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June 19, 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

**Subject: Data Validation Report  
E Palestine Site - ER  
EPA Contract No.: 68HE0519D0005  
Task Order/Task Order Line Item No.: 68HE0520F0032/0001EB201  
Document Tracking No. 1701**

Dear Mr. Peters:

Tetra Tech, Inc. (Tetra Tech) is submitting this data validation report for fifteen sorbent tube air samples, including one field blank, collected at the E Palestine Site. The samples were collected on March 9, 2023, and were analyzed for acrylates by Eurofins Analytics of Ashland, Virginia. The final laboratory data package was received on June 16, 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, EPA Region 5, 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 for Organic Superfund Methods Data Review* (November 2020).

No rejection of results was required for this data package. The results may be used as qualified based on the findings of this validation effort.

If you have any questions regarding this data validation report, please feel free to contact me.

Sincerely,

**Shanna M Vasser**

Digitally signed by Shanna M Vasser  
Date: 2023.06.19 16:42:00 -04'00'

Shanna Vasser, PE  
Civil Engineer

Enclosure

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

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**ATTACHMENT**

**DATA VALIDATION REPORT  
EUROFINS ANALYTICS REPORT NO. B069-151**

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

Site Name	E Palestine Site - ER	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	1701	Laboratory	Eurofins Analytics, LLC, Ashland VA
Laboratory Report No.	B069-151		
Analyses	2-Ethylhexyl acrylate and n-butyl acrylate by laboratory standard operating procedure (SOP) IHGC-P029		
Samples and Matrix	Fifteen sorbent tube air samples (including one field blank)		
Collection Date(s)	03/09/2023		
Field Duplicate Pairs	None		
Field QC Blanks	EPD-ST-FB-030923		

**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, EPA Region 5, 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 of results was required for this data package. The results may be used as qualified based on the findings of this validation effort. .

**Data completeness:**

Within Criteria	Exceedance/Notes
Y	Level II SDG did not have the required QC forms, thus a level IV package was reviewed. The results for the field blank were reported in units of micrograms (µg) while the other 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 ppm (volume) in the electronic data deliverable (EDD). The laboratory report included the following note: “The method reference, Rohm & Haas IH9805 is referenced to the AIHA certification as IHGC-P029” and “Rohm & Haas IH9805” was listed in the EDD for QC samples. The laboratory confirmed that these refer to the same laboratory SOP; therefore, the method reference for QC samples was manually revised to “IHGC-P029” to match the method reference for field samples.

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

	<p>The extraction date information in the EDD did not match the laboratory report or was blank. The project management team confirmed that this information was not needed in the EDD; therefore, all extraction date information except the field header was deleted from the EDD.</p> <p>The sample analysis time was reported as a default value of 12 AM or 00:00 hours for the LCSD in the analysis date field. The analysis date was correct. The sample analysis time for the LCSD was not required for the EDD; therefore, this value was not manually revised.</p>
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**Sample preservation, receipt, and holding times:**

<b>Within Criteria</b>	<b>Exceedance/Notes</b>
Y	Chain of custody does not have sample end time or duration for EPD-ST-24H-2-030923-2 because the sample became dislodged from the pump during the sampling period. The results for sample EPD-ST-24H-2-030923-2 were voided and removed from the report, as documented in the amended laboratory report, dated June 16, 2023.

**Method blanks:**

<b>Within Criteria</b>	<b>Exceedance/Notes</b>
Y	

**Field blanks:**

<b>Within Criteria</b>	<b>Exceedance/Notes</b>
Y	

**Surrogates and labeled compounds:**

<b>Within Criteria</b>	<b>Exceedance/Notes</b>
NA	

**MS/MSDs:**

<b>Within Criteria</b>	<b>Exceedance/Notes</b>
NA	

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

**Laboratory duplicates:**

Within Criteria	Exceedance/Notes
NA	

**Field duplicates:**

Within Criteria	Exceedance/Notes
NA	

**LCSs/LCSDs:**

Within Criteria	Exceedance/Notes
Y	

**Sample dilutions:**

Within Criteria	Exceedance/Notes
NA	

**Re-extraction and reanalysis:**

Within Criteria	Exceedance/Notes
NA	

**MDLs/RLs:**

Within Criteria	Exceedance/Notes
N	Method detection limits were not reported. Non-detect sample results are reported as less than the reporting limit in the laboratory report and as the reporting limit with a “U” qualifier in the EDD and attached qualified data table.

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

**Tentatively identified compounds:**

Within Criteria	Exceedance/Notes
NA	

**Other [None]:**

Within Criteria	Exceedance/Notes
NA	

**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.
NF	The tentatively identified compound was manually searched for but was not found in the sample.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY  
EUROFINS ANALYTICS REPORT NO. B069-151

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-24H-1-030923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.013 U			0.013	ppm	0.013 U	
EPD-ST-24H-1-030923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.009 U			0.009	ppm	0.009 U	
EPD-ST-24H-1-030923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.017 U			0.017	ppm	0.017 U	
EPD-ST-24H-1-030923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.011 U			0.011	ppm	0.011 U	
EPD-ST-24H-1-030923-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014 U			0.014	ppm	0.014 U	
EPD-ST-24H-1-030923-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.009 U			0.009	ppm	0.009 U	
EPD-ST-24H-2-030923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014 U			0.014	ppm	0.014 U	
EPD-ST-24H-2-030923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.009 U			0.009	ppm	0.009 U	
EPD-ST-24H-2-030923-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.012 U			0.012	ppm	0.012 U	
EPD-ST-24H-2-030923-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.008 U			0.008	ppm	0.008 U	
EPD-ST-24H-3-030923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.012 U			0.012	ppm	0.012 U	
EPD-ST-24H-3-030923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.008 U			0.008	ppm	0.008 U	
EPD-ST-24H-3-030923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U			0.015	ppm	0.015 U	
EPD-ST-24H-3-030923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U			0.01	ppm	0.01 U	
EPD-ST-24H-3-030923-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016 U			0.016	ppm	0.016 U	
EPD-ST-24H-3-030923-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U			0.01	ppm	0.01 U	
EPD-ST-24H-4-030923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.011 U			0.011	ppm	0.011 U	
EPD-ST-24H-4-030923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.007 U			0.007	ppm	0.007 U	
EPD-ST-24H-4-030923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U			0.015	ppm	0.015 U	
EPD-ST-24H-4-030923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U			0.01	ppm	0.01 U	
EPD-ST-24H-4-030923-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.014 U			0.014	ppm	0.014 U	
EPD-ST-24H-4-030923-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.009 U			0.009	ppm	0.009 U	
EPD-ST-24H-5-030923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.012 U			0.012	ppm	0.012 U	
EPD-ST-24H-5-030923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.008 U			0.008	ppm	0.008 U	
EPD-ST-24H-5-030923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U			0.015	ppm	0.015 U	
EPD-ST-24H-5-030923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U			0.01	ppm	0.01 U	
EPD-ST-24H-5-030923-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.015 U			0.015	ppm	0.015 U	
EPD-ST-24H-5-030923-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.01 U			0.01	ppm	0.01 U	
EPD-ST-FB-030923	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8 U			2.8	ug	2.8 U	
EPD-ST-FB-030923	IHGC-P029	141-32-2	n-Butyl acrylate	1.3 U			1.3	ug	1.3 U	