



October 12, 2023

Mr. Josh Peters  
On-Scene Coordinator  
U.S. Environmental Protection Agency, Region 5  
Superfund and Emergency Management Division  
2565 Plymouth Road  
Ann Arbor, MI 48105

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**Subject: Data Validation Report  
E Palestine Site – ER  
EPA Contract No.: 68HE0519D0005  
Task Order/Task Order Line-Item No.: 68HE0520F0032 / 0001EB201  
Document Tracking No. 2065**

Dear Mr. Peters:

Tetra Tech, Inc. (Tetra Tech) is submitting this data validation report for 34 air samples (including 1 field duplicate sample and 4 field blank samples) collected at the E Palestine site. The samples were collected on April 28 through April 30, 2023, and were analyzed for acrylates by Eurofins Analytics, LLC. The final laboratory data package was received on August 15, 2023.

Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Columbiana County, Ohio, Revision 3* (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5, Revision 4* (August 2022), and the *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

No rejection or qualification of results was required for these data packages. The results may be used as reported by the laboratory.

If you have any questions regarding this data validation report, please contact me via the project manager.

Sincerely,

**Kayla Phye** Digitally signed by Kayla Phye  
Date: 2023.10.12 14:44:04  
-06'00'

Environmental Chemist

Enclosure

cc: Karl Schultz, Tetra Tech Program Manager  
Dustin Grams, Tetra Tech Project Manager  
Mayra ArroyoOrtiz, Tetra Tech Project Document Control Coordinator  
TO-TOLIN File

**ATTACHMENTS**

**DATA VALIDATION REPORT  
EUROFINS ANALYTICS, LLC REPORT NOS.  
B121-126, B121-130, B122-162, B122-163**

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

Site Name	E Palestine Site – ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	2065a	Laboratory	Eurofins Analytics, LLC – Ashland, VA
Laboratory Report No.	B121-126	by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	Seven air samples, including one field blank sample		
Collection Date(s)	04/29/2023		
Field Duplicate Pairs	None		
Field QC Blanks	EPD-ST-FB-042923-1		

**INTRODUCTION**

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Columbiana County, Ohio, Revision 3* (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5, Revision 4* (August 2022), and the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

**OVERALL EVALUATION**

No rejection or qualification of results was required for this data package. The results may be used as reported by the laboratory.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Data completeness:**

Within Criteria	Exceedance/Notes
N	<p>The results for the field blank sample were reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligrams per cubic meter (mg/m<sup>3</sup>), and parts per million (ppm) (volume) in the laboratory report and only in units of ppm in the laboratory electronic data deliverable (EDD).</p> <p>Rohm &amp; Haas IH9805 is cited in the AIHA certification as “IHGC-P029” and may be cited by the abbreviation “Rohm &amp; Haas IH9805” or “IHGC-P029” interchangeably throughout the laboratory report.</p> <p>The sample analysis time is reported as a default value of 00:00 hours for the laboratory control spike duplicate (LCSD) in the analysis date field of the laboratory EDD. Since the sample analysis time for the LCSD is not required for the validated EDD, this value was not manually revised.</p> <p>A revised chain of custody (COC) was issued to correct the field blank sample ID from EPD-ST-8H-FB-042923-1 to EPD-ST-FB-042923-1.</p> <p>EPD-ST-8H-WA-05-042923-1 and EPD-ST-8H-UW-C-042923-1 were cancelled due to field pump failures.</p>

**Sample preservation, receipt, and holding times:**

Within Criteria	Exceedance/Notes
Y	

**Method blanks:**

Within Criteria	Exceedance/Notes
N	Laboratory media blank (LMB IHG230501F) and laboratory reagent blank (LRB IHG230501F) were reported as nondetect (flagged U) with a result of 0 µg rather than at the reporting limit (RL) in the laboratory EDD. The laboratory was contacted on August 28, 2023, and resolved the laboratory media blank and LRB results in future laboratory EDDs. No qualifications were applied.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Field blanks:**

Within Criteria	Exceedance/Notes
Y	

**Surrogates and labeled compounds:**

Within Criteria	Exceedance/Notes
NA	

**MS/MSDs:**

Within Criteria	Exceedance/Notes
NA	

**Laboratory duplicates:**

Within Criteria	Exceedance/Notes
NA	

**Field duplicates:**

Within Criteria	Exceedance/Notes
NA	

**LCSS/LCSDs:**

Within Criteria	Exceedance/Notes
Y	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Sample dilutions:**

Within Criteria	Exceedance/Notes
NA	

**Re-extraction and reanalysis:**

Within Criteria	Exceedance/Notes
NA	

**MDLs/RLs:**

Within Criteria	Exceedance/Notes
Y	Method detection limits (MDL) were not reported. Nondetect sample results are reported as less than the RL in the laboratory report and at the RL (flagged U) in the validated EDD and attached analytical results summary.

**Tentatively identified compounds:**

Within Criteria	Exceedance/Notes
NA	

**Other [None]:**

Within Criteria	Exceedance/Notes
NA	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Overall Qualifications:**

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY  
 EUROFINS ANALYTICS, LLC REPORT NO. B121-126

Sample ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-G-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.013	U	0.013	ppm	0.013	U
EPD-ST-8H-DW-G-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.008	U	0.008	ppm	0.008	U
EPD-ST-8H-WA-01-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014	U	0.014	ppm	0.014	U
EPD-ST-8H-WA-01-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-02-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015	U	0.015	ppm	0.015	U
EPD-ST-8H-WA-02-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-03-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.013	U	0.013	ppm	0.013	U
EPD-ST-8H-WA-03-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.009	U	0.009	ppm	0.009	U
EPD-ST-8H-WA-04-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.02	U	0.02	ppm	0.02	U
EPD-ST-8H-WA-04-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.013	U	0.013	ppm	0.013	U
EPD-ST-8H-WA-06-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.017	U	0.017	ppm	0.017	U
EPD-ST-8H-WA-06-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.011	U	0.011	ppm	0.011	U
EPD-ST-FB-042923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U	2.8	ug	2.8	U
EPD-ST-FB-042923-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U	1.3	ug	1.3	U



**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

Site Name	E Palestine Site – ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	2065b	Laboratory	Eurofins Analytics, LLC – Ashland, VA
Laboratory Report No.	B121-130	by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	Nine air samples, including one field blank sample		
Collection Date(s)	04/28/2023		
Field Duplicate Pairs	None		
Field QC Blanks	EPD-ST-FB-042823-1		

**INTRODUCTION**

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Columbiana County, Ohio, Revision 3* (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5, Revision 4* (August 2022), and the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

**OVERALL EVALUATION**

No rejection or qualification of results was required for this data package. The results may be used as reported by the laboratory.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Data completeness:**

Within Criteria	Exceedance/Notes
N	<p>The results for the field blank sample were reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligrams per cubic meter (mg/m<sup>3</sup>), and parts per million (ppm) (volume) in the laboratory report and only in units of ppm in the laboratory electronic data deliverable (EDD).</p> <p>Rohm &amp; Haas IH9805 is cited in the AIHA certification as “IHGC-P029” and may be cited by the abbreviation “Rohm &amp; Haas IH9805” or “IHGC-P029” interchangeably throughout the laboratory report.</p> <p>The sample analysis time is reported as a default value of 00:00 hours for the laboratory control spike duplicate (LCSD) in the analysis date field of the laboratory EDD. Since the sample analysis time for the LCSD is not required for the validated EDD, this value was not manually revised.</p> <p>A revised chain of custody (COC) was issued to correct one sample ID from EPD-ST-8H-DW-C-042823-1 to EPD-ST-8H-UW-C-042823-1 and the sample description from DW-C to UW-C; the volume for sample EPD-ST-8H-WA-03-042823-1 was corrected from 20 to 23.74 in addition to the corrected total sample collection time from 477 to 480.</p>

**Sample preservation, receipt, and holding times:**

Within Criteria	Exceedance/Notes
Y	

**Method blanks:**

Within Criteria	Exceedance/Notes
N	Laboratory media blank (LMB IHG230501G) and laboratory reagent blank (LRB IHG230501G) were reported as nondetect (flagged U) with a result of 0 µg rather than at the reporting limit (RL) in the laboratory EDD. The laboratory was contacted on August 28, 2023, and resolved the laboratory media blank and LRB results in future laboratory EDDs. No qualifications were applied.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Field blanks:**

Within Criteria	Exceedance/Notes
Y	

**Surrogates and labeled compounds:**

Within Criteria	Exceedance/Notes
NA	

**MS/MSDs:**

Within Criteria	Exceedance/Notes
NA	

**Laboratory duplicates:**

Within Criteria	Exceedance/Notes
NA	

**Field duplicates:**

Within Criteria	Exceedance/Notes
NA	

**LCSS/LCSDs:**

Within Criteria	Exceedance/Notes
Y	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Sample dilutions:**

Within Criteria	Exceedance/Notes
NA	

**Re-extraction and reanalysis:**

Within Criteria	Exceedance/Notes
NA	

**MDLs/RLs:**

Within Criteria	Exceedance/Notes
Y	Method detection limits (MDL) were not reported. Nondetect sample results are reported as less than the RL in the laboratory report and at the RL (flagged U) in the validated EDD and attached analytical results summary.

**Tentatively identified compounds:**

Within Criteria	Exceedance/Notes
NA	

**Other [None]:**

Within Criteria	Exceedance/Notes
NA	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Overall Qualifications:**

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY  
 EUROFINS ANALYTICS, LLC REPORT NO. B121-130

Sample ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-G-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014	U	0.014	ppm	0.014	U
EPD-ST-8H-DW-G-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-UW-C-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016	U	0.016	ppm	0.016	U
EPD-ST-8H-UW-C-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-01-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016	U	0.016	ppm	0.016	U
EPD-ST-8H-WA-01-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-02-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016	U	0.016	ppm	0.016	U
EPD-ST-8H-WA-02-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-03-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016	U	0.016	ppm	0.016	U
EPD-ST-8H-WA-03-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-04-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014	U	0.014	ppm	0.014	U
EPD-ST-8H-WA-04-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.009	U	0.009	ppm	0.009	U
EPD-ST-8H-WA-05-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015	U	0.015	ppm	0.015	U
EPD-ST-8H-WA-05-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-8H-WA-06-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015	U	0.015	ppm	0.015	U
EPD-ST-8H-WA-06-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01	U	0.01	ppm	0.01	U
EPD-ST-FB-042823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U	2.8	ug	2.8	U
EPD-ST-FB-042823-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U	1.3	ug	1.3	U

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

Site Name	E Palestine Site – ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	2065c	Laboratory	Eurofins Analytics, LLC – Ashland, VA
Laboratory Report No.	B122-162	Eurofins Analytics, LLC – Ashland, VA	
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	10 air samples, including 1 field duplicate sample and 1 field blank sample		
Collection Date(s)	04/29/2023		
Field Duplicate Pairs	EPD-ST-8H-WA-04-042923-2/EPD-ST-8H-WA-44-042923-2		
Field QC Blanks	EPD-ST-FB-042923-2		

**INTRODUCTION**

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Columbiana County, Ohio, Revision 3* (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5, Revision 4* (August 2022), and the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

**OVERALL EVALUATION**

No rejection or qualification of results was required for this data package. The results may be used as reported by the laboratory.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Data completeness:**

Within Criteria	Exceedance/Notes
N	<p>The results for the field blank sample were reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligrams per cubic meter (mg/m<sup>3</sup>), and parts per million (ppm) (volume) in the laboratory report and only in units of ppm in the laboratory electronic data deliverable (EDD).</p> <p>Rohm &amp; Haas IH9805 is cited in the AIHA certification as “IHGC-P029” and may be cited by the abbreviation “Rohm &amp; Haas IH9805” or “IHGC-P029” interchangeably throughout the laboratory report.</p> <p>The sample analysis time is reported as a default value of 00:00 hours for the laboratory control spike duplicate (LCSD) in the analysis date field of the laboratory EDD. Since the sample analysis time for the LCSD is not required for the validated EDD, this value was not manually revised.</p>

**Sample preservation, receipt, and holding times:**

Within Criteria	Exceedance/Notes
Y	

**Method blanks:**

Within Criteria	Exceedance/Notes
N	Laboratory media blank (LMB IHG230502A) and laboratory reagent blank (LRB IHG230502A) were reported as nondetect (flagged U) with a result of 0 µg rather than at the reporting limit (RL) in the laboratory EDD. The laboratory was contacted on August 28, 2023, and resolved the laboratory media blank and LRB results in future laboratory EDDs. No qualifications were applied.

**Field blanks:**

Within Criteria	Exceedance/Notes
Y	



**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Surrogates and labeled compounds:**

Within Criteria	Exceedance/Notes
NA	

**MS/MSDs:**

Within Criteria	Exceedance/Notes
NA	

**Laboratory duplicates:**

Within Criteria	Exceedance/Notes
NA	

**Field duplicates:**

Within Criteria	Exceedance/Notes
Y	

**LCSs/LCSDs:**

Within Criteria	Exceedance/Notes
Y	

**Sample dilutions:**

Within Criteria	Exceedance/Notes
NA	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Re-extraction and reanalysis:**

Within Criteria	Exceedance/Notes
NA	

**MDLs/RLs:**

Within Criteria	Exceedance/Notes
Y	Method detection limits (MDL) were not reported. Nondetect sample results are reported as less than the RL in the laboratory report and at the RL (flagged U) in the validated EDD and attached analytical results summary.

**Tentatively identified compounds:**

Within Criteria	Exceedance/Notes
NA	

**Other [None]:**

Within Criteria	Exceedance/Notes
NA	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Overall Qualifications:**

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY  
 EUROFINS ANALYTICS, LLC REPORT NO. B122-162

Sample ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-A-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-DW-A-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-UW-E-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014 U	U	0.014	ppm	0.014 U	U
EPD-ST-8H-UW-E-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-01-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-WA-01-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-02-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-WA-02-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-03-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-WA-03-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-04-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-WA-04-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-05-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.017 U	U	0.017	ppm	0.017 U	U
EPD-ST-8H-WA-05-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.011 U	U	0.011	ppm	0.011 U	U
EPD-ST-8H-WA-06-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016 U	U	0.016	ppm	0.016 U	U
EPD-ST-8H-WA-06-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-8H-WA-44-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U	U	0.015	ppm	0.015 U	U
EPD-ST-8H-WA-44-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U	U	0.01	ppm	0.01 U	U
EPD-ST-FB-042923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8 U	U	2.8	ug	2.8 U	U
EPD-ST-FB-042923-2	IHGC-P029	141-32-2	n-Butyl acrylate	1.3 U	U	1.3	ug	1.3 U	U

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

Site Name	E Palestine Site – ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	2065d	Laboratory	Eurofins Analytics, LLC – Ashland, VA
Laboratory Report No.	B122-163	by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	Eight air samples, including one field blank sample		
Collection Date(s)	04/30/2023		
Field Duplicate Pairs	None		
Field QC Blanks	EPD-ST-FB-043023-1		

**INTRODUCTION**

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the Tetra Tech *Quality Assurance Project Plan East Palestine Train Derailment Site East Palestine, Columbiana County, Ohio, Revision 3* (April 2023), the Tetra Tech *Quality Assurance Project Plan, Superfund Technical Assessment and Response Team (START V), EPA Region 5, Revision 4* (August 2022), and the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (November 2020).

**OVERALL EVALUATION**

No rejection or qualification of results was required for this data package. The results may be used as reported by the laboratory.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Data completeness:**

Within Criteria	Exceedance/Notes
N	<p>The results for the field blank sample were reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligrams per cubic meter (mg/m3), and parts per million (ppm) (volume) in the laboratory report and only in units of ppm in the laboratory electronic data deliverable (EDD).</p> <p>Rohm &amp; Haas IH9805 is cited in the AIHA certification as “IHGC-P029” and may be cited by the abbreviation “Rohm &amp; Haas IH9805” or “IHGC-P029” interchangeably throughout the laboratory report.</p> <p>The sample analysis time is reported as a default value of 00:00 hours for the laboratory control spike duplicate (LCSD) in the analysis date field of the laboratory EDD. Since the sample analysis time for the LCSD is not required for the validated EDD, this value was not manually revised.</p> <p>Sample EPD-ST-8H-WA-04-043023-1 was cancelled due to a field pump failure and was not analyzed.</p>

**Sample preservation, receipt, and holding times:**

Within Criteria	Exceedance/Notes
Y	

**Method blanks:**

Within Criteria	Exceedance/Notes
N	Laboratory media blank (LMB IHG230502A) and laboratory reagent blank (LRB IHG230502A) were reported as nondetect (flagged U) with a result of 0 µg rather than at the reporting limit (RL) in the laboratory EDD. The laboratory was contacted on August 28, 2023, and resolved the laboratory media blank and LRB results in future laboratory EDDs. No qualifications were applied.

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Field blanks:**

Within Criteria	Exceedance/Notes
Y	

**Surrogates and labeled compounds:**

Within Criteria	Exceedance/Notes
NA	

**MS/MSDs:**

Within Criteria	Exceedance/Notes
NA	

**Laboratory duplicates:**

Within Criteria	Exceedance/Notes
NA	

**Field duplicates:**

Within Criteria	Exceedance/Notes
NA	

**LCSS/LCSDs:**

Within Criteria	Exceedance/Notes
Y	

**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Sample dilutions:**

Within Criteria	Exceedance/Notes
NA	

**Re-extraction and reanalysis:**

Within Criteria	Exceedance/Notes
NA	

**MDLs/RLs:**

Within Criteria	Exceedance/Notes
Y	Method detection limits (MDL) were not reported. Nondetect sample results are reported as less than the RL in the laboratory report and at the RL (flagged U) in the validated EDD and attached analytical results summary.

**Tentatively identified compounds:**

Within Criteria	Exceedance/Notes
NA	

**Other [None]:**

Within Criteria	Exceedance/Notes
NA	



**DATA VALIDATION CHECKLIST – STAGE 2A  
EPA REGION 5 START CONTRACT**

**Overall Qualifications:**

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY  
 EUROFINS ANALYTICS, LLC REPORT NO. B122-163

Sample ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-A-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016 U		0.016	ppm	0.016 U	
EPD-ST-8H-DW-A-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.011 U		0.011	ppm	0.011 U	
EPD-ST-8H-UW-E-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U		0.015	ppm	0.015 U	
EPD-ST-8H-UW-E-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U		0.01	ppm	0.01 U	
EPD-ST-8H-WA-01-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U		0.015	ppm	0.015 U	
EPD-ST-8H-WA-01-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U		0.01	ppm	0.01 U	
EPD-ST-8H-WA-02-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014 U		0.014	ppm	0.014 U	
EPD-ST-8H-WA-02-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U		0.01	ppm	0.01 U	
EPD-ST-8H-WA-03-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U		0.015	ppm	0.015 U	
EPD-ST-8H-WA-03-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U		0.01	ppm	0.01 U	
EPD-ST-8H-WA-05-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.013 U		0.013	ppm	0.013 U	
EPD-ST-8H-WA-05-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.009 U		0.009	ppm	0.009 U	
EPD-ST-8H-WA-06-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.018 U		0.018	ppm	0.018 U	
EPD-ST-8H-WA-06-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.012 U		0.012	ppm	0.012 U	
EPD-ST-FB-043023-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8 U		2.8	ug	2.8 U	
EPD-ST-FB-043023-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3 U		1.3	ug	1.3 U	