

Preliminary Data from East Palestine (Ohio) Train Derailment for Volatile Organics

Samples collected by Ohio River Valley Water Sanitation Commission (ORSANCO); Analyzed by Greater Cincinnati Water Works (GCWW)

Ref	Site Description	City	State	River	Stream Mile Point	Sample Depth	Date	Time	n-Butyl Acrylate (ppb)	other VOCs (ppb)	Vinyl Chloride (ppb)	2-Ethyl Hexanol (ppb)
1	Grimms Bridge	East Liverpool	OH	Little Beaver Creek	3.0	Surface Grab	2/8/2023	1305	4.40	<0.50	<0.50	Not Detected
2	Lock 57 Park	Ohioville	PA	Little Beaver Creek	0.2	Surface Grab	2/8/2023	1330	12.5	<0.50	<0.50	Not Detected
3	East Liverpool	East Liverpool	OH	Ohio River	40.2	Intake: 10 ft	2/8/2023	1345	<1.00	<0.50	<0.50	Not Detected
4	Buckeye	Wellsville	OH	Ohio River	47.1	Intake: N/A	2/8/2023	1430	2.94	<0.50	<0.50	Not Detected
5	Toronto	Toronto	OH	Ohio River	59.2	Intake: 19 ft	2/8/2023	1515	<1.00	<0.50	<0.50	Not Detected
6	Steubenville	Steubenville	OH	Ohio River	65.3	Intake: 18 ft	2/8/2023	1550	1.23	<0.50	<0.50	Not Detected
7	Pike Island L&D	Wheeling	WV	Ohio River	84.2	Surface Grab	2/8/2023	1715	4.30	<0.50	<0.50	Not Detected
8	Bellaire	Bellaire	OH	Ohio River	93.9	Intake: N/A	2/8/2023	1805	<1.00	<0.50	<0.50	Not Detected
9	New Matamoras Boat Ramp	New Matamoras	OH	Ohio River	142.1	Surface Grab	2/12/2023	1330	<1.00	<0.50	<0.50	Not Detected
10	Wayne National Forest Boat Ramp	Grandview Township	OH	Ohio River	148.6	Surface Grab	2/12/2023	1400	<1.00	<0.50	<0.50	Not Detected
11	The Jug Dock	Newport	OH	Ohio River	155.7	Surface Grab	2/12/2023	1420	1.63	<0.50	<0.50	Not Detected
12	Campground Boat Lauch	Reno	OH	Ohio River	167.8	Surface Grab	2/12/2023	1440	2.16	<0.50	<0.50	Not Detected
13	Public Launch Ramp	Williamstown	WV	Ohio River	172.0	Surface Grab	2/12/2023	1500	1.47	<0.50	<0.50	Not Detected
14	Point Park	Parkersburg	WV	Ohio River	184.5	Surface Grab	2/12/2023	1535	<1.00	<0.50	<0.50	Not Detected
15	Belpre Boat Ramp	Belpre	OH	Ohio River	186.1	Surface Grab	2/12/2023	1600	<1.00	<0.50	<0.50	Not Detected
16	Athens Boat Club Dock	Hockingport	OH	Ohio River	199.3	Surface Grab	2/12/2023	1630	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/12/2023	1650	<1.00	<0.50	<0.50	Not Detected
12	Campground Boat Lauch	Reno	OH	Ohio River	167.8	Surface Grab	2/13/2023	1110	<1.00	<0.50	<0.50	Not Detected
13	Public Launch Ramp	Williamstown	WV	Ohio River	172.0	Surface Grab	2/13/2023	1140	<1.00	<0.50	<0.50	Not Detected
14	Point Park	Parkersburg	WV	Ohio River	184.5	Surface Grab	2/13/2023	1210	1.86	<0.50	<0.50	Not Detected
15	Belpre Boat Ramp	Belpre	OH	Ohio River	186.1	Surface Grab	2/13/2023	1240	<1.00	<0.50	<0.50	Not Detected
16	Athens Boat Club Dock	Hockingport	OH	Ohio River	199.3	Surface Grab	2/13/2023	1345	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/13/2023	1415	<1.00	<0.50	<0.50	Not Detected
18	Ravenswood Public Boat Launch	Ravenswood	WV	Ohio River	221.1	Surface Grab	2/13/2023	1505	<1.00	<0.50	<0.50	Not Detected
19	Private Dock	Letart Township	OH	Ohio River	226.8	Surface Grab	2/13/2023	1530	<1.00	<0.50	<0.50	Not Detected

Highlighted in gray are the most recent Ohio River samples collected by ORSANCO and analyzed by Greater Cincinnati Water Works with permission to share. Samples were collected on February 18-19, 2023 and reflect the most recent data available. We will update this table as new data becomes available. All locations are currently below the 1.00ppb detection level. The ATSDR Health Guidance Value listed below is for Finished Drinking Water, whereas all samples above are raw water, collected directly from the Ohio River.

Updated ATSDR comparison Values for Drinking Water- 02/11/23

based off derivation worksheet

Analyte	Screen Value, ppb	Source
n-Butyl acrylate	560	ATSDR Provisional Health Guidance Value (HGV)
2-ethylhexyl acrylate	500	ATSDR Provisional Health Guidance Value (HGV)
2-ethyl hexanol	200	ATSDR Provisional Health Guidance Value (HGV)

14	Point Park	Parkersburg	WV	Ohio River	184.5	Surface Grab	2/14/2023	1245	<1.00	<0.50	<0.50	Not Detected
15	Belpre Boat Ramp	Belpre	OH	Ohio River	186.1	Surface Grab	2/14/2023	1320	<1.00	<0.50	<0.50	Not Detected
16	Athens Boat Club Dock	Hockingport	OH	Ohio River	199.3	Surface Grab	2/14/2023	1435	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/14/2023	1500	<1.00	<0.50	<0.50	Not Detected
18	Ravenswood Public Boat Launch	Ravenswood	WV	Ohio River	221.1	Surface Grab	2/14/2023	1535	<1.00	<0.50	<0.50	Not Detected
19	Private Dock	Letart Township	OH	Ohio River	226.8	Surface Grab	2/14/2023	1620	<1.00	<0.50	<0.50	Not Detected
20	Old Lock & Dam 23	Apple Grove	OH	Ohio River	231.5	Surface Grab	2/14/2023	1645	<1.00	<0.50	<0.50	Not Detected
21	Racine Hydro	Racine	OH	Ohio River	237.7	Surface Grab	2/15/2023	1720	<1.00	<0.50	<0.50	Not Detected
10	Wayne National Forest Boat Ramp	Grandview Township	OH	Ohio River	148.6	Surface Grab	2/15/2023	1625	<1.00	<0.50	<0.50	Not Detected
12	Campground Boat Lauch	Reno	OH	Ohio River	167.8	Surface Grab	2/15/2023	1555	<1.00	<0.50	<0.50	Not Detected
13	Public Launch Ramp	Williamstown	WV	Ohio River	172.0	Surface Grab	2/15/2023	1520	<1.00	<0.50	<0.50	Not Detected
14	Point Park	Parkersburg	WV	Ohio River	184.5	Surface Grab	2/15/2023	1430	<1.00	<0.50	<0.50	Not Detected
15	Belpre Boat Ramp	Belpre	OH	Ohio River	186.1	Surface Grab	2/15/2023	1410	<1.00	<0.50	<0.50	Not Detected
16	Athens Boat Club Dock	Hockingport	OH	Ohio River	199.3	Surface Grab	2/15/2023	1340	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/15/2023	1320	<1.00	<0.50	<0.50	Not Detected
18	Ravenswood Public Boat Launch	Ravenswood	WV	Ohio River	221.1	Surface Grab	2/15/2023	1235	1.29	<0.50	<0.50	Not Detected
19	Private Dock	Letart Township	OH	Ohio River	226.8	Surface Grab	2/15/2023	1210	1.62	<0.50	<0.50	Not Detected
20	Old Lock & Dam 23	Apple Grove	OH	Ohio River	231.5	Surface Grab	2/15/2023	1150	<1.00	<0.50	<0.50	Not Detected
21	Racine Hydro	Racine	OH	Ohio River	237.7	Surface Grab	2/15/2023	1130	1.44	<0.50	<0.50	Not Detected
22	Village of Syracuse Ramp	Syracuse	OH	Ohio River	245.5	Surface Grab	2/15/2023	1105	<1.00	<0.50	<0.50	Not Detected
23	Mason Public Ramp	Mason	WV	Ohio River	250.2	Surface Grab	2/15/2023	1035	<1.00	<0.50	<0.50	Not Detected
24	Cheshire Public Ramp	Cheshire	OH	Ohio River	257.8	Surface Grab	2/15/2023	0945	<1.00	<0.50	<0.50	Not Detected
25	Gallipolis Riverfront Boat Access	Gallipolis	OH	Ohio River	270.1	Surface Grab	2/15/2023	0915	<1.00	<0.50	<0.50	Not Detected
16	Athens Boat Club Dock	Hockingport	OH	Ohio River	199.3	Surface Grab	2/16/2023	1315	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/16/2023	1340	<1.00	<0.50	<0.50	Not Detected
18	Ravenswood Public Boat Launch	Ravenswood	WV	Ohio River	221.1	Surface Grab	2/16/2023	1410	<1.00	<0.50	<0.50	Not Detected
19	Private Dock	Letart Township	OH	Ohio River	226.8	Surface Grab	2/16/2023	1425	<1.00	<0.50	<0.50	Not Detected
20	Old Lock & Dam 23	Apple Grove	OH	Ohio River	231.5	Surface Grab	2/16/2023	1445	<1.00	<0.50	<0.50	Not Detected
21	Racine Hydro	Racine	OH	Ohio River	237.7	Surface Grab	2/16/2023	1500	<1.00	<0.50	<0.50	Not Detected
22	Village of Syracuse Ramp	Syracuse	OH	Ohio River	245.5	Surface Grab	2/16/2023	1530	<1.00	<0.50	<0.50	Not Detected
23	Mason Public Ramp	Mason	WV	Ohio River	250.2	Surface Grab	2/16/2023	1550	1.18	<0.50	<0.50	Not Detected
24	Cheshire Public Ramp	Cheshire	OH	Ohio River	257.8	Surface Grab	2/16/2023	1620	<1.00	<0.50	<0.50	Not Detected

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based off derivation worksheet

Analyte	Screen Value, ppb	Source
n-Butyl acrylate	560	ATSDR Provisional Health Guidance Value (HGV)
2-ethylhexyl acrylate	500	ATSDR Provisional Health Guidance Value (HGV)
2-ethyl hexanol	200	ATSDR Provisional Health Guidance Value (HGV)

25	Gallipolis Riverfront Boat Access	Gallipolis	OH	Ohio River	270.1	Surface Grab	2/16/2023	1645	<1.00	<0.50	<0.50	Not Detected
26	RC Byrd Lock & Dam	Gallipolis Ferry	WV	Ohio River	279.2	Surface Grab	2/16/2023	1725	<1.00	<0.50	<0.50	Not Detected
17	Forked Run Ramp	Olive Township	OH	Ohio River	207.0	Surface Grab	2/17/2023	1350	<1.00	<0.50	<0.50	Not Detected
18	Ravenswood Public Boat Launch	Ravenswood	WV	Ohio River	221.1	Surface Grab	2/17/2023	1245	<1.00	<0.50	<0.50	Not Detected
19	Private Dock	Letart Township	OH	Ohio River	226.8	Surface Grab	2/17/2023	1230	<1.00	<0.50	<0.50	Not Detected
20	Old Lock & Dam 23	Apple Grove	OH	Ohio River	231.5	Surface Grab	2/17/2023	1210	<1.00	<0.50	<0.50	Not Detected
21	Racine Hydro	Racine	OH	Ohio River	237.7	Surface Grab	2/17/2023	1155	<1.00	<0.50	<0.50	Not Detected
23	Mason Public Ramp	Mason	WV	Ohio River	250.2	Surface Grab	2/17/2023	1125	<1.00	<0.50	<0.50	Not Detected
24	Cheshire Public Ramp	Cheshire	OH	Ohio River	257.8	Surface Grab	2/17/2023	1055	<1.00	<0.50	<0.50	Not Detected
25	Gallipolis Riverfront Boat Access	Gallipolis	OH	Ohio River	270.1	Surface Grab	2/17/2023	1025	1.01	<0.50	<0.50	Not Detected
26	RC Byrd Lock & Dam	Gallipolis Ferry	WV	Ohio River	279.2	Surface Grab	2/17/2023	1005	<1.00	<0.50	<0.50	Not Detected
27	KH Butler Fishing Access	Crown City	OH	Ohio River	284.5	Surface Grab	2/17/2023	0945	<1.00	<0.50	<0.50	Not Detected
28	Athalia Boat Ramp	Athalia	OH	Ohio River	296.6	Surface Grab	2/17/2023	0915	<1.00	<0.50	<0.50	Not Detected
29	Old Lock & Dam 27	Proctorville	OH	Ohio River	301.1	Surface Grab	2/17/2023	0905	<1.00	<0.50	<0.50	Not Detected
30	Harris Park Public Ramp	Huntington	WV	Ohio River	308.1	Surface Grab	2/17/2023	0830	<1.00	<0.50	<0.50	Not Detected
31	Ashland Public Ramp	Ashland	KY	Ohio River	322.6	Surface Grab	2/18/2023	0917	<1.00	<0.50	<0.50	<0.50*
32	Ironton Public Ramp	Ironton	OH	Ohio River	327.0	Surface Grab	2/18/2023	0941	<1.00	<0.50	<0.50	<0.50
33	Greenup Lock and Dam	Greenup	KY	Ohio River	341.0	Surface Grab	2/18/2023	1005	<1.00	<0.50	<0.50	<0.50
34	Wheelersburg Ramp	Wheelersburg	OH	Ohio River	347.0	Surface Grab	2/18/2023	1028	<1.00	<0.50	<0.50	<0.50
35	Portsmouth Public Ramp	Portsmouth	OH	Ohio River	355.6	Surface Grab	2/18/2023	1055	<1.00	<0.50	<0.50	<0.50
36	Nace Run, Shawnee State Park Marina	Shawnee State	OH	Ohio River	363.0	Surface Grab	2/18/2023	1113	<1.00	<0.50	<0.50	<0.50
37	Sandy Springs Campground	Rockville	OH	Ohio River	375.9	Surface Grab	2/18/2023	1137	<1.00	<0.50	<0.50	<0.50
38	Rome Boat Ramp	Rome	OH	Ohio River	383.9	Surface Grab	2/18/2023	1155	<1.00	<0.50	<0.50	<0.50
39	Manchester Public Access Boat Ramp	Manchester	OH	Ohio River	395.8	Surface Grab	2/18/2023	1219	<1.00	<0.50	<0.50	<0.50
40	Aberdeen Ramp	Aberdeen	OH	Ohio River	408.7	Surface Grab	2/18/2023	1248	<1.00	<0.50	<0.50	<0.50
41	Ripley	Ripley	OH	Ohio River	415.8	Surface Grab	2/18/2023	1305	<1.00	<0.50	<0.50	<0.50
42	White Oak Creek Marina	Pleasant Township	OH	Ohio River	424.0	Surface Grab	2/18/2023	1324	<1.00	<0.50	<0.50	<0.50
43	Shady Rest Riverside Campground	Utopia	OH	Ohio River	430.0	Surface Grab	2/18/2023	1342	<1.00	<0.50	<0.50	<0.50
44	Meldahl Lock and Dam	Felicity	OH	Ohio River	436.2	Surface Grab	2/18/2023	1408	<1.00	<0.50	<0.50	<0.50
45	Thomas More Field Station	California	KY	Ohio River	451.0	Surface Grab	2/19/2023	0818	<1.00	<0.50	<0.50	<0.50
46	Schmidt Field Ramp	Cincinnati	OH	Ohio River	466.5	Surface Grab	2/19/2023	0854	<1.00	<0.50	<0.50	<0.50

* 2-ethyl hexanol was qualitatively screened from February 8th to 17th. Beginning February 18th, GCWW lab calibrated for 2-ethyl hexanol after acquiring standard.

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