03-Apr-2023

Justin Johnston
Big Pine Consultants
1066 Towervue Drive
Pittsburgh, PA 15227

Re: **East Palestine H20** Work Order: **23032092**

Dear Justin,

ALS Environmental received 4 samples on 25-Mar-2023 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 30.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Electronically approved by: Alex J. Csaszar

Chad Whelton
Project Manager

ALS Group, USA

Date: 03-Apr-23

Client: Big Pine Consultants
Project: East Palestine H20
Work Order: **23032092**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
23032092-01	Big Pine 02-MAR-RO	Water		3/24/2023 13:00	3/25/2023 10:15	☐
23032092-02	Big Pine 03-MAR-RO	Water		3/24/2023 12:35	3/25/2023 10:15	☐
23032092-03	Big Pine 04-MAR-RO	Water		3/24/2023 12:15	3/25/2023 10:15	☐
23032092-04	Big Pine 07-MAR-RO	Water		3/24/2023 11:50	3/25/2023 10:15	☐

Client:	Big Pine Consultants
Project:	East Palestine H20
Work Order:	23032092

Case Narrative

Samples for the above noted Work Order were received on 03/25/2023. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting. A copy of the laboratory's scope of accreditation is available upon request.

With the following exceptions, all sample analyses achieved analytical criteria.

Extractable Organics:

Batch 213633, Method SW846 8270D, Sample SBLKW1-213633: The concentration in the Method Blank was greater than the Method Detection Limit for Butyl benzyl phthalate. Positive results in the batch may be biased high for this analyte.

Client: Big Pine Consultants
Project: East Palestine H20
WorkOrder: **23032092**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
µg/L	Micrograms per Liter

ALS Group, USA

Date: *03-Apr-23*

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 02-MAR-RO
Collection Date: 3/24/2023 01:00 PM

Work Order: 23032092
Lab ID: 23032092-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW8270E**					Analyst: **EEW**
1,1`-Biphenyl	U		0.43	1.0	µg/L	1	4/1/2023 03:33
1,2,4,5-Tetrachlorobenzene	U		0.35	5.1	µg/L	1	4/1/2023 03:33
1,4-Dioxane	U		0.73	5.1	µg/L	1	4/1/2023 03:33
1-Methylnaphthalene	U		0.084	0.10	µg/L	1	4/1/2023 03:33
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	4/1/2023 03:33
2,3,4,6-Tetrachlorophenol	U		0.46	1.0	µg/L	1	4/1/2023 03:33
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	4/1/2023 03:33
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	4/1/2023 03:33
2,4-Dichlorophenol	U		0.36	1.0	µg/L	1	4/1/2023 03:33
2,4-Dimethylphenol	U		0.37	1.0	µg/L	1	4/1/2023 03:33
2,4-Dinitrophenol	U		2.6	5.1	µg/L	1	4/1/2023 03:33
2,4-Dinitrotoluene	U		0.43	1.0	µg/L	1	4/1/2023 03:33
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	4/1/2023 03:33
2-Chloronaphthalene	U		0.076	0.10	µg/L	1	4/1/2023 03:33
2-Chlorophenol	U		0.23	1.0	µg/L	1	4/1/2023 03:33
2-Methylnaphthalene	U		0.066	0.10	µg/L	1	4/1/2023 03:33
2-Methylphenol	U		0.25	1.0	µg/L	1	4/1/2023 03:33
2-Nitroaniline	U		0.21	1.0	µg/L	1	4/1/2023 03:33
2-Nitrophenol	U		0.35	1.0	µg/L	1	4/1/2023 03:33
3&4-Methylphenol	U		0.21	1.0	µg/L	1	4/1/2023 03:33
3,3´-Dichlorobenzidine	U		0.47	5.1	µg/L	1	4/1/2023 03:33
3-Nitroaniline	U		0.65	1.0	µg/L	1	4/1/2023 03:33
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	4/1/2023 03:33
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	4/1/2023 03:33
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	4/1/2023 03:33
4-Chloroaniline	U		0.35	1.0	µg/L	1	4/1/2023 03:33
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	4/1/2023 03:33
4-Nitroaniline	U		0.58	1.0	µg/L	1	4/1/2023 03:33
4-Nitrophenol	U		0.24	5.1	µg/L	1	4/1/2023 03:33
Acenaphthene	U		0.082	0.10	µg/L	1	4/1/2023 03:33
Acenaphthylene	U		0.076	0.10	µg/L	1	4/1/2023 03:33
Acetophenone	U		0.38	1.0	µg/L	1	4/1/2023 03:33
Anthracene	U		0.028	0.10	µg/L	1	4/1/2023 03:33
Atrazine	U		0.36	1.0	µg/L	1	4/1/2023 03:33
Benzaldehyde	U		0.53	1.0	µg/L	1	4/1/2023 03:33
Benzo(a)anthracene	U		0.10	0.10	µg/L	1	4/1/2023 03:33
Benzo(a)pyrene	U		0.045	0.10	µg/L	1	4/1/2023 03:33
Benzo(b)fluoranthene	U		0.052	0.10	µg/L	1	4/1/2023 03:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 02-MAR-RO
Collection Date: 3/24/2023 01:00 PM

Work Order: 23032092
Lab ID: 23032092-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(g,h,i)perylene	U		0.090	0.10	µg/L	1	4/1/2023 03:33
Benzo(k)fluoranthene	U		0.049	0.10	µg/L	1	4/1/2023 03:33
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	4/1/2023 03:33
Bis(2-chloroethyl)ether	U		0.38	1.0	µg/L	1	4/1/2023 03:33
Bis(2-chloroisopropyl)ether	U		0.23	1.0	µg/L	1	4/1/2023 03:33
Bis(2-ethylhexyl)phthalate	U		0.41	1.0	µg/L	1	4/1/2023 03:33
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	4/1/2023 03:33
Caprolactam	U		0.97	5.1	µg/L	1	4/1/2023 03:33
Carbazole	U		0.24	1.0	µg/L	1	4/1/2023 03:33
Chrysene	U		0.049	0.10	µg/L	1	4/1/2023 03:33
Dibenzo(a,h)anthracene	U		0.074	0.10	µg/L	1	4/1/2023 03:33
Dibenzofuran	U		0.23	1.0	µg/L	1	4/1/2023 03:33
Diethyl phthalate	U		0.17	1.0	µg/L	1	4/1/2023 03:33
Dimethyl phthalate	U		0.18	1.0	µg/L	1	4/1/2023 03:33
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	4/1/2023 03:33
Di-n-octyl phthalate	U		0.54	1.0	µg/L	1	4/1/2023 03:33
Fluoranthene	U		0.039	0.10	µg/L	1	4/1/2023 03:33
Fluorene	U		0.052	0.10	µg/L	1	4/1/2023 03:33
Hexachlorobenzene	U		0.45	1.0	µg/L	1	4/1/2023 03:33
Hexachlorobutadiene	U		0.64	1.0	µg/L	1	4/1/2023 03:33
Hexachlorocyclopentadiene	U		1.1	5.1	µg/L	1	4/1/2023 03:33
Hexachloroethane	U		0.63	1.0	µg/L	1	4/1/2023 03:33
Indeno(1,2,3-cd)pyrene	U		0.068	0.10	µg/L	1	4/1/2023 03:33
Isophorone	U		0.35	5.1	µg/L	1	4/1/2023 03:33
Naphthalene	U		0.068	0.10	µg/L	1	4/1/2023 03:33
Nitrobenzene	U		0.26	1.0	µg/L	1	4/1/2023 03:33
N-Nitrosodi-n-propylamine	U		0.36	1.0	µg/L	1	4/1/2023 03:33
N-Nitrosodiphenylamine	U		0.50	1.0	µg/L	1	4/1/2023 03:33
Pentachlorophenol	U		0.98	5.1	µg/L	1	4/1/2023 03:33
Phenanthrene	U		0.082	0.10	µg/L	1	4/1/2023 03:33
Phenol	U		0.21	1.0	µg/L	1	4/1/2023 03:33
Pyrene	U		0.037	0.10	µg/L	1	4/1/2023 03:33
Pyridine	U		0.58	10	µg/L	1	4/1/2023 03:33
Surr: 2,4,6-Tribromophenol	*57.9*			*38-103*	*%REC*	1	4/1/2023 03:33
Surr: 2-Fluorobiphenyl	*59.3*			*36-96*	*%REC*	1	4/1/2023 03:33
Surr: 2-Fluorophenol	*34.8*			*20-73*	*%REC*	1	4/1/2023 03:33
Surr: 4-Terphenyl-d14	*65.7*			*44-114*	*%REC*	1	4/1/2023 03:33
Surr: Nitrobenzene-d5	*61.3*			*33-100*	*%REC*	1	4/1/2023 03:33
Surr: Phenol-d6	*21.5*			*10-48*	*%REC*	1	4/1/2023 03:33

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 03-MAR-RO
Collection Date: 3/24/2023 12:35 PM

Work Order: 23032092
Lab ID: 23032092-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW8270E**					Analyst: **EEW**
1,1`-Biphenyl	U		0.42	1.0	µg/L	1	4/1/2023 04:01
1,2,4,5-Tetrachlorobenzene	U		0.34	5.1	µg/L	1	4/1/2023 04:01
1,4-Dioxane	U		0.73	5.1	µg/L	1	4/1/2023 04:01
1-Methylnaphthalene	U		0.084	0.10	µg/L	1	4/1/2023 04:01
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	4/1/2023 04:01
2,3,4,6-Tetrachlorophenol	U		0.46	1.0	µg/L	1	4/1/2023 04:01
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	4/1/2023 04:01
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	4/1/2023 04:01
2,4-Dichlorophenol	U		0.35	1.0	µg/L	1	4/1/2023 04:01
2,4-Dimethylphenol	U		0.36	1.0	µg/L	1	4/1/2023 04:01
2,4-Dinitrophenol	U		2.6	5.1	µg/L	1	4/1/2023 04:01
2,4-Dinitrotoluene	U		0.42	1.0	µg/L	1	4/1/2023 04:01
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	4/1/2023 04:01
2-Chloronaphthalene	U		0.076	0.10	µg/L	1	4/1/2023 04:01
2-Chlorophenol	U		0.23	1.0	µg/L	1	4/1/2023 04:01
2-Methylnaphthalene	U		0.066	0.10	µg/L	1	4/1/2023 04:01
2-Methylphenol	U		0.25	1.0	µg/L	1	4/1/2023 04:01
2-Nitroaniline	U		0.21	1.0	µg/L	1	4/1/2023 04:01
2-Nitrophenol	U		0.34	1.0	µg/L	1	4/1/2023 04:01
3&4-Methylphenol	U		0.21	1.0	µg/L	1	4/1/2023 04:01
3,3´-Dichlorobenzidine	U		0.47	5.1	µg/L	1	4/1/2023 04:01
3-Nitroaniline	U		0.65	1.0	µg/L	1	4/1/2023 04:01
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	4/1/2023 04:01
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	4/1/2023 04:01
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	4/1/2023 04:01
4-Chloroaniline	U		0.34	1.0	µg/L	1	4/1/2023 04:01
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	4/1/2023 04:01
4-Nitroaniline	U		0.58	1.0	µg/L	1	4/1/2023 04:01
4-Nitrophenol	U		0.24	5.1	µg/L	1	4/1/2023 04:01
Acenaphthene	U		0.082	0.10	µg/L	1	4/1/2023 04:01
Acenaphthylene	U		0.076	0.10	µg/L	1	4/1/2023 04:01
Acetophenone	U		0.37	1.0	µg/L	1	4/1/2023 04:01
Anthracene	U		0.028	0.10	µg/L	1	4/1/2023 04:01
Atrazine	U		0.35	1.0	µg/L	1	4/1/2023 04:01
Benzaldehyde	U		0.53	1.0	µg/L	1	4/1/2023 04:01
Benzo(a)anthracene	U		0.10	0.10	µg/L	1	4/1/2023 04:01
Benzo(a)pyrene	U		0.045	0.10	µg/L	1	4/1/2023 04:01
Benzo(b)fluoranthene	U		0.052	0.10	µg/L	1	4/1/2023 04:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 03-MAR-RO
Collection Date: 3/24/2023 12:35 PM

Work Order: 23032092
Lab ID: 23032092-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(g,h,i)perylene	U		0.090	0.10	µg/L	1	4/1/2023 04:01
Benzo(k)fluoranthene	U		0.049	0.10	µg/L	1	4/1/2023 04:01
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	4/1/2023 04:01
Bis(2-chloroethyl)ether	U		0.37	1.0	µg/L	1	4/1/2023 04:01
Bis(2-chloroisopropyl)ether	U		0.23	1.0	µg/L	1	4/1/2023 04:01
Bis(2-ethylhexyl)phthalate	U		0.40	1.0	µg/L	1	4/1/2023 04:01
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	4/1/2023 04:01
Caprolactam	U		0.97	5.1	µg/L	1	4/1/2023 04:01
Carbazole	U		0.24	1.0	µg/L	1	4/1/2023 04:01
Chrysene	U		0.049	0.10	µg/L	1	4/1/2023 04:01
Dibenzo(a,h)anthracene	U		0.074	0.10	µg/L	1	4/1/2023 04:01
Dibenzofuran	U		0.23	1.0	µg/L	1	4/1/2023 04:01
Diethyl phthalate	U		0.17	1.0	µg/L	1	4/1/2023 04:01
Dimethyl phthalate	U		0.18	1.0	µg/L	1	4/1/2023 04:01
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	4/1/2023 04:01
Di-n-octyl phthalate	U		0.54	1.0	µg/L	1	4/1/2023 04:01
Fluoranthene	U		0.038	0.10	µg/L	1	4/1/2023 04:01
Fluorene	U		0.052	0.10	µg/L	1	4/1/2023 04:01
Hexachlorobenzene	U		0.45	1.0	µg/L	1	4/1/2023 04:01
Hexachlorobutadiene	U		0.64	1.0	µg/L	1	4/1/2023 04:01
Hexachlorocyclopentadiene	U		1.1	5.1	µg/L	1	4/1/2023 04:01
Hexachloroethane	U		0.63	1.0	µg/L	1	4/1/2023 04:01
Indeno(1,2,3-cd)pyrene	U		0.068	0.10	µg/L	1	4/1/2023 04:01
Isophorone	U		0.34	5.1	µg/L	1	4/1/2023 04:01
Naphthalene	U		0.068	0.10	µg/L	1	4/1/2023 04:01
Nitrobenzene	U		0.26	1.0	µg/L	1	4/1/2023 04:01
N-Nitrosodi-n-propylamine	U		0.35	1.0	µg/L	1	4/1/2023 04:01
N-Nitrosodiphenylamine	U		0.50	1.0	µg/L	1	4/1/2023 04:01
Pentachlorophenol	U		0.98	5.1	µg/L	1	4/1/2023 04:01
Phenanthrene	U		0.082	0.10	µg/L	1	4/1/2023 04:01
Phenol	U		0.21	1.0	µg/L	1	4/1/2023 04:01
Pyrene	U		0.036	0.10	µg/L	1	4/1/2023 04:01
Pyridine	U		0.58	10	µg/L	1	4/1/2023 04:01
Surr: 2,4,6-Tribromophenol	*59.9*			*38-103*	*%REC*	1	4/1/2023 04:01
Surr: 2-Fluorobiphenyl	*62.4*			*36-96*	*%REC*	1	4/1/2023 04:01
Surr: 2-Fluorophenol	*42.7*			*20-73*	*%REC*	1	4/1/2023 04:01
Surr: 4-Terphenyl-d14	*69.6*			*44-114*	*%REC*	1	4/1/2023 04:01
Surr: Nitrobenzene-d5	*63.7*			*33-100*	*%REC*	1	4/1/2023 04:01
Surr: Phenol-d6	*26.4*			*10-48*	*%REC*	1	4/1/2023 04:01

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 04-MAR-RO
Collection Date: 3/24/2023 12:15 PM

Work Order: 23032092
Lab ID: 23032092-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW8270E**			Prep: SW3510 / 3/30/23		Analyst: **EEW**
1,1`-Biphenyl	U		0.40	0.96	µg/L	1	3/31/2023 07:28
1,2,4,5-Tetrachlorobenzene	U		0.33	4.8	µg/L	1	3/31/2023 07:28
1,4-Dioxane	U		0.69	4.8	µg/L	1	3/31/2023 07:28
1-Methylnaphthalene	U		0.079	0.096	µg/L	1	3/31/2023 07:28
2,2`-Oxybis(1-chloropropane)	U		0.22	0.96	µg/L	1	3/31/2023 07:28
2,3,4,6-Tetrachlorophenol	U		0.43	0.96	µg/L	1	3/31/2023 07:28
2,4,5-Trichlorophenol	U		0.16	0.96	µg/L	1	3/31/2023 07:28
2,4,6-Trichlorophenol	U		0.24	0.96	µg/L	1	3/31/2023 07:28
2,4-Dichlorophenol	U		0.33	0.96	µg/L	1	3/31/2023 07:28
2,4-Dimethylphenol	U		0.34	0.96	µg/L	1	3/31/2023 07:28
2,4-Dinitrophenol	U		2.5	4.8	µg/L	1	3/31/2023 07:28
2,4-Dinitrotoluene	U		0.40	0.96	µg/L	1	3/31/2023 07:28
2,6-Dinitrotoluene	U		0.32	0.96	µg/L	1	3/31/2023 07:28
2-Chloronaphthalene	U		0.072	0.096	µg/L	1	3/31/2023 07:28
2-Chlorophenol	U		0.22	0.96	µg/L	1	3/31/2023 07:28
2-Methylnaphthalene	U		0.062	0.096	µg/L	1	3/31/2023 07:28
2-Methylphenol	U		0.24	0.96	µg/L	1	3/31/2023 07:28
2-Nitroaniline	U		0.20	0.96	µg/L	1	3/31/2023 07:28
2-Nitrophenol	U		0.33	0.96	µg/L	1	3/31/2023 07:28
3&4-Methylphenol	U		0.20	0.96	µg/L	1	3/31/2023 07:28
3,3´-Dichlorobenzidine	U		0.44	4.8	µg/L	1	3/31/2023 07:28
3-Nitroaniline	U		0.61	0.96	µg/L	1	3/31/2023 07:28
4,6-Dinitro-2-methylphenol	U		0.26	0.96	µg/L	1	3/31/2023 07:28
4-Bromophenyl phenyl ether	U		0.32	0.96	µg/L	1	3/31/2023 07:28
4-Chloro-3-methylphenol	U		0.25	0.96	µg/L	1	3/31/2023 07:28
4-Chloroaniline	U		0.33	0.96	µg/L	1	3/31/2023 07:28
4-Chlorophenyl phenyl ether	U		0.30	0.96	µg/L	1	3/31/2023 07:28
4-Nitroaniline	U		0.54	0.96	µg/L	1	3/31/2023 07:28
4-Nitrophenol	U		0.23	4.8	µg/L	1	3/31/2023 07:28
Acenaphthene	U		0.077	0.096	µg/L	1	3/31/2023 07:28
Acenaphthylene	U		0.072	0.096	µg/L	1	3/31/2023 07:28
Acetophenone	U		0.35	0.96	µg/L	1	3/31/2023 07:28
Anthracene	U		0.027	0.096	µg/L	1	3/31/2023 07:28
Atrazine	U		0.33	0.96	µg/L	1	3/31/2023 07:28
Benzaldehyde	U		0.50	0.96	µg/L	1	3/31/2023 07:28
Benzo(a)anthracene	U		0.095	0.096	µg/L	1	3/31/2023 07:28
Benzo(a)pyrene	U		0.042	0.096	µg/L	1	3/31/2023 07:28
Benzo(b)fluoranthene	U		0.049	0.096	µg/L	1	3/31/2023 07:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 04-MAR-RO
Collection Date: 3/24/2023 12:15 PM

Work Order: 23032092
Lab ID: 23032092-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(g,h,i)perylene	U		0.085	0.096	µg/L	1	3/31/2023 07:28
Benzo(k)fluoranthene	U		0.046	0.096	µg/L	1	3/31/2023 07:28
Bis(2-chloroethoxy)methane	U		0.28	0.96	µg/L	1	3/31/2023 07:28
Bis(2-chloroethyl)ether	U		0.35	0.96	µg/L	1	3/31/2023 07:28
Bis(2-chloroisopropyl)ether	U		0.22	0.96	µg/L	1	3/31/2023 07:28
Bis(2-ethylhexyl)phthalate	U		0.38	0.96	µg/L	1	3/31/2023 07:28
Butyl benzyl phthalate	U		0.29	0.96	µg/L	1	3/31/2023 07:28
Caprolactam	U		0.92	4.8	µg/L	1	3/31/2023 07:28
Carbazole	U		0.23	0.96	µg/L	1	3/31/2023 07:28
Chrysene	U		0.046	0.096	µg/L	1	3/31/2023 07:28
Dibenzo(a,h)anthracene	U		0.070	0.096	µg/L	1	3/31/2023 07:28
Dibenzofuran	U		0.22	0.96	µg/L	1	3/31/2023 07:28
Diethyl phthalate	U		0.16	0.96	µg/L	1	3/31/2023 07:28
Dimethyl phthalate	U		0.17	0.96	µg/L	1	3/31/2023 07:28
Di-n-butyl phthalate	U		0.20	0.96	µg/L	1	3/31/2023 07:28
Di-n-octyl phthalate	U		0.51	0.96	µg/L	1	3/31/2023 07:28
Fluoranthene	U		0.036	0.096	µg/L	1	3/31/2023 07:28
Fluorene	U		0.049	0.096	µg/L	1	3/31/2023 07:28
Hexachlorobenzene	U		0.42	0.96	µg/L	1	3/31/2023 07:28
Hexachlorobutadiene	U		0.60	0.96	µg/L	1	3/31/2023 07:28
Hexachlorocyclopentadiene	U		1.0	4.8	µg/L	1	3/31/2023 07:28
Hexachloroethane	U		0.59	0.96	µg/L	1	3/31/2023 07:28
Indeno(1,2,3-cd)pyrene	U		0.064	0.096	µg/L	1	3/31/2023 07:28
Isophorone	U		0.33	4.8	µg/L	1	3/31/2023 07:28
Naphthalene	U		0.064	0.096	µg/L	1	3/31/2023 07:28
Nitrobenzene	U		0.25	0.96	µg/L	1	3/31/2023 07:28
N-Nitrosodi-n-propylamine	U		0.33	0.96	µg/L	1	3/31/2023 07:28
N-Nitrosodiphenylamine	U		0.47	0.96	µg/L	1	3/31/2023 07:28
Pentachlorophenol	U		0.93	4.8	µg/L	1	3/31/2023 07:28
Phenanthrene	U		0.077	0.096	µg/L	1	3/31/2023 07:28
Phenol	U		0.20	0.96	µg/L	1	3/31/2023 07:28
Pyrene	U		0.034	0.096	µg/L	1	3/31/2023 07:28
Pyridine	U		0.54	9.6	µg/L	1	3/31/2023 07:28
Surr: 2,4,6-Tribromophenol	*56.1*			*38-103*	*%REC*	1	3/31/2023 07:28
Surr: 2-Fluorobiphenyl	*61.9*			*36-96*	*%REC*	1	3/31/2023 07:28
Surr: 2-Fluorophenol	*35.5*			*20-73*	*%REC*	1	3/31/2023 07:28
Surr: 4-Terphenyl-d14	*72.1*			*44-114*	*%REC*	1	3/31/2023 07:28
Surr: Nitrobenzene-d5	*59.7*			*33-100*	*%REC*	1	3/31/2023 07:28
Surr: Phenol-d6	*21.8*			*10-48*	*%REC*	1	3/31/2023 07:28

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 07-MAR-RO
Collection Date: 3/24/2023 11:50 AM

Work Order: 23032092
Lab ID: 23032092-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS		Method: **SW8270E**			Prep: SW3510 / 3/30/23		Analyst: **EEW**
1,1`-Biphenyl	U		0.43	1.0	µg/L	1	3/31/2023 07:49
1,2,4,5-Tetrachlorobenzene	U		0.35	5.1	µg/L	1	3/31/2023 07:49
1,4-Dioxane	U		0.73	5.1	µg/L	1	3/31/2023 07:49
1-Methylnaphthalene	U		0.084	0.10	µg/L	1	3/31/2023 07:49
2,2`-Oxybis(1-chloropropane)	U		0.23	1.0	µg/L	1	3/31/2023 07:49
2,3,4,6-Tetrachlorophenol	U		0.46	1.0	µg/L	1	3/31/2023 07:49
2,4,5-Trichlorophenol	U		0.17	1.0	µg/L	1	3/31/2023 07:49
2,4,6-Trichlorophenol	U		0.25	1.0	µg/L	1	3/31/2023 07:49
2,4-Dichlorophenol	U		0.36	1.0	µg/L	1	3/31/2023 07:49
2,4-Dimethylphenol	U		0.37	1.0	µg/L	1	3/31/2023 07:49
2,4-Dinitrophenol	U		2.6	5.1	µg/L	1	3/31/2023 07:49
2,4-Dinitrotoluene	U		0.43	1.0	µg/L	1	3/31/2023 07:49
2,6-Dinitrotoluene	U		0.33	1.0	µg/L	1	3/31/2023 07:49
2-Chloronaphthalene	U		0.076	0.10	µg/L	1	3/31/2023 07:49
2-Chlorophenol	U		0.23	1.0	µg/L	1	3/31/2023 07:49
2-Methylnaphthalene	U		0.066	0.10	µg/L	1	3/31/2023 07:49
2-Methylphenol	U		0.25	1.0	µg/L	1	3/31/2023 07:49
2-Nitroaniline	U		0.21	1.0	µg/L	1	3/31/2023 07:49
2-Nitrophenol	U		0.35	1.0	µg/L	1	3/31/2023 07:49
3&4-Methylphenol	U		0.21	1.0	µg/L	1	3/31/2023 07:49
3,3´-Dichlorobenzidine	U		0.47	5.1	µg/L	1	3/31/2023 07:49
3-Nitroaniline	U		0.65	1.0	µg/L	1	3/31/2023 07:49
4,6-Dinitro-2-methylphenol	U		0.27	1.0	µg/L	1	3/31/2023 07:49
4-Bromophenyl phenyl ether	U		0.33	1.0	µg/L	1	3/31/2023 07:49
4-Chloro-3-methylphenol	U		0.26	1.0	µg/L	1	3/31/2023 07:49
4-Chloroaniline	U		0.35	1.0	µg/L	1	3/31/2023 07:49
4-Chlorophenyl phenyl ether	U		0.31	1.0	µg/L	1	3/31/2023 07:49
4-Nitroaniline	U		0.58	1.0	µg/L	1	3/31/2023 07:49
4-Nitrophenol	U		0.24	5.1	µg/L	1	3/31/2023 07:49
Acenaphthene	U		0.082	0.10	µg/L	1	3/31/2023 07:49
Acenaphthylene	U		0.076	0.10	µg/L	1	3/31/2023 07:49
Acetophenone	U		0.38	1.0	µg/L	1	3/31/2023 07:49
Anthracene	U		0.028	0.10	µg/L	1	3/31/2023 07:49
Atrazine	U		0.36	1.0	µg/L	1	3/31/2023 07:49
Benzaldehyde	U		0.53	1.0	µg/L	1	3/31/2023 07:49
Benzo(a)anthracene	U		0.10	0.10	µg/L	1	3/31/2023 07:49
Benzo(a)pyrene	U		0.045	0.10	µg/L	1	3/31/2023 07:49
Benzo(b)fluoranthene	U		0.052	0.10	µg/L	1	3/31/2023 07:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: Big Pine Consultants
Project: East Palestine H20
Sample ID: Big Pine 07-MAR-RO
Collection Date: 3/24/2023 11:50 AM

Work Order: 23032092
Lab ID: 23032092-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Benzo(g,h,i)perylene	U		0.090	0.10	µg/L	1	3/31/2023 07:49
Benzo(k)fluoranthene	U		0.049	0.10	µg/L	1	3/31/2023 07:49
Bis(2-chloroethoxy)methane	U		0.29	1.0	µg/L	1	3/31/2023 07:49
Bis(2-chloroethyl)ether	U		0.38	1.0	µg/L	1	3/31/2023 07:49
Bis(2-chloroisopropyl)ether	U		0.23	1.0	µg/L	1	3/31/2023 07:49
Bis(2-ethylhexyl)phthalate	U		0.41	1.0	µg/L	1	3/31/2023 07:49
Butyl benzyl phthalate	U		0.30	1.0	µg/L	1	3/31/2023 07:49
Caprolactam	U		0.97	5.1	µg/L	1	3/31/2023 07:49
Carbazole	U		0.24	1.0	µg/L	1	3/31/2023 07:49
Chrysene	U		0.049	0.10	µg/L	1	3/31/2023 07:49
Dibenzo(a,h)anthracene	U		0.074	0.10	µg/L	1	3/31/2023 07:49
Dibenzofuran	U		0.23	1.0	µg/L	1	3/31/2023 07:49
Diethyl phthalate	U		0.17	1.0	µg/L	1	3/31/2023 07:49
Dimethyl phthalate	U		0.18	1.0	µg/L	1	3/31/2023 07:49
Di-n-butyl phthalate	U		0.21	1.0	µg/L	1	3/31/2023 07:49
Di-n-octyl phthalate	U		0.54	1.0	µg/L	1	3/31/2023 07:49
Fluoranthene	U		0.039	0.10	µg/L	1	3/31/2023 07:49
Fluorene	U		0.052	0.10	µg/L	1	3/31/2023 07:49
Hexachlorobenzene	U		0.45	1.0	µg/L	1	3/31/2023 07:49
Hexachlorobutadiene	U		0.64	1.0	µg/L	1	3/31/2023 07:49
Hexachlorocyclopentadiene	U		1.1	5.1	µg/L	1	3/31/2023 07:49
Hexachloroethane	U		0.63	1.0	µg/L	1	3/31/2023 07:49
Indeno(1,2,3-cd)pyrene	U		0.068	0.10	µg/L	1	3/31/2023 07:49
Isophorone	U		0.35	5.1	µg/L	1	3/31/2023 07:49
Naphthalene	U		0.068	0.10	µg/L	1	3/31/2023 07:49
Nitrobenzene	U		0.26	1.0	µg/L	1	3/31/2023 07:49
N-Nitrosodi-n-propylamine	U		0.36	1.0	µg/L	1	3/31/2023 07:49
N-Nitrosodiphenylamine	U		0.50	1.0	µg/L	1	3/31/2023 07:49
Pentachlorophenol	U		0.98	5.1	µg/L	1	3/31/2023 07:49
Phenanthrene	U		0.082	0.10	µg/L	1	3/31/2023 07:49
Phenol	U		0.21	1.0	µg/L	1	3/31/2023 07:49
Pyrene	U		0.037	0.10	µg/L	1	3/31/2023 07:49
Pyridine	U		0.58	10	µg/L	1	3/31/2023 07:49
Surr: 2,4,6-Tribromophenol	*60.9*			*38-103*	*%REC*	1	3/31/2023 07:49
Surr: 2-Fluorobiphenyl	*60.7*			*36-96*	*%REC*	1	3/31/2023 07:49
Surr: 2-Fluorophenol	*37.1*			*20-73*	*%REC*	1	3/31/2023 07:49
Surr: 4-Terphenyl-d14	*73.0*			*44-114*	*%REC*	1	3/31/2023 07:49
Surr: Nitrobenzene-d5	*59.8*			*33-100*	*%REC*	1	3/31/2023 07:49
Surr: Phenol-d6	*23.5*			*10-48*	*%REC*	1	3/31/2023 07:49

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

MBLK	Sample ID: **SBLKW1-213633-213633**				Units: **µg/L**			Analysis Date: **3/30/2023 05:53 PM**			
Client ID:		Run ID: **SVMS10_230330A**			SeqNo: **9398868**			Prep Date: **3/30/2023**		DF: **1**	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	0.42	1.0								
1,2,4,5-Tetrachlorobenzene	U	0.34	5.0								
1,4-Dioxane	U	0.72	5.0								
1-Methylnaphthalene	U	0.083	0.10								
2,2`-Oxybis(1-chloropropane)	U	0.23	1.0								
2,3,4,6-Tetrachlorophenol	U	0.45	1.0								
2,4,5-Trichlorophenol	U	0.17	1.0								
2,4,6-Trichlorophenol	U	0.25	1.0								
2,4-Dichlorophenol	U	0.35	1.0								
2,4-Dimethylphenol	U	0.36	1.0								
2,4-Dinitrophenol	U	2.6	5.0								
2,4-Dinitrotoluene	U	0.42	1.0								
2,6-Dinitrotoluene	U	0.33	1.0								
2-Chloronaphthalene	U	0.075	0.10								
2-Chlorophenol	U	0.23	1.0								
2-Methylnaphthalene	U	0.065	0.10								
2-Methylphenol	U	0.25	1.0								
2-Nitroaniline	U	0.21	1.0								
2-Nitrophenol	U	0.34	1.0								
3&4-Methylphenol	U	0.21	1.0								
3,3´-Dichlorobenzidine	U	0.46	5.0								
3-Nitroaniline	U	0.64	1.0								
4,6-Dinitro-2-methylphenol	U	0.27	1.0								
4-Bromophenyl phenyl ether	U	0.33	1.0								
4-Chloro-3-methylphenol	U	0.26	1.0								
4-Chloroaniline	U	0.34	1.0								
4-Chlorophenyl phenyl ether	U	0.31	1.0								
4-Nitroaniline	U	0.57	1.0								
4-Nitrophenol	U	0.24	5.0								
Acenaphthene	U	0.081	0.10								
Acenaphthylene	U	0.075	0.10								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	0.10								
Atrazine	U	0.35	1.0								
Benzaldehyde	U	0.52	1.0								
Benzo(a)anthracene	U	0.099	0.10								
Benzo(a)pyrene	U	0.044	0.10								
Benzo(b)fluoranthene	U	0.051	0.10								
Benzo(g,h,i)perylene	U	0.089	0.10								
Benzo(k)fluoranthene	U	0.048	0.10								
Bis(2-chloroethoxy)methane	U	0.29	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

Bis(2-chloroethyl)ether	U	0.37	1.0						
Bis(2-chloroisopropyl)ether	U	0.23	1.0						
Bis(2-ethylhexyl)phthalate	U	0.4	1.0						
Butyl benzyl phthalate	0.32	0.3	1.0						J
Caprolactam	U	0.96	5.0						
Carbazole	U	0.24	1.0						
Chrysene	U	0.048	0.10						
Dibenzo(a,h)anthracene	U	0.073	0.10						
Dibenzofuran	U	0.23	1.0						
Diethyl phthalate	U	0.17	1.0						
Dimethyl phthalate	U	0.18	1.0						
Di-n-butyl phthalate	U	0.21	1.0						
Di-n-octyl phthalate	U	0.53	1.0						
Fluoranthene	U	0.038	0.10						
Fluorene	U	0.051	0.10						
Hexachlorobenzene	U	0.44	1.0						
Hexachlorobutadiene	U	0.63	1.0						
Hexachlorocyclopentadiene	U	1.1	5.0						
Hexachloroethane	U	0.62	1.0						
Indeno(1,2,3-cd)pyrene	U	0.067	0.10						
Isophorone	U	0.34	5.0						
Naphthalene	U	0.067	0.10						
Nitrobenzene	U	0.26	1.0						
N-Nitrosodi-n-propylamine	U	0.35	1.0						
N-Nitrosodiphenylamine	U	0.49	1.0						
Pentachlorophenol	U	0.97	5.0						
Phenanthrene	U	0.081	0.10						
Phenol	U	0.21	1.0						
Pyrene	U	0.036	0.10						
Pyridine	U	0.57	10						
Surr: 2,4,6-Tribromophenol	*31.82*	0	0	*50*	0	*63.6*	*38-103*	0	
Surr: 2-Fluorobiphenyl	*34.61*	0	0	*50*	0	*69.2*	*36-96*	0	
Surr: 2-Fluorophenol	*22.9*	0	0	*50*	0	*45.8*	*20-73*	0	
Surr: 4-Terphenyl-d14	*40.07*	0	0	*50*	0	*80.1*	*44-114*	0	
Surr: Nitrobenzene-d5	*37.53*	0	0	*50*	0	*75.1*	*33-100*	0	
Surr: Phenol-d6	*13.87*	0	0	*50*	0	*27.7*	*10-48*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

LCS Sample ID: **SLCSW1-213633-213633** Units: **µg/L** Analysis Date: **3/30/2023 06:20 PM**
Client ID: Run ID: **SVMS10_230330A** SeqNo: **9398869** Prep Date: **3/30/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	10.57	0.42	1.0	20	0	52.8	24-111	0			
1,2,4,5-Tetrachlorobenzene	9.11	0.34	5.0	20	0	45.6	14-110	0			
1-Methylnaphthalene	10.38	0.083	0.10	20	0	51.9	17-114	0			
2,2`-Oxybis(1-chloropropane)	14.66	0.23	1.0	20	0	73.3	31-104	0			
2,3,4,6-Tetrachlorophenol	14.79	0.45	1.0	20	0	74	38-110	0			
2,4,5-Trichlorophenol	14.94	0.17	1.0	20	0	74.7	33-114	0			
2,4,6-Trichlorophenol	14.53	0.25	1.0	20	0	72.6	36-113	0			
2,4-Dichlorophenol	14.05	0.35	1.0	20	0	70.2	30-111	0			
2,4-Dimethylphenol	14.36	0.36	1.0	20	0	71.8	36-109	0			
2,4-Dinitrophenol	16.27	2.6	5.0	20	0	81.4	12-113	0			
2,4-Dinitrotoluene	15.14	0.42	1.0	20	0	75.7	51-107	0			
2,6-Dinitrotoluene	15.61	0.33	1.0	20	0	78	51-105	0			
2-Chloronaphthalene	10.69	0.075	0.10	20	0	53.4	22-112	0			
2-Chlorophenol	14.9	0.23	1.0	20	0	74.5	35-108	0			
2-Methylnaphthalene	10.05	0.065	0.10	20	0	50.2	12-119	0			
2-Methylphenol	13.99	0.25	1.0	20	0	70	31-100	0			
2-Nitroaniline	15.83	0.21	1.0	20	0	79.2	46-106	0			
2-Nitrophenol	14.68	0.34	1.0	20	0	73.4	26-111	0			
3&4-Methylphenol	12.61	0.21	1.0	20	0	63	24-95	0			
3,3´-Dichlorobenzidine	14.15	0.46	5.0	20	0	70.8	48-101	0			
3-Nitroaniline	16.3	0.64	1.0	20	0	81.5	52-105	0			
4,6-Dinitro-2-methylphenol	17.54	0.27	1.0	20	0	87.7	28-121	0			
4-Bromophenyl phenyl ether	13.86	0.33	1.0	20	0	69.3	49-107	0			
4-Chloro-3-methylphenol	15.07	0.26	1.0	20	0	75.4	35-105	0			
4-Chloroaniline	15.88	0.34	1.0	20	0	79.4	46-101	0			
4-Chlorophenyl phenyl ether	12.98	0.31	1.0	20	0	64.9	40-107	0			
4-Nitroaniline	15.59	0.57	1.0	20	0	78	49-110	0			
4-Nitrophenol	6.34	0.24	5.0	20	0	31.7	10-64	0			
Acenaphthene	12.18	0.081	0.10	20	0	60.9	32-108	0			
Acenaphthylene	12.43	0.075	0.10	20	0	62.2	34-107	0			
Acetophenone	15.06	0.37	1.0	20	0	75.3	41-102	0			
Anthracene	14.87	0.028	0.10	20	0	74.4	53-105	0			
Atrazine	15.66	0.35	1.0	20	0	78.3	53-112	0			
Benzaldehyde	13.84	0.52	1.0	20	0	69.2	32-111	0			
Benzo(a)anthracene	15.07	0.099	0.10	20	0	75.4	57-106	0			
Benzo(a)pyrene	16	0.044	0.10	20	0	80	54-107	0			
Benzo(b)fluoranthene	16.07	0.051	0.10	20	0	80.4	53-109	0			
Benzo(g,h,i)perylene	17.2	0.089	0.10	20	0	86	50-114	0			
Benzo(k)fluoranthene	15.48	0.048	0.10	20	0	77.4	53-110	0			
Bis(2-chloroethoxy)methane	14.94	0.29	1.0	20	0	74.7	42-101	0			
Bis(2-chloroethyl)ether	14.92	0.37	1.0	20	0	74.6	39-100	0			
Bis(2-chloroisopropyl)ether	14.66	0.23	1.0	20	0	73.3	31-104	0			
Bis(2-ethylhexyl)phthalate	16.53	0.4	1.0	20	0	82.6	53-116	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

Butyl benzyl phthalate	16.15	0.3	1.0	20	0	80.8	45-112	0
Carbazole	15.44	0.24	1.0	20	0	77.2	55-106	0
Chrysene	15.95	0.048	0.10	20	0	79.8	57-108	0
Dibenzo(a,h)anthracene	17.11	0.073	0.10	20	0	85.6	51-112	0
Dibenzofuran	12.59	0.23	1.0	20	0	63	37-107	0
Diethyl phthalate	15.54	0.17	1.0	20	0	77.7	44-114	0
Dimethyl phthalate	15.19	0.18	1.0	20	0	76	40-115	0
Di-n-butyl phthalate	15.53	0.21	1.0	20	0	77.6	49-112	0
Di-n-octyl phthalate	16.09	0.53	1.0	20	0	80.4	47-120	0
Fluoranthene	15.11	0.038	0.10	20	0	75.6	54-107	0
Fluorene	13.46	0.051	0.10	20	0	67.3	42-107	0
Hexachlorobenzene	14.22	0.44	1.0	20	0	71.1	50-105	0
Hexachlorobutadiene	7.72	0.63	1.0	20	0	38.6	10-112	0
Hexachlorocyclopentadiene	5.56	1.1	5.0	20	0	27.8	10-102	0
Hexachloroethane	9.2	0.62	1.0	20	0	46	10-115	0
Indeno(1,2,3-cd)pyrene	17.05	0.067	0.10	20	0	85.2	49-113	0
Isophorone	15.81	0.34	5.0	20	0	79	42-103	0
Naphthalene	10.33	0.067	0.10	20	0	51.6	18-109	0
Nitrobenzene	14.32	0.26	1.0	20	0	71.6	38-101	0
N-Nitrosodi-n-propylamine	16.14	0.35	1.0	20	0	80.7	40-104	0
N-Nitrosodiphenylamine	14.52	0.49	1.0	20	0	72.6	49-105	0
Pentachlorophenol	13.31	0.97	5.0	20	0	66.6	22-109	0
Phenanthrene	14.79	0.081	0.10	20	0	74	51-103	0
Phenol	6.37	0.21	1.0	20	0	31.8	10-63	0
Pyrene	15.74	0.036	0.10	20	0	78.7	50-105	0
Pyridine	10.53	0.57	10	20	0	52.6	11-77	0
Surr: 2,4,6-Tribromophenol	*34.06*	0	0	*50*	0	*68.1*	*38-103*	0
Surr: 2-Fluorobiphenyl	*33.67*	0	0	*50*	0	*67.3*	*36-96*	0
Surr: 2-Fluorophenol	*23.73*	0	0	*50*	0	*47.5*	*20-73*	0
Surr: 4-Terphenyl-d14	*39.18*	0	0	*50*	0	*78.4*	*44-114*	0
Surr: Nitrobenzene-d5	*35.76*	0	0	*50*	0	*71.5*	*33-100*	0
Surr: Phenol-d6	*15.44*	0	0	*50*	0	*30.9*	*10-48*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

MS Sample ID: **23032098-01A MS** Units: **µg/L** Analysis Date: **3/31/2023 03:29 AM**
Client ID: Run ID: **SVMS10_230330A** SeqNo: **9398871** Prep Date: **3/30/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	293.2	8.4	20	400	0	73.3	24-111	0			
1,2,4,5-Tetrachlorobenzene	254	6.8	100	400	0	63.5	14-110	0			
1-Methylnaphthalene	283.8	1.7	2.0	400	0	71	17-114	0			
2,2`-Oxybis(1-chloropropane)	344.8	4.6	20	400	0	86.2	31-104	0			
2,3,4,6-Tetrachlorophenol	363	9	20	400	0	90.8	38-110	0			
2,4,5-Trichlorophenol	374.4	3.4	20	400	0	93.6	33-114	0			
2,4,6-Trichlorophenol	359	5	20	400	0	89.8	36-113	0			
2,4-Dichlorophenol	340.8	7	20	400	0	85.2	30-111	0			
2,4-Dimethylphenol	215.8	7.2	20	400	0	54	36-109	0			
2,4-Dinitrophenol	436.6	52	100	400	0	109	12-113	0			
2,4-Dinitrotoluene	346.6	8.4	20	400	0	86.6	51-107	0			
2,6-Dinitrotoluene	381	6.6	20	400	0	95.2	51-105	0			
2-Chloronaphthalene	294.4	1.5	2.0	400	0	73.6	22-112	0			
2-Chlorophenol	344.4	4.6	20	400	0	86.1	35-108	0			
2-Methylnaphthalene	277.2	1.3	2.0	400	0	69.3	12-119	0			
2-Methylphenol	304.6	5	20	400	0	76.2	31-100	0			
2-Nitroaniline	362.4	4.2	20	400	0	90.6	46-106	0			
2-Nitrophenol	350.2	6.8	20	400	0	87.6	26-111	0			
3&4-Methylphenol	284.6	4.2	20	400	4	70.2	24-95	0			
3,3´-Dichlorobenzidine	62.6	9.2	100	400	0	15.6	48-101	0			JS
3-Nitroaniline	259.2	13	20	400	0	64.8	52-105	0			
4,6-Dinitro-2-methylphenol	407	5.4	20	400	0	102	28-121	0			
4-Bromophenyl phenyl ether	338.2	6.6	20	400	0	84.6	49-107	0			
4-Chloro-3-methylphenol	359.8	5.2	20	400	0	90	35-105	0			
4-Chloroaniline	219	6.8	20	400	0	54.8	46-101	0			
4-Chlorophenyl phenyl ether	328	6.2	20	400	0	82	40-107	0			
4-Nitroaniline	227.8	11	20	400	0	57	49-110	0			
4-Nitrophenol	185.8	4.8	100	400	0	46.4	10-64	0			
Acenaphthene	319.2	1.6	2.0	400	0	79.8	32-108	0			
Acenaphthylene	327	1.5	2.0	400	0	81.8	34-107	0			
Acetophenone	343	7.4	20	400	0	85.8	41-102	0			
Anthracene	347	0.56	2.0	400	0	86.8	53-105	0			
Atrazine	356	7	20	400	0	89	53-112	0			
Benzaldehyde	332.4	10	20	400	11.6	80.2	32-111	0			
Benzo(a)anthracene	333.4	2	2.0	400	0	83.4	57-106	0			
Benzo(a)pyrene	361	0.88	2.0	400	0	90.2	54-107	0			
Benzo(b)fluoranthene	366.8	1	2.0	400	0	91.7	53-109	0			
Benzo(g,h,i)perylene	372.4	1.8	2.0	400	0	93.1	50-114	0			
Benzo(k)fluoranthene	356.8	0.96	2.0	400	0	89.2	53-110	0			
Bis(2-chloroethoxy)methane	342.8	5.8	20	400	0	85.7	42-101	0			
Bis(2-chloroethyl)ether	377.6	7.4	20	400	0	94.4	39-100	0			
Bis(2-chloroisopropyl)ether	344.8	4.6	20	400	0	86.2	31-104	0			
Bis(2-ethylhexyl)phthalate	386	8	20	400	0	96.5	53-116	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

Butyl benzyl phthalate	385	6	20	400	0	96.2	45-112	0	
Carbazole	357.8	4.8	20	400	0	89.4	55-106	0	
Chrysene	365.6	0.96	2.0	400	0	91.4	57-108	0	
Dibenzo(a,h)anthracene	374.2	1.5	2.0	400	0	93.6	51-112	0	
Dibenzofuran	324.4	4.6	20	400	0	81.1	37-107	0	
Diethyl phthalate	354.2	3.4	20	400	0	88.6	44-114	0	
Dimethyl phthalate	349.2	3.6	20	400	0	87.3	40-115	0	
Di-n-butyl phthalate	366.6	4.2	20	400	0	91.6	49-112	0	
Di-n-octyl phthalate	394.4	11	20	400	0	98.6	47-120	0	
Fluoranthene	357	0.76	2.0	400	0	89.2	54-107	0	
Fluorene	335.6	1	2.0	400	0	83.9	42-107	0	
Hexachlorobenzene	327.4	8.8	20	400	0	81.8	50-105	0	
Hexachlorobutadiene	194.4	13	20	400	0	48.6	10-112	0	
Hexachlorocyclopentadiene	123	22	100	400	0	30.8	10-102	0	
Hexachloroethane	219.2	12	20	400	0	54.8	10-115	0	
Indeno(1,2,3-cd)pyrene	382	1.3	2.0	400	0	95.5	49-113	0	
Isophorone	365.4	6.8	100	400	0	91.4	42-103	0	
Naphthalene	270.6	1.3	2.0	400	0	67.6	18-109	0	
Nitrobenzene	332	5.2	20	400	0	83	38-101	0	
N-Nitrosodi-n-propylamine	361.2	7	20	400	0	90.3	40-104	0	
N-Nitrosodiphenylamine	336	9.8	20	400	0	84	49-105	0	
Pentachlorophenol	389.2	19	100	400	0	97.3	22-109	0	
Phenanthrene	346.4	1.6	2.0	400	0	86.6	51-103	0	
Phenol	156.4	4.2	20	400	0	39.1	10-63	0	
Pyrene	365.6	0.72	2.0	400	0	91.4	50-105	0	
Pyridine	186.4	11	200	400	0	46.6	11-77	0	J
Surr: 2,4,6-Tribromophenol	*812.4*	0	0	*1000*	0	*81.2*	*38-103*	0	
Surr: 2-Fluorobiphenyl	*771.6*	0	0	*1000*	0	*77.2*	*36-96*	0	
Surr: 2-Fluorophenol	*551.6*	0	0	*1000*	0	*55.2*	*20-73*	0	
Surr: 4-Terphenyl-d14	*855.2*	0	0	*1000*	0	*85.5*	*44-114*	0	
Surr: Nitrobenzene-d5	*815*	0	0	*1000*	0	*81.5*	*33-100*	0	
Surr: Phenol-d6	*377*	0	0	*1000*	0	*37.7*	*10-48*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Big Pine Consultants
Work Order: 23032092
Project: East Palestine H20

QC BATCH REPORT

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

MSD Sample ID: **23032098-01A MSD** Units: **µg/L** Analysis Date: **3/31/2023 03:57 AM**
Client ID: Run ID: **SVMS10_230330A** SeqNo: **9398872** Prep Date: **3/30/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	289.6	8.4	20	400	0	72.4	24-111	293.2	1.24	30	
1,2,4,5-Tetrachlorobenzene	247.4	6.8	100	400	0	61.8	14-110	254	2.63	30	
1-Methylnaphthalene	277.6	1.7	2.0	400	0	69.4	17-114	283.8	2.21	30	
2,2`-Oxybis(1-chloropropane)	353.4	4.6	20	400	0	88.4	31-104	344.8	2.46	30	
2,3,4,6-Tetrachlorophenol	358.4	9	20	400	0	89.6	38-110	363	1.28	30	
2,4,5-Trichlorophenol	372.8	3.4	20	400	0	93.2	33-114	374.4	0.428	30	
2,4,6-Trichlorophenol	357.6	5	20	400	0	89.4	36-113	359	0.391	30	
2,4-Dichlorophenol	338.4	7	20	400	0	84.6	30-111	340.8	0.707	30	
2,4-Dimethylphenol	215.4	7.2	20	400	0	53.8	36-109	215.8	0.186	30	
2,4-Dinitrophenol	407.2	52	100	400	0	102	12-113	436.6	6.97	30	
2,4-Dinitrotoluene	344.4	8.4	20	400	0	86.1	51-107	346.6	0.637	30	
2,6-Dinitrotoluene	382.6	6.6	20	400	0	95.6	51-105	381	0.419	30	
2-Chloronaphthalene	292.6	1.5	2.0	400	0	73.2	22-112	294.4	0.613	30	
2-Chlorophenol	345.8	4.6	20	400	0	86.4	35-108	344.4	0.406	30	
2-Methylnaphthalene	271.4	1.3	2.0	400	0	67.8	12-119	277.2	2.11	30	
2-Methylphenol	295	5	20	400	0	73.8	31-100	304.6	3.2	30	
2-Nitroaniline	367.8	4.2	20	400	0	92	46-106	362.4	1.48	30	
2-Nitrophenol	352.2	6.8	20	400	0	88	26-111	350.2	0.569	30	
3&4-Methylphenol	266.8	4.2	20	400	4	65.7	24-95	284.6	6.46	30	
3,3´-Dichlorobenzidine	88.4	9.2	100	400	0	22.1	48-101	62.6	0	30	JS
3-Nitroaniline	278.2	13	20	400	0	69.6	52-105	259.2	7.07	30	
4,6-Dinitro-2-methylphenol	394	5.4	20	400	0	98.5	28-121	407	3.25	30	
4-Bromophenyl phenyl ether	343.4	6.6	20	400	0	85.8	49-107	338.2	1.53	30	
4-Chloro-3-methylphenol	353	5.2	20	400	0	88.2	35-105	359.8	1.91	30	
4-Chloroaniline	230.4	6.8	20	400	0	57.6	46-101	219	5.07	30	
4-Chlorophenyl phenyl ether	326	6.2	20	400	0	81.5	40-107	328	0.612	30	
4-Nitroaniline	248	11	20	400	0	62	49-110	227.8	8.49	30	
4-Nitrophenol	157.8	4.8	100	400	0	39.4	10-64	185.8	16.3	30	
Acenaphthene	318.6	1.6	2.0	400	0	79.6	32-108	319.2	0.188	30	
Acenaphthylene	325	1.5	2.0	400	0	81.2	34-107	327	0.613	30	
Acetophenone	346	7.4	20	400	0	86.5	41-102	343	0.871	30	
Anthracene	349.6	0.56	2.0	400	0	87.4	53-105	347	0.746	30	
Atrazine	356	7	20	400	0	89	53-112	356	0	30	
Benzaldehyde	344.2	10	20	400	11.6	83.2	32-111	332.4	3.49	30	
Benzo(a)anthracene	343	2	2.0	400	0	85.8	57-106	333.4	2.84	30	
Benzo(a)pyrene	370.2	0.88	2.0	400	0	92.6	54-107	361	2.52	30	
Benzo(b)fluoranthene	378.8	1	2.0	400	0	94.7	53-109	366.8	3.22	30	
Benzo(g,h,i)perylene	382.6	1.8	2.0	400	0	95.6	50-114	372.4	2.7	30	
Benzo(k)fluoranthene	376	0.96	2.0	400	0	94	53-110	356.8	5.24	30	
Bis(2-chloroethoxy)methane	348.6	5.8	20	400	0	87.2	42-101	342.8	1.68	30	
Bis(2-chloroethyl)ether	384	7.4	20	400	0	96	39-100	377.6	1.68	30	
Bis(2-chloroisopropyl)ether	353.4	4.6	20	400	0	88.4	31-104	344.8	2.46	30	
Bis(2-ethylhexyl)phthalate	404.4	8	20	400	0	101	53-116	386	4.66	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213633** Instrument ID **SVMS10** Method: **SW846 8270D**

Butyl benzyl phthalate	417.4	6	20	400	0	104	45-112	385	8.08	30	
Carbazole	357.6	4.8	20	400	0	89.4	55-106	357.8	0.0559	30	
Chrysene	367	0.96	2.0	400	0	91.8	57-108	365.6	0.382	30	
Dibenzo(a,h)anthracene	379.6	1.5	2.0	400	0	94.9	51-112	374.2	1.43	30	
Dibenzofuran	322.4	4.6	20	400	0	80.6	37-107	324.4	0.618	30	
Diethyl phthalate	361.4	3.4	20	400	0	90.4	44-114	354.2	2.01	30	
Dimethyl phthalate	350.6	3.6	20	400	0	87.6	40-115	349.2	0.4	30	
Di-n-butyl phthalate	378	4.2	20	400	0	94.5	49-112	366.6	3.06	30	
Di-n-octyl phthalate	439.2	11	20	400	0	110	47-120	394.4	10.7	30	
Fluoranthene	353.2	0.76	2.0	400	0	88.3	54-107	357	1.07	30	
Fluorene	333.6	1	2.0	400	0	83.4	42-107	335.6	0.598	30	
Hexachlorobenzene	334.6	8.8	20	400	0	83.6	50-105	327.4	2.18	30	
Hexachlorobutadiene	194.2	13	20	400	0	48.6	10-112	194.4	0.103	30	
Hexachlorocyclopentadiene	113.2	22	100	400	0	28.3	10-102	123	8.3	30	
Hexachloroethane	221.6	12	20	400	0	55.4	10-115	219.2	1.09	30	
Indeno(1,2,3-cd)pyrene	384.8	1.3	2.0	400	0	96.2	49-113	382	0.73	30	
Isophorone	363.2	6.8	100	400	0	90.8	42-103	365.4	0.604	30	
Naphthalene	267.2	1.3	2.0	400	0	66.8	18-109	270.6	1.26	30	
Nitrobenzene	330.6	5.2	20	400	0	82.6	38-101	332	0.423	30	
N-Nitrosodi-n-propylamine	373.2	7	20	400	0	93.3	40-104	361.2	3.27	30	
N-Nitrosodiphenylamine	340.6	9.8	20	400	0	85.2	49-105	336	1.36	30	
Pentachlorophenol	374.8	19	100	400	0	93.7	22-109	389.2	3.77	30	
Phenanthrene	352.6	1.6	2.0	400	0	88.2	51-103	346.4	1.77	30	
Phenol	137.2	4.2	20	400	0	34.3	10-63	156.4	13.1	30	
Pyrene	386.2	0.72	2.0	400	0	96.6	50-105	365.6	5.48	30	
Pyridine	197.2	11	200	400	0	49.3	11-77	186.4	0	30	J
Surr: 2,4,6-Tribromophenol	*781.8*	0	0	*1000*	0	*78.2*	*38-103*	812.4	*3.84*	*40*	
Surr: 2-Fluorobiphenyl	*761.8*	0	0	*1000*	0	*76.2*	*36-96*	771.6	*1.28*	*40*	
Surr: 2-Fluorophenol	*490.4*	0	0	*1000*	0	*49*	*20-73*	551.6	*11.7*	*40*	
Surr: 4-Terphenyl-d14	*882.4*	0	0	*1000*	0	*88.2*	*44-114*	855.2	*3.13*	*40*	
Surr: Nitrobenzene-d5	*800.4*	0	0	*1000*	0	*80*	*33-100*	815	*1.81*	*40*	
Surr: Phenol-d6	*316.2*	0	0	*1000*	0	*31.6*	*10-48*	377	*17.5*	*40*	

The following samples were analyzed in this batch: 23032092-03A 23032092-04A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

MBLK	Sample ID: **SBLKW1-213705-213705a**				Units: **µg/L**			Analysis Date: **3/31/2023 05:56 PM**			
Client ID:		Run ID: **SVMS10_230331A**			SeqNo: **9400435**			Prep Date: **3/31/2023**		DF: **1**	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	U	0.42	1.0								
1,2,4,5-Tetrachlorobenzene	U	0.34	5.0								
1,4-Dioxane	U	0.72	5.0								
1-Methylnaphthalene	U	0.083	0.10								
2,2`-Oxybis(1-chloropropane)	U	0.23	1.0								
2,3,4,6-Tetrachlorophenol	U	0.45	1.0								
2,4,5-Trichlorophenol	U	0.17	1.0								
2,4,6-Trichlorophenol	U	0.25	1.0								
2,4-Dichlorophenol	U	0.35	1.0								
2,4-Dimethylphenol	U	0.36	1.0								
2,4-Dinitrophenol	U	2.6	5.0								
2,4-Dinitrotoluene	U	0.42	1.0								
2,6-Dinitrotoluene	U	0.33	1.0								
2-Chloronaphthalene	U	0.075	0.10								
2-Chlorophenol	U	0.23	1.0								
2-Methylnaphthalene	U	0.065	0.10								
2-Methylphenol	U	0.25	1.0								
2-Nitroaniline	U	0.21	1.0								
2-Nitrophenol	U	0.34	1.0								
3&4-Methylphenol	U	0.21	1.0								
3,3´-Dichlorobenzidine	U	0.46	5.0								
3-Nitroaniline	U	0.64	1.0								
4,6-Dinitro-2-methylphenol	U	0.27	1.0								
4-Bromophenyl phenyl ether	U	0.33	1.0								
4-Chloro-3-methylphenol	U	0.26	1.0								
4-Chloroaniline	U	0.34	1.0								
4-Chlorophenyl phenyl ether	U	0.31	1.0								
4-Nitroaniline	U	0.57	1.0								
4-Nitrophenol	U	0.24	5.0								
Acenaphthene	U	0.081	0.10								
Acenaphthylene	U	0.075	0.10								
Acetophenone	U	0.37	1.0								
Anthracene	U	0.028	0.10								
Atrazine	U	0.35	1.0								
Benzaldehyde	U	0.52	1.0								
Benzo(a)anthracene	U	0.099	0.10								
Benzo(a)pyrene	U	0.044	0.10								
Benzo(b)fluoranthene	U	0.051	0.10								
Benzo(g,h,i)perylene	U	0.089	0.10								
Benzo(k)fluoranthene	U	0.048	0.10								
Bis(2-chloroethoxy)methane	U	0.29	1.0								
Bis(2-chloroethyl)ether	U	0.37	1.0								
Bis(2-chloroisopropyl)ether	U	0.23	1.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

Bis(2-ethylhexyl)phthalate	U	0.4	1.0					
Butyl benzyl phthalate	U	0.3	1.0					
Caprolactam	U	0.96	5.0					
Carbazole	U	0.24	1.0					
Chrysene	U	0.048	0.10					
Dibenzo(a,h)anthracene	U	0.073	0.10					
Dibenzofuran	U	0.23	1.0					
Diethyl phthalate	U	0.17	1.0					
Dimethyl phthalate	U	0.18	1.0					
Di-n-butyl phthalate	U	0.21	1.0					
Di-n-octyl phthalate	U	0.53	1.0					
Fluoranthene	U	0.038	0.10					
Fluorene	U	0.051	0.10					
Hexachlorobenzene	U	0.44	1.0					
Hexachlorobutadiene	U	0.63	1.0					
Hexachlorocyclopentadiene	U	1.1	5.0					
Hexachloroethane	U	0.62	1.0					
Indeno(1,2,3-cd)pyrene	U	0.067	0.10					
Isophorone	U	0.34	5.0					
Naphthalene	U	0.067	0.10					
Nitrobenzene	U	0.26	1.0					
N-Nitrosodi-n-propylamine	U	0.35	1.0					
N-Nitrosodiphenylamine	U	0.49	1.0					
Pentachlorophenol	U	0.97	5.0					
Phenanthrene	U	0.081	0.10					
Phenol	U	0.21	1.0					
Pyrene	U	0.036	0.10					
Pyridine	U	0.57	10					
Surr: 2,4,6-Tribromophenol	*29.22*	0	0	*50*	0	*58.4*	*38-103*	0
Surr: 2-Fluorobiphenyl	*32.43*	0	0	*50*	0	*64.9*	*36-96*	0
Surr: 2-Fluorophenol	*24.82*	0	0	*50*	0	*49.6*	*20-73*	0
Surr: 4-Terphenyl-d14	*36.44*	0	0	*50*	0	*72.9*	*44-114*	0
Surr: Nitrobenzene-d5	*34.33*	0	0	*50*	0	*68.7*	*33-100*	0
Surr: Phenol-d6	*15.9*	0	0	*50*	0	*31.8*	*10-48*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

LCS Sample ID: **SLCSW1-213705-213705a** Units: **µg/L** Analysis Date: **3/31/2023 06:24 PM**
Client ID: Run ID: **SVMS10_230331A** SeqNo: **9400436** Prep Date: **3/31/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	11.69	0.42	1.0	20	0	58.4	24-111	0			
1,2,4,5-Tetrachlorobenzene	11.33	0.34	5.0	20	0	56.6	14-110	0			
1-Methylnaphthalene	12.34	0.083	0.10	20	0	61.7	17-114	0			
2,2`-Oxybis(1-chloropropane)	13.71	0.23	1.0	20	0	68.6	31-104	0			
2,3,4,6-Tetrachlorophenol	12.27	0.45	1.0	20	0	61.4	38-110	0			
2,4,5-Trichlorophenol	13.98	0.17	1.0	20	0	69.9	33-114	0			
2,4,6-Trichlorophenol	13.63	0.25	1.0	20	0	68.2	36-113	0			
2,4-Dichlorophenol	12.94	0.35	1.0	20	0	64.7	30-111	0			
2,4-Dimethylphenol	12.93	0.36	1.0	20	0	64.6	36-109	0			
2,4-Dinitrophenol	13.72	2.6	5.0	20	0	68.6	12-113	0			
2,4-Dinitrotoluene	13.24	0.42	1.0	20	0	66.2	51-107	0			
2,6-Dinitrotoluene	13.97	0.33	1.0	20	0	69.8	51-105	0			
2-Chloronaphthalene	13.31	0.075	0.10	20	0	66.6	22-112	0			
2-Chlorophenol	13.42	0.23	1.0	20	0	67.1	35-108	0			
2-Methylnaphthalene	12.36	0.065	0.10	20	0	61.8	12-119	0			
2-Methylphenol	11.81	0.25	1.0	20	0	59	31-100	0			
2-Nitroaniline	14.07	0.21	1.0	20	0	70.4	46-106	0			
2-Nitrophenol	13.52	0.34	1.0	20	0	67.6	26-111	0			
3&4-Methylphenol	10.46	0.21	1.0	20	0	52.3	24-95	0			
3,3´-Dichlorobenzidine	13.49	0.46	5.0	20	0	67.4	48-101	0			
3-Nitroaniline	14.44	0.64	1.0	20	0	72.2	52-105	0			
4,6-Dinitro-2-methylphenol	15.99	0.27	1.0	20	0	80	28-121	0			
4-Bromophenyl phenyl ether	13.86	0.33	1.0	20	0	69.3	49-107	0			
4-Chloro-3-methylphenol	12.79	0.26	1.0	20	0	64	35-105	0			
4-Chloroaniline	13.01	0.34	1.0	20	0	65	46-101	0			
4-Chlorophenyl phenyl ether	12.9	0.31	1.0	20	0	64.5	40-107	0			
4-Nitroaniline	13.54	0.57	1.0	20	0	67.7	49-110	0			
4-Nitrophenol	5.16	0.24	5.0	20	0	25.8	10-64	0			
Acenaphthene	13.51	0.081	0.10	20	0	67.6	32-108	0			
Acenaphthylene	13.45	0.075	0.10	20	0	67.2	34-107	0			
Acetophenone	12.66	0.37	1.0	20	0	63.3	41-102	0			
Anthracene	14.32	0.028	0.10	20	0	71.6	53-105	0			
Atrazine	13.2	0.35	1.0	20	0	66	53-112	0			
Benzaldehyde	13.36	0.52	1.0	20	0	66.8	32-111	0			
Benzo(a)anthracene	14.49	0.099	0.10	20	0	72.4	57-106	0			
Benzo(a)pyrene	15.34	0.044	0.10	20	0	76.7	54-107	0			
Benzo(b)fluoranthene	14.84	0.051	0.10	20	0	74.2	53-109	0			
Benzo(g,h,i)perylene	19.13	0.089	0.10	20	0	95.6	50-114	0			
Benzo(k)fluoranthene	14.79	0.048	0.10	20	0	74	53-110	0			
Bis(2-chloroethoxy)methane	13.2	0.29	1.0	20	0	66	42-101	0			
Bis(2-chloroethyl)ether	13.02	0.37	1.0	20	0	65.1	39-100	0			
Bis(2-chloroisopropyl)ether	13.71	0.23	1.0	20	0	68.6	31-104	0			
Bis(2-ethylhexyl)phthalate	15.73	0.4	1.0	20	0	78.6	53-116	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

Butyl benzyl phthalate	15.05	0.3	1.0	20	0	75.2	45-112	0	
Carbazole	14.48	0.24	1.0	20	0	72.4	55-106	0	
Chrysene	15.32	0.048	0.10	20	0	76.6	57-108	0	
Dibenzo(a,h)anthracene	18.26	0.073	0.10	20	0	91.3	51-112	0	
Dibenzofuran	13	0.23	1.0	20	0	65	37-107	0	
Diethyl phthalate	13.57	0.17	1.0	20	0	67.8	44-114	0	
Dimethyl phthalate	13.56	0.18	1.0	20	0	67.8	40-115	0	
Di-n-butyl phthalate	14.23	0.21	1.0	20	0	71.2	49-112	0	
Di-n-octyl phthalate	14.06	0.53	1.0	20	0	70.3	47-120	0	
Fluoranthene	13.93	0.038	0.10	20	0	69.6	54-107	0	
Fluorene	12.91	0.051	0.10	20	0	64.6	42-107	0	
Hexachlorobenzene	13.72	0.44	1.0	20	0	68.6	50-105	0	
Hexachlorobutadiene	12.09	0.63	1.0	20	0	60.4	10-112	0	
Hexachlorocyclopentadiene	9.27	1.1	5.0	20	0	46.4	10-102	0	
Hexachloroethane	13.91	0.62	1.0	20	0	69.6	10-115	0	
Indeno(1,2,3-cd)pyrene	18.4	0.067	0.10	20	0	92	49-113	0	
Isophorone	13.75	0.34	5.0	20	0	68.8	42-103	0	
Naphthalene	12.69	0.067	0.10	20	0	63.4	18-109	0	
Nitrobenzene	13.51	0.26	1.0	20	0	67.6	38-101	0	
N-Nitrosodi-n-propylamine	12.96	0.35	1.0	20	0	64.8	40-104	0	
N-Nitrosodiphenylamine	13.99	0.49	1.0	20	0	70	49-105	0	
Pentachlorophenol	11.99	0.97	5.0	20	0	60	22-109	0	
Phenanthrene	14.14	0.081	0.10	20	0	70.7	51-103	0	
Phenol	5.73	0.21	1.0	20	0	28.6	10-63	0	
Pyrene	15.19	0.036	0.10	20	0	76	50-105	0	
Pyridine	8.54	0.57	10	20	0	42.7	11-77	0	J
Surr: 2,4,6-Tribromophenol	*31.26*	0	0	*50*	0	*62.5*	*38-103*	0	
Surr: 2-Fluorobiphenyl	*32.36*	0	0	*50*	0	*64.7*	*36-96*	0	
Surr: 2-Fluorophenol	*22.47*	0	0	*50*	0	*44.9*	*20-73*	0	
Surr: 4-Terphenyl-d14	*35.49*	0	0	*50*	0	*71*	*44-114*	0	
Surr: Nitrobenzene-d5	*33.08*	0	0	*50*	0	*66.2*	*33-100*	0	
Surr: Phenol-d6	*13.92*	0	0	*50*	0	*27.8*	*10-48*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

MS Sample ID: **23032305-01A MS** Units: **µg/L** Analysis Date: **4/1/2023 02:12 AM**
Client ID: Run ID: **SVMS10_230331A** SeqNo: **9400437** Prep Date: **3/31/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	255.2	8.4	20	400	0	63.8	24-111	0			
1,2,4,5-Tetrachlorobenzene	237.2	6.8	100	400	0	59.3	14-110	0			
1-Methylnaphthalene	258.6	1.7	2.0	400	0	64.6	17-114	0			
2,2`-Oxybis(1-chloropropane)	295.2	4.6	20	400	0	73.8	31-104	0			
2,3,4,6-Tetrachlorophenol	290.2	9	20	400	0	72.6	38-110	0			
2,4,5-Trichlorophenol	315.8	3.4	20	400	0	79	33-114	0			
2,4,6-Trichlorophenol	306	5	20	400	0	76.5	36-113	0			
2,4-Dichlorophenol	288.2	7	20	400	0	72	30-111	0			
2,4-Dimethylphenol	239.4	7.2	20	400	0	59.8	36-109	0			
2,4-Dinitrophenol	276.6	52	100	400	0	69.2	12-113	0			
2,4-Dinitrotoluene	286.4	8.4	20	400	0	71.6	51-107	0			
2,6-Dinitrotoluene	303.8	6.6	20	400	0	76	51-105	0			
2-Chloronaphthalene	273	1.5	2.0	400	0	68.2	22-112	0			
2-Chlorophenol	295.6	4.6	20	400	0	73.9	35-108	0			
2-Methylnaphthalene	258.2	1.3	2.0	400	0	64.6	12-119	0			
2-Methylphenol	262.2	5	20	400	0	65.6	31-100	0			
2-Nitroaniline	312.6	4.2	20	400	0	78.2	46-106	0			
2-Nitrophenol	300.8	6.8	20	400	0	75.2	26-111	0			
3&4-Methylphenol	240	4.2	20	400	0	60	24-95	0			
3,3´-Dichlorobenzidine	243.2	9.2	100	400	0	60.8	48-101	0			
3-Nitroaniline	300	13	20	400	0	75	52-105	0			
4,6-Dinitro-2-methylphenol	291.4	5.4	20	400	0	72.8	28-121	0			
4-Bromophenyl phenyl ether	301.8	6.6	20	400	0	75.4	49-107	0			
4-Chloro-3-methylphenol	292.8	5.2	20	400	0	73.2	35-105	0			
4-Chloroaniline	232.6	6.8	20	400	0	58.2	46-101	0			
4-Chlorophenyl phenyl ether	281.4	6.2	20	400	0	70.4	40-107	0			
4-Nitroaniline	294.4	11	20	400	0	73.6	49-110	0			
4-Nitrophenol	134.6	4.8	100	400	0	33.6	10-64	0			
Acenaphthene	282	1.6	2.0	400	0	70.5	32-108	0			
Acenaphthylene	283.8	1.5	2.0	400	0	71	34-107	0			
Acetophenone	284.8	7.4	20	400	0	71.2	41-102	0			
Anthracene	304.2	0.56	2.0	400	0	76	53-105	0			
Atrazine	287.6	7	20	400	0	71.9	53-112	0			
Benzaldehyde	284.4	10	20	400	0	71.1	32-111	0			
Benzo(a)anthracene	303.8	2	2.0	400	0	76	57-106	0			
Benzo(a)pyrene	328.2	0.88	2.0	400	0	82	54-107	0			
Benzo(b)fluoranthene	324	1	2.0	400	0	81	53-109	0			
Benzo(g,h,i)perylene	361.6	1.8	2.0	400	0	90.4	50-114	0			
Benzo(k)fluoranthene	312.8	0.96	2.0	400	0	78.2	53-110	0			
Bis(2-chloroethoxy)methane	290.4	5.8	20	400	0	72.6	42-101	0			
Bis(2-chloroethyl)ether	304.8	7.4	20	400	0	76.2	39-100	0			
Bis(2-chloroisopropyl)ether	295.2	4.6	20	400	0	73.8	31-104	0			
Bis(2-ethylhexyl)phthalate	353.8	8	20	400	0	88.4	53-116	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

Butyl benzyl phthalate	359.6	6	20	400	0	89.9	45-112	0	
Carbazole	301.4	4.8	20	400	0	75.4	55-106	0	
Chrysene	322.6	0.96	2.0	400	0	80.6	57-108	0	
Dibenzo(a,h)anthracene	346.4	1.5	2.0	400	0	86.6	51-112	0	
Dibenzofuran	278.8	4.6	20	400	0	69.7	37-107	0	
Diethyl phthalate	298.8	3.4	20	400	0	74.7	44-114	0	
Dimethyl phthalate	296	3.6	20	400	0	74	40-115	0	
Di-n-butyl phthalate	314	4.2	20	400	0	78.5	49-112	0	
Di-n-octyl phthalate	369	11	20	400	0	92.2	47-120	0	
Fluoranthene	297.2	0.76	2.0	400	0	74.3	54-107	0	
Fluorene	286	1	2.0	400	0	71.5	42-107	0	
Hexachlorobenzene	295.8	8.8	20	400	0	74	50-105	0	
Hexachlorobutadiene	196	13	20	400	0	49	10-112	0	
Hexachlorocyclopentadiene	63.4	22	100	400	0	15.8	10-102	0	J
Hexachloroethane	188.2	12	20	400	0	47	10-115	0	
Indeno(1,2,3-cd)pyrene	352.8	1.3	2.0	400	0	88.2	49-113	0	
Isophorone	309.6	6.8	100	400	0	77.4	42-103	0	
Naphthalene	246	1.3	2.0	400	3	60.8	18-109	0	
Nitrobenzene	281.4	5.2	20	400	0	70.4	38-101	0	
N-Nitrosodi-n-propylamine	294	7	20	400	0	73.5	40-104	0	
N-Nitrosodiphenylamine	292.4	9.8	20	400	0	73.1	49-105	0	
Pentachlorophenol	309.6	19	100	400	0	77.4	22-109	0	
Phenanthrene	300.8	1.6	2.0	400	0	75.2	51-103	0	
Phenol	131.8	4.2	20	400	0	33	10-63	0	
Pyrene	346.2	0.72	2.0	400	0	86.6	50-105	0	
Pyridine	145.2	11	200	400	0	36.3	11-77	0	J
Surr: 2,4,6-Tribromophenol	*703.2*	0	0	*1000*	0	*70.3*	*38-103*	0	
Surr: 2-Fluorobiphenyl	*674.8*	0	0	*1000*	0	*67.5*	*36-96*	0	
Surr: 2-Fluorophenol	*480.6*	0	0	*1000*	0	*48.1*	*20-73*	0	
Surr: 4-Terphenyl-d14	*805.6*	0	0	*1000*	0	*80.6*	*44-114*	0	
Surr: Nitrobenzene-d5	*692.2*	0	0	*1000*	0	*69.2*	*33-100*	0	
Surr: Phenol-d6	*321.6*	0	0	*1000*	0	*32.2*	*10-48*	0	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Big Pine Consultants
Work Order: 23032092
Project: East Palestine H20

QC BATCH REPORT

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

MSD Sample ID: **23032305-01A MSD** Units: **µg/L** Analysis Date: **4/1/2023 02:39 AM**
Client ID: Run ID: **SVMS10_230331A** SeqNo: **9400438** Prep Date: **3/31/2023** DF: **1**

Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1`-Biphenyl	216	8.4	20	400	0	54	24-111	255.2	16.6	30	
1,2,4,5-Tetrachlorobenzene	200.8	6.8	100	400	0	50.2	14-110	237.2	16.6	30	
1-Methylnaphthalene	216.8	1.7	2.0	400	0	54.2	17-114	258.6	17.6	30	
2,2`-Oxybis(1-chloropropane)	258.8	4.6	20	400	0	64.7	31-104	295.2	13.1	30	
2,3,4,6-Tetrachlorophenol	247.6	9	20	400	0	61.9	38-110	290.2	15.8	30	
2,4,5-Trichlorophenol	290.8	3.4	20	400	0	72.7	33-114	315.8	8.24	30	
2,4,6-Trichlorophenol	284.8	5	20	400	0	71.2	36-113	306	7.18	30	
2,4-Dichlorophenol	257	7	20	400	0	64.2	30-111	288.2	11.4	30	
2,4-Dimethylphenol	211	7.2	20	400	0	52.8	36-109	239.4	12.6	30	
2,4-Dinitrophenol	256.8	52	100	400	0	64.2	12-113	276.6	7.42	30	
2,4-Dinitrotoluene	257	8.4	20	400	0	64.2	51-107	286.4	10.8	30	
2,6-Dinitrotoluene	274.2	6.6	20	400	0	68.6	51-105	303.8	10.2	30	
2-Chloronaphthalene	249.6	1.5	2.0	400	0	62.4	22-112	273	8.96	30	
2-Chlorophenol	266.4	4.6	20	400	0	66.6	35-108	295.6	10.4	30	
2-Methylnaphthalene	213	1.3	2.0	400	0	53.2	12-119	258.2	19.2	30	
2-Methylphenol	228.8	5	20	400	0	57.2	31-100	262.2	13.6	30	
2-Nitroaniline	290.4	4.2	20	400	0	72.6	46-106	312.6	7.36	30	
2-Nitrophenol	270.4	6.8	20	400	0	67.6	26-111	300.8	10.6	30	
3&4-Methylphenol	202	4.2	20	400	0	50.5	24-95	240	17.2	30	
3,3´-Dichlorobenzidine	226.4	9.2	100	400	0	56.6	48-101	243.2	7.16	30	
3-Nitroaniline	285	13	20	400	0	71.2	52-105	300	5.13	30	
4,6-Dinitro-2-methylphenol	273.8	5.4	20	400	0	68.4	28-121	291.4	6.23	30	
4-Bromophenyl phenyl ether	272.6	6.6	20	400	0	68.2	49-107	301.8	10.2	30	
4-Chloro-3-methylphenol	252.2	5.2	20	400	0	63	35-105	292.8	14.9	30	
4-Chloroaniline	235.4	6.8	20	400	0	58.8	46-101	232.6	1.2	30	
4-Chlorophenyl phenyl ether	252.2	6.2	20	400	0	63	40-107	281.4	10.9	30	
4-Nitroaniline	270.6	11	20	400	0	67.6	49-110	294.4	8.42	30	
4-Nitrophenol	118	4.8	100	400	0	29.5	10-64	134.6	13.1	30	
Acenaphthene	257.8	1.6	2.0	400	0	64.4	32-108	282	8.97	30	
Acenaphthylene	260.2	1.5	2.0	400	0	65	34-107	283.8	8.68	30	
Acetophenone	244.8	7.4	20	400	0	61.2	41-102	284.8	15.1	30	
Anthracene	281.8	0.56	2.0	400	0	70.4	53-105	304.2	7.65	30	
Atrazine	259.6	7	20	400	0	64.9	53-112	287.6	10.2	30	
Benzaldehyde	239.2	10	20	400	0	59.8	32-111	284.4	17.3	30	
Benzo(a)anthracene	279.2	2	2.0	400	0	69.8	57-106	303.8	8.44	30	
Benzo(a)pyrene	304.4	0.88	2.0	400	0	76.1	54-107	328.2	7.52	30	
Benzo(b)fluoranthene	293.4	1	2.0	400	0	73.4	53-109	324	9.91	30	
Benzo(g,h,i)perylene	373.4	1.8	2.0	400	0	93.4	50-114	361.6	3.21	30	
Benzo(k)fluoranthene	275.4	0.96	2.0	400	0	68.8	53-110	312.8	12.7	30	
Bis(2-chloroethoxy)methane	259.2	5.8	20	400	0	64.8	42-101	290.4	11.4	30	
Bis(2-chloroethyl)ether	277.2	7.4	20	400	0	69.3	39-100	304.8	9.48	30	
Bis(2-chloroisopropyl)ether	258.8	4.6	20	400	0	64.7	31-104	295.2	13.1	30	
Bis(2-ethylhexyl)phthalate	303.6	8	20	400	0	75.9	53-116	353.8	15.3	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **213705a** Instrument ID **SVMS10** Method: **SW8270E**

Butyl benzyl phthalate	303.6	6	20	400	0	75.9	45-112	359.6	16.9	30	
Carbazole	285.2	4.8	20	400	0	71.3	55-106	301.4	5.52	30	
Chrysene	300.8	0.96	2.0	400	0	75.2	57-108	322.6	6.99	30	
Dibenzo(a,h)anthracene	360.4	1.5	2.0	400	0	90.1	51-112	346.4	3.96	30	
Dibenzofuran	250.6	4.6	20	400	0	62.6	37-107	278.8	10.7	30	
Diethyl phthalate	264.8	3.4	20	400	0	66.2	44-114	298.8	12.1	30	
Dimethyl phthalate	266.2	3.6	20	400	0	66.6	40-115	296	10.6	30	
Di-n-butyl phthalate	280	4.2	20	400	0	70	49-112	314	11.4	30	
Di-n-octyl phthalate	271.2	11	20	400	0	67.8	47-120	369	30.6	30	R
Fluoranthene	273.8	0.76	2.0	400	0	68.4	54-107	297.2	8.2	30	
Fluorene	253.4	1	2.0	400	0	63.4	42-107	286	12.1	30	
Hexachlorobenzene	269.6	8.8	20	400	0	67.4	50-105	295.8	9.27	30	
Hexachlorobutadiene	148.6	13	20	400	0	37.2	10-112	196	27.5	30	
Hexachlorocyclopentadiene	48.2	22	100	400	0	12	10-102	63.4	0	30	J
Hexachloroethane	133.6	12	20	400	0	33.4	10-115	188.2	33.9	30	R
Indeno(1,2,3-cd)pyrene	367.6	1.3	2.0	400	0	91.9	49-113	352.8	4.11	30	
Isophorone	271	6.8	100	400	0	67.8	42-103	309.6	13.3	30	
Naphthalene	207.6	1.3	2.0	400	3	51.2	18-109	246	16.9	30	
Nitrobenzene	264.4	5.2	20	400	0	66.1	38-101	281.4	6.23	30	
N-Nitrosodi-n-propylamine	251.8	7	20	400	0	63	40-104	294	15.5	30	
N-Nitrosodiphenylamine	271.6	9.8	20	400	0	67.9	49-105	292.4	7.38	30	
Pentachlorophenol	294.4	19	100	400	0	73.6	22-109	309.6	5.03	30	
Phenanthrene	277	1.6	2.0	400	0	69.2	51-103	300.8	8.24	30	
Phenol	111.4	4.2	20	400	0	27.8	10-63	131.8	16.8	30	
Pyrene	301.2	0.72	2.0	400	0	75.3	50-105	346.2	13.9	30	
Pyridine	151.4	11	200	400	0	37.8	11-77	145.2	0	30	J
Surr: 2,4,6-Tribromophenol	*659*	0	0	*1000*	0	*65.9*	*38-103*	703.2	*6.49*	*40*	
Surr: 2-Fluorobiphenyl	*639*	0	0	*1000*	0	*63.9*	*36-96*	674.8	*5.45*	*40*	
Surr: 2-Fluorophenol	*439*	0	0	*1000*	0	*43.9*	*20-73*	480.6	*9.05*	*40*	
Surr: 4-Terphenyl-d14	*702*	0	0	*1000*	0	*70.2*	*44-114*	805.6	*13.7*	*40*	
Surr: Nitrobenzene-d5	*662.8*	0	0	*1000*	0	*66.3*	*33-100*	692.2	*4.34*	*40*	
Surr: Phenol-d6	*274*	0	0	*1000*	0	*27.4*	*10-48*	321.6	*16*	*40*	

The following samples were analyzed in this batch: 23032092-01A 23032092-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

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Chain of Custody Form

Page _____ of _____

COC ID: 15739

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	East Palestine H_2O	A	SVOC
Work Order		Project Number	2023-04	B	Dioxin
Company Name	Big Pine Consultants LLC	Bill To Company	Big Pine Consultants LLC	C	
Send Report To	Justin Johnston	Invoice Attn	Justin Johnston	D	
Address	1066 Towervue Dr.	Address	1066 Towervue Dr.	E	
				F	
City/State/Zip	Pittsburgh PA 15227	City/State/Zip	Pittsburgh, PA 15227	G	
Phone	231-282-2192	Phone	231-282-2192	H	
Fax		Fax		I	
e-Mail Address	justin.johnston@bigpineconsultants.com	e-Mail Address	justin.johnston@bigpineconsultants.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	Big Pine 02-MAR-RO	3-24-23	1300	H_2O		2	X										
2	Big Pine 03-MAR-RO	3-24-23	1235	H_2O		2	X										
3	Big Pine 04-MAR-RO	3-24-23	1215	H_2O		4	X	X									
4	Big Pine 07-MAR-RO	3-24-23	1150	H_2O		2	X										
5																	
6																	
7																	
8																	
9																	
10																	

23032092
BIGPINECONSULTANTS: Big Pine Consultants
Project: East Palestine H20

Sampler(s) Please Print & Sign: Justin Johnston

Shipment Method:

Required Turnaround Time: (Check Box) ☒ STD 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour ☐ Other _____

Results Due Date: 4-7-2023

Relinquished by:	Date: 3.24.23	Time: 1:55pm	Received by: ALS	
Relinquished by: ALS	Date: 3/24/23	Time: 1700	Received by (Laboratory): Fedex Kathy Blaisdell	
Logged by (Laboratory): KJY	Date: 3/27/23	Time: 0930	Checked by (Laboratory):	

Notes:

Cooler ID	Cooler Temp
IR3	3.5°C

QC Package: (Check One Box Below)
☐ Level II Std QC ☐ TRRP Checklist
☐ Level III Std QC/Raw Date ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other _____

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **BIGPINECONSULTANTS** Date/Time Received: **25-Mar-23 10:15**

Work Order: **23032092** Received by: **KYB**

Checklist completed by Karly Yablonski (eSignature) 27-Mar-23 (Date) Reviewed by: Chad Whelton (eSignature) 27-Mar-23 (Date)

Matrices: water
Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.5/4.5C	IR3	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/27/2023 9:39:13 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: