
| Dimethylphthalate         | 0.30   | U         | 0.30   | U         | ug/L |   | NC  | 20    |
| Endrin                    | 0.010  | U         | 0.0099 | U         | ug/L |   | NC  | 18    |
| Fluoranthene              | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 13    |
| Fluorene                  | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 25    |
| gamma-BHC (Lindane)       | 0.0085 | U         | 0.0084 | U         | ug/L |   | NC  | 13    |
| Heptachlor                | 0.0045 | U         | 0.0044 | U         | ug/L |   | NC  | 15    |
| Heptachlor epoxide        | 0.0041 | U         | 0.0040 | U         | ug/L |   | NC  | 14    |
| Hexachlorobenzene         | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 14    |
| Hexachlorocyclopentadiene | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 29    |
| Indeno[1,2,3-cd]pyrene    | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 25    |
| Isophorone                | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 44    |
| Methoxychlor              | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 14    |
| Metolachlor               | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 14    |
| Metribuzin                | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 24    |
| Molinate                  | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 16    |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-180257-4 DU

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW204-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Analyte              | Sample | Sample    | DU     | DU        | Unit | D | RPD | Limit |
|----------------------|--------|-----------|--------|-----------|------|---|-----|-------|
|                      | Result | Qualifier | Result | Qualifier |      |   |     |       |
| Phenanthrene         | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 14    |
| Propachlor           | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 12    |
| Pyrene               | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 15    |
| Simazine             | 0.030  | U         | 0.030  | U         | ug/L |   | NC  | 21    |
| gamma-Chlordane      | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 16    |
| Trifluralin          | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 19    |
| trans-Nonachlor      | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 17    |
| Thiobencarb          | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 11    |
| 1-Methylnaphthalene  | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 20    |
| 2-Methylnaphthalene  | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 20    |
| 4,4'-DDD             | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 17    |
| 4,4'-DDE             | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 19    |
| 4,4'-DDT             | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 19    |
| Acenaphthene         | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 31    |
| Chlorothalonil       | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 15    |
| Di-n-octyl phthalate | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 20    |
| EPTC                 | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 18    |
| Malathion            | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 20    |
| Naphthalene          | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 46    |
| Parathion            | 0.091  | U         | 0.090  | U         | ug/L |   | NC  | 20    |
| Terbacil             | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 22    |
| Endrin aldehyde      | 0.030  | U         | 0.030  | U         | ug/L |   | NC  | 30    |
| 2,4'-DDD             | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| 2,4'-DDE             | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| 2,4'-DDT             | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| 2,6-Dinitrotoluene   | 0.041  | U *-      | 0.040  | U *-      | ug/L |   | NC  | 30    |
| Acetochlor           | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| alpha-BHC            | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| beta-BHC             | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| Chlorobenzilate      | 0.030  | U         | 0.030  | U         | ug/L |   | NC  | 30    |
| Chloroneb            | 0.071  | U         | 0.070  | U         | ug/L |   | NC  | 30    |
| Chlorpyrifos         | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| delta-BHC            | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| Dichlorvos           | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| Endosulfan I         | 0.041  | U         | 0.040  | U         | ug/L |   | NC  | 30    |
| Endosulfan II        | 0.041  | U         | 0.040  | U         | ug/L |   | NC  | 30    |
| Endosulfan sulfate   | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| cis-Permethrin       | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| trans-Permethrin     | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| Caffeine             | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| Pendimethalin        | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 30    |
| Terbutylazine        | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| Hexazinone           | 0.051  | U         | 0.050  | U         | ug/L |   | NC  | 30    |
| Permethrin           | 0.020  | U         | 0.020  | U         | ug/L |   | NC  |       |
| Chlordane (n.o.s.)   | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 30    |
| Cyanazine            | 0.020  | U         | 0.020  | U         | ug/L |   | NC  | 20    |
| Prometon             | 0.010  | U *-      | 0.010  | U *-      | ug/L |   | NC  | 30    |
| Desethylatrazine     | 0.010  | U         | 0.010  | U         | ug/L |   | NC  | 51    |
| Deisopropylatrazine  | 0.041  | U         | 0.040  | U         | ug/L |   | NC  | 78    |

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# QC Sample Results

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 240-180257-4 DU

Matrix: Water

Analysis Batch: 47668

Client Sample ID: PW204-20230210

Prep Type: Total/NA

Prep Batch: 47583

| Analyte   | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | Limit |
|-----------|---------------|------------------|-----------|--------------|------|---|-----|-------|
| Prometryn | 0.020         | U                | 0.020     | U            | ug/L |   | NC  | 25    |

| Surrogate                 | DU %Recovery | DU Qualifier | Limits   |
|---------------------------|--------------|--------------|----------|
| Triphenylphosphate (Surr) | 106          |              | 70 - 130 |
| Perylene-d12 (Surr)       | 95           |              | 70 - 130 |
| 2-Nitro-m-xylene (Surr)   | 95           |              | 70 - 130 |





# QC Association Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## GC/MS VOA

### Analysis Batch: 47575

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-2   | PW202-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-5   | FB-20230210      | Total/NA  | Water  | 524.2  |            |
| 240-180257-6   | TB-20230210      | Total/NA  | Water  | 524.2  |            |
| MB 810-47575/6 | Method Blank     | Total/NA  | Water  | 524.2  |            |

### Analysis Batch: 47576

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-2   | PW202-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-5   | FB-20230210      | Total/NA  | Water  | 524.2  |            |
| 240-180257-6   | TB-20230210      | Total/NA  | Water  | 524.2  |            |
| MB 810-47576/6 | Method Blank     | Total/NA  | Water  | 524.2  |            |

### Analysis Batch: 47591

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-1   | PW201-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-3   | PW203-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-4   | PW204-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-5   | FB-20230210      | Total/NA  | Water  | 524.2  |            |
| 240-180257-6   | TB-20230210      | Total/NA  | Water  | 524.2  |            |
| MB 810-47591/6 | Method Blank     | Total/NA  | Water  | 524.2  |            |

### Analysis Batch: 47621

| Lab Sample ID   | Client Sample ID | Prep Type | Matrix | Method    | Prep Batch |
|-----------------|------------------|-----------|--------|-----------|------------|
| 240-180257-1    | PW201-20230210   | Total/NA  | Water  | 524.2 Ext |            |
| 240-180257-2    | PW202-20230210   | Total/NA  | Water  | 524.2 Ext |            |
| 240-180257-3    | PW203-20230210   | Total/NA  | Water  | 524.2 Ext |            |
| 240-180257-4    | PW204-20230210   | Total/NA  | Water  | 524.2 Ext |            |
| 240-180257-5    | FB-20230210      | Total/NA  | Water  | 524.2 Ext |            |
| MB 810-47621/16 | Method Blank     | Total/NA  | Water  | 524.2 Ext |            |

### Analysis Batch: 47875

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-1   | PW201-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-3   | PW203-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-4   | PW204-20230210   | Total/NA  | Water  | 524.2  |            |
| MB 810-47875/6 | Method Blank     | Total/NA  | Water  | 524.2  |            |

### Analysis Batch: 47876

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-1   | PW201-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-3   | PW203-20230210   | Total/NA  | Water  | 524.2  |            |
| 240-180257-4   | PW204-20230210   | Total/NA  | Water  | 524.2  |            |
| MB 810-47876/6 | Method Blank     | Total/NA  | Water  | 524.2  |            |

### Analysis Batch: 47883

| Lab Sample ID  | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|--------|------------|
| 240-180257-2   | PW202-20230210   | Total/NA  | Water  | 524.2  |            |
| MB 810-47883/4 | Method Blank     | Total/NA  | Water  | 524.2  |            |

# QC Association Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## GC/MS Semi VOA

### Prep Batch: 47583

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-180257-1       | PW201-20230210     | Total/NA  | Water  | 525.2  |            |
| 240-180257-2       | PW202-20230210     | Total/NA  | Water  | 525.2  |            |
| 240-180257-3       | PW203-20230210     | Total/NA  | Water  | 525.2  |            |
| 240-180257-4       | PW204-20230210     | Total/NA  | Water  | 525.2  |            |
| 240-180257-5       | FB-20230210        | Total/NA  | Water  | 525.2  |            |
| MB 810-47583/1-A   | Method Blank       | Total/NA  | Water  | 525.2  |            |
| LCS 810-47583/2-A  | Lab Control Sample | Total/NA  | Water  | 525.2  |            |
| LLCS 810-47583/3-A | Lab Control Sample | Total/NA  | Water  | 525.2  |            |
| 240-180257-3 MS    | PW203-20230210     | Total/NA  | Water  | 525.2  |            |
| 240-180257-4 DU    | PW204-20230210     | Total/NA  | Water  | 525.2  |            |

### Analysis Batch: 47668

| Lab Sample ID      | Client Sample ID   | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 240-180257-1       | PW201-20230210     | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-2       | PW202-20230210     | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-3       | PW203-20230210     | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-4       | PW204-20230210     | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-5       | FB-20230210        | Total/NA  | Water  | 525.2  | 47583      |
| MB 810-47583/1-A   | Method Blank       | Total/NA  | Water  | 525.2  | 47583      |
| LCS 810-47583/2-A  | Lab Control Sample | Total/NA  | Water  | 525.2  | 47583      |
| LLCS 810-47583/3-A | Lab Control Sample | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-3 MS    | PW203-20230210     | Total/NA  | Water  | 525.2  | 47583      |
| 240-180257-4 DU    | PW204-20230210     | Total/NA  | Water  | 525.2  | 47583      |

# Lab Chronicle

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: PW201-20230210**

**Lab Sample ID: 240-180257-1**

Date Collected: 02/10/23 16:50

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47591        | DC      | EA SB | 02/13/23 12:15       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47875        | CM      | EA SB | 02/15/23 10:53       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47876        | CM      | EA SB | 02/15/23 10:53       |
| Total/NA  | Analysis   | 524.2 Ext    |     | 1               | 47621        | WD      | EA SB | 02/13/23 17:15       |
| Total/NA  | Prep       | 525.2        |     |                 | 47583        | HB      | EA SB | 02/13/23 08:25       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 47668        | TD      | EA SB | 02/13/23 23:15       |

**Client Sample ID: PW202-20230210**

**Lab Sample ID: 240-180257-2**

Date Collected: 02/10/23 17:05

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47883        | DC      | EA SB | 02/15/23 09:34       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47575        | CM      | EA SB | 02/13/23 12:34       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47576        | CM      | EA SB | 02/13/23 12:34       |
| Total/NA  | Analysis   | 524.2 Ext    |     | 1               | 47621        | WD      | EA SB | 02/13/23 17:40       |
| Total/NA  | Prep       | 525.2        |     |                 | 47583        | HB      | EA SB | 02/13/23 08:25       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 47668        | TD      | EA SB | 02/13/23 23:40       |

**Client Sample ID: PW203-20230210**

**Lab Sample ID: 240-180257-3**

Date Collected: 02/10/23 17:40

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47591        | DC      | EA SB | 02/13/23 13:03       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47875        | CM      | EA SB | 02/15/23 11:19       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47876        | CM      | EA SB | 02/15/23 11:19       |
| Total/NA  | Analysis   | 524.2 Ext    |     | 1               | 47621        | WD      | EA SB | 02/13/23 18:04       |
| Total/NA  | Prep       | 525.2        |     |                 | 47583        | HB      | EA SB | 02/13/23 08:25       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 47668        | TD      | EA SB | 02/14/23 00:05       |

**Client Sample ID: PW204-20230210**

**Lab Sample ID: 240-180257-4**

Date Collected: 02/10/23 18:00

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47591        | DC      | EA SB | 02/13/23 13:26       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47875        | CM      | EA SB | 02/15/23 11:44       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47876        | CM      | EA SB | 02/15/23 11:44       |
| Total/NA  | Analysis   | 524.2 Ext    |     | 1               | 47621        | WD      | EA SB | 02/13/23 18:28       |
| Total/NA  | Prep       | 525.2        |     |                 | 47583        | HB      | EA SB | 02/13/23 08:25       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 47668        | TD      | EA SB | 02/14/23 00:55       |

# Lab Chronicle

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

**Client Sample ID: FB-20230210**

**Lab Sample ID: 240-180257-5**

Date Collected: 02/10/23 16:25

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47591        | DC      | EA SB | 02/13/23 13:50       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47575        | CM      | EA SB | 02/13/23 13:49       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47576        | CM      | EA SB | 02/13/23 13:49       |
| Total/NA  | Analysis   | 524.2 Ext    |     | 1               | 47621        | WD      | EA SB | 02/13/23 18:52       |
| Total/NA  | Prep       | 525.2        |     |                 | 47583        | HB      | EA SB | 02/13/23 08:25       |
| Total/NA  | Analysis   | 525.2        |     | 1               | 47668        | TD      | EA SB | 02/14/23 01:46       |

**Client Sample ID: TB-20230210**

**Lab Sample ID: 240-180257-6**

Date Collected: 02/10/23 00:00

Matrix: Water

Date Received: 02/10/23 20:50

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab   | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|-------|----------------------|
| Total/NA  | Analysis   | 524.2        |     | 1               | 47591        | DC      | EA SB | 02/13/23 14:14       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47575        | CM      | EA SB | 02/13/23 11:45       |
| Total/NA  | Analysis   | 524.2        |     | 1               | 47576        | CM      | EA SB | 02/13/23 11:45       |

**Laboratory References:**

EA SB = Eurofins Eaton South Bend, 110 S Hill Street, South Bend, IN 46617, TEL (574)233-4777

# Accreditation/Certification Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Laboratory: Eurofins Eaton South Bend

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority                         | Program             | Identification Number | Expiration Date |
|-----------------------------------|---------------------|-----------------------|-----------------|
| A2LA                              | ISO/IEC 17025       | 5794.01               | 07-31-24        |
| Alabama                           | State               | 40700                 | 06-30-23        |
| Alaska                            | State               | IN00035               | 06-30-23        |
| Arizona                           | State               | AZ0432                | 07-26-23        |
| Arkansas (DW)                     | State               | EPA IN00035           | 06-30-23        |
| California                        | State               | 2920                  | 06-30-23        |
| Colorado                          | State               | IN00035               | 02-28-23        |
| Connecticut                       | State               | PH-0132               | 03-31-22 *      |
| Delaware (DW)                     | State               | IN00035               | 06-30-23        |
| Florida                           | NELAP               | E87775                | 06-30-23        |
| Georgia (DW)                      | State               | 929                   | 06-30-23        |
| Hawaii                            | State               | IN035                 | 06-30-23        |
| Idaho (DW)                        | State               | IN00035               | 12-31-23        |
| IL Dept. of Public Health (Micro) | State               | 17767                 | 12-31-22 *      |
| Illinois                          | NELAP               | 200001                | 09-30-23        |
| Indiana                           | State               | C-71-01               | 12-31-22 *      |
| Indiana (Micro)                   | State               | M-76-07               | 12-31-25        |
| Iowa                              | State               | IA Lab #098           | 11-01-23        |
| Kansas                            | NELAP               | E-10233               | 10-31-23        |
| Kentucky (DW)                     | State               | KY90056               | 12-31-22 *      |
| Louisiana (DW)                    | State               | LA014                 | 12-31-23        |
| Maine                             | State               | IN00035               | 05-01-23        |
| Maryland                          | State               | 209                   | 03-31-23        |
| Massachusetts                     | State               | M-IN035               | 06-30-23        |
| MI - RadChem Recognition          | State               | 9926                  | 06-30-23        |
| Michigan                          | State               | 9926                  | 12-31-22 *      |
| Minnesota                         | NELAP               | 1989807               | 12-31-23        |
| Mississippi                       | State               | IN00035               | 06-30-22 *      |
| Missouri                          | State               | 880                   | 09-30-24        |
| Montana (DW)                      | State               | CERT0026              | 01-02-24        |
| Nebraska                          | State               | NE-OS-05-04           | 06-30-23        |
| Nevada                            | State               | IN000352021-2         | 07-31-23        |
| New Hampshire                     | NELAP               | 2124                  | 11-05-23        |
| New Jersey                        | NELAP               | IN598                 | 06-30-23        |
| New Mexico                        | State               | IN00035               | 06-30-23        |
| New York                          | NELAP               | 11398                 | 04-01-23        |
| North Carolina (DW)               | State               | 18700                 | 07-31-23        |
| North Dakota                      | State               | R-035                 | 06-30-23        |
| Ohio                              | State               | 87775                 | 06-30-23        |
| Oklahoma                          | NELAP               | D9508                 | 08-31-23        |
| Oregon                            | NELAP               | 4156                  | 09-16-23        |
| Pennsylvania                      | NELAP               | 68-00466              | 04-30-23        |
| Puerto Rico                       | State               | IN00035               | 04-01-23        |
| Rhode Island                      | State               | LAO00343              | 12-30-22 *      |
| South Carolina                    | State               | 95005001              | 06-30-23        |
| South Dakota (DW)                 | State               | IN00035               | 12-31-22 *      |
| Tennessee                         | State               | TN02973               | 06-30-23        |
| Texas                             | NELAP               | T104704187-22-16      | 12-31-23        |
| Texas                             | TCEQ Water Supply   | TX207                 | 06-30-23        |
| USEPA Reg X SDWA                  | US Federal Programs | IN00035               | 08-20-22 *      |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: AECOM  
Project/Site: East Palestine

Job ID: 240-180257-1

## Laboratory: Eurofins Eaton South Bend (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority          | Program             | Identification Number | Expiration Date |
|--------------------|---------------------|-----------------------|-----------------|
| USEPA UCMR 5       | US Federal Programs | IN00035               | 12-31-25        |
| Utah               | NELAP               | IN00035               | 07-31-23        |
| Vermont            | State               | VT-8775               | 11-15-23        |
| Virginia           | NELAP               | 460275                | 03-14-23        |
| Washington         | State               | C837                  | 01-01-23 *      |
| West Virginia (DW) | State               | 9927 C                | 12-31-22 *      |
| Wisconsin          | State               | 999766900             | 08-31-23        |
| Wisconsin (Micro)  | State               | 10121                 | 12-31-22 *      |
| Wyoming            | State               | 8TMS-L                | 06-30-23        |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



# Chain of Custody Record



|   |  |                            |  |  |  |
|---|--|----------------------------|--|--|--|
| <b>Client Information</b>                     |  | Sampler: Scott Logan       |  | Lab PM: Brooks, Kris M   | Carrier Tracking No(s): 240-104726-37549-1 |
| Client Contact: Stephanie Knight 919-495-5766 |  | Phone: 419-787-9589        |  | E-Mail: Kris.Brooks@et.eurofins.com  | COC No: 240-104726-37549-1                 |
| Company: AECOM                                |  | PWSID:                     |  | Page: 1 of 1   |  |
| Address: 40 S Market St                       |  | Due Date Requested:        |  | Job #: 60696193  |  |
| City: East Palestine                          |  | TAT Requested (days):      |  | Preservation Codes:  |  |
| State, Zip: OH 44413                          |  | Compliance Project: Yes No |  | A - HCL<br>B - Hexane<br>N - None<br>O - ASN02<br>P - Na2O4S<br>D - Nitric Acid<br>E - NaHSO4<br>F - MeOH<br>G - Amchlor<br>H - Ascorbic Acid<br>I - Ice<br>J - DI Water<br>K - EDTA<br>L - EDA<br>Z - other (specify) |  |
| Phone:  |  | WO #:                      |  | Other:   |  |
| Email: Stephanie.Knight@aecom.com             |  | Project #:                 |  | Special Instructions/Note:   |  |
| Project Name: East Palestine                  |  | 24030748                   |  | 6 Request No. 204 on labels as<br>Na2SO3   |  |
| Site: PWS                                     |  | SSOW#:                     |  | Total Number of Containers   |  |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=wastewater, BT=tissue, AA=air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | Analysis Requested | Special Instructions/Note |
|-----------------------|-------------|-------------|------------------------------|--|-----------------------------------|----------------------------|--------------------|---------------------------|
| PW201 - 20230210      | 2/10/23     | 1650        | G                            | Water  | N                                 | N                          | 524.2 VOCs         |                           |
| PW202 - 20230210      | 2/10/23     | 1705        | G                            | Water  | N                                 | N                          | 524.2 Ethanol only |                           |
| PW203 - 20230210      | 2/10/23     | 1740        | G                            | Water  | N                                 | N                          | 524.2 VOCs         |                           |
| PW204 - 20230210      | 2/10/23     | 1800        | G                            | Water  | N                                 | N                          |                    |                           |
| FB - 20230210         | 2/10/23     | 1625        | G                            | Water  | N                                 | N                          |                    |                           |
| YB - 20230210         | 2/10/23     | -           | -                            | Water  | N                                 | N                          |                    |                           |
|                       |             |             |                              | Water  |                                   |                            |                    |                           |
|                       |             |             |                              | Water  |                                   |                            |                    |                           |
|                       |             |             |                              | Water  |                                   |                            |                    |                           |
|                       |             |             |                              | Water  |                                   |                            |                    |                           |
|                       |             |             |                              | Water  |                                   |                            |                    |                           |

240-180257 Chain of Custody

|  |                                    |  |                                  |   |                              |                          |                |
|--|------------------------------------|--|----------------------------------|---|------------------------------|--------------------------|----------------|
| <b>Possible Hazard Identification</b>                  |                                    | Date/Time: 02-10-2023 1900             |                                  | Company: AECOM                              | Received by: Scott Logan     | Date/Time: 2-10-23 20:50 | Company: AECOM |
| <input type="checkbox"/> Non-Hazard                    | <input type="checkbox"/> Flammable | <input type="checkbox"/> Skin Irritant | <input type="checkbox"/> Unknown | <input type="checkbox"/> Radiological       | Relinquished by: Scott Logan |                          |                |
| Deliverable Requested: I, II, III, IV, Other (specify) |                                    |  |                                  | Relinquished by: Stephanie Knight           |                              |                          |                |
| Empty Kit Relinquished by:                             |                                    | Date:                                  |                                  | Method of Shipment:                         |                              | Company:                 |                |
| Relinquished by: Scott Logan                           |                                    | Date/Time: 02-10-2023 1900             |                                  | Relinquished by: Scott Logan                |                              | Date/Time: 2-10-23 20:50 |                |
| Relinquished by: Stephanie Knight                      |                                    | Date/Time: 2-10-23 20:50               |                                  | Relinquished by: Stephanie Knight           |                              | Date/Time: 2-10-23 20:50 |                |
| Custody Seals Intact: Yes No                           |                                    | Custody Seal No.:                      |                                  | Cooler Temperature(s) °C and Other Remarks: |                              | Company: AECOM           |                |



Barberton Facility

Client AECOM

Site Name \_\_\_\_\_

Cooler unpacked by:

Cooler Received on 2-10-23

Opened on 2-10-23

(MK)

FedEx: 1<sup>st</sup> Grd Exp UPS FAS Clipper Client Drop Off Eurofins Courier Other \_\_\_\_\_

Receipt After-hours: Drop-off Date/Time \_\_\_\_\_ Storage Location \_\_\_\_\_

Eurofins Cooler # EC Foam Box Client Cooler Box Other \_\_\_\_\_

Packing material used: Bubble Wrap Foam Plastic Bag None Other \_\_\_\_\_

COOLANT: Wet Ice Blue Ice Dry Ice Water None

- 1. Cooler temperature upon receipt  See Multiple Cooler Form
  - IR GUN # IR-13 (CF -0.2 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN # IR-16 (CF -0.1 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C
  - IR GUN # IR-17 (CF -0.3 °C) Observed Cooler Temp. \_\_\_\_\_ °C Corrected Cooler Temp. \_\_\_\_\_ °C


- 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 ea  Yes  No
  - Were the seals on the outside of the cooler(s) signed & dated?  Yes  No  NA
  - Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?  Yes  No  NA
  - Were tamper/custody seals intact and uncompromised?  Yes  No  NA

Tests that are not checked for pH by Receiving:

VOAs  
Oil and Grease  
TOC

- 3. Shippers' packing slip attached to the cooler(s)?  Yes  No
- 4. Did custody papers accompany the sample(s)?  Yes  No
- 5. Were the custody papers relinquished & signed in the appropriate place?  Yes  No
- 6. Was/were the person(s) who collected the samples clearly identified on the COC?  Yes  No
- 7. Did all bottles arrive in good condition (Unbroken)?  Yes  No
- 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?  Yes  No
- 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?  Yes  No
- 10. Were correct bottle(s) used for the test(s) indicated?  Yes  No
- 11. Sufficient quantity received to perform indicated analyses?  Yes  No
- 12. Are these work share samples and all listed on the COC?  Yes  No

If yes, Questions 13-17 have been checked at the originating laboratory.

- 13. Were all preserved sample(s) at the correct pH upon receipt?  Yes  No  NA pH Strip Lot# HC20304-291590
- 14. Were VOAs on the COC?  Yes  No
- 15. Were air bubbles >6 mm in any VOA vials?  Yes  No  NA  ← Larger than this.
- 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Covered  Yes  No
- 17. Was a LL Hg or Me Hg trip blank present?  Yes  No

Contacted PM \_\_\_\_\_ Date \_\_\_\_\_ by \_\_\_\_\_ via Verbal Voice Mail Other \_\_\_\_\_

Concerning \_\_\_\_\_

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES  additional next page

Samples processed by: \_\_\_\_\_

19. SAMPLE CONDITION

- Sample(s) \_\_\_\_\_ were received after the recommended holding time had expired.
- Sample(s) \_\_\_\_\_ were received in a broken container.
- Sample(s) 1x40 Ascorbic BPW201, 2x40 Ascorbic Pw 202, 3x40 Ascorbic and 1x40 NP for FB. were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) \_\_\_\_\_ were further preserved in the laboratory.  
Time preserved: \_\_\_\_\_ Preservative(s) added/Lot number(s): \_\_\_\_\_

VOA Sample Preservation - Date/Time VOAs Frozen: \_\_\_\_\_





## Login Sample Receipt Checklist

Client: AECOM

Job Number: 240-180257-1

**Login Number: 180257**

**List Source: Eurofins Eaton South Bend**

**List Number: 2**

**List Creation: 02/11/23 10:56 AM**

**Creator: Lippincott, Morgan**

| Question   | Answer | Comment                    |
|--|--------|----------------------------|
| The cooler's custody seal, if present, is intact.                                | True   |                            |
| Sample custody seals, if present, are intact.                                    | True   |                            |
| Samples were received on ice.  | True   |                            |
| Cooler Temperature is acceptable.  | True   |                            |
| Cooler Temperature is recorded.  | True   |                            |
| COC is present.  | True   |                            |
| COC is filled out in ink and legible.  | True   |                            |
| COC is filled out with all pertinent information.                                | True   |                            |
| There are no discrepancies between the containers received and the COC.          | True   |                            |
| Samples are received within Holding Time (excluding tests with immediate HTs)    | True   |                            |
| Sample containers have legible labels.   | True   |                            |
| Containers are not broken or leaking.  | True   |                            |
| Sample collection date/times are provided.                                       | True   |                            |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |                            |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").  | True   |                            |
| Samples do not require splitting or compositing.                                 | True   |                            |
| Container provided by EEA  | False  | Client provided containers |

