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June 26, 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 Reports
E Palestine Site - ER
EPA Contract No.: 68HE0519D0005
Task Order/Task Order Line Item No.: 68HE0520F0032/0001EB201
Document Tracking No. 1901**

Dear Mr. Peters:

Tetra Tech, Inc. (Tetra Tech) is submitting these data validation reports for ninety air samples including five field blank samples collected at the E Palestine site. The samples were collected on March 17-21, 2023 and were analyzed for acrylates by Eurofins Analytics, LLC. The final laboratory data package was received on June 7, 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 of results was required for these data packages. The results may be used as qualified based on the findings of this validation effort.

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

Sincerely,

Josh Cope
Digitally signed by Josh Cope
Date: 2023.06.26 17:10:50 -04'00'

Senior Chemist

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

ATTACHMENT

**DATA VALIDATION REPORTS
EUROFINS ANALYTICS, LLC REPORT NOS. B080-152, B080-156,
B080-168 AND B082-020**

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

Site Name	E Palestine Site	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	1901a	Laboratory	Eurofins Analytics, LLC/Ashland, VA
Laboratory Report No.	B080-152	2-Ethylhexyl Acrylate and n-Butyl Acrylate analysis by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	Thirty-six air samples, including two field blanks		
Samples and Matrix	03/18/2023		
Collection Date(s)	None		
Field Duplicate Pairs	EPD-ST-FB-031823-1		
Field QC Blanks	EPD-ST-FB-031823-2		

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 received from the laboratory.

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

Data completeness:

Within Criteria	Exceedance/Notes
N	<p>The Level II laboratory report does not have the required QC results, thus the Level IV laboratory report was used for this validation.</p> <p>Samples EPD-ST-8H-WA-03-031823-01 and EPD-ST-UW-01-031823-2 were canceled by the client due to pump failures.</p> <p>The results for the field blanks are reported in units of micrograms (µg) while the other sample results are reported in units of µg, milligram per cubic meter (mg/m3), and parts per million (ppm) (volume) in the laboratory report and only ppm in the electronic data deliverable (EDD).</p> <p>The laboratory report includes 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 in the EDD was manually revised to “IHGC-P029” to match the method reference for field samples.</p> <p>A unique sample ID not provided for the LCSD in the laboratory EDD. Unique IDs are needed to keep from overwriting QC sample IDs when EDDs are uploaded to the client database. The LCSD ID in the Samp_No and Lab_Samp_No fields of the validated EDD were manually revised to match the laboratory report.</p> <p>The extraction date information in the laboratory EDD did not match the laboratory report or was blank. The client project management team confirmed that this information is not needed in the validated EDD; therefore, all extraction date information except the field header was deleted from the validated 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 is not required for the validated EDD; therefore, this value was left as is.</p>

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

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
Y	

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	

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

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCs/LCSDs:

Within Criteria	Exceedance/Notes
N	2-Ethylhexyl acrylate was recovered above laboratory control limits from the LCS and LCSD. All associated sample results are nondetect; therefore, no results were qualified.

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 were not reported. Non-detect sample results are reported as less than the reporting limit in the laboratory report and at the reporting limit (flagged U) in the EDD and, therefore, in the 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.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
 EUROFINs ANALYTICS, LLC REPORT NO. B080-152

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-01-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.022	U			0.022 ppm	0.022	U
EPD-ST-8H-DW-01-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.015	U			0.015 ppm	0.015	U
EPD-ST-8H-DW-01-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-8H-DW-01-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.013	U			0.013 ppm	0.013	U
EPD-ST-8H-WA-03-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-8H-WA-03-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.013	U			0.013 ppm	0.013	U
EPD-ST-DW-01-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-DW-01-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-DW-01-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-DW-01-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-DW-01-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-DW-01-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-DW-01-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-DW-01-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-FB-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-FB-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-UW-01-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-UW-01-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-UW-01-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-UW-01-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-UW-01-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-UW-01-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-01-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-01-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-01-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-01-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-01-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-02-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-02-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-02-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-02-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-02-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-02-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-02-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-02-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-03-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-03-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-03-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-03-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-03-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-03-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-03-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-03-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-04-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-04-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-04-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-05-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-05-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-05-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-05-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-05-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-05-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-05-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-05-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	U
EPD-ST-WA-06-031823-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-06-031823-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-06-031823-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-06-031823-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-06-031823-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.034	U			0.034 ppm	0.034	U
EPD-ST-WA-06-031823-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.022	U			0.022 ppm	0.022	U
EPD-ST-WA-06-031823-4	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-06-031823-4	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U

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

Site Name	E Palestine Site	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	1901b	Laboratory	Eurofins Analytics, LLC, Ashland VA
Laboratory Report No.	B080-156	2-Ethylhexyl Acrylate and n-Butyl Acrylate analysis by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	Seventeen air samples, including one field blank		
Samples and Matrix	03/19/2023		
Collection Date(s)	None		
Field Duplicate Pairs	EPD-ST-FB-031923-1		
Field QC Blanks			

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 received from the laboratory.

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

Data completeness:

Within Criteria	Exceedance/Notes
N	<p>The Level II laboratory report does not have required QC results, thus the Level IV data package was used for this validation.</p> <p>Samples EPD-ST-WA-05-031923-1 AND EPD-ST-8H-WA-03-031923-1 were canceled by the client due to pump failure.</p> <p>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 in the EDD was manually revised to "IHGC-P029" to match the method reference for field samples.</p> <p>A unique sample ID was not provided for the LCSD in the EDD. Unique IDs are needed to keep from overwriting QC sample IDs when EDDs are uploaded to the client database. The LCSD ID in the Samp_No and Lab_Samp_No fields of the EDD were manually revised to match the laboratory report.</p> <p>The extraction date information in the laboratory EDD did not match the laboratory report or was blank. The client project management team confirmed that this information is not needed in the validated EDD; therefore, all extraction date information except the field header was deleted from the validated 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 is not required for the validated EDD; therefore, this value was left as is.</p>

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

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

Method blanks:

Within Criteria	Exceedance/Notes
Y	

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	

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

LCs/LCSDs:

Within Criteria	Exceedance/Notes
N	2-Ethylhexyl acrylate was recovered above laboratory control limits from the LCS and LCSD. All associated sample results are nondetect; therefore, no results were qualified. The laboratory report and laboratory EDD have one or more minor discrepancies in the LCS/LCSD results (+/- 1 ug) and/or percent recoveries (+/- 1%) that were verified with the laboratory to be significant figures issues. No qualification was applied.

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 were not reported. Non-detect sample results are reported as less than the reporting limit in the laboratory report and at the reporting limit (flagged U) in the EDD and, therefore, in the attached qualified data table

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

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

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.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
EUROFINS ANALYTICS, LLC REPORT NO. B080-156

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-01-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.016	U			0.016 ppm	0.016	U
EPD-ST-8H-DW-01-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.011	U			0.011 ppm	0.011	U
EPD-ST-DW-01-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-DW-01-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-DW-01-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-DW-01-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	U
EPD-ST-FB-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-UW-01-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-UW-01-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-UW-01-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-UW-01-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-01-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-01-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-WA-01-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-02-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-02-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-02-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-02-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-03-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.025	U			0.025 ppm	0.025	U
EPD-ST-WA-03-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-03-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.025	U			0.025 ppm	0.025	U
EPD-ST-WA-03-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-WA-04-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-04-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	U
EPD-ST-WA-04-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-05-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-05-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-06-031923-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-06-031923-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-06-031923-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-06-031923-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U

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

Site Name	E Palestine Site	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	1901c	Laboratory	Eurofins Analytics, LLC, Ashland, VA
Laboratory Report No.	B080-168	2-Ethylhexyl Acrylate and n-Butyl Acrylate analysis by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	Twenty air samples, including one field blank		
Samples and Matrix	03/17/2023		
Collection Date(s)	None		
Field Duplicate Pairs	EPD-ST-FB-031723-1		
Field QC Blanks			

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

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

Data completeness:

Within Criteria	Exceedance/Notes
N	<p>Level II laboratory report does not have required QC results, thus the Level IV laboratory report was used for this validation.</p> <p>The results for the field blank are reported in units of micrograms (µg) while the other sample results were reported in units of µg, milligram per cubic meter (mg/m3), and parts per million (ppm) (volume) in the laboratory report and only ppm in the electronic data deliverable (EDD).</p> <p>The laboratory report includes 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 in the EDD was manually revised to “IHGC-P029” to match the method reference for field samples.</p> <p>A unique sample ID not provided for the LCSD in the laboratory EDD. Unique IDs are needed to keep from overwriting QC sample IDs when EDDs are uploaded to the client database. The LCSD ID in the Samp_No and Lab_Samp_No fields of the validated EDD were manually revised to match the laboratory report.</p> <p>The extraction date information in the laboratory EDD did not match the laboratory report or was blank. The client project management team confirmed that this information is not needed in the validated EDD; therefore, all extraction date information except the field header was deleted from the validated 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 is not required for the validated EDD; therefore, this value was left as is.</p>

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

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

Method blanks:

Within Criteria	Exceedance/Notes
Y	

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	

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

LCs/LCSDs:

Within Criteria	Exceedance/Notes
N	The laboratory report and the EDD have one or more minor discrepancies in the LCS/LCSD results (+/- 1 ug) and/or percent recoveries (+/- 1%) that were verified with the laboratory to be a significant figures issue. No qualification was applied. n-Butyl acrylate was recovered from the LCS and LCSD below the laboratory lower control limit. All sample n-butyl acrylate results are nondetect and were qualified as estimated (flagged U).

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 were not reported. Non-detect sample results are reported as less than the reporting limit in the laboratory report and at the reporting limit (flagged U) in the EDD, and therefore, in the attached qualified data table

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

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

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.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
 EUROFINs ANALYTICS, LLC REPORT NO. B080-168

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-01-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-8H-DW-01-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.012	U			0.012 ppm	0.012	UJ
EPD-ST-8H-WA-06-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-8H-WA-06-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.012	U			0.012 ppm	0.012	UJ
EPD-ST-DW-01-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-DW-01-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-DW-01-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-DW-01-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-FB-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	UJ
EPD-ST-UW-01-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-UW-01-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ
EPD-ST-UW-01-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.026	U			0.026 ppm	0.026	U
EPD-ST-UW-01-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.017	U			0.017 ppm	0.017	UJ
EPD-ST-WA-01-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-01-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ
EPD-ST-WA-01-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-01-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ
EPD-ST-WA-02-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-02-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-02-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.031	U			0.031 ppm	0.031	U
EPD-ST-WA-02-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	UJ
EPD-ST-WA-03-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-03-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-03-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-03-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ
EPD-ST-WA-04-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-04-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-04-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-04-031723-3	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-04-031723-3	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	UJ
EPD-ST-WA-05-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-05-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ
EPD-ST-WA-05-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-05-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-06-031723-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-06-031723-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	UJ
EPD-ST-WA-06-031723-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-06-031723-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	UJ

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

Site Name	E Palestine Site	TO/TOLIN No.	68HE0520F0032/0001EB201
Document Tracking No.	1901d	Laboratory	Eurofins Analytics, LLC, Ashland, VA
Laboratory Report No.	B082-020	2-Ethylhexyl Acrylate and n-Butyl Acrylate analysis by laboratory standard operating procedure (SOP) IHGC-P029	
Analyses	Seventeen air samples, including one field blank		
Samples and Matrix	03/21/2023		
Collection Date(s)	None		
Field Duplicate Pairs	EPD-ST-FB-032123-1		
Field QC Blanks			

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 received from the laboratory.

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

Data completeness:

Within Criteria	Exceedance/Notes
N	<p>The Level II laboratory report does not have required QC results, thus the Level IV laboratory report was used for this validation.</p> <p>Samples EPD-ST-WA-06-032123-2 AND EPD-ST-WA-05-032123-1 were canceled by the client due to pump failure.</p> <p>The COC form lists “EPD-ST-8HR-DW-01-032123-1” where the EDD and laboratory report listed “EPD-ST-8H-DW-01-032123-1”. The laboratory re-issued the report and EDD.</p> <p>The results for the field blank are reported in units of micrograms (µg) while the other sample results are reported in units of µg, milligram per cubic meter (mg/m3), and parts per million (ppm) (volume) in the laboratory report and only ppm in the electronic data deliverable (EDD).</p> <p>The laboratory report includes 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 in the EDD was manually revised to “IHGC-P029” to match the method reference for field samples.</p> <p>A unique sample ID is not provided for LCSID in the laboratory EDD. Unique IDs are needed to keep from overwriting QC sample IDs when EDDs are uploaded to the client database. The LCSID ID in the Samp_No and Lab_Samp_No fields of the validated EDD were manually revised to match the laboratory report.</p> <p>The extraction date information in the laboratory EDD did not match the laboratory report or was blank. The client project management team confirmed that this information was not needed in the validated EDD; therefore, all extraction date information except the field header was deleted from the validated EDD.</p> <p>The sample analysis time was reported as a default value of 12 AM or 00:00 hours for the LCSID in the analysis date field. The analysis date was correct. The sample analysis time for the LCSID is not required for the validated EDD; therefore, this value was left as is.</p>

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

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
Y	

Field blanks:

Within Criteria	Exceedance/Notes
Y	

Surrogates and labeled compounds:

Within Criteria	Exceedance/Notes
Y	

MS/MSDs:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

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

Field duplicates:

Within Criteria	Exceedance/Notes
NA	

LCs/LCSDs:

Within Criteria	Exceedance/Notes
N	The laboratory report and EDD have a minor discrepancy for n-Ethylhexyl Acrylate in the LCSD result (+/- 1 ug) and percent recovery (+/- 1%) that were verified with the laboratory to be a significant figures issue. No qualifications were applied.

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 were not reported. Non-detect sample results are reported as less than the reporting limit in the laboratory report and at the reporting limit (flagged U) in the EDD and, therefore, in the 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.

E PALESTINE SITE - ER AIR ANALYTICAL RESULTS SUMMARY
EUROFINS ANALYTICS, LLC REPORT NO. B082-020

Sample_ID	Method	CAS#	Analyte	Lab_Result	Lab_Qual	MDL	RL	Units	VAL_Result	VAL_Qual
EPD-ST-8H-DW-01-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.017	U			0.017 ppm	0.017	U
EPD-ST-8H-DW-01-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.011	U			0.011 ppm	0.011	U
EPD-ST-8H-WA-03-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-8H-WA-03-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.013	U			0.013 ppm	0.013	U
EPD-ST-DW-01-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-DW-01-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-DW-01-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-DW-01-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-FB-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	2.8	U			2.8 ug	2.8	U
EPD-ST-FB-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	1.3	U			1.3 ug	1.3	U
EPD-ST-UW-01-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-UW-01-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-UW-01-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-UW-01-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.028	U			0.028 ppm	0.028	U
EPD-ST-WA-01-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-01-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-01-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.019	U			0.019 ppm	0.019	U
EPD-ST-WA-02-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-02-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-02-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.032	U			0.032 ppm	0.032	U
EPD-ST-WA-02-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.021	U			0.021 ppm	0.021	U
EPD-ST-WA-03-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-03-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U
EPD-ST-WA-03-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.032	U			0.032 ppm	0.032	U
EPD-ST-WA-03-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.022	U			0.022 ppm	0.022	U
EPD-ST-WA-04-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-04-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.029	U			0.029 ppm	0.029	U
EPD-ST-WA-04-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-05-032123-2	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.03	U			0.03 ppm	0.030	U
EPD-ST-WA-05-032123-2	IHGC-P029	141-32-2	n-Butyl acrylate	0.02	U			0.02 ppm	0.020	U
EPD-ST-WA-06-032123-1	IHGC-P029	103-11-7	2-Ethylhexyl acrylate	0.027	U			0.027 ppm	0.027	U
EPD-ST-WA-06-032123-1	IHGC-P029	141-32-2	n-Butyl acrylate	0.018	U			0.018 ppm	0.018	U