I 19.2: W29/2/944

U. S. DEPARTMENT OF THE INTERIOR

CHEMICAL ANALYSIS OF SURFACE WATERS OF PENNSYLVANIA DURING LOW FLOW, JULY-OCTOBER 1944

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

CHEMICAL ANALYSES OF SURFACE WATERS OF PENNSYLVANIA DURING LOW FLOW, JULY - OCTOBER 1944

By

Walter F. White, Jr.

Prepared in cooperation with the
Pennsylvania Department of Commerce

Washington, D. C.
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CHEMICAL ANALYSES OF SURFACE WATERS OF PENNSYLVANIA DURING LOW FLOW, JULY - OCTOBER 1944

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The chemical analyses given herewith are for samples of surface waters collected by personnel of the Geological Survey and the Pennsylvania Department of Forests and Waters during periods of low flow in 1944. The sampling was done as a part of a cooperative study of the industrial utility of the surface waters of Pennsylvania which is being made by the Geological Survey and the Pennsylvania Department of Commerce. A major part of the comprehensive program provides for the analysis of composites of samples collected daily from a number of streams in the State. Ten daily sampling stations were started October 1, 1944. An analysis for one of the composite periods for each daily sampling station is included with the analyses of the single samples of low flow. Analyses of samples of high flow in 1945 at the same points will be given in a later report.

The samples were analyzed in the Geological Survey laboratory by the methods regularly in use.[1] Suspended sediment or precipitated material was not determined. The quantity reported for dissolved solids is the residue on evaporation after heating at 180°C. for one hour. For samples with pH 5.0 or less, aluminum, manganese, and total acidity are reported in addition to the regular determinations. The total acidity is reported as the equivalent H_2SO_4, and represents the titrated acidity to the phenolphthalein end point at boiling temperature. Hardness is calculated as the $CaCO_3$ equivalent of all the significant cations except sodium and potassium.

Because the analyses are for single samples, there is no way of knowing how closely they represent the composition of the water throughout the year at the various sampling points.

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[1] Collins, W. D., Notes on practical water analysis: U. S. Geological Survey Water-Supply Paper 596-H, pp. 236-261, 1928.

Chemical analyses of surface waters of Pennsylvania, July-October 1944

(Parts per million)

Delaware River Basin

Source	Date of collection	Discharge (second-feet)	Temperature (°F.)	Color	pH	Specific conductance (K x 10^6 at 25°C.)	Silica (SiO_2)	Aluminum (Al)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Hardness as $CaCO_3$	Total acidity as H_2SO_4
	1944																				
Delaware River near Richmond	Oct. 11-20	---.	59	8	7.1	7.52	1.8	---	0.01	---	8,6	2.0	3.7	26	12	2.0	0.1	0.2	44	30	---
Delaware River at Morrisville	Oct. 11-20	---	---	9	7.2	18.0	2.0	---	.01	---	19	6.5	6.5	53	30	6.1	.0	3.5	102	74	---
Lackawaxen River at Honesdale	Aug. 31	10.9	73	10	7.1	8.75	.5	---	.02	---	12	1.5	3.7	36	11	2.0	.1	.2	49	36	---
Bushkill Creek at Shoemakers	July 28	35.4	70	15	6.9	3.30	3.1	---	.01	---	3.3	1.4	1.4	10	7.6	.5	.1	.0	24	14	---
Lehigh River at Stoddartsville	July 29	43.5	70	25	6.2	3.92	2.4	---	.02	---	4.3	1.1	1.7	9	8.0	2.0	.1	.2	29	15	---
Lehigh River at Tannery	July 29	158	75	13	6.6	2.97	1.2	---	.01	---	3.3	1.1	.9	7	6.5	1.0	.0	1.0	23	13	---
Lehigh River at Catasauqua	Oct. 11-20	---	53	6	7.1	25.2	5.0	---	.03	---	26	9.5	9.0	35	78	3.8	.1	4.8	157	104	---
Pohopoco Creek near Parryville	July 28	69.9	75	7	6.7	3.13	4.9	---	.01	---	2.8	1.2	3.2	9	8.4	1.0	.1	1.4	23	12	---
Jordan Creek at Allentown	Sept. 2	4.26	59	10	7.3	41.1	5.8	---	.02	---	47	21	6.9	130	93	3.8	.1	12	262	204	---
Monocacy Creek at Bethlehem	Aug. 30	14.4	59	6	8.1	36.6	5.8	---	.02	---	43	21	1.5	186	29	3.6	.1	11	213	194	---
Tohickon Creek near Pipersville	July 26	.89	79	15	7.8	23.9	2.1	---	.01	---	23	9.5	12	81	42	8.0	.2	.3	142	96	---
Neshaminy Creek near Langhorne	July 26	22.8	80	9	7.2	18.0	9.0	---	.01	---	16	6.1	9.8	59	23	7.9	.1	3.4	109	65	---
Schuylkill River at Pottsville	July 30	40.3	64	5	3.6	103	17	19	.06	8.8	92	52	7.6	0	565	3.0	.1	.0	843	576	176
Schuylkill River at Pottstown	Oct. 11-20	---	55	3	7.0	56.4	8.2	---	.02	---	59	27	16	45	221	11	.1	6.6	393	258	---
Little Schuylkill River at Tamaqua	July 28	9.77	79	3	4.2	28.3	8.6	5.0	.02	1.3	25	8.9	5.3	0	123	10	.0	.1	192	131	31
Perkiomen Creek near Graters Ford	July 26	45.2	84	8	7.4	21.8	7.6	---	.03	---	24	9.0	6.0	94	24	5.1	.1	.7	123	97	---
Ridley Creek at Moylan	July 25	4.26	77	5	6.9	13.5	13	---	.02	---	9.6	5.4	6.8	35	13	8.8	.1	7.5	82	46	---
Chester Creek at Chester	June 25	19.5	76	10	7.2	16.2	15	---	.02	---	12	5.5	11	48	18	10	.1	4.9	101	53	---
Brandywine Creek at Chadds Ford	July 25	241	76	8	7.2	19.8	9.2	---	.06	---	16	5.8	14	61	17	16	.1	3.4	116	64	---
West Branch Brandywine Creek at Coatesville	Sept. 5	6.84	76	8	7.4	10.8	12	---	.02	---	10	3.9	4.7	43	9.5	3.8	.0	1.0	66	41	---

Susquehanna River Basin

North Branch Susquehanna River																					
At Towanda	July 21	1,570	69	7	7.7	22.3	1.0	---	---	---	31	6.2	4.6	100	19	7.0	.1	1.2	129	103	---
At Falls	Sept. 7	1,080	73	9	7.8	27.0	1.0	---	.18	---	33	6.3	13	108	24	15	.2	.4	147	108	---
At Falls	Oct. 11-20	---	56	10	7.8	22.4	.6	---	.01	---	29	5.2	9.6	90	21	10	.0	.8	125	94	---
At Wilkes Barre	July 29	2,010	81	10	6.7	35.0	1.6	---	.03	---	41	14	2.9	64	94	10	.1	1.9	218	160	---
Susquehanna River at Sunbury	Aug. 8	3,350	78	4	5.7	40.7	2.6	---	.35	---	44	17	6.3	4	162	8.8	.1	11	275	180	---
Susquehanna River at Harrisburg																					
East channel, station 140	Oct. 16	---	49	4	5.0	52.0	---	---	---	---	---	---	---	1	233	7	---	---	---	234	---
" " " 300	Oct. 16	---	50	3	5.7	50.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 500	Oct. 16	---	49	3	6.2	44.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 690	Oct. 16	---	50	6	6.7	35.9	---	---	---	---	---	---	---	18	135	7	---	---	---	153	---
" " " 920	Oct. 16	---	50	7	6.7	29.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 1180	Oct. 11-20	---	55	7	7.0	29.3	2.6	---	.02	---	31	9.6	11	26	101	7.8	.1	1.6	185	117	---
" " " 1220	Oct. 16	---	50	7	6.6	26.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
West channel, station 300	Oct. 16	---	49	7	6.8	25.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 600	Oct. 16	---	49	11	7.1	28.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 900	Oct. 16	---	50	18	7.4	33.9	---	---	---	---	---	---	---	96	76	10	---	---	---	126	---
" " " 1100	Oct. 16	---	49	18	7.4	33.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
" " " 1300	Oct. 16	---	49	7	7.7	30.5	---	---	---	---	---	---	---	153	18	6	---	---	---	144	---
Susquehanna River at Marietta	Aug. 24	3,790	73	8	6.9	38.7	2.4	---	.01	---	40	16	11	45	131	10	.2	1.9	251	166	---

Chemical analyses of surface waters of Pennsylvania, July-October 1944--Continued

Susquehanna River Basin--Continued

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Source	Date of collection	Discharge (second-feet)	Temperature (°F.)	Color	pH	Specific conductance (K x 10^6 at 25°C.)	Silica (SiO_2)	Aluminum (Al)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Hardness as $CaCO_3$	Total acidity as H_2SO_4
	1944																				
Towanda Creek near Monroeton	Aug. 31	9.88	67	5	6.9	10.8	2.4	---	0.02	---	12	2.5	3.3	30	16	3.9	0.1	0.6	58	40	---
North Branch Mehoopany Creek near Lovelton	Sept. 1	1.91	70	5	7.4	9.26	3.1	---	.01	---	12	2.0	3.5	39	9.4	2.6	.1	.2	51	38	---
Tunkhannock Creek at Dixon	Sept. 1	22.1	70	10	7.2	11.4	2.1	---	.01	---	16	2.0	3.7	44	15	3.0	.1	.2	64	46	---
Lackawanna River at Archbald	July 20	48.1	68	3	3.5	56.2	10	7.1	.08	3.0	34	21	7.2	0	231	4.0	.1	.0	344	231	69
Toby Creek at Luzerne	Sept. 6	1.87	66	14	7.0	11.9	1.8	---	.01	---	13	2.3	5.8	35	16	5.5	.3	.8	69	42	---
Solomon Creek at Wilkes-Barre	Sept. 6	3.9	66	8	2.7	223	33	29	6.4	10	159	93	39	0	1,100	10	---	.6	1,550	1,070	365
Wapwallopen Creek near Wapwallopen	July 18	12.9	72	9	6.9	4.33	4.9	---	---	---	4.1	1.5	1.9	12	7.9	1.4	.1	.3	30	16	---
---------Do	Aug. 29	6.1	60	---	6.5	4.39	---	---	---	---	---	---	---	14	---	---	---	---	---	---	---
Fishing Creek near Bloomsburg	July 17	84.4	73	6	7.0	4.83	4.6	---	---	---	4.2	1.6	2.1	12	7.2	1.8	.0	2.2	33	17	---
---------Do	Sept. 2	23.7	65	---	6.4	4.83	---	---	---	---	---	---	---	11	---	---	---	---	---	---	---
Little Fishing Creek at Eyers Grove	Aug. 28	2.93	63	8	6.9	6.57	1.6	---	.03	---	6.7	1.7	3.7	21	8.6	3.4	.0	1.0	37	24	---
West Branch Susquehanna River																					
At Bower	Aug. 7	98.2	74	4	3.3	72.2	9.2	5.7	.14	1.1	54	16	21	0	283	5.9	---	1.6	410	258	68
At Karthaus	Aug. 8	850	75	5	3.2	75.0	9.0	6.9	.26	1.6	49	15	15	0	266	7.9	---	.6	384	256	88
At Renovo	Aug. 11	373	79	4	3.1	90.8	9.8	9.4	.94	1.8	58	21	20	0	334	11	.4	.9	473	327	112
At Williamsport	July 19	1,550	76	3	6.8	20.4	4.0	---	---	---	21	7.0	5.6	14	71	5.1	.0	.9	130	81	---
At Lewisburg	Oct. 11-20	---	58	5	6.5	26.0	4.4	---	.01	---	27	8.3	11	8	96	7.0	.1	1.4	166	102	---
Clearfield Creek at Dimeling	Aug. 8	110	80	8	3.1	65.3	8.4	5.8	.35	1.6	37	14	---	0	212	1.8	.2	.0	331	224	78
Moshannon Creek at Osceola Mills	Aug. 7	65.9	76	5	2.8	121	12	18	2.9	2.8	49	21	6.2	0	393	2.2	.2	.1	636	399	227
Moshannon Creek at Osceola Mills	Aug. 10	18.0	71	5	2.6	170	20	23	11	3.4	71	29	18	0	593	3.1	---	1.0	797	584	342
Sinnemahoning Creek at Sinnemahoning	Aug. 10	39.8	77	5	3.8	33.5	11	6.1	.14	.9	22	9.2	6.6	0	126	12	.2	1.0	205	135	59
Driftwood Branch Sinnemahoning Creek at Sterling Run	Aug. 9	15.1	85	5	7.1	13.0	3.0	---	.02	---	12	2.6	8.5	20	22	13	.1	1.6	75	41	---
Kettle Creek near Cross Fork	Aug. 11	7.82	73	10	6.8	6.00	3.1	---	.01	---	6.5	1.8	1.7	20	7.9	1.8	.0	.2	32	24	---
North Bald Eagle Creek at Beech Creek Station	Aug. 12	167	70	9	7.8	32.8	2.7	---	.02	---	40	16	2.0	176	14	5.0	.0	5.0	168	166	---
Spring Creek near Axemann	Aug. 10	54.3	69	5	8.4	33.9	3.3	---	.02	---	44	18	1.0	[a]197	12	3.2	.0	9.4	198	184	---
Thompson Spring at State College	Aug. 12	8.32	50	5	7.6	38.6	5.3	---	.02	---	47	21	3.2	227	10	3.2	.0	12	221	204	---
Rock (Benner) Spring near Bellefonte	Aug. 12	16.2	50	4	7.8	28.7	5.4	---	.02	---	37	14	2.9	171	5.8	1.9	.0	9.2	162	150	---
Forked Spring at Fisherman's Paradise near Bellefonte	Aug. 12	5.72	53	3	7.6	36.7	6.4	---	.02	---	46	19	4.1	220	11	2.5	.1	7.7	207	193	---
Kelly Spring near Bellefonte	Aug. 12	15.5	50	5	7.7	27.2	6.0	---	.08	---	32	14	4.8	161	5.8	4.5	.1	4.1	150	137	---
Pine Creek at Cedar Run	Aug. 30	53.1	68	4	7.2	13.6	2.4	---	.02	---	14	3.3	6.1	25	26	7.5	1.2	.6	75	48	---
Blockhouse Creek near English Center	Aug. 30	2.91	65	6	7.3	6.68	3.3	---	.02	---	8.2	1.3	2.9	24	8.9	2.0	.1	.2	37	26	---
Lycoming Creek near Trout Run	July 20	38.3	63	3	6.9	6.59	3.4	---	---	---	7.5	1.7	1.9	15	14	1.5	.1	.7	40	26	---
Loyalsock Creek at Loyalsock	July 20	103	68	4	7.0	5.08	3.0	---	---	---	6.0	1.4	1.1	13	10	1.2	.0	.5	31	21	---
Muncy Creek at Sonestown	Aug. 31	2.21	66	7	7.1	4.54	3.0	---	.02	---	5.6	1.0	1.6	13	7.3	1.8	.1	.2	28	18	---
Penn Creek at Penns Creek	July 17	202	80	5	8.6	15.0	2.0	---	---	---	24	4.8	---	[b]80	9.0	1.1	.0	.8	88	80	---
Shamokin Creek at Weigh Scale	Aug. 8	69.2	76	8	3.0	178	21	29	15	10	119	68	17	0	817	22	.1	.4	1,260	845	342
Mahantango Creek East near Dalmatia	July 30	35.3	81	5	4.6	18.6	5.7	1.0	.03	1.9	13	9.5	1.8	0	79	.8	.1	1.2	120	81	6

[a]Includes equivalent of 10 parts per million of carbonate (CO_3).

[b]Includes equivalent of 5 parts per million of carbonate (CO_3).

Chemical analyses of surface waters of Pennsylvania, July-October 1944--Continued

Susquehanna River Basin--Continued

Source	Date of collection	Discharge (second-feet)	Temperature (°F.)	Color	pH	Specific conductance (K x 10^6 at 25°C.)	Silica (SiO_2)	Aluminum (Al)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Hardness as $CaCO_3$	Total acidity as H_2SO_4
	1944																				
Frankstown Branch Juniata River																					
At Williamsburg	Aug. 9	85.3	86	160	7.3	43.8	5.2	---	0.08	---	46	14	23	164	64	13	---	4.8	268	172	---
At Huntingdon	Aug. 9	200	78	160	7.5	40.2	5.1	---	.35	---	42	14	18	174	32	18	0.2	.4	241	162	---
Juniata River at Newport	Oct. 11-20	---	55	40	7.6	41.5	2.6	---	.11	---	40	13	28	124	92	13	.2	1.4	252	153	---
Little Juniata River at Spruce Creek	Aug. 10	79.5	64	260	7.3	47.3	6.1	---	.08	---	40	14	42	178	43	40	---	1.0	298	157	---
Little Bald Eagle Creek at Tyrone	Aug. 10	11.5	89	360	6.7	83.8	6.2	---	.03	---	72	12	75	96	77	165	---	.0	564	229	---
Arch Spring at Arch Spring	Aug. 10	16.5	54	3	7.3	25.0	6.8	---	.04	---	37	9.1	---	132	15	1.6	.1	4.7	141	130	---
Standing Stone Creek near Huntingdon	Aug. 9	16.1	78	5	7.9	18.8	3.4	---	.03	---	25	7.3	1.9	90	20	.9	.1	.6	102	92	---
Raystown Branch Juniata River at Saxton	Aug. 9	84.4	78	5	7.9	30.0	2.1	---	.04	---	39	16	9.2	120	53	1.9	.2	2.9	180	163	---
Dunning Creek at Belden	Aug. 9	16.6	76	4	8.0	28.9	3.8	---	.01	---	42	12	---	106	59	1.5	.1	2.0	176	154	---
Brush Creek at Gapsville	Aug. 9	2.34	69	10	6.9	6.96	3.5	---	.19	---	9.0	1.8	.7	24	6.5	1.5	.1	3.2	44	30	---
Great Trough Creek near Marklesburg	Aug. 9	2.6	76	4	3.6	56.4	14	9.8	.38	2.3	52	18	---	0	258	1.5	.3	1.0	386	274	91
Aughwick Creek near Three Springs	Aug. 10	8.1	71	5	7.8	20.4	1.2	---	.01	---	29	7.1	1.3	102	18	1.2	.1	.2	112	102	---
Kishacoquillas Creek at Reedsville	Aug. 10	50.2	69	5	8.0	27.6	4.7	---	.02	---	35	11	5.8	146	16	2.0	.0	7.5	156	133	---
Tuscarora Creek near Port Royal	Aug. 10	8.6	81	8	7.8	21.7	.4	---	.03	---	30	8.5	4.5	118	19	1.6	.2	.4	123	110	---
Cocolamus Creek near Millerstown	Aug. 10	4.6	76	13	7.1	16.8	3.3	---	.02	---	25	4.9	.6	78	14	2.1	.1	2.7	97	83	---
Sherman Creek at Shermandale	July 14	32.6	85	6	8.4	16.8	2.3	---	---	---	24	5.9	1.4	[c]86	13	1.6	.1	.9	100	84	---
Clark Creek near Carsonville	Aug. 23	7.41	51	14	6.1	2.34	3.5	---	.46	---	2.2	.6	2.6	9	4.1	1.0	.1	.4	20	8	---
Stony Creek near Dauphin	Aug. 23	7.91	70	8	7.0	3.22	4.2	---	.02	---	3.4	.8	2.5	15	2.7	1.1	.1	.3	22	12	---
Conodoguinet Creek at Hogestown	July 14	221	84	6	8.0	29.0	2.6	---	---	---	44	9.1	2.5	148	15	6.8	.1	7.2	173	147	---
Big Spring near Newville	Aug. 4	28.6	50	4	7.6	30.6	6.5	---	.02	---	50	7.9	.4	167	9.5	1.4	.2	11	172	157	---
Paxton Creek near Pembrook	Aug. 10	.60	76	20	7.4	22.5	7.7	---	.23	---	34	4.1	3.9	96	19	3.2	.2	8.2	140	102	---
Yellow Breeches Creek at Olmstead Mill	Aug. 25	133	64	10	6.8	25.1	7.6	---	.04	---	35	9.9	.9	138	8.9	2.2	.0	5.6	145	128	---
Boiling Springs at Boiling Springs	Aug. 4	34.8	53	3	7.5	22.5	8.9	---	.01	---	31	9.3	.6	124	7.0	1.2	.2	7.2	125	116	---
Swatara Creek at Harper Tavern	Aug. 23	39.8	69	6	7.7	28.6	6.4	---	.02	---	27	10	10	36	83	8.5	.1	3.2	176	108	---
West Conewago Creek near Manchester	Aug. 22	15.4	77	10	7.1	17.1	3.3	---	.02	---	20	5.2	6.1	74	13	6.5	.1	1.2	98	71	---
Codorus Creek near York	Aug. 22	24.0	74	1200	7.3	85.9	5.8	---	.09	---	35	6.6	169	400	29	88	---	.2	698	114	---
South Branch Codorus Creek near York	Aug. 22	2.1	77	8	6.7	10.5	3.1	---	.01	---	9.5	3.0	4.5	34	5.1	6.8	.1	3.4	58	36	---
Conestoga Creek at Lancaster	July 24	119	74	8	7.8	34.9	6.5	---	.04	---	48	14	---	175	19	4.5	.1	6.9	203	177	---

[c]Includes equivalent of 4 parts per million of carbonate (CO_3).

Chemical analyses of surface waters of Pennsylvania, July-October 1944--Continued

Ohio River Basin

1961b1

Source	Date of collection	Discharge (second-feet)	Temperature (°F)	Color	pH	Specific conductance (K x 10^5 at 25°C.)	Silica (SiO_2)	Aluminum (Al)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium and potassium (Na+K)	Bicarbonate (HCO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Dissolved solids	Hardness as $CaCO_3$	Total acidity as H_2SO_4
	1944																				
Allegheny River at Eldred	Aug. 25	71	64	6	7.0	74.9	2.9	---	0.02	---	42	9.4	84	48	11	194	0.1	0.6	418	143	---
Allegheny River at Kinzua	Aug. 12	320	81	7	7.5	51.0	1.6	---	.17	---	36	6.6	52	78	18	104	.3	.3	282	117	---
Allegheny River at West Hickory	Aug. 10	586	---	5	7.6	42.0	1.0	---	.04	---	33	6.4	39	82	20	75	.2	.2	230	109	---
Allegheny River near Rimer	Aug. 8	1,810	---	10	7.5	36.1	1.0	---	.01	---	30	6.7	29	61	45	48	.1	.3	212	102	---
Allegheny River at Kittanning	Oct. 11-20	---	57	15	7.2	37.6	.6	---	.08	---	32	6.8	31	58	58	46	.0	.4	215	108	---
Allegheny River near Natrona	Sept. 8	1,890	69	8	4.2	64.8	6.2	4.2	.05	2.0	57	15	35	0	243	39	---	.6	419	233	39
Ohio River at Sewickley	Oct. 13	7,480	65	5	5.1	54.5	5.6	---	.02	---	48	13	39	2	215	22	.3	.8	354	173	---
Conewango Creek at Russell	Aug. 12	145	78	12	7.5	27.5	3.0	---	.02	---	38	6.6	10	131	23	6.4	.2	4.4	160	122	---
Brokenstraw Creek at Youngsville	Aug. 12	46	68	5	7.7	21.6	4.6	---	.04	---	31	5.7	7.1	116	13	3.9	.2	1.9	122	101	---
Tionesta Creek at Mayburg	Aug. 11	31	---	10	7.2	12.9	1.3	---	.01	---	9.6	2.9	12	44	7.8	12	.0	.4	70	36	---
Oil Creek at Rouseville	Aug. 10	45	---	10	7.3	33.1	1.0	---	.01	---	31	7.6	21	85	20	45	.1	.2	186	109	---
French Creek at Venango	Aug. 8	77	78	15	7.5	21.9	2.4	---	.02	---	33	6.9	2.4	112	18	3.1	.2	.6	120	111	---
French Creek at Utica	Aug. 9	148	---	9	7.4	27.1	2.4	---	.01	---	38	6.9	6.5	101	43	6.0	.1	1.4	162	123	---
Clarion River at Cooksburg	Aug. 14	74.8	79	85	6.8	66.0	5.2	---	.01	---	71	9.1	47	99	134	68	.2	.4	431	215	---
Clarion River at St. Petersburg	Aug. 14	44.4	87	60	7.0	36.0	2.4	---	.74	---	35	6.5	26	43	77	38	.2	.5	232	144	---
Redbank Creek at St. Charles	Aug. 5	46	84	4	6.7	38.8	1.6	---	.02	---	30	8.9	31	18	114	32	.2	.6	232	111	---
Mahoning Creek at Punxsutawney	Aug. 4	25	78	5	7.0	99.7	10	---	.09	---	88	24	99	67	442	12	.3	1.4	734	318	---
Crooked Creek at Idaho	Aug. 3	15	80	2	3.9	94.9	10	4.6	.11	---	60	23	90	0	399	38	.2	.6	652	275	40
Stony Creek at Ferndale	Aug. 1	30	79	3	2.8	147	6.4	16	6.1	4.6	101	36	17	0	592	8.0	.2	.4	---	592	202
Conemaugh River at Seward	Aug. 2	241	80	4	3.9	96.7	14	2.1	.27	9.2	103	28	38	0	444	18	.5	.8	682	406	40
Kiskiminetas River at Vandergrift	Sept. 4	448	71	5	2.7	174	19	15	3.8	8.2	112	38	39	0	686	16	.5	1.3	950	642	246
Little Conemaugh River at East Conemaugh	Aug. 2	18	70	8	2.7	222	8.0	29	15	10	155	48	50	0	950	14	.3	.8	---	902	349
Blacklick Creek at Blacklick	Aug. 2	65	77	17	2.6	225	7.2	39	36	3.2	92	36	64	0	934	22	.3	.2	---	821	560
Loyalhanna Creek at Kingston	Aug. 1	17	75	5	6.3	26.1	5.4	---	.02	---	28	9.0	5.1	6	102	3.9	.1	1.4	169	107	---
Buffalo Creek near Freeport	Sept. 6	8.05	70	7	7.4	48.0	3.4	---	.01	---	45	9.3	35	76	86	52	.2	.4	280	151	---
Monongahela River near Greensboro	Aug. 15	2,160	82	7	3.3	65.0	3.9	5.8	.13	1.2	35	13	18	0	214	10	.2	1.3	336	199	73
Monongahela River at Charleroi	Oct. 11-20	---	60	5	4.0	36.1	6.0	1.1	.15	.7	26	7.9	19	0	141	5.6	.1	.8	211	110	24
Monongahela River at Braddock	Sept. 9	1,430	80	8	3.7	99.4	12	5.0	.04	2.6	82	22	75	0	451	25	.4	.8	704	336	56
Dunkard Creek at Shannopin	Aug. 15	7.3	83	4	3.4	130	11	5.3	.24	4.2	103	40	83	0	570	45	.7	.1	901	478	65
South Fork Tenmile Creek at Jefferson	Aug. 15	1.22	75	10	7.3	49.5	3.4	---	.02	---	43	8.8	46	130	72	43	.1	1.6	294	144	---
Dunlap Creek at Allison	Aug. 17	13	69	5	7.0	364	2.5	---	.07	---	253	97	526	246	1,680	152	.6	9.8	2,930	1,030	---
Redstone Creek at Waltersburg	Aug. 17	29	72	32	2.4	365	27	13	127	10	244	97	137	0	1,830	20	---	.8	2,500	1,640	824
Youghiogheny River at Connellsville	Aug. 17	316	81	4	5.5	12.7	2.9	---	.02	---	13	3.4	3.2	4	43	2.5	.1	1.8	77	46	---
Youghiogheny River at Sutersville	Aug. 18	384	77	7	3.2	77.7	7.0	5.0	.16	1.2	54	18	27	0	293	16	.3	.3	462	269	52
Casselman River at Markleton	Aug. 16	54	77	3	3.4	82.7	8.6	9.7	.15	4.2	74	26	11	0	372	4.9	.2	1.0	557	372	99
Laurel Hill Creek at Ursina	Aug. 16	27.5	82	8	7.1	6.86	.9	---	.01	---	8.1	2.2	1.2	22	11	1.2	.1	.4	39	29	---
Turtle Creek at Trafford	Sept. 9	3.34	68	23	3.4	115	27	19	11	3.6	99	25	47	0	526	38	---	1.9	840	510	189
Chartiers Creek at Carnegie	Sept. 8	57	64	55	2.6	279	20	31	112	7.2	156	73	167	0	1,470	94	---	.4	2,480	1,300	---
Beaver River at Wampum	Aug. 30	640	66	10	6.6	43.7	4.0	---	.01	---	52	12	16	47	131	20	.6	12	291	179	---
Shenango River at Sharpsville	Aug. 7	290	76	9	6.7	17.8	2.2	---	.02	---	23	5.1	4.5	50	38	3.8	.1	2.4	114	78	---
Little Shenango River at Greenville	Aug. 7	16	---	10	7.5	23.8	5.4	---	.01	---	34	7.6	1.9	106	26	3.2	.1	1.9	142	116	---
Connoquenessing Creek at Hazen	Aug. 31	3.78	67	8	6.8	161	1.0	---	.02	---	118	44	147	69	269	315	3.4	6.3	975	475	---
Slippery Rock Creek at Wurtenburg	Aug. 31	45	66	9	7.7	44.2	2.8	---	.02	---	54	11	11	92	95	21	.1	.4	274	180	---
Raccoon Creek at Moffatts Mill	Oct. 12	29	55	---	4.0	117	---	---	.18	---	121	49	69	0	576	40	---	.5	---	507	86

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