SELECTED HYDROLOGIC DATA, CLARION RIVER AND REDBANK CREEK BASINS, NORTHWESTERN PENNSYLVANIA

--AN INTERIM REPORT

By Harry E. Koester and Joseph Lescinsky

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CONVERSION FACTORS

Factors for converting English units to metric units are given below to four significant figures. However, in the text the metric equivalents are shown only to the number of significant figures consistent with the values for the English units.

English	Multiply by	Metric
ft^3/s (cubic feet per second)	2.832×10^{-2}	m^3/s (cubic meters per second)
mi (miles)	1.609	km (kilometers)
mi^2 (square miles)	2.590	km^2 (square kilometers)

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ABSTRACT

This report presents basic hydrologic data collected for part of a water-resources study and supplements an interpretive report which will be published separately. The report summarizes discharge data from 140 stream collection sites, contains tables of about 800 chemical analyses from 164 stream sites and 107 analyses from 91 abandoned flowing oil and gas wells including concentrations of major ions and trace metals. A table shows results of collections of macroinvertebrates at 136 stream sites. Seven flow duration curves are also presented.

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INTRODUCTION

This report presents data on stream discharge, chemical quality, and biota collected as part of an ongoing investigation of the water resources of the Clarion River and Redbank Creek basins, northwestern Pennsylvania. These data should be useful planning aids for the development and management of the water resources of the area.

The investigation is being conducted by the U. S. Geological Survey in cooperation with the Pennsylvania Department of Environmental Resources.

ACKNOWLEDGMENTS

The authors wish to recognize support from Theodore F. Buckwalter, U. S. Geological Survey in Clarion, and David C. O'Hara and Donald E. Kahle, former employees. D. C. O'Hara identified most of the bottom fauna, and T. F. Buckwalter and D. E. Kahle performed many of the chemical analyses.

Thanks are also due the Pennsylvania Department of Environmental Resources and consultants for the Commonwealth, including Gwin, Dobson, and Foreman of Altoona, Pa. and Buchart and Horn of York, Pa., who furnished some of the flow data and chemical analyses of flowing wells in the Toby, Deer, and Licking Creek subbasins.

LOCATION AND SIZE OF AREA

The Clarion River and Redbank Creek basins lie entirely in a non-glaciated region of northwestern Pennsylvania's Allegheny Plateau that is deeply dissected by steep, V-shaped valleys. The drainage areas of the basins are 1,280 and 545 mi^2 (3,315 and 1,410 km^2), respectively. The total study area, which is about 30 mi (48 km) wide and 70 mi (113 km) long, is 1,843 mi^2 (4,770 km^2) and includes an area of 18 mi^2 (47 km^2) lying between the two basins and draining directly to the Allegheny River.

THE DATA BASE

Surface Water

Surface-water data have been collected for decades by the U. S. Geological Survey in the Clarion River and Redbank Creek basins as part of its stream-monitoring network. Since 1961 these data have been published annually in Water Resources Data for Pennsylvania, Part I: Surface-Water Records. References to sources for earlier data are also given in these reports.

Records of seven recording stations in the Clarion and two in the Redbank basins are published in the 1974 volume, the latest available. Data are also given in Part I for about 50 nonrecording stations and miscellaneous sites. Table I of this report summarizes the discharge measurements made at the 12 nonrecording gaging stations. In addition, data for this study were also collected at two other recording gaging stations (records unpublished) and a total of 140 miscellaneous sites; most of the latter were instantaneous discharges measured at the time that samples were collected for chemical analyses. Instantaneous discharges are presented with their corresponding chemical analyses. Table 2 gives a brief description of the location and drainage area of all data-collection sites. Figure 1 shows their location, and Table 3 shows the type of data collected.

Ground Water

Most of the data contained in Table 4 were collected during the period 1971-74. The data include records only of flowing oil or gas wells, mostly abandoned, which will be published along with records of water wells in the final report. Data on date drilled and depth of wells are mostly unknown, but most were completed between the middle 1920's and the middle 1950's. Key wells have been monitored infrequently in three subbasins for special studies.

Numbering System for Streams and Wells

The station identification numbers assigned to the surface-water data-collection sites conform to the standard downstream-order numbering system used for stream-gaging stations by the U.S. Geological Survey (Tables 1 and 2). The five-digit numbers assigned to the map (Figure 1) are abbreviated from the standard eight-digit downstream-order numbers, having the first three digits deleted.

The well-numbering system (Figure 1 and Table 4), used to identify the flowing wells (example, Cr-308), consists of two parts. The two-letter symbol identifies the county in which the well is located (Clarion County), and the numbers represent the sequence in which the wells were inventoried.

The well-location number (Table 4) identifies the flowing well to degrees and minutes of latitude (first four numbers) and to degrees and minutes of longitude (last four numbers). These numbers define a tract of land having dimensions of one minute latitude and longitude, or approximately one square mile.

FLOW DURATION

A flow-duration curve is a cumulative-frequency curve that shows the percentage of time that discharges were equaled or exceeded during a given period of record. The duration curve is a useful analytical tool in certain water-supply and waste-disposal investigations and in the selection of hydro-electric power sites by showing the magnitude and persistence of base runoffs. Flow durations of streams in the study area are shown in figures 2-8. A duration curve with a uniformly steep slope (figures 2 and 7) indicates the effect of the ground-water component of flow is small in comparison to that of the more variable, direct-runoff component (Searcy, 1959).

SURFACE-WATER QUALITY

Water Chemistry

Chemical analyses listed in Tables 4, 5, and 6 were made by the U. S. Geological Survey, except as otherwise noted. Preliminary analyses were made in the field, when necessary, and final analyses were completed in laboratories at Clarion, Harrisburg, and Albany, N. Y. Samples were analyzed by methods described by Hem (1959) and Brown and others (1970).

About 800 surface-water samples from 163 sites and 107 water samples from 91 abandoned flowing oil and gas wells were collected for this study during 1972-74. Samples were also collected for other purposes prior to this study at three stations in the Clarion River basin, beginning in October, 1962, and their analyses can be found in "Water Resources Data for Pennsylvania, Part II: Water Quality Records."

Table 7 is included for the reader's convenience. The first column of values gives the generally accepted standards for drinking water set by the Environmental Protection Agency (EPA), published under their former name - Federal Water Pollution Control Administration (1968). The second column gives the recommended criteria for water supply sources in the State Water Plan (Chiang and others, 1975, p. 49-63). The two sets of criteria are generally similar, but, because the state considers uses in addition to drinking, the maxima of some constituents are somewhat higher.

Concentrations of dissolved constituents (residue-on-evaporation) in streams, with few exceptions, vary inversely with stream discharge. Thus, stream quality in the study area exhibits marked seasonal variations. Because ground-water discharge makes up virtually all of streamflow during dry periods, concentrations of chemical constituents in streams at such times are similar to those in local ground water

Industrial wastes and mine drainage have lowered the dissolved oxygen (D.O.) concentration of the Clarion River. Data in table 8 were collected in downstream order within a 3-hour time span. A 5.2 percent drop in dissolved oxygen occurred between Johnsonburg and Ridgway, even though a substantial increase in D.O. was added to the Clarion River by Elk Creek. Between Ridgway and Cooksburg, the D.O. shows a rapid recovery, rising 7.2 percent.

Aquatic Biology

Biological sampling was carried out at 136 chemical-sampling stations. Samples were collected during March, April, and September 1973 and April, May, and September 1974 (Table 9). At each site, benthic macroinvertebrates and other aquatic organisms were collected in both riffles and pools and along the shoreline for half an hour, so comparisons of environment could be made. These bottom organisms were collected by hand picking, hand screening, netting, and dredging through bottom material.

A total of 1,062 individual invertebrate organisms were collected at 48 sites in the Redbank Creek basin, and 1,292 individuals were collected at 88 sites in the Clarion River basin; no invertebrates were found at 17 of these sites in the Clarion basin and at 4 in the Redbank. Results of macroinvertebrate collections on streams affected and unaffected by mine drainage are presented in Table 10. During water years 1972-74, the Redbank Creek supported 87 taxa (genera or families) in 13 orders; the Clarion River supported 76 taxa in 11 orders.

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Chiang, Sie Ling, McSparren, J. E., and others, 1975, The state water plan, planning principles, goals, objectives, standards criteria, work program and methodology: Pennsylvania Dept. of Environmental Resources, Office of Resources Management, p. 49-63.

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Hem, J. D., 1959, Study and interpretation of the chemical characteristics of natural water: U. S. Geol. Survey Water-Supply Paper 1473, 254 p.

Searcy, J. K., 1959, Flow-duration curves -- Manual of hydrology, part 2, low-flow techniques: U. S. Geol. Survey Water-Supply Paper 1542-A, p. 1-33.

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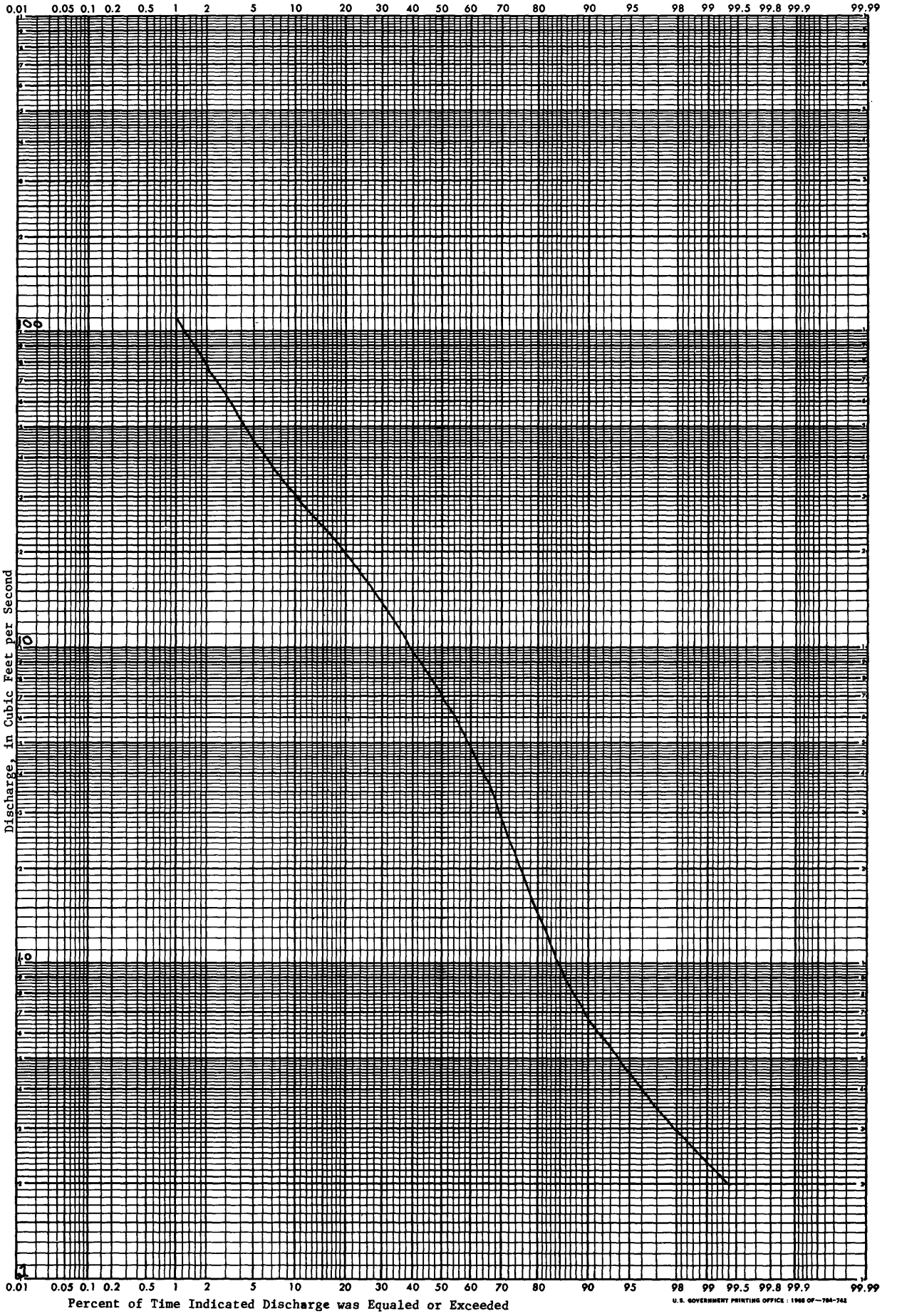

Figure 2. Duration curve of daily discharge for Sevenmile Run near Rasselas 1953-1974

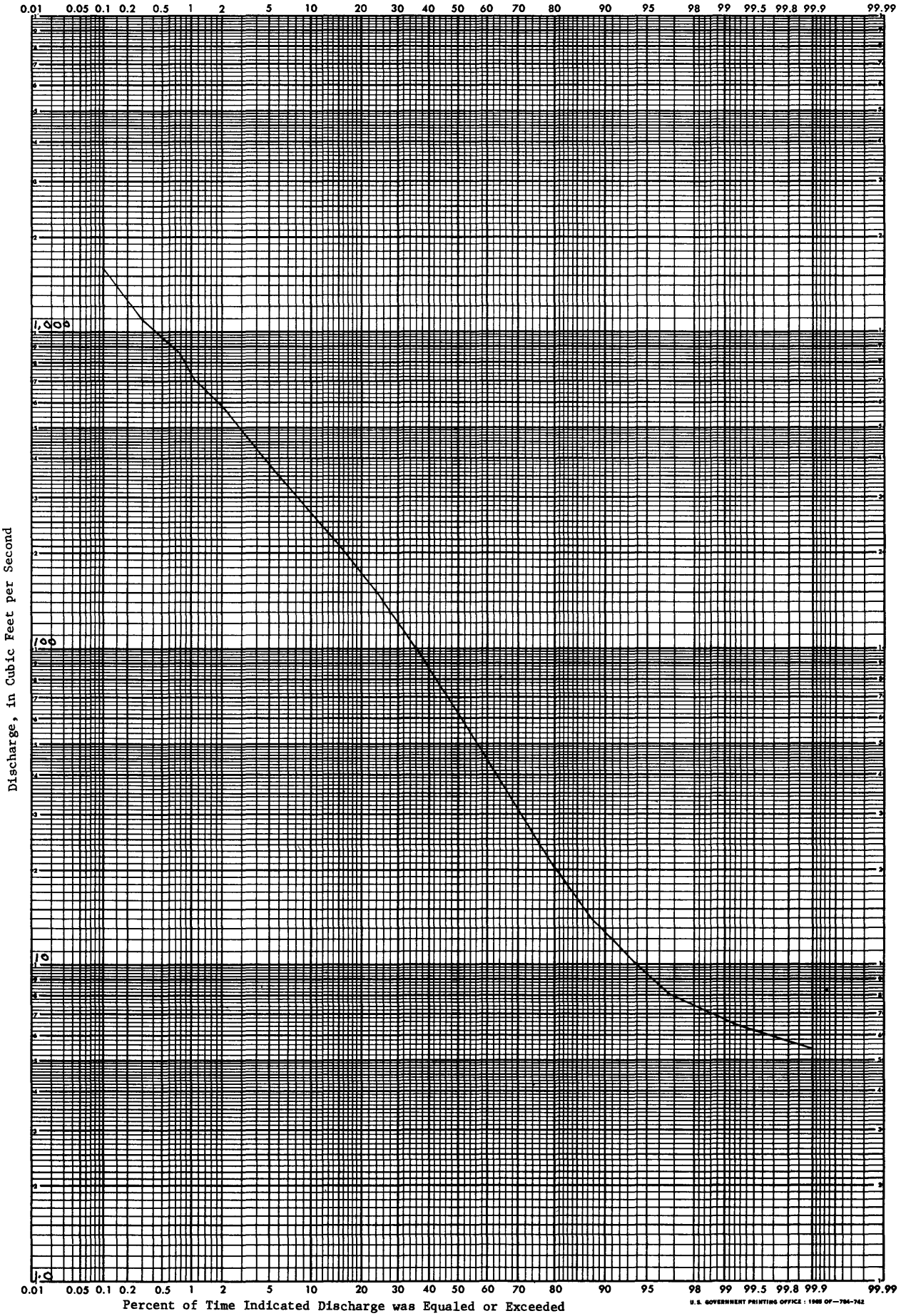

Figure 3. Duration curve of daily discharge for West Branch Clarion River at Wilcox 1954-1974

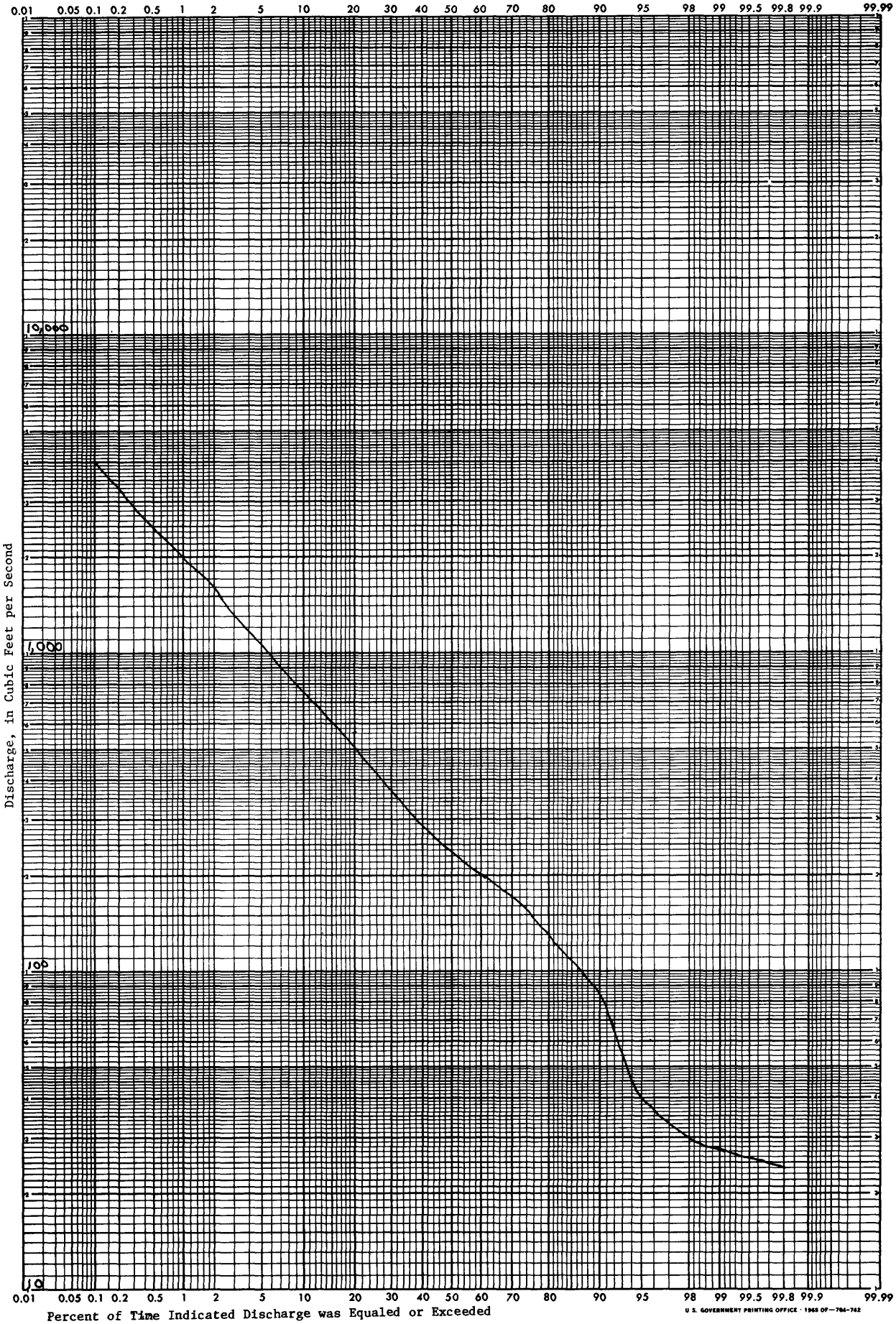

Figure 4. Duration curve of daily discharge for Clarion River at Johnsonburg 1946-1974 (flow regulated since 1952 by East Branch Dam)

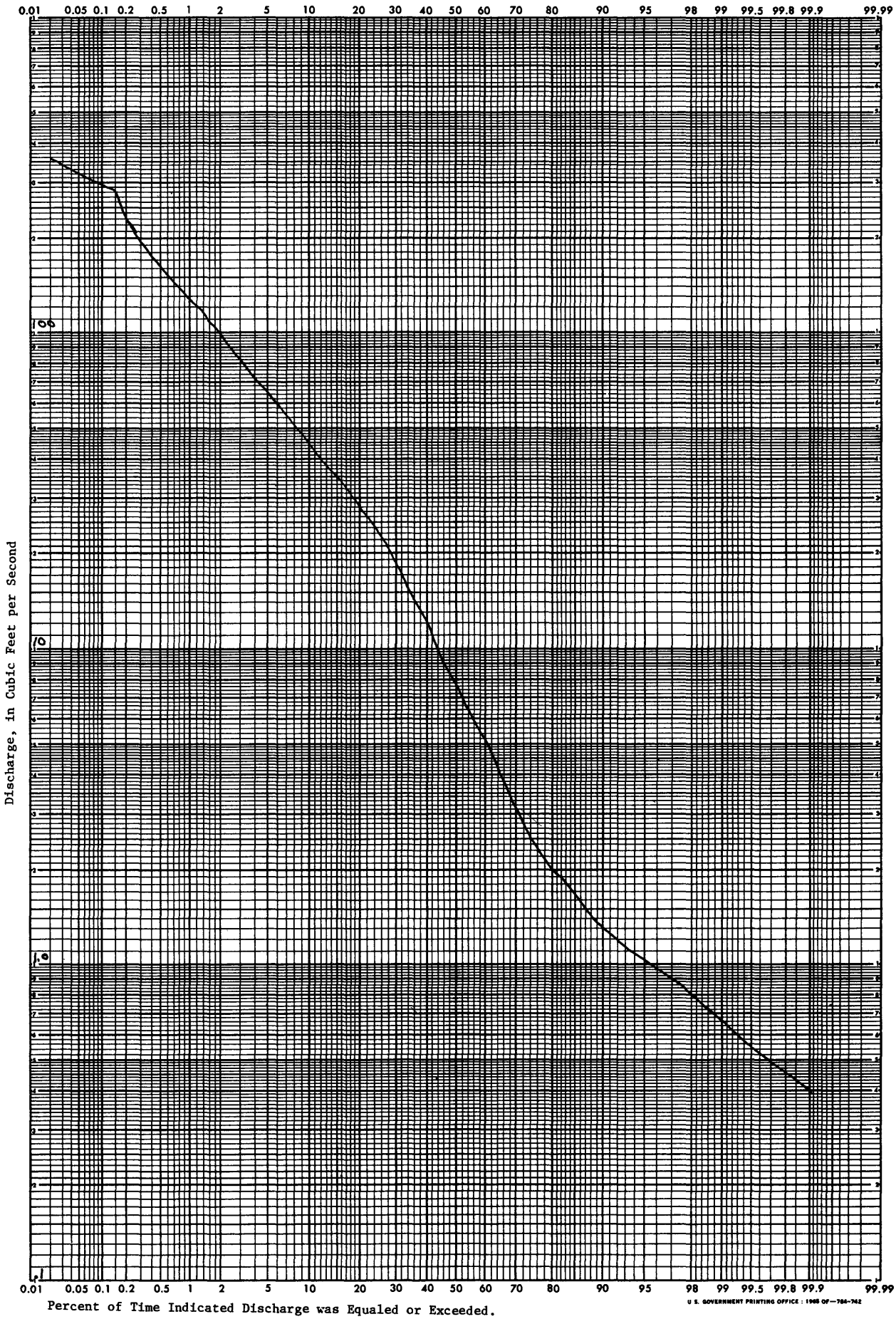

Figure 5. Duration curve of daily discharge for Toms Run at Cooksburg 1961-1974

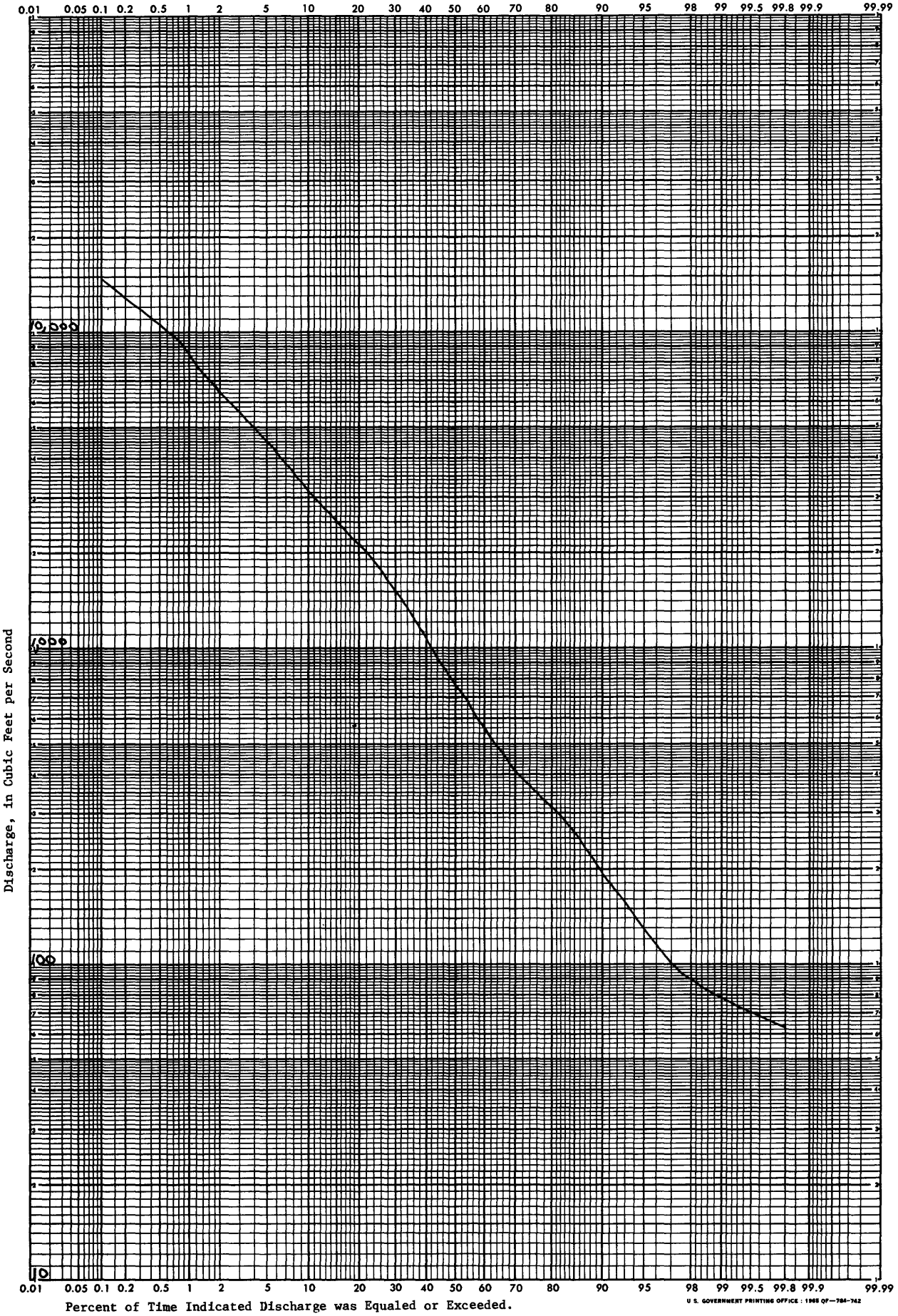

Figure 6. Duration curve of daily discharge for Clarion River at Cooksburg 1939-1974 (flow regulated since 1952 by E. Branch Dam)

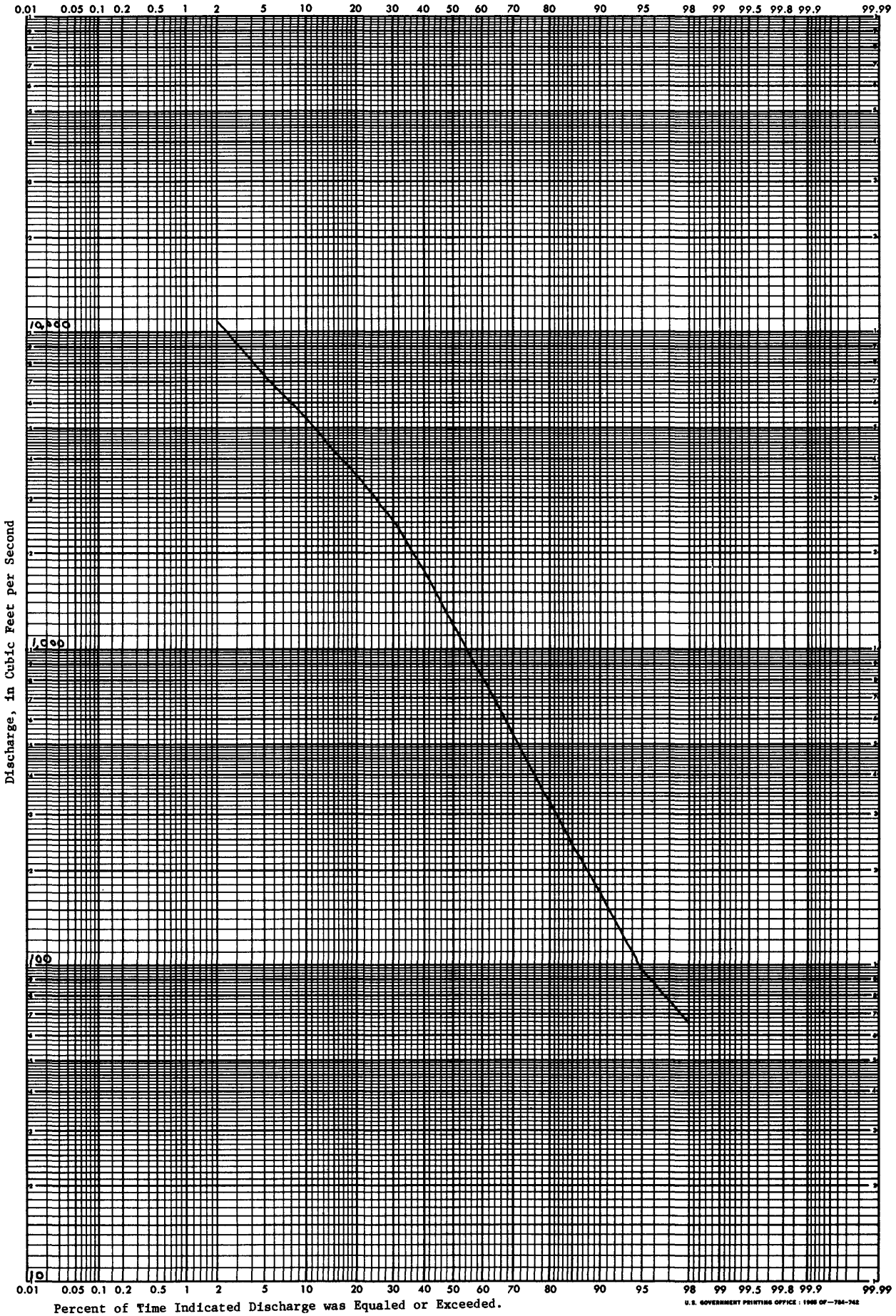

Figure 7. Duration curve of daily discharge for Clarion River at St. Petersburg 1942-1953. (flow regulated since 1924 by Piney Dam)

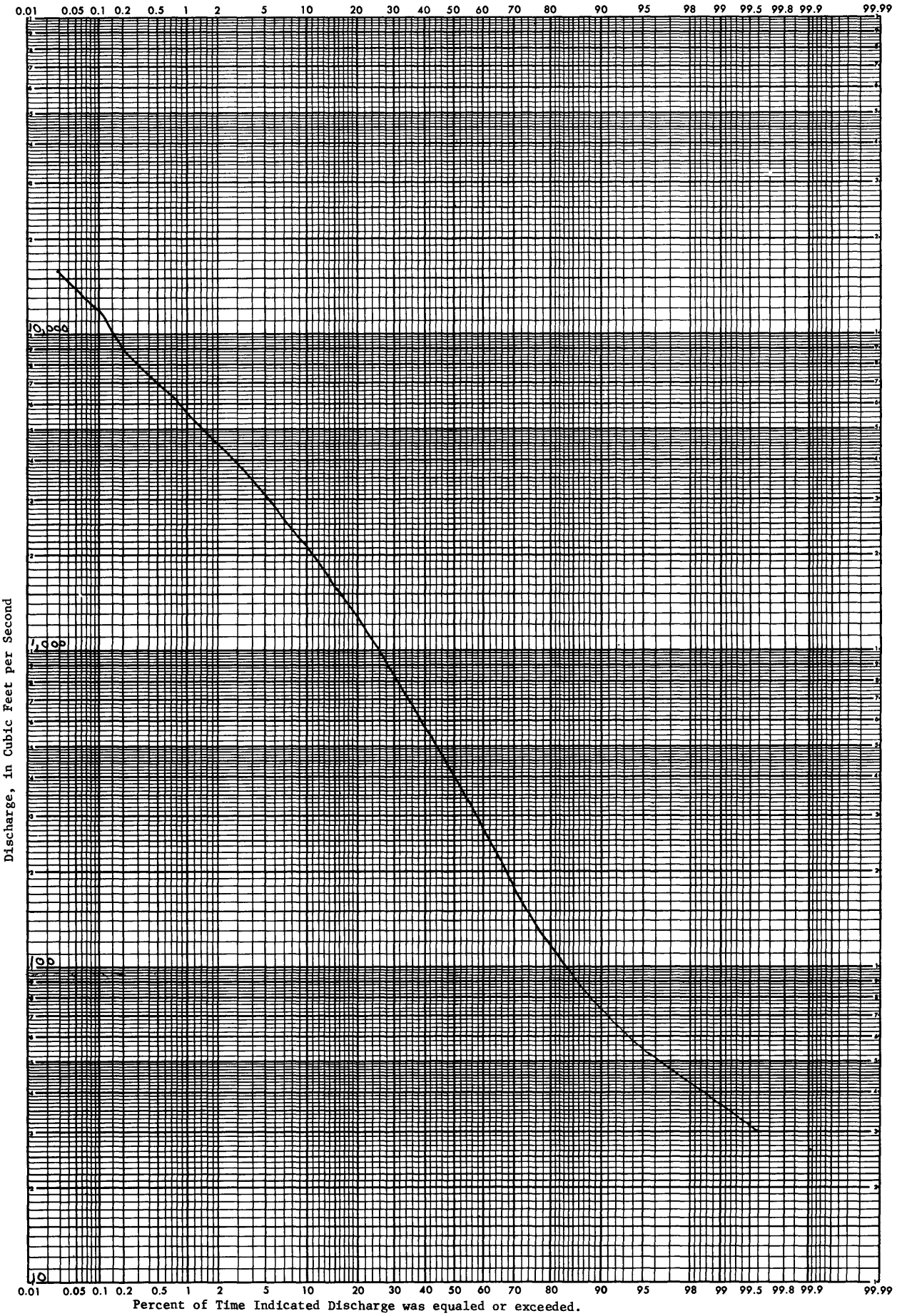

Figure 8. Duration curve of daily discharge for Redbank Creek at St. Charles 1919-1974

Table 1.--Summary of discharge measurements for nonrecording stations

Station number	Station name	Date	Discharge (ft^3/s)
03028900	Elk Creek at Ridgway, Pa.	May 20, 1970	165
		Sept. 14, 1970	28
		May 6, 1971	101
		Aug. 30, 1971	15
		May 25, 1972	53
		Aug. 7, 1972	25
		Aug. 15, 1972	16
		Apr. 17, 1973	85
		Apr. 8, 1974	201
		Sept. 26, 1974	52
03029150	Little Toby Creek at Brockway, Pa.	Aug. 8, 1972	62
		Apr. 16, 1973	153
		Apr. 10, 1974	263
03029185	Spring Creek near Hallton, Pa.	Mar. 16, 1972	288
		Aug, 7, 1972	27
		Dec. 21, 1972	179
		Apr. 17, 1973	143
		Apr. 12, 1974	285
03029700	Mill Creek near Strattanville, Pa.	Mar. 16, 1972	347
		Aug. 3, 1972	20
		Dec. 20, 1972	135
		Apr. 18, 1973	188
		Apr. 9, 1974	161
03030100	Toby Creek near Miola, Pa.	Oct. 19, 1971	3.9
		Aug. 3, 1972	16
		Dec. 20, 1972	80
		Apr. 18, 1973	66
		Sept. 17, 1973	4.5
		Sept. 17, 1973	4.3
		Apr. 12, 1974	97

Station number	Station name	Date	Discharge (ft^3/s)
03030600	Piney Creek at Piney, Pa.	May 18, 1970	170
		Sept. 14, 1970	20
		May 7, 1971	145
		Aug, 31, 1971	12
		May 26, 1972	46
		Aug. 4, 1972	27
		Aug. 9, 1972	30
		Aug. 16, 1972	20
		Nov. 13, 1972	92
		Apr. 18, 1973	205
		Apr. 26, 1974	74
		Sept. 27, 1974	28
03030700	Deer Creek at Piney, Pa.	Aug. 4, 1972	30
		Nov. 13, 1972	124
		Apr. 18, 1973	164
		Sept. 17, 1973	9.1
		Apr. 19, 1974	164
03030900	Licking Creek at Callenburg, Pa.	Aug. 3, 1972	27
		Apr. 18, 1973	128
		Sept. 20, 1973	20
		Apr. 9, 1974	132
03031680	Sandy Lick Creek near Falls Creek, Pa.	Aug. 8, 1972	32
		Apr. 16, 1973	150
		Apr. 19, 1973	143
03031770	Sandy Lick Creek near Brookville, Pa.	Mar. 16, 1972	757
		Aug. 9, 1972	52
		Apr. 16, 1973	253
		Apr. 12, 1974	512
03031882	Redbank Creek at Brookville, Pa.	June 27, 1962	66
		June 24, 1963	137
		Mar. 7, 1964	3,410
		May 17, 1964	1,210
		June 11, 1964	96
		June 3, 1969	179
		Sept. 16, 1969	40
		Aug. 17, 1971	26
		Aug, 2, 1972	116
		Apr. 16, 1973	116
03031980	Little Sandy Creek near North Freedom, Pa.	Aug. 2, 1972	17
		Apr. 17, 1973	91
		Apr. 10, 1974	158

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins

Station number	7-1/2 Quadrangle	Station description	Drainage area (mi^2)	Measurements Date	Measurements Discharge (ft^3/s)
		Clarion River Basin			
03026490	Hazel Hurst	Fivemile Run at Williamsville. Lat 41°38'18", long 78°34'33", McKean County, at bridge 0.5 mile upstream from mouth and 4.6 miles south of Hazel Hurst.	6.33	7- 5-72 8-15-72 9-20-72 4- 9-74	30 11 1.2 23
03026500	Hazel Hurst	Sevenmile Run near Rasselas. Lat 41°37'52", long 78°34'37", McKean County, on right bank 300 ft upstream from highway bridge, 600 ft upstream from Fivemile Run, and 3.2 miles northeast of Rasselas.	7.84	10-1-51 (continuous)	range 0.10-396
03026850	Glen Hazel	Swamp Creek near Rasselas. Lat 41°35'30", long 78°35'46", Elk County, at bridge 1.8 miles southeast of Rasselas and 1.8 miles upstream from mouth.	3.61	7- 5-72 8-15-72 9-21-72 4- 9-74	14 1.6 .7 6.2
03027500	Glen Hazel	East Branch Clarion River at East Branch Clarion River Dam. Lat 41°33'11", long 78°35'47", Elk County, on left bank 700 ft upstream from Middle Fork, 0.5 mile downstream from East Branch Clarion River Dam, and 1.2 miles northeast of Glen Hazel.	73.2	10-1-48 (continuous)	range 25-1,600
03027550	Glen Hazel	Crooked Creek at Glen Hazel. Lat 41°32'15", long 78°36'49", Elk County, at Highway bridge in Glen Hazel, 0.3 mile upstream from mouth.	9.71	7- 6-72 8-14-72 9-20-72 4-10-74	69 8.3 1.2 28
03027580	Glen Hazel	Johnson Run near Ketner. Lat 41°34'11", long 78°37'14", Elk County 2.1 miles north of Ketner and at Streights and 2.2 miles north of Glen Hazel.	4.38	8-15-72 9-21-72 4- 9-74	5.2 .8 12
03027610	Wilcox	Johnson Run at Ketner. Lat 41°32'23", long 78°37'34", Elk County, at bridge 0.2 mile east of Ketner and 4.0 miles northeast of Johnsonburg.	8.32	7- 5-72 8-15-72 9-21-72 4-10-74	108 6.8 1.3 24
03027690	Ridgway	East Branch Clarion River at Johnsonburg. Lat 41°29'38", long 78°40'22", Elk County, at bridge 0.4 mile upstream from confluence with West Branch Clarion River.	108	7- 5-72 8-14-72 4-10-74	1600 220 653
03027850	Wilcox	West Branch Clarion River at Wilcox. Lat 41°34'45", long 78°41'22", Elk County, at bridge 0.2 mile north of Wilcox and 0.4 mile upstream from Wilson Run.	39.9	7- 4-72 8-14-72 9-25-72 4-10-74	86 15 7.1 122
03027990	Wilcox	Wilson Run at Dahoga. Lat 41°35'56", long 78°43'35", Elk County, at bridge 0.1 mile west of Dahoga and 0.1 mile upstream from Hoffman Run.	20.0	7- 4-72 8-14-72 9-25-72 4-10-74	151 16 3.3 42
03028000	Wilcox	West Branch Clarion River at Wilcox. Lat 41°34'31", long 78°41'33", Elk County, on right bank 20 ft downstream from highway bridge in Wilcox, 100 ft downstream from Wilson Run, and 1.0 mile upstream from Penn Central Railroad bridge.	63.0	10-1-53 (continuous)	range 5.6-2,870
03028500	Ridgway	Clarion River at Johnsonburg. Lat 41°29'10", long 78°40'43", Elk County, on right bank at downstream side of highway bridge in Johnsonburg, 0.1 mile downstream from Johnson Run, 0.4 mile downstream from East and West Branches.	204	10-1-45 (continuous)	range 96-6,920

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03028520	Ridgway	Powers Run at mouth. Lat 41°28'45", long 78°40'12", Elk County, at bridge 0.1 mile upstream from mouth and 1.0 mile south of Johnsonburg.	11.8	7- 6-72 8-16-72 9-26-72 4- 8-74	57 3.5 12 46
03028530	Ridgway	Riley Run near Johnsonburg. Lat 41°28'08", long 78°42'00", Elk County, at bridge 2 miles southwest of Johnsonburg and 1.3 miles upstream from mouth (Clarion River).	1.03	6- 7-72 7- 6-72 8-15-72 9-26-72 4- 8-74	3.0 10 3.0 5.9 5.7
03028550	Wilcox	Little Mill Creek near Johnsonburg. Lat 41°30'04", long 78°43'44", Elk County, at bridge 0.6 mile northeast of Montmorenci and 2.3 miles west of Johnsonburg.	5.13	7- 6-72 9-26-72 5-21-74	36 1.6 15
03028740	St. Marys	Elk Creek at St. Marys. Lat 41°25'16", long 78°34'33", Elk County, at bridge 0.9 mile west of St. Marys and 1.5 miles upstream from Laurel Run.	12.2	7- 7-72 8-16-72 10- 2-72	92 15 11
03028750	St. Marys	Laurel Run near St. Marys. Lat 41°25'07", long 78°36'18", Elk County, at bridge on State Highway 120, 0.1 mile above mouth, and 2.3 miles west of St. Marys.	8.53	8-16-72 10- 2-72 4- 8-74	2.9 .1 24
03028800	Ridgway	Daguscahonda Creek at Daguscahonda. Lat 41°25'09", long 78°38'32", Elk County, at bridge on State Highway 120, 0.2 mile upstream from mouth, and 0.7 mile east of Daguscahonda.	13.4	7- 7-72 8-16-72 10- 2-72 4- 8-74 1970-74	117 23 6.4 38
03028900	Ridgway	Elk Creek at Ridgway. Lat 41°25'31", long 78°43'38", Elk County, at bridge on State Highway 120 at Ridgway and 0.6 mile above mouth.	64.1	7-7-72 8-9-73 1954-74	X 450 13
03029000	Ridgway	Clarion River at Ridgway. Lat 41°25'15", long 78°44'10", Elk County, at bridge on State Highway 948 in Ridgway 50 ft downstream from Elk Creek.	303	(continuous)	# range 140-25,000
03029120	Portland Mills	Big Mill Creek near Ridgway. Lat 41°24'58", long 78°46'31", Elk County, at bridge 1.3 miles west of Ridgway and 1.6 miles upstream from mouth.	9.04	7-10-72 10-10-72 4-17-73 5-20-74	288 8.1 48 45
03029125	Kersey	Little Toby Creek at Dagus Mines. Lat 41°20'40", long 78°36'45", Elk County, at bridge 0.1 mile west of Coal Hollow and 0.7 mile south of Dagus Mines.	9.77	8-23-72 10- 3-72 4- 9-74	1.6 7.9 4.6
03029128	Brandy Camp	Limestone Run at Toby. Lat 41°19'40", long 78°37'40", Elk County, 0.3 mile above Little Toby Creek and 0.3 mile east of Toby.	.92	10- 3-72 4- 9-74	.5 2.2
03029130	Brandy Camp	Kyler Run at Kylers Corners. Lat 41°19'37", long 78°38'01", Elk County, at bridge 500 ft upstream from mouth, 0.2 mile west of Toby, and 0.7 mile east of Kylers Corners.	2.12	8-23-72 10-31-72 4- 9-74	2.9 2.3 13
03029135	Brandy Camp	Trib. to Little Toby Creek at Kylers Corners. Lat 41°19'09", long 78°38'29", Elk County, at bridge at Kylers Corners, 0.1 mile upstream from mouth.	.70	8-22-72 10- 3-72 4- 9-74	1.9 3.8 3.0
03029136	Brandy Camp	Little Toby Creek at Kylers Corners. Lat 41°19'05", long 78°38'26", Elk County, at bridge at Kylers Corners 0.7 mile below Kyler Run.	6.44	8-22-72 10- 3-72 4- 9-74	11 12 35

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03029138	Brandy Camp	Sawmill Run near Kylers Corners. Lat 41°18'16", long 78°39'29", Elk County, 1.4 miles southwest of Kylers Corners and 0.1 mile above mouth.	4.14	8-22-72 10- 4-72	0.6 .9
03029140	Brandy Camp	Brandy Camp Creek near Elbon. Lat 41°17'10", long 78°41'22", Elk County, at bridge on rural road 0.1 mile from junction with State Highway 219 at Challenge, 0.3 mile upstream from mouth, and 1.1 miles south of Elbon.	13.4	4-25-72 8-17-72 10- 4-72 4-17-73 4- 9-74	24 10 7.8 48
03029142	Brandy Camp	Bear Run near Elbon. Lat 41°16'24", long 78°41'38", Elk County, 1.5 miles east of Elbon and 0.4 mile above mouth.	6.16	8-17-72 10- 4-72 4-10-74	15 3.0 19
03029143	Brandy Camp	Boggy Run at Brockport. Lat 41°15'16", long 78°42'49", Elk County, 0.8 mile east of Brockport and 0.8 mile above mouth.	3.15	8-21-72 10- 5-72 4-10-74	.4 1.5 7.9
03029144	Brandy Camp	Mead Run at Brockport. Lat 41°15'38", long 78°43'33", Elk County, at bridge on State Highway 219 at Brockport and 500 feet upstream from mouth.	8.09	8-21-72 10- 4-72 4-10-74	1.9 4.3 23
03029145	Brandy Camp	Little Toby Creek at Brockport. Lat 41°15'46", long 78°43'16", Elk County, at bridge on secondary road, 0.5 mile northeast of Brockport, and 0.5 mile upstream from Mead Run.	41.5	8-17-72 10- 4-72 4-17-73 4-10-74	62 30 80 133
03029146	Brandy Camp	Whetstone Branch at Brockport. Lat 41°15'06", long 78°44'10", Elk County, 0.7 mile southwest of Brockport and 0.2 mile above mouth.	5.07	10- 5-72 4-10-74	4.3 13
03029147	Falls Creek	Rattlesnake Run near Lanes Mills. Lat 41°13'07", long 78°46'36", Jefferson County, at bridge 0.6 mile upstream from McEwen Run, and 2.1 miles southwest of confluence with Little Toby Creek.	5.84	7-11-72 8-24-72 10- 5-72 4-11-74	9.1 4.0 8.5 22
03029148	Falls Creek	Rattlesnake Creek at Lanes Mills. Lat 41°13'13", long 78°46'25", Jefferson County, at bridge 0.4 mile downstream from McEwen Run and 1.3 miles south of confluence with Little Toby Creek.	5.87	7-11-72 8-24-72 10- 5-72 4-11-74	59 3.0 23 47
03029150	Carman	Little Toby Creek at Brockway Lat 41°15'09", long 78°47'48", Jefferson County, at railroad bridge 0.2 mile north of Brockway.	54.0	7-11-72 8-8-72 8-17-72 4-17-73 9-23-73 4-10-74	250 62 43 152 36 263
03029170	Carman	Little Toby Creek at Portland Mills. Lat 41°21'53", long 78°49'22", Elk County, at railroad bridge, 0.1 mile above State Highway 949 and 0.8 mile south of Portland Mills.	126	10-22-71 7-11-72 8-23-72 10- 6-72 4-17-73 9-21-73 4-11-74 8-22-74	25 585 71 97 227 51 415 31
03029180	Portland Mills	Bear Creek near Ridgway. Lat 41°23'52", long 78°49'23", Elk County, at bridge 1.2 miles upstream from mouth and 4.2 miles west of Ridgway.	38.8	10-10-72 4-17-73 5-20-74 5-21-74	21 57 58 8.0
03029184	Hallton	Wolf Run at Parrish. Lat 41°29'27", long 78°59'49", Forest County, at bridge 7.0 miles northwest of Hallton at Parrish.	5.92	7-10-72 10-10-72 5-21-74	14 2.8 8.0

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03029185	Hallton	Spring Creek near Hallton. Lat 41°24'59", long 78°56'52", Elk County, at bridge 1.5 miles north of Hallton, and 1.6 miles upstream from mouth.	86.0	10-15-71 3-16-72 8- 7-72 10- 6-72 12-21-72 4-17-73 9-18-73 4-12-74 7-10-72	36 288 27 27 179 144 13 285 175
03029188	Hallton	Maxwell Run at Mouth. Lat 41°23'05", long 78°56'08", Elk County, at bridge 0.1 mile upstream from mouth, and 1.2 miles south of Hallton.	14.7	10- 6-72 9-19-73	3.7 .09
03029190	Sigel	Wyncoop Run near Clarington. Lat 41°21'26", long 79°02'20", Elk County, at bridge 500 ft upstream from mouth, and 4.7 miles east of Clarington, and 0.2 mile east of Millstone.	5.85	9-18-73	1.2
03029194	Marienville East	East Br. Millstone Creek at Loleta. Lat 41°23'58", long 79°04'51", Elk County, at bridge 0.2 mile downstream from Sugarcamp Run, and 5.5 miles southeast of Marienville.	24.8	7-12-72 10-11-72	150 7.9
03029195	Sigel	Millstone Creek near Clarington. Lat 41°21'19", long 79°04'18", Elk County, at bridge 1.9 miles west of Millstone, 3.1 miles east of Clarington, and 0.1 mile above mouth.	54.2	7-12-72 10-11-72 9-18-73	227 29 5.6
03029205	Sigel	Clear Creek at Mouth. Lat 41°19'48", long 79°06'11", Jefferson County, at bridge 0.1 mile upstream from mouth, and 1.1 miles east of Clarington.	12.4	7-12-72 10-17-72 9-18-73	64 7.9 1.4
03029240	Marienville West	Bearpen Run at Redclyffe. Lat 41°23'32", long 79°10'06", Forest County, at bridge 0.4 mile upstream from Maple Creek and 0.8 mile west Redclyffe.	2.61	7-12-72 10-11-72	51 .8
03029250	Cooksburg	Maple Creek near Clarington. Lat 41°20'32", long 79°08'19", Forest County, at mouth at bridge, 1.0 mile west of Clarington.	18.7	7-12-72 10-11-72 9-18-73	72 9.9 1.7
03029300	Cooksburg	Coleman Run near Cooksburg. Lat 41°20'39", long 79°10'02", Forest County, at mouth at bridge, 2.4 miles east of Cooksburg.	5.46	9-18-73	.5
03029350	Marienville West	Toms Run near Vowinckel, Pa. Lat 41°23'38", long 79°14'22", Clarion County, at bridge on secondary road, 0.9 mile west of North Pine Grove and 1.3 mile southwest of Vowinckel.		4-10-74	4.4
03029370	Cooksburg	Toms Run above Browns Run. Lat 41°21'39", long 79°14'05", Clarion County, just west of Toms Run Road and 100 ft above Browns Run.		4- 8-74	13
03029380	Cooksburg	Browns Run at Mouth. Lat 41°21'40", long 79°13'59", Clarion County, at bridge on Toms Run Road, 400 ft above mouth and 2.3 mile northwest of Cooksburg.		4- 8-74	6.0
03029400	Cooksburg	Toms Run at Cooksburg. Lat 41°20'16", long 79°12'50", Clarion County, on right bank 100 ft downstream from footbridge on Longfellow Trail, Cook Forest State Park, 0.6 mile upstream from mouth, and half a mile northwest of Cooksburg.	12.6	10-1-59 (continuous)	range 0.31-658

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03029500	Cooksburg	Clarion River at Cooksburg. Lat 41°19'50", long 79°12'33", Jefferson County, on left bank at downstream side of bridge on State Highway 36 at Cooksburg, 300 ft downstream from Toms Run, and 2.7 miles upstream from Cathers Run.	807	10-1-38 (continuous)	range 220-43,200
03029510	Cooksburg	Cathers Run at Mouth. Lat 41°19'00", long 79°13'59", Clarion County, 1.5 miles southwest of Cooksburg.	17.8	7-13-72 10-17-72 9-19-73	129 16 4.8
03029680	Corsica	Mill Creek near Strattanville. Lat 41°14'25", long 79°14'06", Clarion County, at bridge 100 ft downstream from McCanna Run, 0.5 mile upstream from Little Mill Creek, and 5.5 miles northeast of Strattanville.	28.5	4-10-72 7-13-72 4-10-74	62 23 62
03029700	Strattanville	Mill Creek near Strattanville. Lat 41°14'15", long 79°17'11", Clarion County, at bridge 1.9 miles upstream from mouth and 3.2 miles north of Strattanville.	66.1	10-14-71 3-16-72 7-13-72 8- 3-72 10-18-72 11-3- 72 12-20-72 4-18-73 9-19-73 4- 9-74	23 347 96 21 42 308 135 188 19 161
03030004	Lucinda	Toby Creek near Scotch Hill. Lat 41°19'47", long 79°17'35", Clarion County, at bridge 0.2 mile south of Henry Run and 1.5 miles west of Scotch Hill.	9.51	7-17-72 10-18-72 9-17-73	16 6.0 .8
03030007	Lucinda	Toby Creek near Helen Furnace. Lat 41°17'59", long 79°19'48", Clarion County, at bridge 0.4 mile southwest of Eagle Run and 1.1 miles northwest of Helen Furnace.	17.3	7-17-72 9-17-73	70 1.8
03030008	Lucinda	Step Creek near Lucinda. Lat 41°17'03", long 79°22'10", Clarion County, at bridge 1.7 miles south of Lucinda.	4.93	7-17-72 9-17-73	14 .2
03030073	Lucinda	Toby Creek above Step Creek near Miola. Lat 41°15'34", long 79°22'04", Clarion County, 250 ft above confluence with Step Creek and 1.4 miles west of Miola.		7- 2-73	
03030076	Lucinda	Step Creek near Lucinda. Lat 41°17'37", long 79°22'06", Clarion County, at bridge on secondary road 1.1 miles south of Lucinda and 1.5 miles northeast of Arthurs.		7-13-73	
03030077	Lucinda	Tributary to Step Creek near Lucinda. Lat 41°17'34", long 79°22'12", Clarion County, at bridge on secondary road 200 ft above confluence with Step Creek and 1.1 miles south of Lucinda.		7-13-73	
03030078	Lucinda	Step Creek near Lucinda. Lat 41°17'28", long 79°22'08", Clarion County, 1.2 miles south of Lucinda and 1.5 miles northeast of Arthurs.		7-13-73	
03030083	Fryburg	Tributary to Step Creek near Lucinda. Lat 41°16'50", long 79°22'33", Clarion County, at bridge on secondary road 1.1 miles northeast of Arthurs and 1.9 miles south of Lucinda.		7-13-73	
03030085	Fryburg	Tributary to Step Creek near Lucinda. Lat 41°16'28", long 79°22'38", Clarion County, 2.3 miles south of Lucinda and 2.4 miles northwest of Miola.		7-13-73	
03030087	Lucinda	Tributary to Step Creek near Miola. Lat 41°15'47", long 79°22'23", Clarion County, 1.1 miles southeast of Arthurs and 1.7 miles northwest of Miola.		7-14-73	

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03030089	Lucinda	Step Creek at Mouth. Lat 41°15'33", long 79°22'07", Clarion County, at wooden bridge 100 ft upstream from mouth, 1.5 miles west of Miola, 2.1 miles east of Paint Mills.		7-2-73 7-14-73 9-17-73	1.3 .20 .20
03030100	Lucinda	Toby Creek near Miola. Lat 41°15'29", long 79°22'06", Clarion County, at bridge 1.5 miles west of Miola, 2.1 miles east of Paint Mills and 2.5 miles above mouth.	29.6	10-19-71 7-17-72 8- 3-72 12-20-72 4-18-73 9-17-73 9-17-73 4-12-74	3.9 140 16 80 66 4.6 4.3 97
03030103	Clarion	Unnamed Tributary to Toby Creek near Clarion. Lat 41°14'49", long 79°23'06", Clarion County, 2.2 miles north of Clarion and 0.6 mile upstream from Rapp Run.	.06	9-18-73	.2
03030104	Clarion	Rapp Run at Mouth. Lat 41°14'11", long 79°23'06", Clarion County, on right bank 1.5 miles north of Clarion.	.90	9-17-73	.1
03030106	Clarion	Toby Creek near Clarion. Lat 41°14'05", long 79°23'06", Clarion County, at bridge 0.1 mile south of Rapp Run and 1.4 miles north of Clarion.	35.0	7-3-73 9-17-73	19 6.1
03030500	Clarion	Clarion River near Piney. Lat 41°11'33", long 79°26'25", Clarion County, on left bank 0.2 mile downstream from hydroelectric plant of Pennsylvania Electric Co., 2.3 miles northeast of Piney, 2.4 miles upstream from Piney Creek, and 3 miles southwest of Clarion.	951	10-1-44 (continuous)	 range 19-51,600
03030520	New Bethlehem	Piney Creek at Limestone. Lat 41°07'25", long 79°18'25", Clarion County, at bridge 1.0 miles southeast of Limestone, 1.0 miles north of Frogtown.	13.7	7-19-72	
03030530	New Bethlehem	Glade Run at Frogtown. Lat 41°06'38", long 79°18'58", Clarion County, at bridge 1.2 miles south of Limestone.	1.40	7-19-72	8.9
03030540	Strattanville	Little Piney Creek near Limestone. Lat 41°08'24", long 79°20'48", Clarion County, at bridge 0.3 mile upstream from mouth and 1.3 miles northwest of Limestone.	13.3	7-19-72	31
03030550	Strattanville	Piney Creek near Limestone. Lat 41°08'44", long 79°21'49", Clarion County, 2.2 miles northwest of Limestone and 0.7 miles below Little Piney Creek.	38.3	4-12-74	118
03030560	Clarion	Reids Run at Reidsburg. Lat 41°08'50", long 79°24'09", Clarion County, at bridge 0.1 mile upstream from mouth and 0.2 mile south of Reidsburg.	6.72	7-18-72	20
03030580	Clarion	Brush Run at Williamsburg Lat 41°10'24", long 79°23'56", Clarion County, at bridge 0.4 mile south of Williamsburg and 1.8 miles north of Reidsburg.	11.2	7-18-72 11-13-72 9-17-73	63 14 4.8
03030600	Clarion	Piney Creek at Piney Lat 41°10'12", long 79°28'20", Clarion County, at bridge on State Highway 854 at Piney, 0.1 mile above mouth and 4 miles northwest of Reidsburg.	72.2	1970-74 10-14-71 3-22-72	X 13 235
03030610	Fryburg	Licking Creek at Huefner. Lat 41°18'53", long 79°23'20", Clarion County, at bridge 0.1 mile north of Huefner, 0.7 mile upstream from Mahles Run.	21.3	11- 6-72 9-18-73	51 2.1

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03030615	Fryburg	Mahles Run at Huefner. Lat 41°18'34", long 79°23'51", Clarion County, at bridge 1300 ft upstream from mouth and 0.6 mile south of Huefner.	4.06	11- 6-72	6.9
03030620	Fryburg	Cooper Run near Shippenville. Lat 41°15'53", long 79°25'18", Clarion County, at bridge 0.3 mile upstream from confluence with Paint Creek, 2.3 miles northeast of Shippenville.	1.56	11- 6-72	1.7
03030650	Fryburg	Little Paint Creek near Shippenville. Lat 41°16'16", long 79°25'48", Clarion County, at bridge 0.8 mile upstream from confluence with Paint Creek and 2.2 miles northeast of Shippenville.	6.09	11- 6-72	8.0
03030660	Clarion	Paint Creek at Shippenville. Lat 41°14'47", long 79°26'49", Clarion County, at bridge on State Highway 322 and 0.7 mile southeast of Shippenville.	43.8	7-18-72 11-21-72 9-17-73	66 95 5.7
03030670	Fryburg	Deer Creek near Shippenville. Lat 41°16'55", long 79°29'14", Clarion County, at bridge 0.8 mile upstream from confluence with Little Deer Creek and 2.4 miles northwest of Shippenville.	4.06	11- 7-72 9-17-73	6.1 .2
03030680	Fryburg	Little Deer Creek at Mouth. Lat 41°16'29", long 79°28'31", Clarion County, at bridge 1.5 miles north of Shippenville.	3.93	11- 7-72 9-17-73	5.7 .2
03030690	Fryburg	Deer Creek at Shippenville. Lat 41°15'26", long 79°28'25", Clarion County, at bridge at Shippenville Station and 0.7 mile northwest of Shippenville.	16.0	7-17-72 10-31-72 9-17-73 10-14-71 3-22-72	29 8.0 1.2 20 460
03030700	Clarion	Deer Creek at Piney. Lat 41°10'24", long 79°28'41", Clarion County, at bridge on State Highway 854, 0.5 mile west of Piney, 0.1 mile upstream from mouth and 4.5 miles northwest of Reidsburg.	74.2	7-18-72 8- 4-72 11-13-72 4-18-73 9-17-73 4-11-74 4-19-74	112 30 124 164 9.1 380 163
03030710	Knox	Canoe Creek at Knox. Lat 41°14'12", long 79°31'21", Clarion County, at bridge 0.8 mile east of Knox.	7.06	7-21-72 4- 8-74	9.6 17
03030730	Knox	Unnamed Trib. to Canoe Creek at Wentlings Corners. Lat 41°11'01", long 79°31'37", Clarion County, at bridge 1.0 mile southeast of Wentlings Corners and 3.6 miles south of Knox.	1.46	9-20-73	.01
03030740	Knox	Unnamed Trib. to Canoe Creek at Canoe Ripple. Lat 41°10'22", long 79°31'20", Clarion County, at bridge 1.0 mile northeast of Canoe Ripple and 3.8 miles northeast of Callensburg.	1.76	9-20-73	.05
03030750	Knox	Canoe Creek near Callensburg. Lat 41°09'46", long 79°31'57", Clarion County, at bridge 0.1 mile upstream from mouth, 0.3 mile east of Canoe Ripple and 2.7 miles north of Callensburg.	18.8	10-21-71 7-21-72 9-20-73 4-10-74	1.5 48 2.9 27
03030770	Knox	Beaver Creek near Knox Lat 41°13'49", long 79°34'48", Clarion County, at bridge on State Highway 208 and 2.3 miles west of Knox.	4.70	7-24-72 4- 8-74	21 11
03030800	Knox	Beaver Creek near Turkey City. Lat 41°10'53", long 79°33'41", Clarion County, at bridge at Blairs Corners, 1.6 miles upstream from mouth and 2.7 miles east of Turkey City.	14.3	10-21-71 7-24-72 4- 8-74	3.5 50 36

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03030850	Knox	Unnamed Trib. below Beaver Creek near Callensburg. Lat 41°09'17", long 79°33'19", Clarion County, at bridge 0.2 mile upstream from mouth, 1.9 miles north of Callensburg, and 1.4 miles southwest of Canoe Ripple.	0.50	10-20-71 9-20-73	0.2 .2
03030857	Sligo	Craggs Run at Curllsville. Lat 41°06'34", long 79°27'35", Clarion County, at bridge on State Highway 854, 1.0 mile northwest of Curllsville and 1.6 miles east of Sligo.	2.88	9-18-73	.7
03030858	Sligo	Licking Creek at Sligo. Lat 41°06'31", long 79°28'58", Clarion County, at bridge on State Highway 68, 0.4 mile east of Sligo and 0.8 mile above Little Licking Creek.	12.2	9-18-73	2.3
03030860	Sligo	Little Licking Creek at Sligo. Lat 41°06'30", long 79°29'44", Clarion County, at bridge 0.1 mile upstream from mouth.	4.27	7-19-72 9-18-73	15 2.1
03030862	Sligo	Mineral Run at Sligo. Lat 41°06'49", long 79°29'54", Clarion County, at bridge on State Highway 58, 0.1 mile above mouth, 0.4 mile N.W. of Sligo and 0.6 mile below Little Licking Creek.	1.97	9-18-73	.9
03030865	Rimersburg	Anderson Run at Sligo. Lat 41°06'56", long 79°30'15", Clarion County, at bridge 0.2 mile upstream from mouth and 0.3 mile west of Sligo.	2.98	7-20-72 9-20-73	11 1.3
03030870	Rimersburg	Unnamed tributary to Licking Creek at Sligo. Lat 41°06'59", long 79°30'38", Clarion County, 0.7 mile west of Sligo and 0.08 mile upstream from mouth.	.88	9-19-73	.4
03030880	Rimersburg	Cherry Run at Huey. Lat 41°04'43", long 79°32'14", Clarion County, at bridge 0.4 mile west of Cherry Run Camp Ground and 0.5 mile west of Huey.	10.8	7-20-72 9-17-73	36 3.5
03030890	Rimersburg	Cherry Run at Callensburg. Lat 41°06'47", long 79°33'56", Clarion County, at bridge 0.7 mile upstream from mouth and 0.8 mile south of Callensburg.	21.1	7-20-72 9-20-73	40 7.2
03030900	Rimersburg	Licking Creek at Callensburg. Lat 41°07'25", long 79°34'06", Clarion County, at bridge 0.5 mile west of Callensburg and 0.6 mile upstream from mouth.	51.9	7-20-72 8- 3-72 4-18-73 9-20-73 4- 9-74	180 27 140 20 133
03030920	Knox	Turkey Run at Turkey City. Lat 41°10'59", long 79°36'54", Clarion County, at bridge on State Highway 338 and 0.2 mile west of Turkey City.	8.32	7-24-72 9-21-73	34 .7
03030925	Knox	Unnamed Trib. to Turkey Run at Turkey City. Lat 41°11'00", long 79°36'46", Clarion County, at bridge 0.2 mile upstream from Turkey Run.	2.41	9-21-73	.2
03030950	Knox	Turkey Run near St. Petersburg. Lat 41°10'02", long 79°37'18", Clarion County, at bridge at Richmond, 1.0 mile upstream from mouth and 1.6 miles east of St. Petersburg.	11.7	10-20-71 7-24-72 9-20-73	0.80 84 1.2
03031000	Emlenton	Clarion River at St. Petersburg. Lat 41°08'57", long 79°39'37", Clarion County, on right bank at downstream side of highway bridge, 1 mile south of St. Petersburg, 1.6 miles downstream from Turkey Run, and 4.5 miles upstream from mouth.	1,246	1942--53 1972-74 (continuous)	range 90-75,000

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

		Allegheny River Basin		
03031520	Parker	Black Fox Run near West Monterey. 8.38 Lat 41°02'17", long 79°37'34", Clarion County, at bridge 100 ft upstream from mouth (Allegheny River) and 1.8 miles southeast of West Monterey.	8-10-72 9-19-73	30 3.7
03031530	Rimersburg	Catfish Run at Mouth. 9.60 Lat 41°00'24", long 79°35'16", Clarion County, at bridge 0.1 mile upstream from mouth and 0.5 mile east of Sarah Furnace.	8-10-72 9-19-73	8.0 3.9
		Redbank Creek Basin		
03031600	Sabula	Sandy Lick Creek near Sabula. 4.65 Lat 41°08'26", long 78°41'00", Clearfield County, at bridge 0.2 mile upstream from Muddy Run and 1.2 miles southwest of Sabula.	7-25-72 3-27-73 4-16-73 4-19-73	4.9 8.7 7.5 7.1
03031605	Sabula	Narrows Creek near Sabula. 7.29 Lat 41°08'18", long 78°41'47", Clearfield County, at bridge 0.4 mile upstream from mouth and 1.9 miles southwest of Sabula.	7-25-72 3-27-73	8.2 9.2
03031620	Luthersburg	Laborde Branch near Homecamp. 15.5 Lat 41°06'18", long 78°42'52", Clearfield County, 1.3 miles southeast of Oklahoma and 3.6 miles west of Homecamp.	7-25-72 3-27-73 4-16-73 9-26-74	27 25 25 13
03031622	Luthersburg	Sandy Lick Creek at Oklahoma. Lat 41°07'06", long 78°43'53", Clearfield County, at bridge at Oklahoma, 2000 ft south of State Highway 255.	4-19-73	60
03031625	Falls Creek	Clear Run at DuBois. 3.61 Lat 41°07'48", long 78°46'01", Clearfield County, at bridge 0.3 mile upstream from mouth and 1.0 mile north of DuBois.	7-26-72 3-29-73	12
03031630	Falls Creek	Falls Creek at Falls Creek. 2.5 Lat 41°08'47", long 78°48'30", Jefferson County, at bridge on State Highway 830, 0.1 mi northwest of Falls Creek, 0.4 mi upstream from Wolf Run.	7-26-72 3-28-73	19 20
03031640	Falls Creek	Wolf Run at Falls Creek. 11.5 Lat 41°08'58", long 78°48'00", Jefferson County, at bridge 0.1 mile above Falls Creek and 0.4 mile northeast of Falls Creek.	7-26-72 3-29-73	13 15
03031680	DuBois	Sandy Lick Creek near Falls Creek. 86.9 Lat 41°07'29, long 78°49'25", Jefferson County, at bridge on secondary road 0.4 mile south of Pancoast, 1.7 miles southwest of Falls Creek, and 1.9 miles southwest of Wolf Run.	7-26-72 8- 8-72 4-16-73 4-19-73	107 32 150 143
03031700	Reynoldsville	Soldier Run at Reynoldsville. 12.7 Lat 41°05'20", long 78°53'12", Jefferson County, at bridge 0.3 mile upstream from confluence with Sandy Lick Creek and 0.5 mile south of Reynoldsville.	7-26-72 4- 9-73	19 22
03031720	Reynoldsville	Trout Run near Reynoldsville. 10.8 Lat 41°04'43", long 78°54'07", Jefferson County, at bridge 0.8 mile upstream from confluence with Sandy Lick Creek and 1.5 miles southwest of Reynoldsville.	7-26-72 4- 9-73	6.2 19
03031770	Brookville	Sandy Lick Creek near Brookville. 158 Lat 41°09'20", long 79°03'12", Jefferson County, at bridge on State Highway 236, 0.1 mile above mouth, and 1.4 miles east of Brookville.	5-11-71 10-14-71 3-16-72 7-27-72 8-9-72 3-29-73 4-16-73 4-12-74	 30 753 108 52 205 252 511

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03031785	Hazen	Mill Creek near Allens Mills Lat 41°14'06", long 78°52'46", Jefferson County, at bridge 0.5 mile south of Sugar Hill and 2.7 miles northeast of Allens Mills.	7.68	7-27-72 9-19-73	8.5 2.3
03031805	Hazen	Horm Run near Allens Mills. Lat 41°10'13", long 78°55'32", Jefferson County, at bridge 0.9 mile upstream from mouth and 2.4 miles southwest of Allens Mills	8.40	7-27-72 9-18-73	5.6 4.4
03031861	Hazen	Fivemile Run near Emerickville. Lat 41°08'42", long 78°59'26", Jefferson County, at bridge 1.2 miles upstream from mouth and 1.4 miles northwest of Emerickville.	7.92	7-31-72 4- 9-73 9-18-73	4.4 16 3.2
03031868	Brookville	Little Mill Creek near Brookville. Lat 41°09'59", long 79°01'57", Jefferson County, at bridge 0.3 mile upstream from mouth and 2.6 miles east of Brookville.	9.81	7-27-72 9-18-73	33 3.9
03031870	Brookville	Mill Creek at Brookville. Lat 41°09'23", long 79°03'12", Jefferson County, at bridge at mouth on State Highway 322, 0.7 mile east of Brookville.	52.5	10-15-71 7-27-72 3-29-73 4-17-73 9-18-73	8.0 42 62 222 23
03031872	Brookville	Fivemile Run at Brookville. Lat 41°08'39", long 79°04'42", Jefferson County, at bridge 0.4 mile upstream from mouth, 1.0 mile south of Brookville.	18.2	10-22-71 8- 3-72 4-12-74	4.0 12 51
03031873	Munderf	South Branch near Munderf. Lat 41°15'42", long 78°53'13", Jefferson County, at bridge 1.6 miles upstream from mouth and 3.6 miles southeast of Munderf.	4.02	7-31-72	8.4
03031874	Munderf	North Fork near Munderf. Lat 41°16'01", long 78°56'45", Jefferson County, at bridge 0.5 mile downstream from Bushley Run and 1.3 miles south of Munderf.	30.4	7-31-72	27
03031875	Brookville	North Fork at Richardsville. Lat 41°14'43", long 79°00'37", Jefferson County, at bridge on State Highway 968 and 0.3 mile north of Richardsville.	42.4	7-31-72	69
03031876	Brookville	North Fork near Richardsville. Lat 41°13'44", long 79°02'57", Jefferson County, at bridge 0.3 mile below Craft Run and 2.2 miles southwest of Richardsville.	71.3	7-31-72 4-17-73	96 101
03031880	Brookville	North Fork at Brookville. Lat 41°09'36", long 79°04'29", Jefferson County, at bridge on State Highway 322, 0.2 mile above mouth at Brookville.	98.2	4-17-73 9-18-73 10-15-71 4-6-72	117 32 60 510
03031882	Brookville	Redbank Creek at Brookville. Lat 41°09'29", long 79°04'52", Jefferson County, at bridge 0.2 mile below confluence of North Fork and Sandy Lick Creek at Brookville.	327	8-2-72 4-17-73 9-18-73	116 43 123
03031884	Corsica	Coder Run near Brookville. Lat 41°09'34", long 79°08'57", Jefferson County, at bridge 1.2 miles upstream from Campbell Run and 3.7 miles west of Brookville.	3.68	8- 1-72	3.0
03031886	Brookville	Coder Run near Brookville. Lat 41°08'46", long 79°06'59", Jefferson County, at bridge 0.2 mile upstream from mouth and 2.2 miles southwest of Brookville.	7.96	8- 1-72 9-18-73	19 4.0
03031888	Corsica	Simpson Run at Baxter. Lat 41°08'01", long 79°09'26", Jefferson County, at bridge 0.1 mile upstream from mouth and 0.2 mile west of Baxter.	2.05	9-19-73	.6
03031890	Corsica	Welch Run at Corsica. Lat 41°10'45", long 79°11'48", Jefferson County, at bridge on route 322 at Corsica.		8- 2-73	

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03031892	Corsica	Welch Run near Corsica. Lat 41°09'12", long 79°11'28", Jefferson County, 2.0 miles south of Corsica and 2.8 miles north of Summerville.		8- 2-73	
03031893	Corsica	Tributary to Welch Run near Summerville. Lat 41°08'43", long 79°11'18", Jefferson County, 20 ft above confluence with Welch Run, 2.1 miles north of Summerville and 2.5 miles south of Corsica.		8- 2-73	
03031894	Corsica	Welch Run near Summerville. Lat 41°08'40", long 79°11'23", Jefferson County, at bridge on secondary road 2.1 miles north of Summerville, and 2.5 miles south of Corsica.	3.39	9-19-73	1.7
03031895	Corsica	Welch Run at Summerville. Lat 41°07'30", long 79°10'58", Jefferson County, at bridge 100 ft upstream from mouth and 0.5 mile north of Summerville.	4.24	8- 1-72 8-3- 73 9-19- 73	17 3.8 3.1
03031896	Summerville	Runaway Run at Summerville. Lat 41°07'04", long 79°11'47", Jefferson County, at bridge 0.1 mile upstream from mouth and 0.5 mile west of Summerville.	3.59	8- 1-72 4-16-73	16 5.9
03031898	Summerville	Beaver Run at Conifer. Lat 41°05'00", long 79°08'20", Jefferson County, at bridge 0.3 mile south of Conifer and 0.6 mile upstream from Eckler Run.	2.15	8- 3-72	6.7
03031899	Summerville	Beaver Run at Conifer. Lat 41°05'22", long 79°09'11", Jefferson County, at bridge 0.3 mile downstream from Eckler Run and 0.6 mile west of Conifer.	5.43	8- 3-72	
03031900	Summerville	Beaver Run at Heathville. Lat 41°05'25", long 79°10'52", Jefferson County, at bridge at Heathville, 0.1 mile upstream from mouth.	6.76	10-20-71 8- 3-72 4-16-73 4-12-74	2.5 36 11 30
03031930	Coolspring	Indiancamp Run near Coolspring. Lat 41°02'13", long 79°03'04", Jefferson County, at bridge 0.3 mile upstream from mouth and 1.4 miles southeast of Coolspring.	5.87	8- 4-72 9-18-73	16 2.5
03031935	Coolspring	Little Sandy Creek at Coolspring. Lat 41°02'30", long 79°05'03", Jefferson County, at bridge 0.2 mile south of Coolspring and 0.3 mile upstream from Lick Run.	27.1	8- 4-72 9-18-73	24 19
03031950	Valier	Big Run near Sprankle Mills. Lat 40°59'30", long 79°05'26", Jefferson County, on right bank at downstream side of highway bridge on road leading northwest to Sprankle Mills, 0.5 mile downstream from McCracken Run, and 1.3 miles southeast of Sprankle Mills.	7.38	10-1-63 (continuous)	range 0.65-460
03031955	Summerville	Big Run at Worthville. Lat 41°01'14", long 79°07'43", Jefferson County, at bridge 0.2 mile upstream from Little Sandy Creek and 0.7 mile southeast of Worthville.	17.7	8- 4-72 9-18-73	25 8.4
03031975	Summerville	Little Sandy Creek near Worthville. Lat 41°01'52", long 79°09'50", Jefferson County, at bridge 0.4 mile upstream from Ferguson Run and 1.3 miles west of Worthville.	56.0	8- 4-72 9-21-73	54 6.8
03031980	Summerville	Little Sandy Creek near North Freedom Lat 41°01'58", long 79°11'05", Jefferson County, at bridge 0.4 mile west of Langville, 1.3 miles north of North Freedom, and 2.6 miles upstream from mouth.	67.2	10-20-71 3-22-72 8- 3-72 4-17-73 9-18-73 4-10-74	11 369 63 90 39 159

Table 2.--Data collection sites in the Clarion River - Redbank Creek basins (continued)

03032020	Summerville	Unnamed Trib. to Pine Creek at Shannondale. Lat 41°04'49", long 79°14'15", Clarion County, at bridge at Shannondale and 0.1 mile upstream from mouth.	2.66	8- 7-72 4-10-74	5.0 17
03032025	New Bethlehem	Pine Creek at Mayport. Lat 41°02'17", long 79°15'31", Clarion County, at bridge 0.4 mile northwest of Mayport and 0.8 mile upstream from mouth.	12.0	8- 7-72 4-17-73	7.4 15
03032055	New Bethlehem	Town Run near Hawthorn. Lat 41°00'56", long 79°17'56", Clarion County, at bridge 0.1 mile upstream from mouth and 1.3 miles west of Hawthorn.	9.41	8- 7-72 4-16-73	17 14
03032100	New Bethlehem	Leisure Run at New Bethlehem. Lat 41°00'13", long 79°19'41", Clarion County, at bridge 0.1 mile north of New Bethlehem and 0.1 mile upstream from mouth.	6.47	8- 7-72 4-16-73	9.0 8.4
03032350	New Bethlehem	Leatherwood Creek near New Bethlehem Lat 41°04'09", long 79°22'17", Clarion County, 0.8 mile southwest of Brinkerton and 5.1 miles northwest of New Bethlehem.	6.09	4-16-73 4-11-74	22 20
03032370	Sligo	West Fork near New Bethlehem. Lat 41°03'15", long 79°23'09", Clarion County, 1.0 mile north of Rockville and 3.7 miles northwest of New Bethlehem.	3.49	4-11-74	13
03032390	Sligo	Jack Run near New Bethlehem. Lat 41°02'15", long 79°22'50", Clarion County, at bridge 0.2 mile southeast of Rockville and 3.5 miles northwest of New Bethlehem.	3.37	8- 8-72 4-11-74	27 11
03032400	Sligo	Leatherwood Creek near New Bethlehem. Lat 41°01'12", long 79°23'14", Clarion County, at bridge 0.7 mile south of Leatherwood and 3.0 miles west of New Bethlehem.	18.1	10-20-71 8- 8-72 4-16-73 4-11-74	2.4 16 22 67
03032500	Templeton	Redbank Creek at St. Charles. Lat 40°59'40", long 79°23'40", Armstrong County, on left bank 400 ft downstream from highway bridge on Legislative Route 03117 at St. Charels, 0.3 mile downstream from Leatherwood Creek, and 3 miles west of New Bethlehem.	528	10- 1-18 (continuous)	range 26-26,400
03032700	Sligo	Wildcat Run near Rimersburg. Lat 41°01'45", long 79°28'53", Clarion County, 0.1 mile northwest of Wildcat and 1.5 miles southeast of Rimersburg.	2.82	8- 9-72 4-16-73 9-17-73	6.4 4.1 .5
03032750	Sligo	East Fork near Rimersburg. Lat 41°01'38", long 79°28'47", Clarion County, at bridge 100 ft upstream from mouth and 1.6 miles southeast of Rimersburg.	3.87	8- 9-72 9-20-73	6.8 .7
03032770	Sligo	Fiddlers Run near Rimersburg. Lat 41°00'51", long 79°28'40", Clarion County, at bridge 250 ft upstream from mouth and 2.5 miles southeast of Rimersburg.	5.33	8- 9-72 9-20-73	5.0 .6

X Operated as a low-flow partial-record station 1970-74.

Operated as a miscellaneous measuring site from 1954-1974.

Table 3.--Type of data collected at sites in the Clarion River-Redbank Creek basins

Station number	Station name	Type of data
	Clarion River basin	
03026490	Fivemile Run at Williamsville	M C B
03026500	Sevenmile Run near Rasselas	R C B
03026850	Swamp Creek near Rasselas	M C B
03027500	East Branch Clarion River at E. Branch Clarion River Dam	R C
03027550	Crooked Creek at Glen Hazel	M C B
03027580	Johnson Run near Ketner	M C B
03027690	E. Branch Clarion River at Johnsonburg	M C
03027850	W. Branch Clarion River at Wilcox	M C
03027850	W. Brnach Clarion River at Wilcox	M C
03027990	Wilson Run at Dahoga	M C B
03028000	W. Branch Clarion River at Wilcox	R C
03028500	Clarion River at Johnsonburg	M C
03028520	Power's Run at mouth	M C B
03028530	Riley Run near Johnsonburg	M C B
03028550	Little Mill Creek near Johnsonburg	M C B
03028740	Elk Creek at St. Marys	P C
03028750	Laurel Run near St. Marys	M C
03028800	Daguscahonda Creek at Daguscahonda	M C B
03028900	Elk Creek at Ridgway	M C B
0302900	Clarion River at Ridgway	M C
03029120	Big Mill Creek near Ridgway	M C B
03029125	Little Toby Creek at Dagus Mines	M C B
03029128	Limestone Run at Toby	M C B
03029130	Kyler Run at Kylers Corners	M C B
03029135	Trib. to Little Toby Creek at Kylers Corners	M C B
03029136	Little Toby Creek at Kylers Corners	M C B
03029138	Sawmill Run near Kylers Corners	M C B
03029140	Brandy Camp Creek near Elbon	M C B
03029142	Bear Run near Elbon	M C B
03039143	Boggy Run at Brockport	M C B
03029144	Mead Run at Brockport	M C B
03029145	Little Toby Creek at Brockport	M C B
03029146	Whetstone Branch at Brockport	M C B
03029147	Rattlesnake Run near Lanes Mills	M C B
03029148	Rattlesnake Creek at Lanes Mills	M C B
03029150	Little Toby Creek at Brockway	M C B
03029170	Little Toby Creek at Portland Mills	M C B
03029180	Bear Creek near Ridgway	M C B

Station number	Station name	Type of data
03029184	Wolf Run at Parrish	M C B
03029185	Spring Creek near Hallton	M C B
03029188	Maxwell Run at Mouth	M C B
03029190	Wyncoop Run near Clarington	M C B
03029194	E. Br. Millstone Creek at Loleta	M C B
03029195	Millstone Creek near Clarington	M C B
03029205	Clear Creek at Mouth	M C B
03029240	Bearpen Run at Redclyffe	M C B
03029250	Maple Creek near Clarington	M C B
03029300	Coleman Run near Cooksburg	M C B
03029350	Toms Run near Vowinckel, Pa.	M C B
03029370	Toms Run above Browns Run	M C B
03029380	Browns Run at Mouth	M C
03029400	Toms Run at Cooksburg	R C B
03029500	Clarion River at Cooksburg	R C
03029510	Cathers Run at Mouth	M C B
03029680	Mill Creek near Strattanville	M C B
03029700	Mill Creek near Strattansville	M C B
03030004	Toby Creek near Scotch Hill	M C B
03030007	Toby Creek near Helen Furnace	M C B
03030008	Step Creek near Lucinda	M C B
03030073	Toby Creek above Step Creek near Miola	C
03030076	Step Creek near Lucinda	C
03030077	Tributary to Step Creek near Lucinda	C
03030078	Step Creek near Lucinda	C
03030083	Tributary to Step Creek near Lucinda	C
03030085	Tributary to Step Creek near Lucinda	C
03030087	Tributary to Step Creek near Miola	C
03030089	Step Creek at Mouth	M C
03030100	Toby Creek near Miola	M C
03030103	Unnamed Tributary to Toby Creek near Clarion	M C B
03030104	Rapp Run at Mouth	M C B
03030106	Toby Creek near Clarion	M C B
03030500	Clarion River near Piney	R C B
03030520	Piney Creek at Limestone	C B
03030530	Glade Run at Frogtown	M C B
03030540	Little Piney Creek near Limestone	M C B
03030550	Pine Creek near Limestone	M C B
03030560	Reids Run at Reidsburg	M C B
03030580	Brush Run at Williamsburg	M C B
03030600	Piney Creek at Piney	P C B
03030610	Licking Creek at Huefner	M C B
03030615	Mahles Run at Huefner	M C B
03030620	Cooper Run near Shippenville	M C B
03030650	Little Paint Creek near Shippensville	M C B
03030660	Paint Creek at Shippensville	M C B
03030670	Deer Creek near Shippensville	M C B

Station number	Station name	Type of data
03030680	Little Deer Creek at Mouth	M C B
03030690	Deer Creek at Shippenville	M C B
03030700	Deer Creek at Piney	M C B
03030710	Canoe Creek at Knox	M C B
03030730	Unnamed Trib. to Canoe Creek at Wentlings Corners	M C B
03030740	Unnamed Trib. to Canoe Creek at Canoe Ripple	M C B
03030750	Canoe Creek near Callensburg	M C B
03030770	Beaver Creek near Knox	M C B
03030800	Beaver Creek near Turkey City	M C B
03030850	Unnamed Trib. below Beaver Creek near Callensburg	M C B
03030857	Craggs Run at Curllsville	M C B
03030858	Licking Creek at Sligo	M C B
03030860	Little Licking Creek at Sligo	M C
03030862	Mineral Run at Sligo	M C
03030865	Anderson Run at Sligo	M C B
03030870	Unnamed tributary to Licking Creek at Sligo	M C B
03030880	Cherry Run at Huey	M C B
03030890	Cherry Run at Callensburg	M C B
03030900	Licking Creek at Callensburg	M C B
03030920	Turkey Run at Turkey City	M C B
03030925	Unnamed Trib. to Turkey Run at Turkey City	M C B
03030950	Turkey Run near St. Petersburg	M C B
03031000	Clarion River at St. Petersburg	R C B
	Interbasin area	
03031520	Black Fox Run near West Monterey	M C B
03031530	Catfish Run at Mouth	M C B
	Redbank Creek Basin	
03031600	Sandy Lick Creek near Sabula	M C B
03031605	Narrows Creek near Sabula	M C B
03031620	Laborde Branch near Homecamp	M C B
03031622	Sandy Lick Creek at Oklahama	M C
03031625	Clear Run at BuBois	M C B
03031630	Falls Creek at Falls Creek	M C B
03031640	Wolf Run at Falls Creek	M C B
03031680	Sandy Lick Creek near Falls Creek	M C B
03031700	Soldier Run at Reynoldsville	M C B
03031720	Trout Run near Reynoldsville	M C B
03031770	Sandy Lick Creek near Brookville	M C B

Station number	Station name	Type of Data
03031785	Mill Creek near Allens Mills	M C
03031805	Horm Run near Allens Mills	M C B
03031861	Fivemile Run Near Emerickville	M C B
03031868	Little Mill Creek near Brookville	M C B
03031870	Mill Creek at Brookville	M C B
03031872	Fivemile Run at Brookville	M C B
03031873	South Branch near Munderf	M C B
03031874	North Fork near Munderf	M C B
03031875	North Fork at Richardsville	M C B
03031876	North Fork near Richardsville	M C B
03031880	North Fork at Brookville	M C B
03031882	Redbank Creek at Brookville	M C B
03031884	Coder Run near Brookville	M C B
03031886	Coder Run near Brookville	M C B
03031888	Simpson Run at Baxter	M C B
03031890	Welch Run at Corsica	C
03031893	Tributary to Welch Run near Summerville	C
03031894	Welch Run near Summerville	M C B
03031895	Welch Run at Summerville	M C B
03031896	Runaway Run at Summerville	M C B
03031898	Beaver Run at Conifer	M C B
03031899	Beaver Run at Conifer	C B
03031900	Beaver Run at Heathville	M C B
03031930	Indiancamp Run near Coolspring	M C B
03031935	Little Snady Creek at Coolspring	M C B
03031950	Big Run near Sprankle Mills	R C B
03031955	Big Run at Worthville	M C B
03031975	Little Sandy Creek near Worthville	M C B
03031980	Little Sandy Creek near North Freedom	M C B
03032020	Unnamed Trib. to Pine Creek at Shannondale	M C B
03032025	Pine Creek at Mayport	M C B
03032055	Town Run near Hawthorn	M C B
03032100	Leisure Run at New Bethlehem	M C B
03032350	Leatherwood Creek Near New Bethlehem	M C B
03032370	West Fork near New Bethlehem	M C B
03032390	Jack Run near New Behtlehem	M C B
03032400	Leatherwood Creek near New Behtlehem	M C B
03032500	Redbank Creek at St. Charles	R C B
03032700	Wildcat Run near Rimersburg	M C B
03032750	East Fork near Rimersburg	M C B
03032770	Fiddlers Run near Rimersburg	M C B

R.....Continuous record station
P.....Low-flow partial-record station
M.....Miscellaneous measuring site
C.....Chemical sample
B.....Biota sample

Table 4.--Results of analyses of water from abandoned flowing oil and gas wells.
(All values in mg/l, unless otherwise indicated).

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$		Dissolved solids (sum or residue)	REMARKS:
																	Ca,Mg	Non-carbonates		
					Welch Run - Jefferson County																
Je-63	4108-7911	5-11-72	E 10	10.2	5.6	1790	98	84	32	240	92	17	160	-	1100	6.0	980	-	1480	PO_4 = 0.01; F = 0.2; NO_3 = 0.10; SiO_2= 19
		7-25-72	10	-	3.3	1810	20	-	-	-	-	-	130	-	1040	50	-	-	-	Iron oxide deposits vegetation destroyed
		8- 1-73	12	9.9	5.7	1720	80	-	22	169	102	19	200	33	1060	11	840	810	1480	Al = 0.0
64	4109-7911	5-11-72	15	9.9	5.8	1450	65	60	12	210	60	42	150	-	840	18	770	-	1180	PO_4 = 0.01; F = 0.0; NO_3 = .00; SiO_2 = 9.3
		7-25-72	E 25	10.9	5.3	1570	77	-	-	-	-	-	110	-	900	5.0	-	-	-	Intermittent flow
		8- 1-73	E 15	10.0	6.5	1850	122	-	21	191	100	58	230	100	1130	23	890	790	1710	Al =0.0
87	4108-7911	8- 1-73	48	9.8	5.8	1700	73	-	18	160	90	22	220	48	956	14	770	720	1370	SiO_2 = 13; F = 0.0; Al = 3.0
		6-27-74	35	10.5	6.3	1400	68	59	18	180	78	19	-	20	800	5.4	770	750	1200	Borehole for release of pressure in mines
93	4109-7911	7-25-72	E 20	9.5	6.1	2370	14	-	-	-	-	-	6	-	1400	10	-	-	-	Numerous seeps
		8- 1-73	26	9.3	6.2	-	84	-	20	312	143	21	200	63	1550	8.4	1370	1300	2180	Al = 0.0
94	4110-7911	7-25-72	10	9.8	3.3	2840	7.0	-	-	-	-	-	64	0	1700	35	-	-	-	Surrounded by coal stripping
		8- 1-73	18	10.3	5.6	950	64	-	11	91	48	6.8	300	31	550	20	420	390	829	Al = 0.0
					Simpson Run - Jefferson County															
Je-42	4109-7910	5-24-72	15	9.7	-	1930	100	-	32	180	100	8.6	-	-	1000	2.0	860	-	1410	PO_4 = 0.10; F = 0.6; NO_3 = 0.10; SiO_2 = 16
43	4108-7910	5-24-72	2	9.7	5.7	1870	80	74	14	235	74	14	45	72	930	4.4	890	820	1370	PO_4 = 0.01; F = 0.5; NO_3 = 0.20; SiO_2 = 9.2

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$ Ca,Mg	Hardness as $CaCO_3$ Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
Coder Run - Jefferson County																				
Je-44	4109-7909	5-24-72	8	9.7	6.0	558	3.2	-	.5	30	7.0	82	0	120	130	24	100	0	351	Active gas well PO_4 = 0.04; NO_3=0.9; F = 0.2;SiO_2 = 7.7
Mill Creek - Jefferson and Clarion Counties																				
Je-95	4113-7910	8- 1-73	12	9.2	6.4	240	4.4	-	-	-	-	-	-	64	42	10	-	-	-	
96	4113-7907	8- 8-73	5	10.8	6.7	344	5.2	-	-	-	-	-	0	41	80	-	-	-	-	Gas bubbles
97	4113-7911	8- 8-73	7	11.4	5.7	825	88	-	-	-	-	-	130	3	390	5.0	-	-	-	
98	4113-7911	8- 8-73	E 20	9.1	5.8	925	55	-	-	-	-	-	72	7	325	95	-	-	-	
99	4112-7911	8-16-73	E 4	-	6.3	242	6.2	-	-	-	-	-	-	8	90	8.0	-	-	-	
100	4114-7908	8-16-73	E 10	-	6.6	314	5.5	-	-	-	-	-	0	77	32	-	-	-	-	Numerous seepages
Cr-307	4112-7913	8- 1-73	E 30	9.4	4.6	2600	210	-	-	-	-	-	410	0	1520	-	-	-	-	Iron oxide over 1/4 acre
308	4112-7913	8- 1-73	E 3	10.8	2.9	5200	376	-	-	-	-	-	550	0	3300	-	-	-	-	Seepage; plugged
Callen Run - Jefferson County																				
Je-92	4120-7900	6- 6-72	5	-	7.6	450	.40	-	-	-	-	-	0	110	30	52	-	-	-	
Clear Creek - Jefferson County																				
Je-90	4118-7904	5-23-72	E 10	-	7.9	325	.30	-	-	-	-	-	0	100	22	21	-	-	-	
91	4118-7903	5-23-72	E 25	9.5	7.2	235	.35	-	-	-	-	-	0	51	48	14	-	-	-	Active gas well

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$ Ca,Mg	Hardness as $CaCO_3$ Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
Swamp Run - Jefferson County																				
Je-101	4108-7904	8- 7-73	4	-	4.7	246	18	-	-	-	-	-	30	0	100	-	-	-	-	
Little Sandy Creek - Jefferson County																				
Je-102	4114-7908	8- 7-73	E 15	9.0	7.4	316	.10	-	-	-	-	-	0	90	38	13	-	-	-	
Licking Creek - Clarion County																				
Cr-248	4106-7929	8-23-73	13	10.3	4.8	4750	472	470	198	485	536	20	810	22	2840	5.0	3410	3390	4600	Active stripping Al = 13
		10-21-73	25	9.1	5.7	4500	480	440	175	-	-	-	840	-	-	-	-	-	-	
		3-13-74	25	9.4	4.0	4000	560	340	-	-	-	-	840	0	2340	4.5	2900	2900	-	
Cr-291	4107-7931	7-25-74	-	11.2	6.4	2550	110	110	40	250	300	9.4	-	0	2500	4.6	1900	1900	3680	SiO_2 = 13; F = 0.4
304	4106-7927	5- 4-73	E 10	10.3	6.4	420	.8	-	-	-	-	-	-	77	90	-	-	-	-	Active stripping - pipe drain
305	4105-7926	5- 4-73	E 10	-	7.1	450	1.0	-	-	-	-	-	0	130	49	37	-	-	-	
334	4106-7927	5- 4-73	E 30	10.0	6.6	560	1.8	-	-	-	-	-	-	77	160	-	-	-	-	Active stripping - pipe drain
341	4105-7930	3-28-74	E 75	9.0	4.3	1380	45	-	-	-	-	-	260	0	690	68	1500	1500	-	
Piney Creek - Clarion County																				
Cr-306	4109-7914	9- 5-72	5	9.7	3.3	780	35	-	-	-	-	-	100	0	400	20	-	-	-	Red water

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$ Ca,Mg	Hardness as $CaCO_3$ Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
Beaver Creek - Clarion County																				
Cr-235	4112-7933	10-10-71	34	10.0	6.2	350	2.5	-	1.8	-	-	-	29	88	54	25	100	12	-	SiO_2 = 3.1; Cu = 0.00
		5-17-72	20	9.8	5.7	315	3.6	3.6	.44	26	6.2	53	-	99	56	39	90	0	255	PO_4 = 0.01; F = 1.0; NO_3 = 0.40; SiO_2 = 9.0; Cu = 0.6
303	4111-7933	5-17-72	15	9.6	6.1	620	3.5	3.2	1.4	-	-	-	25	100	95	90	100	0	-	NO_3 = 2.0
Deer Creek - Clarion County																				
Cr-22	4120-7924	9-26-72	30	-	4.0	660	84	60	-	-	-	-	140	0	343	-	-	-	-	Fresh water at 157 feet French tile drain
155	4115-7925	9-10-72	10	9.8	4.9	425	36	30	-	-	-	-	47	1	142	-	-	-	-	Large discharge of methane
156	4117-7923	12- 8-72	116	9.3	3.8	2360	312	250	-	-	-	-	510	0	1380	20	-	-	-	Stripping nearby
157	4118-7923	12- 8-72	11	8.7	4.3	1350	104	100	-	-	-	-	300	0	753	-	-	-	-	
158	4118-7922	12- 8-72	4	-	-	885	-	26	-	-	-	-	-	-	-	-	-	-	-	
159	4119-9722	12- 8-72	5	8.1	-	620	-	44	-	-	-	-	-	-	-	-	-	-	-	
161	4119-7924	12- 8-72	5	8.4	-	430	-	35	-	-	-	-	-	-	-	-	-	-	-	
162	4119-7924	12- 8-72	26	9.0	5.1	580	26	22	-	-	-	-	39	50	193	-	-	-	-	
163	4120-7924	12- 8-72	28	9.3	4.5	445	18	18	-	-	-	-	25	0	150	-	-	-	-	Casing and Pump in well
164	4120-7924	12- 8-72	5	8.2	-	885	-	78	-	-	-	-	-	-	-	-	-	-	-	French drain
165	4120-7924	12- 8-72	16	9.5	5.4	950	110	100	-	-	-	-	160	20	520	20	-	-	-	
166	4118-7923	12- 8-72	5	8.6	-	990	-	36	-	-	-	-	-	-	-	-	-	-	-	

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$: Ca,Mg	Hardness as $CaCO_3$: Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
										Deer Creek - Clarion County (continued)									
Cr-310	4118-7925	3- 8-73	15	9.3	5.3	1500	154	-	-	-	-	-	230	5	871	-	-	-	-	
1/ 311	4122-7919	8- 8-73	45	9.2	5.3	4000	325	-	-	-	-	-	600	-	2400	35	-	-	-	
314	4118-7923	7-11-72	13	10.2	4.9	895	88	-	-	-	-	-	150	2	470	-	-	-	-	Variable flow
316	4119-7922	9-19-72	12	10.0	4.7	580	37	-	-	-	-	-	120	2	231	34	-	-	-	Several acres of timber affected
2/ 317	4122-7922	9-20-72	80	9.8	5.0	1780	176	-	-	-	-	-	400	-	1050	15	-	-	-	
2/ 318	4122-7921	10-10-72	3	10.5	6.5	1060	5.0	-	-	-	-	-	0	190	286	90	-	-	-	Red water casing and tubing in well
Cr-319	4123-7921	10-10-72	10	-	4.7	2900	200	-	-	-	-	-	410	-	1700	30	-	-	-	Seepages; plugged in 1970
2/ 320	4121-7921	10-17-72	12	9.2	3.8	500	37	-	-	-	-	-	50	0	179	42	-	-	-	Casing and tubing in well
1/ 322	4122-7919	9-26-72	85	9.4	5.0	1700	232	-	-	-	-	-	450	-	974	25	-	-	-	Red water
323	4123-7921	9-27-72	28	9.7	5.2	3900	220	-	-	-	-	-	490	-	2300	45	-	-	-	Several acres of vegetation affected
324	4123-7921	9-27-72	44	9.4	6.8	1850	105	-	-	-	-	-	120	13	1060	-	-	-	-	Red water
2/ 325	4120-7922	5-30-72	8	9.5	6.5	540	8.3	-	-	-	-	-	11	72	180	22	-	-	-	
326	4117-7926	3- 5-73	13	9.1	5.6	500	10	-	-	-	-	-	44	16	215	15	-	-	-	Red water
330	4116-7929	7-26-72	11	10.3	5.9	530	32	-	-	-	-	-	78	-	250	17	-	-	-	
331	4115-7925	7-25-72	15	9.7	7.1	375	1.5	-	-	-	-	-	0	85	40	44	-	-	-	Clear water; gas bubbles
1/ 342	4123-7920	7-17-74	27	-	5.4	1380	212	-	-	-	-	-	-	-	786	-	-	-	-	
1/ 343	4120-7920	7-17-74	75	9.8	3.7	1300	150	-	-	-	-	-	410	0	725	-	-	-	-	
1/ 344	4121-7923	7-17-74	13	10.4	3.2	890	129	-	-	-	-	-	210	0	374	-	-	-	-	
1/ 345	4120-7923	7-17-74	6	-	5.8	610	14	-	-	-	-	-	18	93	179	-	-	-	-	

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$ Ca,Mg	Hardness as $CaCO_3$ Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
										Deer Creek - Clarion County (continued)									
Cr-346	4119-7923	8- 8-74	120	9.7	5.3	805	13	-	-	-	-	-	54	17	325	-	-	-	-	
347	4118-7926	8- 8-74	38	9.7	4.7	2100	252	-	-	-	-	-	410	0	1220	-	-	-	-	
348	4117-7929	8- 8-74	40	9.5	4.3	620	25	-	-	-	-	-	140	0	315	-	-	-	-	
349	4117-7929	8- 8-74	28	9.6	4.5	1270	160	-	-	-	-	-	360	0	725	-	-	-	-	
350	4116-7929	8- 8-74	42	9.8	4.8	725	78	-	-	-	-	-	97	-	380	-	-	-	-	
										Toby Creek-Clarion County									
Cr-187	4117-7922	10-21-71	135	10.0	5.7	1190	212	180	6.8	155	52	-	330	-	880	6.5	600	-	-	Red water
		7-14-73	83	9.8	5.3	1580	201	200	7.5	144	68	33	550	1	1000	30	640	640	1480	New stripping Al = 0.16
1/ 309	4119-7919	9- 4-73	73	10.1	4.0	2070	120	-	-	-	-	-	210	0	1200	22	-	-	-	
2/ 312	4122-7917	9-13-73	36	9.6	6.3	230	10	-	-	-	-	-	-	56	34	15	-	-	-	Attempted plugging - large seepages
1/ 313	4119-7917	9-13-73	25	9.5	3.6	1100	67	-	-	-	-	-	120	0	600	25	-	-	-	Red water
315	4116-7922	9-19-72	130	-	4.8	1510	296	-	-	-	-	-	500	2	920	25	-	-	-	Red water; 3 acres of vegetation affected
		7-15-73	46	9.7	5.3	2750	380	375	22	260	134	32	750	8	1710	25	1200	1190	2570	Al = 0.5
1/ 321	4119-7917	9-26-72	25	9.7	6.2	288	10	-	-	-	-	-	25	31	90	13	-	-	-	Red water forms 10 acre swamp
		8-22-74	45	9.5	5.2	1100	9.0	-	-	-	-	-	98	8	602	-	-	-	-	New stripping in 1973
327	4115-7922	9-18-72	20	9.1	5.1	5020	525	-	-	-	-	-	940	-	3300	-	-	-	-	Red water; gas bubbles

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$ Ca,Mg	Hardness as $CaCO_3$ Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
									Toby Creek - Clarion County (continued)											
		7- 2-73	35	8.9	5.6	4850	514	505	72	336	286	81	900	4	3200	20	2020	2010	4520	Stripping throughout area. Al = 9.0
2/ 328	4117-7919	9-18-72	3	9.4	6.4	2910	40	-	-	-	-	-	88	-	1700	40	-	-	-	Old striping
		7- 3-73	5	9.0	6.0	2300	39	39	10	48	121	17	140	8	1250	55	620	610	1550	Old and new stripping Al = 0.0
329	4119-7919	9-26-72	3	10.5	3.1	4000	200	-	-	-	-	-	500	0	2400	30	-	-	-	Red water
332	4120-7917	9- 6-72	E 200	9.8	5.8	378	12	-	-	-	-	-	44	26	140	11	-	-	-	
2/		8-22-74	38	-	4.3	1530	110	-	-	-	-	-	350	0	890	-	-	-	-	Plugged 1973 flow reduced Al=5.1
338	4115-7921	7-27-73	-	14.8	4.6	2900	152	150	40	73	123	40	-	0	1400	10	690	690	1850	Numerous seepages Al = 0.4
339	4115-7921	7-27-73	-	9.0	4.3	2200	239	235	48	72	129	53	-	0	1240	12	710	710	1800	Numerous seepages
340	4115-7921	7-27-73	4	9.0	4.2	1350	39	39	38	53	125	48	600	0	890	19	650	650	1210	Al = 0.3
1/ 351	4120-7917	8-20-74	47	9.5	5.2	1080	98	-	-	-	-	-	230	-	600	-	-	-	-	
1/ 352	4119-7919	8-21-74	51	9.9	4.7	2420	199	-	-	-	-	-	500	-	1410	-	-	-	-	
353	4119-7917	8-21-74	28	9.6	4.5	1500	107	-	-	-	-	-	230	0	843	-	-	-	-	
1/ 354	4118-7919	8-20-74	6	10.8	6.7	725	7.0	-	-	-	-	-	5	90	225	-	-	-	-	
1/ 355	4117-7920	8-28-74	32	9.7	4.8	545	29	-	-	-	-	-	210	-	274	-	-	-	-	
1/ 356	4117-7920	8-28-74	11	10.3	5.9	1120	47	-	-	-	-	-	49	33	632	-	-	-	-	
1/ 357	4116-7921	8-28-74	14	10.7	-	1100	70	-	-	-	-	-	260	-	669	-	-	-	-	

Table 4 (continued)

Well number	Well location	Date of collection	Discharge (gal/min)	Temperature (field, °C)	pH (field)	Specific conductance (Micromhos at 25°C)	Total Iron (Fe)	Ferrous Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium + potassium (Na + K)	Acidity as $CaCO_3$	Alkalinity as $CaCO_3$	Sulfate (SO_4)	Chloride (Cl)	Hardness as $CaCO_3$. Ca,Mg	Hardness as $CaCO_3$. Non-carbonates	Dissolved solids (sum or residue)	REMARKS:
					Toms Run - Clarion County															
Cr-292	4123-7914	7-23-74	40	10.0	5.1	560	10	-	2.5	-	-	17	10	4	140	2.8	-	-	-	
2/ 397	4123-7914	6-24-71	15	8.3	5.2	818	25	-	-	-	-	-	8	13	214	5.0	-	-	-	
2/ 398	4122-7914	6-24-71	8	7.9	6.6	285	8.0	-	-	-	-	-	0	30	24	8.8	-	-	-	
2/ 399	4121-7914	6-24-71	25	8.8	4.3	1280	140	-	-	-	-	-	200	0	720	6.2	-	-	-	
2/ 400	4121-7913	6-24-71	6	7.8	6.3	360	8.8	-	-	-	-	-	-	15	34	12	-	-	-	

E - Estimated
1/ - Some discharge and chemical data from Gwin, Dobson and Foreman, consulting engineers (from V-notch weirs)
2/ - Discharge data from Pennsylvania Department of Environmental Resources (from V-notch weirs)

Table 5.- Results of trace metal analyses of water from abandoned, flowing oil and gas wells (all values in micrograms per liter)

Well Number	Date of Collection	Copper (Cu)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Silver (Ag)	Strontium (Sr)
Welch Run - Jefferson County										
Je-63	8- 1-73	5	370	1	160	1	3	280	.4	-
64	8- 1-73	7	150	1	3	1	4	330	.5	-
87	6-27-74	4	300	1	100	4	3	230	.4	-
93	7- 1-73	6	180	1	1	4	3	320	.4	-
94	8- 1-73	3	140	1	8	1	2	200	.2	-
Licking Creek - Clarion County										
Cr-248	8-23-73	18	1600	6	1750	10	20	1300	1.3	-
291	7-25-74	40	320	-	170	-	-	200	-	1400
Toby Creek - Clarion County										
Cr-187	7-14-73	14	270	1	40	1	4	200	-	-
315	5-15-73	17	290	1	40	0	8	350	1.0	-
327	7- 2-73	21	1100	1	620	2	11	870	.7	-
328	7- 3-73	6	110	1	30	0	5	160	.6	-
338	7-27-73	14	400	1	370	3	5	450	.5	-
339	7-27-73	10	620	1	400	2	8	570	.7	-
340	7-27-73	11	250	4	310	2	7	270	.4	-

Table 6a. -- Chemical analyses of surface waters
Clarion River basin

03026490 - FIVEMILE RUN AT WILLIAMSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
05...	1245	30	12.1	5.5	50	210	0	70	6
AUG.									
15...	1430	11	13.6	5.7	44	450	0	400	8
SEP.									
20...	1200	1.2	12.2	7.4	50	400	0	0	8
APR., 1974									
09...	1200	23	2.5	7.2	70	100	0	0	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
05...	5	--	.0	2.5	24	1.2	11.8	48	43
AUG.									
15...	7	26	.0	.0	--	--	10.0	38	31
SEP.									
20...	7	.5	.0	.0	--	.8	12.0	34	27
APR., 1974									
09...	2	.2	.0	.0	13	10	14.8	9	7

03026500 - SEVENMILE RUN NEAR RASSELAS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
APR., 1972											
06...	1050	25	4.5	5.6	33	100	--	50	2	2	8.0
APR., 1974											
08...	0930	28	3.9	7.3	40	150	100	0	4	3	.3

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
APR., 1972										
06...	--	--	8.2	1.7	--	11	9	3.4	3.0	.9
APR., 1974										
08...	.0	.0	5.8	7.6	13.0	10	7	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (ND3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (P04) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
APR., 1972										
06...	.7	.4	.0	.53	.01	26	20	12	1.76	.04
APR., 1974										
08...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03026850 - SWAMP CR NR RASSELAS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
05...	1500	14	13.0	4.0	710	7600	700	12000	0
AUG.									
15...	1230	1.6	13.8	4.2	1720	4400	1000	16000	0
SEP.									
21...	1200	.72	13.2	3.7	850	3400	800	18000	0
APR., 1974									
09...	1345	6.2	.4	3.8	520	1600	1100	1000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
05...	0	.0	1.7	84	325	1.5	10.8	330	330
AUG.									
15...	0	.0	2.7	134	--	--	8.4	1000	1000
SEP.									
21...	0	.0	1.5	74	--	--	10.4	380	380
APR., 1974									
09...	0	.0	1.1	55	226	3.8	--	170	170

03027500 - E. BR. CLARION R. AT E. BR. CLARION R. DAM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1971										
15...	1550	122	12.0	6.5	68	500	--	470	2	2
APR., 1972										
06...	0940	37	3.5	4.9	110	200	--	930	4	3
APR., 1974										
09...	1600	540	3.1	7.1	70	200	0	100	2	2

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT., 1971										
15...	--	--	--	21	1.4	--	24	22	3.6	6.3
APR., 1972										
06...	--	--	--	36	3.8	--	43	40	4.1	12
APR., 1974										
09...	.3	.0	.0	25	4.2	14.1	32	30	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT., 1971										
15...	1.9	1.4	.8	.1	.71	.00	42	39	11	.06
APR., 1972										
06...	3.2	1.9	.6	.1	.88	.00	67	66	9	.09
APR., 1974										
09...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03027550 - CROOKED CR AT GLEN HAZEL, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
06...	0815	69	10.6	5.0	60	230	0	40	8
AUG.									
14...	1615	8.3	17.5	5.7	65	450	0	0	20
SEP.									
20...	1200	1.2	13.0	7.1	82	500	0	0	32
APR., 1974									
10...	0900	28	.6	7.2	55	100	0	0	8

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
06...	7	128	.0	.0	--	--	12.2	30	23
AUG.									
14...	16	64	.0	.0	11	1.8	9.0	34	18
SEP.									
20...	26	4.1	.0	.0	--	--	11.4	39	13
APR., 1974									
10...	7	.8	.0	.0	13	3.8	15.6	17	10

03027580 - JOHNSON RUN NR KETNER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
15...	1015	5.2	15.8	3.4	1750	1500	900	12000	0
SEP.									
21...	1200	.78	13.8	3.4	1250	7000	1800	20000	0
APR., 1974									
09...	1500	12	2.4	3.6	580	1200	800	2300	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
15...	0	.0	2.4	119	775	7.0	11.0	700	700
SEP.									
21...	0	.0	1.8	89	--	--	9.8	410	410
APR., 1974									
09...	0	.0	.7	35	256	8.4	13.2	190	190

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03027610 - JOHNSON RUN AT KETNER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
05...	1000	108	13.1	4.7	420	1500	300	5600	1
AUG.									
15...	0830	6.8	16.2	5.3	950	350	0	10000	10
SEP.									
21...	1200	1.3	15.8	4.0	785	700	200	2100	0
APR., 1974									
10...	1030	24	1.0	4.0	320	500	450	2700	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
05...	1	.0	.0	1.0	--	--	8.6	150	150
AUG.									
15...	8	--	1.3	65	460	7.8	--	500	490
SEP.									
21...	0	.0	1.1	55	--	--	10.6	310	310
APR., 1974									
10...	0	.0	.5	25	134	3.4	15.4	120	120

03027690 - EAST BR CLARION RIVER AT JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
05...	0815	1600	6.9	5.5	60	290	50	480	3
AUG.									
14...	1500	220	21.2	5.6	75	250	0	0	12
SEP.									
21...	1530	--	18.0	6.2	70	800	0	1000	4
APR., 1974									
10...	1200	653	7.0	5.8	85	250	100	50	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
05...	2	15	.0	1.0	--	4.2	11.6	30	28
AUG.									
14...	10	48	.0	.0	20	3.6	8.8	39	29
SEP.									
21...	3	4.0	.0	.0	--	--	8.8	34	31
APR., 1974									
10...	2	--	.0	1.0	32	4.6	14.0	31	29

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03027850 - WEST BR CLARION RIVER AT WILCOX, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
04...	1200	86	14.1	5.6	75	240	0	50	14
AUG.									
14...	1200	15	18.3	6.0	150	300	0	0	48
SEP.									
25...	1200	7.1	16.2	6.9	180	400	0	0	56
APR., 1974									
10...	1200	122	1.2	7.4	85	100	0	0	14

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
04...	11	56	.0	.0	12	8.6	13.2	19	8
AUG.									
14...	39	77	.0	.0	12	17	11.0	68	29
SEP.									
25...	46	11	.0	.0	13	21	10.0	88	42
APR., 1974									
10...	11	.9	.0	.0	17	9.1	14.6	24	13

03027990 - WILSON RUN AT DAHOGA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
04...	1415	151	13.1	6.1	60	280	30	40	15
AUG.									
14...	1330	16	15.4	6.0	110	400	0	0	40
SEP.									
25...	1200	3.3	14.4	8.0	160	700	0	0	52
APR., 1974									
10...	1220	42	4.0	7.2	75	600	0	50	10

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
04...	12	19	.0	.0	--	--	11.6	34	22
AUG.									
14...	33	64	.0	.0	12	10	11.8	58	25
SEP.									
25...	43	.8	.0	.0	--	--	10.8	68	25
APR., 1974									
10...	8	1.0	.0	.0	8.8	11	12.4	21	13

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028000 - WEST BRANCH CLARION RIVER AT WILCOX, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
MAR., 1971												
17...	1200	405	4.0	7.0	75	200	--	--	8	7	1.3	--
JUNE												
15...	1200	151	17.0	6.7	100	2200	--	--	20	16	6.4	--
SEP.												
13...	1200	29	22.0	7.3	244	300	--	--	59	48	4.7	--
OCT.												
15...	1400	8.1	12.0	7.4	170	500	--	36	53	43	3.4	--
DEC.												
12...	1200	191	7.0	7.5	100	900	--	--	12	10	.6	--
MAR., 1972												
20...	1200	225	4.0	6.8	--	600	--	100	14	11	3.6	--
APR.												
06...	1150	217	5.5	6.6	64	160	--	20	10	8	4.0	--
JUNE												
12...	1200	32	12.0	7.0	132	300	--	--	28	23	4.5	--
AUG.												
31...	1200	11	26.0	7.1	152	300	--	41	9	7	1.1	--
SEP.												
27...	1200	23	20.5	7.5	--	243	--	40	18	15	.9	--
JAN., 1973												
04...	1200	360	5.0	6.5	150	500	--	--	12	10	6.1	--
MAR.												
12...	1200	218	8.5	6.9	--	110	--	--	21	17	4.2	--
JUNE												
26...	1200	56	14.0	6.9	--	270	--	--	32	26	6.4	--
SEP.												
26...	1200	11	14.0	7.1	--	330	--	--	40	33	5.1	--
OCT.												
04...	1300	17	5.0	6.5	150	--	--	--	12	10	6.1	--
FEB., 1974												
26...	1515	190	--	6.8	70	110	--	--	12	10	3.0	--
MAR.												
25...	1630	180	4.0	7.0	80	180	--	--	15	12	2.4	--
APR.												
10...	1330	218	5.5	7.3	75	100	0	30	12	10	1.0	.0
24...	1015	150	--	6.7	70	180	--	--	16	13	5.1	--
AUG.												
06...	0935	96	--	7.7	81	710	--	--	19	19	.5	--
OCT.												
09...	0930	58	--	5.8	90	240	--	--	25	25	50	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028000 - WEST BRANCH CLARION RIVER AT WILCOX, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
MAR., 1971												
17...	--	21	5.0	13.0	36	29	--	--	--	--	--	--
JUNE												
15...	--	7.0	14	9.0	42	26	--	--	--	--	--	--
SEP.												
13...	--	16	37	9.0	58	10	--	--	--	--	--	--
OCT.												
15...	--	10	20	--	56	12	2.0	25	16	3.9	--	12
DEC.												
12...	--	17	--	12.0	22	12	--	100	--	--	--	--
MAR., 1972												
20...	--	12	--	13.0	24	13	--	--	--	--	--	--
APR.												
06...	--	8.8	6.3	--	21	13	3.7	--	6.1	1.3	--	3.6
JUNE												
12...	--	12	--	11.0	32	9	--	--	--	--	--	--
AUG.												
31...	--	33	14	10.0	36	29	--	--	--	--	--	--
SEP.												
27...	--	59	10	8.0	58	43	--	--	--	--	--	--
JAN., 1973												
04...	--	40	6.0	11.0	50	40	--	--	--	--	--	--
MAR.												
12...	--	11	3.0	11.0	26	9	--	--	--	--	--	--
JUNE												
26...	--	11	9.0	10.1	32	6	--	--	--	--	--	--
SEP.												
26...	--	15	21	11.0	58	25	--	--	--	--	--	--
OCT.												
04...	--	40	.6	11.0	50	40	--	--	10	4.0	--	--
FEB., 1974												
26...	--	16	10	--	22	12	--	--	5.6	1.9	.13	--
MAR.												
25...	--	11	15	14.0	28	16	--	--	7.2	2.4	.25	--
APR.												
10...	.0	13	9.5	13.2	22	12	--	--	--	--	--	--
24...	--	11	15	--	22	9	--	--	7.2	1.0	.05	--
AUG.												
06...	--	12	19	--	50	34	--	--	8.8	1.9	.09	--
OCT.												
09...	--	52	8.0	--	32	11	--	--	8.0	2.9	.05	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028000 - WEST BRANCH CLARION RIVER AT WILCOX, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED POTASSIUM (K) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOSPHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
MAR., 1971												
17...	--	--	--	--	.14	46	--	1.4	4900	--	--	.06
JUNE												
15...	--	--	--	--	1.2	--	--	1.6	23000	--	--	--
SEP.												
13...	--	--	--	--	.32	--	--	5.4	13000	--	--	--
OCT.												
15...	1.6	.1	.09	--	.00	91	92	--	--	31	--	.12
DEC.												
12...	--	--	--	--	--	--	--	2.0	2200	--	--	--
MAR., 1972												
20...	--	--	--	--	.02	64	--	1.0	4900	--	--	.09
APR.												
06...	.6	.1	.89	--	.00	39	36	--	--	27	--	.05
JUNE												
12...	--	--	--	--	.08	--	--	1.0	1700	--	--	--
AUG.												
31...	--	--	--	--	.03	--	--	--	--	--	--	--
SEP.												
27...	--	--	--	--	--	--	--	--	700	--	--	--
JAN., 1973												
04...	--	--	--	--	.02	--	--	--	--	--	--	--
MAR.												
12...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
26...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
26...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
04...	--	--	1.2	--	--	104	--	--	--	--	4.77	.14
FEB., 1974												
26...	--	--	2.4	.00	.03	--	--	--	--	--	--	--
MAR.												
25...	--	--	2.1	.01	.03	--	--	--	--	--	--	--
APR.												
10...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	.80	.00	.03	--	--	--	--	--	--	--
AUG.												
06...	--	--	2.0	.02	.09	70	--	--	--	--	18.1	1.00
OCT.												
09...	--	--	.80	.00	.03	76	--	--	--	--	11.9	.10

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028500 - CLARION RIVER AT JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)
MAR., 1971												
17...	1200	864	5.0	6.6	100	300	--	7	6	2.8	.0	.0
JUNE												
15...	1200	305	17.0	6.8	118	1000	--	20	16	5.1	.0	.0
SEP.												
14...	1200	370	19.0	6.5	250	1500	--	15	12	7.6	.0	.0
OCT.												
15...	1335	126	19.0	7.0	304	900	600	22	18	--	--	--
DEC.												
12...	1200	474	7.0	6.5	130	800	--	12	10	--	.0	1.0
MAR., 1972												
22...	1200	1510	5.0	6.2	--	3900	--	8	7	--	.0	2.0
APR.												
06...	1235	462	7.0	6.4	120	570	650	5	4	--	--	--
27...	1200	486	20.5	7.2	285	121	30	22	18	--	--	--
JUNE												
12...	1200	172	17.0	6.4	244	400	--	18	15	--	.0	2.0
AUG.												
23...	1200	280	26.0	7.3	--	300	41	9	7	--	--	--
JAN., 1973												
04...	1200	1140	5.0	6.7	165	500	--	30	25	9.6	--	--
MAR.												
12...	1200	433	8.0	6.7	--	360	--	19	16	--	--	--
JUNE												
27...	1200	272	18.0	6.0	245	270	--	87	71	139	--	--
SEP.												
25...	1200	190	16.0	7.6	--	340	--	19	16	.8	--	--
NOV.												
14...	1200	244	--	7.3	265	560	--	19	16	1.5	--	--
DEC.												
11...	1245	380	6.0	6.8	200	410	--	10	8	2.5	--	--
FEB., 1974												
26...	1445	363	--	6.5	165	450	--	10	8	5.1	--	--
MAR.												
26...	0915	276	2.0	7.0	115	220	--	13	11	2.1	--	--
APR.												
24...	1100	368	--	6.5	120	270	--	13	11	6.6	--	--
JUNE												
25...	1020	244	--	6.9	140	220	--	23	19	4.6	--	--
AUG.												
06...	1110	305	--	6.1	140	270	--	8	8	8.1	--	--
OCT.												
09...	1050	374	--	5.6	130	840	--	8	8	26	.1	5.0

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028500 - CLARION RIVER AT JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)
MAR., 1971											
17...	31	7.0	12.0	30	24	--	--	--	--	--	--
JUNE											
15...	11	15	7.0	42	26	--	--	--	--	--	--
SEP.											
14...	54	17	19.0	58	46	--	--	--	--	--	--
OCT.											
15...	51	50	--	90	72	11	30	3.6	--	26	2.3
DEC.											
12...	27	--	12.0	26	16	--	--	--	--	--	--
MAR., 1972											
22...	15	--	13.0	22	15	--	--	--	--	--	--
APR.											
06...	37	6.3	--	40	36	4.6	11	3.1	--	4.8	.7
27...	66	20	10.0	74	56	--	--	--	--	--	--
JUNE											
12...	33	--	10.0	48	33	--	--	--	--	--	--
AUG.											
23...	33	14	10.0	36	29	--	--	--	--	--	--
JAN., 1973											
04...	28	6.0	12.0	50	25	--	--	--	--	--	--
MAR.											
12...	30	11	10.9	44	28	--	--	--	--	--	--
JUNE											
27...	17	4.0	10.1	30	0	--	--	--	--	--	--
SEP.											
25...	28	8.0	9.0	48	32	--	--	--	--	--	--
NOV.											
14...	57	23	--	64	48	--	19	8.8	--	--	--
DEC.											
11...	45	26	10.8	38	30	--	7.2	4.9	--	--	--
FEB., 1974											
26...	36	21	--	40	32	--	11	2.9	.23	--	--
MAR.											
26...	26	9.0	--	40	29	--	10	3.4	.22	--	--
APR.											
24...	25	7.0	--	38	27	--	10	2.9	.21	--	--
JUNE											
25...	36	14	--	51	32	--	17	2.2	.42	--	--
AUG.											
06...	40	24	--	36	29	--	11	1.9	.15	--	--
OCT.											
09...	44	9.0	--	40	33	--	8.8	4.4	.21	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028500 - CLARION RIVER AT JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
MAR., 1971											
17...	--	--	--	.05	56	--	2.0	48300	--	--	.08
JUNE											
15...	--	--	--	1.9	--	--	2.9	384000	--	--	--
SEP.											
14...	--	--	--	.01	--	--	2.6	10150	--	--	--
OCT.											
15...	.2	.22	--	.21	181	187	--	--	38	--	.25
DEC.											
12...	--	--	--	.04	--	--	3.0	181000	--	--	--
MAR., 1972											
22...	--	--	--	.02	--	--	2.0	13630	--	--	--
APR.											
06...	.1	1.3	--	.07	74	73	--	--	20	--	.10
27...	--	--	--	.03	--	--	--	--	--	--	--
JUNE											
12...	--	--	--	.31	--	--	7.0	600000	--	--	--
AUG.											
23...	--	--	--	.03	--	--	--	--	--	--	--
JAN., 1973											
04...	--	--	--	.02	--	--	--	--	--	--	--
MAR.											
12...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
27...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
25...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
14...	--	.50	--	--	172	--	--	--	--	113	.23
DEC.											
11...	--	1.2	--	--	164	--	--	--	--	168	.22
FEB., 1974											
26...	--	1.3	.01	.09	--	--	--	--	--	--	--
MAR.											
26...	--	1.4	.02	.09	--	--	--	--	--	--	--
APR.											
24...	--	.50	.01	.12	92	--	--	--	--	91.4	.13
JUNE											
25...	--	.50	.03	.12	106	--	--	--	--	69.8	.10
AUG.											
06...	--	.70	.02	.21	126	--	--	--	--	104	.17
OCT.											
09...	--	.60	.01	.09	102	--	--	--	--	103	.14

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028520 - POWERS RUN AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
06...	1100	57	11.4	5.6	60	210	0	60	9
AUG.									
16...	0845	3.5	12.5	6.4	95	250	0	0	17
SEP.									
26...	1200	12	16.0	7.6	110	100	0	0	24
APR., 1974									
08...	1200	46	3.8	7.2	55	200	100	0	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
06...	7	.0	.0	1.2	--	--	12.0	24	17
AUG.									
16...	14	11	.0	.0	19	12	12.0	34	20
SEP.									
26...	20	1.0	.0	.0	--	--	10.2	38	18
APR., 1974									
08...	5	.6	.0	.0	11	7.6	--	14	9

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028530 - RILEY RUN NR JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
JUNE, 1972										
07...	1315	3.0	20.7	7.3	2450	620	--	1600	478	392
JULY										
06...	1000	10	17.1	6.8	1600	850	--	1000	390	320
AUG.										
15...	1530	3.0	23.2	6.9	2600	800	--	1500	480	394
SEP.										
26...	1200	5.9	17.8	6.7	2420	300	--	1000	500	410
APR., 1974										
08...	1315	5.7	5.8	7.8	2400	1200	0	1000	358	294

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
JUNE, 1972										
07...	38	--	--	78	550	--	450	58	24	170
JULY										
06...	99	.0	.0	--	--	--	290	0	--	--
AUG.										
15...	97	.0	.0	88	590	--	390	0	--	--
SEP.										
26...	160	.0	.0	--	--	--	390	0	--	--
APR., 1974										
08...	--	.0	.0	84	550	1.9	260	0	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
JUNE, 1972										
07...	6.3	360	16	.1	15	1.2	1490	1460	62	2.03
JULY										
06...	--	--	--	--	--	--	--	--	--	--
AUG.										
15..,	--	--	--	--	--	--	--	--	--	--
SEP.										
26...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
08...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028550 - LITTLE MILL CR NR JOHNSONBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
06...	1310	36	12.1	5.5	50	260	0	160
SEP.								
26...	1200	1.6	17.0	7.2	55	800	0	50
MAY , 1974								
21...	1200	15	18.0	5.1	30	210	0	60

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
06...	4	3	20	.0	.0	12.2	17	14
SEP.								
26...	10	8	1.0	.0	.0	9.2	21	13
MAY , 1974								
21...	2	2	--	.1	5.0	--	12	10

03028740 - ELK CR AT SAINT MARYS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
07...	0910	92	11.8	5.5	270	4100	1000	1000	3
AUG.									
16...	1110	15	17.9	6.2	500	1900	0	1500	38
OCT.									
02...	1200	11	16.8	6.0	380	2500	500	1000	22

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
07...	2	--	.0	2.0	--	--	11.0	86	84
AUG.									
16...	31	38	.0	.0	58	98	9.4	170	140
OCT.									
02...	18	35	.0	.0	--	--	8.6	130	110

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028750 - LAUREL RUN NR SAINT MARYS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
16...	1330	2.9	12.3	6.5	140	1800	100	500	44
OCT.									
02...	1200	.10	14.6	6.8	150	700	0	500	34
APR., 1974									
08...	1400	24	4.6	6.2	80	400	0	100	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIOE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
16...	36	22	.0	.0	32	1.2	13.0	68	32
OCT.									
02...	28	8.6	.0	.0	--	--	9.0	51	23
APR., 1974									
08...	2	--	.1	5.0	25	8.0	--	31	29

03028800 - DAGUSCAHONOA CR AT DAGUSCAHONDA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
07...	1000	117	10.8	4.5	190	3800	600	1600	0
AUG.									
16...	1445	23	13.6	4.7	185	250	0	1500	0
OCT.									
02...	1200	6.4	12.2	4.9	200	700	200	500	0
APR., 1974									
08...	1300	38	4.0	4.2	160	1900	1300	300	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
07...	0	.0	1.3	65	--	--	11.0	51	51
AUG.									
16...	0	.0	.2	12	61	23	11.0	86	86
OCT.									
02...	0	.0	.2	12	--	--	12.0	68	68
APR., 1974									
08...	0	.0	.5	25	64	7.6	--	44	44

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028900 - ELK CREEK AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
MAY , 1970										
20...	1755	--	--	6.2	120	--	--	--	2	2
MAY , 1971										
06...	1230	--	10.0	6.6	167	--	--	--	7	6
AUG.										
30...	1250	--	21.5	6.6	488	--	--	--	36	30
OCT.										
15...	1240	22	12.0	6.4	371	820	100	240	27	22
APR., 1972										
06...	1315	200	6.5	5.4	117	550	--	380	2	2
MAY										
25...	1415	--	20.0	6.3	183	--	--	--	--	--
JULY										
07...	1100	450	12.2	5.5	130	1400	300	620	3	2
AUG.										
15...	1400	--	25.0	6.8	486	--	--	--	--	--
16...	1610	54	18.2	5.8	495	450	0	100	28	23
SEP.										
26...	1200	--	19.6	7.1	500	600	0	200	18	15
MAR., 1973										
08...	1300	300	--	5.9	100	500	--	--	6	5
APR.										
09...	1130	200	--	6.2	160	370	--	--	5	4
17...	1200	--	--	6.1	140	600	--	0	4	3
MAY										
02...	1125	125	--	6.4	140	420	--	--	11	9
JUNE										
07...	1130	307	--	6.2	140	2950	--	--	12	10
JULY										
02...	1825	72	--	6.5	180	700	--	--	13	11
AUG.										
09...	1500	13	22.0	6.9	500	58	--	250	33	27
SEP.										
11...	1400	14	16.0	7.1	400	400	--	--	31	25
OCT.										
03...	1500	20	--	6.8	275	1070	--	--	20	16
NOV.										
14...	1115	39	--	7.5	230	580	--	--	19	16
DEC.										
11...	1115	--	2.0	6.3	180	750	--	--	9	7
FEB., 1974										
26...	1430	144	--	6.2	130	910	--	--	6	5
APR.										
08...	1530	59	4.4	6.0	105	1000	550	600	2	2
24...	1145	--	--	6.6	150	720	--	--	10	8
JUNE										
25...	0845	--	--	6.8	250	220	--	--	20	16
AUG.										
05...	1150	--	--	6.7	305	--	--	--	--	23
SEP.										
26...	1615	52	14.0	7.0	198	--	--	--	14	11
OCT.										
09...	1130	--	--	6.0	290	370	--	--	71	71
NOV.										
21...	1540	--	--	6.5	150	--	--	--	--	12
DEC.										
23...	1455	--	--	6.7	115	--	--	--	--	1
FEB., 1975										
04...	1500	--	--	6.2	125	--	--	--	--	9
APR.										
18...	1240	54	9.0	--	376	--	--	--	9	7
SEP.										
16...	0915	42	11.5	6.6	170	--	--	--	--	11

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028900 - ELK CREEK AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)
MAY , 1970										
20...	--	--	--	26	11	--	28	26	--	--
MAY , 1971										
06...	--	--	--	34	15	--	37	32	--	--
AUG.										
30...	--	--	--	51	87	--	62	32	--	--
OCT.										
15...	17	--	--	52	58	--	67	45	1.7	--
APR., 1972										
06...	13	--	--	28	11	--	29	27	4.7	--
MAY										
25...	--	--	--	--	--	--	--	--	--	--
JULY										
07...	15	.0	1.2	--	16	11.6	51	49	--	--
AUG.										
15...	--	--	--	--	--	--	--	--	--	--
16...	71	.0	.0	52	96	11.2	120	97	--	--
SEP.										
26...	2.3	.0	.0	--	98	8.2	100	85	--	--
MAR., 1973										
08...	12	--	--	25	11	--	38	33	--	--
APR.										
09...	5.0	--	--	27	32	--	36	32	--	--
17...	5.1	.0	.0	--	14	--	51	48	--	--
MAY										
02...	7.0	--	--	27	17	--	36	27	--	--
JUNE										
07...	12	--	--	32	11	--	54	44	--	--
JULY										
02...	6.6	--	--	41	29	--	50	39	--	--
AUG.										
09...	6.6	--	--	51	87	8.0	72	45	--	500
SEP.										
11...	3.9	--	--	68	55	8.3	76	51	--	--
OCT.										
03...	5.1	--	--	51	33	--	84	68	--	--
NOV.										
14...	1.0	--	--	43	29	--	58	42	--	--
DEC.										
11...	7.2	--	--	34	28	11.8	40	33	--	--
FEB., 1974										
26...	6.1	--	--	34	23	--	36	31	--	--
APR.										
08...	--	.1	5.0	--	11	13.6	43	41	--	--
24...	4.0	--	--	39	12	--	28	20	--	--
JUNE										
25...	5.1	--	--	49	29	--	56	40	--	--
AUG.										
05...	--	--	--	57	47	--	72	--	--	--
SEP.										
26...	2.2	.1	4.0	48	20	--	--	--	--	--
OCT.										
09...	114	--	--	66	33	--	66	8	--	--
NOV.										
21...	--	--	--	32	15	--	30	--	--	--
DEC.										
23...	--	--	--	42	12	--	42	--	--	--
FEB., 1975										
04...	--	--	--	37	10	--	32	--	--	--
APR.										
18...	--	.0	.0	140	14	--	--	--	--	--
SEP.										
16...	--	--	--	32	18	10.8	50	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028900 - ELK CREEK AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	DIS_SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
MAY , 1970										
20...	7.7	2.1	--	--	--	--	--	--	--	--
MAY , 1971										
06...	9.6	3.2	--	--	--	--	6.6	--	--	--
AUG.										
30...	19	3.4	--	--	--	--	10	--	--	--
OCT.										
15...	19	4.8	--	46	3.0	.2	6.3	--	.86	205
APR., 1972										
06...	8.1	2.2	--	6.9	1.0	.1	1.3	--	.04	63
MAY										
25...	--	--	--	--	--	--	--	--	--	--
JULY										
07...	--	--	--	--	--	--	--	--	--	--
AUG.										
15...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
SEP.										
26...	--	--	--	--	--	--	--	--	--	--
MAR., 1973										
08...	8.8	3.9	.21	--	--	--	1.4	.00	--	--
APR.										
09...	8.0	3.9	.19	--	--	--	1.5	.00	--	96
17...	--	--	--	--	--	--	--	--	--	--
MAY										
02...	8.0	3.9	.33	--	--	--	1.5	.07	--	92
JUNE										
07...	10	6.8	.40	--	--	--	1.6	.08	--	90
JULY										
02...	13	4.4	.21	--	--	--	1.9	.18	--	122
AUG.										
09...	19	5.8	.09	--	--	--	4.0	.22	--	316
SEP.										
11...	22	5.3	.48	--	--	--	3.9	.23	--	264
OCT.										
03...	16	11	.37	--	--	--	2.8	.52	--	188
NOV.										
14...	11	7.3	--	--	--	--	1.3	--	--	144
DEC.										
11...	9.6	3.9	--	--	--	--	1.3	--	--	125
FEB., 1974										
26...	8.0	3.9	.32	--	--	--	1.7	.01	.28	90
APR.										
08...	--	--	--	--	--	--	--	--	--	--
24...	8.8	1.5	.63	--	--	--	.60	.09	.37	112
JUNE										
25...	16	3.6	.61	--	--	--	1.3	.07	.25	160
AUG.										
05...	--	--	--	--	--	--	--	--	--	--
SEP.										
26...	--	--	--	--	--	--	--	--	--	--
OCT.										
09...	14	7.3	.62	--	--	--	1.9	.07	.40	216
NOV.										
21...	--	--	--	--	--	--	--	--	--	--
DEC.										
23...	--	--	--	--	--	--	--	--	--	--
FEB., 1975										
04...	--	--	--	--	--	--	--	--	--	--
APR.										
18...	--	--	--	--	--	--	--	--	--	--
SEP.										
16...	13	3.8	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03028900 - ELK CREEK AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
MAY , 1970									
20...	--	--	--	--	--	--	--	--	--
MAY , 1971									
06...	--	--	45	--	--	--	--	--	--
AUG.									
30...	--	--	71	--	--	--	--	--	--
OCT.									
15...	205	--	58	--	.28	--	--	--	--
APR., 1972									
06...	65	--	33	--	.09	--	--	--	--
MAY									
25...	--	--	--	--	--	--	--	--	--
JULY									
07...	--	--	--	--	--	--	--	--	--
AUG.									
15...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
SEP.									
26...	--	--	--	--	--	--	--	--	--
MAR., 1973									
08...	--	--	--	--	--	--	--	--	--
APR.									
09...	--	--	--	51.8	.13	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
MAY									
02...	--	--	--	31.0	.13	--	--	--	--
JUNE									
07...	--	--	--	74.6	.12	--	--	--	--
JULY									
02...	--	--	--	23.7	.17	--	--	--	--
AUG.									
09...	--	--	--	11.1	.43	20	30	3	50
SEP.									
11...	--	--	--	9.98	.36	--	--	--	--
OCT.									
03...	--	--	--	10.2	.26	--	--	--	--
NOV.									
14...	--	--	--	15.2	.20	--	--	--	--
DEC.									
11...	--	--	--	--	.17	--	--	--	--
FEB., 1974									
26...	--	--	--	35.0	.12	--	--	--	--
APR.									
08...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	.15	--	--	--	--
JUNE									
25...	--	--	--	--	.22	--	--	--	--
AUG.									
05...	--	--	--	--	--	--	--	--	--
SEP.									
26...	--	--	--	--	--	--	--	--	--
OCT.									
09...	--	--	--	--	.29	--	--	--	--
NOV.									
21...	--	--	--	--	--	--	--	--	--
DEC.									
23...	--	--	--	--	--	--	--	--	--
FEB., 1975									
04...	--	--	--	--	--	--	--	--	--
APR.									
18...	--	--	--	--	--	--	--	--	--
SEP.									
16...	--	1.1	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029000 - CLARION RIVER AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAR., 1971											
17...	1200	--	--	--	--	--	--	--	--	--	--
JUNE											
22...	1200	--	--	--	--	--	--	--	--	--	--
SEP.											
15...	1200	--	--	--	--	--	--	--	--	--	--
OCT.											
15...	1300	160	15.0	6.8	196	600	--	400	31	25	7.9
DEC.											
15...	1200	--	--	--	--	--	--	--	--	--	--
MAR., 1972											
22...	1200	--	--	--	--	--	--	--	--	--	--
APR.											
06...	1335	856	6.0	6.6	111	440	--	300	10	8	4.0
JUNE											
12...	1200	--	--	--	--	--	--	--	--	--	--
SEP., 1973											
25...	1200	218	17.0	6.8	254	3400	--	--	26	21	6.6
MAR., 1974											
26...	0830	533	3.5	7.0	145	310	--	--	17	14	2.7
APR.											
08...	1200	1120	4.6	6.2	100	500	0	40	12	10	--
SEP.											
17...	1130	337	21.0	7.0	180	540	--	--	--	20	3.2

03029000 - CLARION RIVER AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED AMMONIA (NH4) (MG/L)
MAR., 1971											
17...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
22...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
15...	--	--	--	--	--	--	--	--	--	--	--
OCT.											
15...	--	--	30	25	--	51	26	5.8	16	2.6	--
DEC.											
15...	--	--	--	--	--	--	--	--	--	--	--
MAR., 1972											
22...	--	--	--	--	--	--	--	--	--	--	--
APR.											
06...	--	--	21	9.7	--	34	26	4.2	10	2.1	--
JUNE											
12...	--	--	--	--	--	--	--	--	--	--	--
SEP., 1973											
25...	--	--	39	40	9.0	52	31	--	--	--	--
MAR., 1974											
26...	--	--	24	16	15.0	48	34	--	10	5.4	.31
APR.											
08...	.1	5.0	17	16	--	41	31	--	--	--	--
SEP.											
17...	.0	.0	34	17	--	46	30	--	12	3.9	.15

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029000 - CLARION RIVER AT RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
MAR., 1971											
17...	--	--	--	--	--	--	92	--	--	--	.13
JUNE											
22...	--	--	--	--	--	.44	118	--	--	--	.16
SEP.											
15...	--	--	--	--	--	.04	106	--	--	--	.14
OCT.											
15...	17	1.9	.1	.60	--	.03	106	115	41	--	.14
DEC.											
15...	--	--	--	--	--	.04	--	--	--	--	--
MAR., 1972											
22...	--	--	--	--	--	.03	--	--	--	--	--
APR.											
06...	6.0	.8	.1	.90	--	.07	62	60	27	--	.08
JUNE											
12...	--	--	--	--	--	.16	--	--	--	--	--
SEP., 1973											
25...	--	--	--	--	--	--	156	--	--	91.8	.21
MAR., 1974											
26...	--	--	--	1.3	.01	.18	90	--	--	130	.12
APR.											
08...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
17...	--	--	--	.90	.03	.06	112	--	--	102	.15

03029120 - BIG MILL CR NR RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	PH (UNITS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	DIS-SOLVED IRON (FE) (UG/L)	FERRDUS IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
JULY, 1972								
10...	1610	288	14.4	5.6	50	1500	0	260
OCT.								
10...	1200	8.1	10.2	6.4	90	900	0	0
APR., 1973								
17...	1420	48	8.0	5.9	50	300	--	100
MAY , 1974								
20...	1200	45	17.0	5.5	30	200	190	100

DATE	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
JULY, 1972								
10...	4	3	--	.0	2.0	10.2	17	14
OCT.								
10...	22	18	14	.0	.0	12.0	34	16
APR., 1973								
17...	4	3	8.1	.0	.0	--	17	14
MAY , 1974								
20...	4	3	20	.0	.0	--	13	10

03029125 - LITTLE TOBY CR AT DAGUS MINES, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
23...	1330	1.6	13.8	4.0	950	3000	700	4500	0
OCT.									
03...	1200	7.9	13.8	4.0	950	5000	1500	5500	0
APR., 1974									
09...	0930	4.6	5.3	3.8	650	1800	1200	2300	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
23...	0	.0	1.4	68	490	4.5	11.8	460	460
OCT.									
03...	0	.0	1.9	95	--	--	10.6	410	410
APR., 1974									
09...	0	.0	.8	40	290	11	12.6	240	240

03029128 - LIMESTONE RUN AT TOBY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
OCT., 1972									
03...	1200	.50	12.6	4.5	1100	1900	1200	6000	0
APR., 1974									
09...	1200	2.2	3.8	4.8	560	2000	1600	3700	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT., 1972									
03...	0	.0	2.5	120	--	--	10.0	550	550
APR., 1974									
09...	0	.0	.6	30	248	6.1	13.2	240	240

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029130 - KYLER RUN AT KYLERS CORNERS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
23...	1030	2.9	15.6	3.6	1350	22500	1500	5500	0
OCT.									
31...	1200	2.3	17.0	3.6	1350	6600	1900	2000	0
APR., 1974									
09...	1200	13	7.1	3.4	900	5600	4400	2800	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
23...	0	.0	3.8	185	670	2.2	8.8	550	550
OCT.									
31...	0	.0	4.6	226	--	--	8.8	530	530
APR., 1974									
09...	0	.0	2.5	125	400	15	7.1	120	120

03029135 - TRIB TO LITTLE TOBY CR AT KYLERS CORNERS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
22...	1530	1.9	19.3	3.8	2050	150000	25000	10000	0
OCT.									
03...	1200	3.8	18.2	3.5	1900	200000	52000	4000	0
APR., 1974									
09...	1250	3.0	6.1	4.7	750	16800	6800	5000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
22...	0	.0	5.9	290	1080	2.0	--	840	840
OCT.									
03...	0	.0	6.7	330	--	--	--	620	620
APR., 1974									
09...	0	.0	1.3	65	340	4.6	9.8	140	140

03029136 - LITTLE TOBY CR AT KYLERS CORNERS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
22...	1415	11	15.6	3.5	1530	30000	12000	5500	0
OCT.									
03...	1200	12	14.6	3.3	1500	27000	24000	1500	0
APR., 1974									
09...	1345	35	5.8	3.6	860	5200	3600	3700	0

DATE	ALKALINITY AS CACD3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACD3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
22...	0	.0	4.1	200	800	3.8	10.0	500	500
OCT.									
03...	0	.0	9.4	460	--	--	6.2	680	680
APR., 1974									
09...	0	.0	2.0	100	364	11	10.6	140	140

03029138 - SAWMILL RUN NR KYLERS CORNERS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
22...	1115	.59	13.8	4.5	650	600	100	9000	0
OCT.									
04...	1200	.94	9.2	5.2	540	500	0	6000	3
MAY , 1974									
20...	1200	10	12.0	4.4	280	250	220	3000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
22...	0	--	.7	36	290	4.0	10.4	280	280
OCT.									
04...	2	.0	.6	32	--	--	12.2	220	220
MAY , 1974									
20...	0	.0	.3	15	--	--	--	110	110

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029140 - BRANDYCAMP CR NR ELBON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
APR., 1972											
25...	1440	24	9.0	3.6	532	5500	--	5900	0	0	.0
JULY											
11...	1200	--	--	4.0	625	22000	3600	3800	0	0	.0
AUG.											
17...	1200	10	15.2	4.0	1100	12000	5000	3000	0	0	.0
OCT.											
04...	1200	7.8	10.6	4.4	700	9000	6000	1000	0	0	.0
APR., 1973											
17...	1200	--	--	3.4	450	2600	--	2100	0	0	.0
APR., 1974											
09...	1430	48	3.1	4.2	360	7900	4800	2000	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)
APR., 1972										
25...	1.1	55	210	4.1	--	165	165	7.9	5200	28
JULY										
11...	1.2	58	265	6.6	--	220	220	--	--	--
AUG.										
17...	2.2	106	422	18	9.8	330	330	--	--	--
OCT.										
04...	1.0	51	282	8.6	9.2	270	270	--	--	--
APR., 1973										
17...	.8	39	202	5.8	--	190	190	--	--	--
APR., 1974										
09...	1.0	50	160	7.2	10.2	120	120	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
APR., 1972										
25...	23	4.0	1.6	.5	.88	.00	331	280	5	.45
JULY										
11...	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
04...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
09...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029142 - BEAR RUN NR ELBON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
17...	1115	15	12.8	5.0	55	200	0	0	10
OCT.									
04...	1200	3.0	10.2	5.5	50	300	0	0	4
APR., 1974									
10...	0930	19	3.0	6.2	40	100	0	0	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
17...	8	160	.0	.0	13	3.5	11.0	22	14
OCT.									
04...	3	20	.0	.0	--	--	11.0	17	14
APR., 1974									
10...	2	--	.1	5.0	14	4.2	13.2	22	20

03029143 - BOGGY RUN AT BROCKPORT, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
21...	1445	.36	17.0	5.6	50	100	0	50	4
OCT.									
05...	1200	1.5	11.5	6.5	45	2200	0	0	4
APR., 1974									
10...	1430	7.9	5.0	5.8	55	100	0	0	4

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
21...	3	16	.0	.0	--	--	10.0	24	21
OCT.									
05...	3	2.0	.0	.0	--	--	11.2	19	16
APR., 1974									
10...	3	10	.0	.0	13	8.7	13.6	29	26

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029144 - MEAD RUN AT BROCKPORT, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
11...	1215	--	14.4	5.0	450	350	200	6400	1
AUG.									
21...	1555	1.9	17.6	5.3	460	300	0	3500	19
OCT.									
04...	1200	4.3	12.2	5.2	390	500	0	3000	10
APR., 1974									
10...	1000	23	1.5	6.3	280	150	100	2800	10

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
11...	1	16	.0	.0	--	--	10.6	190	190
AUG.									
21...	16	152	.0	.0	215	6.0	10.0	220	200
OCT.									
04...	8	101	.0	.0	--	--	10.4	170	160
APR., 1974									
10...	8	8.0	.0	.0	116	3.0	12.4	120	110

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029145 - LITTLE TOBY CR AT BROCKPORT, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
MAY , 1971										
11...	1200	--	12.0	3.8	438	2500	--	3000	0	0
AUG., 1972										
17...	1200	62	15.7	4.1	1200	5500	600	3000	0	0
OCT.										
04...	1200	30	11.4	4.0	850	3400	1400	2000	0	0
APR., 1973										
17...	1200	--	9.0	3.8	575	1200	--	2500	0	0
APR., 1974										
10...	1530	133	6.0	4.1	480	2600	1600	2400	0	0

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
MAY , 1971										
11...	.0	.5	24	186	5.8	--	170	170	7.8	3000
AUG., 1972										
17...	.0	2.2	110	528	21	10.8	470	470	--	--
OCT.										
04...	.0	1.5	73	365	15	8.8	360	360	--	--
APR., 1973										
17...	.0	.7	36	242	8.0	--	200	200	--	--
APR., 1974										
10...	.0	.9	45	210	9.5	12.8	180	180	--	--

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY , 1971										
11...	42	16	2.6	1.5	.3	.10	271	271	3	.37
AUG., 1972										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
04...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
10...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029146 - WHETSTONE BRANCH AT BROCKPORT, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
OCT., 1972									
05...	1200	4.3	12.2	6.6	75	500	0	0	26
APR., 1974									
10...	1330	13	5.0	6.2	50	200	0	0	8

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT., 1972									
05...	21	10	.0	.0	--	--	11.0	34	13
APR., 1974									
10...	7	8.1	.0	.0	5.4	5.7	10.8	17	10

03029147 - RATTLESNAKE RUN NR LANES MILLS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
11...	1500	9.1	16.4	5.9	500	1100	50	240	48
AUG.									
24...	1300	4.0	17.0	5.9	450	700	0	0	62
OCT.									
05...	1200	8.5	12.0	5.2	490	400	0	50	44
APR., 1974									
11...	1000	22	5.5	7.4	390	200	0	100	40

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
11...	39	97	.0	.0	--	--	10.8	240	200
AUG.									
24...	51	125	.0	.0	152	14	10.8	220	170
OCT.									
05...	36	444	.0	.0	--	--	11.8	230	190
APR., 1974									
11...	33	2.5	.0	.0	140	9.1	12.0	170	140

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029148 - RATTLESNAKE CK AT LANES MILLS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
11...	1435	59	15.4	5.9	307	1100	100	570	24
AUG.									
24...	1000	3.0	16.8	5.4	400	1400	400	500	46
OCT.									
05...	1200	23	12.2	5.3	360	1500	400	1000	26
APR., 1974									
11...	0900	47	3.5	6.4	240	500	200	40	20

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
11...	20	48	.0	.0	--	--	11.0	150	130
AUG.									
24...	38	293	.0	.0	150	12	11.0	190	150
OCT.									
05...	21	208	.0	.0	--	--	11.8	170	150
APR., 1974									
11...	16	13	.0	.0	88	8.0	12.4	99	83

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029150 - LITTLE TOBY CREEK AT BROCKWAY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY , 1971											
11...	1200	--	12.0	6.4	298	950	50	1400	8	7	5.1
OCT.											
15...	1710	--	15.0	4.6	682	130	--	4500	0	0	.0
MAR., 1972											
22...	1405	--	5.5	4.6	267	6700	1700	1700	0	0	.0
JULY											
11...	1400	250	16.2	4.2	435	3400	850	5300	0	0	.0
AUG.											
17...	1430	43	17.7	4.3	700	1200	200	4500	0	0	.0
OCT.											
05...	1200	--	13.0	4.9	450	1200	350	1500	4	3	--
APR., 1973											
17...	1200	152	9.0	4.9	380	1100	--	500	1	1	--
SEP.											
23...	1300	36	14.5	5.0	580	1200	350	2800	4	3	--
APR., 1974											
10...	1320	263	4.2	5.2	310	1700	1100	1700	2	2	--

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)
MAY , 1971										
11...	--	--	118	6.7	--	120	110	5.3	820	30
OCT.										
15...	.4	20	328	11	--	349	350	10	--	87
MAR., 1972										
22...	--	--	105	11	--	104	100	--	--	25
JULY										
11...	.5	24	--	--	10.4	210	210	--	--	--
AUG.										
17...	1.0	51	322	15	8.6	340	340	--	--	--
OCT.										
05...	.0	.0	--	--	10.8	190	190	--	--	--
APR., 1973										
17...	.1	7.3	--	--	--	170	170	--	--	--
SEP.										
23...	.2	12	--	--	--	240	240	--	--	--
APR., 1974										
10...	.3	15	130	10	10.8	140	140	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY , 1971										
11...	11	3.3	1.4	.2	.30	.00	183	183	6	.25
OCT.										
15...	32	7.3	2.8	.3	.22	.01	507	484	4	.69
MAR., 1972										
22...	10	--	--	--	1.6	.00	--	--	--	--
JULY										
11...	--	--	--	--	--	--	--	--	--	--
AUG.										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
05...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
SEP.										
23...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
10...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029170 - LITTLE TOBY CREEK AT PORTLAND MILLS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY , 1971											
11...	1200	--	13.5	5.9	235	950	--	1300	2	2	4.0
OCT.											
22...	1000	25	10.5	4.2	638	100	--	3800	0	0	.0
JULY, 1972											
11...	1000	585	14.4	5.3	310	1200	0	2300	4	3	32
AUG.											
23...	1500	71	22.0	5.5	500	400	100	3000	0	0	.0
OCT.											
06...	0900	97	12.4	5.5	420	400	100	1000	5	4	25
APR., 1973											
17...	1430	227	11.0	4.8	340	700	--	1300	1	1	--
SEP.											
21...	1035	51	11.5	4.7	400	800	100	3600	4	3	--
APR., 1974											
11...	1430	415	9.5	4.6	300	300	0	1200	2	2	--

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY , 1971											
11...	--	--	92	4.9	--	97	95	6.0	590	24	8.9
OCT.											
22...	.4	20	332	12	--	319	320	10	--	85	26
JULY, 1972											
11...	.1	6.0	--	--	11.0	120	120	--	--	--	--
AUG.											
23...	.4	24	240	11	10.8	250	250	--	--	--	--
OCT.											
06...	.0	.0	--	--	11.0	220	220	--	--	--	--
APR., 1973											
17...	.1	7.3	--	--	--	170	170	--	--	--	--
SEP.											
21...	.1	4.9	--	--	--	210	210	--	--	--	--
APR., 1974											
11...	.1	5.0	126	7.2	--	120	120	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY , 1971										
11...	2.8	1.3	.3	.00	.00	144	144	6	--	.20
OCT.										
22...	8.0	2.8	.3	.50	.01	480	481	5	32.8	.65
JULY, 1972										
11...	--	--	--	--	--	--	--	--	--	--
AUG.										
23...	--	--	--	--	--	--	--	--	--	--
OCT.										
06...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
SEP.										
21...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
11...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029180 - BEAR CR NR RIDGWAY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
10...	1525	--	14.2	5.6	45	180	0	160	7
OCT.									
10...	1200	21	12.8	6.6	90	400	0	400	26
APR., 1973									
17...	1245	57	10.0	6.6	50	150	--	0	8
MAY , 1974									
20...	1200	58	16.2	6.9	60	50	0	0	10

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
10...	6	28	.0	.0	--	--	11.4	12	6
OCT.									
10...	21	10	.0	.0	17	5.2	8.0	46	25
APR., 1973									
17...	7	3.2	.0	.0	--	--	--	19	12
MAY , 1974									
20...	8	2.0	.0	.0	14	3.4	--	27	19

03029184 - WOLF RUN AT PARRISH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
10...	1310	14	13.0	5.5	50	100	0	120
OCT.								
10...	1200	2.8	7.2	7.2	85	600	0	80
MAY , 1974								
21...	1200	8.0	16.2	5.7	30	50	0	0

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
10...	1	1	5.1	.0	.0	12.8	17	16
OCT.								
10...	26	21	2.6	.0	.0	12.2	34	13
MAY , 1974								
21...	10	8	32	.0	.0	--	12	4

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029185 - SPRING CREEK NEAR HALLTON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
15...	1100	36	10.0	6.8	84	210	--	25	22	18	5.6
MAR., 1972											
16...	0955	288	3.3	6.1	43	60	--	90	3	2	3.8
JULY											
10...	1030	--	13.4	5.6	50	400	0	140	4	3	16
OCT.											
06...	1200	27	13.8	6.7	100	500	0	0	36	30	11
APR., 1973											
17...	1200	144	9.5	7.1	50	200	--	50	10	8	1.3
SEP.											
18...	1015	13	14.5	6.1	120	400	0	0	44	36	56
APR., 1974											
12...	1430	285	8.5	6.9	58	200	100	0	4	3	.8

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT., 1971										
15...	--	--	10	4.9	--	22	4	4.6	--	6.2
MAR., 1972										
16...	--	--	12	3.0	--	12	10	--	170	3.0
JULY										
10...	.0	.0	--	--	11.0	17	14	--	--	--
OCT.										
06...	.0	.0	11	5.2	11.2	34	4	--	--	--
APR., 1973										
17...	.0	.0	--	--	--	17	9	--	--	--
SEP.										
18...	.0	.0	--	--	10.2	51	15	--	--	--
APR., 1974										
12...	.0	.0	15	2.7	14.0	15	12	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT., 1971										
15...	1.7	5.2	1.1	.1	.00	.00	40	45	32	.05
MAR., 1972										
16...	1.0	--	--	--	.80	--	--	--	--	--
JULY										
10...	--	--	--	--	--	--	--	--	--	--
OCT.										
06...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
SEP.										
18...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
12...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029188 - MAXWELL RUN AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
10...	1430	175	14.4	5.6	50	310	0	200	2
OCT.									
06...	1200	3.7	12.2	6.6	75	1200	0	500	26
SEP., 1973									
19...	1030	.09	9.7	4.8	50	500	0	0	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
10...	2	8.0	.0	.0	--	3.5	12.0	24	22
OCT.									
06...	21	10	.0	.0	11	4.2	11.0	31	10
SEP., 1973									
19...	5	152	.0	.0	--	--	13.2	17	12

03029190 - WYNCOOP RUN NR CLARINGTON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
SEP., 1973									
18...	1200	1.2	13.0	6.5	120	350	0	0	48

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP., 1973									
18...	39	24	.0	.0	8.0	14	9.8	29	0

03029194 - EAST BR MILLSTONE CR AT LOLETA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
12...	1400	150	17.4	5.6	50	1700	0	270	8
OCT.									
11...	1200	7.9	7.2	6.8	90	700	0	50	26

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
12...	7	32	.0	.0	--	--	11.0	19	12
OCT.									
11...	21	6.6	.0	.0	21	1.8	12.2	34	13

03029195 - MILLSTONE CR NR CLARINGTON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
12...	1320	227	17.2	5.7	50	880	100	170	7
OCT.									
11...	1200	29	8.8	6.6	90	600	0	0	22
SEP., 1973									
18...	1330	5.6	14.5	6.5	160	500	0	80	66

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
12...	6	22	.0	.0	--	--	10.2	17	0
OCT.									
11...	18	8.8	.0	.0	14	11	12.8	34	16
SEP., 1973									
18...	54	33	.0	.0	--	--	10.0	54	0

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029200 - CLEAR CREEK NEAR SIGEL, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)
JUNE, 1971										
18...	1310	--	16.0	7.2	68	13	11	1.3	--	--
AUG.										
30...	1500	--	16.0	7.2	84	31	25	3.1	--	--
SEP., 1974										
23...	1215	5.9	10.0	7.1	51	10	8	1.3	.0	1.0
APR., 1975										
18...	1420	8.3	9.0	--	240	92	75	--	.0	.0
SEP.										
15...	1540	4.0	10.5	6.9	40	--	11	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM
JUNE, 1971										
18...	5.9	2.6	--	15	5	3.6	1.4	.20	--	25
AUG.										
30...	7.1	3.7	--	24	0	6.1	2.1	.20	--	38
SEP., 1974										
23...	12	2.5	--	--	--	--	--	--	--	--
APR., 1975										
18...	27	7.4	--	--	--	--	--	--	--	--
SEP.										
15...	8.0	3.0	11.4	16	--	4.8	1.0	--	<1.0	--

03029205 - CLEAR CR AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
12...	1215	64	12.3	5.5	50	90	0	80	8
OCT.									
17...	1200	7.9	8.4	6.3	70	400	100	0	26
SEP., 1973									
18...	1000	1.4	9.5	6.6	80	200	0	0	32

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
12...	7	40	.0	.0	--	--	10.6	17	10
OCT.									
17...	21	21	.0	.0	5.8	10	10.8	34	13
SEP., 1973									
18...	26	13	.0	.0	--	--	11.2	39	13

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029240 - BEARPEN RUN AT REDCLYFFE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
12...	1000	51	13.4	5.6	35	350	0	130
OCT.								
11...	1200	.84	6.6	6.5	50	300	0	30

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
12...	2	2	8.0	.0	.0	11.0	17	15
OCT.								
11...	2	2	1.0	.0	.0	12.8	19	17

03029250 - MAPLE CR NR CLARINGTON, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
12...	1115	72	13.6	5.7	60	260	0	80	9
OCT.									
11...	1200	9.9	7.2	6.3	90	300	0	50	22
SEP., 1973									
18...	1500	1.7	12.5	6.5	140	300	0	0	66

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
12...	7	29	.0	.0	--	--	10.4	26	19
OCT.									
11...	18	18	.0	.0	10	12	13.0	34	16
SEP., 1973									
18...	54	33	.0	.0	--	--	10.0	38	0

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029300 - COLEMAN RUN NR COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
SEP., 1973								
18...	1600	.48	12.5	6.2	100	400	0	0

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP., 1973								
18...	36	30	36	.0	.0	10.0	34	4

03029350 - TOMS RUN NR VOWINCKEL, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
APR., 1974									
10...	1020	4.4	3.2	6.8	88	720	20	600	2

DATE	ALKALINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1974								
10...	2	.1	7.0	29	8.7	12.4	36	34

03029370 - TOMS RUN ABOVE BROWNS RUN, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
APR., 1974									
08...	1530	13	4.0	5.6	70	0	0	500	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1974									
08...	2	8.0	.0	.0	22	5.7	12.0	31	29

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029400 - TOMS RUN AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1969											
06...	1600	--	10.5	6.8	133	--	--	--	7	6	--
NOV.											
06...	1715	--	6.0	7.2	87	--	--	--	3	2	--
JAN., 1970											
14...	1125	6.0	.5	7.6	94	--	--	--	3	2	--
FEB.											
16...	--	--	--	7.1	84	--	--	--	3	2	--
MAR.											
20...	--	--	--	6.3	112	--	--	--	3	2	--
APR.											
24...	1115	--	--	6.8	93	--	--	--	3	2	--
JUNE											
04...	1520	--	12.5	--	138	--	--	--	3	2	--
30...	1430	2.5	14.5	6.5	157	--	--	--	15	12	--
AUG.											
07...	0900	5.3	15.0	6.8	108	--	--	--	7	6	--
SEP.											
09...	1245	6.5	16.5	6.9	151	--	--	--	9	7	--
OCT.											
06...	1400	1.9	11.5	6.8	188	--	--	--	17	14	--
NOV.											
20...	1000	29	6.5	7.5	63	--	--	--	2	2	--
DEC.											
28...	1715	>25	--	6.1	67	--	--	--	3	2	--
JAN., 1971											
22...	1210	8.5	.0	7.2	92	--	--	--	5	4	--
MAR.											
05...	0815	37	2.0	5.9	60	--	--	--	1	1	--
26...	1120	25	.5	6.1	71	--	--	--	4	3	--
APR.											
06...	1330	38	4.5	6.9	65	--	--	--	3	2	--
MAY											
14...	1045	22	7.5	6.7	70	--	--	--	3	2	--
JUNE											
18...	1125	2.6	14.5	6.4	127	--	--	--	5	4	--
JULY											
02...	1100	1.6	24.0	6.8	171	--	--	--	15	12	--
23...	1200	1.4	14.5	7.1	213	--	--	--	21	17	--
AUG.											
25...	1000	--	14.0	7.1	253	--	--	--	36	30	--
25...	1615	--	14.0	7.5	255	--	--	--	27	22	--
OCT.											
12...	1430	1.8	8.5	7.2	206	--	--	--	18	15	--
19...	1600	5.9	9.0	6.6	249	170	--	120	25	21	10
NOV.											
05...	1105	1.8	2.0	6.2	205	--	--	--	19	16	--
DEC.											
10...	1200	31	5.0	5.3	80	--	--	--	1	1	--
JAN., 1972											
19...	1030	20	1.5	6.2	74	--	--	--	4	3	--
FEB.											
17...	1105	16	.0	6.8	89	--	--	--	4	3	--
MAR.											
21...	1500	47	4.0	6.0	66	--	--	--	2	2	--
MAY											
08...	1745	14	--	6.9	76	--	--	--	4	3	.8
31...	1415	13	13.5	7.4	98	--	--	--	6	5	.4
JUNE											
09...	1000	45	12.0	7.4	90	--	--	--	5	4	.3
JULY											
13...	1000	59	13.2	5.6	80	250	0	270	6	5	24
OCT.											
17...	1200	8.3	8.0	6.4	130	700	0	100	12	10	7.6
SEP., 1973											
19...	1300	1.0	11.0	5.6	240	200	0	50	26	21	104
APR., 1974											
10...	1720	29	3.7	6.7	68	240	120	400	2	2	.6

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029400 - TOMS RUN AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
OCT., 1969										
06...	--	--	36	6.3	--	37	32	6.1	8.8	3.7
NOV.										
06...	--	--	27	3.9	--	27	24	5.9	5.6	3.1
JAN., 1970										
14...	--	--	26	3.7	--	27	25	5.0	6.2	2.8
FEB.										
16...	--	--	24	4.1	--	25	22	4.9	5.6	2.6
MAR.										
20...	--	--	25	8.4	--	26	24	5.2	5.8	2.8
APR.										
24...	--	--	20	5.6	--	22	19	4.9	4.6	2.4
JUNE										
04...	--	--	51	5.5	--	50	48	5.6	--	6.3
30...	--	--	47	7.8	--	42	30	6.4	9.5	4.5
AUG.										
07...	--	--	29	6.3	--	29	24	5.9	6.8	2.9
SEP.										
09...	--	--	44	5.6	--	48	40	5.3	11	4.9
OCT.										
06...	--	--	55	9.2	--	53	37	6.4	12	5.5
NOV.										
20...	--	--	21	3.9	--	21	20	5.5	4.4	2.4
DEC.										
28...	--	--	19	2.7	--	22	19	5.4	4.4	2.5
JAN., 1971										
22...	--	--	26	4.3	--	27	23	5.5	5.8	2.9
MAR.										
05...	--	--	16	4.4	--	19	18	5.2	4.0	2.2
26...	--	--	18	4.6	--	23	20	4.4	5.0	2.5
APR.										
06...	--	--	16	4.2	--	20	17	4.1	4.9	1.8
MAY										
14...	--	--	20	4.0	--	22	20	5.0	4.8	2.4
JUNE										
18...	--	--	39	7.3	--	31	27	7.0	7.0	3.3
JULY										
02...	--	--	55	7.7	--	47	34	5.0	11	4.6
23...	--	--	62	11	--	57	40	5.6	14	5.2
AUG.										
25...	--	--	65	13	--	76	47	--	20	6.3
25...	--	--	71	12	--	57	35	--	13	5.8
OCT.										
12...	--	--	46	16	--	61	46	2.4	17	4.5
19...	--	--	81	11	--	69	48	6.1	16	7.1
NOV.										
05...	--	--	61	13	--	61	45	5.4	14	6.3
DEC.										
10...	--	--	24	7.4	--	24	23	6.2	5.5	2.5
JAN., 1972										
19...	--	--	25	4.5	--	21	18	4.8	4.6	2.3
FEB.										
17...	--	--	27	5.7	--	28	25	5.7	6.0	3.2
MAR.										
21...	--	--	18	5.1	--	17	15	1.6	4.0	1.6
MAY										
08...	--	--	23	4.5	--	22	19	6.1	4.8	2.5
31...	.3	17	24	7.3	--	26	21	3.6	6.0	2.7
JUNE										
09...	--	--	27	5.7	--	26	22	5.1	6.0	2.7
JULY										
13...	.0	.0	--	--	11.6	41	36	--	--	--
OCT.										
17...	.0	.0	50	4.8	11.8	50	40	--	--	--
SEP., 1973										
19...	.0	.0	--	--	11.2	81	60	--	--	--
APR., 1974										
10...	.0	.0	14	13	13.5	34	32	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029400 - TOMS RUN AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT., 1969										
06...	6.0	1.5	.1	.00	--	84	--	25	1.29	.11
NOV.										
06...	3.4	1.3	.1	.20	--	69	--	21	2.91	.09
JAN., 1970										
14...	4.5	1.2	.0	.50	--	72	--	26	1.17	.10
FEB.										
16...	3.8	1.2	.0	.70	--	74	--	24	2.60	.10
MAR.										
20...	5.0	1.0	.0	.90	--	68	--	29	1.85	.09
APR.										
24...	3.3	.9	.0	.30	--	--	--	24	1.85	.09
JUNE										
04...	4.2	1.4	.4	.50	.02	--	--	11	--	--
30...	12	1.6	.5	.10	.00	88	--	37	.59	.12
AUG.										
07...	5.7	1.4	.2	.50	.01	83	--	29	1.19	.11
SEP.										
09...	7.5	1.9	.0	.70	.00	105	--	25	1.83	.14
OCT.										
06...	11	2.0	.0	.00	.00	116	--	30	.59	.16
NOV.										
20...	2.7	1.0	.2	.40	.02	43	--	21	3.37	.06
DEC.										
28...	3.0	1.0	.1	.50	.00	38	--	22	2.56	.05
JAN., 1971										
22...	--	5.4	.1	.80	.02	53	--	--	1.21	.07
MAR.										
05...	2.6	1.2	.1	.00	.00	40	--	22	4.04	.05
26...	3.5	1.2	.2	.00	.00	38	--	24	2.58	.05
APR.										
06...	2.5	.9	.1	.10	.00	37	--	21	3.80	.05
MAY										
14...	2.8	1.0	.1	.00	.00	57	--	21	3.43	.08
JUNE										
18...	9.3	1.6	.1	.20	.21	175	--	38	1.23	.24
JULY										
02...	13	2.1	.1	.40	.00	112	--	37	.51	.15
23...	17	2.5	.1	.50	.01	137	--	38	.50	.19
AUG.										
25...	--	--	--	.50	--	--	--	34	--	--
25...	--	--	--	1.7	--	--	--	53	--	--
OCT.										
12...	12	1.8	.3	.00	.00	117	109	29	.57	.16
19...	21	2.4	.1	2.2	.01	156	158	39	--	.21
NOV.										
05...	15	2.5	.3	.09	.00	131	127	34	.64	.18
DEC.										
10...	4.4	1.3	.4	.22	.00	53	52	27	4.44	.07
JAN., 1972										
19...	4.3	1.0	.2	.44	.00	49	49	30	2.65	.07
FEB.										
17...	5.7	1.3	.0	.49	.00	63	57	29	2.72	.09
MAR.										
21...	2.5	1.1	.0	.09	.00	49	35	23	6.22	.07
MAY										
08...	3.7	1.1	.1	.00	.00	64	--	25	2.42	.09
31...	5.2	1.3	.1	--	.00	77	--	29	2.70	.10
JUNE										
09...	4.8	1.1	.3	.22	.00	57	--	28	6.93	.08
JULY										
13...	--	--	--	--	--	--	--	--	--	--
OCT.										
17...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
19...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
10...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029500 - CLARION RIVER AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
OCT., 1969												
03...	1545	--	16.0	6.8	174	--	--	--	17	14	--	--
NOV.												
06...	1730	--	6.5	6.0	166	--	--	--	8	7	--	--
DEC.												
03...	1400	--	6.5	6.5	162	--	--	--	11	9	--	--
MAR., 1970												
20...	0930	--	1.0	6.7	166	--	--	--	9	7	--	--
APR.												
24...	1130	--	9.0	6.8	144	--	--	--	5	4	--	--
JUNE												
04...	1430	--	17.5	7.0	156	--	--	--	8	7	--	--
30...	1730	--	24.5	6.9	221	--	--	--	14	11	--	--
AUG.												
07...	1130	--	19.0	6.9	184	--	--	--	16	13	--	--
SEP.												
09...	1615	--	24.0	7.2	183	--	--	--	12	10	--	--
OCT.												
15...	1040	--	15.0	6.3	83	--	--	--	3	2	--	--
NOV.												
23...	1300	--	--	7.6	106	--	--	--	6	5	--	--
DEC.												
28...	1615	--	.5	7.1	127	--	--	--	4	3	--	--
FEB., 1971												
21...	0730	--	3.0	--	--	--	--	--	--	--	--	--
MAR.												
05...	1230	--	1.0	6.2	111	--	--	--	5	4	--	--
16...	0730	--	6.0	--	--	--	--	--	--	--	--	--
APR.												
06...	0945	--	5.5	6.2	93	--	--	--	5	4	--	--
JUNE												
18...	0910	--	19.5	7.3	137	--	--	--	13	11	--	--
JULY												
02...	1630	--	27.0	7.0	199	--	--	--	13	11	--	--
23...	0945	--	22.0	7.1	213	--	--	--	18	15	--	--
AUG.												
25...	1430	--	21.0	6.8	203	--	--	--	22	18	--	--
SEP.												
29...	1300	--	20.0	--	--	--	--	--	--	--	--	--
OCT.												
13...	1500	--	10.0	6.9	227	--	--	--	17	14	--	--
19...	1640	264	11.0	6.8	245	120	--	75	29	24	--	--
NOV.												
08...	1400	--	4.5	7.0	230	--	--	--	31	25	--	--
DEC.												
14...	1200	2550	3.0	6.4	E140	600	--	--	13	11	--	.0
20...	1530	--	2.5	6.9	120	--	--	--	7	6	--	--
JAN., 1972												
18...	1700	--	1.0	6.7	130	--	--	--	10	8	--	--
MAR.												
15...	1200	5590	2.5	6.3	128	1500	--	--	7	6	--	.0
31...	1415	--	3.5	6.7	104	--	--	--	4	3	--	--
MAY												
08...	1600	--	13.5	7.0	119	--	--	--	4	3	--	--
31...	1130	--	18.0	6.7	167	--	--	--	11	9	--	--
JULY												
20...	1200	1330	26.0	6.6	140	300	--	--	9	7	--	.0
AUG.												
15...	1200	399	7.9	6.8	E250	300	--	49	17	14	--	--
SEP.												
18...	1200	399	24.0	6.5	295	300	--	--	3	2	--	--
DEC.												
19...	1200	2000	5.0	6.5	100	800	--	--	8	7	4.0	--
MAR., 1973												
08...	1200	2830	7.0	4.5	200	--	--	--	2	2	101	--
JUNE												
07...	1200	2160	20.0	7.0	160	64	--	--	20	16	3.2	--
SEP.												
19...	1130	407	12.5	6.1	245	200	0	50	24	20	31	.0
OCT.												
04...	1115	435	17.0	6.9	260	160	--	--	30	25	6.0	--
APR., 1974												
01...	1115	4570	4.4	7.2	100	430	--	--	6	5	.6	--
JUNE												
17...	1130	--	10.0	6.0	70	1200	--	100	3	2	3.8	--
24...	1100	847	19.0	6.8	120	360	--	--	11	9	2.8	--
SEP.												
18...	0930	570	19.0	7.2	160	170	--	--	15	12	1.5	--
DEC.												
13...	1315	--	5.0	6.7	110	--	--	--	--	12	--	--
FEB., 1975												
10...	1020	--	3.0	6.5	130	--	--	--	--	7	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029500 - CLARION RIVER AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT., 1969												
03...	--	35	13	--	51	37	4.1	--	14	3.8	--	7.2
NOV.												
06...	--	45	13	--	52	45	6.7	--	14	4.0	--	7.6
DEC.												
03...	--	39	1.5	--	57	48	4.9	--	16	4.0	--	8.3
MAR., 1970												
20...	--	42	13	--	53	45	6.5	--	14	4.2	--	7.5
APR.												
24...	--	40	7.3	--	47	43	5.2	--	12	4.0	--	4.3
JUNE												
04...	--	45	12	--	56	49	5.3	--	14	5.0	--	5.6
30...	--	57	18	--	67	56	4.3	--	--	6.0	--	11
AUG.												
07...	--	54	15	--	59	46	2.4	--	17	4.0	--	9.8
SEP.												
09...	--	48	15	--	58	48	.6	--	15	5.0	--	8.0
OCT.												
15...	--	24	4.2	--	27	24	5.2	--	7.2	2.1	--	1.5
NOV.												
23...	--	30	6.5	--	37	32	4.7	--	9.0	3.4	--	4.0
DEC.												
28...	--	38	6.6	--	46	42	5.6	--	9.5	5.3	--	4.4
FEB., 1971												
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
05...	--	29	6.8	--	35	31	4.6	--	9.0	3.0	--	4.8
16...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
06...	--	31	6.0	--	37	34	3.7	--	8.1	4.0	--	2.9
JUNE												
18...	--	30	10	--	35	25	4.4	--	10	2.6	--	7.8
JULY												
02...	--	44	16	--	56	46	3.4	--	16	3.9	--	13
23...	--	51	16	--	65	50	2.6	--	18	4.9	--	12
AUG.												
25...	--	47	16	--	57	39	1.7	--	16	4.0	--	13
SEP.												
29...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
13...	--	64	10	--	57	43	5.1	--	13	5.9	--	16
19...	--	53	24	--	72	48	1.3	100	20	5.2	--	17
NOV.												
08...	--	47	22	--	65	39	2.3	--	18	4.8	--	16
DEC.												
14...	2.0	39	9.0	12.0	40	29	--	--	--	--	--	--
20...	--	30	8.9	--	38	32	3.9	--	10	3.0	--	6.9
JAN., 1972												
18...	--	36	10	--	45	37	3.7	--	12	3.5	--	7.1
MAR.												
15...	1.0	28	20	10.0	38	32	--	--	--	--	--	--
31...	--	31	7.1	--	33	29	3.7	--	8.8	2.5	--	4.2
MAY												
08...	--	35	6.1	--	40	36	5.6	--	10	3.5	--	4.3
31...	--	46	9.8	--	51	42	3.5	--	13	4.5	--	7.5
JULY												
20...	2.0	43	6.0	--	58	51	--	780	--	--	--	--
AUG.												
15...	--	67	14	8.0	66	52	--	--	--	--	--	--
SEP.												
18...	--	100	18	8.0	110	110	--	--	--	--	--	--
DEC.												
19...	--	31	5.0	12.0	42	35	--	--	--	--	--	--
MAR., 1973												
08...	--	69	12	8.0	68	66	--	1000	--	--	--	--
JUNE												
07...	--	23	21	10.0	30	14	--	--	--	--	--	--
SEP.												
19...	.0	--	14	9.6	51	31	--	--	--	--	--	--
OCT.												
04...	--	58	21	9.0	88	63	--	--	22	7.8	--	--
APR., 1974												
01...	--	24	5.8	12.0	32	27	--	--	8.0	2.9	.24	--
JUNE												
17...	--	22	5.0	--	17	15	6.3	--	4.0	1.6	--	2.6
24...	--	40	6.8	8.0	43	34	--	--	13	2.7	.20	--
SEP.												
18...	--	40	8.2	8.0	52	40	--	--	13	4.9	.07	--
DEC.												
13...	--	37	7.0	10.0	38	--	--	--	--	--	--	--
FEB., 1975												
10...	--	33	5.0	12.0	40	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029500 - CLARION RIVER AT COOKSBURG, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT., 1969												
03...	1.7	.1	1.6	--	--	102	--	--	--	23	341	.14
NOV.												
06...	1.8	.1	.20	--	--	95	--	--	--	24	216	.13
DEC.												
03...	1.3	.1	.50	--	--	89	--	--	--	24	176	.12
MAR., 1970												
20...	1.3	.2	1.0	--	--	--	--	--	--	23	--	--
APR.												
24...	.8	.0	.30	--	--	--	--	--	--	16	176	.12
JUNE												
04...	1.4	.1	.10	--	.00	98	--	--	--	18	315	.13
30...	1.5	.3	.20	--	1.8	125	--	--	--	20	150	.17
AUG.												
07...	1.3	.1	.00	--	.03	118	--	--	--	26	150	.16
SEP.												
09...	1.4	.1	.00	--	.00	134	--	--	--	23	232	.18
OCT.												
15...	1.3	.1	.60	--	.01	51	--	--	--	10	673	.07
NOV.												
23...	1.0	.2	1.0	--	.02	70	--	--	--	19	548	.10
DEC.												
28...	1.0	.2	1.1	--	.00	78	--	--	--	17	446	.11
FEB., 1971												
21...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
05...	1.2	.1	.80	--	.00	60	--	--	--	22	426	.08
16...	--	--	--	--	--	--	--	--	--	--	--	--
APR.												
06...	.9	.1	.50	--	.01	61	--	--	--	14	479	.08
JUNE												
18...	1.4	.0	.30	--	.00	72	--	--	--	31	102	.10
JULY												
02...	1.9	.1	5.1	--	.01	133	--	--	--	33	173	.18
23...	1.9	.0	.10	--	.01	137	--	--	--	28	114	.19
AUG.												
25...	1.7	.1	.10	--	.02	127	--	--	--	33	99.8	.17
SEP.												
29...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
13...	2.5	.3	.00	--	--	135	125	--	--	37	123	.18
19...	1.9	.2	.60	--	.00	136	138	--	--	33	--	.18
NOV.												
08...	2.1	.3	.00	--	--	146	128	--	--	34	144	.20
DEC.												
14...	--	--	--	--	.10	--	--	.3	4130	--	--	--
20...	1.1	.2	--	--	--	70	68	--	--	28	325	.10
JAN., 1972												
18...	1.1	.3	.89	--	--	--	80	--	--	25	369	.11
MAR.												
15...	--	--	--	--	.01	--	--	1.0	137	--	--	--
31...	1.2	.0	--	--	--	72	61	--	--	21	389	.10
MAY												
08...	.9	.1	--	--	--	89	68	--	--	19	360	.12
31...	1.1	.1	--	--	--	111	91	--	--	24	197	.15
JULY												
20...	--	--	--	--	.12	--	--	--	--	--	--	--
AUG.												
15...	--	--	--	--	.13	--	--	--	200	--	--	--
SEP.												
18...	--	--	--	--	.01	--	--	--	20	--	--	--
DEC.												
19...	--	--	--	--	.02	--	--	--	--	--	--	--
MAR., 1973												
08...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
19...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
04...	--	--	.44	--	--	188	--	--	--	--	221	.26
APR., 1974												
01...	--	--	.90	.00	.09	72	--	--	--	--	888	.10
JUNE												
17...	1.5	.1	--	--	.25	94	47	--	--	24	--	.13
24...	--	--	.90	.01	.15	--	--	--	--	--	--	--
SEP.												
18...	--	--	.80	.01	.09	100	--	--	--	--	154	.14
DEC.												
13...	--	--	--	--	--	--	--	--	--	--	--	--
FEB., 1975												
10...	--	--	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029510 - CATHERS RUN AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
13...	1415	129	15.6	5.7	70	270	100	80	12
OCT.									
17...	1200	16	8.4	6.7	45	300	0	500	26
SEP., 1973									
19...	1430	4.8	12.0	6.4	130	300	0	50	47

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
13...	10	38	.0	.0	--	--	11.4	34	24
OCT.									
17...	21	8.3	.0	.0	2.8	.8	11.2	18	0
SEP., 1973									
19...	39	30	.0	.0	--	--	10.8	54	15

03029680 - MILL CR NR STRATTANVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
13...	1410	23	14.8	5.7	70	320	0	250	2
OCT.									
26...	1200	--	5.8	6.2	90	500	100	250	6
APR., 1974									
10...	1440	62	4.8	6.8	65	1400	1400	500	4

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
13...	2	6.4	.0	.0	--	--	11.4	34	32
OCT.									
26...	5	6.1	.0	.0	33	5.0	12.8	44	39
APR., 1974									
10...	3	1.0	.0	.0	17	11	13.0	36	33

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03029700 - MILL CREEK NR STRATTANVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY , 1971											
12...	1200	--	10.5	3.9	308	3000	700	3000	0	0	.0
OCT.											
14...	1555	23	14.0	3.3	870	6400	2400	11000	0	0	.0
MAR., 1972											
16...	1510	347	4.4	4.0	286	2600	--	3200	0	0	.0
JULY											
13...	1230	96	16.4	3.9	560	4500	1100	8000	0	0	.0
OCT.											
18...	1200	42	4.8	4.6	520	5600	2200	7000	0	0	.0
NOV.											
03...	1200	308	8.8	3.9	220	1100	900	1500	0	0	.0
APR., 1973											
18...	1050	188	8.8	3.8	340	2200	950	2300	0	0	.0
SEP.											
19...	1515	19	15.5	3.1	650	4400	2400	6200	0	0	.0
APR., 1974											
09...	1335	161	2.5	3.8	240	1900	1750	4000	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY , 1971											
12...	.5	25	109	6.6	--	93	93	5.8	1500	19	11
OCT.											
14...	1.6	78	395	15	--	350	350	9.1	--	71	42
MAR., 1972											
16...	.8	37	115	7.7	--	92	92	--	3200	17	12
JULY											
13...	1.0	51	--	13	11.2	120	120	--	--	--	--
OCT.											
18...	1.0	49	222	12	13.1	150	150	--	--	--	--
NOV.											
03...	.2	12	93	5.0	--	--	--	--	--	--	--
APR., 1973											
18...	.3	17	--	5.8	--	120	120	--	--	--	--
SEP.											
19...	.9	46	294	14	10.2	150	150	--	--	--	--
APR., 1974											
09...	.5	24	100	14	7.5	120	120	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY , 1971										
12...	3.7	1.6	.2	.90	.03	166	166	8	--	.23
OCT.										
14...	12	3.5	.3	.60	.00	569	567	7	35.3	.77
MAR., 1972										
16...	--	--	--	1.7	.00	188	--	--	176	.26
JULY										
13...	--	--	--	--	--	--	--	--	--	--
OCT.										
18...	--	--	--	--	--	--	--	--	--	--
NOV.										
03...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
18...	--	--	--	--	--	--	--	--	--	--
SEP.										
19...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
09...	--	--	--	--	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030004 - TOBY CR NR SCOTCH HILL, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JULY, 1972											
17...	1415	16	15.4	4.5	520	3200	1200	4300	0	0	.0
OCT.											
18...	1200	--	5.6	5.5	420	3700	1800	3800	0	0	.0
SEP., 1973											
17...	1400	.76	12.7	3.0	920	6250	4700	7500	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1972											
17...	.8	41	--	--	10.2	150	150	--	--	--	--
OCT.											
18...	.8	39	185	12	12.8	130	130	--	--	--	--
SEP., 1973											
17...	1.5	74	380	20	13.5	320	320	3000	47	50	18

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1972										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
18...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
17...	3.2	11	710	1	80	4	0	100	3	0

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030007 - TOBY CR NR HELEN FURNACE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JULY, 1972											
17...	1030	70	15.0	3.8	500	2900	700	4700	0	0	.0
OCT.											
26...	1200	--	5.4	3.5	500	2300	500	3800	0	0	.0
JULY, 1973											
03...	0930	--	16.2	3.2	705	4000	500	7000	0	0	.0
SEP.											
18...	1545	1.8	14.0	2.9	1070	5300	3500	12300	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1972											
17...	.4	20	--	--	11.0	190	190	--	--	--	--
OCT.											
26...	1.5	75	213	17	13.2	170	170	--	--	--	--
JULY, 1973											
03...	1.5	75	290	23	9.2	300	300	3250	40	46	8.0
SEP.											
18...	1.7	84	502	19	12.0	430	430	3200	67	64	15

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1972										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
26...	--	--	--	--	--	--	--	--	--	--
JULY, 1973										
03...	2.3	6	610	1	80	7	0	150	5	1
SEP.										
18...	3.6	7	725	2	120	5	0	170	1	1

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030008 - STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
JULY, 1972										
17...	1300	14	16.4	4.1	800	49000	7000	3900	0	0
OCT.										
27...	1200	--	3.6	3.6	750	20500	5500	1800	0	0
JULY, 1973										
14...	1300	--	19.1	2.9	1400	19650	900	17000	0	0
SEP.										
17...	1200	--	11.5	2.8	1310	36600	1500	7450	0	0
MAY , 1974										
28...	1100	--	10.1	--	1000	20000	3800	13000	0	0
JUNE										
25...	1030	--	11.0	3.4	1440	26000	1000	5000	--	--

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
JULY, 1972										
17...	.0	3.2	155	--	--	9.0	270	270	--	--
OCT.										
27...	.0	2.5	124	342	8.8	12.2	170	170	--	--
JULY, 1973										
14...	.0	8.1	405	555	8.1	8.6	400	400	--	15100
SEP.										
17...	.0	4.1	200	535	17	9.5	460	460	--	4800
MAY , 1974										
28...	--	3.9	194	500	5.0	--	240	240	13	--
JUNE										
25...	--	--	--	640	--	--	--	--	--	17000

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
JULY, 1972									
17...	--	--	--	--	--	--	--	--	--
OCT.									
27...	--	--	--	--	--	--	--	--	--
JULY, 1973									
14...	66	57	8.8	4.1	--	--	--	5	--
SEP.									
17...	102	50	22	5.1	--	--	--	9	--
MAY , 1974									
28...	48	28	5.7	2.4	.5	618	640	5	.84
JUNE									
25...	--	--	--	--	--	--	--	--	--

DATE	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)
JULY, 1972									
17...	--	--	--	--	--	--	--	--	--
OCT.									
27...	--	--	--	--	--	--	--	--	--
JULY, 1973									
14...	750	5	400	24	0	510	3	5	--
SEP.									
17...	735	3	100	8	0	10	1	2	--
MAY , 1974									
28...	--	--	--	--	--	--	--	--	--
JUNE									
25...	--	--	--	--	--	--	--	--	370

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030073 - TOBY CR ABV STEP CR NR MIOLA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)
JULY, 1973												
02...	1300	18.2	3.0	850	12400	1200	9500	0	0	.0	3.8	190
MAY , 1974												
28...	1130	8.9	--	460	6200	4900	4200	0	0	--	.7	35

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
JULY, 1973												
02...	464	12	9.1	360	360	--	4500	52	54	9.7	2.8	--
MAY , 1974												
28...	180	2.8	--	150	150	7.3	--	26	20	4.5	1.6	.2

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973												
02...	--	--	6	--	570	2	70	8	0	200	2	1
MAY , 1974												
28...	273	254	6	.37	--	--	--	--	--	--	--	--

03030076 - STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
13...	1000	19.8	3.5	480	1900	100	2500	0	0	.0	1.6

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
13...	80	111	30	6.0	100	100	2500	6.0	18	5.1

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
13...	2.5	11	640	4	70	7	0	40	2	7

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030077 - TRIB TO STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
13...	1030	19.2	2.7	1220	15720	320	2600	0	0	.0	9.4

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
13...	470	555	20	8.6	250	250	11700	72	16	1.5

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
13...	1.5	1	750	7	140	21	0	270	2	3

03030078 - STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
13...	1100	16.6	3.6	1490	114100	110000	5300	0	0	.0	23

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
13...	1150	619	31	5.0	430	430	2800	91	49	16

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
13...	4.1	7	570	3	190	12	0	110	2	3

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030083 - TRIB TO STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
13...	1130	17.9	2.7	1550	14550	450	4900	0	0	.0	15

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
13...	750	234	129	9.0	320	320	27300	88	24	5.3

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
13...	2.4	3	750	3	160	45	0	540	2	5

03030085 - TRIB TO STEP CR NR LUCINDA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
13...	0930	16.4	2.9	2290	5510	310	51000	0	0	.0	1.9

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
13...	95	1220	19	9.4	1000	1000	54500	153	150	6.8

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
13...	4.2	1	755	8	1500	70	0	1800	2	4

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030087 - TRIB TO STEP CR NR MIOLA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1973											
14...	1100	17.5	3.1	795	5260	1010	6500	0	0	.0	2.4

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973										
14...	120	339	3.0	8.0	270	270	3800	53	34	2.8

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
14...	3.8	2	690	6	150	11	0	180	4	5

03030089 - STEP CREEK AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
JULY, 1973											
02...	1000	1.3	17.7	3.3	1320	16480	880	15600	0	0	.0
14...	1300	--	19.1	3.0	1400	19640	900	17000	0	0	.0
SEP.											
17...	1200	.20	11.5	2.8	1310	36600	1500	7450	17	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JULY, 1973											
02...	7.1	353	545	10	8.9	390	390	13250	64	55	8.7
14...	8.1	402	555	8.1	8.6	400	400	15100	66	57	8.8
SEP.											
17...	4.1	204	535	--	9.5	460	460	4800	102	50	22

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1973										
02...	3.4	5	730	1	230	26	E0	480	3	4
14...	4.1	5	750	5	400	24	0	510	3	5
SEP.										
17...	5.1	9	735	3	100	8	0	10	1	3

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030100 - TOBY CREEK NEAR MIOLA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1971										
19...	1430	3.9	10.0	2.9	1440	47000	3500	10000	0	0
JULY, 1972										
17...	1200	140	15.5	3.5	900	41000	3000	8300	0	0
OCT.										
27...	1200	--	3.8	3.8	725	12500	6000	6000	0	0
APR., 1973										
18...	1030	66	9.5	3.2	460	5200	--	3600	0	0
SEP.										
17...	1000	4.6	11.2	3.1	1490	41700	4100	21300	0	0
APR., 1974										
12...	1100	97	5.5	3.8	380	3000	2400	500	0	0
JUNE										
25...	1115	--	11.2	3.8	910	16000	12000	9100	--	--

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
OCT., 1971										
19...	.0	3.1	155	627	13	--	450	450	8.9	--
JULY, 1972										
17...	.0	2.9	140	--	--	10.0	340	340	--	--
OCT.										
27...	.0	1.8	90	330	10	11.9	220	220	--	--
APR., 1973										
18...	.0	.9	46	--	--	--	150	150	--	--
SEP.										
17...	.0	4.2	205	795	17	8.2	620	620	--	8300
APR., 1974										
12...	.0	1.0	50	162	8.0	12.8	140	140	--	--
JUNE										
25...	--	--	--	390	--	--	--	--	--	5200

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT., 1971										
19...	90	55	19	5.2	.2	.90	876	879	8	1.19
JULY, 1972										
17...	--	--	--	--	--	--	--	--	--	--
OCT.										
27...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
18...	--	--	--	--	--	--	--	--	--	--
SEP.										
17...	100	89	21	5.4	--	--	--	--	7	--
APR., 1974										
12...	--	--	--	--	--	--	--	--	--	--
JUNE										
25...	--	--	--	--	--	--	--	--	--	--

DATE	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)
OCT., 1971									
19...	--	--	--	--	--	--	--	--	--
JULY, 1972									
17...	--	--	--	--	--	--	--	--	--
OCT.									
27...	--	--	--	--	--	--	--	--	--
APR., 1973									
18...	--	--	--	--	--	--	--	--	--
SEP.									
17...	723	3	300	7	0	340	2	1	--
APR., 1974									
12...	--	--	--	--	--	--	--	--	--
JUNE									
25...	--	--	--	--	--	--	--	--	290

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030103 - TRIBUTARY TO TOBY CR NR CLARION, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
SEP., 1973											
18...	1500	.20	14.0	3.0	9000	567000	4500	96300	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
SEP., 1973										
18...	43	2150	4680	8.1	8.4	4200	4200	1000	283	847

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
SEP., 1973										
18...	16	1.5	1	120	4980	410	3	14500	18	5

03030104 - RAPP RUN AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1972											
27...	1200	--	5.6	3.8	1800	27000	2000	25000	0	0	.0
SEP., 1973											
17...	1100	.10	11.1	2.9	3020	25600	1100	25500	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT., 1972											
27...	10	510	980	8.6	12.4	480	480	--	--	--	--
SEP., 1973											
17...	12	600	1800	11	9.1	1100	1100	90000	125	202	4.7

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
OCT., 1972										
27...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
17...	3.0	1	733	40	1400	101	1	3900	6	2

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030106 - TOBY CR NR CLARION, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1972										
27...	1200	--	7.4	3.6	1130	55000	25000	11000	0	0
JULY, 1973										
03...	1300	19	19.1	3.1	1500	42100	6000	25300	0	0
AUG.										
01...	1000	--	--	2.9	1300	42200	--	25600	0	0
SEP.										
17...	0950	6.1	11.1	3.0	2600	102500	9600	43000	0	0
MAY , 1974										
28...	1030	--	11.9	--	1000	36000	15000	14000	0	0
JUNE										
25...	0930	--	10.4	3.6	1500	60000	18000	18000	--	--
27...	1045	--	10.3	3.1	1350	40000	20000	19000	--	--

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
OCT., 1972										
27...	.0	4.5	220	520	25	9.3	340	340	--	--
JULY, 1973										
03...	.0	1.8	90	841	19	8.8	620	620	--	24400
AUG.										
01...	.0	--	--	740	22	--	540	540	--	21800
SEP.										
17...	.0	8.8	430	1410	15	8.0	1100	1100	--	31700
MAY , 1974										
28...	--	3.8	189	500	3.5	--	310	310	11	--
JUNE										
25...	--	--	--	850	--	--	--	--	--	20000
27...	--	--	--	660	--	--	--	--	--	16000

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)	EH (MV)
OCT., 1972										
27...	--	--	--	--	--	--	--	--	--	--
JULY, 1973										
03...	77	105	10	3.6	--	--	--	3	--	538
AUG.										
01...	94	73	11	3.2	--	1090	--	4	1.48	--
SEP.										
17...	147	172	23	6.3	--	--	--	4	--	723
MAY , 1974										
28...	47	47	6.5	1.6	.6	716	671	4	.97	--
JUNE										
25...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED BORON (B) (UG/L)
OCT., 1972									
27...	--	--	--	--	--	--	--	--	--
JULY, 1973									
03...	10	520	27	0	1000	5	1	--	--
AUG.									
01...	20	440	20	2	1100	40	5	--	--
SEP.									
17...	16	720	34	0	1600	4	1	--	--
MAY , 1974									
28...	--	--	--	--	--	--	--	--	--
JUNE									
25...	--	410	100	--	980	10	--	490	130
27...	--	300	70	--	710	0	--	--	110

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030500 - CLARION RIVER NEAR PINEY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
OCT., 1969												
03...	1015	--	18.0	4.7	294	--	--	--	1	1	--	--
NOV.												
06...	1055	--	9.0	6.0	297	--	--	--	1	1	--	--
JAN., 1970												
15...	1330	--	1.0	5.1	269	--	--	--	2	2	--	--
FEB.												
17...	0900	--	1.0	4.3	512	--	--	--	--	--	--	1.2
MAR.												
23...	1130	--	1.5	4.4	235	--	--	--	--	--	--	--
APR.												
29...	1115	--	13.5	5.1	145	--	--	--	2	2	--	--
JULY												
01...	0855	--	--	4.4	396	--	--	--	--	--	--	.2
AUG.												
20...	0915	--	22.5	4.5	233	--	--	--	--	--	--	--
SEP.												
10...	0940	--	22.0	4.9	286	--	--	--	--	--	--	--
NOV.												
24...	1530	--	--	4.8	151	--	--	--	1	1	--	.2
DEC.												
30...	1240	--	--	4.9	146	--	--	--	2	2	--	--
JAN., 1971												
29...	1000	--	.0	4.6	328	--	--	--	--	--	--	.4
MAR.												
23...	1200	2430	3.0	5.1	135	500	--	--	1	1	--	.2
APR.												
05...	1330	--	6.5	5.0	137	--	--	--	3	2	--	--
JUNE												
21...	1200	953	20.5	4.9	210	300	--	--	6	5	--	.2
JULY												
02...	1000	--	27.0	4.7	284	--	--	--	--	--	--	.2
AUG.												
19...	0900	--	23.0	6.3	282	--	--	--	5	4	--	--
SEP.												
13...	1200	676	23.5	6.0	214	200	--	--	0	0	.0	.2
OCT.												
14...	0845	--	10.0	6.4	282	--	--	--	1	1	--	--
19...	1345	5.3	16.0	6.0	288	500	--	2200	3	2	--	--
NOV.												
09...	0800	--	12.5	6.6	257	--	--	--	6	5	--	--
DEC.												
14...	1200	2550	6.5	5.6	120	800	--	--	0	0	.0	.1
21...	0900	--	3.5	4.9	132	--	--	--	0	0	.0	.1
JAN., 1972												
19...	1540	--	1.5	5.7	152	--	--	--	3	2	--	--
MAR.												
15...	1200	5590	3.0	4.9	235	900	--	--	5	4	--	.1
20...	1000	--	7.0	4.5	147	--	--	--	--	--	--	.3
MAY												
09...	0900	--	--	4.4	203	--	--	--	--	--	--	.2
JULY												
20...	1200	1330	25.6	4.4	156	300	--	--	3	2	--	.2
AUG.												
17...	0830	--	--	4.0	443	--	--	--	0	0	.0	.6
17...	1200	569	20.0	4.1	322	400	--	3700	1	1	--	--
SEP.												
21...	1200	805	22.0	4.1	300	200	--	1200	1	1	--	--
DEC.												
19...	1200	2240	3.0	5.2	132	700	--	7000	5	4	--	--
JUNE, 1973												
07...	1200	2110	20.0	6.0	150	300	--	--	9	7	--	--
SEP.												
17...	1000	--	20.0	4.6	268	2400	1800	3900	2	2	--	.2
OCT.												
04...	1600	57	19.0	6.1	340	210	--	--	70	57	89	--
DEC.												
18...	1130	4600	2.0	5.5	230	20	--	--	18	15	91	--
APR., 1974												
01...	1400	4560	5.0	5.3	200	310	--	--	3	2	--	.3
JUNE												
24...	1430	4640	20.0	6.0	120	50	--	--	8	7	13	--
SEP.												
18...	1400	3270	19.0	5.8	170	380	--	--	7	6	--	.2

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030500 - CLARION RIVER NEAR PINEY, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
OCT., 1969												
03...	--	102	14	--	95	94	1.8	600	22	9.7	--	9.3
NOV.												
06...	--	104	16	--	103	102	3.1	--	23	11	--	9.5
JAN., 1970												
15...	--	93	12	--	88	87	6.5	1200	19	9.8	--	6.7
FEB.												
17...	--	225	8.6	--	194	194	8.9	1400	43	21	--	5.1
MAR.												
23...	--	71	11	--	71	71	5.9	--	15	8.0	--	6.3
APR.												
29...	--	39	5.7	--	40	38	4.7	--	9.5	4.0	--	3.5
JULY												
01...	--	109	14	--	106	106	3.7	1100	24	11	--	8.9
AUG.												
20...	--	80	10	--	83	83	4.7	--	21	7.3	--	6.3
SEP.												
10...	--	102	15	--	106	106	3.0	--	26	10	--	10
NOV.												
24...	10	52	5.6	--	51	50	5.9	--	12	5.0	--	3.8
DEC.												
30...	--	48	7.0	--	51	49	--	--	12	5.0	--	--
JAN., 1971												
29...	20	126	13	--	120	120	5.3	1700	25	14	--	8.8
MAR.												
23...	10	51	7.0	10.5	54	53	--	390	--	--	--	--
APR.												
05...	--	47	8.4	--	51	48	4.5	--	12	5.0	--	4.0
JUNE												
21...	10	77	13	6.5	104	99	--	820	--	--	--	--
JULY												
02...	11	111	11	--	103	103	2.4	--	23	11	--	8.2
AUG.												
19...	--	94	15	--	86	82	.8	--	21	8.0	--	13
SEP.												
13...	10	95	17	7.0	60	60	--	--	--	--	--	--
OCT.												
14...	--	95	16	--	104	103	2.7	--	27	8.8	--	11
19...	--	107	14	--	100	100	3.3	--	25	10	--	10
NOV.												
09...	--	85	17	--	88	83	3.0	--	21	8.5	--	12
DEC.												
14...	5.0	43	13	9.5	38	38	--	100	--	--	--	--
21...	6.2	44	8.2	--	40	40	6.5	330	9.0	4.2	--	4.6
JAN., 1972												
19...	--	48	10	--	49	46	4.8	--	12	4.5	--	6.8
MAR.												
15...	9.0	56	16	10.5	64	60	--	1000	--	--	--	--
20...	15	55	7.1	--	43	43	4.8	1500	10	4.4	--	3.4
MAY												
09...	12	74	6.0	--	63	--	7.0	1100	13	7.5	--	4.5
JULY												
20...	12	54	7.0	.7	62	60	--	1000	--	--	--	--
AUG.												
17...	30	170	11	--	149	149	5.9	--	30	18	--	9.4
17...	--	130	12	7.0	140	140	--	2625	--	--	--	--
SEP.												
21...	--	122	16	6.0	130	130	--	2000	--	--	--	--
DEC.												
19...	--	49	7.0	12.0	56	52	--	500	--	--	--	--
JUNE, 1973												
07...	--	47	14	12.0	54	47	--	--	--	--	--	--
SEP.												
17...	12	217	16	7.8	68	66	--	--	--	--	--	--
OCT.												
04...	--	52	29	8.0	120	83	--	500	24	15	--	--
DEC.												
18...	--	58	14	9.0	76	61	--	--	15	9.3	--	--
APR., 1974												
01...	15	64	7.0	9.0	62	60	--	900	13	7.3	.27	--
JUNE												
24...	--	17	8.0	9.0	56	49	--	450	14	4.9	.40	--
SEP.												
18...	10	56	5.6	8.0	54	48	--	450	12	5.8	.07	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030500 - CLARION RIVER NEAR PINEY, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
OCT., 1969												
03...	1.7	.2	.00	--	--	191	161	--	--	17	22.6	.26
NOV.												
06...	1.9	.1	.00	--	--	189	--	--	--	16	2120	.26
JAN., 1970												
15...	1.6	.0	.60	--	--	182	--	--	--	14	25.6	.25
FEB.												
17...	1.6	.4	1.5	--	--	396	--	--	--	5	4600	.54
MAR.												
23...	1.4	.0	1.2	--	--	149	--	--	--	16	1870	.20
APR.												
29...	1.0	.0	.70	--	--	93	--	--	--	16	1360	.13
JULY												
01...	1.8	.3	.10	--	--	--	--	--	--	15	--	--
AUG.												
20...	1.6	.4	.70	--	.01	155	--	--	--	14	36.9	.21
SEP.												
10...	1.8	.1	.10	--	.00	187	--	--	--	17	33.0	.25
NOV.												
24...	1.0	.3	.80	--	.02	108	--	--	--	14	1280	.15
DEC.												
30...	--	--	--	--	.00	--	--	--	--	18	--	--
JAN., 1971												
29...	1.6	.2	1.2	--	.00	205	--	--	--	14	24.1	.28
MAR.												
23...	--	--	--	--	.14	94	--	1.9	--	--	--	.13
APR.												
05...	1.2	.2	.50	--	.00	101	--	--	--	14	1160	.14
JUNE												
21...	--	--	--	--	.14	--	--	.6	6	--	--	--
JULY												
02...	1.8	.1	.50	--	.00	196	--	--	--	15	24.7	.27
AUG.												
19...	2.0	.0	.30	--	.01	190	--	--	--	24	32.5	.26
SEP.												
13...	--	--	--	--	.03	--	--	1.4	6	--	--	--
OCT.												
14...	1.9	.4	.09	--	.00	169	163	--	--	18	37.9	.23
19...	3.4	.2	.20	--	.00	177	177	--	--	17	--	.24
NOV.												
09...	2.2	.3	.22	--	.00	174	152	--	--	22	44.2	.24
DEC.												
14...	--	--	--	--	.02	--	--	.4	26	--	--	--
21...	1.4	.4	.49	--	.00	86	79	--	--	19	8.36	.12
JAN., 1972												
19...	1.2	.3	.62	--	.00	102	90	--	--	23	1260	.14
MAR.												
15...	--	--	--	--	.00	144	--	1.0	57	--	--	.20
20...	1.1	.0	.62	--	.00	97	89	--	--	14	1200	.13
MAY												
09...	1.2	.2	.44	--	.00	151	--	--	--	13	13.5	.21
JULY												
20...	--	--	--	--	.04	--	--	--	--	--	--	--
AUG.,												
17...	1.6	.4	.27	--	.00	287	247	--	--	12	--	.39
17...	--	--	--	--	.02	--	--	--	--	--	--	--
SEP.												
21...	--	--	--	--	.01	--	--	--	20	--	--	--
DEC.												
19...	--	--	--	--	.01	--	--	--	--	--	--	--
JUNE, 1973												
07...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
17...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
04...	--	--	.03	--	--	256	--	--	--	--	39.4	.35
DEC.												
18...	--	--	.75	--	--	--	--	--	--	--	--	--
APR., 1974												
01...	--	--	.90	.01	.03	130	--	--	--	--	1600	.18
JUNE												
24...	--	--	.50	.01	.06	--	--	--	--	--	--	--
SEP.												
18...	--	--	1.4	.03	.03	122	--	--	--	--	1080	.17

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030520 - PINEY CR AT LIMESTONE, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972								
19...	1130	18.4	5.6	600	320	100	8200	2

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972							
19...	2	8.0	.0	.0	7.2	290	290

03030530 - GLADE RUN AT FROGTOWN, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
19...	1030	8.9	17.8	5.5	500	2300	1000	5500

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
19...	25	21	126	.0	.0	8.0	240	220

03030540 - LITTLE PINEY CR NR LIMESTONE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
19...	0930	31	18.4	3.8	1000	8500	900	17000

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
19...	0	0	.0	2.0	100	9.0	360	360

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030550 - PINEY CR NR LIMESTONE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
APR., 1974									
12...	1200	118	6.5	4.8	260	2500	400	50	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1974									
12...	0	.0	.3	15	112	9.9	12.8	120	120

03030560 - REIDS RUN AT REIDSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
JULY, 1972								
18...	1100	20	18.4	6.0	480	370	0	1100

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
18...	42	34	67	.0	.0	9.8	210	180

03030580 - BRUSH RUN AT WILLIAMSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
18...	0945	63	18.5	4.5	560	940	100	7700	0
NOV.									
13...	1200	14	6.8	--	1000	4500	3000	9000	0
SEP., 1973									
17...	1400	4.8	14.5	3.2	1000	7000	1500	22000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
18...	0	.0	.6	30	--	--	10.0	260	260
NOV.									
13...	0	--	1.6	79	480	16	12.0	440	440
SEP., 1973									
17...	0	.0	1.6	80	510	20	10.4	480	480

03030600 - PINEY CREEK AT PINEY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY , 1970											
18...	1000	--	11.0	4.0	481	--	--	--	--	--	--
MAY , 1971											
07...	1220	--	9.0	4.0	433	--	--	--	--	--	--
12...	1200	--	14.0	4.1	427	2900	--	4700	0	0	.0
AUG.											
31...	0830	--	19.0	3.4	1010	--	--	--	--	--	--
OCT.											
14...	1410	13	13.0	3.7	813	8100	3100	8100	0	0	.0
MAR., 1972											
22...	1000	235	5.0	3.7	646	9000	2700	11000	0	0	.0
MAY											
26...	0930	--	20.0	3.4	756	--	--	--	--	--	--
JULY											
18...	1045	160	20.8	4.0	950	4300	1300	15000	0	0	.0
AUG.											
16...	0900	--	18.5	3.1	1245	--	--	--	--	--	--
NOV.											
13...	1000	92	5.8	--	515	3100	2400	3500	0	0	--
APR., 1973											
18...	1200	--	--	3.9	475	4500	--	3100	0	0	.0
SEP.											
17...	1045	15	13.5	3.3	900	8000	4400	13000	0	0	.0
APR., 1974											
11...	0855	232	3.5	4.1	420	2600	--	5100	0	0	.0
SEP.											
27...	1500	28	14.0	3.9	758	--	--	--	0	0	.0
APR., 1975											
17...	1540	70	11.5	--	411	--	--	--	0	0	--
SEP.											
15...	1300	46	11.0	4.1	700	--	--	--	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030600 - PINEY CREEK AT PINEY, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
MAY , 1970											
18...	.8	--	180	8.2	--	175	175	--	--	32	23
MAY , 1971											
07...	.5	26	187	12	--	163	163	--	--	32	20
12...	.5	25	176	11	--	161	160	6.4	3300	33	19
AUG.											
31...	1.3	64	403	23	--	360	360	--	--	80	39
OCT.											
14...	.8	41	425	22	--	403	400	7.6	--	66	58
MAR., 1972											
22...	1.4	72	342	9.6	--	281	280	--	--	48	39
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
JULY											
18...	1.2	58	--	--	7.4	500	500	--	--	--	--
AUG.											
16...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
13...	.8	39	250	10	11.6	190	190	--	--	--	--
APR., 1973											
18...	.5	25	--	--	--	210	210	--	--	--	--
SEP.											
17...	1.2	60	404	26	9.2	320	320	--	--	--	--
APR., 1974											
11...	.7	36	178	17	8.4	140	140	--	--	--	--
SEP.											
27...	.8	37	364	14	--	--	--	--	--	--	--
APR., 1975											
17...	2.0	99	110	2.0	--	--	--	--	--	--	--
SEP.											
15...	--	--	250	--	10.4	260	--	--	--	50	33

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030600 - PINEY CREEK AT PINEY, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (NO3) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
MAY , 1970											
18...	--	--	--	--	--	--	--	--	--	--	--
MAY , 1971											
07...	--	--	--	4.2	--	--	--	--	23	--	--
12...	6.1	1.8	.6	7.1	.01	260	272	--	8	--	.37
AUG.											
31...	--	--	--	6.0	--	--	--	--	18	--	--
OCT.											
14...	18	4.1	.3	.90	.01	618	619	--	9	22.5	.84
MAR., 1972											
22...	--	--	--	2.9	--	504	--	--	--	320	.67
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
JULY											
18...	--	--	--	--	--	--	--	--	--	--	--
AUG.											
16...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
13...	--	--	--	--	--	--	--	--	--	--	--
APR., 1973											
18...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
17...	--	--	--	--	--	--	--	--	--	--	--
APR., 1974											
11...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
27...	--	--	--	--	--	--	--	--	--	--	--
APR., 1975											
17...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
15...	--	--	--	--	--	--	--	<1.0	--	--	--

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030610 - LICKING CR AT HUEFNER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV., 1972								
06...	1200	50	7.8	3.9	260	2000	1100	2500
SEP., 1973								
18...	1200	2.1	13.8	3.0	925	8400	6500	5900

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972								
06...	0	0	.0	.5	27	11.0	90	90
SEP., 1973								
18...	0	0	.0	1.7	85	10.8	170	170

03030615 - MAHLES RUN AT HUEFNER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV., 1972								
06...	1310	6.9	7.6	4.5	250	1200	500	1500

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972								
06...	0	0	.0	.4	20	12.0	100	100

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030620 - COOPER RUN NR SHIPPENVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV., 1972								
06...	1300	1.7	9.0	5.2	140	250	0	1000

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972								
06...	2	2	20	.0	.0	11.2	51	49

03030650 - LITTLE PAINT CR NR SHIPPENVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
NOV., 1972								
06...	1400	8.0	8.2	4.1	340	2300	1200	1600

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972								
06...	0	0	.0	.7	35	11.0	120	120

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030660 - PAINT CR AT SHIPPENVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
18...	1530	66	17.8	4.1	515	4600	1400	3500	0
NOV.									
21...	1200	95	3.8	3.8	330	7500	1600	1000	0
SEP., 1973									
17...	1050	5.7	13.8	2.8	750	8000	720	5500	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
18...	0	.0	1.0	49	--	--	7.6	190	190
NOV.									
21...	0	.0	1.2	60	146	16	12.0	150	150
SEP., 1973									
17...	0	.0	1.9	95	--	--	14.0	240	240

03030670 - DEER CR NR SHIPPENVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
NOV., 1972									
07...	1200	6.1	6.4	3.7	440	3400	2300	4500	0
SEP., 1973									
17...	1400	.22	12.5	3.4	950	16000	10000	5500	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972									
07...	0	.0	1.0	49	198	14	11.8	150	150
SEP., 1973									
17...	0	.0	1.2	61	--	--	12.0	360	360

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030680 - LITTLE DEER CR AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
NOV., 1972									
07...	1200	5.7	7.4	3.5	300	1300	800	1800	0
SEP., 1973									
17...	1530	.19	13.5	3.4	420	600	150	3500	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV., 1972									
07...	0	.0	.8	41	144	11	11.6	* 100	100
SEP., 1973									
17...	0	.0	.9	46	--	--	16.0	150	150

03030690 - DEER CR AT SHIPPENVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
17...	1530	29	18.8	4.2	900	20000	2400	8100	0
OCT.									
31...	1400	8.0	6.4	3.5	690	8000	1900	5500	0
SEP., 1973									
19...	1300	.22	12.5	3.4	950	16000	10000	5500	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
17...	0	.0	2.4	120	--	--	9.6	310	310
OCT.									
31...	0	.0	1.3	66	300	18	11.6	250	250
SEP., 1973									
19...	0	.0	1.2	61	--	--	12.0	400	400

Table 6a. -- Chemical analyses of surface waters
Clarion River basin (continued)

03030700 - DEER CREEK AT PINEY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY, 1971											
12...	1200	--	13.5	3.8	165	1900	500	2000	0	0	.0
OCT.											
14...	1430	20	15.0	3.4	765	4100	1900	5400	0	0	.0
MAR., 1972											
22...	0945	460	5.0	3.6	328	6300	2300	2300	0	0	.0
JULY											
18...	1200	112	19.0	4.1	490	2900	1100	3600	0	0	.0
OCT.											
03...	1300	400	9.4	3.4	255	1300	1100	500	0	0	.0
NOV.											
13...	1200	124	6.2	3.7	320	1700	800	2500	0	0	.0
APR., 1973											
18...	1200	164	11.0	3.4	375	3000	--	2000	0	0	.0
SEP.											
17...	1200	9.1	14.0	3.1	750	2600	400	5300	0	0	.0
APR., 1974											
11...	1030	380	2.5	3.5	265	2400	--	1000	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY, 1971											
12...	.6	30	102	10	--	81	81	7.2	1800	17	9.4
OCT.											
14...	2.1	100	282	23	--	217	220	8.9	6000	49	23
MAR., 1972											
22...	.9	45	118	9.0	--	81	81	--	--	16	9.9
JULY											
18...	.8	39	--	--	8.8	150	150	--	--	--	--
OCT.											
03...	.8	40	108	10	11.6	98	98	--	--	--	--
NOV.											
13...	.8	41	--	21	14.0	100	100	--	--	--	--
APR., 1973											
18...	.7	34	--	--	--	120	120	--	--	--	--
SEP.											
17...	1.2	58	324	23	9.8	250	250	--	--	--	--
APR., 1974											
11...	.7	35	110	12	9.2	86	86	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY, 1971										
12...	5.3	1.7	.2	.60	.00	--	160	12	--	.22
OCT.										
14...	18	4.2	.2	1.0	.00	425	427	15	22.9	.58
MAR., 1972										
22...	--	--	--	2.5	.01	--	--	--	--	--
JULY										
18...	--	--	--	--	--	--	--	--	--	--
OCT.										
03...	--	--	--	--	--	--	--	--	--	--
NOV.										
13...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
18...	--	--	--	--	--	--	--	--	--	--
SEP.										
17...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
11...	--	--	--	--	--	--	--	--	--	--

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030710 - CANOE CR AT KNOX, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
21...	0900	9.6	16.6	4.9	950	6000	1200	8200	2
APR., 1974									
08...	1245	17	5.0	6.3	305	1900	1600	3000	4

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
21...	2	40	.0	.0	--	--	9.0	340	340
APR., 1974									
08...	3	3.2	.0	.0	114	22	9.8	120	120

03030730 - UNNAMED TRIB TO CANOE CR, WENTLINGS CORNERS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
SEP., 1973								
20...	1030	.01	11.9	6.1	170	200	0	50

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP., 1973								
20...	19	16	24	.0	.0	11.8	50	34

03030740 - UNNAMED TRIB TO CANOE CR AT CANOE RIPPLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
SEP., 1973								
20...	0930	.05	9.6	6.2	120	400	0	0

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP., 1973								
20...	16	13	16	.0	.0	12.0	34	21

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030750 - CANOE CREEK NEAR CALLENSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
21...	0925	1.5	8.5	7.1	494	240	--	140	40	33	5.1
JULY, 1972											
21...	1100	48	18.4	6.7	450	170	0	2300	8	7	2.6
SEP., 1973											
20...	0900	2.9	9.8	6.5	480	350	--	0	34	28	17
APR., 1974											
10...	1030	27	2.0	6.4	330	1100	350	300	8	7	--

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (P04) (MG/L)
OCT., 1971											
21...	--	--	130	42	--	154	120	40	13	4.9	.00
JULY, 1972											
21...	.0	.0	--	--	9.6	170	160	--	--	--	--
SEP., 1973											
20...	.0	.0	--	58	8.2	100	72	--	--	--	--
APR., 1974											
10...	.1	5.0	104	26	--	94	87	--	--	--	--

03030770 - BEAVER CR NR KNOX, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
24...	1030	21	19.2	6.9	182	2600	0	220	20
APR., 1974									
08...	1400	11	4.2	6.7	103	320	50	500	12

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
24...	16	4.0	.0	.0	24	36	8.2	68	52
APR., 1974									
08...	10	3.8	.0	.0	13	20	11.5	32	22

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030800 - BEAVER CREEK NEAR TURKEY CITY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
21...	1035	3.5	9.5	7.6	563	600	--	1100	72	59	2.9
JULY, 1972											
24...	0930	50	19.9	6.8	190	5500	0	280	28	23	7.1
APR., 1974											
08...	1520	36	4.3	6.5	125	500	90	400	18	15	9.1

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)
OCT., 1971											
21...	--	--	164	47	--	190	130	45	18	.00	.00
JULY, 1972											
24...	.0	.0	29	30	10.0	68	45	--	--	--	--
APR., 1974											
08...	.0	.0	20	19	11.2	48	33	--	--	--	--

03030850 - UNNAMED TRIB BLW BEAVER CR NR CALLENSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
20...	1555	.20	12.5	2.9	3280	71000	35000	32000	0	0	.0
SEP., 1973											
20...	1200	.21	11.4	4.3	2000	58000	--	35000	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT., 1971										
20...	4.0	201	2050	5.9	1800	1800	2.3	5500	375	215
SEP., 1973										
20...	2.5	120	--	--	--	--	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT., 1971										
20...	11	.7	1.4	.00	2780	3.78	210	30	500	10
SEP., 1973										
20...	--	--	--	--	--	--	--	--	--	--

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030857 - CRAGGS RUN AT CURLLSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
SEP., 1973										
18...	1030	.66	12.1	6.2	727	300	0	2500	82	67

DATE	CARBON DIOXIDE (CO2) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
SEP., 1973									
18...	83	321	17	9.8	410	340	150	89	45

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
SEP., 1973									
18...	11	3.0	6	1	50	3	450	1	1

03030858 - LICKING CR AT SLIGO, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
SEP., 1973											
18...	0900	2.3	10.3	5.1	870	32000	31600	11730	4	3	51

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
SEP., 1973											
18...	.7	35	547	19	8.2	520	520	0	91	72	14

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
SEP., 1973										
18...	4.9	5	750	2	100	9	0	160	2	0

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030860 - LITTLE LICKING CR AT SLIGO, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
JULY, 1972										
19...	1330	15	21.0	3.9	2800	75000	15000	52000	0	0
AUG., 1973										
01...	1300	--	12.8	4.1	2680	63700	--	46100	0	0
SEP.										
18...	1215	2.1	12.2	4.1	2550	83700	33000	46500	0	0
MAY , 1974										
28...	1230	--	12.8	--	2900	52000	29000	24000	0	0
JUNE										
24...	1700	--	18.2	4.3	2180	56000	16000	42000	--	--
27...	0930	--	10.4	5.3	2100	47000	18000	20000	--	--

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
JULY, 1972										
19...	.0	--	--	--	--	--	--	--	--	--
AUG., 1973										
01...	.0	--	--	--	--	--	1600	1600	--	5000
SEP.										
18...	.0	3.9	190	2120	10	4.8	1800	1800	--	2000
MAY , 1974										
28...	--	2.5	124	1500	4.5	--	1500	1500	12	--
JUNE										
24...	--	--	--	1800	--	--	--	--	--	40
27...	--	--	--	1300	--	--	--	--	--	20

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)	EH (MV)
JULY, 1972										
19...	--	--	--	--	--	--	--	--	--	--
AUG., 1973										
01...	350	190	12	5.6	--	2430	--	2	3.30	--
SEP.										
18...	278	263	14	7.6	--	--	--	2	--	640
MAY , 1974										
28...	290	180	12	5.2	.7	2440	2080	2	3.32	--
JUNE										
24...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED BORON (B) (UG/L)
JULY, 1972									
19...	--	--	--	--	--	--	--	--	--
AUG., 1973									
01...	50	290	24	1	240	100	10	--	--
SEP.									
18...	8	330	24	0	470	1	1	--	--
MAY , 1974									
28...	--	--	--	--	--	--	--	--	--
JUNE									
24...	--	230	20	--	430	10	--	--	110
27...	--	180	30	--	250	10	--	910	150

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030862 - MINERAL RUN AT SLIGO, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
SEP., 1973											
18...	1315	.94	12.7	2.0	2650	112000	26000	41760	0	0	.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
SEP., 1973											
18...	7.1	350	2020	49	2.2	1600	1600	15700	249	245	18

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
SEP., 1973										
18...	8.6	2	757	9	460	28	0	1030	3	1

03030865 - ANDERSON RUN AT SLIGO, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
20...	1300	11	19.5	3.7	2000	44000	10000	29000	0
SEP., 1973									
20...	1020	1.3	10.5	--	2300	64000	50000	35000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
20...	0	.0	3.7	180	--	--	7.4	840	840
SEP., 1973									
20...	0	--	3.7	180	1480	34	2.8	900	900

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030870 - UNNAMED TRIBUTARY TO LICKING CR AT SLIGO, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
SEP., 1973									
19...	0915	.38	11.0	6.1	1600	200	0	4400	84

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP., 1973									
19...	69	107	.0	.0	860	11	11.0	850	780

03030880 - CHERRY RUN AT HUEY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
20...	1200	36	18.4	4.3	1400	24000	6300	8200	0
SEP., 1973									
17...	1500	3.5	15.0	3.2	1250	14000	3600	8500	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
20...	0	.0	1.3	66	--	--	8.2	670	670
SEP., 1973									
17...	0	.0	1.3	63	690	10	9.0	560	560

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030890 - CHERRY RUN AT CALLENSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
20...	1130	40	20.0	5.1	1200	6700	800	5500	2
SEP., 1973									
20...	1230	7.2	12.0	5.3	1100	2000	900	5600	4

DATE	ALKALINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972								
20...	2	.2	9.8	--	--	10.0	590	590
SEP., 1973								
20...	3	.1	4.9	570	6.8	10.0	570	570

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030900 - LICKING CREEK AT CALLENSBURG PA

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY , 1971											
12...	1200	--	15.5	3.7	788	7900	--	6100	0	0	.0
OCT.											
14...	1330	20	16.0	3.3	1730	14000	--	15000	0	0	.0
MAR., 1972											
22...	1030	275	4.5	3.8	924	25000	--	9500	0	0	.0
JULY											
20...	0930	180	20.4	4.0	1700	12000	900	21000	0	0	.0
APR., 1973											
18...	1200	140	10.5	4.0	850	7500	--	4400	0	0	.0
SEP.											
20...	1415	20	13.0	--	1800	15000	11500	19000	0	0	--
APR., 1974											
09...	1030	133	3.0	4.7	710	5900	3900	5100	2	2	--

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY , 1971											
12...	.7	35	408	8.8	--	354	350	8.9	2200	76	40
OCT.											
14...	2.1	105	928	27	--	840	840	9.3	6400	178	95
MAR., 1972											
22...	1.0	50	532	8.5	--	480	480	--	--	95	58
JULY											
20...	1.5	75	--	--	9.2	750	750	--	--	--	--
APR., 1973											
18...	.4	20	422	9.8	--	410	410	--	--	--	--
SEP.											
20...	1.4	68	--	--	8.0	700	700	--	--	--	--
APR., 1974											
09...	.2	12	312	16	11.0	330	330	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY , 1971										
12...	12	3.0	.4	.80	.00	597	575	7	--	.81
OCT.										
14...	26	5.7	.5	.71	.00	1350	1310	6	72.9	1.84
MAR., 1972										
22...	--	--	--	3.5	--	779	--	--	578	1.06
JULY										
20...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
18...	--	--	--	--	--	--	--	--	--	--
SEP.										
20...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
09...	--	--	--	--	--	--	--	--	--	--

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030920 - TURKEY RUN AT TURKEY CITY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
JULY, 1972										
24...	1130	34	20.4	7.1	180	990	0	60	32	26
SEP., 1973										
21...	1000	.69	9.2	6.7	305	410	30	110	18	15

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)
JULY, 1972										
24...	4.1	.0	.0	--	--	9.4	68	42	--	--
SEP., 1973										
21...	5.7	.0	.0	51	60	11.4	75	60	0	19

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
JULY, 1972										
24...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
21...	6.7	37	2.4	51	1	10	1	450	2	2

03030925 - UNNAMED TRIB TO TURKEY RUN AT TURKEY CITY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
SEP., 1973										
21...	1115	.16	10.1	6.7	700	1500	1300	0	92	75

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)
SEP., 1973										
21...	29	.0	.0	236	49	11.8	330	280	0	78

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
SEP., 1973										
21...	34	25	3.2	14	1	90	3	20	2	0

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03030950 - TURKEY RUN NEAR ST. PETERSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
20...	1525	.80	11.0	6.5	565	320	--	55	28	23	14
JULY, 1972											
24...	1100	84	19.8	7.2	400	2500	100	280	46	38	4.6
SEP., 1973											
20...	1415	1.2	13.0	6.8	455	520	0	160	80	66	20

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT., 1971										
20...	--	--	--	--	--	280	260	--	--	--
JULY, 1972										
24...	.0	.0	--	--	10.0	170	130	--	--	--
SEP., 1973										
20...	.0	.0	94	57	10.6	160	94	0	43	14

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
OCT., 1971										
20...	--	--	--	--	--	--	--	--	--	--
JULY, 1972										
24...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
20...	33	2.9	30	780	0	10	5	100	2	2

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03031000 - CLARION RIVER AT ST. PETERSBURG PA

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1971										
19...	0915	200	12.0	5.1	457	140	--	3300	0	0
NOV.										
12...	1030	--	9.0	7.6	177	--	--	--	75	62
MAY , 1972										
11...	1200	--	9.8	5.7	1450	65000	--	12000	--	--
24...	0930	--	9.6	6.0	558	3200	--	500	141	116
24...	1200	--	9.6	3.0	1930	100000	--	32000	--	--
JULY										
25...	1000	393	22.8	4.9	280	220	0	2300	3	2
MAR., 1973										
08...	1800	4160	--	4.7	232	1460	--	--	3	2
APR.										
04...	1200	--	--	--	225	15000	--	100	24	20
05...	1520	5730	--	4.6	260	1490	--	--	2	2
MAY										
01...	1610	3530	--	5.2	280	670	--	--	8	7
JUNE										
08...	1200	1680	--	5.6	200	520	--	--	5	4
JULY										
06...	1200	2100	--	6.3	250	120	--	--	10	8
AUG.										
03...	1300	967	27.5	5.5	340	100	--	2550	12	10
22...	1200	--	8.1	--	70	1500	--	300	10	8
SEP.										
06...	1200	--	--	--	230	550	--	500	8	7
10...	1200	--	--	4.8	100	1200	--	1000	2	2
12...	1400	812	22.0	5.7	320	30	--	--	6	5
19...	1500	576	20.5	4.9	327	--	--	2300	4	3
OCT.										
15...	1500	318	--	5.2	620	240	--	--	5	4
NOV.										
13...	1000	605	--	5.7	280	720	--	--	8	7
28...	1200	--	--	7.5	357	0	--	0	214	176
DEC.										
06...	1200	--	--	8.0	219	30	--	0	96	79
10...	1000	897	--	6.0	260	40	--	--	7	6
FEB., 1974										
21...	1345	447	--	4.9	320	1200	--	--	3	2
APR.										
10...	1200	3700	5.0	6.5	200	800	380	1000	2	2
25...	1400	520	--	5.4	220	350	--	--	6	5
MAY										
10...	1230	--	10.0	5.3	530	76000	68000	4900	0	0
JUNE										
24...	0920	1260	17.7	4.9	280	480	--	--	4	3
AUG.										
07...	1345	743	--	5.7	260	60	--	--	6	6
SEP.										
10...	1100	75	--	7.0	--	--	--	--	--	10
10...	1115	25	--	7.3	--	--	--	--	--	95
10...	1145	100	--	7.0	--	--	--	--	--	80
OCT.										
10...	1230	457	19.5	5.5	250	310	--	--	11	11
NOV.										
21...	1110	--	--	6.2	215	--	--	--	--	9
DEC.										
19...	1330	--	--	7.5	205	--	--	--	--	8
FEB., 1975										
06...	1145	--	--	6.0	200	--	--	--	--	9

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03031000 - CLARION RIVER AT ST. PETERSBURG PA

CHEMICAL ANALYSES

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)
OCT., 1971										
19...	.0	.3	15	191	20	--	180	180	4.4	330
NOV.										
12...	2.4	--	--	13	4.0	--	71	9	--	--
MAY , 1972										
11...	--	.3	15	840	18	--	770	--	--	--
24...	226	--	--	130	24	--	100	0	7.6	--
24...	--	--	--	1000	2.0	--	860	--	16	--
JULY										
25...	60	.0	.0	--	24	8.0	100	98	--	--
MAR., 1973										
08...	--	--	--	68	12	--	78	76	--	--
APR.										
04...	--	--	--	--	--	--	100	80	--	--
05...	--	--	--	75	14	--	90	88	--	--
MAY										
01...	--	--	--	84	10	--	96	89	--	--
JUNE										
08...	--	--	--	55	10	--	68	64	--	--
JULY										
06...	--	--	--	75	11	--	84	76	--	--
AUG.										
03...	--	--	--	121	10	9.0	120	110	--	500
22...	--	--	--	--	--	--	34	26	--	--
SEP.										
06...	--	.1	3.0	--	--	--	102	95	--	--
10...	40	.1	5.0	--	--	--	34	32	--	--
12...	--	--	--	88	34	7.3	100	95	--	--
19...	--	.1	7.3	104	26	10.1	120	120	--	--
OCT.										
15...	50	--	--	225	16	--	240	240	--	--
NOV.										
13...	26	--	--	78	29	--	100	93	--	--
28...	11	--	--	18	16	--	210	34	7.3	--
DEC.										
06...	1.5	--	--	23	5.0	--	100	23	3.5	--
10...	--	--	--	73	26	--	92	86	--	--
FEB., 1974										
21...	--	--	--	100	17	--	98	96	--	--
APR.										
10...	--	.1	4.9	76	14	--	67	65	--	--
25...	--	--	--	62	8.0	--	86	81	--	--
MAY										
10...	.0	--	--	370	3.0	--	250	250	14	--
JUNE										
24...	--	--	--	101	9.8	--	93	90	--	--
AUG.										
07...	15	--	--	88	21	--	90	85	--	--
SEP.										
10...	--	--	--	--	8.0	--	24	--	--	--
10...	--	--	--	--	30	--	31	--	--	--
10...	--	--	--	--	10	--	28	--	--	--
OCT.										
10...	56	.2	10	85	9.0	--	90	81	--	--
NOV.										
21...	--	--	--	32	9.0	--	70	--	--	--
DEC.										
19...	--	--	--	67	9.0	--	68	--	--	--
FEB., 1975										
06...	--	--	--	52	8.0	--	70	--	--	--

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03031000 - CLARION RIVER AT ST. PETERSBURG PA

CHEMICAL ANALYSES

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (P04) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT., 1971										
19...	41	19	--	16	3.0	.3	1.5	--	.00	298
NOV.										
12...	21	4.5	--	--	--	--	1.8	--	.03	--
MAY , 1972										
11...	210	60	--	36	5.8	.0	.00	--	.00	1689
24...	30	7.0	--	78	3.6	.2	.90	--	.03	331
24...	180	100	--	3.5	5.0	.6	.10	--	.09	1410
JULY										
25...	--	--	--	--	--	--	--	--	--	--
MAR., 1973										
08...	18	8.3	.41	--	--	--	1.4	.00	--	--
APR.										
04...	--	--	--	--	--	--	--	--	--	--
05...	20	9.8	.02	--	--	--	1.6	.00	--	173
MAY										
01...	--	--	.04	--	--	--	1.7	.02	--	204
JUNE										
08...	14	7.8	.09	--	--	--	1.0	.01	--	144
JULY										
06...	18	9.3	.10	--	--	--	1.4	.01	--	173
AUG.										
03...	26	14	.10	--	--	--	1.0	.01	--	288
22...	--	--	--	--	--	--	--	--	--	--
SEP.										
06...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
12...	26	9.3	.10	--	--	--	.90	.03	--	232
19...	--	--	--	--	--	--	--	--	--	--
OCT.										
15...	53	25	.36	--	--	--	.90	.01	--	446
NOV.										
13...	18	13	--	--	--	--	1.2	--	--	196
28...	61	14	--	2.0	1.6	.3	23	.03	.00	273
DEC.										
06...	31	6.0	--	2.1	1.3	.2	3.9	.03	.00	139
10...	22	8.9	--	--	--	--	1.2	--	--	176
FEB., 1974										
21...	22	11	.23	--	--	--	1.7	.01	.03	216
APR.										
10...	--	--	--	--	--	--	--	--	--	--
25...	16	11	.22	--	--	--	.80	.01	.03	152
MAY										
10...	65	22	--	1.1	4.1	.1	--	--	--	500
JUNE										
24...	22	9.3	.22	--	--	--	.70	.01	.03	--
AUG.										
07...	19	10	.20	--	--	--	1.8	.01	.03	210
SEP.										
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
OCT.										
10...	18	11	.05	--	--	--	1.4	.01	.03	--
NOV.										
21...	--	--	--	--	--	--	--	--	--	--
DEC.										
19...	--	--	--	--	--	--	--	--	--	--
FEB., 1975										
06...	--	--	--	--	--	--	--	--	--	--

Table 6a. Chemical analyses of surface waters
Clarion River basin (continued)

03031000 - CLARION RIVER AT ST. PETERSBURG PA

CHEMICAL ANALYSES

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
OCT., 1971										
19...	300	--	16	--	.41	--	--	--	--	--
NOV.										
12...	--	--	--	--	--	--	--	--	--	--
MAY , 1972										
11...	--	--	9	--	2.30	--	--	--	--	--
24...	355	--	61	--	.45	--	--	--	--	--
24...	--	--	1	--	1.92	--	--	--	--	--
JULY										
25...	--	--	--	--	--	--	--	--	--	--
MAR., 1973										
08...	--	--	--	--	--	--	--	--	--	--
APR.										
04...	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	2680	.24	--	--	--	--	--
MAY										
01...	--	--	--	1940	.28	--	--	--	--	--
JUNE										
08...	--	--	--	653	.20	--	--	--	--	--
JULY										
06...	--	--	--	981	.24	--	--	--	--	--
AUG.										
03...	--	--	--	752	.39	20	20	100	3	50
22...	--	--	--	--	--	--	--	--	--	--
SEP.										
06...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	509	.32	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
OCT.										
15...	--	--	--	383	.61	--	--	--	--	--
NOV.										
13...	--	--	--	320	.27	--	--	--	--	--
28...	249	--	2	--	.37	--	--	--	--	--
DEC.										
06...	124	--	4	--	.19	--	--	--	--	--
10...	--	--	--	426	.24	--	--	--	--	--
FEB., 1974										
21...	--	--	--	261	.29	--	--	--	--	--
APR.										
10...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	213	.21	--	--	--	--	--
MAY										
10...	560	--	1	--	.68	--	--	--	--	--
JUNE										
24...	--	--	--	--	--	--	--	--	--	--
AUG.										
07...	--	--	--	421	.29	--	--	--	--	--
SEP.										
10...	--	.0	--	--	--	--	--	--	--	--
10...	--	14	--	--	--	--	--	--	--	--
10...	--	1.0	--	--	--	--	--	--	--	--
OCT.										
10...	--	--	--	--	--	--	--	--	--	--
NOV.										
21...	--	--	--	--	--	--	--	--	--	--
DEC.										
19...	--	--	--	--	--	--	--	--	--	--
FEB., 1975										
06...	--	--	--	--	--	--	--	--	--	--

Table 6b. Chemical analyses of surface waters
Interbasin area (direct to Allegheny River)

03031520 - BLACK FOX RUN NR W MONTEREY, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
10...	1445	30	13.8	4.2	780	5800	600	1700	0
SEP., 1973									
19...	1200	3.7	11.0	6.2	650	2900	1250	1600	--

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
10...	0	.0	.1	4.9	345	1.0	11.4	380	380
SEP., 1973									
19...	10	--	--	--	--	--	10.2	19	--

Table 6b. Chemical analyses of surface waters
Interbasin area (direct to Allegheny River) (continued)

03031530 - CATFISH RUN AT MOUTH, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
10...	1300	8.0	15.0	4.0	950	6800	200	3000	0
SEP., 1973									
19...	1200	3.9	10.5	--	380	5000	1600	1400	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
10...	0	.0	1.3	63	350	12	11.2	390	390
SEP., 1973									
19...	0	--	1.1	53	--	--	10.4	14	14

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin

03031600 - SANDY LICK CR NR SABULA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
25...	1300	4.9	22.2	6.8	140	570	0	90	45
MAR., 1973									
27...	1100	8.7	6.4	6.4	120	650	0	0	20
APR.									
16...	1200	7.5	13.0	6.5	120	450	--	0	21

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
25...	37	11	.0	.0	21	10	6.2	68	31
MAR., 1973									
27...	16	13	.0	.0	--	--	11.8	86	70
APR.									
16...	17	11	.0	.0	--	--	--	68	51

03031605 - NARROWS CR NR SABULA, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
25...	1330	8.2	19.4	6.6	260	330	0	750	12
MAR., 1973									
27...	1330	9.2	8.0	7.1	230	700	--	500	12

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
25...	10	4.8	.0	.0	70	26	9.4	100	90
MAR., 1973									
27...	10	1.5	.0	.0	--	--	--	86	76

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031620 - LABORDE BRANCH NR HOMECAMP, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
MAY , 1971												
21...	1140	--	14.0	7.1	212	--	--	--	7	6	.9	--
AUG.												
30...	0945	--	17.5	7.5	413	--	--	--	44	36	2.2	--
JULY, 1972												
25...	1400	27	20.8	6.5	360	5200	0	2800	11	9	5.6	.0
MAR., 1973												
27...	1530	25	8.0	6.5	340	450	0	1800	7	6	3.5	.0
APR.												
16...	1400	25	11.5	6.0	300	400	--	50	3	2	4.8	.0
SEP., 1974												
26...	0845	13	9.0	6.9	386	--	--	--	12	10	2.4	.0
APR., 1975												
17...	1225	15	6.0	--	160	--	--	--	64	53	--	.0
SEP.												
15...	1745	9.7	11.0	6.8	410	--	--	--	--	11	--	--

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (P04) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM
MAY , 1971												
21...	--	84	8.5	--	96	90	22	9.8	.60	--	--	10
AUG.												
30...	--	121	22	--	159	123	42	13	.00	--	--	--
JULY, 1972												
25...	.0	108	27	8.8	150	140	--	--	--	--	--	--
MAR., 1973												
27...	.0	--	--	13.2	170	160	--	--	--	--	--	--
APR.												
16...	.0	--	--	--	120	120	--	--	--	--	--	--
SEP., 1974												
26...	2.0	137	18	--	--	--	--	--	1.8	.59	--	--
APR., 1975												
17...	.0	15	4.6	--	--	--	--	--	1.8	.00	--	--
SEP.												
15...	--	150	15	11.4	180	--	37	22	--	--	<1.0	--

03031625 - CLEAR RUN AT DU BOIS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	1100	12	15.2	4.2	410	2500	400	990	0
MAR., 1973									
29...	1200	--	7.8	4.0	340	1100	0	1000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	0	.0	.3	17	150	19	10.4	150	150
MAR., 1973									
29...	0	.0	.3	15	--	--	10.8	140	140

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031630 - FALLS CR AT FALLS CR, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	0900	19	18.5	6.5	140	880	100	150	19
MAR., 1973									
28...	1315	20	8.2	6.4	140	600	0	0	8

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	16	9.6	.0	.0	38	10	8.6	68	52
MAR., 1973									
28...	7	5.1	.0	.0	--	--	13.4	51	44

03031640 - WOLF RUN AT FALLS CR, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	1030	13	20.4	6.6	100	220	0	130	10
MAR., 1973									
29...	1015	15	6.2	6.6	90	400	100	0	5

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	8	4.0	.0	.0	36	7.2	8.8	50	42
MAR., 1973									
29...	4	2.0	.0	.0	--	--	12.4	34	30

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031650 - KYLE RUN NR. FALLS CREEK, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)
MAY , 1971										
21...	1200	--	12.5	7.2	145	18	15	1.8	--	--
AUG.										
30...	1100	--	14.5	7.0	226	35	29	5.6	--	--
SEP., 1974										
26...	1400	1.7	9.5	6.8	150	--	--	--	.0	2.0
APR., 1975										
17...	1340	1.7	6.0	--	359	20	16	--	.0	.0
SEP.										
15...	1920	.88	10.0	7.0	135	--	23	--	--	--

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	PERCENT SODIUM
MAY , 1971										
21...	31	9.5	--	51	36	13	4.5	4.6	--	21
AUG.										
30...	50	14	--	79	50	22	5.7	1.3	--	22
SEP., 1974										
26...	29	7.5	--	--	--	--	--	--	--	--
APR., 1975										
17...	120	17	--	--	--	--	--	--	--	--
SEP.										
15...	18	9.0	11.0	60	--	13	6.7	--	1.0	--

03031680 - SANDY LICK CR NR FALLS CR, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	1200	107	19.0	6.8	280	4200	200	1100	24
MAR., 1973									
28...	1115	--	5.8	6.0	260	1800	500	1200	12
APR.									
16...	1200	150	8.0	6.4	240	1100	--	50	8

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CD2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	20	6.1	.0	.0	92	12	4.4	120	100
MAR., 1973									
28...	10	19	.0	.0	--	--	11.8	120	110
APR.									
16...	7	5.1	.0	.0	--	--	--	100	93

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031700 - SOLDIER RUN AT REYNOLDSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	1300	19	18.0	3.6	495	11000	2500	1100	0
APR., 1973									
09...	1130	22	6.0	3.5	400	3500	2100	50	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	0	.0	1.6	80	212	12	8.4	190	190
APR., 1973									
09...	0	.0	.9	44	--	--	10.6	120	120

03031720 - TROUT RUN NR REYNOLDSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
26...	1400	6.2	17.8	6.7	300	1200	0	610	8
APR., 1973									
09...	1230	19	6.8	6.0	180	150	0	0	8

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
26...	7	2.6	.0	.0	115	15	6.0	140	130
APR., 1973									
09...	7	13	.0	.0	--	--	12.2	68	61

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031770 - SANDY LICK CREEK NEAR BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
MAY, 1971											
11...	1200	--	13.5	6.6	154	1100	--	300	7	6	2.8
OCT.											
14...	1650	30	15.0	7.2	312	620	--	93	28	23	2.8
MAR., 1972											
16...	1220	753	4.0	5.9	171	800	--	500	3	2	6.0
JULY											
27...	0900	108	19.4	6.9	250	390	0	490	14	11	2.8
MAR., 1973											
29...	1330	205	8.8	5.5	260	800	100	0	6	5	30
APR.											
16...	1315	252	10.0	6.1	210	500	--	50	4	3	5.1
APR., 1974											
12...	0900	511	5.5	6.5	150	600	120	400	6	5	3.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY, 1971											
11...	--	--	45	10	--	57	51	6.0	540	15	4.6
OCT.											
14...	--	--	81	25	--	109	86	.3	--	29	8.8
MAR., 1972											
16...	--	--	52	15	--	57	55	--	0	15	4.8
JULY											
27...	.0	.0	66	18	9.0	100	89	--	--	--	--
MAR., 1973											
29...	.0	.0	--	--	12.0	86	81	--	--	--	--
APR.											
16...	.0	.0	--	--	--	86	83	--	--	--	--
APR., 1974											
12...	.0	.0	47	15	11.0	65	60	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
MAY, 1971										
11...	5.5	1.5	.2	.90	.12	--	94	17	--	.13
OCT.										
14...	18	3.1	.2	4.4	.00	174	184	26	14.3	.24
MAR., 1972										
16...	--	--	--	2.9	.00	--	--	--	--	--
JULY										
27...	--	--	--	--	--	--	--	--	--	--
MAR., 1973										
29...	--	--	--	--	--	--	--	--	--	--
APR.										
16...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
12...	--	--	--	--	--	--	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031785 - MILL CR NR ALLENS MILLS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
27...	1200	8.5	18.5	6.7	265	2300	0	690	58
SEP., 1973									
19...	1200	2.3	11.5	5.8	315	800	0	400	54

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
27...	48	19	.0	.0	54	11	7.6	130	82
SEP., 1973									
19...	44	137	.0	.0	--	--	10.3	140	96

03031805 - HORM RUN NR ALLENS MILLS, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
27...	1300	5.6	15.2	6.8	110	330	0	270	10
SEP., 1973									
18...	1530	4.4	12.7	5.9	122	800	20	300	10

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
27...	8	2.5	.0	.0	29	7.5	9.8	51	43
SEP., 1973									
18...	8	20	.0	.0	--	--	16.0	34	26

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031861 - FIVEMILE RUN NR EMERICKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
31...	0930	4.4	16.4	6.7	190	400	0	1000	8
APR., 1973									
09...	1430	16	7.9	5.3	200	550	350	500	2
SEP.									
18...	1400	3.2	13.7	5.3	210	1000	30	1000	14

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
31...	7	2.6	.0	.0	51	4.8	11.0	85	78
APR., 1973									
09...	2	16	.0	.0	--	--	12.4	89	87
SEP.									
18...	11	112	.0	.0	--	--	12.4	89	78

03031868 - LITTLE MILL CR NR BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
27...	1030	33	13.8	6.7	100	520	0	360	28
SEP., 1973									
18...	1215	3.9	12.5	6.2	155	1100	0	200	46

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
27...	23	8.9	.0	.0	28	2.5	11.4	51	28
SEP., 1973									
18...	38	46	.0	.0	--	--	15.6	64	26

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031870 - MILL CREEK AT BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
15...	0915	8.0	8.0	7.4	257	500	--	78	60	49	3.8
JULY, 1972											
27...	1000	42	16.4	6.6	160	450	0	190	31	25	12
MAR., 1973											
29...	1600	62	8.0	6.3	165	500	0	0	14	11	11
APR.											
17...	1145	222	11.5	5.9	210	500	0	0	4	3	8.1
SEP.											
18...	1000	23	13.3	6.6	200	300	--	0	44	36	18

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)
OCT., 1971											
15...	--	--	38	24	--	79	30	22	5.7	.10	.00
JULY, 1972											
27...	.0	.0	26	17	11.0	68	43	--	--	--	--
MAR., 1973											
29...	.0	.0	--	--	11.8	57	46	--	--	--	--
APR.											
17...	.0	.0	--	--	17.0	85	82	--	--	--	--
SEP.											
18...	.0	.0	--	--	9.9	68	32	--	--	--	--

03031872 - FIVE MILE RUN AT BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
22...	0850	--	9.0	7.2	262	270	--	110	41	34	4.1
AUG., 1972											
03...	0930	--	18.5	5.8	270	--	0	--	24	20	61
APR., 1974											
12...	1110	51	6.8	6.5	108	100	30	300	6	5	3.0

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)
OCT., 1971											
22...	--	--	71	13	--	98	64	26	7.9	.05	.00
AUG., 1972											
03...	.0	.0	88	10	9.4	100	80	--	--	--	--
APR., 1974											
12...	.0	.0	35	8.7	11.2	--	--	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031873 - SOUTH BRANCH NR MUNDERF, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
31...	1330	8.4	15.0	6.2	50	310	0	130	3

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
31...	2	3.0	.0	1.2	9.8	4.1	11.0	16	14

03031874 - NORTH FORK NR MUNDERF, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
31...	1230	27	16.4	7.1	60	440	0	70	9

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
31...	7	1.1	.0	.0	14	4.3	12.0	24	17

03031875 - NORTH FORK AT RICHARDSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
31...	1130	69	17.4	7.1	80	970	0	60	19

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
31...	16	2.4	.0	.0	11	8.2	10.0	34	18

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031876 - NORTH FORK NR RICHARDSVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
JULY, 1972									
31...	1030	96	17.4	7.2	80	860	0	90	22
APR., 1973									
17...	1200	101	10.4	6.7	75	200	0	0	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
JULY, 1972									
31...	18	2.2	.0	.0	14	4.8	11.0	34	16
APR., 1973									
17...	5	1.9	.0	.0	--	--	--	27	22

03031880 - NORTH FORK AT BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
APR., 1973								
17...	0945	117	10.4	6.3	75	250	100	0
SEP.								
18...	1200	32	15.1	6.7	100	300	--	0

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1973								
17...	2	2	1.6	.0	.0	16.0	34	32
SEP.								
18...	52	43	17	.0	.0	9.6	39	0

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031882 - REDBANK CREEK AT BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1971										
15...	0955	60	11.0	7.0	295	620	--	100	32	26
APR., 1972										
06...	1430	510	7.0	6.4	168	780	--	470	5	4
APR., 1973										
17...	1300	43	11.2	6.1	215	500	0	0	3	2
SEP.										
18...	1300	123	14.8	7.4	270	700	--	0	40	33

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT., 1971										
15...	5.1	--	--	70	24	--	97	71	.8	26
APR., 1972										
06...	3.2	--	--	49	12	--	56	52	5.5	14
APR., 1973										
17...	3.8	.0	.0	--	--	--	68	66	--	--
SEP.										
18...	2.5	.0	.0	--	--	9.6	100	67	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT., 1971										
15...	7.7	18	2.9	.2	3.3	.00	162	169	28	.22
APR., 1972										
06...	5.1	6.2	1.1	.1	2.2	.02	103	98	19	.14
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
SEP.										
18...	--	--	--	--	--	--	--	--	--	--

03031884 - CODER RUN NR BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
01...	1000	3.0	14.5	5.8	430	330	80	6800	2

DATE	ALKALINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972								
01...	2	.2	12	188	3.8	10.2	180	180

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031885 - FIVE-MILE RUN AT BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
OCT., 1971							
22...	0850	9.0	7.2	262	270	110	41

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT., 1971							
22...	34	71	13	98	64	26	7.9

03031886 - CODER RUN NR BROOKVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
01...	0900	19	14.2	5.8	280	120	0	2400	8
SEP., 1973									
18...	1500	4.0	12.7	6.6	207	350	--	900	14

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
01...	7	--	.0	1.2	98	14	12.4	108	100
SEP., 1973									
18...	11	5.6	.0	.0	--	--	10.1	68	57

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031888 - SIMPSON RUN AT BAXTER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
01...	1100	--	15.0	3.9	1150	2700	400	19000	0
SEP., 1973									
19...	1450	.60	13.0	5.6	1000	2200	--	12800	6

DATE	ALKALINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972								
01...	0	1.1	54	440	20	10.2	410	410
SEP., 1973								
19...	5	1.0	49	--	24	9.3	360	360

03031890 - WELCH RUN AT CORSICA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
AUG., 1973											
02...	0930	18.4	6.6	525	860	0	3000	50	41	20	.0

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
AUG., 1973										
02...	.0	109	21	7.1	100	59	0	14	16	22

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
AUG., 1973										
02...	6.4	31	740	1	110	5	0	70	2	1

Table 6c.--Chemical analyses of surface waters
Redbank Crsek basin (continued)

03031892 - WELCH RUN NR CORSICA, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
AUG., 1973											
02...	1000	16.5	3.5	1590	7800	4500	27300	0	0	.0	6.1

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
AUG., 1973										
02...	294	656	9.1	9.3	530	530	9700	40	99	14

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
AUG., 1973										
02...	4.8	6	640	7	400	16	0	640	6	3

03031893 - TRIBUTARY TO WELCH RUN NEAR SUMMERVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
AUG., 1973											
02...	1130	25.0	4.0	925	1050	900	16800	0	0	.0	3.4

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
AUG., 1973										
02...	167	359	4.4	8.0	270	270	9000	19	53	1.5

DATE	DISSOLVED POTASSIUM (K) (MG/L)	PERCENT SODIUM	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
AUG., 1973										
02...	3.6	1	605	3	450	15	0	720	13	1

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031894 - WELCH RUN NR SUMMERVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
AUG., 1973										
03...	1300	--	15.1	4.1	1290	12500	11000	21800	0	0
SEP.										
19...	0900	1.7	9.5	4.1	1500	19750	10700	29250	0	0
MAY , 1974										
28...	1400	--	9.3	--	1600	11000	6500	19000	0	0
JUNE										
24...	1300	--	11.0	4.2	1470	13000	9400	21000	--	--
27...	1215	--	10.3	3.9	1400	11000	9400	16000	--	--

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)
AUG., 1973										
03...	.0	8.9	436	649	8.7	9.0	540	540	--	5500
SEP.										
19...	.0	2.5	120	950	14	8.2	850	850	--	8300
MAY , 1974										
28...	--	--	--	710	3.6	--	680	680	13	--
JUNE										
24...	--	--	--	780	--	--	--	--	--	5900
27...	--	--	--	720	--	--	--	--	--	5200

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)	EH (MV)
AUG., 1973										
03...	60	92	14	5.0	--	--	--	5	--	600
SEP.										
19...	152	114	20	6.1	--	--	--	5	--	645
MAY , 1974										
28...	150	75	12	4.4	.5	1110	999	4	1.51	--
JUNE										
24...	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED BORON (B) (UG/L)
AUG., 1973									
03...	5	320	11	0	430	4	2	--	--
SEP.									
19...	3	330	13	0	670	2	1	--	--
MAY , 1974									
28...	--	--	--	--	--	--	--	--	--
JUNE									
24...	--	210	20	--	510	10	--	--	60
27...	--	200	20	--	480	10	--	600	60

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031895 - WELCH RUN AT SUMMERVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
AUG., 1972												
01...	1200	17	13.8	3.8	1650	30000	12000	27000	0	0	.0	2.1
AUG., 1973												
01...	1100	--	--	--	1000	6700	--	15800	--	--	--	--
03...	1400	3.8	15.9	3.1	1400	7250	1750	20800	0	0	.0	3.1
SEP.												
19...	1230	3.0	10.5	3.7	1500	18000	4000	24700	0	0	.0	2.1

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
AUG., 1972											
01...	100	840	28	10.0	960	960	--	--	--	--	--
AUG., 1973											
01...	--	--	--	--	460	--	2800	106	48	8.1	3.6
03...	152	602	12	8.6	530	530	5450	56	89	12	4.9
SEP.											
19...	100	850	14	8.3	800	800	5000	154	102	17	6.1

DATE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)	EH (MV)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
AUG., 1972											
01...	--	--	--	--	--	--	--	--	--	--	--
AUG., 1973											
01...	900	4	1.22	--	15	150	14	--	370	30	4
03...	--	5	--	615	3	320	11	0	430	3	1
SEP.											
19...	--	4	--	680	3	250	12	0	470	2	1

03031896 - RUNAWAY RUN AT SUMMERVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
01...	1300	16	15.0	3.8	1750	27000	4000	29000	0
APR., 1973									
16...	1300	5.9	12.2	3.1	1300	11000	4400	3000	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
01...	0	.0	2.9	140	880	26	10.9	890	890
APR., 1973									
16...	0	.0	1.6	80	--	--	12.2	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031898 - BEAVER RUN AT CONIFER, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
03...	1100	6.7	16.2	3.5	1200	90000	18000	7100	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
03...	0	.0	4.5	220	540	10	7.4	560	560

03031899 - BEAVER RUN AT CONIFER, PA.

CHEMICAL ANALYSES

DATE	TIME	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
AUG., 1972									
03...	1050	16.5	4.0	1050	40000	8000	8900	0	0

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972								
03...	.0	2.2	110	510	18	9.0	390	390

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031900 - BEAVER RUN AT HEATHVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
20...	0935	2.5	8.0	3.9	836	3800	500	5000	0	0	.0
AUG., 1972											
03...	1330	36	17.3	4.1	1000	11000	700	7300	0	0	.0
APR., 1973											
16...	1500	11	11.6	4.0	625	4500	2500	1800	0	0	.0
APR., 1974											
12...	1230	30	9.1	6.0	345	1800	1500	2500	8	7	--

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHOPHOSPHATE (P04) (MG/L)
OCT., 1971											
20...	.8	40	405	14	--	370	370	90	35	.90	.00
AUG., 1972											
03...	1.4	68	420	10	11.2	440	440	--	--	--	--
APR., 1973											
16...	.4	17	--	--	15.0	530	530	--	--	--	--
APR., 1974											
12...	.3	14	144	8.0	10.1	150	140	--	--	--	--

03031930 - INDIANCAMP RUN NR COOLSPRING, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
04...	1325	16	19.2	6.4	390	70	0	2100	4
SEP., 1973									
18...	1530	2.5	12.5	5.4	330	700	50	2500	4

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
04...	3	--	.0	1.2	167	5.5	11.8	180	180
SEP., 1973									
18...	3	25	.0	.0	--	--	--	150	150

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031935 - LITTLE SANDY CR AT COOLSPRING, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
04...	1145	24	20.6	6.5	335	130	0	340	16
SEP., 1973									
18...	1400	19	13.5	5.8	315	2800	130	1100	14

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
04...	13	8.1	.0	.0	115	11	10.0	150	140
SEP., 1973									
18...	11	36	.0	.0	--	--	10.6	140	130

03031950 - BIG RUN NEAR SPRANKLE MILLS, PA

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
APR., 1972										
26...	1400	15	10.2	6.7	200	260	--	250	22	18
AUG.										
04...	1615	11	19.5	6.5	340	330	0	120	72	59
SEP., 1973										
19...	1530	1.5	12.5	6.7	338	500	20	200	78	64

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
APR., 1972										
26...	7.0	--	--	56	6.5	--	85	67	4.7	22
AUG.										
04...	36	.0	.0	76	5.0	10.0	180	120	--	--
SEP., 1973										
19...	25	.0	.0	--	--	10.0	170	110	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
APR., 1972										
26...	7.3	2.4	1.1	.1	2.6	.00	116	114	6	.16
AUG.										
04...	--	--	--	--	--	--	--	--	--	--
SEP., 1973										
19...	--	--	--	--	--	--	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031955 - BIG RUN AT WORTHVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
04...	1030	25	19.0	6.0	340	360	0	310	32
SEP., 1973									
18...	1245	8.4	13.5	7.0	280	900	50	400	60

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
04...	26	51	.0	.0	105	12	10.2	150	120
SEP., 1973									
18...	49	9.6	.0	.0	--	--	12.4	140	91

03031975 - LITTLE SANDY CR NR WORTHVILLE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
04...	0900	54	20.4	5.2	320	160	0	180	24
SEP., 1973									
21...	0950	6.8	11.5	--	300	400	50	0	36

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
04...	20	242	.0	.0	105	14	11.0	140	120
SEP., 1973									
21...	30	--	.0	.0	--	--	--	140	110

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03031980 - LITTLE SANDY CREEK NEAR NORTH FREEDOM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT., 1971										
20...	1015	11	9.0	7.5	345	200	--	350	30	25
MAR., 1972										
22...	1255	369	5.5	6.2	180	1300	--	600	7	6
AUG.										
03...	1500	63	22.8	6.0	360	130	0	330	22	18
APR., 1973										
17...	1430	90	12.0	6.0	240	100	50	0	8	7
SEP.										
18...	0945	39	14.5	--	380	2500	300	900	32	26
APR., 1974										
10...	1500	159	7.0	6.8	230	600	0	400	8	7

DATE	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT., 1971										
20...	1.5	--	--	112	18	--	140	120	5.6	38
MAR., 1972										
22...	7.1	--	--	56	11	--	68	62	--	17
AUG.										
03...	35	.0	.0	122	17	9.8	170	150	--	--
APR., 1973										
17...	13	.0	.0	--	--	14.0	100	93	--	--
SEP.										
18...	--	.0	.0	--	--	13.0	180	150	--	--
APR., 1974										
10...	2.0	.0	.0	85	12	--	70	63	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	PERCENT SODIUM	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT., 1971										
20...	12	12	2.5	.2	.60	.00	211	216	15	.29
MAR., 1972										
22...	6.1	--	--	--	5.1	.02	--	--	--	--
AUG.										
03...	--	--	--	--	--	--	--	--	--	--
APR., 1973										
17...	--	--	--	--	--	--	--	--	--	--
SEP.										
18...	--	--	--	--	--	--	--	--	--	--
APR., 1974										
10...	--	--	--	--	--	--	--	--	--	--

Table 6c.--Chemical analyees of surface waters
Redbank Creek basin (continued)

03032020 - UNNAMED TRIB TO PINE CR AT SHANNONDALE, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
07...	1430	5.0	19.0	5.7	700	380	0	9500	10
APR., 1974									
10...	1625	17	10.0	6.0	340	4400	0	3000	3

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
07...	8	32	.0	2.4	270	26	10.0	320	310
APR., 1974									
10...	2	4.8	.0	.0	130	16	--	130	130

03032025 - PINE CR AT MAYPORT, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
07...	1300	7.4	19.0	6.0	550	90	0	2100	26
APR., 1973									
17...	1330	15	12.0	6.7	320	200	0	1300	12

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
07...	21	42	.0	.0	225	9.0	10.0	240	220
APR., 1973									
17...	10	3.8	.0	.0	--	--	13.4	150	140

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032055 - TOWN RUN NR HAWTHORN, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
07...	1130	17	18.5	6.5	1200	2300	1000	14000	8
APR., 1973									
16...	1430	14	14.0	6.1	580	800	550	4800	9

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
07...	7	4.0	.0	.0	460	25	9.6	500	490
APR., 1973									
16...	7	11	.0	.0	--	--	--	290	280

03032100 - LEISURE RUN AT NEW BETHLEHEM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
07...	0930	9.0	18.6	5.6	1300	170	0	7800	14
APR., 1973									
16...	1230	8.4	13.0	5.9	760	600	100	2600	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
07...	11	--	.0	2.4	508	30	10.2	600	590
APR., 1973									
16...	5	12	.0	.0	--	--	--	380	380

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032350 - LEATHERWOOD CR NR NEW BETHLEHEM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
APR., 1974									
11...	1000	20	2.8	6.1	475	400	140	3500	12

DATE	ALKALINITY AS CACO3 (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1974								
11...	10	.1	5.0	210	8.0	13.1	240	230

03032370 - WEST FORK NR NEW BETHLEHEM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
APR., 1974									
11...	1115	13	5.2	6.9	102	300	20	100	16

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
APR., 1974									
11...	13	3.2	.0	.0	25	8.4	12.4	50	37

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032390 - JACK RUN NR NEW BETHLEHEM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
08...	1130	27	18.6	6.5	1100	240	0	12000	20
APR., 1974									
11...	1315	11	7.5	6.0	705	900	400	2900	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
08...	16	10	.0	.0	494	10	9.6	540	520
APR., 1974									
11...	5	--	.2	10	310	9.1	10.8	330	330

03032400 - LEATHERWOOD CREEK NEAR NEW BETHLEHEM, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)
OCT., 1971											
20...	1205	2.4	9.0	7.2	990	100	--	1800	40	33	4.0
AUG., 1972											
08...	1000	16	18.2	--	1030	240	0	12000	15	12	--
APR., 1973											
16...	1600	22	14.0	5.6	550	150	0	2000	4	3	16
APR., 1974											
11...	1440	67	7.3	6.6	385	400	30	400	12	10	4.8

DATE	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED NITRATE (NO3) (MG/L)	DISSOLVED ORTHO PHOSPHATE (P04) (MG/L)
OCT., 1971											
20...	--	--	491	12	--	560	530	121	62	1.4	.00
AUG., 1972											
08...	.0	.0	460	15	9.4	580	570	--	--	--	--
APR., 1973											
16...	.0	.0	--	4.4	--	290	290	--	--	--	--
APR., 1974											
11...	.0	.0	160	11	12.2	190	180	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032500 - REDBANK CREEK AT ST. CHARLES, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)
JULY, 1970												
13...	2000	--	23.0	6.9	362	220	--	350	9	7	--	--
SEP.												
03...	1400	--	21.0	7.0	234	--	--	--	11	9	--	--
MAR., 1971												
23...	1200	1460	3.0	6.1	250	900	--	--	4	3	--	.1
JUNE												
22...	1200	195	24.5	6.7	440	600	--	--	19	16	6.1	.0
SEP.												
13...	1200	107	23.0	7.2	560	200	--	--	23	19	2.3	.0
OCT.												
18...	1400	93	14.0	6.8	506	220	--	390	16	13	--	--
DEC.												
14...	1200	952	4.0	6.0	295	1600	--	--	8	7	--	.1
MAR., 1972												
15...	1200	3580	3.0	6.2	200	1800	--	--	7	6	--	.0
22...	1155	2230	5.0	6.1	372	1600	--	4200	2	2	--	--
AUG.												
10...	1000	238	18.7	6.4	500	90	90	2400	3	2	--	.0
22...	1200	102	22.7	7.0	462	100	--	--	6	5	--	--
SEP.												
18...	1200	448	22.0	6.3	300	5400	--	--	12	10	--	--
DEC.												
18...	1200	1430	1.0	6.5	225	1200	--	--	6	5	3.0	--
MAR., 1973												
08...	1200	1690	7.0	6.7	320	520	--	--	8	7	2.6	--
APR.												
17...	1030	901	12.0	5.5	230	400	50	1000	3	2	15	.0
JUNE												
07...	1200	691	20.0	6.7	280	360	--	--	22	18	7.0	--
SEP.												
19...	1315	552	16.0	--	480	450	30	800	22	18	--	.0
OCT.												
11...	1200	356	16.0	7.4	278	590	--	--	17	14	1.1	--
APR., 1974												
02...	1400	4110	8.0	6.2	180	2890	--	--	8	7	8.1	--
11...	1600	1360	6.8	6.6	195	200	130	400	2	2	.8	.0
JUNE												
24...	1250	330	21.0	6.9	320	220	--	--	12	10	2.4	--
SEP.												
17...	1430	284	23.0	6.5	340	420	--	--	14	11	7.1	--
DEC.												
13...	1020	--	8.0	6.7	200	--	--	--	--	11	--	--
JAN., 1975												
23...	1005	--	.5	7.6	93	--	--	--	--	40	--	--
MAR.												
10...	1330	--	3.0	5.5	210	--	--	--	--	5	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032500 - REDBANK CREEK AT ST. CHARLES, PA.

CHEMICAL ANALYSES

DATE	TOTAL ACIDITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS_ SOLVED AMMONIA (NH4) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
JULY, 1970												
13...	--	134	17	--	140	132	3.2	--	36	12	--	12
SEP.												
03...	--	--	12	--	90	81	--	--	23	7.7	--	--
MAR., 1971												
23...	5.0	79	15	11.0	92	89	--	30	--	--	--	--
JUNE												
22...	.0	--	18	8.5	152	140	--	40	--	--	--	--
SEP.												
13...	.0	193	30	9.0	210	190	--	10	--	--	--	--
OCT.												
18...	--	201	24	--	220	200	.6	1050	52	21	--	17
DEC.												
14...	5.0	86	29	11.5	130	120	--	150	--	--	--	--
MAR., 1972												
15...	1.0	63	17	11.0	72	66	--	250	--	--	--	--
22...	--	165	8.2	--	170	170	5.2	--	37	19	--	--
AUG.												
10...	.0	200	16	10.6	240	240	--	--	--	--	--	--
22...	--	181	20	8.0	180	180	--	230	--	--	--	--
SEP.												
18...	--	92	11	9.0	120	110	--	2800	--	--	--	--
DEC.												
18...	--	79	8.0	10.0	58	53	--	200	--	--	--	--
MAR., 1973												
08...	--	--	14	10.0	72	65	--	--	--	--	--	--
APR.												
17...	2.4	--	8.4	14.4	100	98	--	--	--	--	--	--
JUNE												
07...	--	85	20	10.0	84	66	--	--	--	--	--	--
SEP.												
19...	.0	--	19	10.7	190	170	--	--	--	--	--	--
OCT.												
11...	--	84	16	--	120	110	--	500	27	13	--	--
APR., 1974												
02...	--	57	7.0	9.0	60	53	--	900	14	5.8	.19	--
11...	.0	64	17	10.6	75	73	--	--	--	--	--	--
JUNE												
24...	--	99	12	9.0	110	100	--	450	27	11	.22	--
SEP.												
17...	--	105	12	9.0	130	120	--	--	28	14	.11	--
DEC.												
13...	--	85	11	9.0	68	--	--	--	--	--	--	--
JAN., 1975												
23...	--	--	16	--	59	--	--	--	1.5	4.6	--	--
MAR.												
10...	--	80	9.0	12.0	92	--	--	--	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032500 - REDBANK CREEK AT ST. CHARLES, PA.

CHEMICAL ANALYSES

DATE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS_ SOLVED NITRATE (NO3) (MG/L)	DIS_ SOLVED NITRITE (NO2) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	PERCENT SODIUM	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)
JULY, 1970												
13...	2.1	.3	1.8	--	.02	238	--	--	--	16	130	.32
SEP.												
03...	--	--	2.2	--	.00	--	--	--	--	--	--	--
MAR., 1971												
23...	--	--	--	--	--	178	--	2.5	33	--	--	.24
JUNE												
22...	--	--	--	--	--	292	--	.8	1100	--	--	.40
SEP.												
13...	--	--	--	--	--	--	--	1.4	7450	--	--	--
OCT.												
18...	3.2	.2	.10	--	.00	330	329	--	--	14	--	.45
DEC.												
14...	--	--	--	--	.01	--	--	.4	780	--	--	--
MAR., 1972												
15...	--	--	--	--	.00	--	--	1.0	815	--	--	--
22...	--	.0	4.3	--	.00	--	--	--	--	--	--	--
AUG.												
10...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
SEP.												
18...	--	--	--	--	--	--	--	--	--	--	--	--
DEC.												
18...	--	--	--	--	--	188	--	--	--	--	726	.26
MAR., 1973												
08...	--	--	--	--	--	228	--	--	--	--	1040	.31
APR.												
17...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
07...	--	--	--	--	--	196	--	--	--	--	366	.27
SEP.												
19...	--	--	--	--	--	--	--	--	--	--	--	--
OCT.												
11...	--	--	1.2	--	--	168	--	--	--	--	161	.23
APR., 1974												
02...	--	--	1.6	.03	.25	130	--	--	--	--	1440	.18
11...	--	--	--	--	--	--	--	--	--	--	--	--
JUNE												
24...	--	--	.90	.01	.09	218	--	--	--	--	194	.30
SEP.												
17...	--	--	.80	.05	.77	246	--	--	--	--	189	.33
DEC.												
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN., 1975												
23...	--	--	--	--	--	--	--	--	--	--	--	--
MAR.												
10...	--	--	--	--	--	--	--	--	--	--	--	--

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032700 - WILDCAT RUN NR RIMERSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
09...	0900	6.4	15.4	3.9	1680	48000	7500	12000	0
APR., 1973									
16...	1130	4.1	11.0	3.4	850	11500	6200	2500	0
SEP.									
17...	1600	.48	15.5	3.6	1300	9000	1400	8400	0

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
09...	0	.0	4.5	220	790	28	10.0	410	410
APR., 1973									
16...	0	.0	2.0	100	--	--	13.2	330	330
SEP.									
17...	0	.0	1.3	66	--	--	9.2	510	510

03032750 - EAST FORK NR RIMERSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
09...	1100	6.8	17.8	5.1	725	7300	2700	5700	5
SEP., 1973									
20...	0900	.70	10.0	5.6	690	5500	2600	4900	6

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
09...	4	64	.0	.0	360	13	8.6	400	400
SEP., 1973									
20...	5	24	.0	.0	--	--	10.2	290	290

Table 6c.--Chemical analyses of surface waters
Redbank Creek basin (continued)

03032770 - FIDDLERS RUN NR KIMERSBURG, PA.

CHEMICAL ANALYSES

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	PH (UNITS)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED IRON (FE) (UG/L)	FERROUS IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)
AUG., 1972									
09...	1315	5.0	16.0	6.6	420	290	0	300	56
SEP., 1973									
20...	1015	.64	11.0	6.8	400	380	150	500	70

DATE	ALKALINITY AS CACO3 (MG/L)	CARBON DIOXIDE (CO2) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	TOTAL ACIDITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG., 1972									
09...	46	23	.0	.0	98	11	11.6	190	140
SEP., 1973									
20...	57	18	.0	.0	--	13	11.4	140	83

Table 7.--Water-quality criteria

The following concentrations are the maxima that should be present in water supplies according to Federal (EPA) and Pennsylvania recommendations:

Constituent	Concentration in milligrams per liter (mg/l)	
	EPA Drinking Water Standards	The State Water Plan 1/
Residue on Evaporation at 180 Celsius, (R.O.E.)	(a) 500	(b) 750
Chloride (Cl)	250	250
Cyanide (CN)	.01	:025
Fluoride (F)	(c) 1.7	1.5
Ammonia nitrogen as nitrogen (N)	----	1.5
Nitrate nitrogen as nitrate (NO_3)	45	----
Nitrate nitrogen as nitrogen (N)	10	10
Phosphate (PO_4)	----	.4
Sodium (Na)	----	20
Sulfate (SO_4)	250	250

Trace Metals	Concentration in micrograms per liter (ug/l)	
	EPA Drinking Water Standards	The State Water Plan
Arsenic (As)	10	50
Barium (Ba)	----	1,000
Boron (B)	----	1,000
Cadmium (Cd)	10	10
Chromium (Cr^{+6})	50	50
Copper (Cu)	1,000	100
Iron (Total Fe)	(a) 300	1,500
Lead (Pb)	10	50
Manganese (Mn)	(a) 50	1,000
Mercury (Hg)	5	5
Selenium (Se)	10	10
Silver (Ag)	50	50
Zinc (Zn)	(a) 5,000	50

(a) The recommended limitations on concentrations may vary when other suitable supplies are not available.
(b) Higher or lower limits may be set, depending on water's use.
(c) Maximum acceptable concentration depends on annual average of maximum daily air temperature and ranges from 0.8 to 1.7 mg/l.

1/ pH-not less than 6.0 nor more than 8.5, with acidity not to exceed alkalinity.
Dissolved Oxygen (O_2)-minimum daily average of 6.0 mg/l and no value less than 4.0 mg/l.
Temperature (°C)-not to be increased by more than 3°C (Celsius) above natural temperature; not to exceed 15°C.
Bacteria (Coliforms/100 ml)-not to exceed an average 5,000/100 ml as a monthly mean nor more than this number in 20 percent of the samples; nor more than 5 percent of the samples.

Table 8.--Dissolved oxygen in the Clarion River basin - January 10, 1973

Station number	Station name	Temperature (°C)	pH	Conductance (Micromhos per centimeter at 25°C)	Concentration of dissolved oxygen (mg/l)	Saturation percent
03028000	West Branch Clarion River at Wilcox	3	6.2	142	12.6	93.3
03026500	Seven-mile Run near Rasselas	4	5.7	49	11.6	88.5
03028500	Clarion River at Johnsonburg	6	5.6	140	11.2	89.6
03028900	Elk Creek near Ridgway	5	5.8	135	12.0	93.8
03029000	Clarion River at Ridgway	5	5.8	150	10.8	84.4
03029500	Clarion River at Cooksburg	4	5.7	125	12.0	91.6

Table 9.-Aquatic Invertebrates

	Basin (a)		Habitat (b)
	Clarion River	Redbank Creek	
Arthropoda			
Insects			
Ephemeroptera (Mayflies)			
Stenonema	28/118	29/165	1,2
Ephemerella	15/42	9/59	1,2
Baetis	11/76	5/13	1,2
Paraleptophlebia	8/24	4/5	1,2
Ephemera	6/8	2/2	1,2
Epeorus (Iron)	5/17	3/13	1,2
Siphlonurus	2/9	0	1,2
Isonychia	2/2	1/2	1,2
Baetisca	2/2	1/1	1,2
Centroptilum	2/4	0	1,2
Ameletus	1/1	1/10	1,2
Caenis	1/1	0	1
Heptagenia	1/1	0	2
Arthroplea	1/1	0	2
Leptophlebia	0	2/13	2
Callibaetis	0	2/2	2
Choroterpes	0	2/2	1,2
Neocloeon	0	1/2	2
Pseudocloeon	0	1/1	2
Baetidae	0	3/3	1,2
Heptageniidae	0	1/2	2
Family not known	1/1	0	2
Odonata			
Zygoptera (Damselflies)			
Boyeria	5/6	3/3	1,2
Lanthus	3/6	1/1	1
Agrion	2/3	5/12	1,2
Gomphus	1/3	1/1	1,2
Cordulegaster	0	2/2	2
Ophiogompus	0	2/2	1
Argia	0	1/3	2
Somatochlora	0	1/2	1
Anisoptera (Dragonflies)	0	1/1	2
Trichoptera (Caddis flies)			
Hydropsyche	36/135	31/106	1,2,3
Cheumatopsyche	14/33	18/74	1,2
Diplectrona	11/44	7/54	1,2,3
Polycentropus	11/29	2/2	1,2,3
Pycnopsyche	10/22	10/26	1,2
Rhyacophila	6/7	7/10	1,2,3
Sortosa	5/32	2/12	1,2
Oligostomis	5/9	0	3
Neophylax	4/16	0	1
Ptilostomis	4/4	0	3

Table 9.-Aquatic Invertebrates (continued)

	Basin (a)		Habitat (b)
	Clarion River	Redbank Creek	
Chironomidae	26/73	19/38	1,2,3
Tipulidae	5/13	9/22	1,2,3
Simuliidae	4/33	3/14	1,2,3
Tabanidae	3/5	0	1,3
Ceratopogonidae	2/2	1/1	1,2,3
Stratiomyiidae	1/1	1/1	1/2
Coleoptera (Beetles)			
Gyrinus	(d)	(d)	1,2,3
Agabus	1/1	0	2
Donacia	1/1	0	3
Dineutus	0	1/2	2
Dytiscidae	9/16	1/1	1,2,3
Elmidae	3/4	3/5	1,2
Hydrophilidae	0	1/1	2
Hemiptera (Bugs)			
Gerris	(d)	(d)	1,2,3,4
Rhagovelia	(d)	(d)	1,2
Belostoma	1/1	0	3
Metrobates	0	1/1	2
Corixidae	(d)	(d)	1,2,3
Gerridae	(d)	(d)	1,2,3
Pleidae	1/1	0	3
Saldidau	0	1/1	1
Crustacea			
Decapoda (Crayfish)			1,2,3
Orconectes	(e)	(e)	
Cambarus	(e)	(e)	
Isopoda (Sowbugs)			
Asellus	0	1/14	2
Mollusca			
Gastropoda (Snails)			
Lymnaea	1/1	0	1
Physa	0	1/5	1
Pelycypoda (Clams)			
Sphaeriidae	0	1/1	1
Unionidae	0	1/5	1
Annelida (Segmented Worms)			
Oligochaeta	10/14	9/13	1,2,3
Branchiobdellidae	1/1	1/2	1
Coelenterata			
Hydra	1/1	0	1
Nematoda (Roundworms)	1/1	0	2

Table 9.-Aquatic Invertebrates (continued)

	Basin (a)		Habitat (b)
	Clarion River	Redbank Creek	
Trichoptera (cont.)			
Glossosoma	3/5	0	1,2
Chimarra	2/2	2/4	1
Macronemum	1/1	3/6	1,2
Wormaldia	1/5	1/4	1
Psilotreta	1/4	1/2	1
Caborius	1/3	1/2	2
Parapsyche	1/1	1/1	2
Astenophylax	1/1	0	2
Limnephilus	1/1	0	2
Psychomyia	1/1	0	1
Lepidostoma	0	2/2	1
Platycentropus	0	2/2	2
Dolophilodes	0	1/1	1
Hydropsychidae	0	1/4	1
Psychomyiidae	0	1/1	2
Hydroptilidae	0	1/1	1
Phryganeidae	1/1	0	3
Megaloptera (neuroptera)			
Sialis (Calderfly)	12/36	11/23	2,3
Chauliodes (Fishfly)	12/22	17/27	1/2
Corydalus (Dobson)	0	3/9	1
Plecoptera (Stonefly)			
Leuctra	19/94	16/95	1,2
Acroneuria	16/62	17/48	1,2
Nemoura	8/52	4/14	1,2,3
Isoperla	7/14	9/19	1,2
Peltoperla	6/7	3/4	1,2,3
Paragnetina	3/8	1/4	1,2
Hastaperla	3/4	3/4	1,2
Brachyptera	2/22	1/3	1
Alloperla	2/4	1/1	1
Neophasganophora	2/2	1/4	1
Perlidae	2/2	0	1
Nemouridae	1/2	2/2	1,2
Juveniles	0	2/5	1
Diptera (True Flies)			
Hexatoma	13/30	5/7	1,2
Tipula	12/17	11/26	1,2,3
Simulium	4/22	2/10	1,2
Atherix	2/2	5/7	1,2
Chrysops	1/1	1/3	1,2
Pentaneura	1/21	0	1
Limnophora	1/1	0	3
Culex	1/(c)	0	(c)
Eristalis	1/1	0	3
Antocha	0	1/4	1
Limonia	0	1/1	1